# Attachments

## General Meeting

**Wednesday 11 November 2026**
**at 6:30 PM**



# TABLE OF CONTENTS

**OFFICE OF THE GENERAL MANAGER**

**1 GM31/26 Hornsby Shire Council 2025-2026 Annual Report**

**Attachment 1:** 2025-2026 Annual Report ..... 2

**CORPORATE SUPPORT DIVISION**

**2 CS58/26 2026/27 Budget - September 2026 Quarter Review**

**Attachment 1:** Quarterly Budget Review Statement ..... 169

**Attachment 2:** Consolidated Budget Result ..... 177

**Attachment 3:** Statement by Responsible Accounting Officer ..... 178

**Attachment 4:** Capital Works Program ..... 179

**3 CS59/26 Investments and Borrowings for 2026/2027 - Status for the period ending 30 September 2026**

**Attachment 1:** HSC Investments Summary Report September 2026 ..... 184

**Attachment 2:** HSC Borrowings Summary Report September 2026 ..... 191

**COMMUNITY AND ENVIRONMENT DIVISION**

**4 CE16/26 Waitara Park - Native Title and Plan of Management**

**Attachment 1:** Native Title Manager Report ..... 193

**Attachment 2:** Waitara Park Draft Plan of Management ..... 202

**5 CE18/26 Tree Protection and Safety in the Bushland Shire - Response to Mayoral Minute MM3/25**

**Attachment 1:** Hornsby Shire Council - Growing an understanding of values of trees and attitudes for local trees ..... 268

**6 CE14/26 Community Grants and Sponsorship**

**Attachment 1:** Draft Community Event Seed Funding Program Policy ..... 315

**Attachment 2:** Draft Sponsorship Policy ..... 322

**Attachment 3:** Draft Mayor's Youth Trust Fund Policy ..... 327

**Attachment 4:** Draft Community and Cultural Facilities Support Program Policy ..... 329

**Attachment 5:** Draft Fee Waiver Requests for Council Health, Building and Planning Services Policy ..... 332

**Attachment 6:** Draft Fee Waiver Requests for Special Events Waste and Recycling Policy ..... 334

**7 CE22/26 Hawkesbury-Nepean River System Coastal Management Program Adoption**

**Attachment 1:** Draft Dyarubbin (Hawksbury- Nepean River System) Coastal Management Program ..... 338

**Attachment 2:** Appendix E Coastal Zone Emergency Action Subplan Broken Bay Beaches ..... 648

**Attachment 3:** Appendix F Coastal Zone Emergency Action Subplan Pittwater ..... 704

**Attachment 4:** Appendix G Coastal Zone Emergency Action Subplan Lower Hawkesbury River ..... 765

ITEM 1

# ATTACHMENT/S

## REPORT NO. GM31/26

## ITEM 1

### 1. 2025-2026 ANNUAL REPORT




**ATTACHMENT 1 - ITEM 1**



## Acknowledgement of Country

Council recognises the Traditional Owners of the lands of Hornsby Shire, the Dharug and GuriNgai peoples, and pays respect to their Ancestors and Elders past and present and to their Heritage.

We acknowledge and uphold their intrinsic connections and continuing relationships to Country.

## Connections to Country

The area now known as Hornsby Shire is unique in its placement within the landscape with natural features differing from those that surround and beyond.

The meandering ridge lines extending from the south, north-west and north-east, meet here at Hornsby and expose its importance within the cultural landscape as a junction for these once heavily occupied travel routes. An extremely important resource for all Mobs traversing across Country for business, ceremony or family obligations and responsibilities.

From the ocean shores of Brooklyn, abundant in edible sea life and favourably utilised for its tasty treasures, to the rainforest covered gullies with constant supplies of native edible vegetation, grazing marsupials and rock shelters contribute to the uniqueness of this region.

The Dharug and GuriNgai Peoples have protected and respected this area since time began. Sacred sites were etched into the sandstone by our Creator Ancestors about cultural knowledge, lore and law of Country, community, astronomy and weather patterns, to name only a few. These are scattered strategically throughout this landscape and are still utilised today for ceremonies, celebrations and Family gatherings and to pass cultural knowledge onto the next generations.

For the Dharug and GuriNgai Peoples, this region is still alive and thriving from a cultural perspective. Despite the ever-growing demands for development and community infrastructures, the Hornsby Shire has lush and vibrant bushland areas, fresh and salt water estuaries and breath-taking visual aspects across Country allowing us the ability to continue cultural practices, share cultural beliefs and expand on our relationship and connection with our Country.

The Dharug and GuriNgai Peoples will continue to care for and respect Country. We invite and encourage you to expand on your own connection to this unique and amazingly beautiful Country. In the early morning hours when the sun is rising and you breathe in the fresh, clean air of a new day, pay homage to Mother Earth and the Aboriginal Mobs that have protected, respected, utilised and honoured these lands for its lifetime, always being mindful of never depleting resources or damaging natural features created by Mother Earth and our Creator Ancestors.

**Tracey Howie, local bloodline descendant**

Cover image: The Southern Lookout, Hornsby Park
Inside cover image: Hawkesbury River Indigenous rock art





# ATTACHMENT 1 - ITEM 1

# NEED HELP

This document contains important information. If you do not understand it, please call the Translating and Interpreting Service on 131 450. Ask them to phone 9847 6666 on your behalf to contact Hornsby Shire Council. Council's business hours are Monday to Friday, 8.30am-5pm.

## Chinese Simplified

需要帮助吗?

本文件包含了重要的信息。如果您有不理解之处，请致电 131 450 联系翻译与传译服务中心。请他们代您致电 9847 6666 联系 Hornsby 郡议会。郡议会工作时间为周一至周五， 早上 8：30 - 下午 5 点。

## Chinese Traditional

需要幫助嗎?

本文件包含了重要的信息。如果您有不理解之處，請致電 131 450 聯繫翻譯與傳譯服務中心。請他們代您致電 9847 6666 聯繫 Hornsby 郡議會。郡議會工作時間爲周一至周五，早上 8：30 - 下午 5 點。

## Nepali

यस कागजातमा महत्त्वपूर्ण जानकारी छ।

यदि तपाईंले यसलाई बुझ्नुभएको छैन भने, कृपया अनुवाद र दोभाषे सेवालाई 131 450 मा फोन गर्नुहोस्। तपाईंको तर्फबाट हर्नस्बी शायर काउन्सिललाई 9847 6666 नम्बरमा फोन गरिदिन आग्रह गर्नुहोस्। काउन्सिलको कामकाजी समय सोमबारदेखि शुक्रबार बिहान 8:30 बजे देखि बेलुका 5 बजेसम्म हो।

## Hindi

क्या आपको सहायता की आवश्यकता है?

इस दस्तावेज़ में महत्वपूर्ण जानकारी दी गई है। यदि आप इसे समझ न पाएँ, तो कृपया 131 450 पर अनुवाद और दुभाषिया सेवा को कॉल करें। उनसे हॉर्न्सबी शायर काउंसिल से संपर्क करने के लिए आपकी ओर से 9847 6666 पर फोन करने का निवेदन करें। काउंसिल के कार्यकाल का समय सोमवार से शुक्रवार, सुबह 8.30 बजे-शाम 5 बजे तक है।

## Korean

도움이 필요하십니까?

본 문서에는 중요한 정보가 포함되어 있습니다. 이해가 되지 않는 내용이 있으시면, 통역번역서비스(Translating and Interpreting Service)로 전화하셔서(131 450번) 귀하를 대신하여 혼즈비 셔 카운슬에 전화(9847 6666번)를 걸어 달라고 요청하십시오. 카운슬의 업무시간은 월요일~금요일 오전 8시 30분~오후 5시입니다.

## Tagalog

Kailangan ng tulong?

Itong dokumento ay naglalaman ng mahalagang impormasyon. Kung hindi ninyo naiintindihan, pakitawagan ang Serbisyo sa Pagsasalinwika at Pag-iinterprete (Translating and Interpreting Service) sa 131 450. Hilingin sa kanilang tawagan ang 9847 6666 para sa inyo upang kontakin ang Hornsby Shire Council. Ang oras ng opisina ng Council ay Lunes hanggang Biyernes, 8.30n.u.-5n.h.

## Farsi

نیاز به کمک دارید؟

این سند حاوی اطلاعات مهم می باشد. چنانچه آن را درک نمی کنید، لطفاً با خدمات ترجمه کتبی و شفاهی به شماره 131 450 تماس بگیرید. از آنها بخواهید از جانب شما با شماره 9847 6666 با شورای شهر هورنزبی شایر تماس بگیرند. ساعات کاری شورای شهر دوشنبه تا جمعه، از 8:30 صبح تا 5 بعدازظهر است.

# CONTENTS


ABOUT THIS REPORT ..... 3
MESSAGE FROM THE MAYOR ..... 4
MESSAGE FROM THE CHIEF EXECUTIVE OFFICER ..... 5
A YEAR IN REVIEW ..... 6
- Performance Summary ..... 7
- Financial Summary ..... 8
- A YEAR OF INFRASTRUCTURE ..... 9
  - Transforming Hornsby Shire ..... 10
    - Hornsby Park ..... 10
    - Hornsby Town Centre ..... 11
    - Westleigh Park ..... 12
    - Public Domain – Galston ..... 13
  - Performance of Infrastructure Projects ..... 14
  - Our Infrastructure at a Glance ..... 15
  - Where we Invested in Infrastructure ..... 16
  - Infrastructure Highlights ..... 18
  - Completed Infrastructure Projects at a Glance ..... 25
  - Infrastructure Projects Facing Challenges or Delays ..... 28
- LOOKING AFTER OUR FUTURE ..... 30
  - Building a Strong Future ..... 31
  - Driving an Efficient and Productive Council ..... 35
  - Community Satisfaction with Council ..... 36

OUR AREA ..... 37
- Community Snapshot ..... 41
- Liveability in Hornsby Shire ..... 42
- Our Community Involvement ..... 43
- Our Community Engagement ..... 44
- Our Community Vision ..... 45

DEMOCRATIC GOVERNANCE ..... 46
- Our Wards ..... 47
- Our Councillors ..... 48

CORPORATE GOVERNANCE ..... 51
- Internal Audit and Risk Management ..... 52

OUR ORGANISATION ..... 53
- Organisation Structure ..... 54
- Our Corporate Values ..... 55
- Our People ..... 56

DELIVERING OUR DELIVERY PROGRAM ..... 58
- What is the Delivery Program? ..... 59

DELIVERING ON THEME 1: LIVEABLE ..... 61
- Challenges and Delays ..... 62
- The Year Ahead ..... 62
- 1. CONNECTED AND COHESIVE COMMUNITY ..... 63
  - Progress on our Strategies and Plans ..... 64
  - Community Satisfaction with Council's Services and Facilities ..... 65
  - Performance Against Delivery Program Indicators ..... 65
  - Completed Delivery Program Actions 2025/26 ..... 66
  - Highlights ..... 66
  - Our Year in Numbers ..... 70
- 2. INCLUSIVE AND HEALTHY LIVING ..... 71
  - Progress on our Strategies and Plans ..... 72
  - Community Satisfaction with Council's Services and Facilities ..... 74
  - Performance Against Delivery Program Indicators ..... 74
  - Completed Delivery Program Actions 2025/26 ..... 75
  - Highlights ..... 76
  - Our Year in Numbers ..... 79
- 3. SAFE, INTEGRATED AND ACCESSIBLE TRANSPORT ..... 80
  - Progress on our Strategies and Plans ..... 81
  - Community Satisfaction with Council's Services and Facilities ..... 82
  - Performance Against Delivery Program Indicators ..... 82
  - Completed Delivery Program Actions 2025/26 ..... 83
  - Highlights ..... 83
  - Our Year in Numbers ..... 84

DELIVERING ON THEME 2: SUSTAINABLE ..... 86
- Challenges and Delays ..... 87
- The Year Ahead ..... 87
- 4. RESILIENT COMMUNITY, LIVING SUSTAINABLY ..... 88
  - Progress on our Strategies and Plans ..... 89
  - Community Satisfaction with Council's Services and Facilities ..... 90
  - Performance Against Delivery Program Indicators ..... 90
  - Completed Delivery Program Actions 2025/26 ..... 91
  - Highlights ..... 91
  - Our Year in Numbers ..... 94
- 5. HEALTHY NATURAL ENVIRONMENT ..... 95
  - Progress on our Strategies and Plans ..... 96
  - Community Satisfaction with Council's Services and Facilities ..... 97
  - Performance Against Delivery Program Indicators ..... 97
  - Completed Delivery Program Actions 2025/26 ..... 98
  - Highlights ..... 98
  - Our Year in Numbers ..... 100

STATE OF THE ENVIRONMENT 2025/26 ..... 101

DELIVERING ON THEME 3: PROSPEROUS ..... 111
- Challenges and Delays ..... 112
- The Year Ahead ..... 112
- 6. VIBRANT AND VIABLE PLACES ..... 113
  - Progress on our Strategies and Plans ..... 114
  - Community Satisfaction with Council's Services and Facilities ..... 115
  - Performance Against Delivery Program Indicators ..... 115
  - Completed Delivery Program Actions 2025/26 ..... 116
  - Highlights ..... 116
  - Our Year in Numbers ..... 118

DELIVERING ON THEME 4: COLLABORATIVE ..... 120
- Challenges and Delays ..... 121
- The Year Ahead ..... 121
- 7. INFORMED AND ENGAGED COMMUNITY ..... 122
  - Progress on our Strategies and Plans ..... 123
  - Community Satisfaction with Council's Services and Facilities ..... 123
  - Completed Delivery Program Actions 2025/26 ..... 124
  - Highlights ..... 125
  - Our Year in Numbers ..... 126
- 8. RESPONSIVE AND EFFECTIVE CIVIC LEADERSHIP ..... 127
  - Progress on our Strategies and Plans ..... 128
  - Community Satisfaction with Council's Services and Facilities ..... 129
  - Performance Against Delivery Program Indicators ..... 129
  - Completed Delivery Program Actions 2025/26 ..... 130
  - Highlights ..... 130
  - Our Year in Numbers ..... 131

LEGISLATIVE REQUIREMENTS ..... 132






**ATTACHMENT 1 - ITEM 1**

# ABOUT THIS REPORT

**This Annual Report is one of the key accountability mechanisms between Council and our community.**

The Report outlines our financial and operational performance against the priorities Council has set to work towards achieving the community vision for Hornsby Shire.

The Report also contains information which is important to assist our community in understanding how Council is performing both as a business entity and community leader.

The 2025/26 Audited Financial Statements, a separate published document setting out financial performance, financial position and cash flows of Council, also form part of this document and can be found on Council's website.

## How to read the Annual Report

This Report should be read in conjunction with our 2025/26 Audited Financial Statements.

**A Year in Review**

Summarises annual performance, outcomes delivered through the Special Rate Variation, progress of transformational and other infrastructure projects, and organisational improvement initiatives.

**Our Area and Our Community**

About the Hornsby Shire area and community.

**Governance**

Democratic (Councillors and Wards) and Corporate Governance (Audit and Risk).

**Our organisation**

Organisation structure, values and people.

**Delivering our Delivery Program**

Presents highlights under the themes of the Community Strategic Plan and progress in delivering Council's Delivery Program and Operational Plan, including performance measures, community satisfaction results and updates on key strategies and plans.

**Legislative Requirements**

Outlines reporting requirements under the Local Government Act 1993 and other relevant legislation, including disclosures, statutory information and governance obligations.



Exploring, balancing and connecting with nature along the bushland stone pillars

# FROM THE *Mayor*

As Mayor of Hornsby Shire Council, I am pleased to present our 2025/26 Annual Report and reflect on a year of significant achievement, investment and progress for our community.

Hornsby Shire is a place where people value both opportunity and environment. We are proud to be a community where the city meets the bush, where strong local connections are fostered, and where we continue to support facilities, programs and services that enhance quality of life for residents of all ages.

During the year, Council continued to deliver on the priorities outlined in our Community Strategic Plan and Delivery Program. A major milestone was the opening of the first publicly accessible precinct of Hornsby Park, transforming part of the former quarry into a new destination for recreation, relaxation and community connection.

We also commenced construction of the Galston Village Public Domain Project, progressed plans for a connection linking Westleigh Park and Hornsby Park, advanced long term planning for Hornsby Town Centre, continued the revitalisation of our town centres and villages, and invested in local parks, playgrounds, sporting facilities and community spaces across the Shire. These initiatives are more than infrastructure projects; they are investments in the places where people live, connect and thrive, helping to shape the future character, identity and liveability of Hornsby Shire.

We celebrated many important community achievements. Thousands of residents participated in local festivals, cultural events, sporting activities, library programs and environmental initiatives throughout the year. Our volunteers continued to make an invaluable contribution to community life, whether through Bushcare, community groups, sporting organisations or local events. Their commitment helps make Hornsby Shire a welcoming, connected and resilient community.

Council remains committed to protecting and enhancing the natural environment that defines our Bushland Shire. Through environmental restoration projects, biodiversity initiatives, waste reduction programs and sustainability actions, we are helping ensure our natural assets are preserved for future generations.

I am particularly proud of the way Council continues to balance the needs of today with the aspirations of tomorrow. Whether improving local neighbourhoods, protecting our environment, creating opportunities for recreation and connection, or planning for future growth, our focus remains on enhancing the quality of life for everyone who calls Hornsby Shire home.

On behalf of my fellow Councillors, I thank our residents, volunteers, community organisations and staff for their dedication, input and support throughout the year. Together, we are creating a Shire that is liveable, sustainable, prosperous and collaborative.

**Warren Waddell**
Mayor of Hornsby Shire Council











**ATTACHMENT 1 - ITEM 1**

# FROM THE *Chief Executive Officer*

I am pleased to present Hornsby Shire Council's 2025/26 Annual Report, highlighting a year of strong organisational performance, responsible financial stewardship and the delivery of services and initiatives that support our community.

Council's role extends far beyond the delivery of projects. Every day we provide essential services, maintain community assets, plan for future growth, protect our environment and support community wellbeing. This report demonstrates the breadth of work undertaken across the organisation and the outcomes achieved for our community.

Council continued to deliver a substantial program of services, projects and initiatives aligned with the Community Strategic Plan, *Your vision | Your future 2035*, and 2025-2029 Delivery Program. Overall, 82 per cent of Operational Plan commitments were completed or remained on track during the year, reflecting strong performance across Council's services and strategic initiatives. This included a significant capital works program, with $46.9 million invested in infrastructure and community assets, alongside $136.5 million in operating services that support the daily needs of our community.

Financial sustainability remains fundamental to our ability to serve the community. Through prudent financial management, disciplined budgeting and long term planning, Council maintained a strong financial position and remained debt free. The Special Rate Variation approved for the period 2023/24 to 2026/27 has enabled increased investment in asset renewal, infrastructure delivery, community facilities, environmental programs and service improvements, while strengthening the organisation's long term financial outlook. During 2025/26, this investment supported the renewal and enhancement of community assets and services, helping ensure Council remains well placed to meet future community needs.

Council also achieved significant progress in organisational improvement and service delivery. During the year we strengthened cyber security capability, implemented new technology systems and an updated website, enhanced customer service processes, progressed service reviews and invested in workforce development. Improvements in governance, risk management, asset management and business systems continue to position Council to respond effectively to future challenges and opportunities.

Importantly, these outcomes are delivered by our people. Our workforce is central to Council's success, with more than 500 employees working across a diverse range of services, from roads and parks to libraries, planning, waste management, community services, environmental programs and corporate support functions. Their professionalism and commitment underpin the achievements highlighted throughout this report.

As we look ahead, Council remains focused on delivering the commitments contained within the Community Strategic Plan and Delivery Program. We will continue to invest responsibly, improve organisational capability, enhance customer experience and ensure Hornsby Shire remains a well-managed, financially sustainable and high-performing organisation serving a growing and diverse community.

I thank our Mayor and Councillors for their leadership and strategic direction, and Council staff for their continued commitment to serving our community. Their dedication and professionalism have made the achievements outlined in this report possible.

**Glen Magus**
Chief Executive Officer









**ATTACHMENT 1 - ITEM 1**

ATTACHMENT 1 - ITEM 1

# A YEAR IN REVIEW

# PERFORMANCE SUMMARY

During 2025/26, we completed and progressed a substantial program of actions and capital (infrastructure) projects and provided services that address social, economic, environmental and governance objectives contributing to our 2025-2029 Delivery Program including 2025/26 Operational Plan. The Delivery Program is Council's commitment to the community during its term of office and is in response to *Your vision | Your future 2035*, the Community Strategic Plan for Hornsby Shire.

The results achieved and set out below are based on 146 actions and 83 capital (infrastructure) projects set out in our 2025-2029 Delivery Program including 2025/26 Operational Plan adopted by Council on 11 June 2025. More detailed information can be found in our Biannual Performance Reports available on Council's website.

## Snapshot of performance

Eighty-one per cent of actions within the 2025-2029 Delivery Program and 2025/26 Operational Plan have been completed or are on track.

Eighty-four per cent of planned capital (infrastructure) projects have been completed or are on track, with $46.9 million spent.

The annual overall percentage of actions and capital (infrastructure) projects combined gives a result of 82 per cent.

| Year | Actions within Delivery Program/ Operational Plan completed/on track *(includes capital projects)* |
|---|---|
| 2025/26 | 82% |
| 2024/25 | 89% |
| 2023/24 | 87% |

## Budget



**$136.5M** operating

**$46.9M** capital

| Year | Actual (operating) $ Million) | Actual (capital) $ (Million) |
|---|---|---|
| 2025/26 | 136.5 | 46.9 |
| 2024/25 | 135.2 | 50.7 |
| 2023/24 | 141.0 | 62.7 |



**81%**
Operational Plan actions completed/on track



**84%**
of planned capital (infrastructure) projects completed/on track

**$46.9M**
spent



**82%**
Operational Plan actions including capital (infrastructure) projects completed/on track



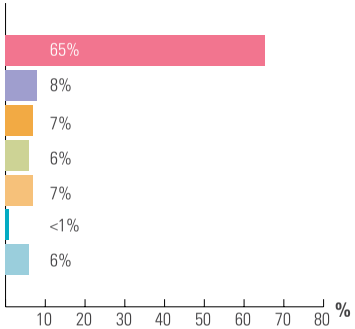




**ATTACHMENT 1 - ITEM 1**

# FINANCIAL SUMMARY

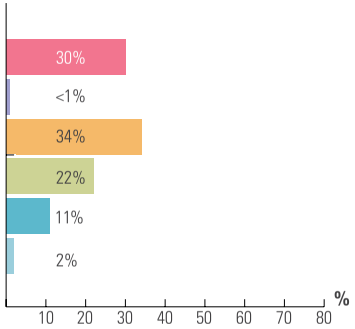
Source of funds




**2025/26 Budget Summary**

| Source of funds | % | 2025/26 $ '000 |
|---|---|---|
| Rates and charges[1] | 65 | (135,763,252) |
| Fees and charges[2] | 8 | (16,238,305) |
| Interest[3] | 7 | (15,435,375) |
| Grants and contributions – operating purposes[4] | 6 | (13,312,751) |
| Grants and contributions – capital purposes[5] | 7 | (14,829,719) |
| Asset sales[6] | 1 | (1,282,262) |
| Other[7] | 6 | (11,415,092) |
| **Total Income[8]** | **100** | **(208,276,756)** |

Use of funds




**2025/26 Budget Summary**

| Use of funds | % | 2025/26 $ '000 |
|---|---|---|
| Employee costs[1] | 30 | 62,441,357 |
| Borrowing repayments[2] | 1 | 28,850 |
| Materials and contracts[3] | 34 | 70,623,943 |
| Capital expenditure[4] | 22 | 46,955,300 |
| Restricted assets[5] | 11 | 23,344,606 |
| Other[6] | 2 | 4,868,476 |
| **Total Expenses[7]** | **100** | **208,262,532** |

| | |
|---|---|
| **Net Budget Surplus[7]** | **(14,224)** |

1 **Rates and charges** includes all ordinary rates, the Catchments Remediation Rate and garbage charges

2 **Fees and charges** includes fees from Development Applications and revenue earned from aquatic centres, commercial waste services, park and oval hire and property rentals

3 **Interest** – investment income received from Council's investment portfolio, overdue rates and annual charges interest

4 **Grants and contributions – operating purposes** includes development contributions, the Federal Government's Financial Assistance Grant and numerous smaller amounts from governments for services including bushfire mitigation, various community services, libraries, roads, various environmental grants and pensioner rate subsidy

5 **Grants and contributions – capital purposes** includes new facilities and upgrades to footpaths, local roads, leisure and foreshore facilities, parks, playgrounds, sportsgrounds, stormwater drainage and Council buildings

6 **Asset sales** – proceeds from the sale of property, plant or equipment

7 **Other** includes Other Revenue and Other Income, comprising many revenue sources such as fines, recycling income, private vehicle use fees and income from road closures

8 Based on Council's **Actual** results 2025/26

1 **Employee costs** includes salaries and wages, employee leave payments from provisions, travel expenses, superannuation, workers compensation insurance, fringe benefits tax and training

2 **Borrowing repayments** includes principal and interest repayments required from external loan borrowing

3 **Materials and contracts** also includes Internal Expenses and comprises all costs, other than employee costs, associated with the maintenance of parks, roads, buildings, aquatic centres, drainage and the cost of waste services. Also included are environmental protection and plant operating expenditure

4 **Capital expenditure** includes WIP Expenditure and Asset purchases and comprises new facilities, upgrades to footpaths, local roads, leisure and foreshores, parks, playgrounds, sportsgrounds, stormwater drainage, Council buildings and fleet

5 **Restricted assets** is the transfer of funds to reserve accounts to be used in future years and includes External and Internal Restricted Assets

6 **Other** reflects Council's diverse operations and includes such items as statutory levies, street lighting, office equipment, legals, insurance, advertising and utility costs

7 Based on Council's **Actual** results 2025/26





**ATTACHMENT 1 - ITEM 1**

# A YEAR OF INFRASTRUCTURE



**ATTACHMENT 1 - ITEM 1**

# TRANSFORMING HORNSBY SHIRE

| Hornsby Park | |
|---|---|
| Estimated completion date | Stage 1 – 2026 |
| Grants component – NSW Stronger Communities | $50M |
| Development Contributions component | $28M |
| **Hornsby Park – Enabling and embellishments** | |
| Total funding allocation | $66.6M |
| Actual Expenditure Life to Date (at 30 June 2026) (from 1 Jul 2018) | $65.7M |
| Year to date expenditure (to 30 June 2026) | $3.24M |
| **Hornsby Park – Old Mans Valley Field of Play** | |
| Total funding allocation | $24.92M |
| Grants component – Federal Thriving Suburbs | $12.16M |
| Actual Expenditure Life to Date (at 30 June 2026) | $7.23M |
| Year to date expenditure (to 30 June 2026) | $7.23M |
| **Hornsby Park – Vegetation management** | |
| Total funding allocation | $6.9M |
| Actual Expenditure Life to Date (at 30 June 2026) | $1.85M |
| Year to date expenditure (to 30 June 2026) | 855K |

Council is redeveloping the former Hornsby Quarry, located approximately 1km west of Hornsby Town Centre, into a major open space for recreation and community use. The site, returned to Council by NorthConnex in late 2019, covers around 60 hectares of bushland and open space and includes significant heritage features such as early settler relics, the State-listed Old Mans Valley Cemetery, and remnants of the quarry crusher plant.

The rehabilitation of the quarry and surrounding land is the largest construction project ever undertaken by Council. The project has been part-funded by the NSW Government, with $50 million provided through the NSW Stronger Communities grant program, which has now been fully expended. A further $28 million is available from development contributions, subject to project prioritisation and contributions received.

As outlined in Report No. IM2/21 – Master Plan for Hornsby and Westleigh Parks (considered by Council at its General Meeting on 14 April 2021), the total estimated cost of the facilities identified in the Master Plan significantly exceeds the level of external funding available. Accordingly, mitigation strategies were agreed to manage cost escalation risks, including the staging of works over time.

### Hornsby Park – Enabling and embellishments

All enabling works, including bulk earthworks, quarry stabilisation, and pre-opening embellishments, have reached Practical Completion. Circulation works are at various stages, with some underway and others progressing through procurement.

### Hornsby Park – Old Mans Valley Field of Play

In December 2024, Council was advised that it had secured a $12 million Thriving Suburbs grant to deliver the Old Mans Valley Field of Play, with the Funding Deed finalised in August 2025.

The project has been packaged into five tenders to manage risk and market capacity, covering service enhancements, underboring and civil works, buildings and amenities, and pump track construction.

The project will deliver a new multi-purpose sporting field and recreational green space, supported by amenities including storage, change rooms and toilets. Pump and jump tracks will also be constructed, offering a dedicated area for bike riders to use a series of gentle rises, dips and jumps.

Early site works commenced in January 2026, with construction to be staged through 2026 and completion expected by mid 2027.

### Hornsby Park – Vegetation management

Ongoing investment in vegetation management and habitat creation continues to enhance the natural landscape while improving habitat and ecological values.

### Hornsby Park - Old Mans Valley North

Old Mans Valley North is a future stage of the Hornsby Park Master Plan and is currently in planning and funding development. The project is proposed to deliver a regional water play facility, community amenities, parking, and supporting infrastructure including public domain works.

In line with Council's staged delivery and risk management approach for Hornsby Park, construction is planned to follow completion of the Old Mans Valley Field of Play to manage delivery risk, market exposure, and financial capacity.

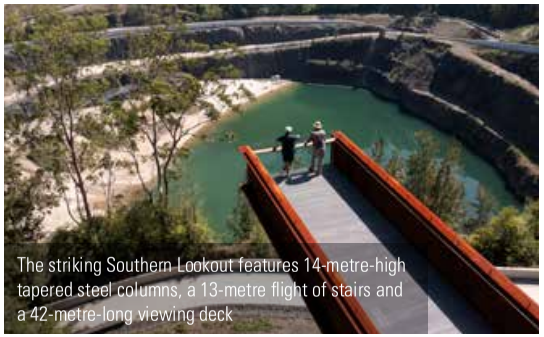
### Progress update

In March 2026, Council opened the first stage of Hornsby Park, marking a significant milestone in the transformation of the former quarry into a bushland destination for the community.

The Crusher Plant Precinct is the first area to open to the public. Located off Quarry Road, Hornsby, it features the fully accessible Southern Lookout, offering expansive views of the volcanic landscape, former quarry and surrounding bushland. Named after the site's former industrial use, the precinct has been redeveloped as a passive recreation space with lawns, picnic shelters and barbecue facilities.

The upgraded Heritage Steps provide a steep bushwalk linking the precinct to Hornsby Aquatic and Leisure Centre, the Blue Gum Walk and the Great North Walk, enhancing access and connection to the site's heritage and bushland setting.

In early May 2026, Council marked the next major milestone in the delivery of Hornsby Park with the commencement of works on the Old Mans Valley Field of Play. Located at Old Mans Valley South, the Field of Play will serve as the primary entry and orientation point for the park, providing increased parking and a welcoming gateway as additional stages are progressively delivered.



The striking Southern Lookout features 14-metre-high tapered steel columns, a 13-metre flight of stairs and a 42-metre-long viewing deck







ATTACHMENT 1 - ITEM 1

# TRANSFORMING HORNSBY SHIRE

## Hornsby Town Centre

The Hornsby Town Centre review project will revitalise the Hornsby Town Centre, making it a more liveable, green and accessible centre for our community. We want to strengthen the economic, employment and housing capacities of the Town Centre and improve its public domain, liveability, accessibility, safety, environmental sustainability and visual appeal through quality design and landscape.

> "A place for people that reflects the uniqueness of the bushland setting, integrated around key public spaces, where the city meets the bush. An active, thriving centre that exhibits economic diversity, design excellence, liveability and sustainability."
>
> *(Adopted Vision Statement for Hornsby Town Centre)*

The Hornsby Town Centre Masterplan was adopted by Council on 8 November 2023. The Masterplan is ambitious, promoting a redefinition of the Town Centre skyline by providing opportunities for new dwellings in slender residential towers, varying in height and clustered around the train station and mall.

In addition to facilitating thousands of new jobs within the precinct, the Masterplan promotes revitalisation of the Town Centre through the delivery of new open spaces that reflect the Shire's bushland identity, a new multi-purpose community facility, improved pedestrian and cycling networks, and enhanced access to public transport.

### Project evolution

Due to the advanced work completed by Council on its vision and Masterplan for the Hornsby Town Centre, Hornsby was identified as an accelerated precinct through the NSW Government's Transport Oriented Development (TOD) program. The rezoning, completed by the NSW Government in November 2024, amends the planning controls for the Hornsby TOD Accelerated Precinct to provide:

- capacity for over 6,000 new homes
- capacity for 2,900 new jobs across the precinct
- affordable housing contribution of between 3% to 10% for all new residential development in the precinct
- new and upgraded parks and open space
- more community facilities, including new library and community centre
- more open space at the heart of the town centre
- greener streets with better connectivity for walking and cycling
- provisions for a new bus interchange.

Council is encouraged that much of its vision has been reflected in the Hornsby TOD rezoning which was finalised by the NSW Government and came into effect on 27 November 2024. The rezoning introduced updated planning controls and supporting frameworks to guide development in the Hornsby Town Centre, including a Hornsby Precinct Affordable Housing Contribution Scheme.

In May 2025, Council endorsed the Hornsby Town Centre Public Domain Guidelines, Hornsby Town Centre Precinct Section 7.12 Development Contributions Plan 2025 and amendments to the Hornsby Development Control Plan 2024 that will encourage high quality development and public spaces in the Hornsby Town Centre.

Council will continue to work with, and advocate to, the NSW Government to support the delivery of housing, jobs, and essential supporting infrastructure, including a functional transport interchange.

### Purple Flag

Purple Flag provides a recognised framework for creating safe, vibrant and well-managed night-time precincts. Council has secured a Purple Flag Readiness Grant to support the application of this best-practice framework within Hornsby Town Centre. The program aims to strengthen precinct management, enhance collaboration between Council, businesses and the community, improve perceptions of safety, and promote awareness of Hornsby's evening and night-time economy. It will also help assess the precinct's readiness to pursue formal Purple Flag accreditation.

### Special Entertainment Precinct

A Special Entertainment Precinct (SEP) is being progressed in Hornsby as a trial initiative to support a vibrant and well-managed night-time economy. Applying to the Hornsby Town Centre TOD precinct, the SEP would enable trading hours and sound management to be regulated at a precinct level through an approved planning and management framework, rather than on a venue-by-venue basis.

The trial is expected to commence in the third quarter of 2026/27 and continue until December 2027, allowing Council to assess impacts on local amenity, businesses and the community before determining whether to implement the SEP permanently, amend the framework, or discontinue the initiative.

### Integrated Infrastructure Plan

Work is underway to develop an Integrated Infrastructure Plan for Hornsby Town Centre, intended to provide a coordinated framework to identify and align the infrastructure required to support delivery of the Hornsby Town Centre Masterplan. This includes transport, movement and connectivity infrastructure, public domain, open space and community infrastructure, and is intended to inform considerations around the timing, sequencing and funding of infrastructure as the precinct evolves, including in the context of State-led rezoning.



The Hornsby Town Centre Review project will revitalise the Hornsby Town Centre, making it a more liveable, green and accessible centre for our community









ATTACHMENT 1 - ITEM 1

# TRANSFORMING HORNSBY SHIRE

| Westleigh Park | |
|---|---|
| % Complete (Life to Date) | 10% |
| Grants component – NSW Stronger Communities | * $40M |
| Development Contributions component (land purchase) | $21M |
| Actual Expenditure Life to Date (at 30 June 2026) (excluding land purchase) | $8.97M |
| Year to date expenditure (to 30 June 2026) | $2.4M |

In June 2016, in response to increasing demands on existing open space, Council purchased land along the eastern side of Quarter Sessions Road in Westleigh. Formerly owned by Sydney Water, the site for the new Westleigh Park comprises 36 hectares of cleared open space and bushland. The purchase of the land was funded by development contributions.

Westleigh Park will play a key role in recreational provisions for the district across a diverse range of uses including formal sports, passive recreation (e.g. picnics, walking, playground), mountain biking and ancillary facilities (including internal roads, car parks, amenities buildings, shared paths and water management).

This initiative addresses the increasing need for recreational spaces driven by population growth and higher participation in sports, and represents one of Council's largest planned construction projects.

Stage One will introduce key amenities, including parking, walking, and biking trails, alongside a multi-purpose platform featuring a natural turf sports field adaptable for various sports, such as football, rugby, AFL, and cricket.

Stage Two will expand the facilities with a flexible turf sports field, a senior athletics track, and an internal athletics field, accommodating even more recreational opportunities.

This development not only aims to enhance local infrastructure, as highlighted in the Westleigh Park Master Plan and aligned with the Hornsby Sportsground Strategy and NSW Government funding, but also fulfils our community's need for vital recreational space.

As outlined in Report No. IM2/21 – Master Plan for Hornsby and Westleigh Parks (considered at the General Meeting on 14 April 2021), the total estimated cost of the facilities identified in the Master Plan significantly exceeds the level of external funding available.

Council's adopted Long Term Financial Plan further notes that the NSW Government's June 2024 request for the return of the remaining $36 million in grant funding places the project at risk, as Council lacks the financial capacity over the next decade to replace funding of this scale. Failure to retain the grant would therefore jeopardise delivery of the initiative.

### Project evolution

Following community engagement in 2021, adoption of the draft Westleigh Park Master Plan was deferred to address concerns about mountain bike trails and traffic impacts, leading to further targeted engagement and co-design with key mountain bike and environmental stakeholders and consultation on the Sefton Road extension. The final Master Plan was adopted in June 2023 and establishes a vision for a major parkland that balances active recreation with protection of key bushland areas. A Development Application was lodged in September 2023, publicly exhibited through November 2023, and approved by the Sydney North Planning Panel in December 2024, covering the full project scope to be delivered in stages.

### Progress update

Progress continues on key enabling approvals, with the Construction Certificate obtained for Stage 1A works and approval granted by Heritage NSW for the Aboriginal Heritage Impact Permit (AHIP) relating to the relocation of a scarred tree. Stage 1A includes delivery of the southern field of play, associated amenities, access road, car parking and mountain bike trails. These approvals enable Council to commence construction of Stage 1A works.

Construction of the mountain bike trails is funded separately from the NSW Stronger Communities grant. Council has now appointed specialist contractors to deliver the approved Westleigh Park mountain bike trail network. Construction is scheduled to commence 10 August 2026 and will begin with the construction of approximately 900 metres of access road required to facilitate the trail works. Mountain bike trail construction will then follow, with the completed trail network expected to open in early 2027.

*** Progress on this project has been constrained following the NSW Government's request for the return of grant funding.**



Westleigh Park will play a key role in recreation provisions for the district across a range of uses including formal sports, passive recreation and ancillary facilities







**ATTACHMENT 1 - ITEM 1**

# TRANSFORMING HORNSBY SHIRE

| Public Domain | Galston |
|---|---|
| Estimated completion date | Sep 2027 |
| % Complete (Life to Date) | 15% |
| Total funding allocation | $6.1M |
| Actual Expenditure Life to Date (at 30 June 2026) | $714K |
| Year to date expenditure (to 30 June 2026) | $382K |

Council is improving streetscape amenity through the planting of advanced trees, landscaped garden beds, footpaths, shared paths, seating and signage in the following priority areas: Asquith-Mount Colah corridor, Galston Village, Waitara, Thornleigh, West Pennant Hills and Beecroft.

Public Domain Guidelines were prepared and adopted following community and stakeholder engagement. The Guidelines include generic controls to guide the development of the public domain across all urban areas of Hornsby Shire as well as recommending projects within the nominated five housing strategy areas where major development is expected or has occurred: the Asquith-Mount Colah corridor, Waitara, Thornleigh, West Pennant Hills and Beecroft.

Upgrades are occurring within the Beecroft Village Green and a pedestrian/cycle sharepath from the Beecroft Village Green to Cheltenham Road has been delivered. Upgrades to pavements and streetscape within the Village will be dependent on additional funding being provided and through conditioning on future developments.

Council has endorsed a Shirewide signage design palette, and a number of new gateway and suburb signs have already been installed. The installation of additional signs will proceed as further funding is identified.

### Asquith and Mount Colah

#### Project evolution

Substantial work has been completed in the Asquith-Mount Colah public domain in two identified priority areas:

- Peats Ferry Road, Asquith between Hookhams Corner and Wattle Street
- Pacific Highway corridor between Asquith and Mount Colah.

A budget of $9.3 million was set aside for these works, funded mostly from development contributions. Minor completion works continue.

### Galston

The upgrades will deliver a range of improvements to Galston's main street and surrounding areas, enhancing safety, accessibility and the overall experience for pedestrians, motorists and public transport users.

Landscaping, outdoor seating, angled parking, and signage will be delivered, alongside a full renewal of the corner park to better meet the needs of the growing community. Works will also include raised pedestrian crossings, improved street lighting, upgraded footpaths, bike racks and improved bus stop facilities, including new bus shelters, along with upgrades to the High Pedestrian Activity Area, reducing the speed limit to 40 km/h.

#### Project evolution

The Galston Village Public Domain Plan (PDP) was endorsed by Council on 10 July 2024 (Report No. IM6/24) following community engagement and public exhibition, enabling progression to detailed design and documentation for construction.

The project has since progressed through design refinements and technical investigations, including site and road surveys, drainage and water-sensitive urban design review, geotechnical advice, and a Road Safety Audit.

A speed zone review was also completed, reducing the speed limit to 40km/h on Galston Road through Galston Village to improve pedestrian and cyclist safety, consistent with the broader Public Domain Plan.

#### Progress update

Detailed design has been completed following extensive community consultation and has been approved by Transport for NSW. A construction tender has been awarded and construction commenced in late June 2026. The works are anticipated to take approximately 16 months, with completion expected by September 2027, weather permitting.

A sod turning ceremony was held on 30 June to officially kick off construction of the project.




The draft Galston Village Public Domain Plan seeks to retain the character of Galston Village as a semi-rural and regional attraction, while building capacity for growth and anticipated increased levels of visitation





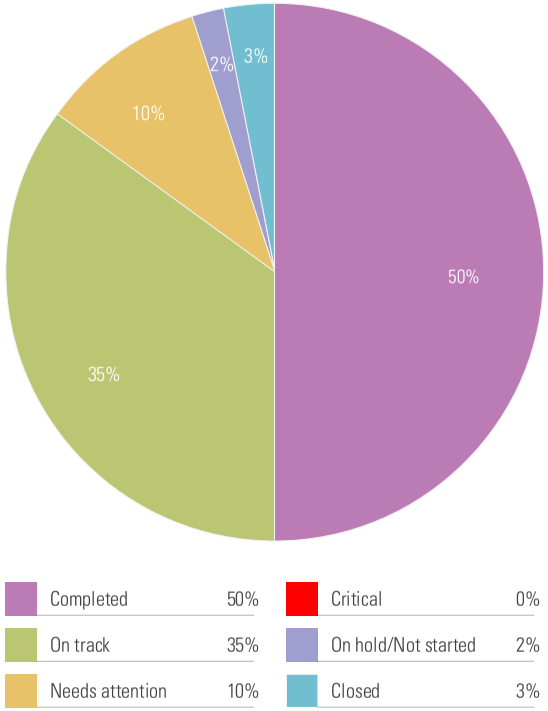




ATTACHMENT 1 - ITEM 1

# PERFORMANCE OF INFRASTRUCTURE PROJECTS

**Performance of Capital (infrastructure) Projects**




| Budget 2025/26 | Original budget $ | Revised budget $ | Final result $ |
|---|---|---|---|
| Capital (infrastructure) projects | 62,208,610 | 51,355,761 | 46,955,300 |









**ATTACHMENT 1 - ITEM 1**

# OUR INFRASTRUCTURE AT A GLANCE

**$2.3B**
worth of assets

## Liveable:

- 4 Libraries
- 25 Community centres, including:
  - 2 Leisure and Learning Centres
  - 1 Arts and Cultural Centre
  - 1 Youth and Family Centre
- 1 Indoor sports stadium 'The Brickpit'
- 1 Four-hectare Rural Sports Facility
- 1 Quarry site
- 170 Parks
- 123 Playgrounds
- 10 Dog off-leash areas
- 39 Sportsground complexes, including:
  - 85 marked Summer sportsfields
  - 88 marked Winter sportsfields
- 37 Netball courts (across 8 sites)
- 64 Tennis courts (at 14 centres)
- 6 Pickleball courts
- 2 Dirt jump (BMX) facilities
- 5 Skate parks
- 27 Basketball backboards
- 13 Fitness stations
- 2 Aquatic centres
- 1 Tidal pool
- 12 Floating pontoons
- 6 Public wharves
- 4 Boat launching ramps
- 1 Hornsby Station Pedestrian Footbridge
- 2 Works depots

## Sustainable:

- 1,595 Public bushland (hectares)
- 20 Rural Fire Service (RFS) buildings
- 1 Community Recycling Centre
- 1 Mountain bike track

## Prosperous:

- 8 Sealed public car parks
- 584.74 Sealed roads (km)
- 18.72 Unsealed roads (km)
- 412.97 Paved footpaths (km)
- 6 Minor road bridges
- 40 Major culverts
- 2 Loading docks
- 18,122 Drainage pits
- 349.44 Pipelines (km)

## Collaborative:

- 1 Administration building and Council Chambers

# WHERE WE INVESTED IN INFRASTRUCTURE

**$13.5M**
Open space recreation (including Hornsby Park and Westleigh Park)

**$7.4M**
Local roads and traffic facilities

**$4.6M**
Parks and playgrounds

**$4.0M**
Sporting facilities

**$3.4M**
Footpaths and shared paths

**$3.3M**
Buildings and structures

**$3.2M**
Corporate items

**$2.3M**
Waterways

**$2.2M**
Drainage

**$2.0M**
Fleet

**$0.64M**
Foreshores

**$0.37M**
Public domain

**Projects delivered with funds received due to good planning processes**

Contributions collected from fixed development consent levies (under sections 7.11 and 7.12 of the Environmental Planning and Assessment Act 1979) have helped deliver:

- Amor Street Park, Asquith – playground upgraded to provide improved recreational opportunities for local families
- Headen Park, Thornleigh – new fitness equipment installed to support outdoor exercise and active lifestyles
- James Henty Oval, Dural – floodlighting upgraded to enhance safety and extend opportunities for sport and recreation
- Beecroft Community Centre – accessibility and amenity improvements completed, including a new accessible toilet, reconstruction of existing stairs, renovation of male and female amenities, and widening of doorways
- Storey Park Community Centre, Asquith – two smaller meeting rooms converted into Balts Hall, creating a flexible multi-purpose community space









**ATTACHMENT 1 - ITEM 1**

# WHERE WE INVESTED IN INFRASTRUCTURE



**7** Parks/playgrounds upgraded

**7** Sporting facilities upgraded

**1** Changeroom and public toilet renewal

**6** Footpath improvements

**1,805** Metres of new footpaths

**2** New shared paths

**930** Metres of new shared path

**3** Local road improvements

**8,500** Metres road pavement renewed/resurfaced

**1,000** Metres new/reconstructed kerb and guttering

**1** Foreshore improvement

**1** Dog off-leash upgrade

**7** Stormwater quality device improvements

**3** Bushland improvements

**3** Community building improvements

Ron Payne Oval

17

**ATTACHMENT 1 - ITEM 1**

# INFRASTRUCTURE HIGHLIGHTS

## New Footpath Improves Access to Hornsby North Public School

Council completed a new footpath along Ida Street, Hornsby, delivering a safer and more accessible route between Sutton Street and Hornsby North Public School. The project has already become a popular connection for students, parents and local residents, particularly during busy school drop-off and pick-up times.

The new pathway improves pedestrian safety and provides a convenient route for everyday walking and recreation. As part of Council's commitment to expanding active transport options, the project strengthens connections between local streets and key community destinations, supporting healthier lifestyles and making it easier for residents of all ages to move around the Shire safely and comfortably.

## Charles Curtis Park Upgrade Creates an Enhanced Community Space

The transformation of Charles Curtis Park, Normanhurst was completed during the year, delivering a modern, family-friendly recreation space for the local community. The upgraded park features a new fenced playground with inclusive play equipment, swings, nature play elements, picnic facilities and a central lawn area, creating opportunities for children and families to play, relax and connect.

The project also included new pathways connecting the park to surrounding streets, additional tree planting to enhance shade and comfort, and improved seating and recreation areas.

Existing mature trees were carefully retained as part of the design, ensuring the park's natural character was preserved while new facilities were introduced.

## Fearnley Park Playground Upgrade Brings Nature-Based Play to Beecroft

Council completed the upgrade of Fearnley Park Playground, Beecroft, just in time for the school holidays, providing local families with an exciting new play destination set within the natural surrounds of the Blue Gum High Forest.

Designed to complement the park's unique bushland setting, the upgraded playground features a six-metre-high rope climbing structure, a three-seat swing set and a rope bridge leading to an elevated play platform. The nature-inspired design encourages active play, adventure and exploration while allowing children to connect with the surrounding environment.



New footpath improves safe and convenient access to Hornsby North Public School



Charles Curtis Park upgrade creates an enhanced community space for recreation, relaxation and connection



Fearnley Park playground upgrade brings nature-based play and new opportunities for outdoor fun to Beecroft









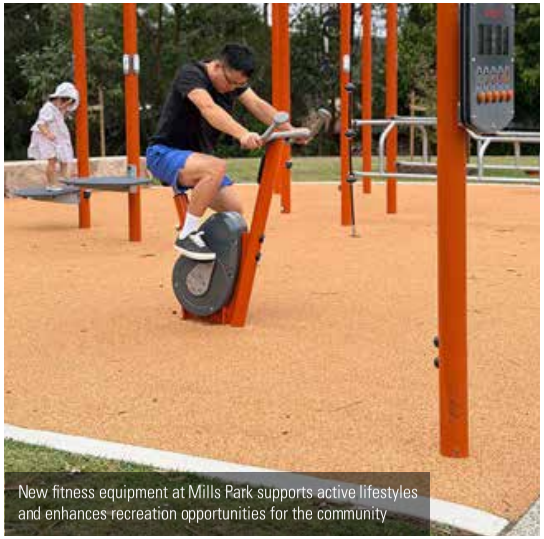
**ATTACHMENT 1 - ITEM 1**

# INFRASTRUCTURE HIGHLIGHTS

## New Fitness Equipment Enhances Recreation at Mills Park

Council completed the installation of new outdoor fitness equipment at Mills Park, Asquith, creating additional opportunities for residents to stay active and enjoy the park's popular walking and exercise circuit. The upgrade complements the recently opened playground, enhancing the park as a destination for recreation and healthy lifestyles for people of all ages.

Funded through a NSW Government grant, the new fitness area includes jumping platforms, fitness rings and dip stations designed to be accessible for wheelchair users, along with an electronic multi-timer to support structured exercise sessions.

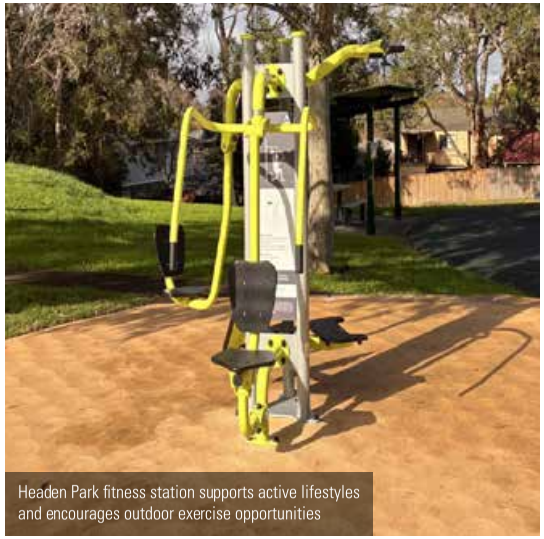


New fitness equipment at Mills Park supports active lifestyles and enhances recreation opportunities for the community

## New Fitness Equipment Encourages Active Lifestyles at Headen Park

Residents are enjoying new outdoor fitness facilities at Headen Park, Thornleigh, following the completion of a fitness equipment upgrade designed to support healthy and active lifestyles. The new installation includes exercise equipment targeting the legs, shoulders and upper body, providing accessible opportunities for people of varying fitness levels to exercise in a park setting.

The project also included a new pathway linking the fitness area to the existing playground and car park, improving accessibility and connectivity throughout the park. Together with landscaping and retaining works, the upgrade enhances Headen Park as a welcoming recreation space where residents can enjoy outdoor exercise, play and community activity close to home.



Headen Park fitness station supports active lifestyles and encourages outdoor exercise opportunities

## Preserving Heritage and Improving Accessibility in Glenorie

Council completed construction of the Ray Whiteman Heritage Fence at the Wal Buckingham Memorial Garden in Glenorie, creating a lasting tribute to the people, history and rural traditions that have shaped the local community. Developed through a partnership between the Glenorie Progress Association, the Glenorie Memorial Hall Committee, Council and funding partners, the project features sandstone piers with heritage carvings, interpretive signage and integrated lighting that enhance this important community space. The fence serves as a meaningful landmark recognising Glenorie's agricultural heritage, sporting achievements and community spirit.

The project also included plans for accessibility improvements at the adjacent Glenorie Community Centre (Memorial Hall), ensuring the heritage-listed facility remains welcoming and accessible to all members of the community. Works include a new access ramp and upgrades designed to improve access while carefully preserving the building's heritage character.



Glenorie improvements preserve local heritage while providing better accessibility for the community









**ATTACHMENT 1 - ITEM 1**

# INFRASTRUCTURE HIGHLIGHTS

## Major Drainage Upgrade Improves Flood Resilience in Galston

Council continued to invest in essential stormwater infrastructure through the Galston Major Drainage Upgrade, a multi-year project designed to improve stormwater management and reduce local flooding risks. Significant progress was made during the year, including drainage upgrades between residential properties, creek discharge improvements and associated landscaping and restoration works.

Once complete, the upgraded drainage network will significantly increase the system's capacity to manage stormwater during heavy rainfall events. Future stages include the installation of a Gross Pollutant Trap to improve water quality by capturing litter, sediment and other pollutants before they enter local waterways.



Major drainage upgrade in Galston improves flood resilience and helps protect the local community

## New Playground and Community Facilities Open at Edward Bennett Oval

A major upgrade at Edward Bennett Oval, Cherrybrook was completed, delivering a new playground and improved community facilities for local families and visitors. The project includes a fully fenced playground, shade sails, additional tree planting, picnic shelters with accessible seating and a barbecue area, creating a welcoming space for recreation, relaxation and social connection.

The upgrade also delivered new footpath connections, a modern amenities building and important environmental improvements, including stormwater harvesting and water quality infrastructure to support sustainable irrigation of the site. Jointly funded by the NSW Government, local development contributions and Council, the project enhances one of Cherrybrook's key recreation precincts and provides a high-quality, accessible destination for the community to enjoy for years to come.



New playground and community facilities at Edward Bennett Oval create more opportunities for recreation and connection

## Mark Taylor Oval Pavilion Opens as a Landmark Facility for Community Sport

The official opening of the new Mark Taylor Oval Pavilion and upgraded grandstand marked the completion of a major multi-stage redevelopment of sporting facilities at Waitara Park. The modern pavilion includes an accessible community and club room, canteen, scorer's room, storage areas and public amenities, creating a high-quality facility for players, volunteers, spectators and the wider community.

A key focus of the project was supporting the growing participation of women and girls in sport. New inclusive and accessible change rooms and amenities have created a safer, more welcoming environment for cricket and rugby participants of all genders and abilities. Supported by contributions from the NSW Government, Hornsby Shire Council, Cricket NSW and Cricket Australia, the redevelopment ensures Mark Taylor Oval remains a premier sporting venue that supports community participation, player development and grassroots sport for generations to come.



Mark Taylor Oval Pavilion provides a high-quality new facility supporting community sport and recreation







ATTACHMENT 1 - ITEM 1

# INFRASTRUCTURE HIGHLIGHTS

## New Cricket Practice Nets for Storey Park

Council progressed improvements to sporting facilities at Storey Park, Hornsby, with construction commencing on new cricket practice nets. The project will replace the existing nets, which had reached the end of their useful life, with a modern facility designed to better meet the needs of local players and sporting clubs.

The new practice nets have been relocated within the sportsground following consultation with users, ensuring a safer and more functional training environment. Supported by grant funding secured by Asquith Rugby League Cricket Club, the project demonstrates Council's ongoing commitment to investing in quality sporting infrastructure.

## New Sportsground Lighting Expands Opportunities at James Henty Oval

Council completed the installation of new LED sportsground lighting at James Henty Oval, Dural, significantly enhancing the facility's capacity to support local sport and recreation. The project included four new LED sportsground light towers and upgraded LED lighting for the car park, improving visibility, safety and accessibility for users.

The new lighting infrastructure allows the oval to be used for winter football training on up to three evenings each week, extending opportunities for local clubs and participants to train and play. The upgrade supports growing demand for sporting facilities across the Shire and helps maximise the use of existing community assets while providing a safer and more enjoyable experience for players, volunteers and spectators.

## North Epping Fitness Trail Connects Recreation and Nature

Council completed the North Epping Fitness Trail, providing residents with new opportunities to stay active while improving connections between North Epping Oval and Lane Cove National Park. Shaped by community feedback, the project delivered more than 700 metres of new pathways, including a pedestrian circuit around the oval and upgraded links along Beck Street and Downes Street.

The project also introduced a new fitness station along the trail, creating additional opportunities for outdoor exercise and recreation.



New cricket practice nets at Storey Park provide improved facilities for players of all abilities



New sportsground lighting at James Henty Oval expands opportunities for evening sport and recreation



North Epping Fitness Trail connects recreation with nature, supporting active lifestyles and outdoor enjoyment









ATTACHMENT 1 - ITEM 1

# INFRASTRUCTURE HIGHLIGHTS

## Great North Walk Upgrades Improve Access and Protect Bushland

Council completed important upgrades to a section of the Great North Walk at Berowra, enhancing the experience for walkers while helping protect the surrounding natural environment. The works focused on the track between Deep Bay Creek and Turner Road Fire Trail and included the construction of new sandstone steps, improved track surfaces, enhanced drainage and vegetation management.

Additional improvements such as new directional markers, minor track realignments and the removal of obstacles have made the trail safer and easier to navigate. The project helps reduce erosion, improve accessibility and support the long term sustainability of this popular bushwalking route, ensuring residents and visitors can continue to enjoy one of Hornsby Shire's most valued natural recreation assets.

## Upgraded Brooklyn Wharf Improves Access for the River Community

Council completed the upgrade of Brooklyn Public Wharf, delivering safer, easier and more accessible access for residents, commuters and visitors travelling along the Hawkesbury River. The project included the installation of a new floating pontoon, making it easier for passengers, particularly older residents and people with mobility challenges, to board and disembark from ferries and other watercraft.

The upgraded wharf provides improved facilities for ferry services, water taxis and emergency services, strengthening an important transport link for the Brooklyn and Dangar Island communities. Supported through Transport for NSW's Boating Infrastructure for Communities Grant, the project reflects Council's commitment to improving accessibility, connectivity and community infrastructure while responding to local needs and feedback.

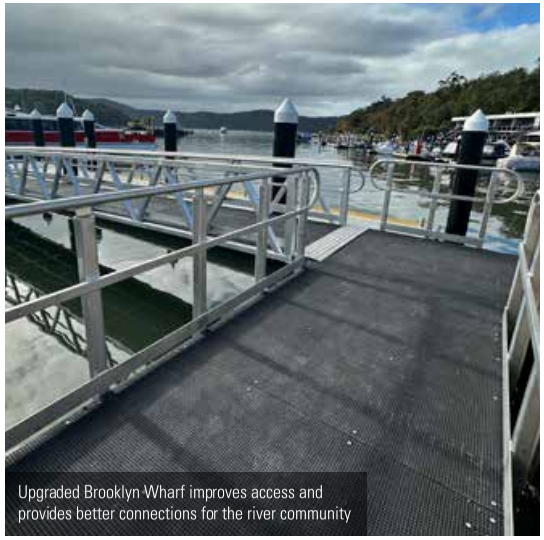
## New Infrastructure Improves Water Quality in Hornsby Town Centre

Council made a significant investment in protecting local waterways and improving urban resilience through the installation of new Gross Pollutant Traps (GPTs) at Bridge Road and Water Street, Hornsby. Designed to capture litter, sediment and other pollutants before they enter local creeks and waterways, the two systems now service a combined catchment area of approximately 88 hectares within the highly developed Hornsby Town Centre precinct.

Together, the GPTs are expected to remove around 88 tonnes of litter and sediment each year, significantly improving downstream water quality and helping protect aquatic ecosystems. The project also delivered drainage and flood management improvements, including upgraded stormwater flow management and creek bank stabilisation.



Great North Walk upgrades improve access while helping protect surrounding bushland and the natural environment



Upgraded Brooklyn Wharf improves access and provides better connections for the river community



Bridge Road, Hornsby stormwater treatment device captures pollutants before reaching waterways







**ATTACHMENT 1 - ITEM 1**

# INFRASTRUCTURE HIGHLIGHTS

## Ululo Community Park Celebrates Local History Through Play

The upgraded Ululo Community Park in Hornsby Heights opened during the year, delivering an imaginative new play space that celebrates the area's unique firefighting heritage. Developed in consultation with the Hornsby Heights Rural Fire Brigade, the playground pays tribute to the site's history as a former Rural Fire Service training location and features a fire truck-themed play structure named Puff, inspired by the Brigade's much-loved vintage fire truck.

As part of Council's Play Plan, the park has been transformed into a Local Level Playground with a range of opportunities for climbing, sliding, swinging and nature-based play. New pathways, landscaping, seating, improved accessibility and additional tree planting have further enhanced the space for families and visitors. The project not only provides a high-quality recreation area for the community but also celebrates the local volunteer firefighters whose contribution has been an important part of Hornsby Heights' history for more than 60 years.



Ululo Community Park celebrates local history through play, creating a distinctive space for the community

## New Playground Adventure Sets Sail at Amor Street Park

Families in Asquith are enjoying a new playground destination following the completion of the upgraded Amor Street Park. Inspired by the maritime history of Captain Edward Robert Amor, after whom the park is named, the new nautical-themed play space encourages imaginative play while providing a range of opportunities for children to explore, climb and connect with nature.

The upgraded park features new tower play equipment, swings, a boat-themed rocker and a nature play trail incorporating stepping stones, logs and a bridge. New picnic facilities, accessible pathways, additional tree planting and landscaped rain garden elements have further enhanced the space for families and visitors. Guided by Council's Play Plan and shaped by community feedback, the project has created an inclusive and engaging neighbourhood park that supports active recreation, social connection and outdoor play for children of all ages.


New playground at Amor Street Park sets sail for adventure, play and outdoor fun

## Asquith Dog Park Expansion Creates a Dedicated Space for Small Dogs

Council expanded the popular Asquith Dog Park with the addition of a new fenced area designed specifically for small dogs, providing a safer and more comfortable space for smaller breeds to exercise, socialise and play. The upgrade responds to growing community demand and enhances the park's appeal as a destination for local dog owners and their pets.

The improvements include dedicated small dog facilities, new seating areas, drinking fountains with dog bowls, upgraded pathways and additional tree planting to increase shade.


Asquith Dog Park expansion provides a dedicated space for small dogs to exercise and play

# INFRASTRUCTURE HIGHLIGHTS

### Hornsby Park North Mound Track Prepares for Future Visitor Access

Council completed track embellishment works on the North Mound at Hornsby Park, preparing the site for future public access as further stages of the park are delivered. The project included the construction of a new walking track featuring 138 steps made from recycled railway sleepers, creating a connection to the future Northwestern Lookout and a series of elevated vantage points overlooking the former quarry.



North Mound Track works are preparing the site for future public access and recreation



Improved access at Brooklyn Wharf makes it easier for people of all abilities to reach the river







**ATTACHMENT 1 - ITEM 1**

# COMPLETED INFRASTRUCTURE PROJECTS AT A GLANCE

## Infrastructure projects completed during 2025/26

| Local roads | | Completed date |
|---|---|---|
| Cowan, Chandler Avenue | Both sides – Fraser Road to Alberta Avenue | Dec 2025 |
| Pennant Hills, Redgum Avenue | Laurence Street to end | Feb 2026 |
| Hornsby Heights, Grevillea Crescent | Stage 1 | Jun 2026 |

| Footpaths | | Completed date |
|---|---|---|
| Hornsby, Ida Street | Sutton Street to school (east side) | Jan 2026 |
| Berowra, Kwyong Road | Yallambee Road to Redwood Avenue | Jun 2026 |
| Berowra, Yallambee Road | Yallambee Road to Kwyong Road | Jun 2026 |
| Normanhurst, Willowtree Road | Calga Avenue to Pine Place | May 2026 |
| Pennant Hills, Bellamy Street | Stevens Street to end (north) | Apr 2026 |
| Cherrybrook, Purchase Road | Beechwood Parade to Kentia Parade | Jun 2026 |

| Shared paths/zone | | Completed date |
|---|---|---|
| Pennant Hills, Bellamy Street (SRV) | Boundary Road to Stevens Street | Mar 2026 |
| Cherrybrook, Robert Road (SRV) | Oliver Way to John Road (design only)<br>(Project scope and budget were reduced to design only due to potential conflicts with the NSW Government's proposed rezoning of Cherrybrook) | Jun 2026 |
| Hornsby, Quarry Road (SRV) | Arrival plaza | Jun 2026 |







**ATTACHMENT 1 - ITEM 1**

# COMPLETED INFRASTRUCTURE PROJECTS AT A GLANCE

| Parks/playgrounds | | Completed date |
|---|---|---|
| Beecroft, Fearnley Park | Playground upgrade completed and open to community | Sep 2025 |
| Asquith, Mills Park | Playground completed and opened in July and fitness equipment completed in September | Jul 2025 |
| Normanhurst, Charles Curtis Park | Playground upgrade completed and open to community | Feb 2026 |
| Asquith, Amor Street Park (s7.11) | Playground upgrade | Jun 2026 |
| Thornleigh, Headen Park (s7.11) | Fitness equipment | Jun 2026 |
| Berowra Waters, Dusthole Bay | Playspace renewal and compliance repairs | Jun 2026 |
| Hornsby Heights, Ulolo Park | Playspace renewal | Jul 2026 |

| Changeroom and public toilet renewal | | Completed date |
|---|---|---|
| Mount Colah, Berry Park (SRV) | Accessibility upgrade of amenities building | Jun 2026 |

| Sporting facilities | | Completed date |
|---|---|---|
| Pennant Hills No. 1 | Irrigation renewal | Dec 2025 |
| Dural Park | Irrigation renewal | Dec 2025 |
| Berowra, Warrina Street Oval | Irrigation renewal | Dec 2025 |
| North Epping, Ron Payne Park | Drainage and irrigation | Sep 2025 |
| North Epping Oval | Exercise equipment and pathways were completed prior to Christmas, with final signage installed in March 2026, completing the project | Dec 2025 |
| Waitara, Mark Taylor Oval | Pavilion, Stage 3 completed and formally opened 7 March 2026 | Mar 2026 |
| Dural, James Henty Oval (s7.11) | Floodlighting | Jun 2026 |

| Car park | | Completed date |
|---|---|---|
| Hornsby Aquatic and Leisure Centre | Upgrade | Jun 2026 |







**ATTACHMENT 1 - ITEM 1**

# COMPLETED INFRASTRUCTURE PROJECTS AT A GLANCE

| Dog off-leash | | Completed date |
|---|---|---|
| Asquith Park | Expanded off-leash park | Jul 2026 |

| Foreshore | | Completed date |
|---|---|---|
| Brooklyn Wharf | Wharf and pontoon upgrade | Jun 2026 |

| Community buildings | | Completed date |
|---|---|---|
| ■ Embellish existing community buildings (s7.11)<br>■ Inclusive community centres - Beecroft Community and Cultural Centre (SRV) | Beecroft Community Centre – construction of a new accessible toilet, reconstruction of existing stairs, renovation/conversion of the male and female toilets, and widening of doors to improve accessibility | Jun 2026 |
| Asquith, Storey Park Community Centre (s7.11) | Reconfiguration - conversion of two smaller meeting rooms into one larger hireable community space | Jun 2026 |
| Glenorie Memorial Fence | Construction of Ray Whiteman Heritage Fence at Wal Buckingham Memorial Garden | Feb 2026 |

| Stormwater quality improvement devices | | Completed date |
|---|---|---|
| Thornleigh, Derribong Place | Trash rack | Jul 2025 |
| Cheltenham, Lyne Road Reserve | Biofilter basin | Dec 2025 |
| Cherrybrook, Pecan Close | Gross pollutant trap | Dec 2025 |
| Hornsby Quarry | Creek rehabilitation | Dec 2025 |
| Pennant Hills, Redgum Avenue | Biofilter basin | Mar 2026 |
| Hornsby, Bridge Road | Gross pollutant trap | Jun 2026 |
| Cherrybrook, Edward Bennett Oval | Stormwater harvesting amplification | Jun 2026 |

| Bushland | | Completed date |
|---|---|---|
| 101691 - Hornsby Heritage steps | Trail construction and heritage restoration (Stages 2 and 3) | Mar 2026 |
| 101927 - Hornsby Park and links (SRV) | Bushwalking track signage | Mar 2026 |
| 101928 - Brooklyn, Salt Pan Reserve (SRV) | Accessible loop path | Jun 2026 |







**ATTACHMENT 1 - ITEM 1**

# INFRASTRUCTURE PROJECTS FACING CHALLENGES OR DELAYS

## Infrastructure projects not proceeding

The following projects have been paused and will not advance further at this stage.

| Local roads | | Closed date |
|---|---|---|
| Normanhurst, Denman Parade (stage 1) | Further investigation required. Project substituted with Berowra, Anembo Road | Sep 2025 |
| Berowra, Anembo Road - Yallambee to Waratah Road | Detailed design completed. Project subsequently removed following community consultation, which did not support the proposed road width | June 2026 |

## Infrastructure projects requiring further attention

The following projects have experienced delays and will be carried forward into the 2026/27 financial year for completion. These delays have been primarily due to reprioritisation, funding constraints, and dependencies on external agencies.

In addition, there are other projects that, while not yet complete, are progressing well and will continue into the new financial year for finalisation.

| Park/playground | |
|---|---|
| Pennant Hills Park Nursery (design) | Consultation completed. Resolution of concept design will progress with stakeholders throughout 2026/27 |
| Cherrybrook Community Centre – playground upgrade (s7.11) | The stage 2 construction has commenced and is expected to complete early in 2026/27 |

| Public toilet renewal | |
|---|---|
| Galston, Fagan Park – Arcadia Road toilets (SRV) | Design completed. Construction works scheduled to commence early August for completion in September 2026 |







ATTACHMENT 1 - ITEM 1

# INFRASTRUCTURE PROJECTS FACING CHALLENGES OR DELAYS

| Traffic facilities | |
|---|---|
| Intersection upgrade – Hornsby, Peats Ferry/Bridge Roads (s7.11) | New funding application made with Safer Roads Program for 2026/27 seeking $3,000,000 contribution. Staged implementation of project is being investigated |
| Dural, Quarry Road – wombat crossing | Design for the preferred option was completed and endorsed by the Local Transport Forum. A funding application has been submitted to Transport for NSW under the Get NSW Active Program, with construction planning subject to the outcome of the funding application, as currently allocated Council funding is insufficient to deliver the works |

| Shared zone | |
|---|---|
| Hornsby East CBD, High pedestrian activity area, – design and construction ($2.8m grant TfNSW) | Construction was delayed due to contractor-related issues. A new contractor was appointed and works recommenced in June 2026. Transport for NSW approved an extension of the grant funding period to October 2026, with the project on track for completion within the revised timeframe |

| Community building | |
|---|---|
| Hornsby – Lift replacements at George Street Hornsby Pedestrian Footbridge and Council Administration Building | Works are progressing on site, with Lift 1 installed and construction of Lift 2 underway |
| Inclusive community centres – compliance with audit (SRV) | Project progress was delayed due to consultant timeframes not being met. The completion date was extended to 31 July 2026, with 10 of the 13 detailed designs received and currently under review by Council |

| Bushland | |
|---|---|
| Thornleigh, Wareemba Avenue – embellishment of track | Detailed design for the proposed Larool Creek bridge (off the Wareemba Avenue fire trail) was completed. Council continued to progress approvals with Sydney Water, along with environmental, biodiversity and engineering investigations required to support project delivery |
| Cheltenham, Devlins Creek Track to Lyne Road | A Crown Lands licence for track upgrade works on Castle Howard Road was approved in May 2026, and updated contractor quotations were received in June 2026. Construction is expected to commence in 2026/27 |
| Hornsby, Reddy Park – accessible loop track upgrade (SRV) | In planning for 2026/27 |







**ATTACHMENT 1 - ITEM 1**

ATTACHMENT 1 - ITEM 1

# LOOKING AFTER OUR FUTURE

# BUILDING A STRONG FUTURE

## Progress on our Special Rate Variation

To deliver our community's vision for our beautiful Shire, including securing a positive future for our coming generations that is liveable, sustainable, productive and collaborative, it is essential that we have sound financial foundations and continue to spend only within our means.

The decision to progress the application for a Special Rate Variation (SRV) was not taken lightly but was the responsible choice to ensure Council meets its legislated obligation to manage its budget responsibly. We consulted with our community on this issue in October 2022.

In June 2023, the Independent Pricing and Regulatory Tribunal (IPART) approved Council's application for a SRV, with rates rising by 8.5 per cent in 2023/24, 7.5 per cent in 2024/25, 6.5 per cent in 2025/26 and 5.5 per cent in 2026/27, representing a cumulative increase of 31.05 per cent over four years including the annual rate peg set by IPART.

Council's application included $8.15 million in 2025/26 to implement previously unfunded initiatives identified in a number of strategic and technical documents endorsed by Council and desired by the community as well as providing additional funding for the planned maintenance and renewal of Council's asset base outlined in the Asset Management Strategy that was referred to IPART as part of the application for the SRV.

The SRV budget includes similar allocations over ten years that will deliver an extensive program of priority projects to the community.

Council must use the additional income for the purpose of funding the program of expenditure included within Council's application, which contained $67.26 million to be spent on Strategic Initiatives over a ten-year period.

Detailed reporting on the SRV as required by the Instrument under Section 508A of the Local Government Act 1993 can be found later in this document commencing p140 in the Legislative Requirements section.

## Outcomes from the Special Rate Variation (SRV) and progress during 2025/26

| SRV Program | Progress/Outcome |
|---|---|
| LONG TERM FINANCIAL SUSTAINABILITY | |
| Ensure that we have sufficient funding to deliver the services you have come to expect and have capacity to respond to unknown shocks, such as natural disasters | Special Rate Variation funding continued to strengthen Council's long term financial sustainability, contributing to an underlying surplus of $8.36 million at 30 June 2026. This strong financial position enabled additional investment in major projects, asset maintenance and renewal programs, while Council maintained its debt-free status throughout the year. An updated Long Term Financial Plan covering the period 2026/27 – 2035/36 was adopted, confirming a financially sustainable outlook over the next decade. The Plan forecasts ongoing operating and cash surpluses, supporting Council's capacity to maintain services, renew assets and deliver infrastructure and community priorities into the future. |
| MAINTAINING OUR ASSETS | |
| Ensure we maintain our buildings, open spaces, roads and drainage at a standard which meets the needs of our community | **Asset management and infrastructure renewal**<br>Council continued to fund and deliver the asset renewal and maintenance priorities identified in its Asset Management Plans, supported by $3.558 million in Special Rate Variation funding during 2025/26. A revised Asset Management Strategy was adopted during the year, confirming that the condition of key community assets, including roads, buildings, open space assets and stormwater drainage infrastructure, continues to be maintained at the service levels expected by the community.<br>**Hornsby Park asset renewals**<br>Asset renewal works within the Hornsby Park precinct progressed during the year, focusing on minor capital works, including improvements associated with the Crusher Plant precinct and circulation path network. Supported by Special Rate Variation funding, these works enhanced accessibility, connectivity and the visitor experience while supporting the ongoing development of Hornsby Park. |







ATTACHMENT 1 - ITEM 1

# BUILDING A STRONG FUTURE

| SRV Program | Progress/Outcome |
|---|---|
| UPGRADING YOUR COMMUNITY INFRASTRUCTURE | |
| Renew our public amenities | **Berry Park amenities upgrade improves accessibility and comfort**<br>Council completed a major upgrade of the Berry Park amenities building in Mount Colah, delivering improved accessibility, comfort and functionality for park users. Funded through Council's Special Rate Variation program, the project included accessibility upgrades, a reconfigured accessible toilet, new ambulant cubicles, improved lighting and skylights, upgraded signage, and refreshed interiors featuring new tiling and painting.<br>The amenities renewal complements the significant park improvements delivered in previous years, including a new playground, fitness stations and a pedestrian circuit path. |
| Community centre access and use upgrades | **Beecroft Community Centre**<br>Accessibility upgrades were completed at Beecroft Community Centre, including construction of a new accessible toilet, refurbishment of existing amenities, reconstruction of stairs, and widening of doorways to improve access and usability for all community members. |
| Prioritised stormwater upgrades | **Gardiner Road, Galston drainage upgrade**<br>Construction commenced on a major drainage upgrade at The Glade/The Knoll in February 2026, with works progressing through a four-stage delivery program. The project will improve drainage capacity and help reduce local flooding impacts, enhancing resilience for surrounding properties and infrastructure. The overall program remains on track for completion in 2029. |
| PROTECTING BUSHLAND AND IMPROVING OPEN SPACE | |
| Bushland asset management | Bushland asset management and regeneration programs were implemented across 60 bushland reserves, helping to protect and enhance native vegetation, biodiversity and ecosystem health. |
| Playground upgrades | **Storey Park Playground renewal improves safety and accessibility**<br>Council continued to invest in the renewal of community assets through the replacement of the playground undersurface at Storey Park. The project refreshed a key play area used by local families, helping ensure the playground remains safe, accessible and enjoyable for children.<br>Although the works were primarily a renewal project, they play an important role in maintaining the quality and longevity of community infrastructure. |









ATTACHMENT 1 - ITEM 1

# BUILDING A STRONG FUTURE

| SRV Program | Progress/Outcome |
|---|---|
| SUSTAINABLE AND RESILIENT COMMUNITY | |
| Community Resilience Program – climate change adaptation and mitigation | The Emergency Management Framework has been developed to build safer, more resilient communities that can withstand, adapt and thrive when threatened by emergencies. The framework integrates climate change risks into planning and preparedness. Rollout of the framework is ongoing.<br>The Emergency Management (EM) Coordinator role has been extended to February 2028. The EM Coordinator continues to increase community resilience to emergencies and natural disasters through preparation and planning programs. These include things such as preparing for storm, heatwave and Total Fire Ban weather events, reviewing Council's facility closure matrix, monitoring fuel emergency situation. |
| Bushfire risk mitigation | Funds have provided critical support for staffing and operational works across Council-managed land to meet obligations under Section 63 of the Rural Fires Act 1997 and the Hornsby Ku-ring-gai Bush Fire Risk Management Plan.<br>During 2025/26, Council continued to implement bush fire risk management programs across the Shire, including the maintenance of Asset Protection Zones and strategic fire trails to reduce fuel loads and improve emergency access. Surface upgrade works on the Lonsdale Fire Trail were completed in partnership with Crown Lands and the Metropolitan Local Aboriginal Land Council. Council also continued to support hazard reduction activities, respond to bush fire risk assessments and complaints in partnership with the NSW Rural Fire Service, and finalised its Bush Fire Community Engagement Strategy to strengthen community preparedness ahead of the bush fire season. |
| Community development programs | Community development programs continued to strengthen social connection, inclusion and participation across Hornsby Shire. The Hello Hornsby program evolved from its original focus on older residents into a broader initiative supporting residents of all ages and backgrounds. Through the expanded Hello Hornsby program and partnerships with community organisations and service providers, Council delivered a range of free activities, workshops, information sessions and events supporting older people, carers, families, culturally diverse communities, people living with dementia, young people, people with disability and others at risk of social isolation. Key initiatives included community lunches, Coffee and Chat gatherings, Welcoming Week celebrations, intergenerational singing programs, dementia awareness activities, community expos, volunteer recognition activities, positive ageing initiatives, youth engagement programs and disability inclusion events such as an AFL day for juniors. These initiatives reduced social isolation, increased participation and improved access to support networks, helping to build a more connected, inclusive and resilient community. |
| CONNECTED WALKING AND CYCLING PATHS | |
| Shared paths - footpaths and cycleways | **Bellamy Street, Pennant Hills – shared pathway**<br>A new shared pathway was completed on Bellamy Street, Pennant Hills, improving safety and accessibility for pedestrians and cyclists. The project included a three-metre-wide pathway between Boundary Road and Stevens Street, new signage and pavement markings, and landscaping works, enhancing connections to local schools, streets and community facilities while supporting active transport.<br>**Robert Road, Cherrybrook – Oliver Way to John Road (Design)**<br>Detailed design work was completed for upgrades to Robert Road between Oliver Way and John Road. The project scope was reduced to design only due to potential implications of the NSW Government's proposed rezoning of Cherrybrook, ensuring future infrastructure planning remains aligned with broader strategic land use outcomes.<br>**Quarry Road, Hornsby – shared zone and arrival plaza**<br>A new shared zone and arrival plaza were delivered in Quarry Road, incorporating landscaping, revised parking arrangements and passive traffic-calming measures. The upgrade improves safety, enhances the public domain and prioritises pedestrian and cyclist movement within the Hornsby Park precinct. |









ATTACHMENT 1 - ITEM 1

# BUILDING A STRONG FUTURE

| SRV Program | Progress/Outcome |
|---|---|
| Track and trail upgrades for accessibility | **Bushland wayfinding signage upgrades**<br>A Shire-wide audit of bushland wayfinding signage progressed, capturing spatial data to inform future planning and investment priorities. Additional trail counters were installed across the track network to better understand visitor usage and support the prioritisation of future signage improvements. Planning for the next stage of wayfinding upgrades also progressed during the year.<br>**Hornsby Park and links**<br>Wayfinding and trackhead signage was installed at the Heritage Steps and mountain bike trail interfaces in preparation for the opening of the Crusher Plant precinct. Planning and design also progressed for the next stage of signage associated with the Hornsby Park Stage 2 circulation network, improving visitor navigation and access throughout the Park.<br>**Salt Pan Reserve, Brooklyn**<br>Final landscaping works were completed around newly constructed paths and links to Brooklyn Road, enhancing accessibility and connectivity within Salt Pan Reserve. Planning also progressed for future wayfinding signage within the reserve, coordinated with broader wayfinding improvements across Brooklyn.<br>**Larool Creek, Thornleigh**<br>Design work for a proposed bridge across Larool Creek progressed during the year, including detailed investigations, environmental assessments, survey work, engineering design and biodiversity reviews. Council also continued to work with Sydney Water through the approval process to support future delivery of the project.<br>**Deep Bay Creek to Turner Road, Berowra Heights – Great North Walk upgrades**<br>Track upgrades between Deep Bay Creek and Turner Road, Berowra Heights, were completed, improving accessibility and the visitor experience along this section of the Great North Walk. Works included detailed design, construction in remote bushland areas and the use of helicopter deliveries for materials. Wayfinding signage content was also finalised to support future signage installation and enhance navigation throughout the corridor. |
| Track and trail maintenance | Regular vegetation and surface maintenance was undertaken across Council's priority bushland walking tracks, including Mangrove Walk, Carrs Bush Discovery Walk, Lakes of Cherrybrook, Mambara Track, Salt Pan Reserve and Heritage Steps, helping to maintain safe and accessible recreational opportunities for the community. Minor track improvement works also progressed at selected locations, including Callicoma Walk, Salt Pan Reserve and Azalea Grove. Visitor monitoring was enhanced through pedestrian counter data collection at the Crusher Plant precinct and the installation of additional counters to support the future opening of the Hornsby Park Stage 2 circulation network. The data collected will help inform maintenance priorities and future asset management planning. |
| IMPROVING OUR TECHNOLOGY | |
| Providing better customer service, including enhanced cyber security | Council continued to strengthen its cyber security capability through initiatives aligned with its Cyber Security Strategy and three-year roadmap. Key achievements included the implementation of a 24/7 managed Security Operations Centre to provide round-the-clock monitoring and incident response, and an advanced Security Information and Event Management (SIEM) system to enhance threat detection and security monitoring. Work has now progressed from strategic planning to the delivery of priority initiatives focused on governance, threat detection, and identity and access management. The roadmap will be reviewed and refined as projects advance to ensure alignment with organisational risk priorities, business requirements, and available resources. |









ATTACHMENT 1 - ITEM 1

# DRIVING AN EFFICIENT AND PRODUCTIVE COUNCIL

*(Local Government Act 1993, s428(3), (4)(b))*

Council is always looking at improvement and efficiency measures and to better align the organisation to deliver for the community.

We recognise that both an ongoing program of continuous improvement and a review of services will be required to maintain financial sustainability in an increasingly challenging financial environment.

As part of this commitment, Council delivered a range of digital and process improvement initiatives during the year. Customer facing improvements included the introduction of new contactless payment facilities at the Hornsby Aquatic Centre Cafe, Brickpit and Community Recycling Centre, making payments easier and more convenient for customers. Council also streamlined several application and booking processes, including improvements to vehicular crossing inspections and booking refunds, reducing administrative effort and providing faster, more transparent services for customers.

In addition, Council implemented a number of internal system and process improvements to strengthen workplace safety, streamline regulatory and operational processes, and enhance workforce and people management practices. These initiatives reduce administrative effort, improve access to information and allow staff to focus more time on delivering services and outcomes for the community.

Community feedback remains a key driver of service improvement at Hornsby Shire Council. Following the 2024 Community Satisfaction Survey, Development Assessments was identified as a priority area for improvement, leading Council to undertake a comprehensive service review in 2024/25. During 2025/26, Council progressed the implementation of recommendations focused on improving customer experience, communication, transparency and service efficiency.

Following the Development Assessments service review, Council has implemented initiatives aimed at improving customer experience, communication and service efficiency. Improvements delivered during the year include enhanced customer communications, clearer information on assessment timeframes and legislative requirements, and process changes that reduce rework and improve application processing. Recruitment and staff development practices have also been refined to reinforce a customer focused culture across the service. Council also continued to improve assessment efficiency, with the average determination timeframe reducing from 88 days in 2024/25 to 83 days in 2025/26.

Council is continuing to implement further recommendations, including greater system integration, updated procedures, enhanced customer contact standards and the introduction of targeted customer feedback mechanisms. Together, these improvements are expected to deliver a more streamlined and responsive service, providing customers with clearer information, more consistent engagement and greater confidence in the development assessment process while supporting ongoing efficiency gains across the service.

Following a review of administrative processes within the Infrastructure and Major Projects directorate in 2024/25, Council implemented a range of improvements during 2025/26. These changes included clearer procedures, improved record keeping, better management of customer requests and increased digitisation of administrative processes. Together, these improvements support more consistent service delivery and reduce administrative effort.

A service review of Council's light fleet was completed in 2025/26 to ensure Council vehicles are being used efficiently and continue to support the delivery of services to the community. The review identified opportunities to improve how vehicles are allocated and managed, while providing better information on vehicle use and operating costs. Over the coming year, Council will progressively implement improvements to fleet processes, systems and reporting. These changes will help Council make more informed decisions on vehicle requirements, improve the utilisation of existing fleet assets and ensure value for money for the community.

Council will continue its program of service reviews in 2026/27, with reviews of Heavy Fleet, Emergency Management, Community Facilities, and Engagement and Corporate Communications scheduled for completion. These reviews will examine how services can be delivered more effectively, efficiently and sustainably, ensuring Council continues to meet community expectations while making the best use of available resources.

As a lean organisation, we continue to deliver strong outcomes. Hornsby Shire has an average of 297 community members per staff member, compared with around 121 across NSW local government areas. (YourCouncil NSW Local Government data 2024/25)



A new 'Chat Now' feature on the Council website allows customers to connect directly with staff from Customer Service







ATTACHMENT 1 - ITEM 1

# COMMUNITY SATISFACTION WITH COUNCIL

## Ensuring customer satisfaction

As a council, it is important for us to understand how satisfied the community is with our performance so we can meet their expectations. We seek community feedback on our performance and community priorities on a regular basis. This informs our decisions on priorities and areas for continuous improvement.

Every two years we undertake a representative Community Satisfaction survey. Most recently conducted in November 2024, 600 residents were asked to rate their satisfaction with 30 different services and facilities provided by Council. The results of the survey appear in this document against each relevant Strategic Direction (for example p62). A snapshot of key results is below. The next Community Satisfaction Survey is scheduled to be undertaken during October and November 2026.

Overall satisfaction with Council has continued to drop marginally. This should be viewed against an average 10 per cent decline in overall satisfaction across 27 NSW local government areas measured by the survey provider since mid 2022.

| Satisfaction with Council | Results | | | |
|---|---|---|---|---|
| | 2021 | 2023 | 2024 | |
| Overall satisfaction with Hornsby Shire Council (mean) | 3.43 | 3.35 | 3.29 | ▼ |
| Very satisfied/satisfied (%) | 52% | 46% | 45% | ▼ |
| Not satisfied (%) | 11% | 13% | 18% | ▼ |
| Neutral (%) | 37% | 41% | 38% | ▼ |

Results are based on a 1-5 satisfaction scale, where:
1 = very dissatisfied
2 = neutral
3 = very satisfied

Respondents who had interacted with Council in the past 12 months (other than to make a payment) rated their satisfaction with Customer Service on four areas. All of these four areas show a positive trend from the 2023 survey.

| Customer service (mean) | Results | | | |
|---|---|---|---|---|
| | 2021 | 2023 | 2024 | |
| The way you were treated | 3.90 | 3.96 | 3.99 | ▲ |
| The process | 3.38 | 3.44 | 3.56 | ▲ |
| Timeliness of Council's response | 3.48 | 3.42 | 3.69 | ▲ |
| The outcome | 3.31 | 3.37 | 3.50 | ▲ |

For the first time in the 2024 Community Satisfaction survey respondents were asked how satisfied they were that Council's decisions are having a positive impact on Hornsby.

| Council's decisions having a positive impact | Results |
|---|---|
| | 2024 |
| Council's decisions having a positive impact on Hornsby (mean) | 3.15 |
| Very satisfied/satisfied (%) | 35% |
| Not satisfied (%) | 21% |
| Neutral (%) | 44% |

### Satisfaction with services and facilities

Of the 30 Council services and facilities respondents rated their satisfaction with, set out below are the Top 5 and Bottom 5 in 2024.

**Top five services/facilities**

- Library services
- Domestic waste and recycling collection service
- Parks and recreation areas (including playgrounds)
- Trails and tracks
- Aquatic centre/s

**Bottom five services/facilities**

- Development approvals process
- Consultation and engagement
- Amount and type of development
- Encouraging local industry, businesses and tourism
- Bike paths

**How residents like to hear from Council**

The top five ways residents would like to hear about Council activities, events, policies etc:

- Council's website
- Facebook
- Enews
- Pamphlets/leaflets
- Local newspapers







ATTACHMENT 1 - ITEM 1

# OUR AREA

# OUR AREA

## About our Area

The traditional inhabitants of Hornsby Shire are the Aboriginal peoples of the Dharug and GuriNgai language groups.

In 2021, 0.6 per cent of the Shire's population (870 people) identified as being of Aboriginal and/or Torres Strait Islander descent. The majority of Aboriginal peoples live in and around the Hornsby Central Business District (CBD) and in the north of the Shire. Council continues to work with these traditional landholder groups to support the celebration of Aboriginal history and culture in the Shire.

European settlement in the Shire dates from 1794 when the first land grants were made along the Hawkesbury River, with land used mainly for farming. The opening of the Newcastle and North Shore railway lines in the 1890s resulted in Hornsby CBD becoming a railway town and a major centre.

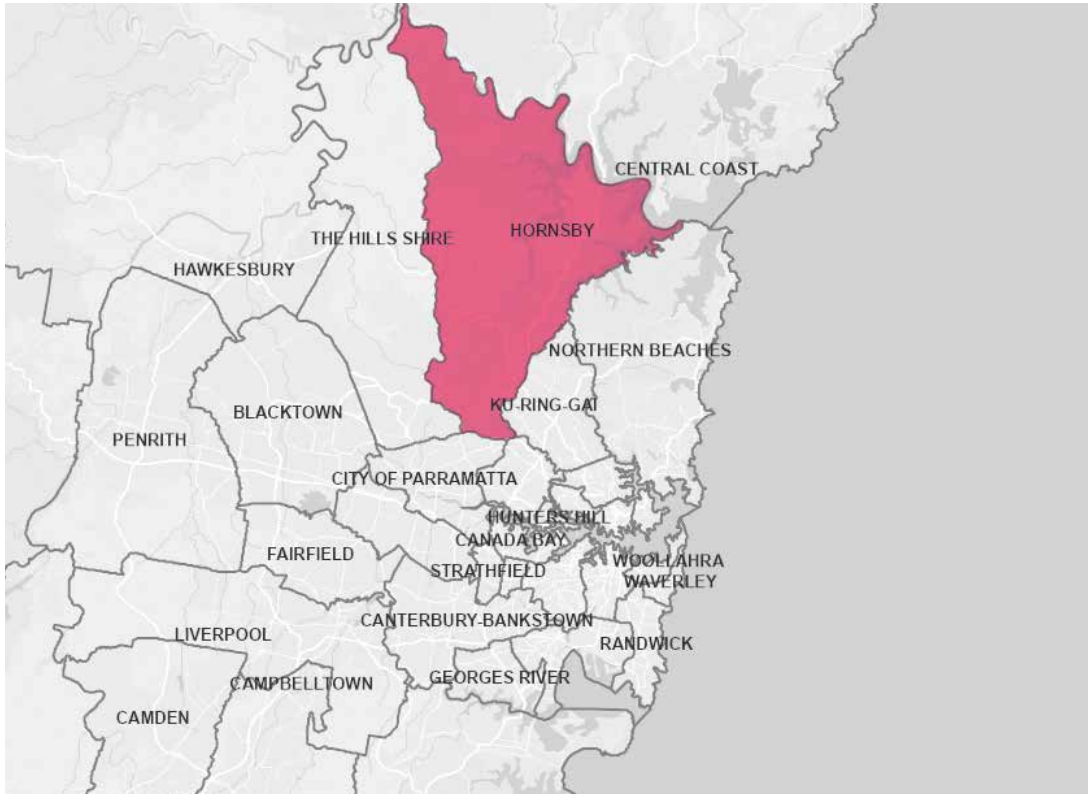
Our Bushland Shire enjoys the benefits and convenience of city living with enviable access to pristine bushland and waterways. It is the place where the city meets the bush. Hornsby Shire forms part of the northern suburbs, being located approximately 25 kilometres north of Sydney CBD.

Hornsby Shire is shaped by our natural environment, population growth, housing and employment opportunities. The Shire continues to change, evolve and grow to cater to the changing needs of the community. Some of the major challenges ahead include climate change, traffic congestion, economic and technological changes, the rate of population growth, housing affordability and the social makeup of the community. These challenges are not unique to our area and all of Sydney is under pressure to address them.

Up until May 2016, the Hornsby Shire Council area covered approximately 510 square kilometres, including 6,000 hectares of public bushland for which Council was responsible. The Shire extended from Brooklyn in the north, to Wisemans Ferry and Glenorie/Dural in the west, Wahroonga in the east and Epping in the south.

In May 2016 the NSW government transferred the former Hornsby Shire Council area south of the M2 Motorway to the City of Parramatta Council and abolished Hornsby's then existing three-ward structure.

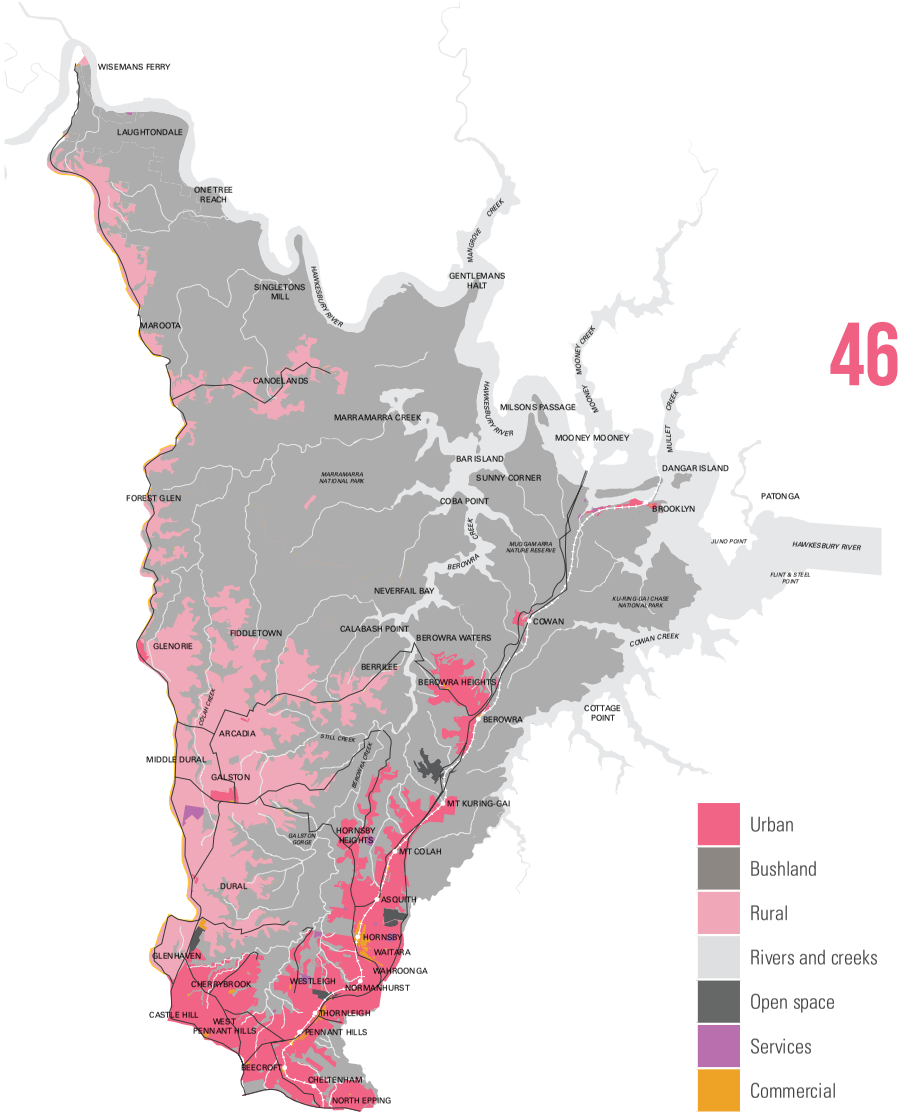
By proclamation on 23 January 2017, the NSW government established a new three ward structure for the Hornsby Shire Council area which took effect from the 9 September 2017 Council election.






ATTACHMENT 1 - ITEM 1

# OUR AREA




**460KM²**

**70%**
Bushland

**15%**
Rural

**10%**
Urban

**5%**
Open space

**1,328KM**
Rivers and creeks



**ATTACHMENT 1 - ITEM 1**








**ATTACHMENT 1 - ITEM 1**

# COMMUNITY SNAPSHOT

## Who we are

**51%** Females

**49%** Males

**41** Median age

**0.6%** Aboriginal and Torres Strait Islander

**44%** University qualification

**13%** Trade qualification

**73%** Completed year 12 schooling

**4.1%** Unemployment rate (March 2026)

## How we live

**68%** Live in a separate house

**20%** Live in high density dwelling

**18%** Lone person households

**12%** Live in medium density dwelling

**53%** Households with children

**44%** Households without children

**4%** Need daily assistance due to disability

**53%** Households with two or more motor vehicles

## Where we come from

**92%** Speak English only or speak it well

**36%** Speak language other than English

**84%** Australian citizens

**41%** Born overseas

**5** Top birthplaces

1. **China 7.6%**
2. **India 5.1%**
3. **UK 4.4%**
4. **South Korea 1.8%**
5. **Hong Kong 1.8%**

**82** Languages spoken

**112** Different birth places represented

*Source: Australian Bureau of Statistics, Census of Population and Housing 2021. Compiled and presented by .id (informed decisions).*







**ATTACHMENT 1 - ITEM 1**

# LIVEABILITY IN HORNSBY SHIRE

## Liveability in Hornsby Shire

In 2025, Council once again participated in the Australian Liveability Census. Launched on 30 March and running until 30 June, the Census invited local communities to share what was important to them, giving a glimpse into how their local neighbourhoods are performing.

**Our community's ideal neighbourhood is green, safe, well-connected and convenient**

**Top 3 Strengths:**



Elements of natural environment (natural features, views, vegetation, topography, water, wildlife etc.)



Access to neighbourhood amenities (cafés, shops, health and wellness services etc.)



General condition of public open space (street trees, footpaths, parks etc)

The Australian Liveability Census provides a robust evidence base for planning, policy and investment decisions that reflect community priorities. It asks residents what matters most in their neighbourhoods and how well those needs are being met, going beyond traditional metrics (eg. housing prices) by focusing on lived experience – such as safety, walkability, access to amenities, and social connection. Results data identifies strengths (attributes valued and performing well) and priorities (valued but underperforming), guiding resource allocation and improvement efforts.

**Top Liveability Priority:**



Walking/jogging/bike paths that connect housing to communal amenity (shops, parks etc.)

**Top Priority for impact:**

Invest in well maintained, quality public spaces with real modal choice



**Top improvement areas:**

Where our community identified they would most benefit from change

**51%** Movement

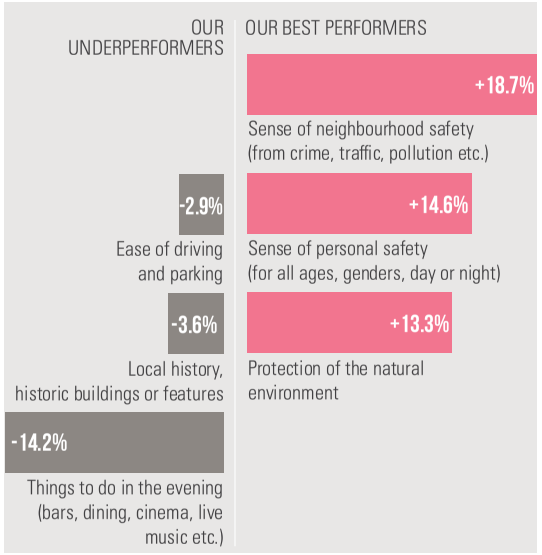
**25%** Open space

**24%** Economy

**Liveability in Hornsby Shire is rated higher than the state and national average, performing 3 points higher.**

| Score out of 100 | 2025 | 2023 | 2021 |
|---|---|---|---|
| Hornsby LGA | **69** | 69 | 71 |
| NSW | 66 | 67 | 70 |
| Australia | 66 | 67 | 68 |

**Compared to national benchmark:**












**ATTACHMENT 1 - ITEM 1**

# OUR COMMUNITY INVOLVEMENT

Local government is the most diverse of Australia's three levels of government and has responsibility for a wide range of activities, including strategic leadership and sustainable future planning, while also delivering a range of infrastructure and services needed for a growing Shire.

The elected council for Hornsby Shire consists of 10 Councillors comprising a popularly elected Mayor and three Councillors representing each of the three areas called Wards.

Our Councillors bring with them a wealth of knowledge, and while each Councillor represents a particular Ward, a Councillor's ultimate consideration must be the current and future interests of the Shire as a whole.

## Council meetings

It is the responsibility of Councillors to make decisions on all areas of policy and budget priorities, including the level and extent of works and services provided throughout the year.

The Mayor presides at Council Meetings and decisions are adopted via a majority voting system with each Councillor having one vote. In the case of an equal number of votes, the Chairperson (Mayor or Deputy Mayor) has the casting vote.

Council Meetings are held monthly, on the second Wednesday of each month, in the Council Chambers at 296 Peats Ferry Road, Hornsby. Members of the public are welcome to speak at every meeting (pre-registration is required).

Residents can view Council Meetings at hornsby.webcastcloud.com. Confidential sessions are not broadcast.

## Hornsby Local Planning Panel

Councillors no longer decide the outcome of individual development applications. Development applications are instead referred to the Local Planning Panel for consideration and determination. Council officers still assess the development application and then report to the Panel. The Panel reviews the application and the officer's assessment and makes a determination.

More information is available on Council's website.

## Ways you can contribute to our decisions

As a local council, we work at the level of government closest to the community.

What you think matters to us and we want you to be involved in our activities and decisions, so we strive to ensure our community engagement is meaningful, transparent and open to everyone.

There are a number of ways to get involved:

### Have your say

- Provide your feedback directly on a project, plan or document via an online form or survey, by email or in writing.
- Participate in workshops or come along to a drop-in.

Your feedback helps us make better decisions.

### Talk to a Councillor

- The Councillors are your representatives and are keen to hear your thoughts and address your concerns.

  (Details at hornsby.nsw.gov.au/council/about-council/councillors)

### Join an Advisory Group

- Project Advisory Groups draw on the local knowledge, expertise and lived experience of residents.

### Speak at a Council meeting

- You can speak to an agenda item or another matter that is important to you at Council Meetings.

  (Details at hornsby.nsw.gov.au/council/about-council/meetings)

### Attend a Council meeting

- You are always welcome to attend Council Meetings. By attending meetings you can gain a better understanding about the way Council works and the decision-making process.

### Keep up to date

- Stay informed with Council's news, events, services and information via our website and Your Say Hornsby page, Facebook pages, X (formerly Twitter), YouTube, local newspapers and eNewsletters.

## KEY STAKEHOLDER GROUPS IN HORNSBY SHIRE

| | |
|---|---|
| Committees | Seniors |
| Residents and workers | LGBTQI+ |
| Sporting, environmental, resident and community groups | Schools and educational facilities |
| People with disability | Property owners |
| Businesses and organisations | Police and Emergency Services |
| CALD communities | State and Federal agencies |
| Young people | Visitors/tourism bodies |
| First Nations people | |









ATTACHMENT 1 - ITEM 1

# OUR COMMUNITY ENGAGEMENT

### Our commitment to you

We are committed to building open, transparent and active relationships with you – through meaningful community engagement.

The seven core principles underpinning Council's Community Engagement Policy are that Community Engagement is:




We engage with the community by:

- Building open, transparent and active relationships with you
- Continuously exploring better, smarter ways that we engage with you.

Our Community Engagement Strategy supports our Community Engagement Policy and provides a guide for our staff and consultants to deliver best-practice community and stakeholder engagement with high-quality outcomes. It incorporates our Community Participation Plan (CPP), which prescribes consultation requirements and processes for planning matters.

In late 2024, we made amendments to the Community Engagement Strategy to address new requirements of the Integrated Planning and Reporting Guidelines.

You can read more about Council's commitment to community engagement on our website.

### How we engaged with you

We are committed to being an open and engaging Council, providing transparent and accessible opportunities for our community to have a say. In July 2022, we launched Your Say Hornsby, a dedicated online engagement platform that makes it easier to access information and provide feedback on Council projects and initiatives. The platform continues to help us reach and hear from more people across the Shire.

To provide a range of ways for people to participate, we also hold community forums and drop-in sessions across the Shire, work with reference groups, and make hard copies of key documents available at community facilities to provide additional ways for people to access information and participate.

Throughout the year, our community had the opportunity to provide feedback on a wide range of projects and initiatives, including improvements to parks and playgrounds, major infrastructure projects, and strategic plans and policies. Community members participated in consultation on 58 projects and initiatives through Council's online engagement platform. The most visited included the Draft Flood Risk Management Study and Plan, Glenorie Village investigations, Hornsby Town Centre Masterplan, Dual Occupancy Development Control Plan provisions, Hornsby Development Control Plan 2024, the Draft 2026-2030 Delivery Program and 2026/27 Operational Plan, Hawkesbury-Nepean River Coastal Management Program, Cherrybrook Precinct State-led rezoning proposal, and a seniors housing Planning Proposal at Galston.

Together, these engagement activities provide our community with opportunities to stay informed, share feedback and help shape Council's plans, projects and services.












**ATTACHMENT 1 - ITEM 1**

# OUR COMMUNITY VISION




Our Community Vision acknowledges the expressed sentiments of what the community wants Hornsby Shire to look like in the future.

**Our Community Vision 2035**

The Bushland Shire is a place that inspires and sustains us. A place where we value our connections to each other and our environment, and celebrate living in our unique urban, rural and river communities.







**ATTACHMENT 1 - ITEM 1**

ATTACHMENT 1 - ITEM 1

# DEMOCRATIC GOVERNANCE

# OUR WARDS

## A Ward

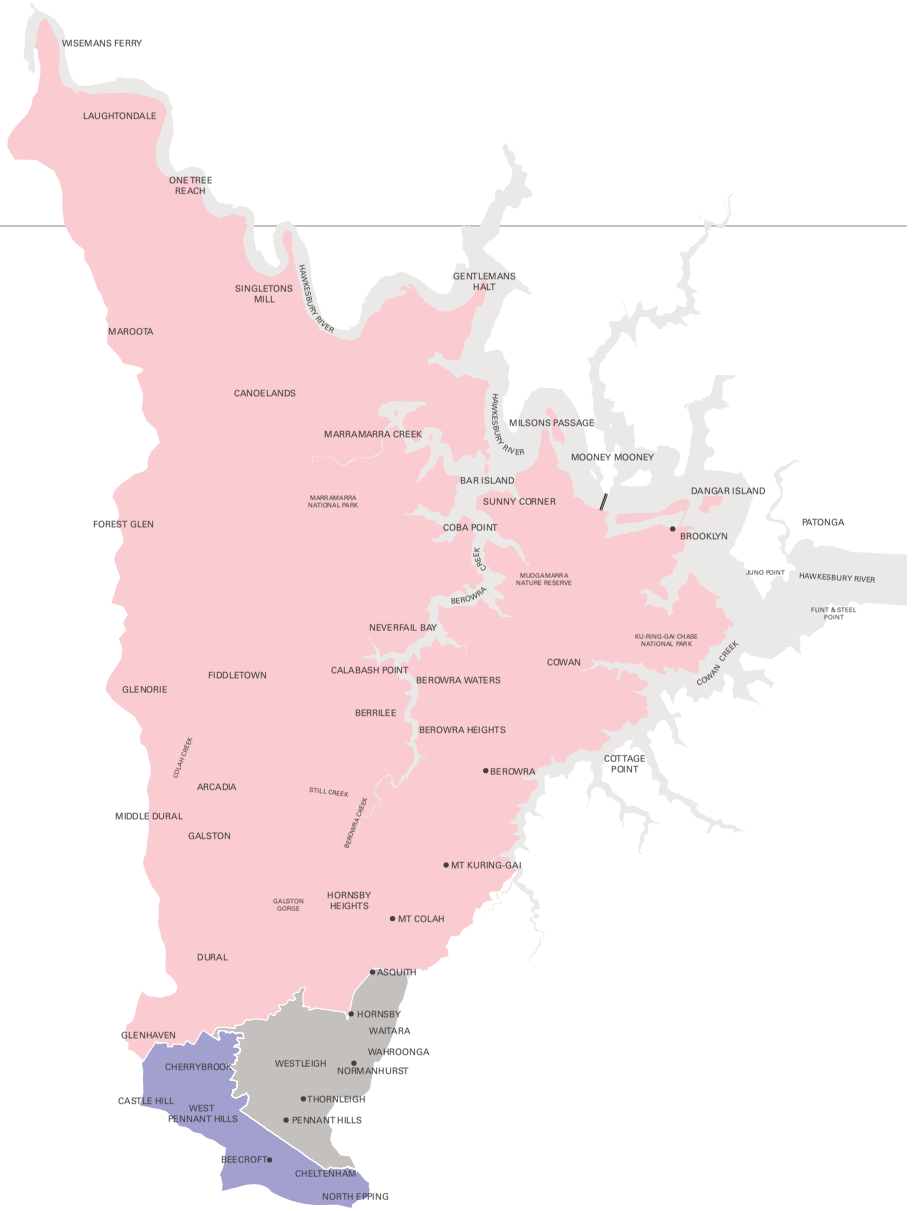
Arcadia
Berowra
Berowra Creek
Berowra Heights
Berrilee
Brooklyn
Canoelands
Cowan
Dangar Island
Dural (part)
Fiddletown
Forest Glen
Galston
Glenhaven (part)
Glenorie (part)
Hornsby Heights
Laughtondale
Maroota (part)
Middle Dural (part)
Milsons Passage
Mount Colah
Mount Kuring-gai
Singletons Mill
Wisemans Ferry (part)

## B Ward

Asquith
Hornsby
Normanhurst
Pennant Hills
Thornleigh
Wahroonga (part)
Waitara
Westleigh

## C Ward

Beecroft (part)
Castle Hill (part)
Cheltenham
Cherrybrook
North Epping
West Pennant Hills (part)












**ATTACHMENT 1 - ITEM 1**

# OUR COUNCILLORS

## MAYOR



**Warren Waddell**

(02) 9847 6666
wwaddell@hornsby.nsw.gov.au

**PRIORITIES**

- To ensure Hornsby Shire remains a place where our natural beauty is preserved, and our neighbourhoods are safe, attractive and functional
- To advocate for responsible renewal of our neglected urban corridor and the enhancement of our public domain
- To ensure that every voice in Hornsby is heard, contributing towards transparent decision-making that reflects the needs and aspirations of all our residents
- To build a strong future for Hornsby Shire and its next generations

## A WARD COUNCILLORS



**Clr Jane Seaglove**

(02) 9847 6666
jseaglove@hornsby.nsw.gov.au

**PRIORITIES**

- Ensuring council are effective in undertaking responsibility for everyday issues affecting our residents such as broken footpaths, upgrading of streetlights making areas safe to walk at night, illegal dumping of waste and plant matter
- Supporting much needed infrastructure, being sensitive to our environment and the upgrading of our local sporting facilities for families to enjoy



**Clr Olivia Simons**

(02) 9847 6666
osimons@hornsby.nsw.gov.au

**PRIORITIES**

- Getting to better know our diverse village, river and rural communities and current issues
- Protective and regenerative care for our precious bushland, rural lands, waterways and parklands
- Increased support for community based action and activities
- Curbing overdevelopment
- Ensuring appropriate development includes affordable housing, provides new and enhanced community assets and is served by increased infrastructure and services



**Clr Nathan Tilbury**

0403 227 560
ntilbury@hornsby.nsw.gov.au

**PRIORITIES**

- Putting Hornsby Shire residents first and achieving the best result for them
- The delivery of the Westleigh Park sporting precinct
- A master plan for Pennant Hills CBD
- Delivering a shire-wide cycling & walking strategy
- Delivering the Hornsby Park vision
- Fighting inappropriate development and protecting the unique character, amenity and environment of the shire's rural lands
- Protecting the Shire's natural environment, especially our bushland and health of the Hawkesbury River
- Supporting residents in need, particularly in times of crises

## B WARD COUNCILLORS



**Clr Monika Ball**

0468 374 611
mball@hornsby.nsw.gov.au

**PRIORITIES**

- Rapid Implementation of the Sustainable Hornsby 2040 strategies with a focus on health, reducing waste and building safe connected cycle ways
- Executing on strategies to deliver affordable and sustainable housing
- Creating a community that is inclusive and equitable for all cultures, ages, and abilities









ATTACHMENT 1 - ITEM 1

# OUR COUNCILLORS



**Clr Sallianne McClelland**

0418 554 238
smcclelland@hornsby.nsw.gov.au

**PRIORITIES**

- Advancing initiatives such as the development of Westleigh Park and Mountain Bike Trails, implementing the Arts and Cultural Plan, and enhancing Asset Management and Community Events
- Representing the interests of Ward B residents, ratepayers, and the broader community
- Fostering transparent, accessible communication between the community and the council
- Supporting master planning efforts that preserve and enhance the distinctive character of our Bushland Shire



**Clr Janelle McIntosh**

0413 251 055
jmcintosh@hornsby.nsw.gov.au

**PRIORITIES**

- Responding to the needs of residents to create a resilient Shire protecting the natural environment and heritage and delivering community facilities
- Delivering town centres that are sustainable featuring quality design, affordable housing, accessible public domain and vibrant community spaces and facilities
- Supporting sustainability actions focused on active transport and reducing waste
- Fostering an inclusive and accessible Hornsby for all genders, ages, abilities and cultural backgrounds
- Supporting local businesses, creators and innovators

## C WARD COUNCILLORS



**Clr Matthew Conley**

0432 835 120
mconley@hornsby.nsw.gov.au

**PRIORITIES**

- Building strong relationships with the residents of Hornsby Shire to ensure their voices are heard and their needs are met
- Safeguarding the natural environment of the shire as well as protecting its rich heritage
- Collaborating with residents to deliver development that is both necessary and appropriate, ensuring it aligns with the community's vision and values



**Clr Verity Greenwood**

0420 444 456
vgreenwood@hornsby.nsw.gov.au

**PRIORITIES**

- Community wellbeing and connectiveness is an important priority. Focussing on community consultation and engagement between community stakeholders and the Council. Enhancing infrastructure to ensure community safety and mobility, supporting cultural and sporting interests and participation whilst providing access to resources that will strengthen community resilience.
- Caretaking our unique environment is a passionate priority. Preserving and conserving our heritage and natural environment, to ensure both our present and future generations enjoy the rural amenities that makes Hornsby Shire so unique. Fighting against overdevelopment whilst at the same time being sympathetic to the concerns and needs of community stakeholders and the delicate balancing of those needs whilst preserving our environment.
- The principles of good governance and strong financial management of our assets and resources will always be foremost in any decision-making. As an active contributing member of the Council, working collegially with Council staff to ensure my decisions are responsibly well considered and made without fear or favour



**Clr Ben McSweeney**

0423 411 928
bmcsweeney@hornsby.nsw.gov.au

**PRIORITIES**

- To be accessible and open to community engagement and discussion. Ensuring the community of Ward C is heard and informed on the goings on of Hornsby council. Both the short term and longer term visions of the council
- Ensuring that as our area grows we continue to maintain our wonderful community, heritage and bushland within our beautiful suburbs









**ATTACHMENT 1 - ITEM 1**

ATTACHMENT 1 - ITEM 1



Celebrating Australia Day 2026 with music, movement and community spirit at Fagan Park

# CORPORATE GOVERNANCE

# INTERNAL AUDIT AND RISK MANAGEMENT

Council is required to appoint an Audit Risk and Improvement Committee (ARIC) pursuant to section 428A of the Local Government Act 1993. The Committee must keep under review the following aspects of Council's operations: compliance; risk management; fraud control; financial management; governance, implementation of the strategic plan, delivery program and strategies; service reviews and collection of performance measurement data by Council.

The Committee comprises an independent Chair, Mr Stephen Coates, and two independent members with requisite skills and experience. On 11 March 2026, Council reappointed independent members Mr Richard Jones for a two-year term and Ms Hayley Elson for a three-year term. The Committee held four meetings during 2025/26 and all members were in attendance for each meeting.

Council last reviewed and adopted the ARIC Terms of Reference on 9 April 2025 and the Internal Audit Charter on 12 June 2024.

Internal audits are outsourced to an independent specialist firm, Crowe Australasia. The ARIC reviews all internal audit reports and monitors outstanding recommendations on a quarterly basis. The following internal audits were undertaken and reviewed by the Committee during 2025/26:

- Customer Service
- DRIVES 24
- Records and Privacy Management
- Parks,Trees and Recreation – Leases and Licences
- Work, Health and Safety

A new four year Internal Audit Plan was endorsed by the ARIC in September 2024.

Each year, the draft financial statements are also reviewed by the ARIC prior to referral to the external auditors. The ARIC also receives an update at each meeting from the Chief Executive Officer and Chief Financial Officer on significant items impacting, or potentially impacting, the operations of the Council.

The Strategic Risk Register currently comprises 17 Strategic Risks. This register is reviewed and updated quarterly by the Executive Leadership Team and is then referred to each ARIC meeting for further review.

### Internal Audit and Risk Management Attestation Statement for the 2025-2026 Financial Year

*(Local Government (General) Regulation 2021, cl 216T(1))*

The Internal Audit and Risk Management Attestation Statement for the 2025-2026 Financial Year for Hornsby Shire Council can be found at the back of this document in the Legislative Requirements section (p163).




Council Chambers







**ATTACHMENT 1 - ITEM 1**

# OUR ORGANISATION

# ORGANISATION STRUCTURE

## Management

Council's organisation structure encompasses the Office of the Chief Executive Officer and four operational Directorates. Administration of service delivery is led by the Chief Executive Officer, with four Directors guiding delivery through Business Units. Council delivers many services across the Hornsby Shire Local Government Area (LGA). Services range from waste services to community development – a snapshot of services undertaken by each Directorate is shown below.



### CHIEF EXECUTIVE OFFICER

**Glen Magus**

Branches:

- Executive Support
- Risk and Audit
- Strategy and Place
- Strategic Property

The Chief Executive Officer implements the decisions of Council's elected representatives. He is also responsible for the day-to-day management of Council as a corporate organisation and provides the most direct link between the Councillors and staff.



### CORPORATE SUPPORT

**Nicola Dorman**
**Acting Director**

Branches:

- Executive Support
- Governance and Customer Service
- Financial Services
- Land and Property Services
- People and Culture
- Technology and Transformation

Provides management support to Councillors and Council staff, including customer service, governance, technology and transformation and property management.



### INFRASTRUCTURE AND MAJOR PROJECTS

**Fiona Leatham**
**Director**

Branches:

- Executive Support
- Aquatic and Brickpit
- Emergency Management
- Infrastructure Delivery
- Infrastructure Operations
- Infrastructure Planning

Responsible for aquatic and indoor recreation facilities, our extensive local road system, and all of our buildings and foreshore facilities. Also manages the flow of traffic and safety on our local non-state controlled roads.



### COMMUNITY AND ENVIRONMENT

**Steve Fedorow**
**Director**

Branches:

- Executive Support
- Environment
- Library and Community Services
- Parks, Trees and Recreation
- Waste Management

Manages the Shire's natural resources, is responsible for the design, construction and maintenance of the Shire's open space network, provides a wide range of community services including waste and recycling services, community development and community centre management, and runs our library network.



### PLANNING AND COMPLIANCE

**Katherine Vickery**
**Director**

Branches:

- Executive Support
- Development Assessments
- Regulatory Services
- Strategic Land Use Planning

Seeks to strike a sustainable balance between meeting the needs of Hornsby Shire's growing population and protecting our natural environment.









**ATTACHMENT 1 - ITEM 1**

# OUR CORPORATE VALUES

## VISION

The Bushland Shire is a place that inspires and sustains us. A place where we value our connections to each other and our environment.

## PURPOSE

Together, we enhance the lives of our community, both now and in the future.

## VALUES

Our values underpin all that we do; they provide us with a shared vision of who we are and what we stand for as an organisation.












**ATTACHMENT 1 - ITEM 1**

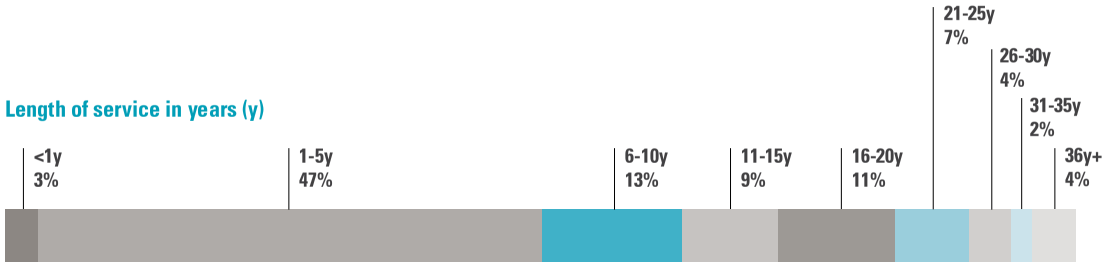
# OUR PEOPLE

We are committed to ensuring our workforce has the skills and experience to deliver our many and varied services and reflects the community we serve. Our **Workforce Management Plan** will help guide our future decision making, ensuring that the staff we manage, engage and develop are the very best we need to deliver exceptional service to the Hornsby Shire community.

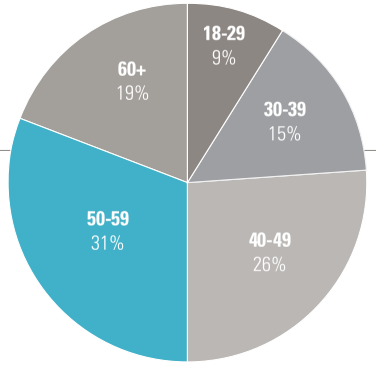
## Our workforce as at 30 June 2026

| | | | | | |
|---|---|---|---|---|---|
| **Full-time** | **516.55**<br>**Establishment – full-time equivalent positions**<br>(formally created and budgeted positions) | **481.49**<br>**Establishment – full-time equivalent positions filled** | **512**<br>**Headcount**<br>(permanent, temporary and term contract staff working on a full-time or part-time basis in those positions) | **263**<br>**Female** | **249**<br>**Male** |
| **Casual** | | | **238**<br>(for information – all other statistics on this page relate to the headcount only) | **156**<br>**Female** | **82**<br>**Male** |

## Length of service in years (y)




## Age




## Work health and safety

| Annual claims (2025/26) | % |
|---|---|
| Body stressing | 38% |
| Slips, trips and falls | 37% |
| Mental stress | 13% |
| Hit by moving objects | 6% |
| Chemical and other substances | 6% |

**Claims frequency (based on employee numbers) – 3.07**

**Injury reporting – 81% reported in 48 hours**

For information on Workplace Health and Safety, see Council's website for Policies "Work Health and Safety Determination".

## Employees who reside in Hornsby LGA

**40%**

## Staff turnover

2025/26

**13%**









**ATTACHMENT 1 - ITEM 1**

# OUR PEOPLE

### Gender split across roles

| Workforce category | Male | Female |
|---|---|---|
| Trainees | 75% | 25% |
| Operational (Grades 1-4) | 74% | 26% |
| Administration/Trade Grades 5-6) | 40% | 60% |
| Officer/Professional (Grades 7-8) | 38% | 62% |
| Professional (Grade 9) | 43% | 58% |
| Professional/Coordinator/Team Leader (Grades 10-12) | 48% | 52% |
| Managers (Grades 13+) | 69% | 31% |

### Wellbeing initiatives

- One Foot Forward
- Go Pink! Morning tea and fundraiser
- World Cup football sweep
- Injury Prevention Program (Physio Room)
- Healthy Workplace Audit
- Money 101
- Flare benefits
- Psychosocial Hazard and Risk program
- Skin checks

Mind Mate

R U OK?

Financial wellbeing

Yoga

International Women's Day guest speaker

Flu vaccinations

### Learning and development

**105** internal training events
**827** participants attended

**130** external training events
**208** participants attended

**49** conferences
**100** participants attended

**7** different team building events
**244** participants attended

**$663,376** total spend 2025/26
**$1,324** average spend per employee







ATTACHMENT 1 - ITEM 1

# DELIVERING OUR DELIVERY PROGRAM







**ATTACHMENT 1 - ITEM 1**

# WHAT IS THE DELIVERY PROGRAM?

## What is the Delivery Program?

The Delivery Program is Council's commitment to the community for its term of office and outlines how it will work towards achieving the community's vision set out in *Your vision | Your future 2035*, the Community Strategic Plan for Hornsby Shire. It is Council's key endeavour to bring our community closer to their vision.

The Delivery Program and Operational Plan is where Council outlines what it intends to do towards achieving the community vision for the Shire and what its priorities will be. The Plans of action and Actions translate the Strategic directions and Long-term goals (identified in the Community Strategic Plan) into practical steps.

On 11 June 2025, Council adopted the 2025-2029 Delivery Program including the 2025/26 Operational Plan and Budget setting out the projects, services and performance measures that guide Council's work and resource allocation during the year.

*(Local Government Act 1993, s428(1), (3), (4)(b))*

## Progress on our Delivery Program

Council's Delivery Program and Operational Plan is aligned with the Strategic directions set out in *Your vision | Your future 2035* – the Community Strategic Plan – through four key Themes:

LIVEABLE

SUSTAINABLE

PROSPEROUS

COLLABORATIVE

Supporting the Themes are eight Strategic directions, 25 Long-term goals defining where our community wants to be in 2035, and 51 Plans of action that guide Council's work towards achieving the community's vision for Hornsby Shire. The Strategic directions align with the 17 United Nations Sustainable Development Goals and address the 30 Resilient Sydney shocks and stresses identified for Greater Sydney.

Council reports on progress in delivering its commitments every six months through Performance Reports presented to Council in February and September. These reports are publicly available on Council's website.

The Annual Report provides a summary of Council's achievements during the year and outlines progress in implementing the Delivery Program through the annual Operational Plan. It combines quantitative and qualitative information to demonstrate how Council has delivered on its commitments to the community.

The following pages highlight progress against the priorities and actions contained in the 2025/26 Operational Plan, aligned with the Community Strategic Plan Themes, Strategic directions and Long-term goals, and reflect Council's commitment to the Quadruple Bottom Line framework.

### Performance snapshot

Percentage of actions completed or on track at 30 June 2026

| | |
|---|---|
| LIVEABLE | 74% |
| SUSTAINABLE | 71% |
| PROSPEROUS | 60% |
| COLLABORATIVE | 62% |

**81%**
Operational Plan actions completed/on track

**84%**
of planned capital (infrastructure) projects completed/on track

**$46.9M**
spent

**82%**
Operational Plan actions including capital (infrastructure) projects completed/on track







**ATTACHMENT 1 - ITEM 1**

# WHAT IS THE DELIVERY PROGRAM?

### Plan, support, report

All councils are required to deliver a suite of strategic documents supporting a holistic approach to planning for the future. The Integrated Planning and Reporting (IP&R) framework provides the structure which connects all of Council's strategic and operational documents, including reporting and accountability activities.

Council's supporting strategic documents are developed with input from the community and are adopted by the elected Council. They play an informing role in the Delivery Program by translating the high level outcomes described in the Community Strategic Plan into technically informed strategic action plans.

**Federal, state and regional plans**

## SUPPORT

### Council's supporting strategic documents

**Including Local Strategic Planning Statement**

### Resourcing Strategy

Outlines the money, assets and people required by Council to resource the commitments made over the long term:

**Workforce planning**
Assists Council to have the right number of appropriately skilled people to deliver on Council's commitments (updated every four years)

**Asset management planning**
Sets the direction for Council to manage its infrastructure and assets at the service levels desired by the community in a cost-effective way (ten year rolling program)

**Long term financial planning**
Outlines how Council will structure its available financial resources focusing on long term financial sustainability and delivery of quality services to the community (ten year rolling program)

## PLAN

### Community Engagement Plan

**Outlines how Council will engage with the community to develop the Community Strategic Plan and other Council Plans**

### Community Strategic Plan (ten year plan)

A vision of where the community wants Hornsby Shire to be in ten years' time and sets Strategic directions to achieve that vision (*Your vision | Your future 2035*)

### Delivery Program (four year plan)

Outlines Council's plan of action to deliver what the community wants during its term of office

### Operational Plan (one year plan)

Outlines specific actions to be achieved each financial year supported by an annual budget

## REPORT

### Annual Report

A report to the community on performance of Council's commitments and operations during the year

### Biannual Performance Reports

A report from the Chief Executive Officer to the Councillors and community on progress of the Delivery Program

### Quarterly Budget Reports

To track financial health and ensure Council remains on track to meet the community's priorities

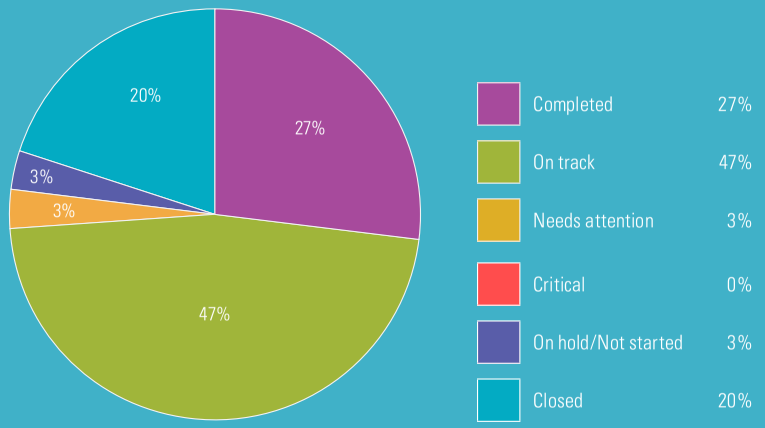




**ATTACHMENT 1 - ITEM 1**

# DELIVERING ON THEME 1: LIVEABLE

**Performance of Actions:**




Note: Following the annual review of the Delivery Program, 40 actions were Closed as part of reporting improvements, future scheduling changes and action consolidation.







**ATTACHMENT 1 - ITEM 1**

# LIVEABLE

## Challenges and Delays

- Progress on the Aboriginal Engagement Strategy was placed on hold during 2025/26 due to challenges in the recruitment of staff to lead the project. The strategy remains a priority for Council, with future timeframes to be reviewed
- Progress on the report outlining options for a Shire-wide Graffiti Strategy was delayed due to the time required to complete and evaluate a graffiti removal trial. As a result, the project was not finalised during the year and will be carried forward to 2026/27
- Progress was delayed while the draft Heritage Community Engagement Strategy underwent further internal consultation following its consideration by the Heritage Advisory Committee in May 2026. As a result, reporting to Council and public exhibition have been deferred to late 2026
- Progress on the Galston Masterplan investigation was delayed following a reprioritisation of Council's work program. While project planning commenced, including preparation of a request for quotation for specialist consultant support, the project was subsequently deferred and is now scheduled to recommence in 2027/28
- Progress on the project to digitise the Hornsby Local Environmental Plan was delayed pending updates to the NSW Government's cadastral data. As a result, the project has been placed on hold and rescheduled to commence in 2027/28, with Council continuing to advocate for its progression
- The review of the Integrated Land Use and Transport Strategy has experienced delays due to a change in project ownership. The document is currently being reviewed internally, with community consultation and formal adoption to follow
- Implementation of paid parking at prioritised locations across the Shire was delayed following a revision of the project scope to assess suitable locations for future implementation. As a result, the project was deferred and is now scheduled to commence in 2027/28

## The Year Ahead

- Prepare a Medium Density Development (townhouse) Strategy
- Review controls for Medium Density Development Control Plan
- Commence a review of the Pennant Hills Town Centre and surrounds
- Develop a design brief for a new regional central Hornsby Library and multi-purpose community centre
- Develop layouts for a new local level library and multi-purpose community centre at the Cherrybrook Metro precinct.
- Construct additional public access works at Hornsby Park
- Secure approvals for remaining embellishments at Hornsby Park (post circulation)
- Complete tendering for subsequent embellishment works at Hornsby Park, subject to approval and funding
- Update Plan of Management for Hornsby Park
- Continue detailed design of Westleigh Park embellishments
- Stage 1 construction of Westleigh Park (subject to State government funding)
- Continue the construction of embellishment works at Hornsby Park, focusing on Old Mans Valley Field of Play
- Develop an Active Transport Strategy
- Finalise the Integrated Land Use and Transport Strategy
- Review the Disability Inclusion Action Plan
- Review the Healthy Ageing Hornsby Strategy
- Develop an Aboriginal Engagement Strategy
- Investigate a Shire-wide Graffiti Strategy
- Finalise a new Archaeological Heritage Study
- Finalise Heritage Conservation Area Review
- Progress Hornsby Mall hostile vehicle mitigation design
- Continue collaboration with NSROC and State agencies on regional transport planning
- Review community lease and licensing policy









**ATTACHMENT 1 - ITEM 1**

# STRATEGIC DIRECTION:
## 1. CONNECTED AND COHESIVE COMMUNITY

A caring community where the built environment and people combine to create a sense of belonging and support.

WORKING TOWARDS THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS:




ADDRESSING SYDNEY'S SHOCKS AND STRESSES:




**Long-term goals.** Where do we want to be?

**1.1** A resilient and welcoming community that cares for and looks after each other by connecting and participating in community life

**1.2** A built environment that is sustainable, accessible and responsive to the community

**1.3** Safe, inviting, comfortable and inclusive public places are enjoyed by people both day and night

| Services helping deliver this Strategic direction |
|---|
| Community and Cultural Development |
| Community and Cultural Facilities |
| Community Events |
| Companion Animals |
| Financial Services |
| Infrastructure Operations |
| Libraries |

| Council's supporting Strategies and Plans |
|---|
| Aboriginal Heritage Study and Implementation Action Plan 2023 |
| Active Living Hornsby Strategy 2016 |
| Arts and Cultural Plan 2024-2029 |
| Community and Cultural Facilities Strategic Plan 2021 |
| Disability Inclusion Action Plan 2021-2025 |
| Healthy Ageing Hornsby 2022-2026 |
| Off Leash Dog Park Strategy 2021 |
| Play Plan 2021 |
| Social Plan 2024-2034 |



ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
# 1. CONNECTED AND COHESIVE COMMUNITY

## Progress on our Strategies and Plans

### Arts and Cultural Plan 2024–2029

#### Overview and progress

Implementation of the Arts and Cultural Plan 2024–2029 progressed throughout 2025/26, with the Plan continuing to guide Council's approach to arts, culture and creative expression across the Shire. Priority actions have been integrated into the planning and delivery of Council programs, events and community initiatives.

#### Key achievements

Key achievements during the year included the successful delivery of the Hornsby Art Prize, support for local artists through exhibitions and community arts programs, and the delivery of cultural events that celebrated the diversity of the Hornsby community. Council also strengthened partnerships with local arts organisations, community groups and creative practitioners to expand opportunities for participation and cultural engagement.

#### Refinements since adoption

No significant changes were made to the Plan during the year. Ongoing implementation has highlighted opportunities to further activate public spaces through arts and cultural programming, improve access to creative opportunities, and strengthen Aboriginal cultural recognition and storytelling within Council projects, particularly in Hornsby Park.

### Community and Cultural Facilities Strategic Plan 2021

#### Overview and progress

Implementation of the Community and Cultural Facilities Strategic Plan continued throughout 2025/26, guiding the planning and delivery of community, library, cultural and arts infrastructure across Hornsby Shire, including key growth areas such as Cherrybrook and Hornsby Town Centre.

#### Key achievements

Functional design work commenced for proposed new library and multi-purpose community facilities at Cherrybrook and Hornsby Town Centre. Detailed designs for the Wallarobba Arts and Cultural Precinct were also completed, supporting the future revitalisation of the site as a key cultural destination. Council further strengthened its leadership role through establishment of a NSW-wide Community Leasing and Licensing Working Group involving more than 50 councils.

#### Refinements since adoption

Insights gained through facility planning, governance reviews and sector collaboration have informed the ongoing implementation of the Plan and future approaches to community facility management and delivery.

### Social Inclusion Hornsby (including the Disability Inclusion Action Plan 2021–2025, Healthy Ageing Strategy 2022–2026, and Social Plan 2024–2034)

#### Overview and progress

Implementation of Social Inclusion Hornsby and its supporting strategies continued throughout 2025/26, guiding Council's efforts to build an inclusive, connected and accessible community. Progress was made across a range of initiatives supporting people with disability, older residents, young people, culturally diverse communities, volunteers and community organisations.

#### Key achievements

Key achievements included the continued delivery and expansion of the Hello Hornsby program, which promoted social connection, reduced isolation and supported carers, older residents and the broader community. Implementation of the Social Plan progressed through community development initiatives focused on social cohesion, multicultural engagement, volunteer participation, youth development, dementia-friendly communities and partnerships with community organisations. Council also secured a Youth Week grant, enabling an expanded program of activities and engagement opportunities for young people.

#### Refinements since adoption

A new Disability Inclusion Action Plan was developed during the year to guide Council's accessibility and inclusion initiatives over the next four years. The Plan reflects changes in legislation, community expectations and best practice, and strengthens Council's commitment to improving accessibility, inclusion and participation for people with disability.









ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
# 1. CONNECTED AND COHESIVE COMMUNITY

## Community Satisfaction with Council's Services and Facilities

Through our community satisfaction surveys, residents rate satisfaction with the following services and facilities that Council provides. These results help inform Council's planning and service delivery priorities.

| Council Service/Facility | 2021 Result | 2023 Result | **2024 Result** | 2024 Benchmark against average * |
|---|---|---|---|---|
| Library services | 4.03 | 4.14 | **4.11** | – |
| Arts and cultural facilities | 3.12 | 3.30 | **3.26** | ▼ |
| Community centres | 3.62 | 3.66 | **3.54** | – |
| Community events and festivals | 3.41 | 3.46 | **3.50** | ▼ |
| Facilities and services for older people | 3.26 | 3.35 | **3.39** | – |
| Facilities and services for youth | 3.19 | 3.17 | **3.21** | – |
| Facilities and services for people with disabilities | 3.17 | 3.24 | **3.28** | – |

**Results are based on a 1-5 satisfaction scale, where:**

| | |
|---|---|
| 1 = very dissatisfied | * *Benchmark is against average of comparable NSW metro councils* |
| 3 = neutral | ▲ ▼ *Shown only where results are 10% greater or lesser than NSW metro average* |
| 5 = very satisfied | – *Indicates Benchmark score is similar* |

## Performance against Delivery Program indicators

| Delivery indicators | Result 2023/24 | Result 2024/25 | **Result 2025/26** | Change from 2023/24 | Frequency of Measure |
|---|---|---|---|---|---|
| Active library members (residents) (%) | 22 | 24.3 | **29.3** | ▲ | Annual |
| Utilisation of Council owned and operated community and cultural centres (%) | 15.2 | 16.2 | **13.0** | ▼ | Annual |
| Companion animal service requests investigated within seven working days (%) | 99 | 99.8 | **99.6** | ▶ | Quarterly |

**Delivery indicator results Trend key – Progress against 2023/24 results:**

- ▲ Result has improved by more than 10% compared with the 2023/24 result
- ▶ Result is broadly consistent with the 2023/24 result (within 10% or within Target)
- ▼ Result has declined by more than 10% compared with the 2023/24 result

Note: Trend symbols show the direction of change from 2023/24. For measures with a preferred outcome, symbols indicate whether results have improved, declined or remained broadly unchanged. Some volume measures are reported for information only and may not have a preferred direction of change, despite displaying a trend symbol. Where lower results indicate better performance (for example, staff turnover), symbols reflect performance outcomes rather than numerical movement.









**ATTACHMENT 1 - ITEM 1**

# STRATEGIC DIRECTION:
# 1. CONNECTED AND COHESIVE COMMUNITY

**Completed Delivery Program Actions 2025/26**

| Code | Outcome | When |
|---|---|---|
| 1.1.3.1 | **Review, update and implement the Hardship – Rates Relief Policy**<br>Adopted an updated Hardship – Rates Relief Policy following Council consideration at the April 2025 General Meeting | Jul 2025 |
| 1.1.1.1 | **Present the Hornsby Art Prize**<br>Showcased contemporary artistic talent through the Hornsby Art Prize 2025 at the Wallarobba Arts and Cultural Centre, attracting more than 400 entries, with 72 artworks exhibited and six artworks sold | Sep 2025 |
| 1.1.1.2 | **Review the current delivery of Hornsby's two Art Prizes**<br>A decision was made to present the Hornsby Art Prize and Hornsby Art Society Prize in alternate years to support their ongoing delivery and sustainability | Mar 2026 |
| 1B.K04 | **Review Library opening hours**<br>Investigated options to extend Sunday opening hours at Hornsby Library, including an assessment of financial implications, to inform future service planning and budget considerations | Mar 2026 |
| 1.1.1.5 | **Undertake a comprehensive review of our current events program, including the Community Events Grants Program**<br>Established a clear direction for future event delivery across the Shire and secured additional funding for an enhanced 2026/27 program following a review of Council's events program and Community Events Grants Program | Jun 2026 |

## How we delivered

### Highlights

#### Remembering Victims of Domestic and Family Violence

In May, Council unveiled two purple benches in Hornsby Mall to mark Remembrance Day for Domestic and Family Violence. The benches provide a visible and lasting reminder of the impact of domestic and family violence while encouraging community awareness, reflection and support for those affected.

The initiative reinforces Council's commitment to building a safe, inclusive and supportive community. By creating spaces that encourage conversation and understanding, Council continues to work alongside residents and community organisations to promote respect, wellbeing and social connection.

#### Community Helps Shape the Future of Hornsby Shire Libraries

On May, hundreds of library users shared their views through Council's Library Satisfaction Survey, providing valuable feedback on collections, services and facilities. The survey was available in English, Simplified Chinese, Traditional Chinese and Korean. The data will help to plan and prioritise future goals for the library service.

The results will support ongoing investment in programs, collections and community spaces that respond to changing needs. By actively seeking community feedback, Council continues to ensure its libraries remain welcoming, accessible and highly valued community hubs.

#### Hidden Disabilities Sunflower Network Helps Create More Inclusive Libraries

Hornsby Shire Libraries strengthened their commitment to accessibility and inclusion by joining the Hidden Disabilities Sunflower Network, an internationally recognised initiative that supports people living with non-visible disabilities and chronic conditions. Launched on World Autism Awareness Day at Hornsby Library, the initiative brought together councillors, community organisations, allied health professionals, disability support providers and community members to celebrate a shared commitment to creating welcoming and inclusive spaces for everyone.

The program recognises that many disabilities and health conditions are not immediately visible. With an estimated 29% of Hornsby Shire residents living with a hidden disability or chronic condition, library visitors can now choose to wear a Hidden Disabilities Sunflower lanyard or pin to discreetly indicate they may need additional assistance, understanding or time. Library staff have received specialist training to better recognise and support people with hidden disabilities, helping ensure that every resident feels respected, supported and able to access library services with confidence. The initiative reflects Council's ongoing commitment to fostering a connected and inclusive community where everyone can participate fully in community life.

#### Harmony Week Celebrates Diversity and Belonging

Harmony Week celebrations brought residents together to recognise and celebrate the cultural diversity that enriches Hornsby Shire. A special gathering at Hornsby Library connected people of different backgrounds and generations through shared stories, activities and conversation, helping foster new friendships and a stronger sense of community.

The celebrations also featured Book Chats, a Meet the Author event exploring the Baynie family's migration journey from Lebanon to Thornleigh, and bilingual Storytime sessions in Korean and Mandarin. The week concluded with three Citizenship Ceremonies welcoming 145 new Australian citizens from 32 countries, including a special ceremony attended by Her Excellency the Honourable Sam Mostyn AC, Governor-General of Australia. Together, these events highlighted Council's commitment to inclusion, cultural understanding and creating a community where everyone feels they belong.

#### Australia Day Brings the Community Together at Fagan Park

Thousands of residents gathered at Fagan Park to celebrate Australia Day with a vibrant program of community activities, entertainment and cultural celebration. A highlight of the day was the Citizenship Ceremony, where 93 people from 30 countries officially became Australian citizens, marking a significant milestone in their journeys and further enriching Hornsby Shire's diverse and welcoming community. The ceremony featured a Welcome to Country by Aunty Ros Fogg and was complemented by musical performances and community hospitality









ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
# 1. CONNECTED AND COHESIVE COMMUNITY

that helped make the occasion memorable for new citizens and their families.

The celebrations continued throughout the day, with families enjoying picnics in the park's beautiful gardens, food trucks, live entertainment and the popular water play area. Visitors also enjoyed a multicultural concert showcasing a range of performers and cultural traditions, while heritage displays at Netherby Cottage offered opportunities to learn more about the area's local history. Bringing together people of all ages and backgrounds, the event reflected the diversity, community spirit and sense of belonging that make Hornsby Shire a great place to live.

### Food Truck Fridays Bring Communities Together

Food Truck Fridays returned in March, transforming local neighbourhoods into vibrant community gathering places filled with great food, live music and family-friendly entertainment. Held at Pennant Hills, Galston and Berowra, the popular events attracted residents from across Hornsby Shire and surrounding areas, creating opportunities for people to come together and enjoy a relaxed evening in their local community.

Featuring a diverse range of international food trucks, live performances by local musicians and a welcoming atmosphere for all ages, Food Truck Fridays celebrated the cultural diversity and community spirit of the Shire. The free events encouraged residents to explore new flavours, connect with family and friends, and support local event activations, reinforcing Council's commitment to creating vibrant places and fostering social connection across Hornsby Shire.

### Grant Funding to Support More Vibrant Community Events

Council secured $500,000 in grant funding through the NSW Government's Transport for NSW Permit/Plug/Play Program to help make it easier for community groups and organisations to deliver events in Hornsby's town centres. The funding will support a review of existing event planning and approval processes, with a focus on reducing administrative barriers and creating a more streamlined experience for organisers seeking to activate public spaces in Hornsby and the Coronation Street precinct.

As part of the project, Council will work with local event organisers and stakeholders to better understand current challenges and opportunities. The initiative will deliver improved resources, streamlined processes and new insights into visitor movement and activity patterns, helping support more community-led events and activations. The project reinforces Council's commitment to creating vibrant public spaces that encourage community connection, local participation and a thriving town centre experience.

### Hornsby Art Prize Showcases Outstanding Creative Talent

The Hornsby Art Prize once again cemented its reputation as one of the region's premier art competitions, attracting 415 entries from artists across Australia. Delivered by Council in partnership with the Hornsby Art Society, the annual prize celebrates excellence in contemporary visual arts and provides a valuable platform for both emerging and established artists to share their work with the community.

From the strong national field of entries, 73 exceptional artworks were shortlisted for exhibition at the Wallarobba Arts and Cultural Centre across the categories of painting, sculpture, photography, drawing and printmaking. With a prize pool of $23,000, including a $10,000 major prize, the competition continues to attract high-calibre talent and inspire artistic achievement. The exhibition gave residents and visitors the opportunity to experience a diverse collection of contemporary artworks while supporting the growth of arts and culture in Hornsby Shire.

### Hello Hornsby Expands Opportunities for Social Connection

Council celebrated Social Inclusion Week by expanding its popular Hello Hornsby program to welcome people of all ages, creating even more opportunities for residents to connect, build friendships and feel part of the community. The special Friends, Food and Fun event brought together residents from diverse backgrounds for a morning of music, dancing, cultural activities and shared experiences, reflecting the program's growing role in fostering social connection across the Shire.

The expansion of Hello Hornsby reinforces Council's commitment to building an inclusive and connected community, particularly for people from culturally and linguistically diverse backgrounds who may experience barriers to participation. Aligned with the Social Inclusion Week theme, Connect, Collaborate and Celebrate, the event demonstrated how simple opportunities to come together can strengthen community ties, reduce social isolation and help create a welcoming environment where everyone feels they belong.

### International Day of People with Disability Celebrates Creativity and Inclusion

Council marked International Day of People with Disability by hosting the Studio ARTES: Here, Seen, Celebrated! exhibition at the Wallarobba Arts and Cultural Centre. The exhibition showcased a vibrant collection of artworks created by Studio ARTES artists, inspired by Hornsby Shire's unique landscapes, landmarks and natural environment. The event provided an opportunity for artists with disability to share their talents with the broader community and celebrate the important contribution they make to the Shire's cultural life.

Visitors enjoyed live entertainment while exploring the exhibition, which highlighted the creativity, diversity and artistic achievements of the participating artists. By supporting initiatives such as this, Council continues to promote inclusion, accessibility and opportunities for people of all abilities to connect, participate and thrive within the community.

### Disability Employment Expo Connects Residents With Opportunities

Council hosted the Hornsby Disability Employment Expo, bringing together employment providers, education and training organisations, support services and government agencies to help people with disability explore pathways to employment and greater independence. Held at Westfield Hornsby, the expo provided a welcoming environment where attendees could access information, build connections and learn about the support available to help them achieve their career goals.

The event connected residents with a wide range of specialist organisations offering employment services, training opportunities, travel training, disability support and career advice. By bringing these services together in one accessible location, the expo helped promote workforce participation, remove barriers to employment and support a more inclusive community where people of all abilities can reach their potential.









ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
# 1. CONNECTED AND COHESIVE COMMUNITY

### Dementia Action Week Promotes Understanding, Inclusion and Support

Council marked Dementia Action Week 2025 with a series of events designed to support people living with dementia, their carers and the broader community. Guided by the theme Nobody can do it alone, the program highlighted the importance of connection, understanding and community support in helping people with dementia continue to live well and participate in everyday life.

A highlight of the week was a specially tailored Riverboat Postman cruise along the Hawkesbury River for Hornsby Shire residents living with dementia and their carers. Designed to meet accessibility needs and reduce social isolation, the cruise provided an opportunity for participants to enjoy the region's natural beauty while connecting with others who share similar experiences. Additional activities included a Dementia Awareness Seminar featuring a dementia specialist, and a screening of the award-winning documentary Everybody's Oma at Hornsby Library. These initiatives formed part of Council's ongoing commitment to becoming a Dementia Friendly Community and supporting people living with dementia and their carers through inclusive programs and community connections.

### Youth Week Encourages Young People to Dream, Dare and Do

Council celebrated NSW Youth Week 2026 with a diverse program of free activities that encouraged young people to get creative, learn new skills, connect with others and have fun. Reflecting the theme Dream. Dare. Do., the program included art and dance workshops, first aid training, sustainability activities, bushwalking, movie nights and opportunities for young people to share their ideas and aspirations for the future.

The wide-ranging program highlighted Council's commitment to supporting and empowering young people across Hornsby Shire. By providing opportunities to build confidence, develop new skills and strengthen social connections, Youth Week celebrated the valuable contribution young people make to the community while creating spaces where they felt supported, engaged and inspired.

### NSW Seniors Festival Celebrates Positive Ageing and Community Connection

Council celebrated the NSW Seniors Festival with a diverse program of free events encouraging older residents to stay active, connected and engaged. Guided by the theme Live Life in Colour, the program included workshops, exhibitions, health and wellbeing sessions, technology training, first aid courses and opportunities to connect with local groups and support services.

The festival provided valuable opportunities for seniors to learn new skills, access information, explore creative pursuits and build social connections. From intergenerational activities and arts experiences to wellbeing and dementia support events, the program highlighted Council's commitment to promoting positive ageing and ensuring older residents remain active, informed and connected members of the community.

### Grandparents Day Brings Generations Together

As part of Council's Hello Hornsby program, around 400 seniors and their grandchildren came together at Koala Park in West Pennant Hills to celebrate Grandparents Day. The popular event provided a special opportunity for families to spend quality time together while exploring the park's 10 acres of rainforest, native gardens and Australian wildlife exhibits.

From encounters with koalas, kangaroos and wombats to shared moments in nature, the day encouraged connection across generations and created lasting memories for participants. The event also highlighted the important role grandparents play in family and community life, while supporting Council's commitment to reducing social isolation and fostering meaningful social connections through the expanded Hello Hornsby program.

### Author Talks Inspire Readers and Lifelong Learning

Hornsby Shire Libraries continued to bring readers and writers together through a diverse program of Author Talks, giving residents the opportunity to hear firsthand from some of Australia's most celebrated and emerging authors. Throughout the year, audiences enjoyed engaging conversations, book discussions and behind-the-scenes insights from writers across a wide range of genres, including fiction, crime, historical fiction, memoir and contemporary literature.

The program featured acclaimed authors such as Peter FitzSimons, Charlotte McConaghy, Bryan Brown, Tea Cooper, Sandy Docker, Rachel Johns, Fleur McDonald, Darcy Tindale, Jessica Dettmann, Kathryn Heyman, Samantha W. L. Yee and Lily Crozier. These events provided opportunities for readers of all ages to meet their favourite authors, discover new voices and deepen their appreciation of literature. By fostering a love of reading, encouraging lifelong learning and creating spaces for shared experiences and conversation, author talks play an important role in strengthening literacy, cultural engagement and community connection across Hornsby Shire.

### Big Summer Read Inspires a Love of Reading

Hornsby Shire Libraries encouraged children and young people to discover the joy of reading through the Big Summer Read program, a holiday reading challenge designed to keep young minds engaged over the summer break. Open to children and teens aged 0 to 18, the program rewarded participants for reading regularly, helping to build positive reading habits while supporting literacy development and a lifelong love of books.

Supported by the NSW Public Libraries Association, the initiative combined reading incentives, prize opportunities and special events to inspire participation. The program was launched by bestselling children's author Nat Amoore, whose visit encouraged young readers to explore their imagination through books and storytelling. By promoting reading for pleasure and connecting families with the extensive resources available at Hornsby Shire Libraries, the Big Summer Read helped ensure children remained engaged with learning while enjoying the magic of books during the school holidays.

### Libraries Inspire a Love of Reading All Year Round

Hornsby Shire Libraries encouraged residents of all ages to discover the joy of reading through the introduction of two seasonal reading challenges. The popular Big Summer Read program motivated children and young people to keep reading during the school holidays, helping to maintain literacy skills while fostering imagination and a lifelong love of books. Through incentives, special events and rewards, the program encouraged participants to explore new stories and make reading a regular part of their summer break.



ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
# 1. CONNECTED AND COHESIVE COMMUNITY

Building on this success, Council launched Winter Reads, a new reading challenge for adults and young people aged 16 and over. Designed to promote reading for pleasure and support wellbeing during the cooler months, the program encouraged participants to reconnect with books, discover new authors and engage with their local library. Together, these initiatives highlight the important role Hornsby Shire Libraries play in supporting literacy, learning and community wellbeing, while inspiring residents at every stage of life to enjoy the benefits of reading.

### Supporting HSC Students Through Exam Season

Hornsby Shire Libraries supported local students during the HSC exam period with a range of initiatives designed to promote wellbeing and create welcoming study environments. A highlight was the visit from Molly and Sam, two therapy dogs from Paws Pet Therapy, who brought smiles, comfort and a welcome break from exam pressures for students studying at Hornsby Library. The visit provided a calming and positive experience, helping students manage stress during one of the most important periods of their school lives.

To further support HSC students, Hornsby and Pennant Hills Libraries offered early opening times, giving students additional access to quiet study spaces before the regular opening hours. Libraries also hosted a dedicated afternoon tea where students could relax, connect with their peers and recharge. These initiatives reflect Council's commitment to supporting young people, recognising the importance of both academic success and mental wellbeing during the HSC examination period.

### Hornsby works Alongside Aboriginal community leaders

Council strengthened its partnership with local Aboriginal communities through the appointment of 11 new members to the Hornsby Aboriginal and Torres Strait Islander Consultative Committee. The committee plays an important role in providing cultural advice and supporting initiatives that celebrate Aboriginal heritage and strengthen community connections.

The appointments reinforce Council's commitment to meaningful engagement and collaboration, helping ensure Aboriginal voices continue to inform decision-making and community outcomes.

### Reconciliation Week Celebrates Culture, Stories and Understanding

Council marked National Reconciliation Week with a special community concert featuring Gawura Cultural Immersions, bringing together students and community members to reflect on the meaning of reconciliation through music, dance and storytelling. The performance provided an opportunity to deepen understanding of Aboriginal culture, history and connection to Country while encouraging discussion about the role everyone can play in advancing reconciliation.

As part of the week, Hornsby Shire Libraries also expanded access to local Aboriginal history through the Still Standing: Life Histories of Aboriginal People Associated with the Area of the Shire of Hornsby collection on the Recollects platform. The collection preserves the voices and experiences of Aboriginal people connected to the Hornsby area, including respected Dharug Elder Aunty Edna Watson OAM. Together, these initiatives celebrated Aboriginal culture and heritage while fostering greater understanding, respect and connection across the community.

### Celebrating the Community Organisations That Make Hornsby Shire Stronger

Council hosted a special recognition event at the Wallarobba Arts and Cultural Centre to honour local community organisations celebrating significant anniversaries during the year. Representatives from sporting clubs, cultural associations, service organisations and volunteer groups came together to celebrate the milestones and achievements of organisations that have made lasting contributions to community life across Hornsby Shire.

The event recognised the vital role these organisations play in strengthening community connections, fostering inclusion and supporting residents of all ages. Each anniversary represented years of dedication, volunteer service and leadership, reflecting the commitment of countless individuals who give their time to support others. By acknowledging these milestones, Council celebrated not only the longevity of these organisations but also their ongoing contribution to making Hornsby Shire a vibrant, connected and welcoming community.

### Partnering for Better Community Wellbeing

Council joined the Northern Sydney Wellbeing Collaborative during the year, partnering with the Sydney North Health Network and other local stakeholders to help shape the future delivery of health and wellbeing services across the region. The initiative brings together community members, service providers and local government to ensure local voices play a central role in designing services that respond to the needs and priorities of the community.

As part of this work, Council participated in the Hornsby Wellbeing Collaborative, supporting community engagement activities and co-design workshops that will inform the development of new Integrated Service Hubs. These hubs are intended to provide more connected, accessible and person-centred support for residents. Through its involvement, Council is helping advocate for local needs while strengthening partnerships that contribute to healthier, more connected and resilient communities across Hornsby Shire.

### Public Access Defibrillators Improve Community Safety

Council partnered with St John Ambulance to expand access to life-saving equipment across Hornsby Shire through the installation of five Public Access Defibrillators at community centres in Berowra, Storey Park, Pennant Hills, Beecroft and Cherrybrook. Funded through a Bendigo Bank grant, the initiative helps ensure that members of the community have access to critical emergency response equipment in places where people regularly gather, participate in activities and connect with others.

Public access defibrillators can play a vital role in improving survival outcomes during cardiac emergencies by enabling a rapid response before emergency services arrive. The project reflects Council's commitment to creating safer and healthier communities, while supporting residents' confidence in using community facilities.









ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
## 1. CONNECTED AND COHESIVE COMMUNITY

## OUR YEAR IN NUMBERS

| 2024/25 figures | 2025/26 figures | |
|---|---|---|
| 46,758 | 45,945 | Active library members |
| 22.8 | 22.67 | Average items loaned per library member per year |
| 7,699 | 8,121 | Clients assisted through library help services |
| 30,000 | 6,130 | Attendance at major community events |
| 15 | 16 | Exhibitions at Wallarobba Arts and Cultural Centre |
| 713,129 | 729,045 | Visits to libraries |
| 5,438 | 5,081 | New library memberships |
| 136 | 143 | Library displays |
| 3,100 | 4,375 | Referrals to local service providers |
| 983 | 910 | Reported companion animal incidences investigated |
| 605,375 | 576,300 | Items loaned (physical) |
| 2,747 | 2,561 | Home Library visits |
| 399,815 | 475,074 | Library web pages viewed |
| 984 | 769 | People supported through the Home Modification Service |
| 948 | 585 | Companion animals registered by Council |
| 460,133 | 465,424 | Items loaned (electronic) |
| 1,180 | 1,203 | Program and seminar sessions held in the libraries |
| 7 | 7 | Major community events |
| 418,200 | 450,650 | Total attendance at Community and Cultural Facilities |
| 1,207 | 932 | Patrols of parks and ovals by Companion Animal Officers |
| XXXX | XXXX | |







**ATTACHMENT 1 - ITEM 1**

# STRATEGIC DIRECTION:
## 2. INCLUSIVE AND HEALTHY LIVING

Well designed neighbourhoods with distinct local characters featuring great public spaces that support people's health, wellbeing and growth.

WORKING TOWARDS THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS:




ADDRESSING SYDNEY'S SHOCKS AND STRESSES:




**Long-term goals.** Where do we want to be?

- **2.1** Quality, liveable and sustainable urban design and development
- **2.2** A greater diversity of housing for current and future community needs
- **2.3** An active and healthy community that fosters social, mental and physical wellbeing for all ages

| Services helping deliver this Strategic direction |
|---|
| Aquatics and Brickpit |
| Building Certification |
| Bushland, Biodiversity, Biosecurity and Reserve Management |
| Development Assessments |
| Illegal Dumping |
| Infrastructure Delivery |
| Infrastructure Operations |
| Infrastructure Planning |
| Parks and Recreation |
| Place Leadership and Development |
| Public Cleansing |
| Strategic Land Use Planning |
| Trees |

| Council's supporting Strategies and Plans |
|---|
| Active Living Hornsby Strategy 2016 |
| Biodiversity Conservation Strategy 2021 |
| Comprehensive Heritage Study Heritage Action Plan 2019 |
| Comprehensive Heritage Study Hornsby Thematic History 2021 |
| Disability Inclusion Action Plan 2021-2025 |
| Healthy Ageing Hornsby 2022-2026 |
| Heritage Interpretation Strategy and Action Plan 2023 |
| Hornsby Affordable Housing Strategy 2024 |
| Hornsby Park Master Plan 2021 |
| Hornsby Town Centre Masterplan 2023 |
| Local Housing Strategy 2020 |
| Local Strategic Planning Statement 2020 |
| Off Leash Dog Park Strategy 2021 |
| Play Plan 2021 |
| Rural Lands Strategy 2022 |
| Sportsground Strategy 2018 |
| Sustainable Water Based Recreation Facilities Plan 2012 |
| Unstructured Recreation Strategy 2008 |
| Urban Forest Strategy 2021 |
| Water Sensitive Hornsby Strategy 2021 |
| Westleigh Park Master Plan 2023 |









**ATTACHMENT 1 - ITEM 1**

# STRATEGIC DIRECTION:
# 2. INCLUSIVE AND HEALTHY LIVING

## Progress on our Strategies and Plans

### Active Living Strategy 2016

**Overview and progress**

The Active Living Strategy has now been completed, with all four supporting implementation streams either delivered or substantially progressed. The Strategy has provided a coordinated framework for planning and delivering recreation, sport, walking, cycling and open space initiatives across Hornsby Shire.

**Key achievements**

The Strategy delivered a number of key planning documents, including the Walking and Cycling Plan 2021, Play Plan 2021, Acquisition, Consolidation and Rationalisation Plan, and Sportsground Strategy 2018. Future sportsground planning has also been informed by the NSROC Sports Facility Supply and Demand Study 2023, helping to align recreation planning with current trends and community needs.

**Refinements since adoption**

With the completion of its key actions and supporting plans, the Active Living Strategy has achieved its intended outcomes. The completed strategies and plans will continue to guide Council's future investment, service delivery and recreation planning across the Shire.

### Play Plan 2021

**Overview and progress**

Implementation of the Play Plan 2021 continued throughout 2025/26, guiding the renewal and enhancement of playgrounds, play spaces and recreation facilities across Hornsby Shire. The Plan supports the delivery of accessible, inclusive and engaging recreational opportunities for children, families and the broader community.

**Key achievements**

Several playground renewal and upgrade projects were completed during the year, including Fearnley Park, Beecroft, Charles Curtis Park, Normanhurst and Amor Street Park, Asquith. New fitness equipment was installed at Mills Park, Asquith and Headen Park, Thornleigh, while playspace renewals and compliance improvements were completed at Dusthole Bay, Berowra Waters and Ulolo Park, Hornsby Heights. New exercise equipment and pathways were completed at North Epping Oval, providing additional recreation opportunities for the community.

**Refinements since adoption**

No significant changes were made to the Plan during the year. Ongoing implementation continues to inform future priorities for playground renewals, active recreation facilities and inclusive play opportunities across the Shire.

### Sportsground Strategy 2018

**Overview and progress**

Implementation of the Sportsground Strategy continued throughout 2025/26, supporting the renewal and enhancement of sporting infrastructure across Hornsby Shire. Investment focused on improving the quality, capacity and accessibility of sportsgrounds to meet the needs of a growing and active community.

**Key achievements**

Key projects completed during the year included irrigation renewals at Pennant Hills No. 1 Oval, Dural Park and Warrina Street Oval, Berowra, as well as drainage and irrigation improvements at Ron Payne Park, North Epping. Stage 3 of the Mark Taylor Oval Pavilion redevelopment was completed and officially opened in March 2026. New floodlighting was also delivered at James Henty Oval, Dural, improving access to sporting facilities and extending playing opportunities. An accessibility upgrade of the amenities building at Berry Park, Mount Colah, funded through the Special Rate Variation program, further enhanced access and inclusion for sportsground users.

**Refinements since adoption**

No significant changes were made during the year. Ongoing implementation continues to inform priorities for sportsground renewal and capacity improvements. The document remains Council's guiding framework for the provision, enhancement and management of sportsgrounds across the Shire.

### Off-Leash Dog Park Strategy 2021

**Overview and progress**

Implementation of the Off-Leash Dog Park Strategy continued throughout 2025/26, supporting the provision of accessible and well-distributed off-leash recreation opportunities across Hornsby Shire. The Strategy has guided investment in new facilities and the expansion of existing parks to meet growing community demand.

**Key achievements**

New off-leash dog parks have been established at Brickpit Park, Thornleigh, Fagan Park, Galston and Hunt Reserve, Mount Colah, increasing opportunities for residents and their pets to access dedicated recreation spaces. Existing facilities were enhanced through the expansion of areas for small dogs at Greenway Park, Cherrybrook and Rofe Park, Hornsby Heights. Works to expand the off-leash dog park at Asquith Park were also completed during the year, with the upgraded facility scheduled to open in July 2026. Investigations have also commenced into a potential new off-leash dog park at Rotary Park, Waitara.

**Refinements since adoption**

Implementation of the Strategy has highlighted the growing demand for dedicated off-leash facilities, including spaces catering specifically for small dogs. This will continue to inform future planning and investment priorities.

### Hornsby Affordable Housing Strategy 2024

**Overview and progress**

Implementation of the Hornsby Shire Affordable Housing Strategy progressed throughout 2025/26 following its adoption by Council in December 2024. The Strategy provides a framework to increase the supply and delivery of affordable housing across the Shire, with actions now underway and scheduled for completion by the end of 2026/27.









ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
# 2. INCLUSIVE AND HEALTHY LIVING

**Key achievements**

Council finalised and implemented an Affordable Housing Contributions Scheme, establishing the locations where affordable housing contributions apply and the relevant land and monetary contribution rates. A dedicated affordable housing webpage was also launched, providing the community and development industry with access to key information, resources and supporting documentation.

**Refinements since adoption**

No significant changes were made to the Strategy during the year. Implementation has focused on progressing priority actions and establishing the policy and administrative foundations required to support affordable housing delivery across Hornsby Shire.

## Comprehensive Heritage Study

**Overview and progress**

Implementation of the Comprehensive Heritage Study continued throughout 2025/26, providing a strategic framework for identifying, documenting and protecting the Shire's heritage values. Progress has been made across several study streams to support future heritage planning and conservation outcomes.

**Key achievements**

Council has adopted or endorsed several key components of the Study, including the Hornsby Thematic History 2021, Aboriginal Heritage Study 2023, Heritage Interpretation Strategy and Action Plan 2023, Heritage and Housekeeping Planning Proposal, and amendments to the Heritage Development Control Plan. During the year, Council also considered the Draft Archaeological Heritage Study, Draft Landscape Heritage Study, Draft Built Heritage Study and Draft Heritage Conservation Areas Study and resolved to place them on public exhibition.

**Refinements since adoption**

The draft studies have identified additional opportunities to strengthen heritage recognition and protection across the Shire. Community feedback from the public exhibition process will inform final recommendations and any future Planning Proposal required to support changes to heritage listings in Hornsby Local Environmental Plan 2013.

## Local Strategic Planning Statement 2020

**Overview and progress**

The Hornsby Local Strategic Planning Statement (LSPS) continues to provide a long-term framework for land use planning across the Shire. Most actions under the Liveable, Sustainable, Productive and Collaborative themes have been completed or are currently underway.

**Key achievements**

A review and update of the LSPS commenced during the year to incorporate the findings of recent strategic studies undertaken in line with LSPS actions. Preliminary work was also undertaken to support the statutory seven-year review of the LSPS, which is due to be completed by 2027.

**Refinements since adoption**

Progress on the LSPS review has been paused pending release of the NSW Government's updated regional plan and future directions regarding the role and requirements of LSPS documents. Once released, the updated LSPS will be reported to Council for endorsement and public exhibition, with a broader review to follow.

## Rural Lands Study 2022

**Overview and progress**

Implementation of the Rural Lands Study continued throughout 2025/26, with progress made on both short and long-term actions designed to support the viability, character and future planning of Hornsby Shire's rural areas.

**Key achievements**

The short term recommendations are complete, which included changes to Council's Development Control Plan to support agritourism, introduction of planning controls that require new dwellings to consider land use conflict, changes to size calculation to allow access handles to be included for rural zones only, and introduction of design controls to improve rural character of commercial uses along Old Northern Road.

The long term actions include preparing planning studies that investigate opportunities for rural living by reviewing lot sizes around villages and preparing village place plans for Glenorie, Galston and Dural. Council has since adopted the Glenorie Village Place Plan in November 2025 and finalised the supporting Glenorie Village Investigation Report which has received Gateway Determination from the Department of Planning, Housing and Infrastructure.

**Refinements since adoption**

Implementation has progressed from immediate planning reforms to longer-term strategic initiatives. The Glenorie Planning Proposal will be publicly exhibited in 2026/27, with further work continuing for Galston and Dural.









ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
# 2. INCLUSIVE AND HEALTHY LIVING

## Community Satisfaction with Council's Services and Facilities

Through our community satisfaction surveys, residents rate satisfaction with the following services and facilities that Council provides. These results help inform Council's planning and service delivery priorities.

| Council Service/Facility | 2021 Result | 2023 Result | **2024 Result** | 2024 Benchmark against metro * |
|---|---|---|---|---|
| Parks and recreation areas (including playgrounds) | 3.80 | 3.96 | **3.91** | ▲ |
| Sporting fields and amenities | 3.77 | 3.80 | **3.72** | – |
| Aquatic centres | 3.86 | 3.74 | **3.80** | – |
| Wharves and boat ramps | 3.47 | 3.76 | **3.56** | Not available |
| Condition of public toilets | 2.83 | 2.95 | **3.05** | – |
| Development approvals process | 2.61 | 2.62 | **2.69** | ▼ |
| The amount and type of development in my local area *(first asked in 2024)* | -- | -- | **2.90** | – |

**Results are based on a 1-5 satisfaction scale, where:**

| | |
|---|---|
| 1 = very dissatisfied | * *Benchmark is against average of comparable NSW metro councils* |
| 3 = neutral | ▲ ▼ *Shown only where results are 10% greater or lesser than NSW metro average* |
| 5 = very satisfied | – *Indicates Benchmark score is similar* |

## Performance against Delivery Program indicators

| Delivery indicators | Result 2023/24 | Result 2024/25 | **Result 2025/26** | Change from 2023/24 | Frequency of Measure |
|---|---|---|---|---|---|
| Utilisation of Thornleigh Brickpit Stadium (%) | 83 | 74 | **81** | ▶ | Quarterly |
| Annual Fire Safety Statements reviewed (%) | 100 | 100 | **100** | ▶ | Quarterly |

**Delivery indicator results Trend key – Progress against 2023/24 results:**

- ▲ Result has improved by more than 10% compared with the 2023/24 result
- ▶ Result is broadly consistent with the 2023/24 result (within 10% or within Target)
- ▼ Result has declined by more than 10% compared with the 2023/24 result

Note: Trend symbols show the direction of change from 2023/24. For measures with a preferred outcome, symbols indicate whether results have improved, declined or remained broadly unchanged. Some volume measures are reported for information only and may not have a preferred direction of change, despite displaying a trend symbol. Where lower results indicate better performance (for example, staff turnover), symbols reflect performance outcomes rather than numerical movement.









**ATTACHMENT 1 - ITEM 1**

# STRATEGIC DIRECTION:
## 2. INCLUSIVE AND HEALTHY LIVING

**Completed Delivery Program Actions 2025/26**

| Code | Outcome | When |
|---|---|---|
| 2.1.1.1 | **Investigate long-term recommendations for Glenorie Village as part of the Rural Lands Study (Action Plan B)** Adopted the Glenorie Village Place Plan and finalised the Glenorie Village Investigation Report, providing a strategic framework for the future development of Glenorie Village and enabling the preparation of a Planning Proposal to implement key actions | Nov 2025 |
| 2.1.3.8 | **Review the Development Control Plan Heritage Chapter** Approved and implemented amendments to Part 9 Heritage of the Hornsby Development Control Plan, with the changes taking effect in June 2025 | Jun 2025 |
| 2.1.3.11 | **Implement the Heritage and Housekeeping Planning Proposal** Gazetted Amendment No. 17 to the Hornsby Local Environmental Plan 2013 in June 2025, giving effect to heritage and housekeeping amendments | Jun 2025 |
| 2.2.2.2 | **Review controls for Dual Occupancy Development Control Plan** Updated Development Control Plan controls for dual occupancy development, with the revised controls endorsed by Council and reflected in NSW Government minimum lot size provisions for the Hornsby Local Environmental Plan | Jun 2025 |

**Completed Delivery Program Actions 2025/26**

| Code | Outcome | When |
|---|---|---|
| 2.3.1.8 | **Develop a program of sportsground improvements** Identified funding for future sportsground improvement projects through the draft Section 7.12 Contributions Plan. Subject to adoption of the Plan, a delivery program will be developed to guide implementation | Mar 2026 |
| 2.3.2.2 | **Condition assess newly constructed amenities buildings and include the data in AssetFuture to create an asset management plan** Completed condition assessments of newly constructed amenities buildings and incorporated the data into AssetFuture to support future asset management planning | Apr 2026 |
| 2.1.3.3 | **Review the Heritage Landscape Management processes** Completed the Guidelines for Tree Planting and Landscape Heritage Fact Sheet, providing information to support heritage landscape management and now available online and in print | Jun 2026 |









**ATTACHMENT 1 - ITEM 1**

# STRATEGIC DIRECTION:
# 2. INCLUSIVE AND HEALTHY LIVING

## How we delivered

### Highlights

**Hornsby Park Opens its First Major Precinct**

A significant milestone was reached in the transformation of Hornsby Park with the opening of the Crusher Plant Precinct, the first publicly accessible stage of the former quarry's redevelopment. The new precinct provides residents and visitors with an opportunity to experience this unique landscape, featuring the fully accessible Southern Lookout, expansive views across the former quarry and surrounding bushland, and new picnic and recreation spaces.

The opening marked the beginning of a new chapter for one of Hornsby Shire's most ambitious community projects. Visitors can now explore the upgraded Heritage Steps, which connect the precinct to nearby bushwalking networks including the Blue Gum Walk and Great North Walk. Blending industrial heritage, natural beauty and recreation opportunities, the first stage of Hornsby Park offers a glimpse of the exciting future planned for the site as additional walking and cycling trails, lookouts and recreational facilities are delivered in coming years.

Community interest was immediate, with strong visitation following the opening and the completion of the Heritage Steps connection.

**Architectural Excellence Recognised on the State Stage**

Hornsby Shire Council received significant recognition at the 2026 Australian Institute of Architects NSW Architecture Awards, highlighting the quality of public spaces being delivered for the community. The Southern Lookout at Hornsby Park was awarded in the Small Project Architecture category, recognising its innovative design and its successful transformation of part of the former quarry into a unique visitor destination. Since opening, the lookout and adjoining Crusher Plant Precinct have become popular community spaces, offering spectacular views and a new way to experience the site's history and natural environment.

Further recognition was awarded to the Mark Taylor Oval Pavilion, which received a commendation in the Public Architecture category. The pavilion was acknowledged alongside some of the state's leading public infrastructure projects, reflecting its high-quality design and contribution to community sport and recreation. Together, these awards demonstrate how thoughtfully designed public facilities can enhance community life, create memorable places and strengthen the identity of Hornsby Shire.

**Old Mans Valley Field of Play Reaches Major Milestone**

A significant milestone was achieved in May with the ceremonial sod turning for the Old Mans Valley Field of Play project. Set to become the main entry point to Hornsby Park, the Field of Play will include more parking and a welcoming gateway to help visitors easily explore the park as it continues to open.

Once complete, it will feature a multipurpose sporting field, open green space, amenities (including change rooms and toilets), and bike pump and jump tracks where riders can build skills in a safe, purpose-built area.

This stage builds on the recent opening of the Crusher Plant Precinct and Southern Lookout, bringing us another step closer to delivering a major community space for Hornsby residents.

**Fagan Park Children's Forest Receives National Recognition**

Hornsby Shire's innovative Fagan Park Children's Forest received national recognition in 2025, winning the Parks and Leisure Australia National Award of Excellence for Playspace under $500,000. The award celebrates outstanding community play spaces and recognised the project's unique approach to connecting children with nature through play, learning and exploration.

Developed in consultation with local schools, the Children's Forest is the first playspace of its kind in NSW, combining educational experiences with nature-based recreation. Featuring learning pods, a yarning circle, accessible pathways and interactive natural elements, the space encourages children to develop a lifelong appreciation for trees, biodiversity and the environment. The national award adds to a growing list of accolades and reinforces Council's commitment to creating innovative, inclusive and environmentally focused community spaces.

**Award-Winning Boardwalk Enhances Access to Brooklyn's Foreshore**

Council's Kangaroo Point to Brooklyn Boardwalk received a Highly Commended Engineering Excellence Award at the 2026 Institute of Public Works Engineering Australasia (IPWEA) State Awards, recognising the outstanding design and delivery of this landmark active transport project. The boardwalk provides a new shared pathway connection along Brooklyn's waterfront, improving accessibility while showcasing the area's unique natural environment, including saltmarsh, mangrove and intertidal habitats.

**New Heritage Walks Bring Brooklyn's Stories to Life**

Council expanded its popular Heritage Walks program with the launch of the Brooklyn Heritage Walks, providing residents and visitors with new opportunities to explore the rich history of the Hawkesbury River village. The new self-guided Brooklyn East and Brooklyn West walks highlight more than 20 sites of historical significance, from Brooklyn's railway heritage and early buildings to local landmarks, waterfront locations and the recently completed Kangaroo Point Boardwalk.

The Brooklyn walks join the growing collection of Heritage Walk resources available across Hornsby Shire, alongside the Hornsby Heritage Walk and the newly digitised Pennant Hills Heritage Walk. Available online and in print, the guides encourage residents to discover local history at their own pace while deepening their understanding of the people, places and stories that have shaped the Shire.

**Aquatic Centres Support Active and Healthy Communities**

Hornsby Shire's aquatic and leisure centres continued to play an important role in supporting community wellbeing, social connection and active lifestyles during 2025/26. A wide range of group fitness and aquatic programs catered to residents of all ages and abilities, including subsidised initiatives for Special Olympics participants, Active Mobility clients, Studio ARTES members and NSW Healthy Active Ageing programs. Community CPR and first aid training also helped build important life-saving skills across the community.

Strong participation throughout the year reflected the growing popularity of the centres, with aqua aerobics remaining a favourite among residents and school carnivals attracting more than 6,000









ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
# 2. INCLUSIVE AND HEALTHY LIVING

students across Hornsby and Galston facilities. In addition to recreational use, the centres supported educational and sporting activities including marine studies, water polo and swim survival programs.

### Pickleball Finds a Home at the Brickpit

The Brickpit Stadium embraced one of Australia's fastest-growing sports during the year, with the introduction of regular pickleball sessions attracting strong community interest. Combining elements of tennis, badminton and table tennis, pickleball offers a fun, social and accessible way for people of all ages and abilities to stay active.

The weekday pickleball sessions quickly became a popular fixture at the venue, reflecting strong community interest in accessible and social recreation opportunities.

### Guided Bushwalks Showcase the Beauty of the Bushland Shire

Council's popular program of guided bushwalks continued throughout autumn, winter and spring, giving residents the opportunity to explore some of the Shire's most spectacular natural areas alongside experienced guides. Catering for a range of interests and fitness levels, the walks encouraged participants to discover local bushland, learn about native plants and wildlife, and develop a deeper appreciation for the area's rich natural and cultural heritage.

The seasonal program highlighted the changing beauty of the Bushland Shire across the year, from wildflower displays in spring to the crisp conditions of winter and the vibrant landscapes of autumn. Consistently popular with residents, the guided walks supported healthy, active lifestyles while fostering a stronger connection to the environment and promoting the protection and enjoyment of Hornsby Shire's unique natural assets.

### Community Voices Shape Future Cultural and Community Facilities

Council invited the community to help shape the future of two significant civic projects through an engagement program for the proposed Cherrybrook and Hornsby Library and Multipurpose Community, Cultural and Performing Arts Facilities. Working with specialist consultants, Council sought feedback from residents, library users, visitors and arts and cultural audiences to better understand how these future facilities can meet the evolving needs of the community.

The engagement included a broad community survey and face-to-face interviews, reaching residents from across Hornsby Shire and neighbouring areas. Feedback gathered through the process will inform the functional designs for both facilities, helping determine the mix of services, spaces and activities that residents want to see in the future.

### Balts Hall Opens at Storey Park Community Centre

Council completed the transformation of two smaller meeting rooms into Balts Hall, a new flexible multi-purpose space at Storey Park Community Centre. Available for community hire from June 2026, the reconfigured hall provides a larger and more versatile venue for events, programs, meetings and community gatherings, enhancing the range of activities that can be accommodated at the centre.

### Pennant Hills Library Reopens Following Major Refurbishment

Pennant Hills Library welcomed the community back through its doors following a major refurbishment, marking an exciting new chapter for one of Hornsby Shire's most valued community facilities. Residents joined Council staff and community representatives to celebrate the reopening with a range of family-friendly activities, highlighting the important role the library continues to play as a place for learning, connection and discovery.

The refurbishment has transformed the library into a brighter, more welcoming and contemporary space, featuring new shelving, updated furniture, a dedicated children's area and improved customer service facilities. More than just a place to borrow books, Pennant Hills Library serves as a thriving community hub offering programs, resources and opportunities for people of all ages. With more than 163,000 visits recorded over the past year, the refreshed facility is well positioned to continue supporting literacy, lifelong learning and community connection for years to come.

### Protecting Waterways Through Improved On-Site Sewage Management

Council continued to strengthen environmental protection and public health outcomes through its proactive On-Site Sewage Management (OSSM) inspection program. Commencing in 2024, the program initially focused on high-risk properties in river settlement areas, helping ensure wastewater systems are operating safely and in accordance with their approvals. Regular inspections play an important role in protecting local waterways, reducing environmental impacts and maintaining the health of sensitive ecosystems.

By February 2026, Council had inspected 236 high-risk systems, with more than half meeting requirements at the initial inspection and many others achieving compliance following minor improvements. The program also identified systems requiring further attention, allowing Council to work directly with property owners to address issues and improve performance. Building on this success, inspections of approximately 1,400 medium-risk rural properties commenced during 2026, demonstrating Council's ongoing commitment to safeguarding the environment and supporting responsible wastewater management across Hornsby Shire.









ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
## 2. INCLUSIVE AND HEALTHY LIVING

**Hornsby Heritage Advisory Committee Re-established**

Council strengthened its commitment to preserving and celebrating local heritage with the re-establishment of the Hornsby Heritage Advisory Committee. The committee brings together technical specialists and community representatives to provide advice on the conservation, promotion and appreciation of Hornsby Shire's built, environmental and cultural heritage.

The re-establishment of the committee ensures heritage expertise and community perspectives continue to inform Council's decision-making and heritage initiatives. By drawing on professional knowledge and local passion for heritage, the committee will help protect the unique character and history of the Shire, while fostering greater understanding and appreciation of the places, stories and landscapes that shape the Hornsby community.

**Community Invited to Help Shape Hornsby Shire's Heritage Future**

Council undertook one of its most significant heritage engagement projects in more than a decade, inviting residents and property owners to help shape the future management and protection of Hornsby Shire's heritage. Four draft studies covering archaeological, landscape, built and heritage conservation areas were placed on public exhibition, providing the community with an opportunity to review research and recommendations developed through heritage specialist investigations and community nominations.

The draft studies form part of Council's Comprehensive Heritage Study, the first major review of its kind since 2013, and aim to ensure the Shire's heritage listings remain current and reflect places of cultural, historical and environmental significance. Through community consultation, interactive mapping tools and information resources, residents were encouraged to provide feedback on proposed heritage listings and conservation areas. The project demonstrates Council's commitment to preserving the stories, places and landscapes that contribute to Hornsby Shire's unique identity while ensuring future heritage decisions are informed by both expert research and community input.



The upgraded library at Pennant Hills has a vibrant children's area to inspire young imaginations









**ATTACHMENT 1 - ITEM 1**

# STRATEGIC DIRECTION:
## 2. INCLUSIVE AND HEALTHY LIVING

## OUR YEAR IN NUMBERS

| | | | | |
|---|---|---|---|---|
| 411,807 **347,046**<br>Visits to Hornsby Aquatic and Leisure Centre (HALC) | 128,718 **119,481**<br>Learn to Swim Places occupied HALC | 43 **42**<br>Guided bushwalks | 642 **602**<br>Swimming pools inspected under the Swimming Pool Barrier Inspection Program | $1.19B **$835M**<br>Construction value of Development Applications |
| 43,052 **46,947**<br>Visits to Galston Aquatic Centre and Leisure Centre (GALC) | 19,013 **16,756**<br>Learn to Swim Places occupied GALC | 411 **196**<br>Participants in guided bushwalks | 612 **649**<br>Development Applications determined | $8.02M **$5.64M**<br>Sections 7.11 and 7.12 (development contributions) income received |
| 90.2% **89.5%**<br>Occupancy rate of Learn to Swim programs at Hornsby Aquatic Centre and Leisure Centre | 67,913 **440,900**<br>Walkers counted on monitored bushwalking tracks | 708 t **707 t**<br>Leaf litter collected by residential street sweepers | 85 DAYS **80 DAYS**<br>Average determination time for Development Applications from lodgement | 917 **1,041**<br>Annual Fire Safety Statements reviewed |
| 80.0% **74.3%**<br>Occupancy rate of Learn to Swim programs at Galston Aquatic Centre and Leisure Centre | 13,592 **30,318**<br>Laps counted on Hornsby mountain bike trail | 529 t **537 t**<br>Litter collected from public litter bins | 8 DAYS **5 DAYS**<br>Average time taken to review and accept development applications through the NSW Government planning portal | 3,061 **2,729**<br>Reported compliance service requests investigated for unlawful building works |

XXXX 2024/25 figures — **XXXX** 2025/26 figures







**ATTACHMENT 1 - ITEM 1**

# STRATEGIC DIRECTION:
## 3. SAFE, INTEGRATED AND ACCESSIBLE TRANSPORT

Our transport infrastructure and services will be connected and easy to use.
We will increase walking and cycling, and the use of public transport.

WORKING TOWARDS THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS:




ADDRESSING SYDNEY'S SHOCKS AND STRESSES:




**Long-term goals.** Where do we want to be?

**3.1** Roads and footpaths are safe, reliable and connected to key destinations for people to move around the Shire

**3.2** Transport options are well-connected, accessible and integrated to support healthy and active lifestyles and minimise dependency on private cars

| Services helping deliver this Strategic direction |
|---|
| Infrastructure Operations |
| Infrastructure Planning |
| Ranger Services |
| Transport, Traffic and Road Safety |

| Council's supporting Strategies and Plans |
|---|
| Bike Plan 2019 |
| Car Parking Management Study 2020 |
| Integrated Land Use and Transport Strategy 2004 |
| Walking and Cycling Strategy 2021 |









**ATTACHMENT 1 - ITEM 1**

# STRATEGIC DIRECTION:
# 3. SAFE, INTEGRATED AND ACCESSIBLE TRANSPORT

## Progress on our Strategies and Plans

### INTEGRATED LAND USE AND TRANSPORT STUDY (ILUTS) 2004 (under review)

**Overview and progress**

The Integrated Land Use and Transport Study (ILUTS) guides Council's transport planning and the delivery of initiatives that support sustainable travel and improved access across the Shire. During 2025/26, Council continued to implement actions aligned with the study while progressing work to inform a new Integrated Transport Strategy.

**Key achievements**

Council progressed plans for 19 new electric vehicle charging locations, with additional sites under investigation, and expanded the car share program through multiple operators. Parking management initiatives were also implemented across the Shire, including timed and permit parking initiatives.

Council also advanced strategic transport planning and active transport projects aimed at improving local access, network efficiency and travel choice. This included working with the NSW Government to improve active transport connections supporting the Hornsby Town Centre Masterplan and the Hornsby Transport Oriented Development program. These initiatives will help inform the preparation of the new Integrated Transport Strategy.

**Refinements since adoption**

Council has commenced preparation of a new Integrated Transport Strategy to replace the Integrated Land Use and Transport Study. The new strategy will update Council's transport planning framework to reflect current land use patterns, changing travel behaviours and future transport priorities.

As part of this work, an Active Transport Strategy will be developed as a supporting strategy to the Integrated Transport Strategy. The Active Transport Strategy will replace and expand upon the Walking and Cycling Strategy 2021, providing an integrated framework to guide walking, cycling and other active transport initiatives across the Shire.



New shared pathway on Ramsay Street, Pennant Hills









**ATTACHMENT 1 - ITEM 1**

# STRATEGIC DIRECTION:
# 3. SAFE, INTEGRATED AND ACCESSIBLE TRANSPORT

## Community Satisfaction with Council's Services and Facilities

Through our community satisfaction surveys, residents rate satisfaction with the following services and facilities that Council provides. These results help inform Council's planning and service delivery priorities.

| Council Service/Facility | 2021 Result | 2023 Result | **2024 Result** | 2024 Benchmark against metro * |
|---|---|---|---|---|
| Condition of local roads | 3.01 | 2.74 | **3.03** | – |
| Condition of footpaths | 3.14 | 3.21 | **3.15** | – |
| Bike paths | 2.80 | 2.80 | **2.93** | ▼ |
| Managing parking | 2.93 | 3.01 | **2.96** | ▲ |

| Results are based on a 1-5 satisfaction scale, where: | |
|---|---|
| 1 = very dissatisfied | * *Benchmark is against average of comparable NSW metro councils* |
| 3 = neutral | ▲ ▼ *Shown only where results are 10% greater or lesser than NSW metro average* |
| 5 = very satisfied | – *Indicates Benchmark score is similar* |

## Performance against Delivery Program indicators

| Delivery indicators | Result 2023/24 | Result 2024/25 | **Result 2025/26** | Change from 2023/24 | Frequency of Measure |
|---|---|---|---|---|---|
| Average Pavement Condition Index for roads (score out of 10) | 8.2 | 7.7 | 7.5 | ▶ | Annual |
| Parking service requests investigated within three days (%) | 95.7 | 96.5 | 95.2 | ▶ | Quarterly |
| Unattended property (abandoned vehicle and boat trailer) service requests investigated within 28 days (%) | 95 | 97 | 99.7 | ▶ | Quarterly |

**Delivery indicator results Trend key – Progress against 2023/24 results:**

- ▲ Result has improved by more than 10% compared with the 2023/24 result
- ▶ Result is broadly consistent with the 2023/24 result (within 10% or within Target)
- ▼ Result has declined by more than 10% compared with the 2023/24 result

Note: Trend symbols show the direction of change from 2023/24. For measures with a preferred outcome, symbols indicate whether results have improved, declined or remained broadly unchanged. Some volume measures are reported for information only and may not have a preferred direction of change, despite displaying a trend symbol. Where lower results indicate better performance (for example, staff turnover), symbols reflect performance outcomes rather than numerical movement.









**ATTACHMENT 1 - ITEM 1**

# STRATEGIC DIRECTION:
# 3. SAFE, INTEGRATED AND ACCESSIBLE TRANSPORT

| Completed Delivery Program Actions 2025/26 | | |
|---|---|---|
| **Code** | **Outcome** | **When** |
| 3.1.2.1 | **Undertake an audit of street signage**<br>Completed an audit of street signage to support the ongoing management and maintenance of Council's road infrastructure assets | Jul 2025 |
| 3.1.1.2 | **Recommence a rolling condition inspection methodology for all sealed road assets over a four-year period (e.g., 25% assessed per year)**<br>Reviewed the inspection methodology and assessed 25% of the sealed road network as part of Council's rolling road condition inspection program, informing future asset management and renewal planning | Dec 2025 |
| 3.2.2.1 | **Collect physical data for all car parks and footpaths, including those in parks Complete audit of car parks to establish location and condition**<br>Completed a comprehensive audit of Council's car parks and collected physical asset data for footpaths, including assets within parks, to improve asset information and support future maintenance, renewal and investment planning | Jun 2026 |

## How we delivered

### Highlights

**Smarter Planning Supports Better Infrastructure Decisions**

Council continued to strengthen its approach to infrastructure planning by improving the way projects are prioritised, assessed and communicated to the community. During the year, work progressed on refining prioritisation methods for local roads and footpaths, ensuring investment decisions are guided by asset condition, network requirements and community demand. Improved integration between capital works and maintenance programs has also helped support a more coordinated approach to delivering road, pavement, kerb and gutter upgrades across the Shire.

The development of Council's Delivery Program and Operational Plan capital works program was supported by robust data analysis, site inspections and collaboration across multiple teams. These improvements are helping to ensure infrastructure planning is transparent, evidence-based and aligned with available resources, enabling Council to deliver projects that provide the greatest benefit to the community both now and into the future.



ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
## 3. SAFE, INTEGRATED AND ACCESSIBLE TRANSPORT

### OUR YEAR IN NUMBERS

| | | | | |
|---|---|---|---|---|
| 94% **95%** | 1.07 KM **1.01 KM** | 26 **24** | 335 **132** | 1,541 **2,232** |
| Pothole repairs attended to within 48 hours of request | New/reconstructed kerb and guttering | Traffic count locations initiated on monitored local roads | Participants in road safety education programs | Parking service requests investigated |
| 0.77 KM **8.53 KM** | 2.1 KM **1.80 KM** | 12 **16** | 11,726 **12,447** | 1,042 **1,783** |
| Road pavement renewed/resurfaced | New paved footpaths constructed | Dedicated car share spaces on public roads and in car parks | Traffic and parking investigations | Unattended property service requests investigated |
| | 1.63 KM **0.93 KM** | 16 **6** | 102 **157** | |
| | New paved shared paths constructed | Road safety programs run | Weight limited road investigations | |

XXXX **XXXX**

2024/25 figures 2025/26 figures









**ATTACHMENT 1 - ITEM 1**



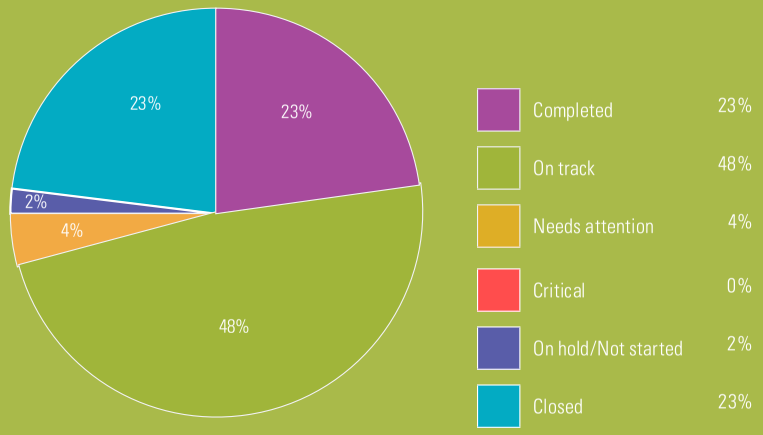
Family fun and community spirit at Australia Day 2026 celebrations in Fagan Park

85

ATTACHMENT 1 - ITEM 1

# DELIVERING ON THEME 2: SUSTAINABLE

**Performance of Actions:**




Note: Following the annual review of the Delivery Program, 40 actions were Closed as part of reporting improvements, future scheduling changes and action consolidation.



ATTACHMENT 1 - ITEM 1

# SUSTAINABLE

## Challenges and Delays

- Advocacy for development outcomes that exceed minimum planning requirements for energy efficiency and low-carbon design was constrained by the limits of Council's planning framework and regulatory controls. Opportunities to encourage higher performance standards will continue to be pursued through future planning and development processes
- Development of the Waste Management Requirements for New Developments and review of the Waste Management Chapter of Council's Development Control Plan were delayed after the consultant engaged for the project was unable to meet project requirements. As a result, the project was not completed during the year and will be carried forward to 2026/27
- Progress on preparing a Planning Proposal for updated vegetation mapping was delayed pending review of the project's Scoping Report by the Department of Planning and Development Coordination Authority. As a result, the project has been deferred and is now scheduled to commence in 2027/28
- Progress on the development of canopy mapping baseline data was delayed due to the unavailability of required data from the NSW Government. As a result, the project did not proceed during the year and will continue once the necessary data becomes available
- Progress on the review of the Hornsby Development Control Plan to incorporate provisions relating to coastal inundation and sea level rise was delayed due to competing organisational priorities and resource constraints. The project was not completed during the year and will be carried forward to 2026/27
- Progress on the audit, education and compliance campaign for priority industrial areas was limited to the completion of a preliminary audit to identify priority locations and inform future actions. While the audit identified the Mount Kuring-gai and Thornleigh industrial precincts as priority areas, further implementation is not planned at this stage

## The Year Ahead

- Finalise the Hornsby Floodplain Risk Management Study and Plan
- Review the Sustainable Hornsby Strategy
- Review the Biodiversity Conservation Strategy
- Review the Urban Forest Strategy
- Review and update the Emergency Management Framework
- Implement the Glenorie Village Planning Proposal and/or Development Control Plan amendments
- Review the Contaminated Lands Policy
- Establish an apartment energy-efficiency education program









ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
# 4. RESILIENT COMMUNITY, LIVING SUSTAINABLY

We will survive, adapt and thrive in the face of shocks and stresses.
We will minimise our footprint and transition to net zero.

WORKING TOWARDS THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS:




**Long-term goals.** Where do we want to be?

- **4.1** A resilient Shire that can adapt to a changing climate and withstand shocks and stresses (e.g. natural hazards or pandemics)
- **4.2** A net zero community
- **4.3** Using resources wisely and supporting the circular economy
- **4.4** A sustainable community that ensures the needs of future generations are met

ADDRESSING SYDNEY'S SHOCKS AND STRESSES:




## Services helping deliver this Strategic direction

- Domestic Waste
- Emergency Management
- Infrastructure Operations
- Strategic Land Use Planning
- Sustainability

## Council's supporting Strategies and Plans

- Biodiversity Conservation Strategy 2021
- Climate Wise Hornsby Plan 2021
- Emergency Management Framework 2024
- Hornsby Ku-ring-gai Bush Fire Risk Management Plan 2023
- Sustainable Hornsby 2040 (2021)
- Urban Forest Strategy 2021
- Waste Matters Strategy 2020
- Water Sensitive Hornsby Strategy 2021









**ATTACHMENT 1 - ITEM 1**

# STRATEGIC DIRECTION:
# 4. RESILIENT COMMUNITY, LIVING SUSTAINABLY

## Progress on our Strategies and Plans

### Biodiversity Conservation Strategy 2021

#### Overview and progress

Implementation of the Biodiversity Conservation Strategy continued throughout 2025/26, guiding Council's efforts to protect, restore and enhance biodiversity across Hornsby Shire. The Strategy has been integrated into bushland management, biodiversity stewardship, biosecurity, catchment management, environmental planning and community engagement programs, supporting long-term conservation outcomes and ecological resilience.

#### Key achievements

Council continued active management and restoration of more than six million square metres of bushland and maintained five Biodiversity Stewardship sites. Bush regeneration activities expanded to more than 120 reserves across the Shire, supported by Bushcare volunteers working across 67 sites. The Community Nursery continued to produce and distribute more than 30,000 native plants annually, while citizen science initiatives, freshwater, estuarine and catchment health monitoring programs, weed management and pest animal control programs continued to support biodiversity outcomes. A biodiversity monitoring framework was also implemented to support performance monitoring and adaptive management.

#### Refinements since adoption

Implementation of the Strategy has informed improvements to biodiversity planning, monitoring and prioritisation processes. Key refinements include updated vegetation and habitat corridor mapping, introduction of a reserve prioritisation framework, expanded community engagement programs, and an increased focus on biosecurity, habitat connectivity and climate resilience.

### Climate Wise Hornsby Plan 2021

#### Overview and progress

Implementation of the Climate Wise Hornsby Plan continued throughout 2025/26, with significant progress made towards Council's climate change mitigation and adaptation objectives. The Plan has driven initiatives to reduce corporate emissions, support community action on climate change and improve resilience to identified climate risks.

#### Key achievements

Major achievements over the life of the plan have included the installation of a 99kW solar system at Hornsby Aquatic and Leisure Centre, completion of solar installations at six community buildings, and the completion of the accelerated LED street lighting upgrade program. Council continued to purchase 100% renewable electricity through a power purchase agreement and progressed electric vehicle charging infrastructure, with four chargers installed and further locations planned. Additional initiatives included expanding car share services, installation of a community battery at North Epping, and community education programs promoting solar and battery uptake. These actions contributed to Council achieving its interim corporate emissions reduction target of a 32 per cent reduction by 2025.

All extreme and high climate risks in relation to climate adaptation identified in the Plan have been reviewed and tracked.

#### Refinements since adoption

Implementation of the Plan has highlighted the need to continue focusing on community emissions reduction, which remains a key challenge despite positive trends. A review of the Climate Wise Hornsby Plan is scheduled for 2026/27 to assess progress, update priorities and guide future climate action across the Shire.

### Waste Matters Strategy 2020

#### Overview and progress

Implementation of the Waste Matters Strategy continued throughout 2025/26, focusing on waste avoidance, resource recovery, community education and the delivery of efficient waste services. The Strategy continues to guide Council's efforts to reduce waste to landfill and support a circular economy across Hornsby Shire.

#### Key achievements

Key achievements included the appointment of new food recycling collection and processing contractors, and the re-tendering of garden organics and recycling processing services, delivering cost savings to residents. Council delivered a wide range of waste education and behaviour change initiatives, including Second Hand Hornsby, Repair Cafés, clothing swaps, composting workshops, school programs, contamination reduction campaigns, never bin a battery campaign and support for community gardens and demonstration sites. During the year, 30,673 tonnes of resources were recovered through recycling and organics processing, representing a community resource recovery rate of 47.36%.

#### Refinements since adoption

Implementation of the Strategy continues to evolve in response to changing waste generation patterns and recycling behaviours. While resource recovery outcomes remain strong, reductions in yellow bin recycling and garden organics volumes have highlighted the need for ongoing community education and waste avoidance initiatives to support future diversion targets.









ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
# 4. RESILIENT COMMUNITY, LIVING SUSTAINABLY

## Community Satisfaction with Council's Services and Facilities

Through our community satisfaction surveys, residents rate satisfaction with the following services and facilities that Council provides. These results help inform Council's planning and service delivery priorities.

| Council Service/Facility | 2021 Result | 2023 Result | **2024 Result** | 2024 Benchmark against metro * |
|---|---|---|---|---|
| Environmental sustainability | 3.43 | 3.47 | **3.45** | ▲ |
| Domestic waste and recycling collection service | 4.00 | 4.04 | **3.98** | – |
| Litter control and rubbish dumping | 3.53 | 3.79 | **3.57** | – |

| Results are based on a 1-5 satisfaction scale, where: | |
|---|---|
| 1 = very dissatisfied | * *Benchmark is against average of comparable NSW metro councils* |
| 3 = neutral | ▲ ▼ *Shown only where results are 10% greater or lesser than NSW metro average* |
| 5 = very satisfied | – *Indicates Benchmark score is similar* |

## Performance against Delivery Program indicators

| Delivery indicators | Result 2023/24 | Result 2024/25 | **Result 2025/26** | Change from 2023/24 | Frequency of Measure |
|---|---|---|---|---|---|
| Resource recovery rate (total recycling/total waste generation) (%) | 48 | 48 | **47.3** | ▶ | Annual |
| Waste recycled (yellow bin, green bin, bulky waste) (tonnes) | 30,562 | 31,142 | **30,673** | ▶ | Annual |
| Carbon dioxide equivalent ($CO_2$-e) emissions by Council (tonnes) | 7,528 | 6,587 | Data not yet available | – | Annual |
| Water use (potable) by Council (kL) | 209,949 | 202,805 | Data not yet available | – | Annual |
| Energy savings from PV generation (kWh) | 194,708 | 415,143 | **397,996** | ▲ | Annual |

**Delivery indicator results Trend key – Progress against 2023/24 results:**

- ▲ Result has improved by more than 10% compared with the 2023/24 result
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**ATTACHMENT 1 - ITEM 1**

# STRATEGIC DIRECTION:
# 4. RESILIENT COMMUNITY, LIVING SUSTAINABLY

**Completed Delivery Program Actions 2025/26**

| Code | Outcome | When |
|---|---|---|
| 4.3.2.2 | **Undertake public tendering for replacement recycling and green waste processing service contracts**<br>Awarded new recycling and green waste processing service contracts, securing long-term processing arrangements for Council's waste services | Oct 2025 |
| 4.3.2.3 | **Investigate and identify a viable and affordable soft plastics recycling processor to allow the recommencement of accepting soft plastics at the Thornleigh Community Recycling Centre (CRC)**<br>Recommenced soft plastics recycling at the Thornleigh Community Recycling Centre in November 2025 through the engagement of a suitable recycling processor | Oct 2025 |
| 4.1.1.1 | **Review and track all actions associated with extreme and high-risk categories in the Climate Wise Hornsby Plan**<br>Reviewed and updated the Climate Wise Hornsby Plan adaptation action program, with all extreme and high climate risks assessed and monitored, and progress tracked across 146 identified adaptation actions | Mar 2026 |
| 3B.K02 | **New RFS training facility Cowan Fire Control Centre – construction**<br>Completed construction of the emergency services training facility at the Cowan Fire Control Centre, which is now operational and supporting training activities for the NSW Rural Fire Service, Fire and Rescue NSW and NSW Ambulance | Mar 2026 |

**Completed Delivery Program Actions 2025/26**

| Code | Outcome | When |
|---|---|---|
| 4.1.2.6 | **Update and maintain the Hornsby Ku-ring-gai Local Emergency Management Committee's Emergency Management Plan (EMPLAN) and Consequence Management Guides**<br>Updated and endorsed the Hornsby Ku-ring-gai Local Emergency Management Plan (EMPLAN) and Consequence Management Guides to support coordinated emergency management arrangements | Jun 2026 |
| 4.3.1.1 | **Partner with the Hornsby Art Society to deliver the Remagine Art competition, promoting waste-related issues and awareness**<br>Presented the 2026 Remagine Art Prize and Exhibition in partnership with the Hornsby Art Society, raising awareness of waste reduction and sustainability issues through art and attracting strong community participation | Jun 2026 |
| 4.3.2.1 | **Undertake public tendering for a new Food Organics Collection and Processing Services Contracts to commence 1 July 2027**<br>Awarded new Food Organics collection and processing service contracts in June 2026 to support the commencement of the service from July 2027 | Jun 2026 |

## How we delivered

### Highlights

#### Hornsby Shire Recognised as NSW's Most Sustainable City

Hornsby Shire Council's leadership in sustainability was recognised on the state stage after being named the NSW Overall Sustainable Cities Winner at the 2025 Keep Australia Beautiful NSW Sustainable Cities Awards. The prestigious award acknowledged Council's commitment to environmental stewardship, community wellbeing and innovative approaches to creating a more sustainable, resilient and liveable community.

The recognition reflects the combined efforts of Council, volunteers and the community in delivering a wide range of sustainability initiatives. In addition to the overall award, Council received Highly Commended recognition for the Wisemans Ferry Community Resilience Plan, New-Bub Bushcare and Second Hand Markets, while also being recognised as a finalist in other categories. The achievement highlights Hornsby Shire's ongoing commitment to embedding sustainability into everyday decision-making and creating positive outcomes for current and future generations.

#### New Fire Management Vehicle Strengthens Bushfire and Environmental Management

Council reached an important milestone in environmental and bushfire management with the introduction of a new Fire Management Utility, a purpose-built vehicle designed to support ecological burning and bushfire risk reduction activities across Hornsby Shire. The specialised vehicle gives Council greater capacity to undertake low-intensity ecological burns, manage pile burns and respond to smaller fire-related tasks as part of its ongoing land management program.

The commencement of operations marked the first time Council has directly applied fire to the landscape in its role as a land manager. By undertaking carefully planned ecological burns, Council can help reduce bushfire risk, maintain healthy bushland ecosystems and support biodiversity outcomes.









ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
# 4. RESILIENT COMMUNITY, LIVING SUSTAINABLY

**Preparing for an Electric Vehicle Future**

Council progressed plans to expand public electric vehicle charging infrastructure across Hornsby and Waitara, supporting the transition to cleaner and lower-emission transport. Through a partnership with charge point operator Charge Post and funding secured through the NSW Government's Kerbside Charging Grants program, plans were developed for the installation of 11 dual-port public charging stations in locations where residents may have limited access to off-street charging at home.

Powered by 100 per cent renewable energy and delivered at no cost to Council or ratepayers, the proposed charging network will help make electric vehicle ownership more accessible and convenient for the community.

**Solar Workshops Help Residents Make the Switch to Clean Energy**

Council continued to support a more sustainable Hornsby Shire through a series of solar education workshops designed to help residents better understand the benefits of rooftop solar and battery storage. Delivered in partnership with community experts, the workshops provided practical information on system installation, costs, government rebates, battery technology and expected payback periods, helping residents make informed decisions about renewable energy.

With more than 14,000 homes across the Shire already generating clean energy through rooftop solar, the workshops highlighted the significant environmental and financial benefits available to households. By providing access to expert advice, local case studies and question-and-answer sessions, Council is helping residents reduce energy costs, lower emissions and play an active role in building a more sustainable future for the community.

**Emergency Ready Workshops Help Residents Prepare for Extreme Weather**

Council continued to build community resilience through its Emergency Redi Workshop program, helping residents prepare for emergencies and extreme weather events. Delivered in partnership with the Australian Red Cross, Hornsby SES and Westleigh Rural Fire Brigade, the workshop provided practical information on emergency preparedness, including how to develop emergency plans, understand local risks and respond during natural disasters.

The Thornleigh workshop formed part of Council's ongoing commitment to community education and followed similar sessions held in Cowan and Hornsby Heights in previous years. By connecting residents with emergency services and preparedness resources, the program is helping create a more informed and resilient community that is better equipped to respond to emergencies and recover from challenging events.

**Closing the Loop on Soft Plastics Recycling**

Residents are seeing the direct results of their recycling efforts through Council's innovative soft plastics buy back initiative. Products made entirely from recycled soft plastics collected at Council's award-winning Thornleigh Community Recycling Centre are now available for purchase, giving the community the opportunity to complete the recycling journey they helped start.

Through Council's partnership with NSW-based recycler iQRenew, soft plastics collected from local households are transformed into practical products such as buckets, crates and paving materials.

By supporting these locally manufactured products, residents are helping create a circular economy where valuable materials are kept in use for longer, reducing waste and supporting more sustainable consumption. The initiative demonstrates how community participation in recycling can deliver real environmental benefits while contributing to a greener and more resilient Hornsby Shire.

**Waste Warriors Make a Strong Start**

Launched in July, Council's Waste Warriors Volunteer Program enjoyed a successful first year, empowering residents to play an active role in waste reduction and sustainability initiatives across Hornsby Shire. The program quickly gained momentum, attracting strong community interest and creating new opportunities for residents to contribute to a cleaner, more sustainable future.

Waste Warriors supported a range of community activities, including Second Hand Hornsby Markets, repair workshops and waste education events, while helping promote practical actions that reduce waste and encourage reuse. The establishment of a dedicated Volunteer Hub at the Thornleigh Community Recycling Centre further strengthened the program, providing a space for collaboration, learning and community engagement. Through their time, enthusiasm and advocacy, Waste Warriors are helping build a more environmentally responsible and resource-conscious community.

**Remagine Art Prize Inspires Creative Thinking About Waste and Sustainability**

The 2026 Remagine Art Prize once again challenged artists and audiences to think differently about waste, consumption and sustainability. Hosted by Council in partnership with the Hornsby Art Society, the annual exhibition showcased more than 60 shortlisted artworks across a range of artistic disciplines, including painting, sculpture, photography, ceramics, drawing and mixed media.

Exploring the theme Built to Expire, artists examined the growing issue of disposable products and planned obsolescence, encouraging visitors to consider the environmental impacts of modern consumption. Since its inception in 2009, the Remagine Art Prize has become a significant platform for environmental awareness through art, inspiring conversations about reuse, resourcefulness and sustainable living while celebrating the creativity of artists from across Australia.

**Second Hand Hornsby Supports Sustainable Shopping and Reuse**

Second Hand Hornsby continued to make sustainable living easier and more accessible for residents throughout the year through its popular Second Hand Hornsby Markets. Held regularly at Coronation Street, the markets provide opportunities for the community to buy and sell pre-loved items, helping quality goods stay in use for longer while reducing waste sent to landfill.

The initiative has delivered significant environmental and economic benefits, with more than 5,600 items kept in circulation and over $36,000 retained within the local reuse economy since the markets began. In recognition of its success, Second Hand Hornsby received a Highly Commended award in the Waste Avoidance category at the 2025 Keep Australia Beautiful NSW Sustainable Cities Awards.

Building on the success of the markets, Council launched a new Second Hand Hornsby Op Shop Trail, making it easier for residents to discover





ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
# 4. RESILIENT COMMUNITY, LIVING SUSTAINABLY

op shops throughout the Shire. The trail brings together local charities and second-hand retailers, encouraging residents to explore local centres while shopping more sustainably. From clothing and homewares to books and collectibles, the trail promotes the reuse of quality goods and supports a circular economy.

**Repair Cafés Help Residents Repair, Reuse and Reduce Waste**

Council's popular Repair Café program continued throughout the year, giving residents practical opportunities to repair household items, learn new skills and reduce waste. Held at Storey Park Community Centre, the events brought together skilled volunteers and community members to repair electronics, restore bicycles and mend clothing, helping extend the life of everyday items that might otherwise end up in landfill.

The workshops encouraged sustainable living by teaching participants simple repair and maintenance techniques, from fixing punctures and tuning bicycles to sewing buttons, patching clothes and repairing small electronic devices. By promoting repair and reuse, the program supports a circular economy while empowering residents to reduce waste, save money and make more sustainable choices in their everyday lives.

**Return and Earn Delivers Big Results for Hornsby Shire**

Hornsby Shire residents continued to demonstrate their commitment to recycling and sustainability through the Return and Earn program, recycling an impressive 9.7 million eligible bottles, cans and containers by June 2025. Every container returned has helped reduce waste sent to landfill while supporting the recovery of valuable resources for reuse.

The community's efforts have delivered significant environmental benefits, including saving the equivalent of 22 Olympic-sized swimming pools of water, enough energy to power a household for 133 years, and avoiding the equivalent of one year of carbon emissions from 710 cars. These outstanding results highlight the positive impact residents can achieve through simple everyday actions and reinforce Hornsby Shire's reputation as a community committed to sustainable living.

**Reconnect Project Gives Old Devices a New Purpose**

Council expanded recycling opportunities at the Thornleigh Community Recycling Centre by partnering with The Reconnect Project to collect unwanted mobile phones, tablets and laptops. The initiative provides residents with a simple and secure way to donate unused devices while helping address digital disadvantage within the community.

Through the program, donated devices are professionally data-wiped, refurbished where possible and provided to individuals and families who may otherwise struggle to access technology. By diverting electronic waste from landfill and extending the life of valuable resources, the Reconnect Project supports both environmental sustainability and social inclusion, demonstrating how recycling can create positive outcomes for people and the planet.

**Hornsby Shire Leads the Nation in Mobile Phone Recycling**

Hornsby Shire residents have once again demonstrated their commitment to sustainability, helping Council secure MobileMuster's Top Collector Award at both the state and national level for the eighth consecutive year. Through their dedication to responsible recycling, residents recycled 784 kilograms of mobile phones, chargers and accessories during the year, equivalent to more than 5,100 devices.

The community's efforts delivered significant environmental benefits, preventing an estimated 2.78 tonnes of carbon emissions while ensuring valuable materials were recovered and reused rather than sent to landfill. This outstanding achievement highlights Hornsby Shire's strong recycling culture and the important role residents play in supporting a more sustainable and resource-efficient future.







ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
# 4. RESILIENT COMMUNITY, LIVING SUSTAINABLY

## OUR YEAR IN NUMBERS

| | | | | |
|---|---|---|---|---|
| 33,986 t **34,089 t** | 18,731 t **17,921 t** | 174 t **164 t** | 100% **100%** | 16,009 **16,563** |
| Total domestic waste to landfill | Green waste collected (green bin) | E-waste collected at Community Recycling Centre drop-off days | Residential street sweeping operations carried out in accordance with service level agreement (12 week cycle) | Houses in Hornsby Shire with rooftop solar panels |
| 31,666 t **30,673 t** | 913 **821** | 0 t **5,580 t** | 6 **8** | 1,126 **952** |
| Total materials recycled | Illegal dumping incidents | Soft plastics collected at Community Recycling Centre | Events avoiding single-use plastics | Approval to burn permits issued |
| 29,762 **29,792** | 47,011 **51,116** | 22,318 **18,921** | 1,113,794 t **1,041,442 t** | NA **254** |
| Putrescible waste collected (red bin) | Customers dropping off items to Community Recycling Centre | Customer enquiries received by Waste Hotline | Community greenhouse gas emissions ($CO_2$-e) | Rural Fire Service maintenance and repair requests |
| 9,371 **9,180** | 915 t **764 t** | 5,200 **8,737** | 12,461,721 kL **12,664,240 kL** | 233 **435** |
| Recycling collected (yellow bin) | Material collected Community Recycling Centre, including as part of EPA program | Participants in waste management workshops, programs or tours | Community potable water consumption | Participants in sustainability programs |

XXXX 2024/25 figures

**XXXX** 2025/26 figures

NA Result not available







**ATTACHMENT 1 - ITEM 1**

# STRATEGIC DIRECTION:
# 5. HEALTHY NATURAL ENVIRONMENT

Our unique environment is celebrated, protected and enhanced.

WORKING TOWARDS THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS:




ADDRESSING SYDNEY'S SHOCKS AND STRESSES:




**Long-term goals.** Where do we want to be?

- **5.1** A natural environment that is healthy, diverse, connected and valued
- **5.2** Waterways are healthy and biodiverse, and the Shire's urban areas are water sensitive
- **5.3** The environmental value of rural lands is protected and enhanced

| Services helping deliver this Strategic direction |
|---|
| Bushfire Mitigation |
| Bushland, Biodiversity, Biosecurity and Reserve Management |
| Catchment Management |
| Environmental Compliance |
| Infrastructure Planning |
| Spatial Services (GIS) |
| Strategic Land Use Planning |
| Trees |

| Council's supporting Strategies and Plans |
|---|
| Biodiversity Conservation Strategy 2021 |
| Rural Lands Strategy 2022 |
| Sustainable Hornsby 2040 (2021) |
| Urban Forest Strategy 2021 |
| Water Sensitive Hornsby Strategy 2021 |



ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
# 5. HEALTHY NATURAL ENVIRONMENT

## Progress on our Strategies and Plans

### Urban Forest Strategy 2021

#### Overview and progress

Implementation of the Urban Forest Strategy continued throughout 2025/26, focusing on strengthening Council's urban tree canopy, improving tree management practices and supporting long-term urban greening outcomes. Progress during the year centred on improving data, planning frameworks and governance arrangements to support informed management of the Shire's urban forest.

#### Key achievements

Council commenced implementation of a new urban forest asset management system to improve the recording and management of street and park trees. A funding framework for public tree planting was developed, pending adoption of Council's Section 7.12 Contributions Plan. Tree canopy outcomes were also incorporated into planning for the Hornsby Transport Oriented Development precinct through the undergrounding of overhead powerlines. Improvements were made to compliance investigation procedures, while proposed amendments to tree protection controls were progressed for future consideration. Council also continued to deliver timely tree application and development assessment services.

#### Refinements since adoption

Implementation of the Strategy has reinforced the importance of robust tree asset data, effective compliance processes and ongoing planning controls to support urban canopy growth. Lessons from implementation will continue to inform future urban forest planning and management initiatives across the Shire.

### Water Sensitive Hornsby Strategy 2021

#### Overview and progress

Implementation of the Water Sensitive Hornsby Strategy continued throughout 2025/26 through integrated water management, waterway health programs, stormwater infrastructure improvements and strategic planning initiatives. Council continued to work towards healthier waterways, improved stormwater management and more sustainable urban development outcomes across the Shire.

#### Key achievements

Council maintained approximately 365 stormwater treatment assets, preventing an estimated 602 tonnes of pollutants from entering local waterways, and harvested more than 3,945 kilolitres of stormwater for irrigation. Seven major Catchment Remediation Rate projects were delivered, including stormwater harvesting, creek rehabilitation and pollutant reduction works. Long-term monitoring showed 96% of freshwater monitoring sites achieved a condition grade of C or above. Progress was also made on implementation of the Hornsby Town Centre Total Water Cycle Management Strategy, while an online catchment health dashboard was launched to provide public access to environmental monitoring data.

#### Refinements since adoption

Council continued to strengthen planning controls, water quality objectives and Water Sensitive Urban Design requirements to support improved environmental outcomes. Collaboration with government agencies, Sydney Water and research organisations has also informed ongoing strategy implementation, including waterway health monitoring, wastewater planning and catchment management initiatives.









ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
# 5. HEALTHY NATURAL ENVIRONMENT

## Community Satisfaction with Council's Services and Facilities

Through our community satisfaction surveys, residents rate satisfaction with the following services and facilities that Council provides. These results help inform Council's planning and service delivery priorities.

| Council Service/Facility | 2021 Result | 2023 Result | **2024 Result** | 2024 Benchmark against NSW metro * |
|---|---|---|---|---|
| Managing natural bushland | 3.74 | 3.85 | **3.73** | Not available |
| Trails and tracks | 3.75 | 3.82 | **3.91** | Not available |
| Management of trees | 3.18 | 3.12 | **3.23** | Not available |
| Managing and protecting creeks, lagoons and waterways | 3.38 | 3.50 | **3.51** | – |
| Environmental protection and regulation | 3.29 | 3.42 | **3.44** | – |

| Results are based on a 1-5 satisfaction scale, where: | |
|---|---|
| 1 = very dissatisfied | * *Benchmark is against average of comparable NSW metro councils* |
| 3 = neutral | ▲ ▼ *Shown only where results are 10% greater or lesser than NSW metro average* |
| 5 = very satisfied | – *Indicates Benchmark score is similar* |

## Performance against Delivery Program indicators

| Delivery indicators | Result 2023/24 | Result 2024/25 | **Result 2025/26** | Change from 2023/24 | Frequency of Measure |
|---|---|---|---|---|---|
| People volunteering and involved in environment through Bushcare and community nursery programs (number) | New | 345 | **354** | ▶ (from 24/25) | Annual |
| Stormwater harvested for reuse systems (kL) | 3,895 | 1,472 | **3,945** | ▶ | Annual |
| Swimmable days at Crosslands (%) | 4 | 0 | **5** | ▲ | Annual |
| Swimmable days at Brooklyn, Dangar Island (%) | 92 | 93.2 | **63** | ▼ | Annual |
| Vegetation extent lost on private lands through development ($m^2$) | New | 7,500 | **5,500** | ▲ (from 24/25) | Annual |
| Vegetation extent gained through the biodiversity offsetting process ($m^2$) | New | 5,000 | **3,000** | ▼ (from 24/25) | Annual |
| Bushland managed under biodiversity stewardship agreements ($m^2$) | New | 1,760,000 | **1,619,000** | ▶ (from 24/25) | Annual |
| Environmental compliance service requests investigated within 21 days (%) | 98 | 98.9 | **99.9** | ▶ | Quarterly |
| Environmental, health and building assessments undertaken in 21 days (%) | 98 | 96 | **88.5** | ▼ | Quarterly |

**Delivery indicator results Trend key – Progress against 2023/24 results:**

- ▲ Result has improved by more than 10% compared with the 2023/24 result
- ▶ Result is broadly consistent with the 2023/24 result (within 10% or within Target)
- ▼ Result has declined by more than 10% compared with the 2023/24 result

Note: Trend symbols show the direction of change from 2023/24. For measures with a preferred outcome, symbols indicate whether results have improved, declined or remained broadly unchanged. Some volume measures are reported for information only and may not have a preferred direction of change, despite displaying a trend symbol. Where lower results indicate better performance (for example, staff turnover), symbols reflect performance outcomes rather than numerical movement.









ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
# 5. HEALTHY NATURAL ENVIRONMENT

**Completed Delivery Program Actions 2025/26**

| Code | Outcome | When |
|---|---|---|
| 5.2.1.5 | **Prepare a Hornsby Town Centre Total Water Cycle Management Strategy**<br>Completed the Hornsby Town Centre Total Water Cycle Management Strategy to guide future development and water management within the Town Centre | Nov 2025 |
| 5.1.1.6 | **Prepare Biosecurity Policy and management plans**<br>Completed Council's Biosecurity Policy, providing a framework for managing biosecurity risks across the Shire | Dec 2025 |
| 5.1.3.2 | **Develop an ongoing, sustainable and funded street tree planting program**<br>Identified a funding source for future street tree planting through the updated Section 7.12 Development Contributions Plan | Dec 2025 |
| 5.2.2.2 | **Develop and implement inspection methodologies for all bridge and culvert assets**<br>Developed and approved inspection methodologies for bridge and culvert assets to support consistent condition assessments and asset management planning | Mar 2026 |

## How we delivered

### Highlights

#### Strategic Bushland Restoration Protects the Shire's Natural Environment

Council continued its significant investment in bushland conservation during 2025/26, overseeing the management and ecological restoration of 136 bushland reserves covering approximately 1,535 hectares across Hornsby Shire. Delivered through specialist bush regeneration contractors, the program focused on protecting biodiversity, improving ecosystem health and preserving the natural landscapes that are a defining feature of the Bushland Shire.

To support long-term planning and resource allocation, Council also completed a comprehensive assessment of all 224 bushland reserves, evaluating their environmental, cultural and community values. The findings are helping guide future restoration priorities, ensuring investment is directed where it can deliver the greatest environmental and social benefits.

#### Planning for the Future of the Hawkesbury-Nepean River System

Council reached an important milestone in the long-term protection of the Hawkesbury-Nepean River System by endorsing the draft Hawkesbury-Nepean River System Coastal Management Program for public exhibition. Developed in partnership with five neighbouring councils, the program provides a coordinated framework for managing one of NSW's most significant waterways, helping to protect its environmental, cultural and community values for future generations.

The draft program outlines practical actions to improve waterway health, strengthen resilience to coastal and riverine hazards, and support the communities that live, work and recreate along the river system. Informed by extensive engagement with residents, First Nations communities, businesses and stakeholders, the program reflects a shared commitment to the sustainable management of this important natural asset and provides a roadmap for future investment and environmental stewardship across the region.

#### Award-Winning Collaboration Protects the Hawkesbury-Nepean River System

Hornsby Shire Council and its five partner councils received the Local Government Award at the NSW Coastal Conference, recognising their outstanding collaboration on the Hawkesbury-Nepean River System Coastal Management Program. The award celebrates six years of joint work between Central Coast, Hawkesbury, The Hills, Hornsby, Ku-ring-gai and Northern Beaches councils to develop a coordinated, whole-of-estuary approach to managing one of the most significant river systems in NSW.

By sharing expertise, resources and knowledge, the partnership has created a unified framework for addressing complex environmental challenges and improving the long-term health and resilience of the river system.

#### Salt Pan Reserve Restoration Recognised with Environmental Award

A decade of environmental restoration and community collaboration at Salt Pan Reserve, Brooklyn was recognised with a Green Space Environmental Award from the Australian Institute of Horticulture. The award celebrates the successful transformation of the site from a degraded salt pan into a thriving natural area that supports biodiversity, recreation and community connection.

Today, Salt Pan Reserve features restored native bushland, accessible pathways and a unique amphitheatre constructed from repurposed sandstone sourced from Belmore railway station. The achievement reflects the dedication of Council, Bushcare volunteers, local schools and community members who have worked together to restore and enhance the reserve. The award highlights the positive outcomes that can be achieved through long-term environmental stewardship and community involvement, creating a valuable natural asset for current and future generations.









ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
# 5. HEALTHY NATURAL ENVIRONMENT

**Funding Secured to Plan for Future Coastal Challenges**

Council secured funding through the NSW Government's Coast and Estuary Program to undertake the Lower Hawkesbury River Coastal Vulnerability Area Mapping Project, an important initiative that will help prepare the Shire for the impacts of climate change and rising sea levels.

The project will improve understanding of areas potentially affected by coastal inundation and support the development of future planning controls and policy responses.

**Hide and Go Creek Inspires Families to Protect Local Waterways**

Council launched the innovative Hide and Go Creek program, using augmented reality technology to encourage families to explore local waterways and learn how simple everyday actions can help protect creek health. Through a self-guided adventure across five creek locations in Hornsby Shire, participants used their smartphones to find Craig the Spiny Crayfish, an interactive character that introduced visitors to local wildlife and the importance of healthy waterways.

The program helped raise awareness of common sources of stormwater pollution and encouraged residents to take practical steps to protect local creeks, rivers and the wildlife that depend on them. By combining technology, outdoor recreation and environmental education, Hide and Go Creek provided a fun and engaging way for families to connect with nature while supporting Council's ongoing efforts to improve water quality and protect the Shire's unique natural environment

**Award-Winning New-Bub Bushcare Program Recognised Across NSW**

Hornsby Shire Council's innovative New-Bub Bushcare program received state-wide recognition at the 2025 Local Government NSW Environment Awards, winning both the Division C and Overall Winner awards in the category Natural Environment Protection and Enhancement: On-Ground Works.

The program combines environmental volunteering with social inclusion by enabling new parents to participate in Bushcare activities while students from the Adult Migrant English Program provide babysitting support. By creating opportunities for environmental stewardship, community connection and cultural exchange, the initiative helps reduce social isolation while supporting the restoration of local bushland.

**Native Plant Giveaways Help Grow a Greener Hornsby Shire**

Council's popular Native Plant Giveaways program returned in both March and August, giving residents across Hornsby Shire the opportunity to collect free native plants and contribute to local biodiversity from their own backyards. Held at the Warada Ngurang Community Nursery, the events provided thousands of locally grown grasses, groundcovers, shrubs, climbers and trees, all carefully cultivated by Council staff and volunteers.

Since the program began in 2003, tens of thousands of native plants have found homes throughout the Shire, helping to strengthen wildlife habitats and preserve the character of the Bushland Shire. Residents were also able to draw on the expertise of nursery staff and volunteers, receiving tailored advice on selecting species suited to their gardens and local conditions. The giveaways continue to play an important role in encouraging community participation in environmental stewardship and supporting healthier, more resilient local ecosystems.

**Community Comes Together for National Tree Day**

Council supported National Tree Day 2026 through community planting events at Montview Park, Hornsby Heights and Reddy Park, Hornsby, bringing residents together to help improve the local environment. Volunteers participated in planting activities designed to increase urban tree canopy, enhance wildlife habitat and contribute to the long-term health of Hornsby Shire's natural areas.

At Montview Park, participants planted advanced trees to provide future shade and environmental benefits, while at Reddy Park the focus was on restoring habitat through the planting of trees, shrubs, climbers, grasses and groundcovers.

**Wisemans Ferry Foreshore Restoration Enhances River Health**

Council completed important rehabilitation works at the former Wisemans Ferry boat ramp site, helping restore natural estuarine processes and improve habitat along the Hawkesbury River foreshore. The project included construction of a specially designed step-type seawall that allows tidal water movement, supporting the natural regeneration of vegetation and creating conditions for long-term ecological recovery.

A key feature of the project was the restoration of intertidal habitat to support mangrove establishment and shoreline stabilisation. Bushcare volunteers played an important role, propagating river mangrove seedlings at the Warada Ngurang Community Nursery before participating in community planting activities at the site.









ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
# 5. HEALTHY NATURAL ENVIRONMENT

## OUR YEAR IN NUMBERS

| | | | | |
|---|---|---|---|---|
| 987 m **1,707 m**<br>Trails and tracks upgraded or constructed | 2,939 **8,446**<br>Participants in biodiversity, bushfire and water catchment education programs | 1,795 **496**<br>Street and park trees planted | 7 DAYS **5 DAYS**<br>Average time to determine Development Application referrals relating to trees | 15 DAYS **6 DAYS**<br>Average time to determine public tree assessments |
| 9,780,000 $m^2$ **5,326,629 $m^2$**<br>Area of bushland reserves actively being restored | 29,188 **32,373**<br>Native plants produced at Warada Ngurang Community Nursery | 757 **1,078**<br>Private property tree applications determined | 244 **392**<br>Unauthorised tree works investigated | 2,248 **1,786**<br>Requests for street tree inspections |
| 6 **74**<br>Biosecurity inspections undertaken | 21,440 **25,226**<br>Native plants distributed for planting in the Shire | 1 DAY **6 DAYS**<br>Average time to determine private property tree applications | 11 DAYS **5 DAYS**<br>Average time to determine unauthorised tree works investigations | 96% **99%**<br>Requests for street tree inspections completed within service level agreement |
| 11,043 **11,374**<br>Bushcare and community nursery volunteer hours | 666 t **602 t**<br>Pollutants removed from waterways through catchment remediation devices | 280 **497**<br>Development Application referrals relating to trees determined | 1,822 **3,453**<br>Public tree assessments undertaken | 241 **236**<br>Reported breaches of Council tree protection measures |
| XXXX **XXXX**<br>2024/25 figures 2025/26 figures | | | | |



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# STATE OF THE ENVIRONMENT 2025/26

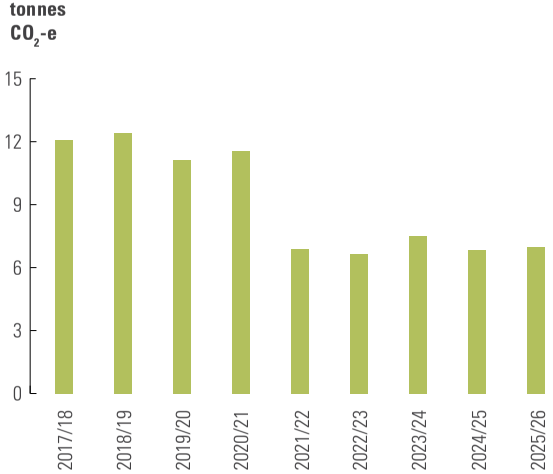
The plans incorporated under the Sustainable Hornsby 2040 Strategy – the Climate Wise Hornsby Plan, Biodiversity Conservation Strategy, Waste Matters Strategy, Water Sensitive Hornsby Strategy and Urban Forest Strategy – are being implemented across Hornsby Shire. This section describes environmental actions and updates related to these plans and the local environment.

## Net zero emissions by 2050

The Climate Wise Hornsby Plan guides action to reduce greenhouse gas emissions to net zero by 2050 and achieve the interim target to reduce emissions produced by Council by 53 per cent from 2018 levels by 2030 and the community by 53 per cent from 2017 levels by 2030.

### Council

Council's annual carbon dioxide equivalent ($CO_2$-e) emissions for all its sites and activities, which includes Scopes 1, 2 and 3, are shown in the graph below.

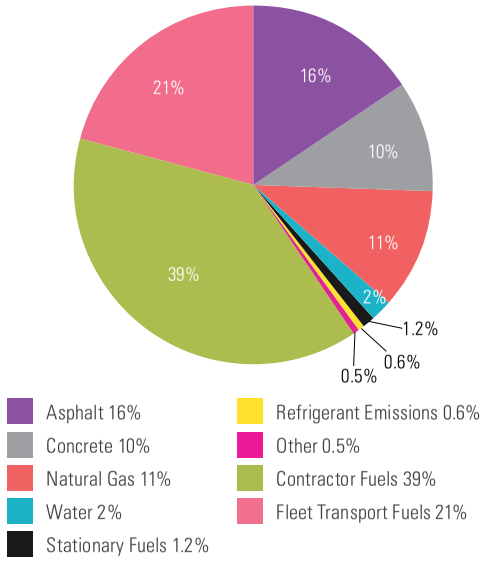



The emissions inventory for Council's total operations is prepared in accordance with the National Greenhouse and Energy Reporting Guidelines for corporate emissions reporting, the international GHG Protocol Corporate Accounting and Reporting Standard and the National Carbon Offset Standard (NCOS).

Council's total corporate greenhouse gas (GHG) emissions for 2025/26 were 6,970 tonnes of carbon dioxide equivalent ($tCO_2$-e), representing a 42 per cent reduction from the 2018 baseline. While this was a two per cent increase on 2024/25 emissions, Council exceeded its annual target of a 34 per cent reduction from the baseline. This performance indicates that the interim target of a 53 per cent reduction by 2030 remains achievable if the current rate of emissions reduction is maintained.

The largest sources of emissions were contractor fuel use (39 per cent), Council fleet fuel use (21 per cent) and asphalt consumption (16 per cent). Hornsby Aquatic and Leisure Centre was the fourth largest source, accounting for 11 per cent of total emissions due to its use of natural gas.

**Corporate Greenhouse Gas Emissions by Sector 2025/26**




Despite a 22 per cent reduction in contractor fuel emissions compared with 2024/25, contractor fuel use remained Council's largest source of emissions. This reduction was primarily driven by waste collection route optimisation. Fleet fuel emissions also decreased by three per cent compared with the previous year; however, they remained the second largest contributor to Council's emissions profile.

### Community

The community greenhouse gas (GHG) emissions profile for the past twelve years shows that Hornsby Shire produces over one million tonnes CO2-e emissions each year (Resilient Sydney Platform, 2026). The emissions profile is informed by data on transport, waste, energy and water practices in our LGA. In 2024/25 Hornsby Shire produced



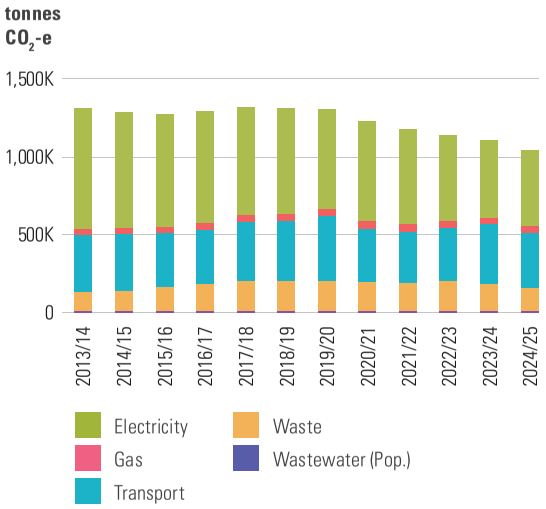
ATTACHMENT 1 - ITEM 1

# STATE OF THE ENVIRONMENT 2025/26

1,041,442 tonnes of $CO_2$-e, which is a reduction of 6.5 per cent from the previous year. This was mainly achieved through reduced emissions associated with electricity consumption as more renewable energy is available in the electricity grid, in addition transport and waste emissions also decreased.

**Community Greenhouse Gas Emissions**

**Hornsby LGA: Greenhouse Gas Emissions by Source**
Scopes (1+2+3)

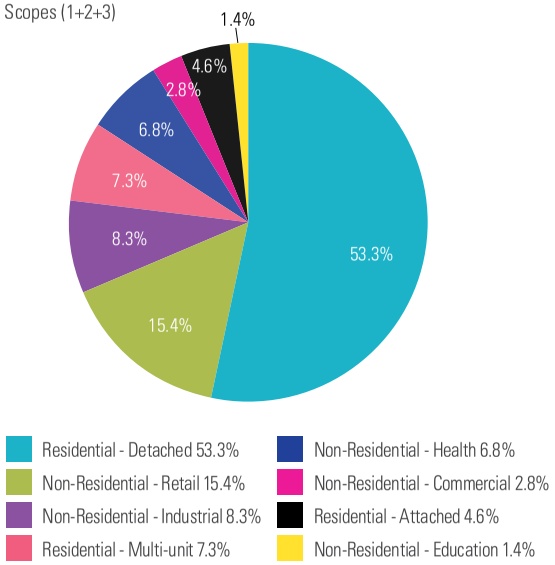



Community emissions have been reducing steadily over the last five years. However, 2024/25 emissions still remain significantly higher (213,442 tonnes $CO_2$-e higher) than Council's interim community target of a 31 per cent reduction from 2017 levels by 2025 (Climate Wise Hornsby Plan, 2021), which is equivalent to producing just 828,000 tonnes of $CO_2$-e in 2024/25.

Electricity continues to be the source of most emissions (485,855 tonnes $CO_2$-e) and transport remains the next biggest source (355,433 tonnes $CO_2$-e). The most common mode of transport for Hornsby Shire residents is travelling by car as a driver, this contributes significantly to GHG emissions. Whilst vehicle registration data shows that 4,365 battery electric vehicles and 739 plug in hybrid vehicles are registered in Hornsby Shire, this only makes up 4.4 per cent of total vehicle registrations (115,821 vehicles are registered in Hornsby Shire).

On a sectoral basis, the residential sector (including detached, attached and multi-unit dwellings) continues to make up the majority of emissions (65.2 per cent), hence, Council offers a home energy efficiency and solar education program to help address these emissions.

**Hornsby LGA: Greenhouse Gas Emissions by Sector – 2024/25**
Scopes (1+2+3)




***Energy efficient street lighting***

By the end of June 2026, 98 per cent of the streetlights in Hornsby Shire had been replaced with energy efficient LED lamps through both Ausgrid and Endeavour Energy's accelerated street lighting replacement programs (which commenced in 2019) and through the practice of replacing failed old lamps with LEDs. The programs replaced old technology lights with energy efficient LEDs first in residential roads (from 2019 onwards) and then in main roads (from 2023 onwards). LEDs use less electricity and last longer so electricity and maintenance costs reduce.

The Street Lighting Improvement Program was completed by 15 July 2025 and it had resulted in 6,152 LED accelerated replacements (3,588 in residential roads, 1,097 CFL to LED replacements, and 1,467 on main roads). So, by the end of July 2025 there were 9,531 LED lamps in Hornsby Shire and 65 per cent of these were due to Council's participation in the program.

Overall, this initiative has resulted in savings of 11,048 MWh of electricity, $2.324 million in electricity costs and $3.9 million in maintenance costs since the start of the program. Council's streetlights use 57 per cent less energy annually, compared to energy before the program started.

(Note a small percentage (less than 5 per cent) of these savings are due to the Endeavour Energy program, which replaced 47 old streetlights LED lamps in a small section of the Shire not managed by Ausgrid).









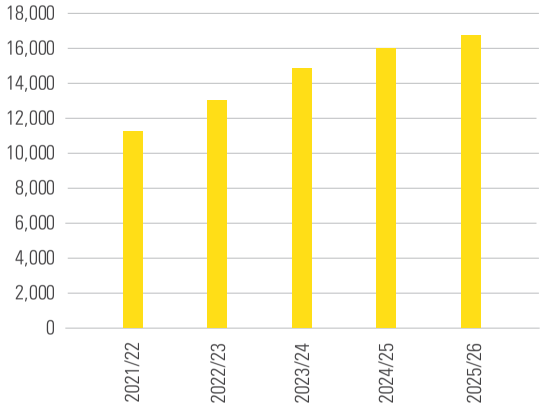
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# STATE OF THE ENVIRONMENT 2025/26

***Household solar panels***

Increasing renewable energy generation, such as rooftop solar, will significantly reduce community emissions. There has been a strong growth in solar photovoltaic (PV) installation across residential rooftops in Hornsby Shire. The number of PV systems has steadily increased every year, at the end of financial year 2021/22 a total of 11,283 PV systems were installed and as at 31 December 2025 this number had risen to 16,563. Therefore, currently approximately 36.4 per cent of houses in our LGA have rooftop solar and this represents a total installed capacity of 124,652kW (Australian PV Institute, Mapping Australian Photovoltaic installations, 2026).

**Houses with rooftop solar panels**




## Water consumption

**Council**

| Year | Water consumption (kL) |
|---|---|
| 2021/22 | 130,509 |
| 2022/23 | 154,017 |
| 2023/24 | 209,949 |
| 2024/25 | 202,805 |
| 2025/26 | 181,000 |

Council's total water consumption in 2025/26 was 181,000 kL, representing a 10.7 per cent decrease compared with the previous year. The largest water users were Hornsby Aquatic and Leisure Centre (25,000 kL) and Greenway Park (13,500 kL).

**Community**

| Year | Water consumption (kL) | Litres per capita per day |
|---|---|---|
| 2021/22 | 13,953,420 | 251 |
| 2022/23 | 13,897,471 | 251 |
| 2023/24 | 12,372,982 | 220 |
| 2024/25 | 12,461,721 | 220 |
| 2025/26 | 12,664,240 | 223 |

Water consumption across the Hornsby LGA increased during 2025/26, likely reflecting the drier weather conditions experienced throughout the year.









**ATTACHMENT 1 - ITEM 1**

# STATE OF THE ENVIRONMENT 2025/26

## Waste and recycling

In 2025/26 Hornsby Shire residents diverted 30,679 tonnes of resources from landfill and sent the remaining 34,089 tonnes of residual waste to landfill. This means that Hornsby Shire residents are recovering 47.36 per cent of our waste and diverting it from landfill. This rate has remained stable over the past four years. Overall resource recovery levels have also been maintained through materials dropped off at the Thornleigh Community Recycling Centre and resources recovered from the bulky clean-up waste. Around 46 per cent of bulky waste is recovered for beneficial recycling including metals, mattresses, wood/timber, cardboard and others.

The Domestic Residential Waste table shows the total amount of waste generated, the quantities recovered for recycling and the remaining material that is being landfilled.

Overall residential waste generation at 64,768 tonnes this year has decreased slightly from 65,600 tonnes in 2024/25. However, bulky clean-up waste increased slightly from to 6,608 tonnes in 2024/25 to 6,767 tonnes in 2025/26. Green bin organics remained stable at 17,921 tonnes in 2025/26 compared to 18,731 tonnes in 2024/25. This is largely dependent on weather and rainfall.

Yellow bin recyclables decreased from 9,371 tonnes in 2024/25 to 9,180 tonnes in 2025/26. Kerbside yellow bin tonnages have continued to decrease due to reduced consumption likely due to cost-of-living impacts, further lightweighting of packaging materials and Container Deposit Scheme diversion of containers (Return and Earn). The total waste to landfill tonnage increased slightly from 33,330 tonnes in 2024/25 (i.e. 215kg per capita) to 34,089 tonnes in 2025/26 (i.e. 219kg per capita).

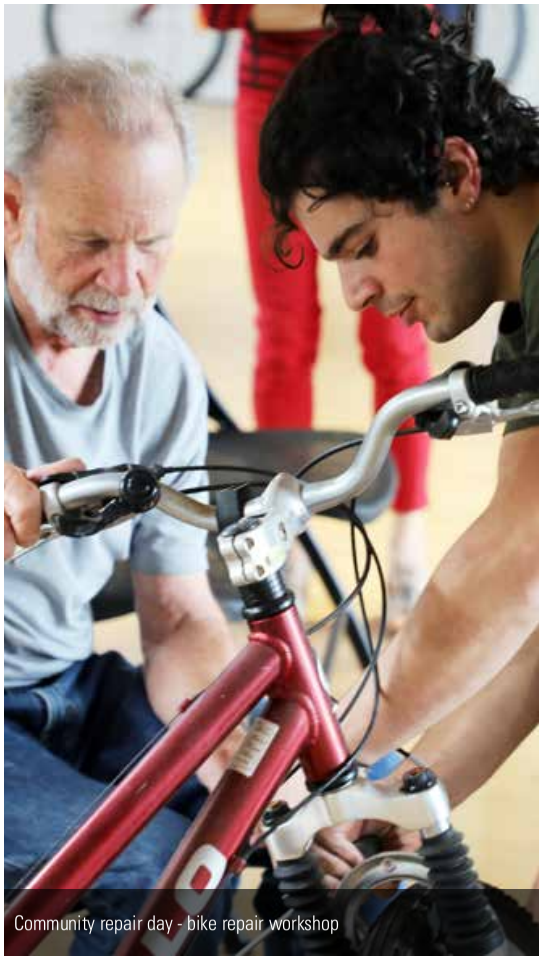
Residents' garden waste continues to be turned into valuable compost at Kimbriki Resource Recovery Centre helping to return essential organics back to the soil. Our recyclables are sorted and processed at Cleanaway's Rooty Hill Smithfield Materials Recycling Facility.

The Thornleigh Community Recycling Centre (CRC) continues to operate to a high standard providing Hornsby Shire residents with solutions to recycle problematic waste. The CRC had over 51,116 customer visits to the facility to recycle their problem wastes, a slight increase on the 47,000 in the previous year. The CRC recycled 764 tonnes of problem wastes and recyclables overall, compared to 810 tonnes in 2024/25.

The collection of soft plastics at the CRC was re-launched resulting in 5,580 kilograms of soft plastics being collected. After almost 12 months of no service Council is currently rebuilding participation levels for soft plastics recycling. A new innovative Circular Economy Buy Back program for soft plastics was implemented at Thornleigh CRC, with residents now able to buy products made with recycled plastics content.

The Waste Matters Strategy adopted in February 2020 continues to be successfully implemented. Some achievements for 2025/26 were:

- Community waste education programs that include a broad range of workshops, tours and events resulted in 75 events delivered with over 7,800 community participants engaged.
- Four "Community Repair Day" events were delivered, they incorporated bicycle repair, clothing repair and Repair Café (furniture/electrical).
- Three Second Hand Hornsby Reuse Markets were held at Coronation StrEat!, contributing to an estimated diversion of 1,940 kilograms of waste.
- Six local community demonstration sites are being supported to manage compost and worm farming systems, along with support provided to several community gardens.
- The Apartment Living Program has engaged with a total of 2,833 individual dwellings. This included 454 site visits and over 5,000 letters delivered to promote best practice recycling.
- A total of 317 people attended four clothing swap events where community participants swapped more than 2,500 items and diverted approximately 130kg of waste from landfill.
- A total of 131 social media posts were delivered on waste topics such as Council's core services, the "Never bin a battery" campaign.
- Implementing the recycling Contamination Management Strategy led to over 5,000 yellow-lid recycling bins being inspected and tagged.
- The newly established Waste Warrior Volunteer Program saw over 60 residents apply to be part of the program, with registered volunteers providing around 250 hours of support to community events across the Shire



Community repair day - bike repair workshop







ATTACHMENT 1 - ITEM 1

# STATE OF THE ENVIRONMENT 2025/26

**Domestic Residential Waste**

| Waste Stream | 2021/22 (tonnes) | 2022/23 (tonnes) | 2023/24 (tonnes) | 2024/25 (tonnes) | 2025/26 (tonnes) |
|---|---|---|---|---|---|
| Total Waste | 72,235 | 67,398 | 64,356 | 65,600 | 64,768 |
| **Total waste to landfill** | **39,921** | **34,573** | **32,983** | **33,330** | **34,089** |
| Putrescible waste (red bin) | 32,619 | 31,041 | 29,612 | 29,762 | 29,792 |
| Bulky waste (clean-up service) | 7,302 | 6,541 | 6,243 | 6,608 | 6,767 |
| **Total materials recycled:** | **34,699** | **31,901** | **30,699** | **31,666** | **30,679** |
| Recycling (yellow bin) | 10,820 | 9,816 | 9,618 | 9,371 | 9,180 |
| Green waste (green bin) | 20,854 | 19,076 | 18,072 | 18,731 | 17,921 |
| Recovered materials from bulky waste | 3,359 | 3,009 | 2,872 | 3,040 | 3,112 |
| **Resource Recovery Rate *** | **48%** | **48%** | **48%** | **48%** | **47%** |

* Resource Recovery Rate = Total recycling/total waste generation

**Illegal dumping incidents**

Illegal dumping incidents have decreased by 21 per cent compared to last year, but overall incidences remained high, with 821 dumpings reported in 2025/26. Over 600 cleanups were undertaken by offenders and 217 cleanups were undertaken by council. A total of 22 penalty notices were issued, with 43 other regulatory notices also issued. The dumped materials were made up of household waste (293), construction waste (62), wood mulch (44), asbestos (20) and business waste (10).



Second Hand Hornsby Reuse Market









**ATTACHMENT 1 - ITEM 1**

# STATE OF THE ENVIRONMENT 2025/26

## Bushland and its restoration

Council delivered a broad range of biodiversity education and engagement opportunities helping residents connect with local wildlife and natural areas. In 2025/26 Council held 64 face-to-face biodiversity education and engagement events attended by 3,692 people.

### Vegetation on private land

Vegetation loss on private land through development totalled 5,500m² this year, while 3,000m² of vegetation was secured through the biodiversity offsetting process.

#### *Environmental breaches*

Eighteen environmental breaches (bushland and biodiversity) were assessed across the year in Dural, Middle-Dural, Maroota, Fiddletown, Arcadia, Galston and Beecroft.

### Bushcare

The Bushcare program welcomed 39 new volunteers in 2025/26, with 24 completing the Bushcode workshop. Volunteer hours and activity across all 68 Bushcare sites are strong and the Bushcare program continues to appeal to a broad section of the community and provides guidance and advice on all bushland matters to residents. A new Bushcare group started in Pennant Hills Park and New-Bub Bushcare continued to be well-attended at Mount Colah Community Centre bushland. Bushcare volunteers undertook bush regeneration, weeding and planting at five additional sites including Bar Island and Cunio Point (Floating Bushcare), Brooklyn Cemetery, Hornsby Park and Salt Pan Reserve.

| Year | Number of bushcare volunteers | Total volunteer bushcare hours | Total area of bushcare sites (ha) |
|---|---|---|---|
| 2021/22 | 472 | 4,817 | 66 |
| 2022/23 | 461 | 6,444 | 66 |
| 2023/24 | 407 | 6,845 | 66 |
| 2024/25 | 313 | 7,322 | 66 |
| 2025/26 | 319 | 7,683 | 66 |

### Revegetation and bush regeneration

Council is actively managing and restoring more than 5.33km² of bushland and priority habitat across a connected network of natural areas. This work aims to protect, restore and enhance native vegetation, waterways and riparian corridors, contributing to a more resilient and biodiverse environment. Ecological restoration activities are being undertaken across 128 bushland reserves (including 11 unmade road reserves and roadsides).

A total of four community planting days were held in the year, including the National Tree Day planting in July at Jane Starkey Park, Thornleigh.

#### *Community Nursery*

Warada Ngurang Community Nursery at Pennant Hills provides native plants for Hornsby Shire. These are distributed and planted through a variety of programs including plant giveaways to ratepayers, community planting events, Landcare and Bushcare activities, citizenship ceremonies, school and community group activities, and Council planting projects in parks, reserves and street verges. The community nursery also provides locally collected provenance plant stock to Council's bushland restoration projects. All seed is locally collected to maintain genetic integrity. The community nursery seed bank was maintained and added to, with 174 seed lots collected. In total, 7,270 native plants were distributed at giveaway events in Hornsby Shire to be planted at 1,490 properties.



Creek rehabilitation at Hornsby Park







ATTACHMENT 1 - ITEM 1

# STATE OF THE ENVIRONMENT 2025/26

| Year | Community nursery volunteers | Total community nursery volunteer hours | Tubestock despatched | Free Plant Giveaway Days | Tubestock despatched to ratepayers | Ratepayer properties receiving tubestock |
|---|---|---|---|---|---|---|
| **2021/22** | 32 | 992 | 27,983 | **18** | 9,241 | 1,763 |
| **2022/23** | 39 | 3,447 | | **8** | 11,722 | 2,798 |
| **2023/24** | 40 | 3,545 | 25,030 | **11** | 7,900 | 1,655 |
| **2024/25** | 32 | 3,472 | 20,820 | **2** | 6,840 | 1,550 |
| **2025/26** | 35 | 3,691 | 32,823 | **4** | 7,270 | 1,490 |

### Biodiversity stewardship sites

Council manages 180 hectares of bushland under Biodiversity Stewardship Agreements, in accordance with approved Management Plans, across six sites: Dog Pound Creek, New Farm Road, Upper Pyes Creek, Galston Park, Arcadia Park and Waitara Creek. Collectively, these management actions are improving habitat condition, enhancing the protection of waterways and riparian corridors, and strengthening ecological connectivity across the Shire.

### Biosecurity management

Regulatory inspections were conducted across a range of high-risk pathways and sites for the introduction and spread of priority weeds. These included approximately 20km of urban waterways, covering sections of Berowra Creek, Colah Creek, Glenorie Creek, Joe Crafts Creek, Racemosa Creek, Disturbed Creek and Byles Creek. Inspections also covered 123km of roadside vegetation along major transport corridors, including the Pacific Highway, Pennant Hills Road, Old Northern Road and Castle Hill Road.

Additional regulatory inspections were undertaken at businesses and facilities identified as potential weed pathways, including two Asian grocers, three florists, four plant nurseries, three community markets, two backyard or online nurseries, two aquarium and pet shops, one sewage treatment plant, six public dams, five constructed wetlands, two roadside rest areas, one Council green waste depot, one rural sports facility and one cemetery.

Council also carried out regulatory inspections of 26 residential properties and 13 rural properties, including 13 private dams, and re-inspected 30 previously known priority weed sites to assess compliance and treatment outcomes.

These activities resulted in several significant biosecurity outcomes, including the detection and control of aquatic weed Frogbit ('prohibited matter') in several private dams along the Hawkesbury River. Non-saleable prohibited plants, including smooth tree pear, salvinia and coral creeper, were seized from a community market. Several new incursions of priority weeds on public land were also detected and controlled, including boneseed and pompom asparagus. All inspection and compliance activities were reported to the NSW Department of Primary Industries and Regional Development.



Frogbit, an aquatic weed listed as Prohibited Matter under the NSW Biosecurity Act 2015







**ATTACHMENT 1 - ITEM 1**

# STATE OF THE ENVIRONMENT 2025/26



Dam with Frogbit in Laughtondale, before and after treatment to control this weed



### Bushfire hazard reduction

All district Bush Fire Management Committee requirements set through the current Bush Fire Risk Management Plan have been met during the period including hazard reduction burning, asset protection zone sites, fire trail maintenance and education events.

Through the implementation of bushfire mitigation treatments, Council has protected 1,611 properties within 100 metres of treated areas and maintained 126,452 m² of Asset Protection Zones.

Hazard Reductions were conducted on Council managed land at Florence Cotton Reserve (Rosemead Rd, Hornsby), Larool Creek Bushland (Coolabah Close, Thornleigh), Berry Park (Mount Colah), Cherrybrook Rural Fire Brigade (Cherrybrook), Short Street (Forest Glen), and Hornsby Quarry.

#### *Mechanical hazard reduction activities (Asset Protection Zones)*

Mechanical works were undertaken during 2025/26 on a total of 10 Asset Protection Zone Complexes (i.e. grouped APZs) and 5 individual Asset Protection Zone sites. This equates to a total of 126,452m² of managed Asset Protection Zone.

#### *Burning on private land*

A total of 952 approvals were issued in 2025/26 under the Protection of Environment Operations (Clean Air) Regulation 2022 for burning of dead, dry vegetation, enabling rural landowners to safely manage dead and fallen vegetation within their Asset Protection Zones.

#### *Fire trail works*

There are over 21km of fire trails that Hornsby Council manages and maintains and on which works are scheduled as part of the Hornsby Ku-ring-gai District Bush Fire Risk Management Plan. All Strategic (3km) and Tactical (6km) fire trails on council land were inspected as required during the period. Scheduled surface works on the Lonsdale Fire Trail at Berowra Heights have been completed in collaboration with Crown Lands and the Metropolitan Local Aboriginal Land Council.

#### *Environmental breaches*

Six environmental breaches were assessed across the year in relation to unauthorised burning in Councils rural zones (specifically Galston and Arcadia).

## Water and catchments

### Waterway health monitoring and improvement

Council runs a Catchment Health Program which includes:

- A sentinel monitoring program with15 monitoring sites across the Shire to keep a close eye on water quality. These sites act like environmental "check-ups," helping us detect changes early and respond quickly to any potential issues.
- A bespoke catchment health program where detailed investigations were completed across six priority sub-catchments across Hornsby Shire to better understand local water quality issues and identify practical solutions.

The six priority sub-catchments are:

- Upper Calna Creek (Asquith, Hornsby) - Investigations identified pollution risks associated with the highly urbanised nature of the catchment, including extensive hard surfaces and ageing water and wastewater infrastructure.
- Upper Still Creek (Arcadia, Galston, Berrilee) Investigations in Upper Still Creek identified ongoing nutrient pollution for nitrogen and phosphorus throughout the waterway.
- Upper Laughtondale Gully Creek (Maroota, Laughtondale) - The investigation found the creek to be in generally good condition, with no bacterial exceedances recorded during the program.
- Upper Colah Creek (Dural, Galston, Glenorie, Arcadia) - Early investigations have identified elevated nutrient levels for nitrogen and phosphorus as the primary water quality concern.
- Georges Creek (Glenhaven) - Review of historical water quality data has identified Georges Creek as a priority for further investigation
- Pyes creek (Castle Hill, Dural, Cherrybrook) Investigations found persistent nutrient and bacterial pollution within the upper reaches of Pyes Creek.

In order to support some of the investigations undertaken above, Council undertook an intensive bacterial contamination investigation within the Walumeda Wetland sub catchment. This study employed emerging technologies, including Microbial Source Tracking (MST) and parallel qPCR rapid environmental testing. The studies found that wet









ATTACHMENT 1 - ITEM 1

# STATE OF THE ENVIRONMENT 2025/26

weather generally increases faecal contamination throughout the Walumeda Wetland system. Human faecal contamination is typically the major component in wet conditions.

MST work highlighted bacterial contamination from birds at a site that we know ducks tend to occur in large quantities and from dog faeces, which means that education effort should focus on pet owners and the need to collect dog poo in natural areas.

The rapid test undertaking qPCR environmental testing needs to be further refined before Council considers using this instrumentation.



Water testing at Pyes Creek, Castle Hill

### *Estuarine Monitoring*

Council operates seven real-time estuarine monitoring stations that support daily estuarine health reporting, oyster harvest decisions, and swimming safety at Brooklyn and Crosslands. This monitoring program also supported Council's response to three outbreaks of potentially harmful algal blooms, helping to protect environmental and public health values.

Brooklyn Baths was classified as swimmable on 63 per cent of days for which monitoring data was available during the reporting period. Data collection was interrupted for approximately two months due to damage to the monitoring station caused by an unexpected houseboat collision, as well as other technical issues.

Water quality and swimming opportunities were also affected by prolonged wet weather conditions throughout the year. In particular, high-volume releases from Warragamba Dam between August and September contributed to elevated pollution risks and a reduction in the number of days classified as suitable for swimming. Despite these challenges, Brooklyn Baths remained swimmable on the majority of monitored days, highlighting its continued value as a recreational swimming location.

Crosslands was classified as swimmable on only 5 per cent of days during the reporting period. Frequent rainfall throughout the year, including two significant storm events, increased the amount of stormwater pollution entering waterways and consequently reduced the number of days considered safe for swimming.

Under the program's three-tier risk assessment framework, swimming advisories are issued only when conditions are classified as swimmable, indicating that pollution is unlikely and the risk to recreational users is low. As a result, the persistently wet conditions experienced during the reporting period substantially limited opportunities for safe swimming at Crosslands.

In 2025/26, estuary wide parameter/variable values as the measure for the score card and not site specific as in previous years. Based on this, 75 per cent of parameters received a health score of "B" or above. Total Suspended Solids, Total Nitrogen and Total Phosphorous scored a health grade of "C", being the parameters that did not meet guideline values most of the time.

### *Mangrove Health Assessment*

Council completed assessments of mangrove communities affected by previous flood events, with findings indicating strong natural recovery and regeneration across most sites. Ongoing impacts were observed at only two locations, where significant sand deposition continues to affect vegetation recovery.

In accordance with NSW Department of Primary Industries Fisheries permit conditions, Council also assessed potential boat wash impacts associated with the Wisemans Ferry boat ramp built in late 2022. Complementing this work, foreshore restoration was completed at the decommissioned boat ramp site, including the construction of a step-type seawall designed to improve tidal flushing, enhance shoreline stability, and support the re-establishment of estuarine vegetation. 70 river mangrove seedlings were planted at the decommissioned boat ramp and south of the new boat ramp. Establishment and enhancement of these mangroves will be monitored over time.

### Stormwater quality improvement devices

Council has continued to construct and maintain water quality improvement devices (known as SQuIDs) to improve the quality of stormwater flowing off built-up urban areas before it enters the Shire's waterways.

In 2025/26, approximately 365 catchment remediation devices were inspected and maintained with 602 tonnes of pollution removed from the waterways via catchment remediation devices. These assets include wetlands, sediment basins, biofilters, gross pollutant traps and stormwater harvesting devices. Over the same period, 3,945kL of stormwater was harvested and treated for irrigation of sports fields.

New SQuIDs constructed in 2025/26:

- Gross pollutant trap device for Bridge Road near Water Street, Hornsby
- Gross pollutant device and stormwater works at Pecan Close, Cherrybrook
- Six stormwater inlet pit baskets at Redgum Avenue, Pennant Hills
- Edward Bennett Oval Stormwater Harvesting Amplification
- Creek rehabilitation of the significant 'head cut' on the creek in the northeast of Hornsby Park (draining Fern Tree Close)





ATTACHMENT 1 - ITEM 1

# STATE OF THE ENVIRONMENT 2025/26

| Year | Total number of SQuIDs | Waste removed from SQuIDs (tonnes) | Cost of constructing SQuIDs ($'000) | Cost of maintaining SQuIDs ($'000) |
|---|---|---|---|---|
| 2021/22 | 383 | 500 | 836 | 560 |
| 2022/23 | 402 | 456 | 881 | 690 |
| 2023/24 | 405 | 700 | 753 | 890 |
| 2024/25 | 365 | 666 | 892 | 970 |
| 2025/26 | 375 | 602 | 2,146 | 1,645 |

## Legacy landfill sites

Council has an obligation to ensure any human health and environmental risks associated with potential and/or actual contaminated land that it owns or manages is appropriately managed. The NSW Environment Protection Authority (EPA) Legacy Landfill program rolled out through 2022-2025 and resulted in the EPA conducting methane monitoring at three of Council's former waste depots. These locations were Foxglove Oval, Montview Oval, Arcadia Oval and Foxglove Oval. The results of this EPA program are:

- Sampling at Montview Oval identified one location on the north west boundary with low risk fugitive methane emissions (under 8000ppm). (Note, explosive conditions commences above 50,000ppm in a confined space). Localised remediation was completed in November 2025 and these emissions were eliminated. Ongoing requirements were limited to an Environmental Management Plan (EMP) distributed to all parties via Before you Dig Australia.
- Sampling at Arcadia Oval identified no emissions and recommended Council complete further diligence sampling and investigation to determine the monitoring and management appropriate to protect human health and environment.
- No change to management at Foxglove Oval which is already regulated by the EPA under a Voluntary Management Proposal (Contaminated Land Management Act 1997, NSW).

### Foxglove Oval management

On the basis of consistent and unvarying results, Council has reduced from monthly to quarterly (or less) monitoring across much of the perimeter monitoring program. The results of the perimeter monitoring program are consistent with previous findings and do not indicate any material change in site conditions. The exception to this is the northern boundary area (adjoining the rear of Gloria Close) where the venting system, installed in 2023, has delivered significant reduction of landfill derived gas in the perimeter monitoring locations. The venting system is a passive (unpowered) diversion of landfill gas to the atmosphere through vents rather than permitting migration towards the nearby residential area.

## Noise complaints

Council continues to respond to noise complaints across the LGA. Barking dogs continue to be the most common reason for noise complaints, however building sites/construction is growing.

| Source | 2021/22 | 2022/23 | 2023/24 | 2024/25 | 2025/26 |
|---|---|---|---|---|---|
| Barking dogs | 128 | 163 | 178 | 174 | 169 |
| Airconditioners | 14 | 12 | 22 | 26 | 27 |
| Building sites/ construction | 45 | 22 | 35 | 53 | 77 |
| Licensed premises | 0 | 2 | 3 | 0 | 7 |
| Garbage trucks | 4 | 2 | 9 | 6 | 16 |
| House and car alarms | 8 | 9 | 13 | 8 | 3 |
| Other | 130 | 120 | 110 | 172 | 172 |



Edward Bennett Oval stormwater amplification construction





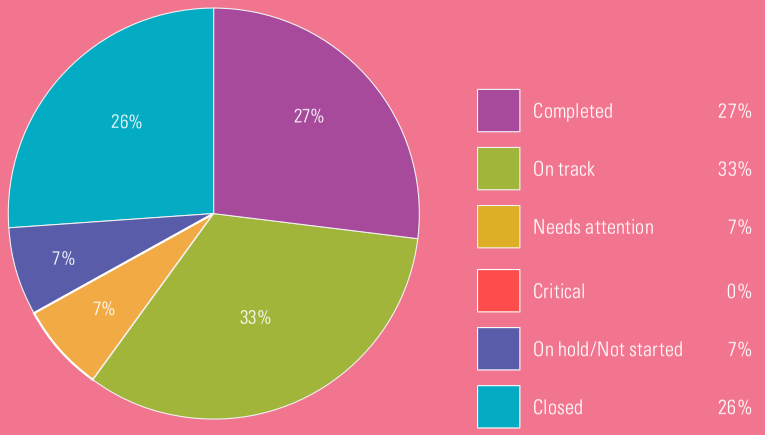




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# DELIVERING ON THEME 3: PROSPEROUS

**Performance of Actions:**




Note: Following the annual review of the Delivery Program, 40 actions were Closed as part of reporting improvements, future scheduling changes and action consolidation.







ATTACHMENT 1 - ITEM 1

# PROSPEROUS

## Challenges and Delays

- Development of a Night Time Economy Strategy was delayed pending completion and evaluation of the Special Entertainment Precinct trial. As a result, the project has been rescheduled to commence in 2027/28
- Progress on the Cherrybrook Precinct State-led rezoning proposal was dependent on the NSW Government's assessment of submissions received during public exhibition and subsequent updates to the masterplan. As a result, finalisation of the rezoning review and revised masterplan has been delayed until late 2026

## The Year Ahead

- Review the Economic Development and Tourism Strategy
- Complete development of the Integrated Infrastructure Plan for Hornsby Town Centre
- Undertake the Special Entertainment Precinct Trial for Hornsby Town Centre
- Prepare a Destination Management Plan
- Review Development Contributions Plans
- Develop the Brooklyn Place Plan
- Review use and management of Hornsby Park to improve visitation









**ATTACHMENT 1 - ITEM 1**

# STRATEGIC DIRECTION:
# 6. VIBRANT AND VIABLE PLACES

We have attractive and multi-use places that support economic development, innovation and local living..

WORKING TOWARDS THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS:




**Long-term goals.** Where do we want to be?

**6.1** A vibrant and connected business, employment and tourism hub that is innovative and sustainable

**6.2** A '30-minute City' with supporting infrastructure

**6.3** Rural areas thrive and are a local source of fruits, flowers and other agricultural produce

| Services helping deliver this Strategic direction |
|---|
| General Manager |
| Infrastructure Delivery |
| Infrastructure Planning |
| Parks and Recreation |
| Place Leadership and Development |
| Public Cleansing |
| Public Health |
| Strategic Land Use Planning |
| Trees |

| Council's supporting Strategies and Plans |
|---|
| Brooklyn Discussion Paper (2021) |
| Economic Development and Tourism Strategy 2021-2026 |
| Employment Land Study 2021 |
| Hornsby Town Centre Masterplan 2023 |
| Local Housing Strategy 2020 |
| Local Strategic Planning Statement 2020 |
| Public Domain Guidelines 2021 |
| Rural Lands Strategy 2022 |
| Section 7.11 Development Contributions Plan 2020 |
| Section 7.12 Development Contributions Plan 2019-2029 |









ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
# 6. VIBRANT AND VIABLE PLACES

## Progress on our Strategies and Plans

### Economic Development and Tourism Strategy 2021

#### Overview and progress

Implementation of the Economic Development and Tourism Strategy continued throughout 2025/26, with substantial progress made despite the Strategy being adopted without dedicated funding. Council has focused on initiatives that strengthen the visitor economy, support town centre activation, foster partnerships and enhance Hornsby Shire's profile as a destination.

#### Key achievements

Key achievements included the development and adoption of a Destination Management Plan, participation in the After Dark program, and establishment of strong working relationships with government agencies, local businesses, community groups and regional tourism organisations. Council secured grant funding to establish a Special Entertainment Precinct in Hornsby Town Centre and investigate Purple Flag accreditation. Council also continued to promote visitation through partnerships with Destination NSW and neighbouring councils and participated in the National Liveability Census in 2021, 2023 and 2025.

#### Refinements since adoption

Implementation has highlighted that several grassroots economic development initiatives have not progressed due to limited funding. These actions will be reviewed as part of the planned 2026/27 review of the Strategy to ensure priorities remain aligned with available resources and emerging economic opportunities.

### Employment Land Study 2021

#### Overview and progress

Implementation of the Employment Lands Study continued throughout 2025/26, providing a framework to support sustainable economic growth, job creation and the long-term viability of Hornsby Shire's employment lands. Progress during the year focused on advancing key planning reforms to improve the range, diversity and functionality of employment and industrial areas across the Shire.

#### Key achievements

Following the introduction of the NSW Government's Employment Zone Reforms, Council worked closely with the State Government to ensure local planning outcomes aligned with the Study's recommendations. During the year, Council progressed the Hornsby Employment Lands Study Planning Proposal, aimed at increasing employment opportunities, supporting business growth and improving the utilisation of centres and industrial precincts. The Planning Proposal was publicly exhibited in early 2026, providing the community and stakeholders with an opportunity to comment on the proposed changes.

#### Refinements since adoption

Implementation of the Study has continued to evolve in response to State planning reforms and changing employment needs. Community feedback received through the exhibition of the Planning Proposal will inform final recommendations and proposed amendments to Hornsby Local Environmental Plan 2013 during 2026/27.









ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
# 6. VIBRANT AND VIABLE PLACES

## Community Satisfaction with Council's Services and Facilities

Through our community satisfaction surveys, residents rate satisfaction with the following services and facilities that Council provides. These results help inform Council's planning and service delivery priorities.

| Council Service/Facility | 2021 Result | 2023 Result | **2024 Result** | 2024 Benchmark against metro * |
|---|---|---|---|---|
| Cleaning and appearance of villages and town centres | 3.80 | 3.74 | **3.65** | – |
| Encouraging local industry, businesses and tourism | 3.09 | 3.12 | **2.92** | – |

**Results are based on a 1-5 satisfaction scale, where:**

| | |
|---|---|
| 1 = very dissatisfied | * *Benchmark is against average of comparable NSW metro councils* |
| 3 = neutral | ▲ ▼ *Shown only where results are 10% greater or lesser than NSW metro average* |
| 5 = very satisfied | – *Indicates Benchmark score is similar* |

## Performance against Delivery Program indicators

| Delivery indicators | Result 2023/24 | Result 2024/25 | **Result 2025/26** | Change from 2023/24 | Frequency of Measure |
|---|---|---|---|---|---|
| Cooling tower risk management plans and audits reviewed (%) | 100 | 100 | **100** | ▶ | Quarterly |
| Medium and high risk food premises inspected (%) | 100 | 97 | **99.5** | ▶ | Quarterly |

**Delivery indicator results Trend key – Progress against 2023/24 results:**

- ▲ Result has improved by more than 10% compared with the 2023/24 result
- ▶ Result is broadly consistent with the 2023/24 result (within 10% or within Target)
- ▼ Result has declined by more than 10% compared with the 2023/24 result

Note: Trend symbols show the direction of change from 2023/24. For measures with a preferred outcome, symbols indicate whether results have improved, declined or remained broadly unchanged. Some volume measures are reported for information only and may not have a preferred direction of change, despite displaying a trend symbol. Where lower results indicate better performance (for example, staff turnover), symbols reflect performance outcomes rather than numerical movement.









**ATTACHMENT 1 - ITEM 1**

# STRATEGIC DIRECTION:
# 6. VIBRANT AND VIABLE PLACES

**Completed Delivery Program Actions 2025/26**

| Code | Outcome | When |
|---|---|---|
| 6.1.3.1 | **Undertake a Shire-wide gateway signage audit**<br>Completed a Shire-wide assessment of existing gateway signage across the Shire, informing future improvement and renewal priorities | Sep 2025 |
| 6.3.1.2 | **Continue community engagement on the Galston Village public domain implementation**<br>Finalised the project design and awarded the construction contract following extensive community consultation, enabling the project to progress to delivery. Council will continue to engage with the community as required throughout the construction stage | Dec 2025 |
| 6.1.3.5 | **Adopt a Destination Management Plan**<br>Adopted the Hornsby Destination Management Plan 2026–2031, establishing a strategic framework to support tourism, visitor experiences and destination development across the Shire | Jun 2026 |
| 6.1.3.3 | **Review service and resource requirements for new and enhanced park and public domain landscape areas**<br>Identified future service and resource needs to support new and enhanced park and public domain landscape areas, strengthening planning for the growing Hornsby Park precinct | Jun 2026 |

## How we delivered

### Highlights

#### Glenorie Village Place Plan Sets a Vision for the Future

Council adopted the Glenorie Village Place Plan, providing a long-term vision to guide the future growth and development of Glenorie while protecting the qualities that make it a unique rural village. Developed through a collaborative planning process, the plan establishes a framework for enhancing local infrastructure, supporting community needs and strengthening the village's role as a vibrant place to live, work and visit.

The Place Plan balances future growth with the preservation of Glenorie's distinctive rural character, ensuring development is carefully managed and responsive to local values.

#### Glenorie Village Planning Proposal Progresses

Council progressed the Glenorie Village Planning Proposal, taking an important step towards delivering the vision established in the Glenorie Village Place Plan. The proposal supports a balanced approach to growth by encouraging a greater diversity of housing within the village, enabling a mix of residential and business uses in the town centre, and protecting valuable agricultural land in the surrounding rural area.

The Planning Proposal forms part of Council's long-term commitment to ensuring Glenorie remains a vibrant, resilient and well-serviced rural village.

#### Work Begins on the Revitalisation of Galston Village

A major milestone was reached in the transformation of Galston Village with construction commencing on the Galston Village Public Domain project. Marked by a ceremonial sod turning, the project will deliver significant improvements to the village centre, enhancing safety, accessibility and the overall experience for residents, visitors and local businesses.

The upgrade includes new landscaping, outdoor seating, improved signage, upgraded footpaths, raised pedestrian crossings, enhanced street lighting, bike racks and improved bus stop facilities. A renewed village park and additional parking improvements will further enhance the centre's functionality and appeal. Developed through extensive community consultation, the project aims to preserve Galston's distinctive village character while creating a more attractive, connected and welcoming public space for the growing community.

#### Employment Lands Planning Proposal Supports Jobs and Economic Growth

Council endorsed the Employment Lands Planning Proposal, a strategic initiative designed to strengthen the local economy, support business growth and increase employment opportunities across Hornsby Shire. The proposal aims to ensure local centres and industrial precincts are well positioned to meet future workforce needs by enabling a broader range of employment-generating uses and more flexible commercial and industrial development.

Key elements of the proposal include encouraging active street frontages in local centres, providing greater flexibility for light industry, supporting modern industrial facilities through increased building heights in selected precincts, and preserving valuable employment land for business and industry. By planning for future investment and economic activity, Council is helping create more local jobs, support business innovation and ensure Hornsby Shire remains a vibrant and prosperous place to live, work and do business.

#### Planning for a Vibrant Night-Time Future in Hornsby Town Centre

Council progressed plans for a Special Entertainment Precinct (SEP) in the Hornsby Town Centre, taking an important step towards creating a more vibrant and active night-time economy. Supported by NSW Government funding, the initiative aims to encourage extended trading hours, support local businesses and cultural activities, and create a welcoming destination where residents and visitors can socialise, dine and enjoy entertainment close to home.

During the year, Council endorsed a Planning Proposal and draft Precinct Management Plan for progression to public consultation. Informed by technical studies and community engagement, the proposal seeks to balance increased vibrancy with appropriate management of noise, trading hours and residential amenity. If implemented, the SEP will help strengthen Hornsby Town Centre's role as a thriving destination while supporting local economic growth and community life.









ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
# 6. VIBRANT AND VIABLE PLACES

**Hornsby Showcases Vision for a Vibrant Night-Time Economy**

Hornsby Shire Council was recognised as a leader in place-making and night-time economy planning at the NEON Forum 2025, where Council presented its work on establishing a Special Entertainment Precinct (SEP) in the Hornsby Town Centre. As one of the first local government areas in NSW to progress a SEP, Council is helping shape new approaches to fostering vibrant, safe and economically successful town centres.

Supported by NSW Government funding, the project aims to create a thriving evening destination that supports local businesses, encourages arts and cultural activities, and enhances community life after hours.

**Celebrating and Supporting Local Business**

Council strengthened its support for the local business community through its major sponsorship of the Hornsby Ku-ring-gai Local Business Awards. The awards recognise the hard work, innovation and success of local businesses that contribute to the economic vitality and character of Hornsby Shire, while providing an opportunity for the community to celebrate and acknowledge outstanding local enterprises.

As a major sponsor, Council actively promoted the awards, encouraging local businesses to participate and residents to support and recognise their favourite businesses. The initiative reflects Council's ongoing commitment to fostering a strong local economy, supporting business growth and celebrating the entrepreneurs and organisations that help make Hornsby Shire a vibrant place to live, work and do business.

**Updated Contributions Plan Supports Shire-Wide Gateway Signage**

Council adopted an amendment to the Section 7.12 Development Contributions Plan 2019–2029, enabling the delivery of new gateway and suburb signage across Hornsby Shire. The project forms part of Council's long-term vision to strengthen local identity, improve wayfinding and create a stronger sense of place for residents and visitors.

The updated contributions plan will support the completion of a Shire-wide signage program, building on the 36 new signs already installed in accordance with Council's endorsed signage design palette. By investing in consistent, high-quality gateway and suburb signage, Council is enhancing the presentation of local centres and neighbourhoods while reinforcing community pride and the unique character of places across Hornsby Shire.

**Destination Management Plan Sets the Vision for Visitor Economy Growth**

Council adopted the Hornsby Shire Destination Management Plan, establishing a long-term strategy to strengthen the Shire's visitor economy and enhance its appeal as a destination to live, work and visit. Developed with input from residents, businesses and industry stakeholders, the plan identifies opportunities to showcase Hornsby Shire's unique natural environments, villages, heritage, recreation opportunities and local businesses.

A key initiative of the plan is the renewal and expansion of the Discover Hornsby destination website, improving how visitors access information about local attractions, events and experiences. Council will also establish an Industry Working Group to foster collaboration with local tourism and business stakeholders.









**ATTACHMENT 1 - ITEM 1**

# STRATEGIC DIRECTION:
# 6. VIBRANT AND VIABLE PLACES

## OUR YEAR IN NUMBERS

**87 397**
Incidents of vandalism on Council's assets

**472 523**
Incidents of graffiti on Council's assets

**903 793**
Primary food premises and public health inspections

**562 533**
'Scores on Doors' rating certificates (for hygiene and food safety) issued with scores of 3 or higher

**96% 100%**
Environmental health Development Assessment referrals undertaken in 21 days

**$9,000 $131,599**
Expenditure on removal of vandalism on Council's assets

**$55,990 $75,871**
Expenditure on removal of graffiti on Council's assets

**XXXX XXXX**
2024/25 figures 2025/26 figures







**ATTACHMENT 1 - ITEM 1**



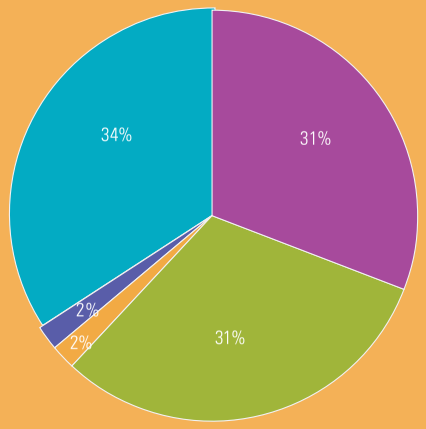

Friendly, face-to-face support from our Customer Service team



# ATTACHMENT 1 - ITEM 1

# DELIVERING ON THEME 4: COLLABORATIVE

**Performance of Actions:**




| | |
|---|---|
| Completed | 31% |
| On track | 31% |
| Needs attention | 2% |
| Critical | 0% |
| On hold/Not started | 2% |
| Closed | 34% |

Note: Following the annual review of the Delivery Program, 40 actions were Closed as part of reporting improvements, future scheduling changes and action consolidation.







**ATTACHMENT 1 - ITEM 1**

# COLLABORATIVE

## Challenges and Delays

- Progress on the review and update of the Local Strategic Planning Statement was delayed pending the outcome of the NSW Government's review of the LSPS framework. While initial work has commenced, future stages of the project will be informed by the State Government's revised requirements.
- The review of Library facilities, resources and lending services was reprioritised during the year due to competing organisational priorities. As a result, the project was deferred and is now scheduled to commence in 2027/28.
- Progress on the review of Crown reserves managed by Council as community land was delayed following completion of initial work on the first tranche of Crown land associated with major leases. The project has been suspended and is scheduled to recommence in 2027/28.
- Opportunities to encourage and promote innovation in business and education were not progressed during the year due to funding constraints and competing priorities. As a result, this initiative has been discontinued and will not be pursued further.

## The Year Ahead

- Undertake a Community Satisfaction Survey of Council services and facilities
- Progress reviews and/or updates to the Local Strategic Planning Statement
- Undertake service reviews of Community and Cultural Facilities and Communications and Engagement
- Conduct internal audits on major projects, cyber security, budget setting and strategic procurement
- Prepare new Plans of Management for Beecroft Village Green, Berowra Park, Hornsby Park, Mills Park, Montview Park, North Epping Oval, Pennant Hills Park
- Implement leadership development strategy and framework









**ATTACHMENT 1 - ITEM 1**

# STRATEGIC DIRECTION:
# 7. INFORMED AND ENGAGED COMMUNITY

We aspire to create an organisation that is trusted and respected by the community.
We are proactive in engaging with the community and our decision-making is inclusive, easy and timely.

WORKING TOWARDS THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS:




ADDRESSING SYDNEY'S SHOCKS AND STRESSES:

**GOVERNANCE:**



LOW TRUST

**Long-term goals.** Where do we want to be?

- **7.1** An organisation that is transparent and trusted to make decisions that reflect the community vision
- **7.2** An organisation that the community can easily connect and communicate with
- **7.3** A community that actively participates in and understands Council's decision making

| Services helping deliver this Strategic direction | |
|---|---|
| Audit, Risk and Improvement | Infrastructure Delivery |
| Business Improvement | Infrastructure Planning |
| Business Transformation | Mayoral and Councillor Administration |
| Communications and Engagement | Parks and Recreation |
| Commercial Waste | People Operations |
| Corporate Planning and Reporting | Procurement |
| Council Administration | Public Cleansing |
| Customer Service | Risk and Audit |
| Domestic Waste | Safety and Wellness |
| Emergency Management | Statutory and Code of Conduct |
| Financial Services | Strategic Land Use Planning |
| General Manager | Sustainability |
| Governance | Technology and Transformation Operations |
| Illegal Dumping | Trees |

| Council's supporting Strategies and Plans |
|---|
| Communications and Engagement Strategies 2019 |
| Community Engagement Strategy 2024 |
| Technology and Transformation Strategy 2025-2029 |









**ATTACHMENT 1 - ITEM 1**

# STRATEGIC DIRECTION:
# 7. INFORMED AND ENGAGED COMMUNITY

## Progress on our Strategies and Plans

### Communications and Engagement Strategies 2019

**Overview and progress**

The Communications and Engagement Strategies 2019 has guided improvements to Council's communications, community engagement and stakeholder relationship practices. A review of the Strategies confirmed that the majority of actions have been successfully implemented, supporting more effective communication with the community, Councillors and staff.

**Key achievements**

Major achievements included the restructure of the Communications and Engagement Team, implementation of internal communications and values-based messaging, adoption of a Crisis Communications Policy, provision of social media guidance for Councillors and establishment of regular communication channels with culturally and linguistically diverse and hard-to-reach communities.

Council also enhanced its digital communications through increased video content, introduction of a community engagement platform, development of annual content planning processes and appointment of a dedicated Community Engagement Advisor.

**Refinements since adoption**

The Strategy has been reviewed and its key actions substantially completed. As a result, the Communications and Engagement Strategies 2019 will be retired, with communications and engagement initiatives now embedded within Council's ongoing operations and business planning processes.

## Community Satisfaction with Council's Services and Facilities

Through our community satisfaction surveys, residents rate satisfaction with the following services and facilities that Council provides. These results help inform Council's planning and service delivery priorities.

| Council Service/Facility | 2021 Result | 2023 Result | **2024 Result** | 2024 Benchmark against metro * |
|---|---|---|---|---|
| Information on Council services | 3.60 | 3.38 | **3.42** | Not available |
| Consultation and engagement / communication with the community by Council | 3.49 | 2.87 | **2.98** | – |

| Results are based on a 1-5 satisfaction scale, where: | |
|---|---|
| 1 = very dissatisfied | * *Benchmark is against average of comparable NSW metro councils* |
| 3 = neutral | ▲ ▼ *Shown only where results are 10% greater or lesser than NSW metro average* |
| 5 = very satisfied | – *Indicates Benchmark score is similar* |



ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
# 7. INFORMED AND ENGAGED COMMUNITY

**Completed Delivery Program Actions 2025/26**

| Code | Outcome | When |
|---|---|---|
| 7.1.2.6 | **Conduct audits to evaluate whether Council's fees and charges comply with Council policies and legislative requirements**<br>Completed an internal audit of Council's fees and charges, confirming compliance with Council policies and legislative requirements and providing recommendations for continuous improvement | Jun 2025 |
| 7.1.2.5 | **Review Council's customer service and complaints management frameworks**<br>Completed an internal audit of Customer Service and Complaints Management, with recommendations reported to the Audit, Risk and Improvement Committee (ARIC) and incorporated into ongoing improvement activities | Oct 2025 |
| 7.1.1.1 | **Review, update and implement Council's Code of Conduct and report complaints to Council**<br>Adopted a revised Code of Conduct in April 2025 and the annual Code of Conduct complaints report in December 2025 | Dec 2025 |
| 7.1.1.3 | **Review and monitor Council's response to all external audit recommendations**<br>Maintained no outstanding NSW Audit Office external audit recommendations, with ongoing oversight provided through the ARIC | Dec 2025 |
| 7.1.2.9 | **Conduct internal audits on privacy and records management**<br>Completed an internal audit of Privacy and Records Management, with findings reviewed by the ARIC and actions incorporated into ongoing governance and compliance programs | Dec 2025 |

**Completed Delivery Program Actions 2025/26**

| Code | Outcome | When |
|---|---|---|
| 7.2.2.1 | **Review and update the Privacy Management Plan and provide training as required to ensure the protection of residents' and ratepayers' privacy**<br>Reviewed and updated Council's Privacy Management Plan, supported by enhancements to privacy training and awareness programs | Dec 2025 |
| 7.1.2.4 | **Review the Parks, Trees and Recreation Branch to assess the adequacy and effectiveness of the control framework relating to the management of parks, trees, and recreation area**<br>Completed an internal audit of the Parks, Trees and Recreation Branch, assessing the effectiveness of management controls and identifying opportunities for improvement | Feb 2026 |
| 7.1.1.2 | **Review the organisational structure**<br>Completed the organisational structure review, with resulting actions incorporated into ongoing business operations | Mar 2026 |
| 7.1.2.20 | **Identify and assess modern slavery risks in procurement**<br>Completed an assessment of modern slavery risks in procurement, with ongoing monitoring and management activities incorporated into business-as-usual operations | Mar 2026 |
| 7.1.2.2 | **Develop a framework for the development of strategies**<br>Prepared a draft framework for the preparation and management of Council strategies to support greater consistency across strategic planning documents | Jun 2026 |

**Completed Delivery Program Actions 2025/26**

| Code | Outcome | When |
|---|---|---|
| 7.1.2.7 | **Conduct audits on work health and safety, including bullying, harassment, safety management, and psychosocial safety**<br>Completed an internal audit of work health and safety systems, including bullying, harassment, safety management and psychosocial safety, with findings reported to the ARIC | Jun 2026 |
| 7.2.2.2 | **Review Council's Communications Strategy to incorporate broader organisational strategic communications needs**<br>Reviewed Council's Communications Strategy, strengthening the alignment of communications activities with organisational priorities through the use of a strategic content calendar | Jun 2026 |









**ATTACHMENT 1 - ITEM 1**

# STRATEGIC DIRECTION:
# 7. INFORMED AND ENGAGED COMMUNITY

## How we delivered

### Highlights

#### Australian Citizenship Day Celebrates a Diverse and Welcoming Community

Council marked Australian Citizenship Day by welcoming 144 new Australian citizens from 32 countries across three citizenship ceremonies, celebrating the many cultures, experiences and perspectives that enrich Hornsby Shire. The occasion recognised an important milestone in the lives of the Shire's newest citizens and highlighted the role diversity plays in creating a vibrant and connected community.

The ceremonies also reflected Hornsby Shire's proud history as a welcoming place for people from around the world. During the year, Council hosted 18 citizenship ceremonies, welcoming 810 new citizens representing 66 countries. To commemorate the occasion, each new citizen received a native plant from the Warada Ngurang Community Nursery, symbolising their growing connection to their new home and community.

#### Celebrating 120 Years of Hornsby Shire

Hornsby Shire Council marked a significant milestone in 2026, celebrating 120 years since its proclamation on 7 March 1906 under the Local Government (Shires) Act 1905. Over the past 120 years, the Shire has evolved from a predominantly rural district into a diverse, vibrant and thriving community while retaining the unique character and natural environment that define the Bushland Shire.

To commemorate the anniversary, Council reflected on its rich history through its local records collection, including the very first rate book, a handwritten volume documenting the Shire's earliest landowners and ratepayers. As part of ongoing efforts to preserve and share local history, Council has begun digitising these historic records, with the first six volumes from 1907 to 1913 now available to the community.

#### Council Joins Welcoming Cities Network to Strengthen Inclusion

Council took an important step towards building a more inclusive and connected community by becoming a member of the Welcoming Cities Network, a national initiative that supports local governments in creating communities where everyone can belong and participate in social, cultural, economic and civic life.

Membership provides access to best-practice resources, national networks and practical tools to help strengthen inclusion and participation across the Shire. The initiative aligns with Council's Social Plan and Disability Inclusion Action Plan, supporting efforts to create welcoming environments for newcomers, culturally diverse residents and people of all abilities.

#### Advocating for Community Voice in Planning Decisions

Council reaffirmed its commitment to transparent and inclusive planning by advocating for the continued involvement of residents in development assessment processes. During the year, Council endorsed a submission to the NSW Government in response to proposed changes to the Statewide Community Participation Plan, highlighting the importance of maintaining meaningful opportunities for community consultation on developments that may affect local neighbourhoods.

The submission reflected Council's long-standing commitment to best-practice community engagement and ensuring residents have a voice in decisions that shape the future of Hornsby Shire.

#### New Community Representatives Appointed to the Hornsby Local Planning Panel

Council refreshed community representation on the Hornsby Local Planning Panel (HLPP) with the appointment of five new community members and the extension of one existing member's term. The appointments ensure the panel continues to include local perspectives in the assessment of significant and sensitive development applications, supporting transparency and accountability in planning decisions.

The new community representatives will serve alongside expert panel members, contributing local knowledge and community insight to the planning process.

#### Streamlining Community Information and Public Signage

Council progressed a Planning Proposal aimed at simplifying the delivery of advertising signage on Council-owned infrastructure, including bus shelters, public waste bins and freestanding community signs. The proposal seeks to enable certain Council-led advertising signage to be undertaken as exempt development, reducing administrative requirements for low-impact signage installed on existing public assets.

By advancing the proposal for a Gateway Determination, Council is working to create a more efficient process for delivering community information, public awareness campaigns and other Council-led communications in public spaces.

#### Community Invited to Help Shape the Future of Heritage in Hornsby Shire

Council progressed its comprehensive review of local heritage by placing four draft heritage studies on public exhibition, giving residents, property owners and community groups the opportunity to help shape the future management and protection of Hornsby Shire's heritage. Covering archaeological, landscape, built heritage and heritage conservation areas, the studies present extensive research and recommendations on places of cultural, historical and environmental significance across the Shire.

As part of the consultation process, Council provided opportunities for the community to review the studies, attend information sessions and provide feedback on the proposed recommendations. The exhibition forms a key stage of Council's Comprehensive Heritage Study, helping ensure that heritage planning reflects both expert research and community knowledge.

#### New Website Makes Council Services Easier to Access

Council launched a new, modern website designed to make it easier for residents to access information, services and support online. The upgraded platform delivers improved navigation, enhanced search functionality and a more user-friendly experience, helping residents quickly find information on everything from waste collection and sporting facilities to libraries, events and Council projects.

The website also introduces a range of new digital features, including live chat with customer service staff, online service requests, an interactive "What's Around Me" tool and improved accessibility options, including multilingual translation capabilities. By modernising its digital services, Council is improving how it connects with the community and making it easier for residents to access information and services whenever they need them.



ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
# 7. INFORMED AND ENGAGED COMMUNITY

## OUR YEAR IN NUMBERS

**40,682 39,446**
Customer Service requests received

**17 SECS 14.7 SECS**
Average speed of answering incoming calls to Customer Service

**24,388 23,288**
Subscribers to Council's monthly e-newsletters

**977 1,512**
New Australian citizens conferred

**93.6% 96%**
Section 10.7 Planning Certificates issued within 5 days

**86.1% 86.9%**
Customer Service requests completed within service level agreement

**44,586 49,391**
Followers on social media channels (Facebook, Instagram, X, YouTube and LinkedIn)

**45.1% 31.6%**
Average open rate of e-newsletters by subscribers

**1,465 1,536**
Informal applications processed under Government Information (Public Access) Act (GIPA) legislation

**889 4,285**
Section 10.7 Planning Certificates issued

**32,367 29,661**
Incoming calls to Customer Service

**4,517,791 4,443,166**
Total page views on Council's website

**317 343**
Media stories placed

**41 26**
Formal applications processed under Government Information (Public Access) act (GIPA) legislation

**(NONE RECEIVED) 100%**
Owner-initiated Planning Proposals assessed within 90 days (from lodgement to resolution to submit) for Gateway Determination

**90,181 79,128**
Total page views on Council's Your Say Hornsby website

**XXXX XXXX**
2024/25 figures 2025/26 figures







**ATTACHMENT 1 - ITEM 1**

# STRATEGIC DIRECTION:
# 8. RESPONSIVE AND EFFECTIVE CIVIC LEADERSHIP

We lead by example and with integrity.
We have strong leadership engaging in effective partnerships which reflect the aspirations of the community as a whole.
We will leave a positive legacy for future generations through responsible stewardship.
Our services are customer focused.

WORKING TOWARDS THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS:




ADDRESSING SYDNEY'S SHOCKS AND STRESSES:




**Long-term goals.** Where do we want to be?

**8.1** Integrated and sustainable long term planning for the community's future

**8.2** An organisation of excellence

**8.3** A Shire that fosters innovation

**8.4** Smart Places approaches improve our day to day living

| Services helping deliver this Strategic direction | |
|---|---|
| Audit, Risk and Improvement | Libraries |
| Business Improvement | Parks and Recreation |
| Business Transformation | People Operations |
| Change Management | Place Leadership and Development |
| Communications and Engagement | Property Management |
| Corporate Support Executive | Risk and Audit |
| Customer Service | Safety and Wellness |
| Financial Services | Statutory and Code of Conduct |
| General Manager | Strategic Property |
| Infrastructure Planning | Technology and Transformation Operations |

| Council's supporting Strategies and Plans |
|---|
| Economic Development and Tourism Strategy 2021 |
| Property Strategy 2023 |
| Resourcing Strategy<br>– Long Term Financial Plan<br>– Asset Management Strategy<br>– Workforce Management Plan |
| Technology and Transformation Strategy 2025-2029 |









**ATTACHMENT 1 - ITEM 1**

# STRATEGIC DIRECTION:
# 8. RESPONSIVE AND EFFECTIVE CIVIC LEADERSHIP

## Progress on our Strategies and Plans

### Property Strategy 2023

#### Overview and progress

The Property Strategy continued to guide Council's strategic approach to the management, use and optimisation of its property portfolio during 2025/26. The Strategy provides a framework for informed decision-making to ensure Council's property assets support service delivery, community outcomes and long-term financial sustainability.

#### Key achievements

During the year, Council officers continued to assess and progress opportunities identified through the Property Strategy. Discussions were undertaken with senior staff and Councillors regarding recommendations and strategic directions arising from the property investigations, helping to inform future property planning, asset management and decision-making processes.

#### Refinements since adoption

No significant changes were made to the Strategy during the year. The Property Strategy is scheduled for review in 2028 to ensure it remains aligned with Council's strategic priorities, service needs and evolving property requirements.

### Technology and Transformation Strategy 2025-2029

#### Overview and progress

Implementation of the Technology and Transformation Strategy 2025–2029 commenced during 2025/26, with a focus on strengthening Council's digital capabilities, business systems and cyber security framework. The first year of delivery concentrated on establishing the technology foundations required to support future innovation, efficiency and service improvements.

#### Key achievements

Key achievements included implementation of a new tree management system and a new safety management system, together with a range of upgrades to Council's corporate systems and digital platforms. Council also progressed the actions identified in the Cyber Security Strategy, including the introduction of a 24/7 Security Operations Centre to provide continuous monitoring, incident response and threat management, and implementation of an advanced Security Information and Event Management (SIEM) system to enhance cyber security capabilities.

#### Refinements since adoption

The Strategy will be further refined in 2026/27 to incorporate emerging priorities relating to artificial intelligence (AI), data governance and digital transformation, ensuring Council remains well positioned to respond to evolving technology opportunities and risks.









ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
# 8. RESPONSIVE AND EFFECTIVE CIVIC LEADERSHIP

## Community Satisfaction with Council's Services and Facilities

Through our community satisfaction surveys, residents rate satisfaction with the following services and facilities that Council provides. These results help inform Council's planning and service delivery priorities.

| Council Service/Facility | 2021 Result | 2023 Result | **2024 Result** | 2024 Benchmark against NSW metro * |
|---|---|---|---|---|
| Overall satisfaction with Hornsby Shire Council | 3.43 | 3.35 | **3.29** | – |

| Results are based on a 1-5 satisfaction scale, where: | |
|---|---|
| 1 = very dissatisfied | * *Benchmark is against average of comparable NSW metro councils* |
| 3 = neutral | ▲ ▼ *Shown only where results are 10% greater or lesser than NSW metro average* |
| 5 = very satisfied | – *Indicates Benchmark score is similar* |

## Performance against Delivery Program indicators

| Delivery indicators | | | | | |
|---|---|---|---|---|---|
| | Result 2023/24 | Result 2024/25 | **Result 2025/26** | Change from 2023/24 | Frequency of Measure |
| Net operating surplus ($) | (27,997) | (1,646,180) | **354** | ▼ | Annual |
| Financial performance ratios met (number out of possible 6) | 5 | 6 | Ratio reporting no longer required by Office of Local Government | – | Annual |
| Asset performance ratios met (number out of possible 3) | 1 | 2 | **3** | ▲ | Annual |
| Customer service requests completed within service level agreement (%) | 83.8 | 86.1 | **86.9** | ▶ | Annual |
| Voluntary staff turnover (%) | 15 | 12.8 | **12.7** | ▲ | Annual |
| Overall staff engagement score (staff survey, score out of 10) | 8.3 | 8.1 | **8.1** | ▶ | Annual |
| Overall employee participation rate in staff survey (%) | 86 | 83 | **83** | ▶ | Annual |
| Lost hours through sick leave (%) | 4 | 3.4 | **3.1** | ▶ | Quarterly |
| Council's Lost Time Injury Frequency Rate (LTIFR) maintained (≥) (SafeWork Industry Benchmark for local government = 13.2) | New | 29.9 | **13.9** | ▶ | Quarterly |

**Delivery indicator results Trend key – Progress against 2023/24 results:**

- ▲ Result has improved by more than 10% compared with the 2023/24 result
- ▶ Result is broadly consistent with the 2023/24 result (within 10% or within Target)
- ▼ Result has declined by more than 10% compared with the 2023/24 result

Note: Trend symbols show the direction of change from 2023/24. For measures with a preferred outcome, symbols indicate whether results have improved, declined or remained broadly unchanged. Some volume measures are reported for information only and may not have a preferred direction of change, despite displaying a trend symbol. Where lower results indicate better performance (for example, staff turnover), symbols reflect performance outcomes rather than numerical movement.









ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
# 8. RESPONSIVE AND EFFECTIVE CIVIC LEADERSHIP

**Completed Delivery Program Actions 2025/26**

| Code | Outcome | When |
|---|---|---|
| 8.1.1.3 | **Monitor and review the Enterprise Risk Management Plan**<br>Reviewed and updated Council's Enterprise Risk Management Plan and Determination, ensuring Council's risk management framework remains current and aligned with governance requirements | Sep 2025 |
| 8.1.1.4 | **Monitor and review the Business Continuity Plan**<br>Updated Council's Business Continuity Plan, incorporating organisational changes and maintaining Council's preparedness to respond to service disruptions and emergency events | Dec 2025 |

## How we delivered

### Highlights

**Annual Report Showcases a Year of Delivery and Achievement**

Council's 2024/25 Annual Report was published during the year, providing a comprehensive overview of the projects, services and achievements delivered on behalf of the Hornsby Shire community. The report highlighted strong performance across a wide range of areas, including the completion of 56 capital projects, major infrastructure improvements, environmental initiatives and community programs that enhanced the liveability and wellbeing of the Shire.

The Annual Report also demonstrated Council's commitment to transparency, accountability and long-term planning, outlining progress on major strategic initiatives such as Hornsby Park and housing planning for the Hornsby Town Centre. By sharing the outcomes achieved during the year, the report recognised the value delivered to residents through Council's investments in infrastructure, community facilities, environmental sustainability and essential services.

**Delivery Program and Operational Plan Sets the Course for the Future**

Council adopted the 2026–2030 Delivery Program including the 2026/27 Operational Plan, establishing a clear roadmap for delivering community priorities over the coming years. Informed by extensive community consultation, the plans outline how Council will respond to key challenges including population growth, housing affordability, transport, climate change and social connection, while continuing to build a liveable, sustainable, prosperous and collaborative Hornsby Shire.

The plans include delivery of 95 capital projects worth $61 million alongside $150 million in essential services during 2026/27. Investments in roads, footpaths, stormwater infrastructure, flood mitigation, parks, community facilities and public spaces will help enhance the quality of life for residents across the Shire.

**Long Term Financial Plan Secures a Sustainable Future**

Council adopted its Long Term Financial Plan 2026/27–2035/36, establishing a clear framework to ensure the ongoing financial sustainability of Hornsby Shire while continuing to deliver services, maintain infrastructure and respond to the needs of a growing community. The plan outlines how Council will responsibly manage resources over the next decade, balancing community expectations with long-term financial resilience.

The updated plan reflects the benefits of Council's financial improvement initiatives and prudent financial management, resulting in a strengthened long-term outlook and an improved forecast cash surplus. By planning ahead and carefully managing future challenges, Council is well positioned to continue investing in essential services, community facilities and infrastructure, ensuring Hornsby Shire remains a great place to live, work and visit for years to come.

**Strong Financial Performance Demonstrates Responsible Stewardship**

Council continued to demonstrate strong financial management, becoming the fourth council in NSW to lodge its Annual Financial Statements and achieving the fifth-largest net operating result in the state. This result highlights Council's commitment to prudent financial planning, disciplined budgeting and long-term sustainability.

**Technology and Transformation Strategy Sets the Direction for Innovation**

Council endorsed its Technology and Transformation Strategy 2025–2029, establishing a clear roadmap for innovation, digital capability and service improvement over the next four years. The strategy outlines how technology and transformation initiatives will support more efficient operations, strengthen organisational capability and enhance the delivery of services to the community.

**Strengthening Cyber Security and Digital Resilience**

Council made significant progress in strengthening its cyber security capability through the ongoing implementation of its Cybersecurity Strategy. Key achievements included the establishment of a dedicated Security Operations Centre and the deployment of a Security Information and Event Management (SIEM) solution, providing enhanced monitoring, analysis and response to potential cyber threats.

These investments have strengthened Council's ability to detect, prevent and respond to security incidents, helping protect critical systems, information and services relied upon by the community.









ATTACHMENT 1 - ITEM 1

# STRATEGIC DIRECTION:
# 8. RESPONSIVE AND EFFECTIVE CIVIC LEADERSHIP

## OUR YEAR IN NUMBERS

| 2024/25 figures | 2025/26 figures | |
|---|---|---|
| 100% | 100% | Audits in annual internal audit plan completed |
| 4,489 | 3,871 | Hard copy legacy records/files digitised, transferred or destroyed |
| 41% | 33% | Non-carbon and socially responsible investments |
| 0 | 0 | Cyber security incidents reported |
| 862 | 7,450 | HelpDesk tickets resolved |
| 1 | 2 | Service reviews completed |
| 261,988 | 364,078 | Documents registered in records management system |
| 0% | 38% | Expenditure attributed to consultancies compared to budget/ externally funded (+/- 10%) |
| 8 | 10 | Process system transformation projects completed |
| 668 | 2,879 | Technology devices supported |
| 85.7% | 92.8% | Delivery of Integrated Planning and Reporting requirements |
| 5.12% | 4.78% | Return on invested funds |
| 100% | 100% | Payroll services delivered accurately and on time |
| 7 | 8 | Functions for which a new dashboard delivered |
| 1.8% | 0.4% | Leased properties – aged debt of 60 days+ <30% of total Aged Balance at end of period |
| XXXX | XXXX | |







**ATTACHMENT 1 - ITEM 1**

# LEGISLATIVE REQUIREMENTS



**ATTACHMENT 1 - ITEM 1**

# LEGISLATIVE REQUIREMENTS

This Annual Report also includes some information that is prescribed by the Local Government Act 1993, the Local Government (General) Regulation 2021 and to meet requirements imposed by other legislation and statutory bodies. This information has been included because the government believes that it is important for community members to know about it – to help their understanding of how Council has been performing both as a business entity and as a community leader.

## Mayoral and councillor fees, expenses and facilities

*(Local Government (General) Regulation 2021, cl 217(1)(a)(a1) (i), (ii), (iii), (iiia), (iv), (v), (vi), (vii), (viii))*

| Annual fees | 2025/26 |
|---|---|
| **Mayor** | |
| Mayoral fee | $78,480 |
| Councillor annual fee | $29,550 |
| **Councillors** | |
| Annual fee ($29,550 per Councillor) | $265,950 |
| **Superannuation** | $44,878 |
| **Total Mayor and Councillor annual fees** | **$418,858** |

| Amount expended during 2025/26 on the provision of councillor facilities and the payment of councillor expenses: | | $33,541 |
|---|---|---|
| (1) (a) | details (including the purpose) of overseas visits undertaken during the year by councillors, council staff or other persons while representing the council (including visits sponsored by other organisations) | 0 |
| (a1) | details of the total cost during the year of the payment of the expenses of, and the provision of facilities to, councillors in relation to their civic functions (as paid by the council, reimbursed to the councillor or reconciled with the councillor), including separate details on the total cost of each of the following: | |
| (i) | the provision during the year of dedicated office equipment allocated to councillors on a personal basis, such as laptop computers, mobile telephones and landline telephones and facsimile machines installed in councillors' homes (including equipment and line rental costs and internet access costs but not including call costs) | 7,646 |
| (ii) | telephone calls made by councillors, including calls made from mobile telephones provided by Council and from landline telephones and facsimile services installed in councillors' homes | 0 |
| (iii) | the attendance of councillors at conferences and seminars | 20,292 |
| (iiia) | the provision of induction training for councillors, supplementary induction training for mayors and professional development programs for mayors and other councillors | 5,393 |
| (iv) | other training of mayors and councillors and the provision of skill development for mayors and councillors | 0 |
| (v) | interstate visits undertaken during the year by councillors while representing Council, including the cost of transport, the cost of accommodation and other out-of-pocket travelling expenses | 0 |
| (vi) | overseas visits undertaken during the year by councillors while representing Council, including the cost of transport, the cost of accommodation and other out-of-pocket travelling expenses | 0 |
| (vii) | the expenses of any spouse, partner or other person who accompanied a councillor in the performance of his or her civic functions, being expenses payable in accordance with the Guidelines for the payment of expenses and the provision of facilities for Mayors and Councillors for Local Councils in NSW prepared by the Secretary from time to time | 210 |
| (viii) | expenses involved in the provision of care for a child of, or an immediate family member of, a councillor, to allow the councillor to undertake his or her civic functions | 0 |

*For information on councillor entitlements, see Council's website for Policies "Policy – Statutory – Councillors Expenses and Facilities"*



ATTACHMENT 1 - ITEM 1

# LEGISLATIVE REQUIREMENTS

## Councillor professional development

*(Local Government (General) Regulation 2021, cl 186)*

Amendments made to the Local Government Act in 2016 saw the inclusion in the prescribed role of councillors under section 232 of the Act of a responsibility "to make all reasonable efforts to acquire and maintain the skills necessary to perform the role of Councillor".

To support that inclusion, the Local Government (General) Regulation was subsequently amended to include a requirement for councils to provide induction training and ongoing professional development for mayors and councillors; and the Office of Local Government (OLG) issued guidelines under section 23A of the Act to assist councils develop and deliver induction training and ongoing professional development activities for their mayor and councillors in compliance with the Regulation.

The guidelines issued by the Office of Local Government indicate that a council's induction and professional development program should consist of the following three elements:

- **Pre-election Candidate Sessions** – (non-mandatory but encouraged) – to ensure prospective candidates are aware of what will be expected of them if elected
- **Induction Program** – to equip mayors and councillors with the information they need to perform their role effectively over the first few months of the term and to build a positive, collaborative relationship among councillors and with staff
- **Professional Development Program** – to allow development, in consultation with individual councillors and the mayor, of programs which can be delivered over the council term to build the skills, knowledge and personal attributes necessary to be an effective mayor or councillor.

Hornsby Council's response to these three elements during 2025/26 is below.

| Pre-election candidate sessions | Facilitator |
|---|---|
| (Local government election 14 September 2024) | General Manager and LGNSW |

A three-stage program of induction, grouped around three themes, was designed and undertaken by the General Manager and staff with the newly-elected Council. All Councillors attended.

| Induction Program | | When |
|---|---|---|
| Stage 1 | Getting to know you, us and each other | 4 sessions – October 2024 |
| Stage 2 | Your role, rights and responsibilities | 2 full-day sessions – November 2024 |
| Stage 3 | Transitioning to the business of Council and ongoing development | Weekly sessions – November-December 2024 |

## Professional Development

The professional development program involved a briefing to all Councillors to provide an update on the process that will be implemented followed by individual surveys with Councillors and the development of a personalised development plan to meet the requirements for each Councillor. This process commenced in May 2025.

Other training/skill development opportunities were undertaken as follows:

| Conference | Attendees |
|---|---|
| LGNSW Annual Conference | Clrs Tilbury, McClelland, McIntosh, Ball, Greenwood, Seaglove, Simons, Conley, McSweeney |
| Australian Local Government Association (ALGA) - National General Assembly | Clr McIntosh |
| Local Government International Women's Day | Clr McClelland |
| Global Impact Summit | Clr McClelland |

| Training/skill development | Attendees |
|---|---|
| LGNSW Training Courses:<br>■ Speed Reading<br>■ Media for Councillors<br>■ Mastering Motions<br>■ Chairing and Effective Meetings | Clr Ball |
| Mastering the Media Release | Clr Ball |
| Speechwriting: Unlock your voice | |









ATTACHMENT 1 - ITEM 1

# LEGISLATIVE REQUIREMENTS

## Statement of remuneration

*(Local Government (General) Regulation 2021, cl 217(1)(b),(c) (i), (ii), (iii), (iv), (v))*

| General Manager remuneration package | |
|---|---|
| Total value of salary component of package | See table below |
| Total amount of any bonus payments, performance or other payments that do not form part of salary component | Nil |
| Total employer's contribution to superannuation (salary sacrifice or employer's contribution) | See table below |
| Total value non-cash benefits | Nil |
| Total fringe benefits tax for non-cash benefits | Nil |

**Period of office 1 July 2025 to 5 November 2025**

| | General Manager |
|---|---|
| Total remuneration during period (18 weeks) | $159,200 |
| Superannuation | $10,385 |
| Salary component | $148,815 |

| Senior staff remuneration packages | |
|---|---|
| Number of senior staff positions, other than General Manager | 0 |

## Overseas visits by Councillors/Council staff

*(Local Government (General) Regulation 2021, cl 217(1)(a))*

In October 2025, Mr Steven Head, Council's General Manager, attended the Local Government Exchange and Cooperation Seminar in Kuroishi City and Tokyo, Japan. The seminar, hosted by the Council of Local Authorities for International Relations (CLAIR), brought together local government representatives for a seven-day immersive learning experience exploring Japan's government systems, innovative administrative practices, and community-led initiatives. Under the core theme of 'Community-Driven Waste Management in Local Government', the seminar provided valuable insights into sustainable waste systems.

Mr Head participated via a professional scholarship offered by Local Government Professionals, ensuring no primary travel or registration costs were incurred by Council. Through participation, Council and the broader community will benefit from the shared knowledge, strategic policy learnings, and operational practices brought back to improve local initiatives.

## Persons who performed paid work on Wednesday 4 March 2026

*(Local Government (General) Regulation 2021, cl 217(1)(d) (i), (ii), (iii),( iv))*

| Total number of persons who performed paid work: | |
|---|---|
| Permanent full-time | 395 |
| Permanent part-time | 70 |
| Casual | 67 |
| Under fixed-term contract (including 5 apprentices, 2 trainees and 2 cadets) | 48 |
| Senior staff members | 0 |
| Engaged by the council, under a contract or other arrangement with the person's employer, wholly or principally for the labour of the person | 11 |
| Supplied to the council, under a contract or other arrangement with the person's employer, as an apprentice or trainee | 0 |

# LEGISLATIVE REQUIREMENTS

## Modern Slavery Statement

*(Modern Slavery Act 2018)*

This Modern Slavery Statement is provided by Hornsby Shire Council in accordance with Section 428 (4) of the NSW Local Government Act 1993.

This Statement outlines Hornsby Shire Council's commitment to combating modern slavery and the measures we have implemented during this reporting period to reduce the risk of our procurement activities resulting in or contributing to human rights violations.

*(Local Government Act 1993, s428(4)(c))*

The Anti-Slavery Commissioner did not raise any significant issues concerning the operations of Council during the year.

*(Local Government Act 1993, s428(4)(d))*

### Organisational Structure and Supply Chain

The steps that Council has taken to ensure that goods and services procured by and for Hornsby Shire Council during the year were not the product of modern slavery within the meaning of the Modern Slavery Act 2018 are outlined in the below table.

| Activity | Description | Actions Taken |
|---|---|---|
| Commit | Steps taken to engage with stakeholders | ■ Delivered modern slavery awareness training to new employees as part of Council's onboarding program and incorporated modern slavery content into Procure-to-Pay training delivered to staff throughout the year<br>■ Provided the Executive Leadership Team with updates on anti-slavery initiatives and obtained endorsement of the Modern Slavery Risk Management Plan<br>■ Collaborated with other councils through the Northern Sydney Regional Organisation of Councils (NSROC) Procurement Officers Group to share knowledge and better practice approaches to modern slavery risk management. This included reviewing initiatives implemented by Willoughby City Council to strengthen Council's own approach<br>■ Strengthened engagement with suppliers and contractors by incorporating modern slavery questionnaires into the tender process and including anti-slavery clauses in all contracts issued by Council. |
| Plan | Steps taken to identify and map supply chain risks | ■ Reviewed and aligned expenditure accounts to Office of the Anti-Slavery Commissioner (OASC) risk categories to support reporting and monitoring of spend across identified modern slavery risk areas. |
| Source | Steps taken to address modern slavery risks when selecting suppliers | ■ Strengthened procurement processes by requiring all tenderers to complete a modern slavery questionnaire as part of the tender submission and evaluation process<br>■ Maintained anti-slavery clauses across all Council contracts, requiring contractors to comply with modern slavery legislation<br>■ Reviewed modern slavery provisions as part of a comprehensive legal review of Council's suite of contract conditions to ensure their ongoing effectiveness and alignment with legislative requirements. |
| Manage | Steps taken to monitor and evaluate supplier performance relating to Modern Slavery | ■ All tendered contracts undergo annual contractor performance reviews that review many aspects of the contract, including Modern Slavery<br>■ Responses are reviewed by the Sustainability Team, Safety and Wellness Services Team and Procurement Team. To date, no concerns of Modern Slavery have been noted. |







ATTACHMENT 1 - ITEM 1

# LEGISLATIVE REQUIREMENTS

| Activity | Description | Actions Taken |
|---|---|---|
| Remedy | Steps taken to enable access to effective modern slavery grievance mechanisms | ■ Raised awareness of reporting pathways through ongoing modern slavery training, ensuring staff are informed of how to report concerns internally<br>■ Progressed the development of an online reporting tool to support both internal and external reporting of modern slavery concerns<br>■ No suspected instances of modern slavery were identified or reported during the reporting period. |
| Report | Steps taken to establish a victim-centred modern slavery reporting protocol | ■ Progressed the development of an intranet-based reporting tool to support the reporting of modern slavery concerns by staff<br>■ Used guidance from the Office of the Anti-Slavery Commissioner (OASC) to support Council's modern slavery awareness and reporting practices<br>■ Provided staff training on modern slavery reporting requirements, including the importance of adopting a victim-centred approach when considering investigations, reporting and contract management responses. |
| Improve | Steps taken to improve Council's approach to modern slavery risks | ■ Continued to build organisational awareness of modern slavery by providing training to all new employees and reinforcing learning through assessment questionnaires to confirm understanding<br>■ Delivered ongoing modern slavery awareness through Procure-to-Pay training offered to staff throughout the year<br>■ Strengthened Council's modern slavery framework through the development and Executive Leadership Team endorsement of the Modern Slavery Risk Management Plan. |
| | Steps taken to cooperate with the Anti-slavery Commissioner during the reporting period | ■ No requests for information, investigations or other matters were received from the NSW Anti-slavery Commissioner during the reporting period. |









ATTACHMENT 1 - ITEM 1

# LEGISLATIVE REQUIREMENTS

## Special variation expenditure

*(Special Rate Variation Guidelines)*

The Independent Pricing and Regulatory Tribunal (IPART) is responsible for setting the amount by which councils in NSW can increase their general rate income each year, referred to as the rate peg. Councils can apply to IPART for a special rate variation, which allows councils to increase their general rate income by more than the rate peg amount.

## Catchments Remediation Rate

The Catchments Remediation Rate (CRR) is levied at five per cent of Council's ordinary rate income on rateable properties across the Shire. All modified catchments affect water quality and benefit from environmental and water quality improvement initiatives.

In 2025/26, the CRR generated $4.5 million in revenue. The Catchments Remediation Program identifies locations across the Shire where water quality improvement works are required. During the year, $2.146 million was invested in catchment remediation capital works, including completion of a trash rack at Derribong Place, Thornleigh; biofilter basins at Lyne Road Reserve, Cheltenham and Redgum Avenue, Pennant Hills; gross pollutant traps at Pecan Close, Cherrybrook and Bridge Road, Hornsby; and an expansion of the stormwater harvesting system at Edward Bennett Oval, Cherrybrook.

The CRR program also supports a range of pollution prevention initiatives, including water quality monitoring and research, environmental education, asset maintenance and repair, street sweeping, catchment planning and environmental investigations.

In addition, the CRR funded the maintenance, repair and upgrade of water quality treatment assets across the Shire. During 2025/26, $1.645 million was spent cleaning, maintaining and repairing these assets, resulting in the removal of 602 tonnes of sediment, litter and organic matter from the stormwater system.

In 2026/27, Council will continue to deliver water quality improvement projects, including new treatment devices and stormwater harvesting initiatives designed to intercept pollutants before they enter Hornsby Shire's creeks and bushland.

## Special Rate Variation 2023/24 - 2032/33

On 13 June 2023, IPART approved Council's application for a Special Rate Variation (SRV) under Section 508A of the Local Government Act 1993. Council's Long Term Financial Plan at the time forecast that additional income from the SRV would resolve forecasted financial sustainability issues by rebalancing results back within acceptable levels over the next ten years. Income from the SRV also funds the requirements identified in Council's Asset Management Plans and a ten-year program of strategic initiatives previously identified in numerous technical documents and adopted strategies.

The special variation provides a cumulative increase in rates inclusive of the rate peg over four years.

| | Year | Approved increase in general income (%) |
|---|---|---|
| Year 1 | 2023/24 | 8.5 |
| Year 2 | 2024/25 | 7.5 |
| Year 3 | 2025/26 | 6.5 |
| Year 4 | 2026/27 | 5.5 |

IPART requires that Council report in its annual report over a five year period from 2023/24 to 2027/28 on:

1. The program of expenditure funded by the SRV, and any differences between this program and the program included in Council's application
2. Any significant differences between Council's revenues, expenses and operating result compared with the projected revenues, expenses and operating result in the Long Term Financial Plan
3. The outcomes achieved as a result of the SRV
4. The productivity savings and cost containment measures Council has in place, the annual savings achieved through these measures, and what these savings equate to as a proportion of the Council's annual expenditure
5. Whether or not the council has implemented the productivity improvements identified in its application, and if not, the rationale for not implementing them.

Following is the detail for 2025/26,

### 1. The Program of Expenditure

Council's adopted 2025/26 Annual Budget included funding allocations that align with the Program of Expenditure approved by IPART and there were no differences between the budget and this program.

Unspent SRV funds at 30 June 2026 have been restricted and will be carried forward to future years to ensure adherence with the ten-year expenditure program and the conditions of IPART's approval:









ATTACHMENT 1 - ITEM 1

# LEGISLATIVE REQUIREMENTS

| Program of Expenditure | Budget Allocated ($'000) | Actual Spent ($'000) | Restricted to carry forward ($'000) |
|---|---|---|---|
| Asset management funding gap | 3,558 | 3,558 | 0 |
| Community climate change mitigation and adaptation | 160 | 153 | 7 |
| Enhance cyber security | 100 | 100 | 0 |
| Track and trail asset management | 69 | 28 | 41 |
| Bushfire risk mitigation | 666 | 352 | 314 |
| Bushland reserve asset management | 827 | 827 | 0 |
| Hello Hornsby | 80 | 76 | 4 |
| Hornsby Park operations and maintenance | 684 | 214 | 470 |
| Public amenities | 1,000 | 455 | 545 |
| Park amenities renewal and upgrade | 650 | 249 | 401 |
| Hornsby Park asset renewals | 716 | 226 | 490 |
| Track and trail upgrade including accessibility and signage | 287 | 287 | 0 |
| Shared paths | 1,393 | 1,393 | 0 |
| Disability inclusive community centres | 431 | 357 | 74 |
| Drainage improvement works | 1,000 | 264 | 736 |
| New and upgraded play spaces | 85 | 61 | 24 |
| **Total** | **11,706** | **8,600** | **3,106** |

In addition to the amounts listed above, $1.49 million has been expended from SRV funds held in restricted accounts that was unspent in the prior year and carried forward. The expenditure incurred aligns with the approved program.

### 2. Financial Statement Comparison to Long Term Financial Plan

The actual results for 2025/26 have been compared to the balances forecast in Council's adopted Long Term Financial Plan (LTFP):

| Income Statement (non-cash forecast) | Actual (Draft) $'000 | LTFP $'000 |
|---|---|---|
| Total Income from Continuing Operations | 207,011 | 191,342 |
| Total Income excluding Capital Grants and Contributions | 192,180 | 174,052 |
| Total Expenses from Continuing Operations | 165,975 | 170,108 |
| **Net Operating Result before Capital Grants and Contributions** | **26,205** | **3,945** |

The actual result is better than forecast in the LTFP due to these factors:

- Total Income from Continuing Operations increased due to an early Financial Assistance Grant income receipt of $5 million related to the 2026/27 financial year, and due to continued better than anticipated returns from Council's investment portfolio, reflecting interest rates remaining above the level forecasted. Council officers have implemented a revised strategy to increase investment in two to five year fixed rate products with the aim of continuing to achieve greater returns in future years. Budgeted investment income has therefore increased from 2026/27 as a result.
- Total Expenses from Continuing Operations were lower than forecast due to a reduction in the environmental provision remediation provision for Foxglove Oval following approval to reduce the frequency of the monitoring program. The provision decreased by $7 million, from $23.38 million to $16.38 million, resulting in a $3.5 million reduction in expenditure recognised in the Income Statement.

### 3. Outcomes Achieved

The following outcomes have been achieved from the SRV in 2025/26:

Financial Sustainability

Income generated from the SRV has continued to ensure a balanced budget with an underlying surplus of $8.36 million at 30 June 2026. This result has enabled a number of transfers from the surplus to provide funding for major projects and asset maintenance and renewal initiatives to further support financial sustainability in future years.

Council maintained its debt free position throughout 2025/26 with no external loan borrowing at 30 June 2026.

Council's Long Term Financial Plan was updated for the next ten years (from 2026/27–2035/36) during the year and adopted by Council on 12 August 2026. This revised version of the Plan forecasts a financially sustainable outlook over the next ten years with an average budget (cash) surplus and average Income Statement (non-cash) surplus of $3.631 million and $8.069 million, respectively over the term of the Plan.

Asset Management

The requirements identified in Council's Assets Management Plans have been fully funded, assisted by an SRV allocation of $3.558 million for 2025/26. The latest Asset Management Strategy was revised and referred to Council at the 9 April 2025 General Meeting. This revised version of the Strategy noted that the condition of roads, buildings, open space (park assets) and stormwater drainage continues to be maintained at the level of service required by the community, assisted by the SRV funding allocated for this purpose.







ATTACHMENT 1 - ITEM 1

# LEGISLATIVE REQUIREMENTS

**4. Productivity Savings and Cost Containment**

Council's SRV application placed emphasis on the success of long term cost containment strategies and tight budgetary control that have been used to contained expenditure over many years. These measures have been in place since 2011/12 and continue to be implemented, including:

- A nil increase to non-contractual Divisional expenditure (net of direct labour) except where contractual increases cannot be offset by other operational efficiencies
- Direct salaries and wages based on the Local Government (State) Award calculated on a 50 pay week year. The two-week reduction from a full year represents organisational savings from an average delay in replacing staff members who retire/resign and/or productivity improvements that are required with these savings ring-fenced as a method of control at the start of each year. This measure reduced total operating expenditure by approximately $2.2 million/(1.3% proportionate to total operating expenditure) in 2025/26.
- The use of existing Council staff where possible to undertake capital work including grant and development contribution funded projects. This measure achieved savings in the order of $4.5 million/(2.6% proportionate to total operating expenditure) at 30 June 2026.
- Zero external loan borrowing and the continuation of prudent financial management.

A revised version of Council's Long Term Financial Plan (2026/27–2035/36) has recently been adopted, which includes recommendations that if achieved should continue to contain cost/improve productivity over the term of the Plan.

**5. Productivity Improvements**

Council's application was cautious to note that, with significant cost containment and productivity improvement work undertaken over the last ten years, further significant savings were not expected to be identified. Instead, the application noted that a comprehensive service review program was to be undertaken with the aim of ensuring that Council continues to provide value for money and meet service level expectations with the community.

In 2024, Council established a formal service review program to identify opportunities to improve customer experience, service delivery, operational effectiveness and long term sustainability. During 2024/25, reviews were completed across Development Assessment and administrative functions within the Infrastructure and Major Projects directorate. During 2025/26, Council continued implementing recommendations arising from these reviews and completed a review of Council's light fleet. Improvements delivered through the review program have focused on enhancing customer experience, streamlining processes, improving governance, reducing administrative effort and supporting more efficient use of Council resources.

Council will continue its service review program in 2026/27, with reviews of Heavy Fleet, Emergency Management, Community Facilities, and Engagement and Corporate Communications scheduled for completion. These reviews will help ensure Council services continue to meet community needs while making the best use of available resources.

In addition to service reviews, Council delivered a range of digital and process improvements aimed at enhancing customer experience and improving organisational efficiency. Initiatives included new contactless payment facilities at Council sites, improvements to application and booking processes, digitisation of paper-based forms and enhanced monitoring and reporting tools to support the timely management of customer requests and applications.

Council is dedicated to ensuring cost-effective, quality, and timely delivery of its services, with a focus on achieving positive customer outcomes. By prioritising customer satisfaction and service quality, Council aims to deliver value to the community.









ATTACHMENT 1 - ITEM 1

# LEGISLATIVE REQUIREMENTS

## Financially assisting others

*(Local Government (General) Regulation 2021, cl 217(1)(a5); Local Government Act 1993, s356)*

### Community Grants and Sponsorship

Council adopted an updated Policy relating to Community Grants and Sponsorship on 13 August 2025 which provides a framework to manage cash grants and in-kind sponsorship requests. Under the Policy there are six programs with funding streams available:

### 1. Community Event Grants

To provide seed funding to community driven, event based initiatives with a view to events being sustainably delivered by the community over time. A total of $60,000 is available per annum through two funding pools:

- $42,000 under the Community Event Partnership Grant funding pool, with cash funding, in kind support and sponsorship up to a total value of $7,000 per applicant organisation
- Designed to be one-off grants, $18,000 under the Place Activation Grant funding pool, with cash funding, in kind support and sponsorship available up to a total value of $3,000 per applicant organisation.

### 2. Venue Support Program

To support community not-for-profit groups utilising community and cultural facilities and parks to participate in fundraising activities for registered charities. A total of $17,000 is available annually by way of fee waiver applications.

### 3. Fee Waiver Requests for Waste Services

To support community not-for-profit groups, charities, churches and schools to provide activities that encourage participation in social, creative, cultural and community driven events and activities. A total of $5,000 is available annually by way of application.

### 4. Fee Waiver Requests for Council Health, Building and Planning Services

The program is available by application and will be applied to assist:

- not-for-profit local community based organisations that provide a community benefit and which align with Council's policies, strategies and activities
- Council with some of its own projects and activities
- in resolving issues that may have a potential risk or liability for Council.

### 5. Mayor's Youth Trust Fund

To support young people participating in representative activities on a regional, state and international basis. A total of $3,000, with 12 grants of $250 being made available each year.

### 6. Emergency Relief Fund

To provide financial support to communities affected by natural disasters, awarded by a resolution of Council. A total of $5,000 is available annually.

*For information on Council's financial assistance and support programs, see Council's website for Policies "Policy – Community Grants and Sponsorship"*

In 2025/26, funding was granted under the Community Grants and Sponsorship Policy as per the table to the right.

Other Council initiatives to assist community groups include subsidies to sporting groups for their use of sportsgrounds.

| Program | Applications funded | Funded amount $ | Total Funded amount $ |
|---|---|---|---|
| 1. Community Event Partnership Grant | 4 | | 28,000 |
| Berowra Woodchop (Apex) | | 7,000 | |
| Inala Fair | | 7,000 | |
| Relay for Life (Cancer Council NSW) | | 7,000 | |
| Hornsby Gang Show (Scouts Association NSW) | | 7,000 | |
| Place Activation Grant | 4 | | 10,000 |
| Brooklyn Spring Fair (Hawkesbury River Childcare) | | 1,000 | |
| Carols at Fagan Park (The Social Factory) | | 7,000 | |
| Harmony In Tea (Hornsby Ku-ring-gai Community College) | | 1,000 | |
| Project Green (Normanhurst Boys High School P&C) | | 1,000 | |
| 2. Venue Support Program | 39 | | 49,343 |
| 3. Fee Waiver for Waste Services | 3 | | 3,784 |
| 4. Fee Waiver for Council Health, Building and Planning Services | 2 | | 308 |
| 5. Mayor's Youth Trust Fund | | | 0 |
| 6. Emergency Relief Fund | | | 0 |
| **Total** | | | **91,435** |



ATTACHMENT 1 - ITEM 1

# LEGISLATIVE REQUIREMENTS

## Sponsorship and In-Kind Support

Council has a Sponsorship and In-Kind Support Policy to provide guidelines to assist Council to utilise sponsorship and the provision of in-kind support effectively and with probity.

*For information on Council's sponsorship guidelines, see Council's website for Policies "Policy – Sponsorship and In-Kind Support – Council's Involvement"*

Sponsorships delivered through the Policy during 2025/26 are set out below:

| Who to? | What for? | Cash |
|---|---|---|
| Precedent Productions Pty Ltd | Hornsby Ku-ring-gai Local Business Awards, July 2025 | $4,000 |

## Capital Expenditure Reviews

*(OLG Capital Expenditure Guidelines 2010)*

Councils are required to submit a Capital Expenditure Review for certain capital projects in accordance with the Office of Local Government's (OLG) Capital Expenditure Guidelines of December 2010.

The Capital Expenditure Guidelines apply to capital projects for infrastructure facilities, including renovations and extensions, that are expected to cost in excess of 10 per cent of Council's ordinary rate revenue of $9 million.

There have been no Capital Expenditure Reviews submitted during 2025/26.

## Development contributions

From 2022/23, councils are required to report on the total value of all development contributions and levies received and expended during the year and to disclose how those contributions and levies have been used or expended under contribution plans.

*(Environmental Planning and Assessment Regulation 2021 (EPA Reg) cl 218A(3)(a), (b))*

**Development contributions received and expended**

**Section 7.11 and Section 7.12 Contribution by Works Schedule**

| s7.11 Code | Category | Opening Balance $ | Income $ | Interest Received $ | Interest Allocated to Projects $ | Expenditure $ | Total $ |
|---|---|---|---|---|---|---|---|
| CF | Community Facilities | 36,916,596 | 1,307,517 | 2,218,652 | - | (1,262,573) | 39,180,192 |
| OS | Open Space | 28,338,204 | 2,189,397 | 1,184,614 | - | (7,534,488) | 24,177,728 |
| R | Local Road Facilities | 5,321,328 | 418,422 | 335,093 | - | (114,935) | 5,959,908 |
| PP | Plan Preparation and Administration | 366,686 | 10,475 | 15,093 | - | (73,644) | 318,610 |
| s7.11 Total | | 70,942,814 | 3,925,811 | 3,753,452 | - | (8,985,639) | 69,636,438 |
| S94A | S7.12 | 14,833,800 | 1,720,777 | 825,319 | - | (617,079) | 16,762,817 |
| s7.11 & s7.12 Total | | 85,776,614 | 5,646,588 | 4,578,771 | - | (9,602,718) | 86,399,255 |







**ATTACHMENT 1 - ITEM 1**

# LEGISLATIVE REQUIREMENTS

*(EPA Reg 218A(1), (2)(a), (b), (c), (d), (e), (f), (g))*

**Development contributions – Projects and expenditure**

| Type | Facility Type | Facility Reference | Description | Project Completed | Annual Expenditure 2025/26 $ | Life to Date Expenditure $ | Portion to be funded from Development Contributions | Amount borrowed from other purpose/category of the plan $ | Value of land/ material benefit other than money or land |
|---|---|---|---|---|---|---|---|---|---|
| s7.11 | Community Facilities | | S7.11 CF-008 Berowra Electrical Upgrade | | $ 50,000 | | 100% | 0 | N/A |
| s7.11 | Community Facilities | CF-001 | Hornsby Central Library | | 66,714 | 66,714 | 66% | 0 | N/A |
| s7.11 | Community Facilities | CF-002 | Library Resources | | 90,000 | 1,080,000 | 100% | 0 | N/A |
| s7.11 | Community Facilities | CF-003 | Hornsby Community Centre | | 175,427 | 182,711 | 66% | 0 | N/A |
| s7.11 | Community Facilities | CF-004 | Library Technology | | – | – | 66% | 0 | N/A |
| s7.11 | Community Facilities | CF-005 | Pennant Hills Library & Community Centre – New Building | | – | – | 66% | 0 | N/A |
| s7.11 | Community Facilities | CF-006 | Cherrybrook Community Centre | | 35,812 | 35,812 | 66% | 0 | N/A |
| s7.11 | Community Facilities | CF-007 | Wallarobba Arts and Cultural Centre | | – | – | 66% | 0 | N/A |
| s7.11 | Community Facilities | CF-008 | Community Stage | YES | – | 117,500 | 100% | 0 | N/A |
| s7.11 | Community Facilities | CF-008 | Embellish existing Community Centres | | 343,843 | 3,156,501 | 66% | 0 | N/A |
| s7.11 | Community Facilities | CF-008 | Glenorie Community Centre – Playground Upgrade | | – | 97,223 | 100% | 0 | N/A |
| s7.11 | Community Facilities | CF-008 | Cherrybrook Community Centre – Playground Upgrade | | 500,777 | 528,986 | 100% | 0 | N/A |
| s7.11 | Community Facilities | CF-008 | Hawkins Hall Community Centre – Playground Upgrade | YES | – | 350,345 | 100% | 0 | N/A |
| s7.11 | Local Road Facilities | RD-001 | Signalisation of Galston Road with Clarinda Street | | 1,185 | 313,414 | 66% | 0 | N/A |







**ATTACHMENT 1 - ITEM 1**

# LEGISLATIVE REQUIREMENTS

| Type | Facility Type | Facility Reference | Description | Project Completed | Annual Expenditure 2025/26 $ | Life to Date Expenditure $ | Portion to be funded from Development Contributions | Amount borrowed from other purpose/category of the plan $ | Value of land/ material benefit other than money or land |
|---|---|---|---|---|---|---|---|---|---|
| s7.11 | Local Road Facilities | RD-002 | Shire Wide Strategic Traffic and Transport Modelling | | – | 240,514 | 66% | 0 | N/A |
| s7.11 | Local Road Facilities | RD-003 | Peats Ferry and Bridge intersection upgrade | | 14,036 | 608,677 | 66% | 0 | N/A |
| s7.11 | Local Road Facilities | RD-003 | Compulsory acquisition 3 Bridge Road ($2,465,000) | | 99,714 | 2,693,933 | 66% | 0 | N/A |
| s7.11 | Local Road Facilities | RD-004 | Realign bus and taxi exit to become a 4 way signalised intersection with High Street and Peats Ferry Road | | 0 | 2,988 | 66% | 0 | N/A |
| s7.11 | Local Road Facilities | RD-005 | Reconfigure Station Street to allow traffic to enter from Coronation Street and provide a mini round-a-bout with angle parking | | – | – | 66% | 0 | N/A |
| s7.11 | Local Road Facilities | RD-006 | Close entrance to Station Street from Peats Ferry Road and provide pedestrian only traffic signals | | – | – | 66% | 0 | N/A |
| s7.11 | Local Road Facilities | RD-007 | Realign and provide staggered 4 way signalised intersection at Amaroo Ave/ Cowan Road | | – | – | 66% | 0 | N/A |
| s7.11 | Local Road Facilities | RD-008 | Median on Pacific Highway at Werombie Road | | – | – | 66% | 0 | N/A |
| s7.11 | Local Road Facilities | RD-009 | Traffic calming (Waitara Precinct and Alexandria Parade) | | – | 126,441 | 66% | 0 | N/A |
| s7.11 | Local Road Facilities | RD-010 | Corner of Mildred and Citrus Avenue, speed platform and pedestrian refuge | | – | – | 66% | 0 | N/A |
| s7.11 | Local Road Facilities | RD-011 | Median at Pacific Highway, Old Berowra Road | | – | 6,997 | 66% | 0 | N/A |
| s7.11 | Local Road Facilities | RD-012 | Median at Galston Road, Carrington Road | | – | 3,199 | 66% | 0 | N/A |
| s7.11 | Local Road Facilities | RD-013 | Extend Wattle Street to Amor Street (including 7 Amor Street) | | – | 1,288,191 | 66% | 0 | N/A |
| s7.11 | Local Road Facilities | RD-014 | Signals at four way intersection of Amor Street with Lords Avenue/Wattle Street | | – | – | 66% | 0 | N/A |
| s7.11 | Local Road Facilities | RD-015 | Additional lanes on Royston Parade and Sherbrook Road for right turns into Baldwin Street | | – | 312,064 | 66% | 0 | N/A |
| s7.11 | Local Road Facilities | RD-016 | Extend right turn bay (50m) on Pacific Hwy (north approach) into Wattle Street | | – | – | 66% | 0 | N/A |







**ATTACHMENT 1 - ITEM 1**

# LEGISLATIVE REQUIREMENTS

| Type | Facility Type | Facility Reference | Description | Project Completed | Annual Expenditure 2025/26 $ | Life to Date Expenditure $ | Portion to be funded from Development Contributions | Amount borrowed from other purpose/category of the plan $ | Value of land/ material benefit other than money or land |
|---|---|---|---|---|---|---|---|---|---|
| s7.11 | Local Road Facilities | RD-017 | Median closure on Pacific Hwy opposite Asquith Commercial Centre | | – | – | 66% | 0 | N/A |
| s7.11 | Local Road Facilities | RD-018 | Extend right turn bay (30m) or provide double right turn on Pacific Hwy (south approach) into Belmont Parade | | – | – | 66% | 0 | N/A |
| s7.11 | Local Road Facilities | RD-019 | Beecroft Town Centre traffic improvements including signalisation of Wongala Cr/ Hannah Street | | – | 32,627 | 66% | 0 | N/A |
| s7.11 | Local Road Facilities | RD-020 | Traffic calming in Thornleigh precinct (Wood Street and Bellevue Street) | | – | – | 66% | 0 | N/A |
| s7.11 | Open Space | | S7.11 Circulation Planting | | 76,528 | 76,528 | 100% | 0 | N/A |
| s7.11 | Open Space | | OMV FOP Civil Landscape and field of play ( Grants matching fund) | | 1,078,189 | 1,078,189 | 100% | 0 | N/A |
| s7.11 | Open Space | BL-001 | Asquith East Bushland Trail Links | | – | – | 66% | 0 | N/A |
| s7.11 | Open Space | BL-002 | Railway Station-Rofe Park-Asquith Park connection – Establishing links and bushwalking track | | – | – | 66% | 0 | N/A |
| s7.11 | Open Space | BL-003 | Beecroft Reserve – Upgrade bushland recreational trails | | – | 112,122 | 66% | 0 | N/A |
| s7.11 | Open Space | BL-004 | Fearnley Reserve Track Entrance, Beecroft | YES | – | 85,000 | 66% | 0 | N/A |
| s7.11 | Open Space | BL-005 | Berowra Park and walking track upgrades Berowra to Cowan area | YES | – | 495,000 | 66% | 0 | N/A |
| s7.11 | Open Space | BL-006 | New – Boardwalk at Brooklyn Park Foreshore | | 0 | 108,654 | 66% | 0 | N/A |
| s7.11 | Open Space | BL-007 | Brooklyn Bushland Trails – Establish a walking trail network across McKell Park by upgrading existing trail and building links | YES | – | 170,000 | 66% | 0 | N/A |
| s7.11 | Open Space | BL-008 | Devlins Creek Track to Lyne Road, Cheltenham | | 23,411 | 60,716 | 66% | 0 | N/A |
| s7.11 | Open Space | BL-009 | Callicoma Walk – Lakes of Cherrybrook and Blackwattle Place Cherrybrook (Stage 2) | YES | – | 120,000 | 66% | 0 | N/A |
| s7.11 | Open Space | BL-010 | Pyes Creek Connectivity Trail and link, Dural | | – | 49,741 | 77% | 0 | N/A |
| s7.11 | Open Space | BL-011 | Galston Recreation Trail Facility – Stage 2, Hayes Park | | – | – | 66% | 0 | N/A |
| s7.11 | Open Space | BL-012 | Carrs Bush, Galston – Stage 2 construction of new elevated boardwalk and accessible areas | YES | – | 345,000 | 66% | 0 | N/A |
| s7.11 | Open Space | BL-013 | Reddy Park Hornsby – Embellish pedestrian link Stage 2 – Extend trail and consolidate playground trail head | YES | – | 139,905 | 66% | 0 | N/A |
| s7.11 | Open Space | BL-014 | Stage 2 – Rofe Park Bushland Hornsby – Extend bushwalking track to full circuit | | – | 73,218 | 66% | 0 | N/A |
| s7.11 | Open Space | BL-015 | Stage 2 – Bluegum Forest, Ginger Meggs Loop and Track head upgrade | | – | 30,135 | 66% | 0 | N/A |







**ATTACHMENT 1 - ITEM 1**

# LEGISLATIVE REQUIREMENTS

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|---|---|---|---|---|---|---|---|---|---|
| s7.11 | Open Space | BL-016 | Hornsby Heritage steps trail construction and heritage restoration (Stages 2 and 3) | | – | 443,982 | 66% | 0 | N/A |
| s7.11 | Open Space | BL-016 | S7.11 Hornsby Park Bushland Tracks | | 394,164 | 394,164 | 100% | 0 | N/A |
| s7.11 | Open Space | BL-017 | Ginger Meggs Loop, Hornsby – Upgrade to bushwalking facilities | | – | 71,850 | 66% | 0 | N/A |
| s7.11 | Open Space | BL-018 | Pennant Hills Park Bushland tracks – Mambara Track-Pennant Hills Park fire trail connection | | – | – | 66% | 0 | N/A |
| s7.11 | Open Space | BL-019 | Great North Walk – entrance at Morgan Street, Pennant Hills | | 0 | 22,268 | 66% | 0 | N/A |
| s7.11 | Open Space | BL-020 | Stage 2 – Begonia Road and Blantyre Close Reserves, Thornleigh to Pine Street, Normanhurst. Upgrading existing informal pedestrian links through bushland reserves | | 197,200 | 309,290 | 66% | 0 | N/A |
| s7.11 | Open Space | BL-021 | Wareemba Avenue, Thornleigh – Embellishment of track head and creek crossing to connect to Ginger Meggs fire trail Hornsby | | – | – | 66% | 0 | N/A |
| s7.11 | Open Space | BL-022 | Great North Walk – bushwalk track head Thornleigh Oval to National Park Boundary | | – | – | 66% | 0 | N/A |
| s7.11 | Open Space | BL-023 | New Farm Road Bushland, West Pennant Hills – Provision of recreational walking trail facility | | – | 50,074 | 66% | 0 | N/A |
| s7.11 | Open Space | BL-024 | Westleigh Park Bushwalking Track | | – | – | 66% | 0 | N/A |
| s7.11 | Open Space | BL-025 | Larool Creek Track to Westleigh Park connection | | – | 179,916 | 66% | 0 | N/A |
| s7.11 | Open Space | BL-026 | Quarter Sessions Road Lookout and Access track, Westleigh | YES | – | 30,000 | 66% | 0 | N/A |
| s7.11 | Open Space | OSR-001 | Hornsby Park Complex – Stage 1 Specialty Park, Stage 2 Sportsground, Stage 3 Parklands | | 86,037 | 2,975,223 | 30% | 0 | N/A |
| s7.11 | Open Space | OSR-001 | Hornsby Quarry Design and Management | | 295,149 | 812,273 | 30% | 0 | N/A |
| s7.11 | Open Space | OSR-001 | Precinct C – Bushland Tracks & Trails | | 353,149 | 571,332 | 30% | 0 | N/A |
| s7.11 | Open Space | OSR-001 | Precinct F – Crusher Plant | | 5,443 | 1,883,636 | 30% | 0 | N/A |
| s7.11 | Open Space | OSR-001 | Enabling Works | | – | 222,180 | 30% | 0 | N/A |
| s7.11 | Open Space | OSR-001 | 3 Bridge Road ( $2m open space) | | – | 2,693,933 | 30% | 0 | N/A |
| s7.11 | Open Space | OSR-001 | Precinct B – Quarry Void – Circulation Works | | – | 51,913 | 30% | 0 | N/A |
| s7.11 | Open Space | OSR-001 | Precinct E – Northern Mound | | 0 | 86,760 | 30% | 0 | N/A |
| s7.11 | Open Space | OSR-001 | Embellishments Stage 1 Completion | | 526,857 | 526,857 | 30% | 0 | N/A |
| s7.11 | Open Space | OSR-001 | Circulation Vegetation | | 232,937 | 232,937 | 100% | 0 | N/A |
| s7.11 | Open Space | OSR-001 | Sitewide REF | | 120,508 | 120,508 | 100% | 0 | N/A |

# LEGISLATIVE REQUIREMENTS

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|---|---|---|---|---|---|---|---|---|---|
| s7.11 | Open Space | OSR-001 | Circulation Works | | 747,198 | 747,198 | 100% | 0 | N/A |
| s7.11 | Open Space | OSR-001 | Signage & Interps | | 267,413 | 267,413 | 100% | 0 | N/A |
| s7.11 | Open Space | OSR-001 | S7.11 Greenspace | | 309,642 | 309,642 | 100% | 0 | N/A |
| s7.11 | Open Space | OSR-002 | Hornsby Shire Bike Plan (HSBP) – Stage 1 Works | | – | 21,673 | 66% | 0 | N/A |
| s7.11 | Open Space | OSR-003 | Waitara Park – Level 1 Destination Parkland Development | YES | – | 3,286,344 | 63% | 0 | N/A |
| s7.11 | Open Space | OSR-003 | Waitara Park – Level 1 Destination Parkland Development | YES | – | 2,226,783 | 63% | 0 | N/A |
| s7.11 | Open Space | OSR-003 | Waitara Park – Level 1 Destination Parkland Development | YES | – | 4,196,198 | 63% | 0 | N/A |
| s7.11 | Open Space | OSR-003 | Waitara Park – Level 1 Destination Parkland Development | YES | – | 2,580,936 | 63% | 0 | N/A |
| s7.11 | Open Space | OSR-003 | Waitara Park – Level 1 Destination Parkland Development | YES | – | – | 63% | 0 | N/A |
| s7.11 | Open Space | OSR-003 | Waitara Park – Level 1 Destination Parkland Development | YES | – | – | 63% | 0 | N/A |
| s7.11 | Open Space | OSR-003 | Waitara Park – Level 1 Destination Parkland Development | YES | – | 9,326 | 63% | 0 | N/A |
| s7.11 | Open Space | OSR-004 | Westleigh Park embellishment (Stage 1) | | 1,720,106 | 22,164,105 | 24% | 0 | N/A |
| s7.11 | Open Space | OSR-005 | Brickpit Park embellishment (stage 2) | | 5,851 | 2,516,306 | 66% | 0 | N/A |
| s7.11 | Open Space | OSR-006 | Public Domain Improvements in Town Centres – Asquith to Mt Colah | | 84,753 | 5,916,395 | 66% | 0 | N/A |
| s7.11 | Open Space | OSR-007 | John Purchase Oval – Synthetic field | | | – | 22% | 0 | N/A |
| s7.11 | Open Space | OSR-008 | Warrina Street Oval – Destination park embellishment | YES | – | 800,000 | 66% | 0 | N/A |
| s7.11 | Open Space | OSR-009 | Parklands Oval – Floodlights | YES | – | 170,921 | 66% | 0 | N/A |
| s7.11 | Open Space | OSR-010 | Ron Payne Oval amenities | | 50,000 | 1,050,400 | 16% | 0 | N/A |
| s7.11 | Open Space | OSR-011 | Campbell Park Oval synthetic field | | – | – | 66% | 0 | N/A |
| s7.11 | Open Space | OSR-012 | Normanhurst Oval – floodlights and amenities | | – | 342,392 | 66% | 0 | N/A |
| s7.11 | Open Space | OSR-013 | James Henty Oval Floodlights | | 216,951 | 243,282 | 66% | 0 | N/A |
| s7.11 | Open Space | OSR-014 | Edward Bennett Oval Amenities | | 0 | 0 | 66% | 0 | N/A |
| s7.11 | Open Space | OSR-015 | Pennant Hills Park– Walking paths | YES | 101,822 | 2,080,000 | 66% | 0 | N/A |
| s7.11 | Open Space | OSR-016 | McKell Park Brooklyn – Walking paths and park embellishment | YES | – | 720,000 | 66% | 0 | N/A |
| s7.11 | Open Space | OSR-017 | Mark Taylor Oval, Waitara – Sportsground Upgrades | | – | 1,282,456 | 3% | 0 | N/A |
| s7.11 | Open Space | OSR-018 | Fagan Park Playground – Stage 2 | | 76,163 | 512,072 | 66% | 0 | N/A |
| s7.11 | Open Space | OSR-019 | Local Playground Asquith | | 463,752 | 472,673 | 66% | 0 | N/A |
| s7.11 | Open Space | OSR-020 | New Local Playground Mt Colah | | 101,262 | 592,836 | 66% | 0 | N/A |
| s7.11 | Open Space | OSR-021 | Willow Park – Playground embellishment | | | – | 66% | 0 | N/A |
| s7.11 | Open Space | OSR-022 | Wollundry Park – Park and Playground embellishment | | 0 | 606,027 | 66% | 0 | N/A |



ATTACHMENT 1 - ITEM 1

# LEGISLATIVE REQUIREMENTS

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|---|---|---|---|---|---|---|---|---|---|
| s7.11 | Open Space | OSR-023 | Hunt Reserve – Park and playground embellishment | YES | – | 900,000 | 66% | 0 | N/A |
| s7.11 | Open Space | OSR-024 | New off leash dog areas in existing parks – Hunt Reserve | | – | -11,069 | 66% | 0 | N/A |
| s7.11 | Open Space | OSR-024 | New off leash dog areas – Fagan Park | | 0 | 100,000 | 66% | 0 | N/A |
| s7.11 | Open Space | OSR-024 | New off leash dog areas – Greenway Park | YES | – | 101,500 | 66% | 0 | N/A |
| s7.11 | Open Space | OSR-024 | New off leash dog areas – Brickpit | | 0 | 200,000 | 66% | 0 | N/A |
| s7.11 | Open Space | OSR-025 | Erlestoke Park Amenities | YES | – | 600,000 | 66% | 0 | N/A |
| s7.11 | Open Space | OSR-026 | Rofe Park Amenities | | – | 125,262 | 66% | 0 | N/A |
| s7.11 | Open Space | OSR-027 | Ruddock Park Amenities | YES | – | 1,020,000 | 66% | 0 | N/A |
| s7.11 | Open Space | OSR-028 | Lisgar Gardens Public Toilets | | – | 628,116 | 66% | 0 | N/A |
| s7.11 | Plan Preparation | | S7.11 Administration Costs – Planning | | 56,132 | 316,218 | 1% | 0 | N/A |
| s7.11 | Plan Preparation | | S7.11 Administration Costs – Management Accounting Team | | 17,512 | 66,661 | 1% | 0 | N/A |
| s7.12 | S7.12 | | S7.12 Headen Park Thornleigh (Fitness Equipment) | | 58,346 | 58,346 | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-001 | Street / Park Tree Planting Program | YES | – | 1,500,000 | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-002 | Ruddock Park, Westleigh – shade structure | YES | – | 76,455 | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-002 | Berowra Oval – shade structure | YES | – | 23,080 | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-002 | Playground Shade Devices | | – | – | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-002 | Epping Oval Shade Structure | | – | 21,835 | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-002 | Foxglove Oval Shade Structure | | – | – | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-003 | Greenway Park Off Leash Park (including turf renewal, seating and fencing) | YES | – | 51,500 | 66% | 0 | N/A |
| s7.12 | S7.12 | S7.12-003 | Off Leash Dog Facility Improvements | | – | – | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-003 | Dawson Ave Off Leash Park | | – | – | 66% | 0 | N/A |
| s7.12 | S7.12 | S7.12-003 | Crossroad Off Leash Park | | – | – | 66% | 0 | N/A |
| s7.12 | S7.12 | S7.12-003 | S7.12 Rofe Off Leash | | – | 120,000 | 66% | 0 | N/A |
| s7.12 | S7.12 | S7.12-004 | Installation of Solar Panels at Hornsby Aquatic Centre | | – | 104,609 | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-005 | Installation of Solar Panels at Community Recycling Centre | | – | 4,813 | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-006 | Bushland Reserves Infrastructure | | – | 541,267 | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-006 | Stage 2 – Begonia Road and Blantyre Close Reserves Thornleigh to Pine Street, Normanhurst. Upgrading existing informal pedestrian links through bushland reserves. | | 103,664 | 309,290 | 66% | 0 | N/A |









**ATTACHMENT 1 - ITEM 1**

# LEGISLATIVE REQUIREMENTS

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|---|---|---|---|---|---|---|---|---|---|
| s7.12 | S7.12 | S7.12-007 | Hornsby Library short-term expansion | YES | – | 2,700,000 | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-008 | Shareway / Cycleway Program | | 288,230 | 468,463 | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-009 | Footpath – Baldwin Avenue, Asquith – Chelmsford Road to Victory Street (Left-hand side) | YES | – | 38,271 | 6% | 0 | N/A |
| s7.12 | S7.12 | S7.12-009 | Footpath – Westwood Street, Pennant Hills – Outside 19 to 23 | YES | – | 4,367 | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-009 | Footpath – Wall Avenue, Asquith – Mittabah Road to Asquith Oval (Mills Road) | YES | – | 69,566 | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-009 | Footpath – Wall Avenue, Asquith – Asquith Oval (Mills Road) to Rupert Street | YES | – | 78,467 | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-009 | Footpath – Tristania Way, Beecroft – Sutherland Road to end of cul-de-sac | YES | – | 23,062 | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-009 | Footpath – Balaclava Road, Berowra – Kona Close to Hillcrest Road (side TBD) | YES | – | 26,914 | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-009 | Footpath – Barnetts Road, Berowra Heights – Wyanna Street to Rona Close | YES | – | 53,326 | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-009 | Footpath – Warrina Street, Berowra Heights – Warwick Close to Koloona Street | YES | – | 10,346 | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-009 | Footpath – Boundary Road, Berowra – High Street to King Street | YES | – | 25,420 | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-009 | Footpath – Hillview Street/Sunset Avenue, Hornsby Heights – Somerville to end of Sunset | YES | – | 87,040 | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-009 | Footpath – Clement Close, Pennant Hills – Azalea Grove to end | | – | 536 | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-009 | Footpath – Azalea Grove, Pennant Hills – Clement Close to Liguori Way | YES | – | 27,894 | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-009 | Footpath – Adamson Avenue, Thornleigh – Sefton Road to Norman Avenue (Right-hand side) | | – | – | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-009 | Footpath – Quarter Sessions Road, Westleigh – Western Crescent North and Loop (Right-hand side) | | – | 22,614 | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-009 | Footpath – New Line Road, Cherrybrook – Franklin Road to City Drive | | – | 63,365 | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-009 | Footpath – Koloona Street, Berowra Heights – Warrina Street to Jaranda | | – | 16,000 | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-010 | Warrina Street Oval Exercise Equipment | YES | – | 153,855 | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-010 | Playground Improvement | | – | – | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-010 | Galston Recreation Reserve Exercise Equipment | YES | – | 76,261 | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-010 | Ruddock Park Exercise Equipment | | | – | 100% | 0 | N/A |
| s7.12 | S7.12 | S7.12-010 | S7.12 North Epping Oval – Exercise Equipment | | 150,000 | 150,000 | 100% | 0 | N/A |
| s7.12 | S7.12 | S7-12-011 | Gateway Signage | | 16,839 | 16,839 | 100% | 0 | N/A |







**ATTACHMENT 1 - ITEM 1**

# LEGISLATIVE REQUIREMENTS

## Contracts awarded greater than $150,000

*(Local Government (General) Regulation 2021, cl 217(1)(a2) (i), (ii))*

| Nature of Goods or Services Provided | Name of Contractor/s | Total Amount Payable Under the Contract |
|---|---|---|
| Storey Park Cricket Practice Wickets Works | JL Turf Group | $151,200 |
| Amor St Park Playground | Austek Play | $170,176 |
| Hornsby Park Embellishments Circulation – Road Barrier | Hunt Civil | $170,296 |
| Landscape Construction – Ulolo Community Park | Civilscape | $173,144 |
| James Henty Oval Sportsground Lighting | REES Electrical | $173,800 |
| Galston Major Drainage | Precast Civil Industries Pty Ltd | $182,968 |
| Civil Works for Cherrybrook Community and Cultural Centre Playground | MHF Civil Works Pty Ltd | $183,497 |
| Hand and Bicycle Rails Hornsby Park | TTM Engineering | $192,995 |
| Hornsby Town Centre Performing Arts Demand & Scoping | Michelle Tabet | $198,930 |
| Design Consulting – Community Facilities and Libraries | Annie Hensley – Fjcstudio | $203,000 |
| Hornsby Park Embellishments – Circulation – Wallaby Fencing | Jamie Potts Fencing | $205,535 |
| Local Government Enterprise Agreement – Year 3 2026-2027 Annual Subscription | ESRI Australia Pty Ltd | $206,858 |
| Paving for Quarry Loop Road | ANJ Paving Pty Ltd | $207,540 |
| Provision of a fully managed Security Operations Centre & Security Information and Event Management | ThreatDefence | $216,480 |
| Sullage removal | Premier Pumpouts | $220,000 |
| Purchase of Toro Mower | Semco Pty Ltd | $231,602 |
| Construction work of Cherrybrook Community Center Playground Stage 2 | Civilscape | $248,213 |
| Amor St Park Playground Construction Works | GJ's Landscapes Pty Ltd | $257,853 |
| Hornsby Park Embellishments Circulation – Road Barrier Footings | McGoo Civil Pty Ltd | $267,685 |
| Upgrade Charles Curtis Park, Normanhurst | GJ 's Landscapes Pty Ltd | $275,231 |
| Foxglove Oval Contaminated Land Auditor Services | Senversa Pty Ltd | $300,000 |
| Supply prefabricated storage and toilet buildings for Asquith Oval | Landmark Products Ltd | $322,905 |
| Supply, Installation and Maintenance of Fire Protection Systems and Equipment | Wormald Australia Pty Ltd | $374,325 |
| Singleton Road – Embankment Failures Rectification | Ground Stabilisation Systems Pty Ltd | $383,295 |
| Legal Services | Clayton Utz | $386,649 |
| Traffic Management Treatments for Hornsby High Pedestrian Activity Area | Haytch Group Pty Ltd | $493,658 |
| Software subscriptions | Data#3 | $569,247 |
| Design and Construction of Brooklyn Wharf Pontoon | GPM Marine Constructions Pty Ltd | $589,921 |
| Traffic Management Treatments for Hornsby High Pedestrian Activity Area | J & G Asphalt & Civil Contractors Pty Ltd | $605,266 |







ATTACHMENT 1 - ITEM 1

# LEGISLATIVE REQUIREMENTS

| Nature of Goods or Services Provided | Name of Contractor/s | Total Amount Payable Under the Contract |
|---|---|---|
| Hornsby Park Embellishments Quarry Road Arrival Plaza | Solutions+ (Solutions Plus Built Pty Ltd t/a Solutions+) | $649,979 |
| Hornsby Park, Old Mans Valley – Bike Jumps and Pump Track | Solutions Plus Build Pty Ltd t/a Solutions+ | $808,602 |
| Hornsby Park Embellishments (HPE) Underboring | Memba Civil Pty Ltd | $812,000 |
| Playspace upgrade and supply and installation of gross pollutant trap and associated stormwater works, Edward Bennett Oval, Cherrybrook | Whittaker Civil Infrastructure | $993,319 |
| Purchase of BioBanking Credits for the Redevelopment of Westleigh Park for a recreational facility | Biodiversity Conservation Trust of NSW | $2,135,247 |
| Galston Public Domain Upgrades | Mack Civil Pty Ltd | $3,305,802 |
| Hornsby Park Embellishments (HPE) Services Enhancement | Bedrule Pty Ltd t/a Tobco | $3,886,207 |
| Hornsby Park Embellishments Building and Amenities work for Old Mans Valley Field of Play | Westbury Constructions Pty Ltd | $4,273,000 |
| Hornsby Park Embellishments Civil, Landscape and Field of Play | Solutions Plus Build Pty Ltd t/a Solutions+ | $7,898,842 |
| Road Surfacing, Patching and Associated Works | Category A – Profiling & Road Reconstruction<br>– Bitupave Ltd t/a NSW Boral Asphalt<br>– Fulton Hogan<br>– Downer EDI (Reserve)<br>Category B – Heavy Patching<br>– NSW Building & Civil Pty Ltd<br>– Stateline Asphalt Pty Ltd<br>– ANJ Asphalt (Reserve)<br>Category C – Sprayed Bitumous Surfacing<br>– All Pavement Solutions/Bernipave Road Solutions<br>– State Asphalt Services Pty Ltd<br>– NSW Building & Civil Pty Ltd (Reserve) | Schedule of Rates |
| Hire of Plant and Equipment | Acclaimed Excavations Pty Ltd<br>BMI Contracting Pty Ltd<br>Cassidy Earthworx Pty ltd<br>Dinamo Pty Ltd<br>Dustmite Excavations Pty Ltd<br>Global Excavations & Demolition Pty Ltd<br>Insight Plumbing and Excavations Pty Ltd<br>Ken Coles Excavations Pty ltd<br>Mulgoa Excavations Pty ltd<br>Raygal Pty Ltd<br>Rollers Australia Pty Ltd<br>S&M Spiteri Constructions Pty Ltd<br>Total Drain Cleaning Services (TDG Environmental<br>Woodbury Tipper Hire Pty Ltd | Schedule of Rates |



ATTACHMENT 1 - ITEM 1

# LEGISLATIVE REQUIREMENTS

| Nature of Goods or Services Provided | Name of Contractor/s | Total Amount Payable Under the Contract |
|---|---|---|
| Environmental Services in Gross Pollutant Traps – Bio-filters – Stormwater Harvesting and Waterways | Alluvium Consulting Australia Pty Ltd<br>Optimal Stormwater Pty Ltd<br>Stormwater Services Australia Pty Ltd<br>Civille Pty Ltd<br>Applied Ecology Pty Ltd | Schedule of Rates |
| Asset Maintenance | Aarons Asphalt<br>All Civil Works Group Pty Ltd<br>Aqua-Assets Pty Limited<br>Aston and Bourke Pty ltd<br>Australia Pave Pty Ltd<br>BMI Contracting<br>Buildsmore Pty Ltd<br>Convil Group Pty Ltd<br>Destraz Pty Ltd t/a D & P Fencing<br>Demand Plumbing & Civil<br>Draintech Soluitons Group Pty Limited<br>Envirocivil NSW Pty Ltd<br>Haytch Group<br>Hunt Civil P/L<br>Jason Tripoussis Pty Ltd<br>North Shore Paving Co. Pty Ltd<br>Northern Fencing Specialists Pty Ltd<br>NSW Kerbing Pty Ltd<br>Hutchens Holdings Pty Ltd t/a Nuflow Northwest Pipe Rehabilitation<br>Pave-Link Pty Ltd t/a Outdoor and General<br>Pipe Management Australia Pty Ltd<br>Quality Management & Constructions Pty Ltd (t/a QMC Group)<br>Raygal<br>Total Drain Cleaning Services Pty Ltd (branded as TDG Environmental)<br>Traffic Facilities Maintenance Pty Ltd | Schedule of Rates |
| Supply and Delivery of Concrete on Schedule of Rates basis | Metromix Pty Ltd | Schedule of Rates |



ATTACHMENT 1 - ITEM 1

# LEGISLATIVE REQUIREMENTS

## Companion animals

*(Local Government (General) Regulation 2021, cl 217(1)(f); Companion Animals Act 1998)*

In accordance with the Companion Animals Act 1998 and Local Government (General) Regulation 2021 the Public Health team co-ordinates the management and control of companion animals. Council employs three full-time officers to facilitate the management of companion animals, with one full-time Animal Control Officer and two Companion Animal Officers who alternate field and administrative duties. The total expenditure for the program in 2025/26 was $455,896.

The following table details the financial expenditure to conduct the companion animal management activities that include providing quality education, support and care for residents and their companion animals.

| | $ |
|---|---|
| **Expenses** | **455,896** |
| Salary and wages | 272,669 |
| Materials and equipment | 1,738 |
| Pound contract expenses | 19,062 |
| Internal corporate costs | 68,144 |

### Impounding facilities

Council's pound provider is Hawkesbury Companion Animal Shelter located at Mulgrave which is owned and operated by Hawkesbury Council.

The majority of animals transferred to the pound at Mulgrave have no microchip or the registered details are incorrect and the owner is not able to be identified.

Pound data collection for 2025/26:

| Impounding | 2025/26 |
|---|---|
| Dogs seized | 62 |
| Returned to owner | 42 |
| Transferred to Council Pound | 20 |
| Euthanised | 7 |
| Sold (by Pound) | 1 |
| Rehomed with rescue organisations | 12 |

### Strategies in place to seek alternatives to euthanasia for unclaimed animals

The holding facility at Council's depot enables animals to be temporarily held while officers investigate all available options to find the owners.

Council works directly with animal rescue volunteer groups to rehome cats and dogs that do not have an owner.

### Off-leash areas provided in the council area

Hornsby Shire has 10 full-time off-leash areas for exercising and training dogs. Nine of the areas are fully fenced with double gates at all entrances and have waste bins, dog waste bags and water. These areas are extremely popular with dog owners and are heavily used:

- Asquith Park, Rotherwood Street, Asquith
- Crossroads Reserve, corner Turner and Berowra Waters Roads, Berowra Heights
- Lyne Road Reserve, Lyne Road Cheltenham
- Greenway Park, Shepherds Drive, Cherrybrook
- Rofe Park, Galston Road, Hornsby Heights
- Ruddock Park, Eucalyptus Drive, Westleigh
- Dawson Street, Thornleigh.
- Hunt Reserve, Mount Colah
- Brickpit Park, Thornleigh
- Fagan Park, Galston.

Lyne Road Reserve in Cheltenham is an unfenced off-leash area. This site has water, waste bags and a bin provided.

Two other sites are available:

- Epping Oval, Norfolk Road, Epping (penalties apply for dogs running onto turf wicket square)
- Ron Payne Reserve, Woods Street, North Epping.

Dogs are not permitted at these sites during organised sport, games or maintenance activities.

The oval and reserve are enclosed by a perimeter fence. Council provides access to water and free dog waste bags at these locations.







ATTACHMENT 1 - ITEM 1

# LEGISLATIVE REQUIREMENTS

### Dog attacks

Data is lodged through the NSW Companion Animals Register.

| Dog attacks | 2025/26 |
|---|---|
| Incidents registered | 71 |
| Dogs involved in attacks | 71 |
| Attacks on persons | 42 |
| Attacks on animals | 39 |

### Enforcement

There were a total of 54 nuisance orders issued.

| Nuisance orders | 2025/26 |
|---|---|
| Runs at/chases | 3 |
| Endangers health of a person/animal | 44 |
| Habitually at Large | 6 |
| Noise | 1 |

A total of 41 Penalty Infringement Notices were issued for breaches of the Companion Animals Act 1998.

| Penalty Infringement Notices | 2025/26 |
|---|---|
| Dog rushing/harassing/attacking | 4 |
| Not under effective control | 21 |
| Not prevented from escaping | 3 |
| Companion Animal not registered as prescribed | 13 |

### Education

Council provides information sheets on the following topics and this information is also available on Council's website:

- Microchipping and registration
- Responsibilities of dog owners
- Controlling nuisance barking
- Noise nuisance from barking dogs
- Keeping of cats
- Wildlife protection areas.

Education resources are provided by Council to improve community awareness and promote responsible pet ownership. These resources include fact sheets providing guidance on keeping cats safe at home and brochures detailing how to register a companion animal.

## Strategies in place to promote and assist the desexing of dogs and cats

### Subsidised Cat Desexing and Microchipping Program

Council has partnered with the National Desexing Network to provide a subsidised cat desexing and microchipping program for residents. Information on the program is available on Council's website.

| Subsidised Cat Desexing Program | 2025/26 |
|---|---|
| Number of cats microchipped | 35 |
| Number of cats desexed | 35 |

### RSPCA 'Keeping Cats Safe at Home'

Council participated in the RSPCA Keeping Cats Safe at Home program through local initiatives including targeted desexing programs and community engagement activities. The program concluded in December 2024.

Following its conclusion, the RSPCA continued to deliver a similar program within the Hornsby local government area independently of Council. Information on the number of cats microchipped and desexed through this program was not available to Council.









ATTACHMENT 1 - ITEM 1

# LEGISLATIVE REQUIREMENTS

## Swimming Pools Act 1992

*(Swimming Pools Act 1992, s22F(2);*
*Swimming Pools Regulation 2018, cl 23)*

| Mandatory pool inspection program | |
|---|---|
| Number of swimming pools inspected | 324 |
| Number of inspections resulting in issuance of a Certificate of Compliance under section 22D of the Act | 220 |
| Number of inspections resulting in issuance of a Certificate of Non Compliance under clause 21 of the Regulation | 39 |
| Number of inspections of tourist and visitor accommodation | 1 |
| Number of inspections of premises with more than two dwellings | 9 |

Note: Changes to the NSW Government Swimming Pool Register may have affected the accuracy of the above data.

## Rates and charges written off

*(Local Government (General) Regulation 2021, cl 132)*

During 2025/26, the following rates and charges were written off under the Local Government (Rates and Charges) Regulation 1993:

| Rates and charges written off | $ |
|---|---|
| Pensioner rates | * 1,536,220 |
| Non-pensioner rates (postponed) | 6,677 |
| Interest (postponed) | 2,373 |

*55% of this is recovered from the NSW Government

## Planning Agreements

*(Environmental Planning and Assessment Act 1979, s7.5(5))*

Planning Agreements are legal agreements between planning authorities (such as councils or the NSW Government) and developers. There were no Planning Agreement executed during 2025/26.

A Planning Agreements Register is available on Council's website.

## Work carried out on private land

*(Local Government Act 1993, s67(2)(b), s67(3);*
*Local Government (General) Regulation 2021, cl 217(1)(a4))*

Council did make any resolutions to undertake work on private land during 2025/26.

## External bodies exercising Council functions

*(Local Government (General) Regulation 2021, cl 217(1)(a6))*

In accordance with the Local Government Act 1993, the statement of 'external bodies' is limited to those organisations which exercised functions delegated by Council. In 2025/26 there were no 'external bodies' exercising functions delegated by Council.

Council has entered into a service agreement with the Rural Fire Service outlining roles and responsibilities of the respective parties.

## Controlling interest in companies

*(Local Government (General) Regulation 2021, cl 217(1)(a7))*

Council did not hold a controlling interest in any company in 2025/26.

## Partnerships, cooperatives and joint ventures

*(Local Government (General) Regulation 2021, cl 217(1)(a8))*

Council works with the Rural Fire Service and participates in the assessment and construction of new facilities as deemed appropriate.

## Environmental Upgrade Agreements

*(Local Government Act 1993, s54P(1))*

There were no Environmental Upgrade Agreements entered into during 2025/26.

## Recovery and threat abatement plans

*(Fisheries Management Act 1994, s220ZT(2))*

Council is not identified as responsible for implementation of measures in any recovery and threat abatement plans.

## Stormwater levies

*(Local Government (General) Regulation 2021, cl 217(1)(e))*

Council has had no annual charge levied for stormwater management services.

## Coastal Protection Services

*(Local Government (General) Regulation 2021, cl 217(1)(e1))*

Council does not provide coastal protection services.



ATTACHMENT 1 - ITEM 1

# LEGISLATIVE REQUIREMENTS

## Privacy and Personal Information Protection Act 1998

Although Council aims to provide as much information as possible, we also aim to protect your privacy. We have adopted a Privacy Management Plan in accordance with the Privacy and Personal Information Protection Act (PIPA) 1998. The Privacy Management Plan is based on the Model Privacy Management Plan for Local Government issued by the Office of Local Government in January 2013. The Plan confirms Council's commitment to the protection of privacy and outlines our practice for dealing with personal information held in our records. The Plan also outlines our process in complying with the Health Records and Information Privacy Act.

*For information on Council's Privacy and personal information protection protocol, see Council's website for Policies "Policy – Statutory – Privacy Management Plan"*

## Public Interest Disclosures

*(Public Interest Disclosures Act 2022, s42)*

Council has a responsibility under the Public Interest Disclosures Act 2022 to encourage and facilitate the disclosure, in the public interest, of corrupt conduct, maladministration or serious and substantial waste of public money, government information contravention, local government pecuniary interest contravention, or other wrongdoing.

Council has an adopted policy to augment the establishment of procedures for making disclosures, to provide for disclosures to be properly investigated and dealt with, and to protect people from reprisals. The policy also outlines the relevant investigating authorities in NSW.

All employees receive information about Public Interest Disclosures during staff induction. Information about reporting wrongdoing is also displayed throughout Council's offices and is available on Council's intranet.

During 2025/26, there were no Public Interest Disclosures made to Council.

*For information on Council's Public Interest Disclosure protocol, see Council's website for Policies "Policy – Public Interest Disclosures"*

## Requests for information

*(Government Information (Public Access) Act 2009, s125(1); Government Information (Public Access) Regulation 2018, cl 8, Schedule 2)*

Hornsby Council has a commitment to openness and transparency, and to assisting easy access to information that it holds. To support this commitment, as much information as possible is available on its website and Council's various social media channels:

| Social media channels | |
|---|---|
| Facebook | facebook.com/HornsbyCouncil |
| Instagram | instagram.com/hornsbycouncil |
| X (formerly Twitter) | x.com/hornsbycouncil |
| YouTube | youtube.com/user/HornsbyCouncil |
| LinkedIn | linkedin.com/company/hornsby-shire-council |
| Council's E-News | hornsby.nsw.gov.au/council/noticeboard/news/join |

The information available on the website and social media channels is regularly reviewed and updated, having regard to current issues and topics of public interest.

Information which is not available on the website or social media channels can be requested through Council's Access to Information Team who will process the request in accordance with the Government Information (Public Access) (GIPA) Act. A GIPA application is processed as quickly as possible and is generally free of charge.

During 2025/26 Council processed 1,535 GIPA applications. A summary of the type of information sought is shown below.

| Request Category | Number | % of total requests |
|---|---|---|
| Development Application/Property information – hardcopy files | 509 | 33 |
| Development Application/Property information – electronic files | 633 | 41 |
| Service Request | 31 | 2 |
| Neighbour ID | 124 | 8 |
| Other request | 252 | 16 |

Note: Some applications request more than one type of information



ATTACHMENT 1 - ITEM 1

# LEGISLATIVE REQUIREMENTS

## EEO Management Plan

*Local Government (General) Regulation 2021, cl 217(1)(a9))*

Hornsby Shire Council is committed to providing a workplace that is free from unlawful discrimination, bullying and harassment and promotes equal employment opportunity for all employees.

During 2025/26, Council continued to embed Equal Employment Opportunity (EEO) principles through actions which included:

- Induction training, incorporating EEO principles
- Continuation of mandatory face-to-face Respect@HSC training for all employees and new employees (two hours) and people leaders, both existing and new (three hours) covering EEO principles including discrimination, bullying and harassment
- Development of Council, Division and Branch psychosocial hazard and risk heatmaps to inform action plans addressing psychosocial hazards and risks across the workplace, including EEO-related matters
- Completion of an EEO e-learning module by 48 new employees
- Continuation of recruitment and selection training for new recruitment convenors to ensure familiarity with EEO principles
- Conducting and monitoring exit interviews by the People and Culture Branch to identify EEO-related issues and implement appropriate actions where required. Copies of exit interviews were also provided to the General Manager and relevant Directors, and to Branch Managers where requested by the employee
- Annual Peakon Engagement/Culture Survey providing employees with an opportunity to comment on employment conditions. The survey, enhanced in 2024 to include a specific question on psychosocial hazards and risks, is monitored to identify areas requiring improvement and action, including EEO matters
- Conducting and monitoring new starter surveys to assess the initial workplace experiences of newly commenced employees
- Provision of a broad range of internal and external training opportunities for employees, with all training delivered in accordance with EEO principles
- Continuation of a project to support employees who experience customer abuse
- Commencement of the implementation of the psychosocial hazard and risk management program
- Development of a Diversity, Equity and Inclusion Program for launch in 2026/27, incorporating EEO principles.

## Compliance with the NSW Carers (Recognition) Act 2010

*(Carers Recognition Act 2010, s8(2))*

The objectives of the NSW Carers (Recognition) Act 2010 are to enact a Carers Charter to recognise the role and contribution of carers to our community and to the people they care for, and to increase awareness of the valuable contribution that carers make to our community.

### Staff who are carers

Council supports staff who are carers in a number of ways and continues to comply with the Carers (Recognition) Act 2010 through its Sick and Carers Leave Policy and flexible work practices.

Employees are afforded access to flexible work practices to accommodate any carer's responsibilities through:

- the use of flex time, including flexible start and finish times, and a nine-day fortnight
- access to annual leave, long service leave, carers leave, my leave, family and domestic violence leave, special leave, as well as leave without pay where necessary
- part-time work
- access to regular working from home opportunities.

Each carer's circumstances are considered individually to ensure that their needs are recognised.

Council is continually progressing improvements to its Health and Wellbeing program with an emphasis on managing mental and psychosocial health and dealing holistically with work-life balance.

Council provides an Employee Assistance Program offering confidential counselling for work-related or personal problems. AccessEAP is an independent service focused on maintaining the mental wellbeing of employees which offers access to professionally qualified and experienced psychologists.

Council introduced a 'Mind Mate' program in July 2023, where a number of employees have been trained to offer interim mental health support to staff and to direct them to professional help where needed. This may be beneficial to employees in a caretaking role, who may need assistance to seek professional help in relation to their carer role.

### Council programs

Hornsby Shire Council recognises the vital role carers play in supporting the community and provides a range of programs and services to assist carers and the people they care for.

The Community Services Branch continues to connect residents with appropriate support services through information, referrals and partnerships with community organisations.

In partnership with KNC, Council delivers the weekly Dementia Café (DCaf) at Hornsby Library, providing a welcoming space for people living with dementia and their carers. Council also coordinates the Hornsby Dementia Alliance to promote dementia-friendly initiatives and improve support across the Shire.

Council also offers opportunities for social connection and respite through activities such as Hawkesbury River outings, while Hornsby Library hosts outreach sessions with organisations including Services Australia and CASS.

The Home Library Service supports residents who are unable to visit the library, completing 2,561 home visits during 2025/26. Council's Home Modification Service helps older people and people with disability remain living safely and independently at home, completing 769 home modification and maintenance jobs during the year.







ATTACHMENT 1 - ITEM 1

# LEGISLATIVE REQUIREMENTS

## Implementation of the Disability Inclusion Action Plan

*(Disability Inclusion Act 2014, s13(1))*

Hornsby Shire Council's Disability Inclusion Action Plan (DIAP) 2021–2025 outlines Council's commitment to improving opportunities for people of all ages with disability to access and participate in the full range of services and activities available in the community.

Council continued to implement the Disability Inclusion Action Plan 2021–2025 during 2025/26, while progressing the development of a renewed Plan.

Implementation activities included:

- delivering and promoting accessible and dementia-friendly programs and events, including Dementia Action Week activities and Quiet Hour at Hornsby Library
- supporting local Dementia Café groups and collaborating with the Hornsby Dementia Alliance, Sydney North Health Network and local aged care and disability service providers
- incorporating accessibility measures into community events, including accessible venues, parking and toilets, clear wayfinding, rest areas and quiet spaces where appropriate
- providing event information in plain-language and easy-to-read formats, and briefing staff and volunteers on inclusive communication
- supporting clear and inclusive communication through Council's style guide, staff guidance and community engagement templates, as well as translated materials, multicultural media, printed publications and enhanced website translation functionality to reach culturally and linguistically diverse and harder-to-reach residents.

During the year, Council completed a comprehensive review of the Disability Inclusion Action Plan 2021–2025 in partnership with ARTD Consultants. The review included a desktop assessment, consultation with the Executive Leadership Team, Council staff and the community, and benchmarking against current best practice.

The review informed the development of a renewed Plan with clearer objectives, measurable performance indicators and improved governance arrangements to support monitoring and reporting. The renewed Plan reflects relevant legislative requirements, community expectations and current best practice.

Following the end of the reporting period, the renewed DIAP was adopted by Council in October 2026 and lodged with the NSW Government. Progress against the Plan will be reported annually.

## Summary of legal proceedings

*(Local Government (General) Regulation 2021, cl 217(1)(a3))*

The following information provides a summary of the amounts incurred by Council in relation to legal proceedings taken by and/or against Council during the period 1 July 2025 to 30 June 2026.

Workers compensation and other employment matters, public liability and professional indemnity claims are not included in the summary.

### Planning matters

Council spent a total of $78,798 during 2025/26 on 10 legal proceedings relating to development as below.

| Property | Court | Status/Result |
|---|---|---|
| LEC 2026/19133 – 19-23 Forbes Street, Hornsby<br>Demolition and construction of a residential flat building comprising 73 apartments | Class 1<br>Land and Environment Court | Ongoing |
| LEC 2026/151621 – 4 and 6 Baldwin Avenue, Asquith<br>Demolition/ Construction - 9 Storey Residential Flats, 33 Units, Basement Car Park | Class 1<br>Land and Environment Court | Ongoing |
| LEC 2026/164348 – 47 Pennant Hills Road, Normanhurst<br>Torrens title subdivision of 1 lot into 2 | Class 1<br>Land and Environment Court | Ongoing |
| LEC 2026/211607 – 88 John Road, Cherrybrook<br>Change of Use to Child Care Centre | Class 1<br>Land and Environment Court | Ongoing |
| LEC 2026/223965 – 266 Malton Road, North Epping<br>Section 4.55(2) - Removal of T2 and proposed new driveway and crossover | Class 1<br>Land and Environment Court | Ongoing |
| LEC 2025/400167 – 311-313 Galston Road, Galston<br>Torrens title subdivision of one lot into two | Class 1<br>Land and Environment Court | Appeal upheld |
| LEC 2025/420283 – 46-52 and 54 Beryl Avenue, Mount Colah<br>Demolition of existing structures and Torrens title subdivision of two lots into ten including associated civil works | Class 1<br>Land and Environment Court | Appeal upheld |
| LEC 2025/490261 – 1A Waratah Road, Berowra<br>Construction of a dual occupancy | Class 1<br>Land and Environment Court | Appeal upheld |









ATTACHMENT 1 - ITEM 1

# LEGISLATIVE REQUIREMENTS

| Property | Court | Status/Result |
|---|---|---|
| LEC 2025/80775 – 939 Old Northern Road, Dural<br>Construction of a commercial building comprising two health service facilities and associated works | Class 1<br>Land and Environment Court | Appeal upheld |
| LEC 2026/92143 – 81 Cheltenham Road, Cheltenham<br>Demolition of structures and construction of a dwelling house and landscaping | Class 1<br>Land and Environment Court | Appeal upheld |

Council spent a total of $118,605 during 2025/26 on 12 legal proceedings relating to compliance as below.

| Matter | Court | Status/Result |
|---|---|---|
| 17 Bay Road, Arcadia<br>Unauthorised works to a dwelling house on property | Supreme | Ongoing |
| 35-39 Brooklyn Road, Brooklyn<br>Seeking court orders to complete works | Advice only | Ongoing |
| 22 Geelans Road, Arcadia<br>Unauthorised excavation works and proposed importation of fill contrary to approved development consent | Advice only | Ongoing |
| 488 Galston Road, Dural<br>Fill importation and earthworks | Class 4<br>Land and Environment Court | Ongoing |
| 17 Mittabah Road, Hornsby<br>Stormwater damage to neighbouring properties | Class 2<br>Land and Environment Court | Ongoing |
| 40 Meredith Avenue, Hornsby Heights<br>Unhealthy conditions due to hoarding | Class 4<br>Land and Environment Court | Ongoing |
| 35 Barkala Place, Westleigh<br>Unauthorised retaining wall | Class 1<br>Land and Environment Court | Appeal dismissed |
| 21 John Radley Avenue, Dural<br>Unauthorised works - fill importation | Class 1<br>Land and Environment Court | Ongoing |
| 245 New Line Road, Dural<br>Unauthorised function centre | Class 2<br>Land and Environment Court | Appeal dismissed |
| 12 Namoi Street, North Epping<br>Non-compliance pool barrier | Class 2<br>Land and Environment Court | Appeal dismissed |

| Matter | Court | Status/Result |
|---|---|---|
| 12-14 Charltons Creek Road, Berrilee<br>Unauthorised clearing of native vegetation | Advice only | Appeal dismissed |
| 1/52 Burdett Street, Hornsby<br>Unauthorised works to a dwelling including increasing the number of rooms and creating multi dwelling housing. Co-living | Advice only | Appeal dismissed |

Class 1 = Environmental, planning and protection appeals

Class 2 = Tree and hedge disputes, and miscellaneous appeals

Class 4 = Civil enforcement and judicial review of decisions under planning or environmental laws









ATTACHMENT 1 - ITEM 1

# LEGISLATIVE REQUIREMENTS

### Traffic matters

During 2025/26, Council incurred $7,927 in professional costs associated with appeals relating to traffic infringements. During the same period, legal costs of $4,807 and infringement-related costs of $10,880 were awarded in Council's favour.

A summary of outcomes and details on infringement appeals is below:

| Infringements appealed to Local Court | 77 |
|---|---|
| Infringements | 22 |
| Court Mentions | 68 |
| Court Hearings | 9 |
| Acquitted/Dismissed | 6 |
| Withdrawn | 13 |
| Offence proven but no conviction recorded (section 10(1)(a)) | 24 |
| Heard in defendant's absence – fine to stand (section 196) | 9 |
| Conditional Release Order | 7 |

| Infringement | No. of infringement notices elected to court |
|---|---|
| Disobey no parking sign | 6 |
| Disobey no parking sign – school zone | 2 |
| Disobey no stopping sign | 17 |
| Double park | 3 |
| Stop heavy/long vehicle longer than 1 hour | 1 |
| Laden mass exceed maximum by not more than 4 tonnes | 5 |
| Fail to give information leading to driver's identification | 2 |
| Not parallel park in direction of travel | 2 |
| Park continuously for longer than permitted | 5 |
| Stop in disable parking area without current permit displayed | 3 |
| Stand unregistered registrable Class A motor vehicle on road | 10 |
| Stop on/near pedestrian crossing | 5 |
| Stop in bus zone not clearway or transit/bus lane | 1 |
| Stop at/near bus stop | 3 |
| Stop in bus only lane | 3 |
| Not angled park as on sign or road marking | 2 |
| Fail to pay parking fee/obey instructions on sign etc | 2 |
| Stop on path/strip in built-up area | 3 |
| Stop on/across driveway/other access to/from land | 1 |
| Stop within 10 metres of an intersection | 1 |

### Companion animal matters

Council spent a total of $9,218 on legal advice relating to companion animals.

### Local Court proceedings

| Matter | Outcome |
|---|---|
| Legal advice regarding a dog attack involving injury to a person | Dangerous declared Menacing |
| Legal proceeding relating to a court elected penalty infringement for non-compliance with a nuisance order | Matter reviewed and penalty withdrawn |







ATTACHMENT 1 - ITEM 1

# LEGISLATIVE REQUIREMENTS

## Internal Audit and Risk Management Attestation Statement for the 2025-2026 Financial Year

*(Local Government (General) Regulation 2021, cl 216T(1))*

### Internal audit and risk management attestation statement for the 2025-2026 financial year for Hornsby Shire Council

I am of the opinion that Hornsby Shire Council has an audit, risk and improvement committee, risk management framework and internal audit function that operate in compliance with the following requirements except as may be otherwise provided below:

**Audit, risk and improvement committee**

| | Requirement | Compliance |
|---|---|---|
| 1. | Council has appointed an audit, risk and improvement committee that comprises of an independent chairperson and at least two independent members (section 428A of the *Local Government Act 1993*, section 216C of the *Local Government (General) Regulation 2021*). | Compliant |
| 2. | The chairperson and all members of Council's audit, risk and improvement committee meet the relevant independence and eligibility criteria prescribed under the *Local Government (General) Regulation 2021* and have not exceeded the membership term limits prescribed under the Regulation (sections 216D, 216E, 216F, 216G of the *Local Government (General) Regulation 2021*). | Compliant |
| 3. | Council has adopted terms of reference for its audit, risk and improvement committee that are informed by the model terms of reference approved by the Departmental Chief Executive of the Office of Local Government and the committee operates in accordance with the terms of reference (section 216K of the *Local Government (General) Regulation 2021*). | Compliant |
| 4. | Council provides the audit, risk and improvement committee with direct and unrestricted access to the general manager and other senior management and the information and resources necessary to exercise its functions (section 216L of the *Local Government (General) Regulation 2021*). | Compliant |
| 5. | Council's audit, risk and improvement committee exercises its functions in accordance with a four-year strategic work plan that has been endorsed by the governing body and an annual work plan that has been developed in consultation with the governing body and senior management (Core requirement 1 of the Office of Local Government's *Guidelines for Risk Management and Internal Audit for Local Government in NSW*). | Compliant |
| 6. | Council's audit, risk and improvement committee provides the governing body with an annual assessment each year, and a strategic assessment each council term of the matters listed in section 428A of the *Local Government Act 1993* reviewed during that term (Core requirement 1 of the Office of Local Government's *Guidelines for Risk Management and Internal Audit for Local Government in NSW*). | |
| 7. | The governing body of Council reviews the effectiveness of the audit, risk and improvement committee at least once each council term (Core requirement 1 of the Office of Local Government's *Guidelines for Risk Management and Internal Audit for Local Government in NSW*). | Compliant |

*Membership*

The chairperson and membership of the audit, risk and improvement committee are:

| Position | Name | Date appointed | End of term |
|---|---|---|---|
| Chairperson | Stephen Coates | 10 November 2025 | 10 November 2029 |
| Independent member | Hayley Elson | 11 March 2026 | 11 March 2029 |
| Independent member | Richard Jones | 11 March 2026 | 11 March 2028 |

**Risk Management**

| | Requirement | Compliance |
|---|---|---|
| 8. | Council has adopted a risk management framework that is consistent with current Australian risk management standard and that is appropriate for the council's risks (section 216S of the *Local Government (General) Regulation 2021*). | Compliant |
| 9. | Council's audit, risk and improvement committee reviews the implementation of its risk management framework and provides a strategic assessment of its effectiveness to the governing body each council term (section 216S of the *Local Government (General) Regulation 2021*). | Compliant. |

**Internal Audit**

| | Requirement | Compliance |
|---|---|---|
| 10. | Council has an internal audit function that reviews the council's operations and risk management and control activities (section 216O of the *Local Government (General) Regulation 2021*). | Compliant |
| 11. | Council's internal audit function reports to the audit, risk and improvement committee on internal audit matters (sections 216M, 216P and 216R of the *Local Government (General) Regulation 2021*). | Compliant |
| 12. | Council's internal audit function is independent and internal audit activities are not subject to direction by the council (section 216P of the *Local Government (General) Regulation 2021*). | Compliant |
| 13. | Council has adopted an internal audit charter that is informed by the model internal audit charter approved by the Departmental Chief Executive of the Office of Local Government and the internal audit function operates in accordance with the charter (section 216O of the *Local Government (General) Regulation 2021*). | Compliant |
| 14. | Council has appointed a member of staff to direct and coordinate internal audit activities or is part of a shared arrangement where a participating council has appointed a staff member to direct and coordinate internal audit activities for all participating councils (section 216P of the *Local Government (General) Regulation 2021*). | Compliant |
| 15. | Internal audit activities are conducted in accordance with the International Professional Practices Framework (Core requirement 3 of the Office of Local Government's *Guidelines for Risk Management and Internal Audit for Local Government in NSW*). | Compliant |
| 16. | Council provides the internal audit function with direct and unrestricted access to staff, the audit, risk and improvement committee, and the information and resources necessary to undertake internal audit activities (section 216P of the *Local Government (General) Regulation 2021*). | Compliant |
| 17. | Council's internal audit function undertakes internal audit activities in accordance with a four-year strategic work plan that has been endorsed by the governing body and an annual work plan that has been developed in consultation with the governing body and senior management (Core requirement 3 of the Office of Local Government's *Guidelines for Risk Management and Internal Audit for Local Government in NSW*). | Compliant |
| 18. | Council's audit, risk and improvement committee reviews the effectiveness of the internal audit function and reports the outcome of the review to the governing body each council term (section 216R of the *Local Government (General) Regulation 2021*). | Compliant |

GLENN MAGUS
CHIEF EXECUTIVE OFFICER
10/9/26



**ATTACHMENT 1 - ITEM 1**

# LEGISLATIVE REQUIREMENTS

## Audited Financial Reports

*(Local Government Act 1993, s428(4)(a))*

The audited financial reports of Council form part of this Annual Report. They are comprised of the General Purpose Financial Statements, Special Purpose Financial Statements and the Special Schedules, and can be found on Council's website.







ATTACHMENT 1 - ITEM 1

**Hornsby Shire Council**
ABN 20 706 996 972

**Contact us**
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Hornsby NSW 1630
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**Visit us**
Hornsby Shire Council Administration Centre at Hornsby Library
28-44 George St, Hornsby NSW 2077

**Office hours**
Please check the website for the latest opening hours for the Customer Service Centre and Duty Officer.

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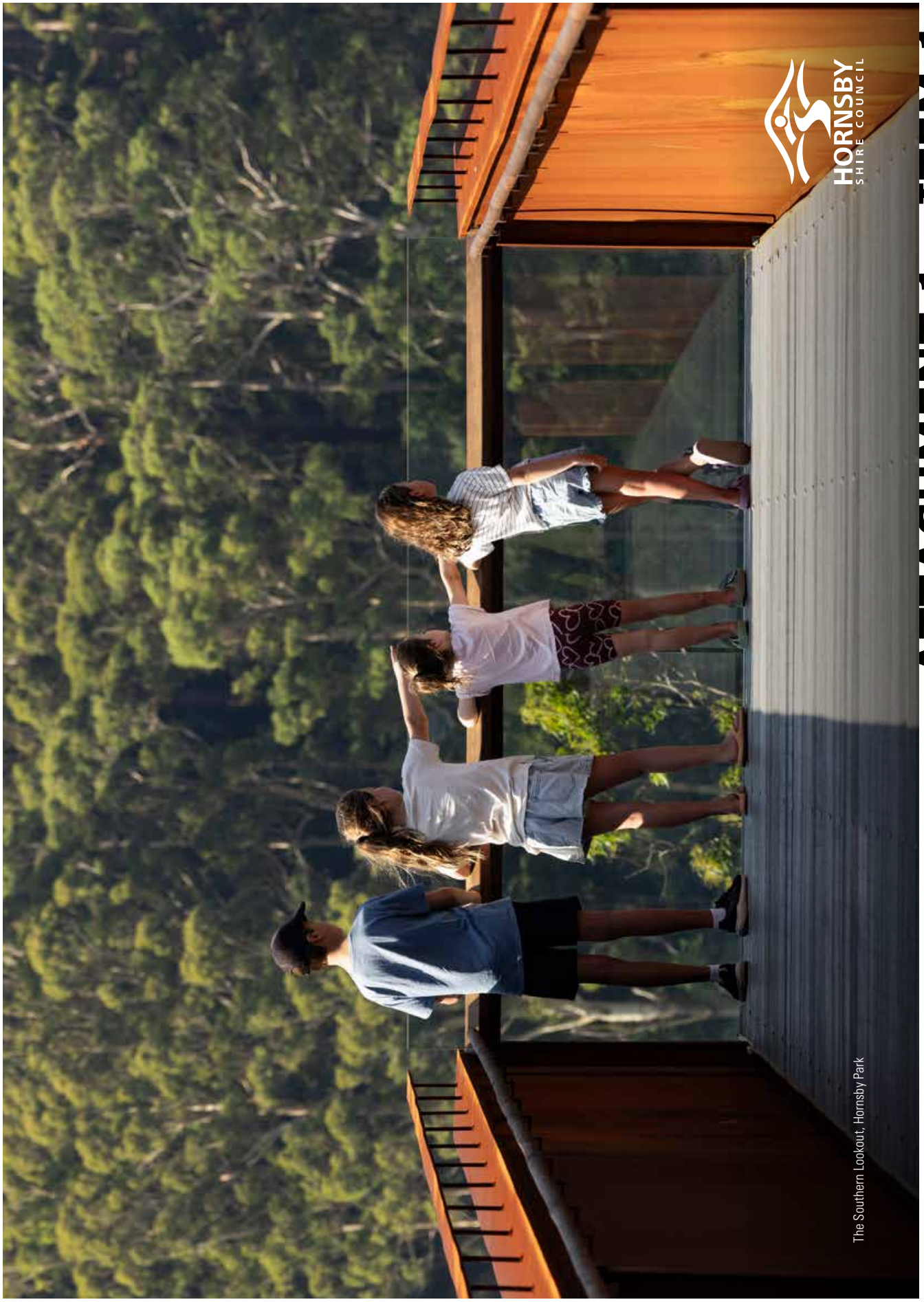








**ATTACHMENT 1 - ITEM 1**




ATTACHMENT 1 - ITEM 1

ITEM 2

# ATTACHMENT/S

## REPORT NO. CS58/26

## ITEM 2

**1. QUARTERLY BUDGET REVIEW STATEMENT**

**2. CONSOLIDATED BUDGET RESULT**

**3. STATEMENT BY RESPONSIBLE ACCOUNTING OFFICER**

**4. CAPITAL WORKS PROGRAM**

# QBRS FINANCIAL OVERVIEW

## Hornsby Shire Council

### Budget review for the quarter ended 30/09/26

| DESCRIPTION | | Previous Year Actual 2025-26 $000's | Current Year Original Budget 2026-27 $000's | Approved Changes Review Q 1 $000's | Approved Changes Review Q 2 $000's | Revised Budget $000's | Recommended changes for council resolution $000's | Projected Year End (PYE) Result 2026-27 $000's | VARIANCE ORIGINAL budget v PYE 2026-27 $000's | ACTUAL YTD 2026-27 $000's |
|---|---|---|---|---|---|---|---|---|---|---|
| Net Operating Result before grants and contributions provided for capital purposes | General Fund | 26,205 | 16,800 | 0 | 0 | 16,800 | -5,812 | 10,988 | -5,812 | 116,752 |
| | Water Fund | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Sewer Fund | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Consolidated | 26,205 | 16,800 | 0 | 0 | 16,800 | -5,812 | 10,988 | -5,812 | 116,752 |
| Operating Result from continuing operations (with capital grants and contributions) excluding depreciation, amortisation and impairment of non financial assets | Consolidated | 68,586 | 57,737 | 0 | 0 | 57,737 | -2,858 | 54,879 | -2,858 | 131,349 |
| Borrowings | Total borrowings | 0 | 0 | | | 0 | | 0 | 0 | 0 |
| Liquidity | External restrictions | 168,031 | 161,868 | 0 | 0 | 161,868 | -7,463 | 154,406 | -7,463 | 171,292 |
| | Internal Allocations | 112,127 | 105,440 | 0 | 0 | 105,440 | 106 | 105,546 | 106 | 114,719 |
| | Unallocated | 31,912 | 36,920 | 0 | 0 | 36,920 | -0 | 36,919 | -0 | 44,509 |
| | **Total Cash, Cash Equivalents and Investm** | **312,070** | **304,228** | **0** | **0** | **304,228** | **-7,357** | **296,871** | **-7,357** | **330,520** |
| Capital | Capital Funding | 44,260 | 61,084 | 0 | 0 | 61,084 | 3,932 | 65,016 | 3,932 | 10,609 |
| | Capital Expenditure | 44,260 | 61,084 | 0 | 0 | 61,084 | 3,932 | 65,016 | 3,932 | 10,609 |
| | **Net Capital** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **-0** | **0** |

| Developer Contribution | | Opening Balance As at 1 July 2026 $000's | Total Cash Contributions Received As at this Q $000's | Total Interest Earned As at this Q $000's | Total Expended As at this Q $000's | Total Internal Borrowings (to)/from As at this Q $000's | Held as Restricted Asset As at this Q $000's | Cumulative balance of internal borrowings (to)/from As at this Q $000's |
|---|---|---|---|---|---|---|---|---|
| | Total Developer Contributions | 87,420 | 1,537 | 1,069 | 3,348 | 0 | 86,677 | 0 |





**ATTACHMENT 1 - ITEM 2**

# Income and Expenses Budget Review Statement

## Hornsby Shire Council

### Budget review for the quarter ended 30/09/2026

### Consolidated Fund

| Description | Previous Year Actual 2025-26 $000's | Current Year Original Budget 2026-27 $000's | Approved Changes Review Q 1 $000's | Approved Changes Review Q 2 $000's | Revised Approved Budget $000's | Recommended changes for council resolution $000's | Projected Year End (PYE) Result 2026-27 $000's | VARIANCE ORIGINAL budget v PYE 2026-27 $000's | ACTUAL YTD 2026-27 $000's |
|---|---|---|---|---|---|---|---|---|---|
| **INCOME** | | | | | | | | | |
| Rates and Annual Charges | 135,886 | 144,804 | 0 | 0 | 144,804 | -17 | 144,787 | -17 | 144,785 |
| User Charges and Fees | 16,218 | 15,859 | 0 | 0 | 15,859 | -0 | 15,859 | -0 | 4,959 |
| Other Revenue | 4,932 | 4,603 | 0 | 0 | 4,603 | -40 | 4,563 | -40 | 1,017 |
| Grants and Contributions - Operating | 13,663 | 12,947 | 0 | 0 | 12,947 | -4,204 | 8,744 | -4,204 | 1,576 |
| Grants and Contributions - Capital | 14,831 | 13,156 | 0 | 0 | 13,156 | 2,954 | 16,109 | 2,954 | 7,290 |
| Interest and Investment Income | 13,473 | 14,613 | 0 | 0 | 14,613 | 0 | 14,613 | 0 | 3,782 |
| Other Income | 8,008 | 3,932 | 0 | 0 | 3,932 | 0 | 3,932 | 0 | 1,017 |
| Net gain from disposal of assets | 0 | 1,000 | 0 | 0 | 1,000 | 0 | 1,000 | 0 | 188 |
| **Total Income from continuing operations** | **207,011** | **210,914** | **0** | **0** | **210,914** | **-1,308** | **209,606** | **-1,308** | **164,615** |
| **EXPENSES** | | | | | | | | | |
| Employee benefits and on-costs | 60,968 | 64,054 | 0 | 0 | 64,054 | 319 | 64,372 | 319 | 14,532 |
| Materials & Services | 70,637 | 81,598 | 0 | 0 | 81,598 | 1,193 | 82,791 | 1,193 | 17,076 |
| Borrowing Costs | 29 | 12 | 0 | 0 | 12 | 0 | 12 | 0 | 0 |
| Other Expenses | 4,882 | 4,886 | 0 | 0 | 4,886 | 39 | 4,925 | 39 | 1,521 |
| Net Loss from Disposal of Assets | 1,909 | 2,627 | 0 | 0 | 2,627 | 0 | 2,627 | 0 | 137 |
| **Total Expenses from continuing operations excluding depreciation, amortisation and impairment of non financial assets** | **138,425** | **153,177** | **0** | **0** | **153,177** | **1,551** | **154,727** | **1,551** | **33,266** |
| | | | | | | | | | |
| **Operating Result from continuing operations excluding depreciation, amortisation and impairment of non financial assets** | **68,586** | **57,737** | **0** | **0** | **57,737** | **-2,858** | **54,879** | **-2,858** | **131,349** |
| Depreciation, amortisation and impairment of non financial assets | 27,550 | 27,781 | 0 | 0 | 27,781 | 0 | 27,781 | 0 | 7,307 |
| **Operating result from continuing Operations** | **41,036** | **29,956** | **0** | **0** | **29,956** | **-2,858** | **27,097** | **-2,858** | **124,042** |
| **Net Operating Result before grants and contributions provided for capital purposes** | **26,205** | **16,800** | **0** | **0** | **16,800** | **-5,812** | **10,988** | **-5,812** | **116,752** |





**ATTACHMENT 1 - ITEM 2**

# Income and Expenses Budget Review Statement

## Hornsby Shire Council

### Budget review for the quarter ended 30/09/2026

### General Fund

| Description | Previous Year Actual 2025-26 $000's | Current Year Original Budget 2026-27 $000's | Approved Changes Review Q 1 $000's | Approved Changes Review Q 2 $000's | Revised Budget $000's | Recommended changes for council resolution $000's | Projected Year End (PYE) Result 2026-27 $000's | VARIANCE ORIGINAL budget v PYE 2026-27 $000's | ACTUAL YTD 2026-27 $000's |
|---|---|---|---|---|---|---|---|---|---|
| **INCOME** | | | | | | | | | |
| Rates and Annual Charges | 135,886 | 144,804 | | | 144,804 | -17 | 144,787 | -17 | 144,785 |
| User Charges and Fees | 16,218 | 15,859 | | | 15,859 | -0 | 15,859 | -0 | 4,959 |
| Other Revenue | 4,932 | 4,603 | | | 4,603 | -40 | 4,563 | -40 | 1,017 |
| Grants and Contributions - Operating | 13,663 | 12,947 | | | 12,947 | -4,204 | 8,744 | -4,204 | 1,576 |
| Grants and Contributions - Capital | 14,831 | 13,156 | | | 13,156 | 2,954 | 16,109 | 2,954 | 7,290 |
| Interest and Investment Income | 13,473 | 14,613 | | | 14,613 | 0 | 14,613 | 0 | 3,782 |
| Other Income | 8,008 | 3,932 | | | 3,932 | 0 | 3,932 | 0 | 1,017 |
| Net gain from disposal of assets | 0 | 1,000 | | | 1,000 | 0 | 1,000 | 0 | 188 |
| **Total Income from continuing operations** | **207,011** | **210,914** | **0** | **0** | **210,914** | **-1,308** | **209,606** | **-1,308** | **164,615** |
| **EXPENSES** | | | | | | | | | |
| Employee benefits and on-costs | 60,968 | 64,054 | | | 64,054 | 319 | 64,372 | 319 | 14,532 |
| Materials & Services | 70,637 | 81,598 | | | 81,598 | 1,193 | 82,791 | 1,193 | 17,076 |
| Borrowing Costs | 29 | 12 | | | 12 | 0 | 12 | 0 | 0 |
| Other Expenses | 4,882 | 4,886 | | | 4,886 | 39 | 4,925 | 39 | 1,521 |
| Net Loss from Disposal of Assets | 1,909 | 2,627 | | | 2,627 | 0 | 2,627 | 0 | 137 |
| **Total Expenses from continuing operations excluding depreciation, amortisation and impairment of non financial assets** | **138,425** | **153,177** | **0** | **0** | **153,177** | **1,551** | **154,727** | **1,551** | **33,266** |
| | | | | | | | | | |
| **Operating Result from continuing operations excluding depreciation, amortisation and impairment of non financial assets** | **68,586** | **57,737** | **0** | **0** | **57,737** | **-2,858** | **54,879** | **-2,858** | **131,349** |
| Depreciation, amortisation and impairment of non financial assets | 27,550 | 27,781 | | | 27,781 | 0 | 27,781 | 0 | 7,307 |
| **Operating result from continuing Operations** | **41,036** | **29,956** | **0** | **0** | **29,956** | **-2,858** | **27,097** | **-2,858** | **124,042** |
| **Net Operating Result before grants and contributions provided for capital purposes** | **26,205** | **16,800** | **0** | **0** | **16,800** | **-5,812** | **10,988** | **-5,812** | **116,752** |





**ATTACHMENT 1 - ITEM 2**

# Income and Expenses Budget Review Statement

## Hornsby Shire Council

### Budget review for the quarter ended 30/09/2026

### Water Fund

| Description | Previous Year Actual 2025-26 $000's | Current Year Original Budget 2026-27 $000's | Approved Changes Review Q 1 $000's | Approved Changes Review Q 2 $000's | Revised Budget $000's | Recommended changes for council resolution $000's | Projected Year End (PYE) Result 2026-27 $000's | VARIANCE ORIGINAL budget v PYE 2026-27 $000's | ACTUAL YTD 2026-27 $000's |
|---|---|---|---|---|---|---|---|---|---|
| **INCOME** | | | | | | | | | |
| Rates and Annual Charges | | | | | 0 | | 0 | 0 | |
| User Charges and Fees | | | | | 0 | | 0 | 0 | |
| Other Revenue | | | | | 0 | | 0 | 0 | |
| Grants and Contributions - Operating | | | | | 0 | | 0 | 0 | |
| Grants and Contributions - Capital | | | | | 0 | | 0 | 0 | |
| Interest and Investment Income | | | | | 0 | | 0 | 0 | |
| Other Income | | | | | 0 | | 0 | 0 | |
| Net gain from disposal of assets | | | | | 0 | | 0 | 0 | |
| **Total Income from continuing operations** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **EXPENSES** | | | | | | | | | |
| Employee benefits and on-costs | | | | | 0 | | 0 | 0 | |
| Materials & Services | | | | | 0 | | 0 | 0 | |
| Borrowing Costs | | | | | 0 | | 0 | 0 | |
| Other Expenses | | | | | 0 | | 0 | 0 | |
| Net Loss from Disposal of Assets | | | | | 0 | | 0 | 0 | |
| **Total Expenses from continuing operations excluding depreciation, amortisation and impairment of non financial assets** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Operating Result from continuing operations excluding depreciation, amortisation and impairment of non financial assets** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Depreciation, amortisation and impairment of non financial assets | | | 0 | | 0 | | 0 | 0 | |
| **Operating Results from continuing operations** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Net operating result for the year before grants and contributions provided for capital purposes** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |





**ATTACHMENT 1 - ITEM 2**

# Income and Expenses Budget Review Statement

## Hornsby Shire Council

### Budget review for the quarter ended 30/09/2026

### Sewer Fund

| Description | Previous Year Actual 2025-26 $000's | Current Year Original Budget 2026-27 $000's | Approved Changes Review Q 1 $000's | Approved Changes Review Q 2 $000's | Revised Budget $000's | Recommended changes for council resolution $000's | Projected Year End (PYE) Result 2026-27 $000's | VARIANCE ORIGINAL budget v PYE 2026-27 $000's | ACTUAL YTD 2026-27 $000's |
|---|---|---|---|---|---|---|---|---|---|
| **INCOME** | | | | | | | | | |
| Rates and Annual Charges | | | | | 0 | | 0 | 0 | |
| User Charges and Fees | | | | | 0 | | 0 | 0 | |
| Other Revenue | | | | | 0 | | 0 | 0 | |
| Grants and Contributions - Operating | | | | | 0 | | 0 | 0 | |
| Grants and Contributions - Capital | | | | | 0 | | 0 | 0 | |
| Interest and Investment Income | | | | | 0 | | 0 | 0 | |
| Other Income | | | | | 0 | | 0 | 0 | |
| Net gain from disposal of assets | | | | | 0 | | 0 | 0 | |
| **Total Income from continuing operations** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **EXPENSES** | | | | | | | | | |
| Employee benefits and on-costs | | | | | 0 | | 0 | 0 | |
| Materials & Services | | | | | 0 | | 0 | 0 | |
| Borrowing Costs | | | | | 0 | | 0 | 0 | |
| Other Expenses | | | | | 0 | | 0 | 0 | |
| Net Loss from Disposal of Assets | | | | | 0 | | 0 | 0 | |
| **Total Expenses from continuing operations excluding depreciation, amortisation and impairment of non financial assets** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | | |
| **Operating Result from continuing operations excluding depreciation, amortisation and impairment of non financial assets** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Depreciation, amortisation and impairment of non financial assets | | | | | 0 | | 0 | 0 | |
| **Operating Results from continuing operations** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Net operating result for the year before grants and contributions provided for capital purposes** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# ATTACHMENT 1 - ITEM 2

# Capital Budget Review Statement

## Hornsby Shire Council

### Budget review for the quarter ended 30/09/2026

| Description | Previous Year Actual 2025-26 $000's | Current Year Original Budget 2026-27 $000's | Approved Changes Review Q 1 $000's | Approved Changes Review Q 2 $000's | Revised Budget $000's | Recommended changes for council resolution $000's | Projected Year End (PYE) Result 2026-27 $000's | VARIANCE ORIGINAL budget v PYE 2026-27 $000's | ACTUAL YTD 2026-27 $000's |
|---|---|---|---|---|---|---|---|---|---|
| **CAPITAL FUNDING** | | | | | | | | | |
| Rates & other untied funding | 10,865 | 9,444 | | | 9,444 | -500 | 8,944 | -500 | 2,559 |
| Capital Grants & Contributions | 9,502 | 9,553 | | | 9,553 | 2,269 | 11,822 | 2,269 | 3,422 |
| Reserves - External Restrictions | 10,393 | 25,598 | | | 25,598 | 2,538 | 28,137 | 2,538 | 2,513 |
| Reserves - Internally Allocated | 12,218 | 15,489 | | | 15,489 | -375 | 15,114 | -375 | 1,926 |
| New Loans | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 |
| Proceeds from sale of assets | 1,282 | 1,000 | | | 1,000 | 0 | 1,000 | 0 | 188 |
| Other | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 |
| **Total Capital Funding** | **44,260** | **61,084** | **0** | **0** | **61,084** | **3,932** | **65,016** | **3,932** | **10,609** |
| **CAPITAL EXPENDITURE** | | | | | | | | | |
| WIP | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 |
| New Assets | 20,988 | 28,966 | | | 28,966 | 1,864 | 30,831 | 1,864 | 5,031 |
| Asset Renewal | 23,272 | 32,118 | | | 32,118 | 2,067 | 34,186 | 2,067 | 5,578 |
| Other | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 |
| **Total Capital Expenditure** | **44,260** | **61,084** | **0** | **0** | **61,084** | **3,932** | **65,016** | **3,932** | **10,609** |
| **Net Capital Funding - Surplus /(Deficit)** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |





**ATTACHMENT 1 - ITEM 2**

# Cash and Investments Budget Review Statement

## Hornsby Shire Council

### Budget review for the quarter ended 30/09/2026

| Description | Previous Year Actual 2025-26 $000's | Current Year Original Budget 2026-27 $000's | Approved Changes Review Q 1 $000's | Approved Changes Review Q 2 $000's | Revised Budget $000's | Recommended changes for council resolution $000's | Projected Year End (PYE) Result 2026-27 $000's | VARIANCE ORIGINAL budget v PYE 2026-27 $000's | ACTUAL YTD 2026-27 $000's |
|---|---|---|---|---|---|---|---|---|---|
| **Total Cash, Cash Equivalents & Investm** | **312,070** | **304,228** | | | **304,228** | **-7,357** | **296,871** | **-7,357** | **330,520** |
| **EXTERNALLY RESTRICTED** | | | | | | | | | |
| Water Fund | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 |
| Sewer Fund | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 |
| Developer contributions - *General* | 87,420 | 81,489 | | | 81,489 | -506 | 80,983 | -506 | 86,677 |
| Developer contributions - *Water* | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 |
| Developer contributions - *Sewer* | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 |
| Transport for NSW Contributions | 5,104 | 3,234 | | | 3,234 | 500 | 3,734 | 500 | 5,160 |
| Domestic waste management | 7,720 | 10,031 | | | 10,031 | -250 | 9,781 | -250 | 15,513 |
| Stormwater management | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 |
| Other | 67,787 | 67,114 | | | 67,114 | -7,207 | 59,907 | -7,207 | 63,941 |
| **Total Externally Restricted** | **168,031** | **161,868** | **0** | **0** | **161,868** | **-7,463** | **154,406** | **-7,463** | **171,292** |
| **Cash, cash equivalents & investments not subject to external restrictions** | **144,039** | **142,360** | **0** | **0** | **142,360** | **106** | **142,465** | **106** | **159,228** |
| **INTERNAL ALLOCATIONS** | | | | | | | | | |
| Employee entitlements | 21,105 | 23,355 | | | 23,355 | -761 | 22,593 | -761 | 21,105 |
| *Insert nature of allocation* | 41,499 | 38,295 | | | 38,295 | 535 | 38,830 | 535 | 42,047 |
| *Insert nature of allocation* | 5,480 | 386 | | | 386 | 1,500 | 1,886 | 1,500 | 4,890 |
| *Insert nature of allocation* | 9,798 | 7,397 | | | 7,397 | -751 | 6,646 | -751 | 9,507 |
| *Insert nature of allocation* | 9,500 | 9,000 | | | 9,000 | 0 | 9,000 | 0 | 9,561 |
| *Insert nature of allocation* | 16,060 | 16,322 | | | 16,322 | -151 | 16,171 | -151 | 15,713 |
| Other | 8,685 | 10,685 | | | 10,685 | -265 | 10,420 | -265 | 11,897 |
| **Total Internally Allocated** | **112,127** | **105,440** | **0** | **0** | **105,440** | **106** | **105,546** | **106** | **114,719** |
| **Unallocated** | **31,912** | **36,920** | **0** | **0** | **36,920** | **-0** | **36,919** | **-0** | **44,509** |





**ATTACHMENT 1 - ITEM 2**

## Developer Contributions Summary

### Hornsby Shire Council

**Budget review for the quarter ended 30/09/2026**

| Purpose | Opening Balance | Developer Contributions Received | | | | | | | | | Interest Earned | Interest Earned | Interest Earned | Monetary Amounts Expended | Monetary Amounts Expended | Monetary Amounts Expended | Internal Borrowings (to)/from | Internal Borrowings (to)/from | Internal Borrowings (to)/from | Held as Restricted Asset | Cumulative balance of internal borrowings (to)/from |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Cash | Cash | Cash | Non-Cash Land | Non-Cash Land | Non-Cash Land | Non-Cash Other | Non-Cash Other | Non-Cash Other | | | | | | | | | | | |
| | As at 1 July 2026 | Q1 | Q2 | Q3 | Q1 | Q2 | Q3 | Q1 | Q2 | Q3 | Q1 | Q2 | Q3 | Q1 | Q2 | Q3 | Q1 | Q2 | Q3 | As at this Q | As at this Q |
| | $000's | $000's | $000's | $000's | $000's | $000's | $000's | $000's | $000's | $000's | $000's | $000's | $000's | $000's | $000's | $000's | $000's | $000's | $000's | $000's | $000's |
| Drainage | 0 | 0 | | | | | | | | | 0 | | | 0 | | | | | | 0 | |
| Roads | 5,960 | 223 | | | | | | | | | 84 | | | 47 | | | | | | 6,220 | |
| Traffic facilities | 0 | 0 | | | | | | | | | 0 | | | 0 | | | | | | 0 | |
| Parking | 0 | 0 | | | | | | | | | 0 | | | 0 | | | | | | 0 | |
| Open space | 25,198 | 381 | | | | | | | | | 255 | | | 1,997 | | | | | | 23,837 | |
| Community facilities | 39,180 | 235 | | | | | | | | | 514 | | | 1,231 | | | | | | 38,698 | |
| Other | 319 | 4 | | | | | | | | | 3 | | | 25 | | | | | | 301 | |
| **Total S7.11 Under plans** | **70,657** | **843** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **856** | **0** | **0** | **3,300** | **0** | **0** | **0** | **0** | **0** | **69,055** | **0** |
| S7.11 Not under plans | 0 | 0 | | | | | | | | | 0 | | | 0 | | | | | | 0 | |
| S7.12 Levies | 16,763 | 694 | | | | | | | | | 214 | | | 48 | | | | | | 17,622 | |
| S7.4 Planning agreements | 0 | 0 | | | | | | | | | 0 | | | 0 | | | | | | 0 | |
| S64 Contributions | 0 | 0 | | | | | | | | | 0 | | | 0 | | | | | | 0 | |
| Other | 0 | 0 | | | | | | | | | 0 | | | 0 | | | | | | 0 | |
| **Total Developer Contributio** | **87,420** | **1,537** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **1,069** | **0** | **0** | **3,348** | **0** | **0** | **0** | **0** | **0** | **86,677** | **0** |





**ATTACHMENT 1 - ITEM 2**

HORNSBY SHIRE COUNCIL

## Consolidated Cash Result

| | For the Period of Sep YTD | | | Full Year Budget | | | |
|---|---|---|---|---|---|---|---|
| | Year-to-Date 2026/27 | Year-to-Date 2026/27 | Year-to-Date 2026/27 | Total Year 2026/27 | Total Year 2026/27 | Total Year 2026/27 | Total Year 2026/27 |
| | Actual | Original Budget | Variance | Original Budget | Current Revised Budget | Recommended Changes | Projected Final |
| | $ | $ | $ | $ | $ | $ | $ |
| **OPERATING INCOME** | | | | | | | |
| Rates and annual charges | (144,785,021) | (144,160,669) | 624,352 | (144,804,275) | (144,804,275) | 17,252 | (144,787,022) |
| User charges and fees | (4,959,181) | (3,854,122) | 1,105,059 | (15,859,194) | (15,859,194) | 433 | (15,858,761) |
| Interest & investment revenue | (3,782,166) | (3,725,194) | 56,972 | (14,612,573) | (14,612,573) | 0 | (14,612,573) |
| Other revenue | (1,017,154) | (1,059,006) | (41,852) | (4,602,676) | (4,602,676) | 40,000 | (4,562,676) |
| Grants and contributions (operating) | (1,575,809) | (7,659,184) | (6,083,375) | (12,947,451) | (12,947,451) | 4,203,541 | (8,743,910) |
| Other income (including lease income) | (1,017,005) | (828,951) | 188,054 | (3,932,124) | (3,932,124) | 0 | (3,932,124) |
| Proceeds from the sale of assets | (188,485) | (30,000) | 158,485 | (1,000,000) | (1,000,000) | 0 | (1,000,000) |
| **Total operating income** | **(157,324,821)** | **(161,317,126)** | **(3,992,306)** | **(197,758,292)** | **(197,758,292)** | **4,261,226** | **(193,497,066)** |
| **OPERATING EXPENSES (CONTROLLABLE)** | | | | | | | |
| Employee benefits and on-costs | 14,532,161 | 15,929,105 | 1,396,944 | 64,053,552 | 64,053,552 | 318,635 | 64,372,187 |
| Materials and services | 17,075,725 | 22,190,649 | 5,114,925 | 81,598,067 | 81,598,067 | 1,192,940 | 82,791,007 |
| Borrowing costs | 0 | 3,000 | 3,000 | 12,000 | 12,000 | 0 | 12,000 |
| Other expenses | 1,520,504 | 1,465,205 | (55,299) | 4,885,826 | 4,885,826 | 39,000 | 4,924,826 |
| **Total operating expenses (controllable)** | **33,128,390** | **39,587,958** | **6,459,569** | **150,549,445** | **150,549,445** | **1,550,574** | **152,100,020** |
| **Net operating result before depreciation** | **(124,196,431)** | **(121,729,168)** | **2,467,263** | **(47,208,847)** | **(47,208,847)** | **5,811,800** | **(41,397,046)** |
| **CAPITAL INCOME** | | | | | | | |
| Grants and contributions (capital) | (7,289,749) | (4,765,979) | 2,523,771 | (13,155,502) | (13,155,502) | (2,953,505) | (16,109,007) |
| **Total capital income** | **(7,289,749)** | **(4,765,979)** | **2,523,771** | **(13,155,502)** | **(13,155,502)** | **(2,953,505)** | **(16,109,007)** |
| **CAPITAL EXPENSES** | | | | | | | |
| WIP Expenditure | 10,013,269 | 17,042,158 | 7,028,888 | 53,670,998 | 53,670,998 | 3,078,077 | 56,749,075 |
| Asset Purchases | 595,464 | 381,025 | (214,439) | 7,413,500 | 7,413,500 | 853,600 | 8,267,100 |
| **Total capital expenses** | **10,608,733** | **17,423,183** | **6,814,449** | **61,084,498** | **61,084,498** | **3,931,677** | **65,016,175** |
| **FUNDING ADJUSTMENTS** | | | | | | | |
| External restricted assets | 40,719,042 | 34,841,924 | (5,877,118) | (7,846,575) | (7,846,575) | (7,462,693) | (15,309,268) |
| Internal restricted assets | 1,250,918 | 26,621 | (1,224,297) | 802,122 | 802,122 | 106,000 | 908,122 |
| Employee leave payments (from provisions) | 310,890 | 239,017 | (71,872) | 956,069 | 956,069 | 0 | 956,069 |
| **Total funding adjustments** | **42,280,850** | **35,107,563** | **(7,173,287)** | **(6,088,384)** | **(6,088,384)** | **(7,356,694)** | **(13,445,078)** |
| **Net operating & capital result after funding (cash result)** | **(78,596,597)** | **(73,964,401)** | **4,632,196** | **(5,368,235)** | **(5,368,235)** | **(566,721)** | **(5,934,956)** |

## Consolidated Statutory Reporting Result (Non Cash)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Net operating result before depreciation** | **(124,196,431)** | **(121,729,168)** | **2,467,263** | **(47,208,847)** | **(47,208,847)** | **5,811,800** | **(41,397,046)** |
| **FINANCIAL REPORTING ADJUSTMENTS - NON CASH** | | | | | | | |
| Depreciation & amortisation | 7,307,125 | 6,931,549 | (375,576) | 27,781,370 | 27,781,370 | 0 | 27,781,370 |
| Carrying amount of assets disposed/impaired | 137,297 | 656,813 | 519,515 | 2,627,250 | 2,627,250 | 0 | 2,627,250 |
| **Total financial reporing adjustments - non cash** | **7,444,422** | **7,588,361** | **143,939** | **30,408,620** | **30,408,620** | **0** | **30,408,620** |
| **Net operating result before capital grants and contributions** | **(116,752,009)** | **(114,140,806)** | **2,611,202** | **(16,800,227)** | **(16,800,227)** | **5,811,800** | **(10,988,426)** |

Hornsby Shire Council

**STATEMENT BY RESPONSIBLE ACCOUNTING OFFICER**

The following statement is made in accordance with Clause 203(2) of the Local Government (General) Regulations 2021.

It is in my opinion that the Quarterly Budget Review Statement for Hornsby Shire Council for the quarter ended 30 September 2026 indicates that Council's projected financial position at 30 June 2027 will be satisfactory at year end, having regard to the projected estimates of income and expenditure and the original budgeted income and expenditure.

[redacted]

Duncan Chell 28 October 2026

Responsible Accounting Officer, Hornsby Shire Council

| 26/27 Capital Program | Original Budget | Q1 Budget Changes | | | | | | | | | | Proposed Revised Budget | Expenditure |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | General Funds | Restricted Assets | S7.11/S7.12 | CRR | DWM | New Grants (approved) | Prior years unspent grants | R2R | AMP | SRV | Q1 Proposed Revised Total | Q1 Actual Spend |
| **Governance and Customer Service** | | | | | | | | | | | | | |
| **2004 - Fleet Administration** | | | | | | | | | | | | | |
| 100010 - Fleet Administration | **1,480,000** | | | | | | | | | | | **1,480,000** | **476,397** |
| **Corporate Support** | | | | | | | | | | | | | |
| **2014 - Statutory Reporting** | - | | | | | | | | | | | - | |
| 101158 - Asset Management Planning | - | | | | | | | | | | | - | **66,835** |
| **2033 - Other Leases** | - | | | | | | | | | | | - | |
| 100452 - Community Services Rental Properties (General) | - | | | | | | | | | | | - | **29,243** |
| 100455 - Pre-School Rentals | - | | | | | | | | | | | - | **29,964** |
| **2034 - Property Acquisition** | - | | | | | | | | | | | - | |
| 101943 - 3 Bridge Rd ($2,465,000) | - | | | | | | | | | | | - | **28,906** |
| **Infrastructure Operations** | - | | | | | | | | | | | - | |
| **3008 - AMP Building Maintenance** | - | | | | | | | | | | | - | |
| 101773 - BS Aquatic & Sporting Centres | - | | | | | | | | | | | - | **58,990** |
| 101776 - BS Community Centres & Public Halls | - | | | | | | | | | | | - | **19,074** |
| 101777 - BS Council Buildings & Depots | - | | | | | | | | | | | - | **9,190** |
| **3009 - Building Maintenance - Others** | - | | | | | | | | | | | - | |
| 100098 - Heavy Fleet & Mechanical Services | **595,000** | | | | | | | | | | | **595,000** | - |
| 100160 - Pedestrian Footbridge George St | - | | 238,600 | | | | | | | | | **238,600** | - |
| 101951 - Chambers DA & Community Halls | - | | 168,557 | | | | | | | | | **168,557** | **168,557** |
| **3041 - Unsealed Roads Maintenance** | - | | | | | | | | | | | - | |
| 101992 - Unsealed Rds Maint – Singleton Rd Maroota | - | | | | | | | | | | | - | **178** |
| **3042 - Pavements Maintenance** | - | | | | | | | | | | | - | |
| 100184 - Resurfacing (Include Rehabilitation Cap Exp) | **2,585,927** | 178,927 | | | | | - 495,927 | 62,647 | - 560,927 | | | **2,331,574** | **96,378** |
| 102156 - R2R Beaumont Road, Mount Kuring – Gai | - | 30,000 | | | | | 221,000 | | 221,000 | | | **251,000** | - |
| 102157 - R2R Clarinda Street, Hornsby | - | 16,000 | | | | | 80,000 | | 80,000 | | | **96,000** | - |
| 102158 - R2R Grovewood Place, Castle Hill | - | 7,073 | | | | | 74,927 | | 74,927 | | | **82,000** | - |
| 102159 - R2R Valda Street, West Pennant Hills | - | 9,000 | | | | | 70,000 | | 70,000 | | | **79,000** | - |
| 102160 - R2R Glenview Road, Mount Kuring – Gai | - | 9,000 | | | | | 115,000 | | 115,000 | | | **124,000** | - |
| **3059 - Footpath Projects** | - | | | | | | | | | | | - | |
| 102066 - FP Berowra Heights, Wyanna Street – Easton Road to Barnetts Road | **215,250** | | | | | | | | | | | **215,250** | **1,370** |
| 102067 - FP Hornsby, Rosemead Road – Valley Road to Hornsby Park | **71,500** | | | | | | | | | | | **71,500** | - |
| 102068 - FP Thomleigh, Vale Road – Wareemba Avenue to Norman Road | **99,500** | | | | | | | | | | | **99,500** | **2,072** |
| 102069 - FP Wahroonga, Woolcott Avenue – school to Driveaway 2A | **45,250** | | | | | | | | | | | **45,250** | **704** |
| 102070 - FP Westleigh, Corang Road – Quarter Sessions Road to Eucalyptus Drive | **68,500** | | | | | | | | | | | **68,500** | **1,607** |
| 102144 - FP Wiseman's Ferry Road and Singleton Road | **120,000** | | - 15,000 | | | | | | | | | **105,000** | - |
| 102102 - FP Qtr Sessions Rd, Westleigh - Duffy Ave to Bottlebrush Rd | **75,000** | | | | | | | | | | | **75,000** | **2,298** |
| 102103 - FP Galston Rd,Hornsby Hghts - Cawthorne St to Grevillea Cres | **145,000** | | | | | | | | | | | **145,000** | - |
| 102104 - FP Cavendish St, Thornleigh - Albion St to Pailing St | **110,000** | | | | | | | | | | | **110,000** | - |
| 102126 - FP St Judes Anglican Church, The Terrace Galston Road to Intersection ONR (stage 1) | **50,000** | | | | | | | | | | | **50,000** | - |
| 102164 - FP Frederick St, Hornsby | - | | 15,000 | | | | | | | | | **15,000** | - |
| 102095 - FP High Street, Berowra - RFS to school | **8,811** | | | | | | | | | | | **8,811** | **8,821** |
| 102096 - FP Boundary Road, North Epping - Downes Street intersection to bus stop | **6,750** | | | | | | | | | | | **6,750** | - |
| 102097 - FP Old Berowra Road, Hornsby - link road to No.51 | **22,750** | | | | | | | | | | | **22,750** | **1,323** |
| 102098 - FP Wame Street, Pennant Hills - No.29 to Weemala Road | **22,500** | | | | | | | | | | | **22,500** | - |
| 102099 - FP Kirkham Street, Beecroft - Missing link to local road | **40,000** | | | | | | | | | | | **40,000** | **642** |
| 102100 - FP Shields Lane, Pennant Hills - Willis Avenue to Werona Street | **52,000** | | | | | | | | | | | **52,000** | - |
| 101958 - FP Berowra, Kwyong Rd - Yallambee Rd to Redwood Ave | - | | | | | | | | | | | - | **175** |
| 101962 - FP C/Brook, Purchase Rd - Beechwood Pde to Kentia Pde | - | | | | | | | | | | | - | **200** |
| **3060 - Local Road Improvements** | - | | | | | | | | | | | - | |
| 100128 - Local Roads Preconstuction | **150,000** | 50,000 | | | | | | | | | | **200,000** | **71,817** |
| 100129 - Kerb & Gutter Various | **120,000** | | | | | | | | | | | **120,000** | **46,675** |
| **3061 - Local Road Projects** | - | | | | | | | | | | | - | |
| 102071 - R2R LRI Turner Rd - Elizabeth St to Cambewarra Cr | **1,897,000** | - 500,000 | | | | | | | | | | **1,397,000** | **16,371** |
| 102072 - LRI Lovett Street - Wells St to Pritchard St | **660,000** | | | | | | | | | | | **660,000** | **13,648** |
| 102073 - LRI Boronia Place - Boronia Ave to Lyne Rd | **880,000** | - 300,000 | | | | | | | | | | **580,000** | **248,426** |
| 101965 - R2R LRI Hornsby Hghts, Grevilla Cres (Stg1,2) | - | | 150,000 | | | | | | | | | **150,000** | **189,631** |

**ATTACHMENT 4 - ITEM 2**

| 26/27 Capital Program | Original Budget | Q1 Budget Changes | | | | | | | | | | Proposed Revised Budget | Expenditure |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | General Funds | Restricted Assets | S7.11/S7.12 | CRR | DWM | New Grants (approved) | Prior years unspent grants | R2R | AMP | SRV | Q1 Proposed Revised Total | Q1 Actual Spend |
| **Infrastructure Planning** | - | | | | | | | | | | | - | |
| **3025 - Foreshore Facilities** | - | | | | | | | | | | | - | |
| 100221 - Foreshore Facilities | 91,000 | | | | | | | | | | | 91,000 | - |
| **3028 - Stormwater Drainage Projects** | - | | | | | | | | | | | - | |
| 100201 - Drainage Investigations | 200,000 | | | | | | | | | | | 200,000 | 10,225 |
| 101996 - Minor Drainage Works | 270,000 | | | | | | | | | | | 270,000 | 1,400 |
| 101984 - Galston Drainage Upgrade, Gardener Road - The Glade and The Knoll (Stage 2) | 996,545 | | | | | | 250,000 | | | - | | 1,246,545 | 485,171 |
| **3054 - Design & Planning Management** | - | | | | | | | | | | | - | |
| 101853 - Traffic Planning & Design | 329,000 | - 79,000 | | | | | | | | | | 250,000 | 38,720 |
| 102165 - Mount Pleasant Ave | - | 79,000 | | | | | | | | | | 79,000 | - |
| 102166 - Grant - County Drive & Treetops Road, Cherrybrook ($82k) | - | | | | | | 82,000 | | | | | 82,000 | - |
| 100258 - Traffic Facility Capital Improvement Projects | - | | | | | | | | | | | - | 543 |
| **Infrastructure Delivery** | - | | | | | | | | | | | - | |
| **3065 - Traffic Projects** | - | | | | | | | | | | | - | |
| 100904 - TfNSW TR Wongala Cres - Cycleway -P/ Hills to Epp - $5.1 m | - | | | | | | | | | | | - | 157,219 |
| 101345 - TR Treetops Rd, Cherrybrook - Ped Ref near County Drive | - | | | | | | | | | | | - | 5,862 |
| 101914 - Grant Safe Speed in HPA - Hornsby Town Centre (24/25 $2.8m) | - | | | | | | | | | | | - | 708,404 |
| 101990 - Wombat Crossing in Quarry Road, Dural | - | | | | | | | | | | | - | 13,650 |
| **3080 - Major Projects - Anjanee Beechani** | - | | | | | | | | | | | - | |
| 100614 - S7.11 OSR-004 Westleigh Park Development (OS-047) | 200,000 | | | | | | 2,000,000 | 1,500,000 | | | | 3,700,000 | 233,004 |
| 100877 - RD-003 Peats Ferry Bridge Rd Intersection (R-040) | 1,870,000 | | | | | | | - 500,000 | | | | 1,370,000 | 17,731 |
| 101734 - Galston Village Public Domain Upgrades | 5,000,000 | | - 1,500,000 | | | | | | | | | 3,500,000 | 493,485 |
| 102105 - Gateway & Suburb Signage | 1,270,000 | | | - 16,839 | | | | | | | | 1,253,161 | 4,057 |
| 102085 - Singletons Mill, Singleton Road (Stage 2) | 300,000 | | | | | | | | | | | 300,000 | 3,009 |
| 100238 - TfNSW 100% Brooklyn Boardwalk ($5.07m) - HSC Cont $300k | - | | | | | | | | | | | - | 27,828 |
| 101048 - Public Domain - Asquith to Mt Colah (Stage 1 & 2) | - | | | | | | | 58,000 | | | | 58,000 | 57,958 |
| 101160 - Brooklyn Wharf Upgrade with Pontoon | - | | | | | | | | | | | - | 4,949 |
| **Hornsby Park** | - | | | | | | | | | | | - | |
| **3082 - Hornsby Park** | - | | | | | | | | | | | - | |
| 102057 - Hornsby Park Sitewide REF | - | | | | | | | | | | | - | 4,143 |
| **3083 - Hornsby Quarry Embellishment** | - | | | | | | | | | | | - | |
| 102110 - HP Crusher Plant – feasibility and concept planning | 100,000 | | | | | | | | | | | 100,000 | - |
| 102111 - HP OMV North – design development | 500,000 | | | | | | | | | | | 500,000 | - |
| 102050 - Circulation Works | - | | | 217,000 | | | | | | | | 217,000 | 53,685 |
| 102051 - Signage & Interps | - | | | | | | | | | | | - | 79,089 |
| 102054 - Greenspace | - | | | | | | | | | | | - | 161,928 |
| **3084 - Old Mans Valley** | - | | | | | | | | | | | - | |
| 102034 - OMV FOP Project Team | 1,816,838 | | | - 145,197 | | | - 145,197 | | | | | 1,526,444 | 172,374 |
| 102035 - OMV FOP Services Enhancement | 2,097,070 | | | | | | | | | | | 2,097,070 | 255,903 |
| 102036 - OMV FOP Civil Landscape And Field Of Play | 7,768,496 | | | | | | | | | | | 7,768,496 | 2,744,181 |
| 102037 - OMV FOP Buildings & Amenities | 4,023,000 | | | - 32,799 | | | - 32,799 | | | | | 3,957,403 | 180,045 |
| 102038 - OMV FOP Mountain Bike Facilities | 405,600 | | | | | | | 600,000 | | | | 1,005,600 | 24,250 |
| **3085 - Vegetation Management** | - | | | | | | | | | | | - | |
| 101441 - Hornsby Quarry Vegetation Management | 200,000 | | | | | | | | | | | 200,000 | - |
| 102052 - Circulation Vegetation | 200,000 | | | - 120,000 | | | | | | | | 80,000 | 25,556 |
| **Parks & Recreation** | - | | | | | | | | | | | - | |
| **3071 - Parks & Landscapes Architects** | - | | | | | | | | | | | - | |
| 102027 - Parks Capital Projects | - | | | | | | | 78,483 | | | | 78,483 | 78,483 |
| **3072 - Parks Service Unit** | - | | | | | | | | | | | - | |
| 100293 - Parks Service Unit General | - | | | | | | | | | | | - | 3,509 |
| **3073 - Parks Asset Group** | - | | | | | | | | | | | - | |
| 102125 - Berowra Cricket Club - new fencing at Berowra Oval | - | | | | | | 49,500 | | | | | 49,500 | 38,640 |
| **3074 - Parks Asset Group - Playing Fields** | - | | | | | | | | | | | - | |
| 100308 - Parks Asset Group - Playing Fields | - | | | | | | | | | | | - | 24,207 |
| **3075 - Parks Asset Group - Parks** | - | | | | | | | | | | | - | |
| 100322 - Parks Asset Group - Parks | 515,711 | | | | | | | | | | | 515,711 | 215,895 |
| 101350 - Playground Undersurfacing | 100,000 | | | | | | | | | | | 100,000 | 26,759 |

# ATTACHMENT 4 - ITEM 2

| 26/27 Capital Program | Original Budget | Q1 Budget Changes | | | | | | | | | | Proposed Revised Budget | Expenditure |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | General Funds | Restricted Assets | S7.11/S7.12 | CRR | DWM | New Grants (approved) | Prior years unspent grants | R2R | AMP | SRV | Q1 Proposed Revised Total | Q1 Actual Spend |
| 101609 - Park Furniture Renewal | 90,000 | | | | | | | | | | | 90,000 | 2,475 |
| 101610 - Park Fencing Renewal | 100,000 | | | | | | | | | | | 100,000 | 20,000 |
| 101611 - Cricket Wicket Renewal | 60,000 | | | | | | | | | | | 60,000 | - |
| 102079 - Sportsground Renewal | 135,000 | | | | | | | | | | | 135,000 | - |
| **3076 - Parks Landscape Architect Capital Projects** | - | | | | | | | | | | | - | |
| 102080 - Cairnes Road Park, Glenorie Playground | 300,000 | | | | | | | | | | | 300,000 | - |
| 102081 - Western Cresecent Park, Westleigh Playground upgrade | 300,000 | | | | | | | | | | | 300,000 | 1,203 |
| 102082 - Parkhill Crescent Park, Cherrybrook playgorund upgrade | 150,000 | 50,000 | | | | | | | | | | 200,000 | - |
| 102083 - Briddon Close Park, Pennant Hills playground upgrade | 150,000 | | | | | | | | | | | 150,000 | - |
| 102084 - Minor Playground improvements | 100,000 | - 50,000 | | | | | | | | | | 50,000 | 26,552 |
| 101874 - Willow Park Hornsby (Design Only) | 40,000 | | | | | | | | | | | 40,000 | - |
| 101369 - Normanhurst Oval Amenities | 600,000 | | | 400,000 | | | | | | | | 1,000,000 | - |
| 101568 - s7.11 OSR-018 Fagan Park Playground | 500,000 | | | 143,644 | | | | | | | | 643,644 | 10,839 |
| 101519 - Edward Bennett Oval Cherrybrook oval and playground upgrade | 1,350,000 | | | - 970,000 | | | | 370,000 | | | | 750,000 | 417,754 |
| 102017 - CRIF Grant Fagan Park Neatherby & Childrens Forest | 100,000 | | | | | | | | | | | 100,000 | 66,721 |
| 101916 North Epping Oval Amenities Grant | - | | | | | | | 339,902 | | | | 339,902 | 106,447 |
| 101498 Cherrybrook Community Centre Playspace | - | | | 547,670 | | | | | | | | 547,670 | 519,610 |
| 102174 Off-Leash Dog Park | - | | | 80,000 | | | | 278,468 | | | | 358,468 | - |
| 101471 The Lakes of C/brook Pk Renewal | - | | | | | | | 15,609 | | | | 15,609 | - |
| 101607 Grant - Greenway Park Building ($1.37m Multi-S & 980kGC) | - | | | | | | | 114,137 | | | | 114,137 | 9,300 |
| 101398 - S7.11 OSR-015 P/Hills Walking Path ($1.7m+ $375k Grant) | - | | | | | | | | | | | - | 1,148 |
| 101400 - S7.11 OSR-017 Mark Taylor Ovl Waitara ($9m+Grant $600k) | - | | | | | | | | | | | - | 810 |
| 101569 - S7.11 OSR-022 Wollundry Park - Park and Playground Embelish | - | | | | | | | | | | | - | 2,621 |
| 101872 - S7.11 OSR-13 James Henty Oval – Floodlights | - | | | | | | | | | | | - | 1,555 |
| 101873 - S7.11 OSR-19 Local Playground Asquith - Design & Investig | - | | | 13,807 | | | | | | | | 13,807 | 13,807 |
| 101876 - North Epping Oval - Exercise Equipment | - | | | | | | | | | | | - | 172 |
| 101968 - S7.12 Headen Park Thornleigh (fitness equipment) | - | | | | | | | | | | | - | 5,834 |
| 101969 - Ulolo Park Hornsby Heights (playspace) GF | - | | | | | | | | | | | - | 4,211 |
| 102146 - CRIF Grant - Hornsby Park and Heritage Steps Trailhead and F | - | | | | | | | | | | | - | 4,090 |
| **Library and Community Services** | - | | | | | | | | | | | - | |
| **4005 - Community Services Properties** | - | | | | | | | | | | | - | |
| 101955 - Berowra Electrical upgrades | 340,000 | | | | | | | | | | | 340,000 | - |
| **4010 - Community and Cultural Facilities** | - | | | | | | | | | | | - | |
| 100403 - Wallarobba Redevelopement | 550,000 | | - | - 50,000 | | | | | | | | 500,000 | 46,758 |
| **4024 - Library Administration** | - | | | | | | | | | | | - | |
| 100545 - Library & Community Branch Administration | 95,000 | | | | | | | | | | | 95,000 | - |
| **4026 - Library Resource Organisation** | - | | | | | | | | | | | - | |
| 100547 - Library Technology and Resource | 13,200 | | | 90,000 | | | | | | | | 103,200 | 2,195 |
| **4027 - Information & Outreach Section** | - | | | | | | | | | | | - | |
| 100549 - Library Reference and Local Studies | 100,000 | | | 60,000 | | | | | | | | 160,000 | 19,447 |
| 100551 - Library Childrens & Youth Services | 98,000 | | | | | | | | | | | 98,000 | 19,004 |
| 100548- Library Information Services | - | | | 45,000 | | | | | | | | 45,000 | - |
| **4028 - Library Customer Services** | - | | | | | | | | | | | - | |
| 100554 - S7.11 CF-002 Library Customer & NetworkServices (CF-006) | 118,100 | | | | | | | | | | | 118,100 | 30,365 |
| **4029 - Library Lending Services** | - | | | | | | | | | | | - | |
| 100555 - Library Customer Services | 64,200 | | | 110,000 | | | | | | | | 174,200 | 13,011 |
| 100557- Pennant Hills | - | | | 60,000 | | | | | | | | 60,000 | 23,037 |
| **Waste Management** | - | | | | | | | | | | | - | |
| **4046 - DWM Contracts & Services** | - | | | | | | | | | | | - | |
| 102087 - DWM FO Collection Contract | 4,850,000 | | | | | 250,000 | | | | | | 5,100,000 | - |
| **Enviroment** | - | | | | | | | | | | | - | |
| **4014 - Catchments Remediation** | - | | | | | | | | | | | - | |
| 101907 - CRR Invesitgation and Design - Multiple Locations | - | | | | 400,000 | | | | | | | 400,000 | 97,306 |
| 102090 - CRR Clarinda Street, Hornsby - Wetland | 800,000 | | | | - 150,000 | | | | | | | 650,000 | - |
| 102091 - CRR Woodgrove Avenue, Cherrybrook - Gross pollution device (Trash rack) | 200,000 | | | | - 200,000 | | | | | | | - | - |
| 102092 - CRR New Farm Road, West Pennant Hills - Wetland (Wallumeda) | 1,000,000 | | | | - 1,000,000 | | | | | | | - | - |
| 102093 - CRR Kenburn Avenue, Cherrybrook - Gross pollution device (un | 400,000 | | | | - 400,000 | | | | | | | - | - |





**ATTACHMENT 4 - ITEM 2**

| 26/27 Capital Program | Original Budget | Q1 Budget Changes | | | | | | | | | | Proposed Revised Budget | Expenditure |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | General Funds | Restricted Assets | S7.11/S7.12 | CRR | DWM | New Grants (approved) | Prior years unspent grants | R2R | AMP | SRV | Q1 Proposed Revised Total | Q1 Actual Spend |
| 102145 - CRR OMV - Creek Stabilisation | - | | | | 50,000 | | | | | | | 50,000 | - |
| 102089 - CRR Glen Street Galston | - | | | | 600,000 | | | | | | | 600,000 | 239,657 |
| 102150 - CRR Void Harvesting, Hornsby Park – Initiative | - | | | | 250,000 | | | | | | | 250,000 | 43,771 |
| 102161 - CRR Greenway Park, Cherrybrook - Vault – Improvements | - | | | | 100,000 | | | | | | | 100,000 | - |
| 101980 - CRR Kenburn Avenue, Cherrybrook - Gross pollution device (underground vaults) | - | | | | 400,000 | | | | | | | 400,000 | 2,159 |
| 102154 - CRR Lessing Park, Hornsby - Vault - Improvements | - | | | | 60,000 | | | | | | | 60,000 | 67,962 |
| 101905 - CRR Bridge Road, Hornsby - Gross Pollution Device - Design | - | | | | 101,000 | | | | | | | 101,000 | 101,745 |
| 100800 - CRR Gross Pollutant Traps | - | | | | | | | | | | | - | 8,375 |
| 102012 - CRR Redgum Ave, Pennant Hills, Bio-basin | - | | | | | | | | | | | - | 113 |
| **4019 - Bushland Capital Projects** | - | | | | | | | | | | | - | |
| 101889 - Westleigh Park - Mountain Bike Trails ( SCF) | 2,000,000 | | | | | | | - 2,000,000 | | | | - | - |
| 102109 - Rofe Park to Asquith Park – Establishing connections and bushwalking track upgrades | 150,000 | | | | | | | | | | | 150,000 | - |
| 101557 - Hornsby Mountain Bike Trail - Upgrades | 250,000 | | | | | | | - 50,000 | | | | 200,000 | 40,328 |
| 101622 - Larool Creek, Thomleigh - Bridge (shared use) | 140,000 | | | - 140,000 | | | | 800,000 | | | | 800,000 | - |
| 102113 - S7.11 Thomleigh Normanhurst Bushwalking Trail Links - Begonia Reserve | 190,000 | | | 117,955 | | | | | | | | 307,955 | 282,883 |
| 101731 - S7.11 BL-008 Devlins Creek Track to Lynne Road, Cheltenham | - | | | | | | | | | | | - | 3,258 |
| **SRV 2324 - 3233** | - | | | | | | | | | | | - | |
| **7302 - SRV Share Path** | - | | | | | | | | | | | - | |
| 102074 - SRV Share path Asquith, Amor St, Pacific Hwy to Old Berowra Rd | 1,000,000 | | | | | | | | | | | 1,000,000 | 48,560 |
| 102075 - SRV Share path Hornsby, Clarke Rd, Malsbury Rd to Holmwood Ave | 600,000 | | 300,000 | | | | | | | | 340,000 | 1,240,000 | 9,344 |
| 102076 - SRV Share path Hornsby, Neutral Rd, Clarke Rd to Hall Rd | 300,000 | - | 299,397 | | | | | | | | | 603 | 603 |
| 102077 - SRV Share Hornsby, Old Berowra Rd - Amor St to School Crossing | 620,000 | - | 141,076 | | | | | | | | 141,076 | 620,000 | 139 |
| 102049 - SRV Share path Quarry Rd Arrival Plaza | - | | 6,331 | | | | | | | | | 6,331 | 6,331 |
| **7303 - SRV Drainage** | - | | | | | | | | | | | - | |
| 101985 - SRV Galston Drainage Upgrade, Gardener Road - The Glade and The Knoll (Stage 2) -Anil | 1,000,000 | | | | | | | | | | - | 1,000,000 | - |
| **7304 - SRV Hornsby Park** | - | | | | | | | | | | | - | |
| 101988 - SRV Hornsby Park Asset Renewals | 716,000 | | | | | | | | | | - 316,000 | 400,000 | 619 |
| 101989 - SRV Hornsby Park - recurrent Operations and Maintenance | - | | 89,893 | | | | | | | | | 89,893 | 89,893 |
| **7404 - SRV Inclusive CC** | - | | | | | | | | | | | - | |
| 101748 - SRV Inclusive Community Centres - Compliance with Audit | 80,000 | | | | | | | | | | - 23,741 | 56,259 | 0 |
| 101997 - SRV Inclusive Community Centres - Berowra CC | 850,000 | | | | | | | | | | | 850,000 | - |
| 101957 - SRV Inclusive Community Centres - Beecroft CC | - | | 18,972 | | | | | | | | | 18,972 | 3,972 |
| **7405 - SRV Park Amenities** | - | | | | | | | | | | | - | |
| 101934 - SRV Sportsground amenities program investigation, design and mangement | 50,000 | | | | | | | | | | | 50,000 | 3,991 |
| 101977 - SRV Asquith Oval changerooms | 200,000 | | 200,000 | | | | | | | | | 400,000 | 5,761 |
| 101978 - SRV North Epping Oval amenities | 600,000 | | 400,000 | | | | | | | | | 1,000,000 | 12,731 |
| 102107 - SRV Normanhurst Oval Amenities | 400,000 | - | 348,531 | | | | | | | | | 51,469 | 50,748 |
| **7406 - SRV Playspaces** | - | | | | | | | | | | | - | |
| 101753 - SRV Playground Renewal | 85,000 | | | | | | | | | | | 85,000 | 17,100 |
| **7407 - SRV Public Amenities Toilet** | - | | | | | | | | | | | - | |
| 101933 - SRV Public toilet program investigations, design and mangement | 100,000 | | | | | | | | | | - 50,000 | 50,000 | 8,622 |
| 101972 - SRV Fagan Park Galston Neatherby toilet (public amenities) | 150,000 | | 100,000 | | | | | | | | | 250,000 | - |
| 101974 - SRV Fagan Park Galston American Garden toilet (public amenities) | 150,000 | | | | | | | | | | 50,000 | 200,000 | 14,549 |
| 101975 - SRV Asquith Oval public toilets | 500,000 | | | | | | | | | | | 500,000 | 65,817 |
| 101976 - SRV Accessibility improvments public toilets (public amenities) | 150,000 | | | | | | | | | | | 150,000 | - |
| 101973 - SRV Fagan Park Arcadia Toilet | - | | 100,000 | | | | | | | | | 100,000 | 69,517 |
| **7409 - SRV Track Upgrade** | - | | | | | | | | | | | - | |
| 101982 - SRV Bushland Wayfinding Signage Upgrades | 125,500 | | | | | | | | | | | 125,500 | 2,560 |
| 101983 - SRV Reddy Park, Hornsby - Accessible loop track upgrade | 45,000 | | | | | | | | | | | 45,000 | - |
| 102108 - SRV Deep Bay Creek to Turner Road Fire Trail, Berowra Heights - Great North Walk upgrades | 195,500 | | | | | | | | | | | 195,500 | - |
| 101930 - SRV Larool Creek shared use bridge | 60,000 | | | | | | | | | | | 60,000 | - |
| **Total** | 61,084,498 | - 500,000 | - 516,651 | 410,242 | 211,000 | 250,000 | 2,268,505 | 1,667,246 | - | - | 141,335 | 65,016,174 | 10,608,733 |
| **Delivery rate** | 16% | | | | | | | | | | | | |

# ATTACHMENT 4 - ITEM 2

ITEM 3

# ATTACHMENT/S

## REPORT NO. CS59/26

## ITEM 3

**1. HSC INVESTMENTS SUMMARY REPORT SEPTEMBER 2026**

**2. HSC BORROWINGS SUMMARY REPORT SEPTEMBER 2026**




Investment Summary Report
September 2026

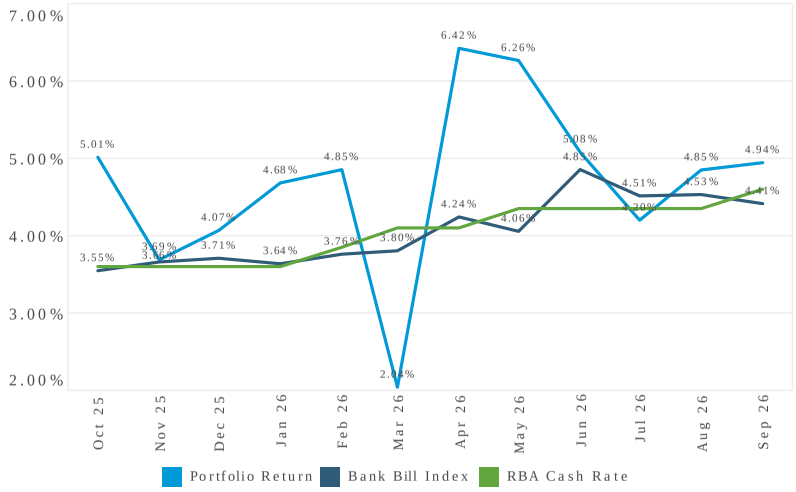
# ATTACHMENT 1 - ITEM 3

# Hornsby Shire Council
## Executive Summary - September 2026

### Investment Holdings

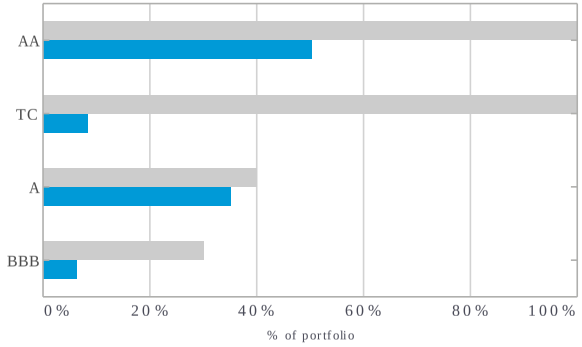
| | Face Value ($) | Current Value ($) | Current Yield (%) | FYTD Yield (%) |
|---|---|---|---|---|
| Cash | 56,993,269 | 56,993,269 | 4.8369 | 4.6544 |
| Floating Rate Note | 12,500,000 | 12,633,175 | 5.4209 | 5.2458 |
| Managed Funds | 27,811,514 | 27,811,514 | 3.5807 | 2.7733 |
| Term Deposit | 233,215,250 | 236,093,694 | 5.2242 | 4.9389 |
| | 330,520,032 | 333,531,651 | 4.9432 | 4.6604 |

### Investment Performance

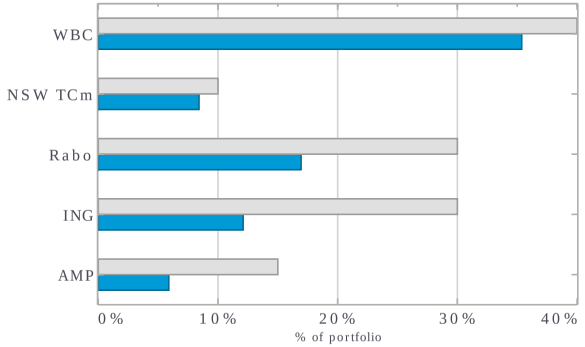



### Investment Policy Compliance

#### Total Credit Exposure




#### Individual Institutional Exposures




Portfolio Exposure | Investment Policy Limit

#### Term to Maturities

| | Face Value ($) | | Policy Max* |
|---|---|---|---|
| Between 0 and 0.25 years | 62,993,269 | 19% | 20% |
| Between 0.25 and 1 years | 47,715,250 | 14% | 100% |
| Between 1 and 2 years | 96,000,000 | 29% | 70% |
| Between 2 and 5 years | 96,000,000 | 29% | 50% |
| Between 5 and 10 years | 27,811,514 | 8% | 25% |
| | 330,520,032 | | |

* Council always retains the flexibility to invest as short as required by internal requirements or the economic outlook

PRUDENTIAL INVESTMENT SERVICES CORP

**ATTACHMENT 1 - ITEM 3**

# Hornsby Shire Council
## Investment Holdings Report - September 2026

### Cash Accounts

| Face Value ($) | Current Rate (%) | Institution | Credit Rating | Current Value ($) |
|---|---|---|---|---|
| 26,816.48 | 4.9500% | Westpac Group | AA- | 26,816.48 |
| 498,071.81 | 4.4000% | Bendigo and Adelaide Bank | A- | 498,071.81 |
| 1,526,690.39 | 4.6000% | Bank of Queensland | A- | 1,526,690.39 |
| 1,755,702.37 | 4.6500% | Macquarie Bank | A+ | 1,755,702.37 |
| 13,692,956.69 | 4.6500% | Westpac Group | AA- | 13,692,956.69 |
| 19,464,766.12 | 4.9500% | AMP Bank | BBB+ | 19,464,766.12 |
| 20,028,264.66 | 4.9000% | ANZ Banking Group | AA- | 20,028,264.66 |
| 56,993,268.52 | 4.8369% | | | 56,993,268.52 |

### Managed Funds

| Face Value ($) | Current Rate (%) | Institution | Credit Rating | Funds Name | Current Value ($) |
|---|---|---|---|---|---|
| 27,811,513.75 | 3.5807% | NSW T-Corp (MT) | TCm | Medium Term Growth Fund | 27,811,513.75 |
| 27,811,513.75 | 3.5807% | | | | 27,811,513.75 |

### Floating Rate Notes

| Purchase Date | Maturity Date | Term Days | Face Value ($) | Current Rate (%) | Security Name | Credit Rating | Book Value ($) | Current Value ($) |
|---|---|---|---|---|---|---|---|---|
| 23-Sep-21 | 23-Dec-26 | 1917 | 6,000,000.00 | 5.1345% | CBA Green Snr FRN (Dec26) BBSW+0.41% | AA- | 6,001,440.00 | 6,007,330.38 |
| 10-Feb-22 | 10-Feb-27 | 1826 | 1,500,000.00 | 5.5048% | NPBS Snr FRN (Feb27) BBSW+1.00% | BBB+ | 1,502,385.00 | 1,512,693.68 |
| 11-Nov-22 | 11-Nov-27 | 1826 | 5,000,000.00 | 5.7393% | WBC Snr FRN (Nov27) BBSW+1.23% | AA- | 5,089,173.95 | 5,113,150.83 |
| | | | 12,500,000.00 | 5.4209% | | | 12,592,998.95 | 12,633,174.89 |

PRUDENTIAL INVESTMENT SERVICES CORP

**ATTACHMENT 1 - ITEM 3**

# Hornsby Shire Council
## Investment Holdings Report - September 2026

### Term Deposits

| Purchase Date | Maturity Date | Term Days | Face Value ($) | Current Rate (%) | Institution | Credit Rating | Book Value ($) | Current Value ($) |
|---|---|---|---|---|---|---|---|---|
| 4-Feb-25 | 3-Feb-27 | 729 | 5,000,000.00 | 4.6300% | ING Bank (Australia) | A | 5,000,000.00 | 5,151,584.93 |
| 11-Feb-26 | 10-Feb-27 | 364 | 5,000,000.00 | 4.9000% | ING Bank (Australia) | A | 5,000,000.00 | 5,155,726.03 |
| 4-Mar-26 | 3-Mar-27 | 364 | 5,000,000.00 | 5.0700% | ING Bank (Australia) | A | 5,000,000.00 | 5,146,543.84 |
| 29-Apr-26 | 29-Apr-27 | 365 | 165,250.00 | 5.0000% | Westpac Group | AA- | 165,250.00 | 168,758.73 |
| 16-Aug-23 | 16-Aug-27 | 1461 | 8,000,000.00 | 5.1500% | ANZ Banking Group | AA- | 8,000,000.00 | 8,050,794.52 |
| 22-Aug-26 | 22-Aug-27 | 365 | 50,000.00 | 5.1000% | Westpac Group | AA- | 50,000.00 | 50,265.48 |
| 23-Aug-23 | 23-Aug-27 | 1461 | 5,000,000.00 | 5.2200% | ING Bank (Australia) | A | 5,000,000.00 | 5,027,172.60 |
| 30-Aug-23 | 30-Aug-27 | 1461 | 8,000,000.00 | 5.2800% | Westpac Group | AA- | 8,000,000.00 | 8,035,875.07 |
| 3-Sep-25 | 3-Sep-27 | 730 | 10,000,000.00 | 3.9000% | National Australia Bank | AA- | 10,000,000.00 | 10,029,917.81 |
| 16-Dec-25 | 16-Dec-27 | 730 | 10,000,000.00 | 4.7700% | ING Bank (Australia) | A | 10,000,000.00 | 10,377,679.45 |
| 6-Jan-26 | 6-Jan-28 | 730 | 5,000,000.00 | 4.7900% | ING Bank (Australia) | A | 5,000,000.00 | 5,175,852.05 |
| 6-Feb-23 | 7-Feb-28 | 1827 | 10,000,000.00 | 4.1300% | Westpac Group | AA- | 10,000,000.00 | 10,268,167.12 |
| 6-Feb-23 | 7-Feb-28 | 1827 | 5,000,000.00 | 4.1200% | Westpac Group | AA- | 5,000,000.00 | 5,133,758.90 |
| 6-Feb-23 | 7-Feb-28 | 1827 | 10,000,000.00 | 4.0900% | Westpac Group | AA- | 10,000,000.00 | 10,265,569.86 |
| 1-Apr-26 | 3-Apr-28 | 733 | 5,000,000.00 | 5.5100% | ING Bank (Australia) | A | 5,000,000.00 | 5,138,127.40 |
| 28-Jul-23 | 28-Jul-28 | 1827 | 8,000,000.00 | 5.3200% | Bank of Queensland | A- | 8,000,000.00 | 8,075,791.78 |
| 9-Aug-23 | 9-Aug-28 | 1827 | 8,000,000.00 | 5.2200% | Bank of Queensland | A- | 8,000,000.00 | 8,059,493.70 |
| 4-Sep-23 | 4-Sep-28 | 1827 | 15,000,000.00 | 5.2800% | Westpac Group | AA- | 15,000,000.00 | 15,058,586.30 |
| 4-Sep-23 | 4-Sep-28 | 1827 | 15,000,000.00 | 5.2800% | Westpac Group | AA- | 15,000,000.00 | 15,058,586.30 |
| 19-Feb-25 | 18-Feb-30 | 1825 | 8,000,000.00 | 5.1500% | Rabobank Australia | A | 8,000,000.00 | 8,252,843.84 |
| 6-Aug-26 | 6-Aug-30 | 1461 | 5,000,000.00 | 5.6800% | ANZ Banking Group | AA- | 5,000,000.00 | 5,043,572.60 |
| 10-Aug-26 | 11-Aug-31 | 1827 | 5,000,000.00 | 5.6100% | Rabobank Australia | A | 5,000,000.00 | 5,039,961.64 |
| 20-Aug-26 | 20-Aug-31 | 1826 | 10,000,000.00 | 5.6300% | Rabobank Australia | A | 10,000,000.00 | 10,064,783.56 |
| 26-Aug-26 | 27-Aug-31 | 1827 | 5,000,000.00 | 5.4900% | Westpac Group | AA- | 5,000,000.00 | 5,027,073.97 |
| 28-Aug-26 | 1-Sep-31 | 1830 | 8,000,000.00 | 5.7100% | Rabobank Australia | A | 8,000,000.00 | 8,042,551.23 |
| 1-Sep-26 | 1-Sep-31 | 1826 | 10,000,000.00 | 5.7800% | Rabobank Australia | A | 10,000,000.00 | 10,047,506.85 |
| 2-Sep-26 | 2-Sep-31 | 1826 | 10,000,000.00 | 5.8300% | Rabobank Australia | A | 10,000,000.00 | 10,046,320.55 |
| 9-Sep-26 | 10-Sep-31 | 1827 | 5,000,000.00 | 5.8700% | Rabobank Australia | A | 5,000,000.00 | 5,017,690.41 |
| 14-Sep-26 | 15-Sep-31 | 1827 | 30,000,000.00 | 5.9500% | Westpac Group | AA- | 30,000,000.00 | 30,083,136.99 |
| | | | 233,215,250.00 | 5.2242% | | | 233,215,250.00 | 236,093,693.51 |

### Total Investments

| Face Value ($) | Current Value ($) |
|---|---|
| 330,520,032.27 | 333,531,650.67 |

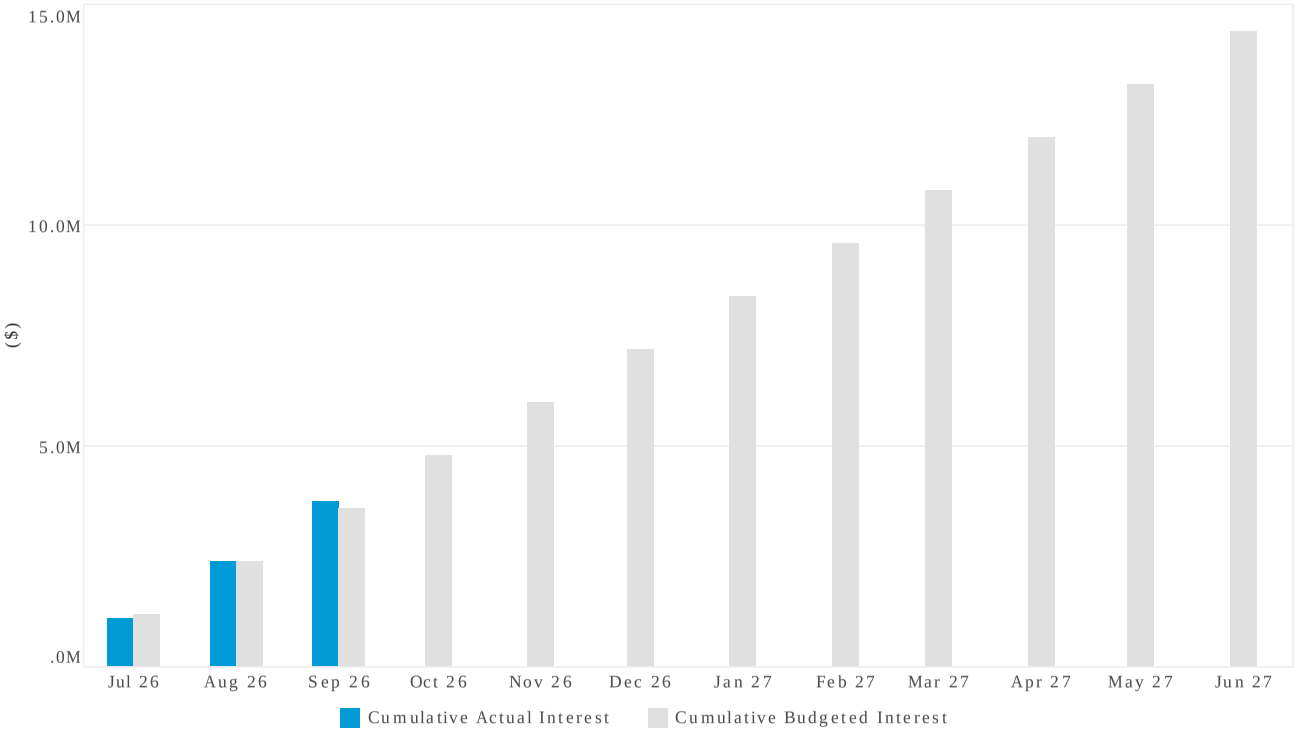
PRUDENTIAL INVESTMENT SERVICES CORP

**ATTACHMENT 1 - ITEM 3**

# Hornsby Shire Council
## Investment Budget Report - September 2026

### Budgeted vs Actual Returns

| | Cumulative Actual Income | Cumulative Budgeted Income |
|---|---|---|
| July 2026 | 1,096,523 | 1,199,859 |
| August 2026 | 2,385,305 | 2,399,719 |
| September 2026 | 3,735,737 | 3,599,578 |
| Budget Target | | 14,398,313 |




PRUDENTIAL INVESTMENT SERVICES CORP

**ATTACHMENT 1 - ITEM 3**

# Hornsby Shire Council
## Environmental Commitments Report - September 2026

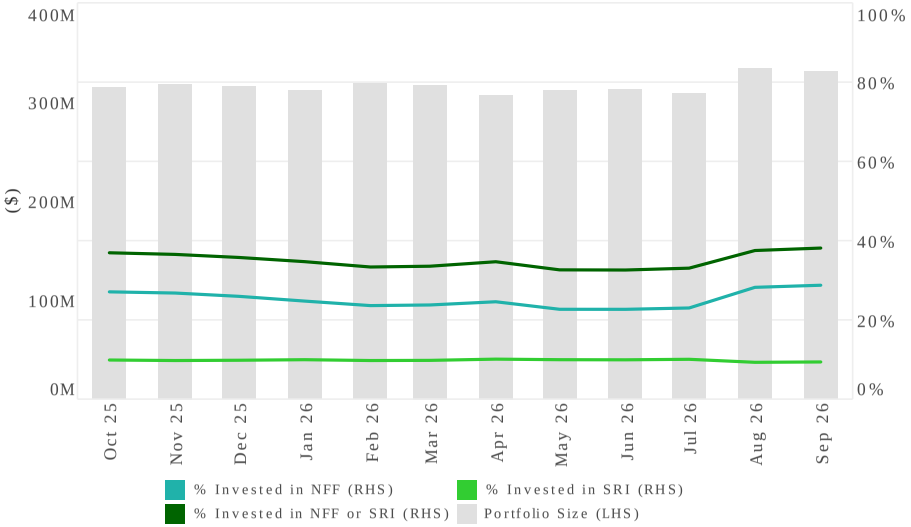
### Current Breakdown

| ADI Lending Status * | Current Month ($) | | Previous Month ($) | |
|---|---|---|---|---|
| Fossil Fuel Lending ADIs | | | | |
| ANZ Group | 33,028,265 | | 13,000,000 | |
| ING Bank Australia | 40,000,000 | | 45,000,000 | |
| Macquarie Bank | 1,755,702 | | 1,749,018 | |
| National Australia Bank | 10,000,000 | | 40,000,000 | |
| Westpac Group | 91,935,023 | | 81,036,330 | |
| | 176,718,990 | 53% | 180,785,348 | 54% |
| Non Fossil Fuel Lending ADIs | | | | |
| AMP Bank | 19,464,766 | | 19,385,101 | |
| Bank of Queensland | 17,526,690 | | 37,476,115 | |
| Bendigo and Adelaide Bank | 498,072 | | 496,375 | |
| Newcastle Greater Mutual Group | 1,500,000 | | 1,500,000 | |
| Rabobank Australia | 56,000,000 | | 31,000,000 | |
| Suncorp Bank | 0 | | 4,250,000 | |
| | 94,989,528 | 29% | 94,107,592 | 28% |
| Other | | | | |
| NSW T-Corp (MT) | 27,811,514 | | 27,731,211 | |
| | 27,811,514 | 8% | 27,731,211 | 8% |
| Socially Responsible Investment | | | | |
| CBA (Green) | 6,000,000 | | 6,000,000 | |
| Westpac Group (Green TD) | 25,000,000 | | 25,000,000 | |
| | 31,000,000 | 9% | 31,000,000 | 9% |
| | 330,520,032 | | 333,624,151 | |

* source: Marketforces

Percentages may not add up to 100% due to rounding

### Historical Portfolio Exposure to NFF Lending ADIs and SRIs




### Green Products Summary

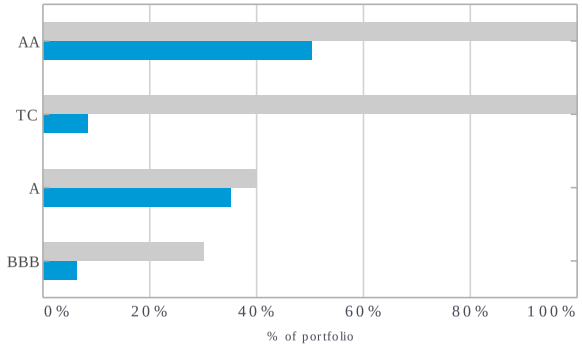
| | Current Month ($) | | Previous Month ($) | |
|---|---|---|---|---|
| AMP Bank | 19,464,766 | | 19,385,101 | |
| Bank of Queensland | 17,526,690 | | 37,476,115 | |
| Bendigo and Adelaide Bank | 498,072 | | 496,375 | |
| CBA (Green) | 6,000,000 | | 6,000,000 | |
| Newcastle Greater Mutual Group | 1,500,000 | | 1,500,000 | |
| Rabobank Australia | 56,000,000 | | 31,000,000 | |
| Suncorp Bank | 0 | | 4,250,000 | |
| Westpac Group (Green TD) | 25,000,000 | | 25,000,000 | |
| | 125,989,528 | 38% | 125,107,592 | 37% |
| | 330,520,032 | | 333,624,151 | |

PRUDENTIAL INVESTMENT SERVICES CORP

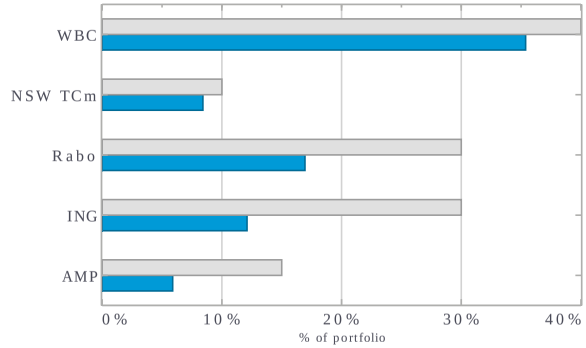
**ATTACHMENT 1 - ITEM 3**

# Hornsby Shire Council
## Investment Policy Compliance Report - September 2026

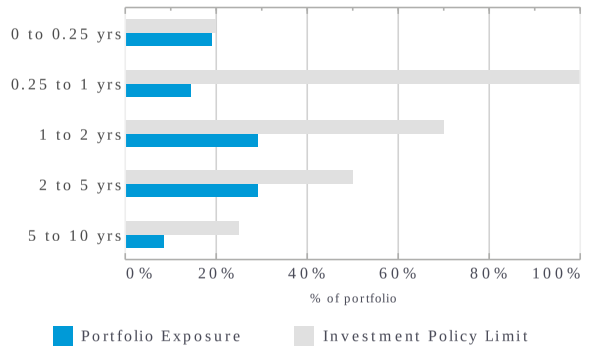
### Total Credit Exposure




### Individual Institutional Exposures




### Term to Maturities




| Credit Rating Group | Face Value ($) | | Policy Max | |
|---|---|---|---|---|
| AA | 165,963,288 | 50% | 100% | a |
| TC | 27,811,514 | 8% | 100% | a |
| A | 115,780,465 | 35% | 40% | a |
| BBB | 20,964,766 | 6% | 30% | a |
| | 330,520,032 | | | |

| Specific Sub Limits | | | | |
|---|---|---|---|---|
| *BBB+* | *20,964,766* | *6%* | *30%* | a |

| Institution | % of portfolio | Investment Policy Limit | |
|---|---|---|---|
| Westpac Group (AA-) | 35% | 40% | a |
| NSW T-Corp (TCm) | 8% | 10% | a |
| Rabobank Australia (A) | 17% | 30% | a |
| ING Bank Australia (A) | 12% | 30% | a |
| AMP Bank (BBB+) | 6% | 15% | a |
| ANZ Group (AA-) | 10% | 40% | a |
| Bank of Queensland (A-) | 5% | 30% | a |
| National Australia Bank (AA-) | 3% | 40% | a |
| Commonwealth Bank of Australia (AA-) | 2% | 40% | a |
| Macquarie Bank (A+) | 1% | 30% | a |

| | Face Value ($) | | Policy Max* |
|---|---|---|---|
| Between 0 and 0.25 years | 62,993,269 | 19% | 20% |
| Between 0.25 and 1 years | 47,715,250 | 14% | 100% |
| Between 1 and 2 years | 96,000,000 | 29% | 70% |
| Between 2 and 5 years | 96,000,000 | 29% | 50% |
| Between 5 and 10 years | 27,811,514 | 8% | 25% |
| | 330,520,032 | | |

* Council always retains the flexibility to invest as short as required by internal requirements or the economic outlook

a = compliant
r = non-compliant

PRUDENTIAL INVESTMENT SERVICES CORP

**ATTACHMENT 1 - ITEM 3**

HORNSBY SHIRE COUNCIL

## HORNSBY SHIRE COUNCIL SCHEDULE OF BORROWINGS AS AT 30 September 2026

| 1. LOANS | | | $'000 | $'000 | $'000 | $'000 | % |
|---|---|---|---|---|---|---|---|
| Lender | Date Drawn | Maturity Date | Amount Borrowed | 01/07/2025 Opening Balance | 2025/26 YTD Repayments Principal | Closing Balance | Fixed Interest Rate % |
| None | | | | | | | |

| 2. OPERATING LEASES | | | $'000 | $'000 | $'000 | $'000 | $'000 |
|---|---|---|---|---|---|---|---|
| Lessor | Date Executed | Expiry date | Total Lease Payments | 01/07/2026 Opening Balance | New Leases | 2026/2027 Repayments YTD | Closing Balance |
| Vestone Capital Pty Ltd (119) | 15-Nov-22 | 15-Aug-27 | 64 | 16 | | 3 | 13 |
| Vestone Capital Pty Ltd (120) | 15-Aug-23 | 15-Aug-28 | 31 | 12 | | 2 | 10 |
| Vestone Capital Pty Ltd (121) | 15-Nov-23 | 15-Nov-28 | 453 | 202 | | 23 | 179 |
| Vestone Capital Pty Ltd (122) | 15-Nov-23 | 15-Nov-27 | 134 | 42 | | 8 | 34 |
| Vestone Capital Pty Ltd (123) | 15-May-24 | 15-Feb-27 | 37 | 9 | | 3 | 6 |
| Vestone Capital Pty Ltd (124) | 15-Aug-24 | 15-Aug-27 | 77 | 30 | | 6 | 24 |
| Vestone Capital Pty Ltd (125) | 15-Feb-25 | 15-Nov-28 | 69 | 43 | | 4 | 39 |
| Vestone Capital Pty Ltd (126) | 15-May-25 | 15-Feb-29 | 42 | 29 | | 3 | 26 |
| Vestone Capital Pty Ltd (127) | 15-May-25 | 15-Feb-29 | 69 | 47 | | 4 | 43 |
| Vestone Capital Pty Ltd (128) | 15-Aug-25 | 15-May-30 | 105 | 84 | | 5 | 79 |
| Vestone Capital Pty Ltd (129) | 15-Feb-26 | 15-Nov-29 | 167 | 146 | | 11 | 135 |
| Vestone Capital Pty Ltd (130) | 15-May-26 | 15-Feb-30 | 34 | 32 | | 2 | 30 |
| TOTAL | | | 1,283 | 692 | - | 74 | 618 |

# ATTACHMENT 2 - ITEM 3

ITEM 4

# ATTACHMENT/S

## REPORT NO. CE16/26

## ITEM 4

**1. NATIVE TITLE MANAGER REPORT**

**2. WAITARA PARK DRAFT PLAN OF MANAGEMENT**

ABN: 11 607 533 862

Ms Meredith Paterson
Hornsby Shire Council
PO Box 37
Hornsby NSW 1630

Our Ref: 27.035
18 October 2026

via email: MPaterson@hornsby.nsw.gov.au

Dear Ms Paterson

**Native Title Advice – Waitara Park Plan of Management**

Lands Advisory Services has reviewed Hornsby Shire Council's (Council) draft *Waitara Park - Plan of Management* which was provided to me on 12 October 2026.

Please find my draft advice attached. This advice can be finalised following exhibition when Council is ready to finalise and adopt the Plan of Management.

Waitara Park includes Crown Reserve R.1036828. We understand that Council intends to make a future act protection application to the Federal Court of Australia, prior to adopting the *Waitara Park Plan of Management*. On the basis of Council receiving future act protection:

- for the purposes of Section 8.7(1) of the *Crown Land Management Act 2016,* native title managers advice is not required.
- the adoption of the *Waitara Park Plan of Management*, and the actions permitted within it, will be valid future acts under Section 24FA of the *Native Title Act 1993*.

In the event that Council does not receive future act protection, some actions within the *Waitara Park Plan of Management* may not be valid future acts for the purposes of the *Native Title Act 1993*.

Please review this draft report and feel free to give me a call should you wish to discuss.

Yours Faithfully,

[redacted]
Craig Barnes
Lands Advisory Services Pty Ltd

Lands Advisory Services Pty Ltd
27 Swan Street, Cooks Hill, NSW, 2300
E : craig.barnes@landsas.com.au T : 0428 474 542

## Native Title Managers Report

### A. Proposed Act

This report considers the adoption of the Hornsby Shire Council's (Council) *Waitara Park Plan of Management* (WPPoM) as it relates to Crown land managed by Council as Crown Land Manager under the *Crown Land Management Act 2016,* as provided to me on 12 October 2026 (see **Tag A**).

### B. Summary

The adoption of WPPoM authorises further acts which will or may impact native title over R.1036828.

We understand that Council intends to make a future act protection application to the Federal Court of Australia prior to adopting the WPPoM. On the basis of Council receiving future act protection, for the purposes of Section 8.7(1) of the CLMA:

- R.1036828 will be *excluded land* and will remain so for the period the future act protection is in place,
- For the period R.1036828 is *excluded land*, pursuant to Section 8.5 of the CLMA, native title managers advice is not required, and
- The adoption of the *Waitara Park Plan of Management*, and the actions permitted within it, will be valid future acts under Section 24FA of the *Native Title Act 1993*.

In the event that Council does not receive future act protection, some actions within the WPPoM may not be valid future acts for the purposes of the *Native Title Act 1993*.

Should native title not prove to be extinguished by a prior act, any native title holders may be entitled to compensation for the act, in the event of a determination that native title exists in the land, and Council may be liable to indemnify the State in the payment of any compensation.

### C. Basis of Advice

The land, subject to the WPPoM (the subject land), is held by the State of New South Wales in the first schedule (see **Tag B**) and is Crown land under the *Crown Land Management Act 2016* (CLMA). This Crown land is listed in Table 1 showing the purpose for which the land is reserved with the legislation employed in the reservation process.

*Table 1 - Crown land affected*

| Reserve Name | Lot / DPs | Reserve / Purpose / Gazette Date | Legislative Base |
|---|---|---|---|
| Waitara Park | 1020 / 752053 | R.1036828 for Public Recreation and Community Purposes – 23 Nov 2012 (see **Tag C**) (see **Tag A** for reserve diagram). | Section 87 of the *Crown Lands Act 1989.* |

Crown Land Management Act 2016

1. PCYC Hornsby Reserve Trust was established as the trustee of R.1036828 pursuant to Section 92(1) of the *Crown Lands Act 1989* on 23 November 2012 (see **Tag C**)

   The corporate name of reserve trust for R.1036828 was altered to Waitara Park Reserve Trust under Section 92(3) of the *Crown Lands Act 1989* on 10 June 2016 (see **Tag D**).

   Hornsby Shire Council was appointed to manage the affairs of the Waitara Park Reserve Trust under Section 95 of the *Crown Lands Act 1989* on 10 June 2016 (see **Tag D**).

   Following various legislative changes in the management of Crown land, and changes in the areas and names of local government authorities Hornsby Shire Council is now Crown land manager of R.1036828 for the purposes of the CLMA.

2. A search of the National Native Title Tribunal Registers on 18 August 2026 indicates:

   - there is no current native title application (claim) over the subject land.
   - no determination of native title has yet been made, and
   - no Indigenous Land Use Agreement has been registered affecting R.1036828.

3. We are not aware of any compulsory acquisitions of native title which would impact R.1036828.

4. We are not aware of any future act protection determinations which would impact R.1036828. However, we understand that Council intends to make a future act protection application to the Federal Court of Australia prior to adopting the WPPoM.

5. We are not aware of any native title certificates under the CLMA having been issued.

6. On the basis of Council receiving future act protection noted in (4), for the purposes of Section 8.7(1) of the CLMA:

   - R.1036828 is *relevant land,*
   - Hornsby Shire Council is the *Responsible Person* for R.1036828,
   - R.1036828 is *excluded land* and will remain so for the period the future act protection is in place,
   - for the period R.1036828 is *excluded land*, pursuant to Section 8.5 of the CLMA, native title managers advice is not required.

**Where Future Act Protection is not achieved**

Does the proposed act affect native title?

The relevant act, the adoption of the WPPoM, will permit acts defined in Section 226 of the *Native Title Act 1993*, and may affect native title.

The relevant act is not a past act for the purposes of the *Native Title Act 1993*.

**Future Act Regime**

1. Subdivisions B – E do not apply. There are no existing Indigenous Land Use Agreements in place over any of the affected land.

2. Subdivision F does not apply. No non-claimant application has been previously made.

3. Subdivision G does not apply. The relevant acts are unrelated to primary production.

4. Subdivision H does not apply. The relevant acts do not relate to the management or regulation of surface and subterranean water, living aquatic resources or airspace.

5. Subdivision I does not apply. There is no evidence that the relevant acts are part of a continuance of tenures issued consecutively from prior to 23 December 1996.

6. Subdivision JA does not apply. The relevant acts are not related to public housing.

7. Subdivision J does not apply. The earlier act was notified after 23 December 1996.

8. Subdivision K does not apply. The adoption of the WPPoM would permit acts outside of the definition of Facilities for Services to the Public.

9. Subdivision L does not apply. The adoption of the WPPoM would permit acts which are not Low Impact Acts.

The adoption of the WPPoM, as drafted, would not be a valid future act under the *Native Title Act 1993.*

Tag A





# Waitara Park Plan of Management

## Waitara Avenue, Waitara

11 November 2026

Prepared under the provisions of the Local Government Act, 1993 & Crown Reserves Management Act 2016
Parks and Recreation Team, Hornsby Shire Council

Tag B

Information Provided Through triSearch (Website) Ph. 1300 064 452

# Title Search

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 1020/752053

| SEARCH DATE | TIME | EDITION NO | DATE |
|---|---|---|---|
| 29/5/2026 | 2:16 AM | 4 | 22/10/2012 |

LAND

LOT 1020 IN DEPOSITED PLAN 752053
LOCAL GOVERNMENT AREA HORNSBY
PARISH OF SOUTH COLAH COUNTY OF CUMBERLAND
(FORMERLY KNOWN AS PORTION 1020)
TITLE DIAGRAM CROWN PLAN 8972.2030

FIRST SCHEDULE

THE STATE OF NEW SOUTH WALES (R AH559759)

SECOND SCHEDULE (3 NOTIFICATIONS)

* 1 LAND EXCLUDES MINERALS (S.171 CROWN LANDS ACT 1989)
* 2 AH559759 RESERVE TRUST: PCYC HORNSBY RESERVE TRUST SEE GOVERNMENT GAZETTE DATED 23/11/2012, FOLIO 4837
* 3 THE LAND IS A RESERVE WITHIN THE MEANING OF PART 5 OF THE CROWN LANDS ACT 1989 AND THERE ARE RESTRICTIONS ON TRANSFER AND OTHER DEALINGS IN THE LAND UNDER THAT ACT, WHICH MAY REQUIRE CONSENT OF THE MINISTER.

NOTATIONS

AH425159 NOTE: RESERVATION OF CROWN LAND RESERVE NO. 1036828 GAZ. 23.11.2012 FOL. 4837
AH559759 NOTE: CERTIFICATE OF TITLE LOT 1020 IN DP752053, EDITION 4, DATED 22/10/2012 PRODUCED AND DESTROYED.

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

19.176... PRINTED ON 29/5/2026

* Entries preceded by an asterisk do not appear on the former Certificate of Title abolished in 2021 or the current edition of Water Access Licence Certificate. Warning: the

ATTACHMENT 1 - ITEM 4

Tag C

ATTACHMENT 1 - ITEM 4



**SYDNEY METROPOLITAN OFFICE**
**Level 12, Macquarie Tower, 10 Valentine Avenue, Parramatta 2150**
**(PO Box 3935, Parramatta NSW 2124)**
**Phone: (02) 8836 5300 Fax: (02) 8836 5365**

**ROADS ACT 1993**

ORDER

Transfer of a Crown Road to Council

IN pursuance of the provisions of section 151, Roads Act 1993, the Crown roads specified in Schedule 1 is transferred to the Roads Authority specified in Schedule 2 hereunder, as from the date of publication of this notice and as from that date the road specified in Schedule 1 ceases to be Crown roads.

ANDREW STONER, M.P.,
Minister for Regional Infrastructure and Services

SCHEDULE 1

*Land District – Metropolitan;*
*Local Government Area – Hornsby;*
*Parish – South Colah; County – Cumberland*

The part of the Crown public road known as Fairview Place, Mount Kuring-gai, as shown by solid black shading on the diagram hereunder.




SCHEDULE 2

Roads Authority: Hornsby Council.

File No.: 11/06376.

Council's Reference: David Lousick.

**RESERVATION OF CROWN LAND**

PURSUANT to section 87 of the Crown Lands Act 1989, the Crown Land specified in Column 1 of the Schedule hereunder, is reserved as specified opposite thereto in Column 2 of the Schedule.

ANDREW STONER, M.P.,
Minister for Regional Infrastructure and Services

SCHEDULE

| *Column 1* | *Column 2* |
|---|---|
| Land District: Metropolitan.<br>Local Government Area: Hornsby Shire Council.<br>Locality: Hornsby. | Reserve No.: 1036828.<br>Public Purpose: Public recreation and community purposes. |

| *Column 1* | *Column 2* |
|---|---|
| Lot 1020, DP 752053.<br>Parish: South Colah.<br>County: Cumberland.<br>Area: About 7221 square metres.<br>File No.: 12/01812. | |

**ESTABLISHMENT OF RESERVE TRUST**

PURSUANT to section 92(1) of the Crown Lands Act 1989, the reserve trust specified in Column 1 of the Schedule hereunder, is established under the name stated in that Column and is appointed as trustee of the reserve specified opposite thereto in Column 2 of the Schedule.

ANDREW STONER, M.P.,
Minister for Regional Infrastructure and Services

SCHEDULE

| *Column 1* | *Column 2* |
|---|---|
| PCYC Hornsby Reserve Trust. | Reserve No.: 1036828.<br>Public Purpose: Public recreation and community purposes.<br>Notified: This day.<br>File No.: 12/01812. |

**APPOINTMENT OF CORPORATION TO MANAGE RESERVE TRUST**

PURSUANT to section 95 of the Crown Lands Act 1989, the corporation specified in Column 1 of the Schedule hereunder, is appointed to manage the affairs of the reserve trust specified opposite thereto in Column 2, which is trustee of the reserve referred to in Column 3 of the Schedule.

ANDREW STONER, M.P.,
Minister for Regional Infrastructure and Services

SCHEDULE

| *Column 1* | *Column 2* | *Column 3* |
|---|---|---|
| Police Citizens Youth Clubs NSW Ltd. | PCYC Hornsby Reserve Trust. | Reserve No.: 1036828.<br>Public Purpose: Public recreation and community purposes.<br>Notified: This day.<br>File No.: 12/01812. |

For a term commencing the date of this notice.

**ALTERATION OF CORPORATE NAME OF RESERVE TRUST**

PURSUANT to section 92(3) of the Crown Lands Act 1989, the corporate name of the reserve trust specified in Schedule 1 hereunder, which is trustee of the reserve referred to in Schedule 2, is altered to the corporate name specified in Schedule 3.

ANDREW STONER, M.P.,
Minister for Regional Infrastructure and Services

Tag D



**Schedule**

On closing, the land within Lot 1 DP 1214622 remains vested in the State of New South Wales as Crown land.

---

**NOTIFICATION OF CLOSING OF A ROAD**

In pursuance of the provisions of the *Roads Act 1993*, the road hereunder described is closed and the lands comprised therein cease to be public road and the rights of passage and access that previously existed in relation to the road is extinguished. Upon closing, title to the land, comprising the former public road, vests in the body specified in the Schedule hereunder.

The Hon NIALL BLAIR, MLC
Minister for Lands and Water

**Description**

*Parish – Beneree; County – Bathurst*
*Land District – Orange; LGA – Orange*

Road Closed: Lot 1 DP 1219420

File No: 15/11284

**Schedule**

On closing, the land within Lot, 1 DP 1219420 becomes vested in the State of New South Wales as Crown Land.

Council's reference: D15/24744 F484

---

**NOTIFICATION OF CLOSING OF A ROAD**

In pursuance of the provisions of the *Roads Act 1993*, the road hereunder described is closed and the lands comprised therein cease to be public road and the rights of passage and access that previously existed in relation to the road is extinguished. Upon closing, title to the land, comprising the former public road, vests in the body specified in the Schedule hereunder.

The Hon NIALL BLAIR, MLC
Minister for Lands and Water

**Description**

*Parishes – Belubula, Errol; County – Bathurst*
*Land District – Blayney; LGA – Blayney*

Road Closed: Lots 1–3 DP 1218005 subject to a right of access created by Deposited Plan 1218005

File No: 15/09893

**Schedule**

On closing, the land within Lots 1–3 DP 1218005 remains vested in the State of New South Wales as Crown land.

## NOWRA OFFICE

**NOTICE OF PURPOSE OTHER THAN THE DECLARED PURPOSE PURSUANT TO SECTION 34A (2) (b) OF THE CROWN LANDS ACT 1989**

Pursuant to section 34A (2) (b) of the *Crown Lands Act 1989*, the Crown reserve(s) specified in Column 2 of the Schedule is to be used or occupied under a relevant interest granted for the purpose(s) specified in Column 1 of the Schedule where such use or occupation is other than the declared purpose of the reserve.

The Hon NIALL BLAIR, MLC
Minister for Lands and Water

**Schedule**

| Column 1 | Column 2 |
|---|---|
| Driveway; Walkway; Landscaping; Storage Area | Reserve No 89405<br>Public Purpose: Public Recreation<br>Notified: 21 March 1975<br>File Reference: 15/08712<br><br>Reserve No 1011848<br>Public Purpose: Access and Public Requirements, Rural Services, Tourism Purposes and Environmental and Heritage Conservation<br>Notified: 18 August 2006<br>File Reference: 15/08712 |

## ORANGE OFFICE

**APPOINTMENT OF TRUST BOARD MEMBERS**

Pursuant to section 93 of the *Crown Lands Act 1989*, the persons whose names are specified in Column 1 of the Schedule hereunder are appointed, for the terms of office specified in that Column, as members of the trust board for the reserve trust specified opposite thereto in Column 2, which has been established and appointed as trustee of the reserve referred to opposite thereto in Column 3 of the Schedule.

The Hon NIALL BLAIR, MLC
Minister for Lands and Water

**Schedule**

| Column 1 | Column 2 | Column 3 |
|---|---|---|
| Taryn LEAHY (re-appointment)<br>James LEAHY (re-appointment)<br>Kevin McCUSKER (re-appointment)<br>David Alan PETERS (re-appointment)<br>Andrew JONES (re-appointment)<br><br>For a term commencing the date of this notice and expiring 9 June 2021. | Dargan Creek Reserve Trust | Reserve No 1014490<br>Public Purpose: Public Recreation<br>Notified: 29 February 2008<br>File Reference: 12/04450 |

## SYDNEY METROPOLITAN OFFICE

**ALTERATION OF CORPORATE NAME OF RESERVE TRUST**

Pursuant to section 92 (3) of the *Crown Lands Act 1989*, the corporate name of the reserve trust specified in Schedule 1 hereunder, which is trustee of the reserve referred to in Schedule 2, is altered to the corporate name specified in Schedule 3.

The Hon NIALL BLAIR, MLC
Minister for Lands and Water

**Schedule 1**

PCYC Hornsby Reserve Trust

**Schedule 2**

Reserve No 1036828
Public Purpose: Public Recreation, Community Purposes
Notified: 23 November 2012
File Reference: 12/01812

**Schedule 3**

Waitara Park Reserve Trust

---

**APPOINTMENT OF CORPORATION TO MANAGE RESERVE TRUST**

Pursuant to section 95 of the *Crown Lands Act 1989*, the corporation specified in Column 1 of the Schedule hereunder is appointed to manage the affairs of the reserve trust specified opposite thereto in Column 2, which is trustee of the reserve referred to in Column 3 of the Schedule.

The Hon NIALL BLAIR, MLC
Minister for Lands and Water

**Schedule**

| Column 1 | Column 2 | Column 3 |
|---|---|---|
| Hornsby Shire Council<br><br>For a term commencing the date of this notice | Waitara Park Reserve Trust | Reserve No 1036828<br>Public Purpose: Public Recreation, Community Purposes<br>Notified: 23 November 2012<br>File Reference: 12/01812 |

---

**NOTICE OF PURPOSE OTHER THAN THE DECLARED PURPOSE PURSUANT TO SECTION 34A (2) (b) OF THE CROWN LANDS ACT 1989**

Pursuant to section 34A (2) (b) of the *Crown Lands Act 1989*, the Crown reserve(s) specified in Column 2 of the Schedule is to be used or occupied under a relevant interest granted for the purpose(s) specified in Column 1 of the Schedule where such use or occupation is other than the declared purpose of the reserve.

The Hon NIALL BLAIR, MLC
Minister for Lands and Water

**Schedule**

| Column 1 | Column 2 |
|---|---|
| Quarrying of Sandstone (including Extractive Industries and Filling, Crushing, Grinding and Separating), Resource Recovery and Recycling of Virgin Excavated Natural Material and Excavated Natural Materials and Sand Material With a Minor Amount (less than 10%) of Inert Waste | Reserve No part 752034<br>Being whole of Lots 1–2 DP 1176153<br>Public Purpose: Future Public Requirements<br>Notified: 29 June 2007<br>File Reference: 16/05024 |

**RESERVATION OF CROWN LAND**

Pursuant to section 87 of the *Crown Lands Act 1989*, the Crown land specified in Column 1 of the schedule hereunder is reserved as specified opposite thereto in Column 2 of the Schedule.

The Hon NIALL BLAIR, MLC
Minister for Lands and Water

**Schedule**

| Column 1 | Column 2 |
|---|---|
| Land District: Metropolitan<br>Local Government Area: Sutherland Shire Council<br>Locality: Menai<br><br>Lot 1 DP No 1176153<br>Parish Holsworthy<br>County Cumberland<br><br>Lot 2 DP No 1176153<br>Parish Holsworthy<br>County Cumberland<br><br>Area: About 35.45ha<br>File Reference: 16/05024 | Reserve No 1038828<br>Public Purpose: Rural Services |

**Notes:** The reservation does not automatically revoke Reserve 752034.

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**NOTICE OF PURPOSE OTHER THAN THE DECLARED PURPOSE PURSUANT TO SECTION 34A (2) (b) OF THE CROWN LANDS ACT 1989**

Pursuant to section 34A (2) (b) of the *Crown Lands Act 1989*, the Crown reserve(s) specified in Column 2 of the Schedule is to be used or occupied under a relevant interest granted for the purpose(s) specified in Column 1 of the Schedule where such use or occupation is other than the declared purpose of the reserve.

The Hon NIALL BLAIR, MLC
Minister for Lands and Water

**Schedule**

| Column 1 | Column 2 |
|---|---|
| Quarrying of Sandstone (including Extractive Industries and Filling, Crushing, Grinding and Separating), Resource Recovery and Recycling of Virgin Excavated Natural Material and Excavated Natural Materials and Sand Material With a Minor Amount (less than 10%) of Inert Waste | Reserve No 1038828<br>Public Purpose: Rural Services<br>Notified: This Day<br>File Reference: 16/03942 |

ATTACHMENT 2 - ITEM 4



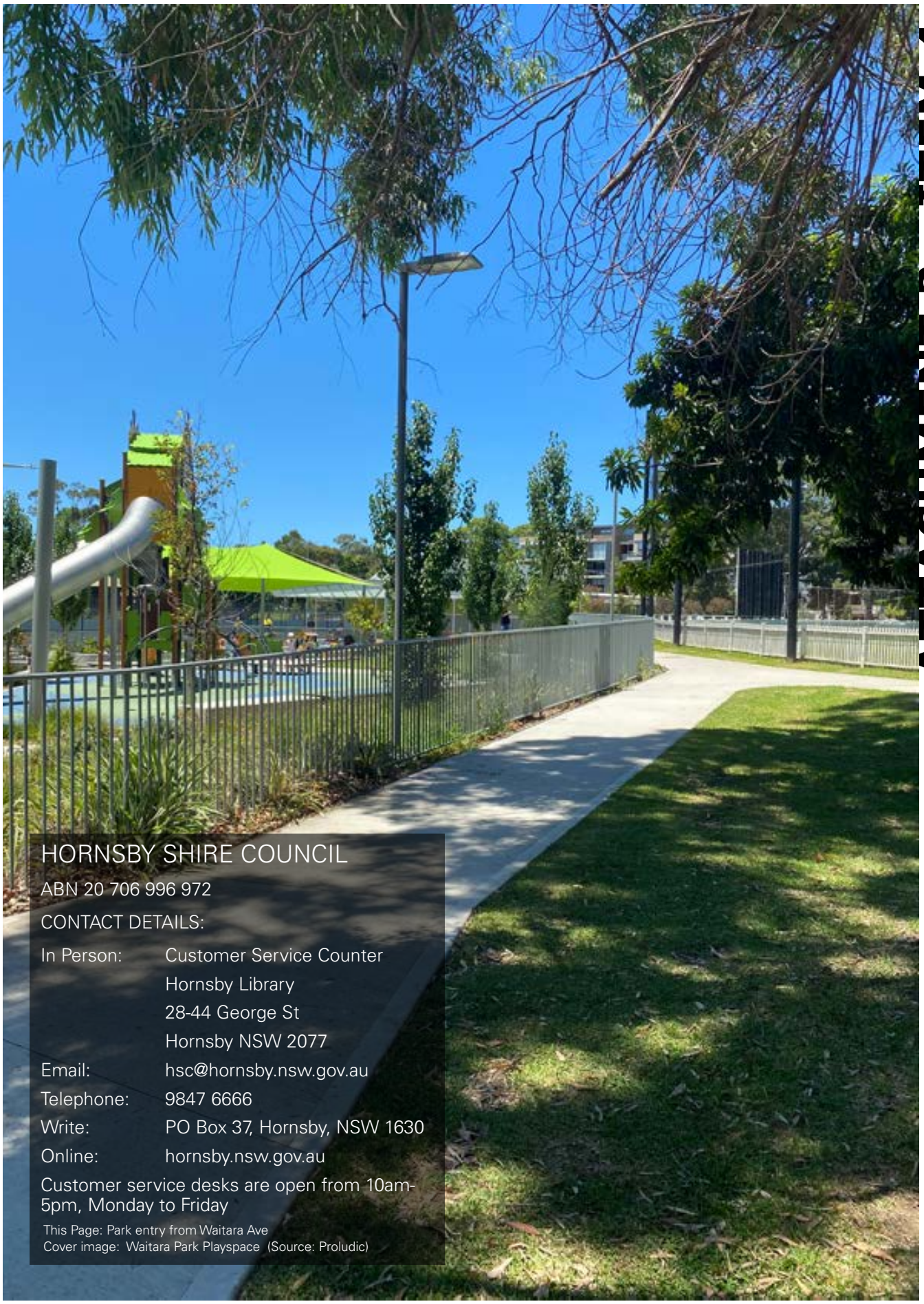
# Waitara Park
# DRAFT Plan of Management

## Waitara Avenue, Waitara

11 November 2026

Prepared under the provisions of the Local Government Act, 1993 & Crown Reserves Management Act 2016
Parks and Recreation Team, Hornsby Shire Council

ATTACHMENT 2 - ITEM 4




HORNSBY SHIRE COUNCIL

ABN 20 706 996 972

CONTACT DETAILS:

| | |
|---|---|
| In Person: | Customer Service Counter<br>Hornsby Library<br>28-44 George St<br>Hornsby NSW 2077 |
| Email: | hsc@hornsby.nsw.gov.au |
| Telephone: | 9847 6666 |
| Write: | PO Box 37, Hornsby, NSW 1630 |
| Online: | hornsby.nsw.gov.au |

Customer service desks are open from 10am-5pm, Monday to Friday


This Page: Park entry from Waitara Ave
Cover image: Waitara Park Playspace (Source: Proludic)

# foreword

## DRAFT PLAN OF MANAGEMENT

This Draft Plan of Management (PoM) supersedes the Waitara Park Plan of Management adopted 11th June 2021. This PoM has been prepared to comply with the Local Government Amendment (Community Land Management) Regulations and associated amendments to the Local Government Act 1993, section 42 (LGA), which commenced on 1st January 1999, along with the Crown Lands Management Act 2016.

## COMMUNITY INPUT INTO THE PLAN OF MANAGEMENT

Section 38 of the LGA requires that all Plans of Management covering community land are placed on public display for a minimum period of 28 days. A minimum period of 42 days after the draft is placed on exhibition is allowed for written submissions to be made to Council.

Submissions allow the community (including residents, interest groups, sporting clubs and government agencies) to provide information, suggest alternatives and express opinions in relation to the proposed management of community open space within Waitara Park.

After consideration of all submissions received, Council may decide to amend the draft plan of management, or adopt it without amendment. If Council decides to amend the draft plan, it must publicly exhibit the amendments in accordance with the requirements of section 40 of the LGA.

A Public Hearing is required to be held in respect of a Draft Plan of Management (PoM) only if the proposed Plan would have the effect of categorising or re-categorising the community land in accordance with section 40A of the LGA.

As the Draft Plan of Management does not propose any changes to the categorisation of community land from that established under the 2021 adopted Plan of Management, a public hearing is not required under section 40A of the Local Government Act 1993 and is therefore not proposed.

ATTACHMENT 2 - ITEM 4



Image: Junior cricket on Mark Taylor Oval

# contents

Foreward

Part 1

1.0 Introduction 7

2.0 Local Government Act Requirements 9

3.0 Crown Lands Management Act Requirements 10

4.0 Site Description 13

5.0 Masterplan Development 19

6.0 Land Categorisation 25

7.0 Operational Proposals 27

Part 2

8.0 Action Plan 33

9.0 Action Plan for all Categories of Community Land 34

10.0 Action Plan for Parks and Sportsgrounds 45

11.0 Action Plan for Areas of General Community Use 60

12.0 Appendix 63

Appendix 1: Hornsby Shire Council - Park Rules Notice



Image: View to south-west across Waitara Park

ATTACHMENT 2 - ITEM 4

# Part 1

## 1.0 Introduction

### 1.1 What is a Plan of Management ?

A Plan of Management (PoM) is a document that provides a means to manage future use, development and maintenance of Community and / or Crown Land under Council's Crown reserve management. This Plan of Management will identify issues relevant to the future management of Waitara Park, including the accommodation of various proposed and existing features of the site. The PoM will establish Council's goals, strategies and desired outcomes that will guide the timing, shape and nature of developments.

This PoM is presented in the following two parts:

Part 1 of the PoM outlines the key requirements of the Local Government Act, 1993 (LG Act), and Crown Land Management Act, 2016 (CLM Act). A description of the park site is provided along with a concept masterplan that will guide park development. Community land categories for Waitara Park are identified along with permissible uses, leases and licenses.

Part 2, Action Plan outlines strategies for management and related implementation actions necessary to fulfil the strategies. This part of the PoM also outlines the standards for Council's levels of service and identifies the manner in which Council will assess its performance in relation to achieving goals.

The Action Plan is the working section of the document and will require amendment and updating as actions are completed. The Action Plan is proposed to be relevant for a period of five years. From time to time in response to changing community needs and aspirations, the Action Plan may be revised.

### 1.2 Why Prepare a Plan of Management for Waitara Park?

Waitara Park is an important open space located adjoining a proposed urban infill zone in which residential densities will increase. It is a park which has a long standing active sporting role, and is of heritage significance. There is an area of Crown land to the north of the Park.

This PoM is supported by a masterplan which has been developed for the site, accompanied by recommendations for the staged implementation of proposals for the various parkland developments. This PoM has been prepared in accordance with and seeks adoption under the LG Act.

The preparation of this PoM is intended to represent the culmination of Council's investigations aimed at determining an appropriate character and scale for the development and management for Waitara Park.

The preparation of this PoM also enables Council to strategically address recreation needs in a staged manner. It will enable commencement of the development of new open space facilities at Waitara Park, and will help identify a program of development and ongoing maintenance works.

### 1.3 What Development is Allowable under the Plan of Management?

As required by the CLM Act this PoM categorises the Waitara Park Crown reserve under the Community land categories as defined by the LG Act. This provides a framework under which the park will be managed and sets out a series of requirements that the PoM must address.

A Plan of Management under the LG Act must define the existing and future uses of community land. Future uses and development proposed for Waitara Park are outlined in Sections 5.0 and 6.0 of this plan. As Council considers necessary, development allowable under this PoM may include:

- Asset maintenance such as renewal and, or replacement of assets;
- Landscaping and reclamation of surplus areas for storm water detention;
- Provision of sports fields, courts, and associated parking, access roads and amenities buildings;
- Provision of playgrounds;
- Provision of facilities ancillary to existing use including seating, picnic and barbeque facilities, shelters, lighting, drainage, irrigation, fencing, pathways, and new signage.

State Environmental Planning Policy (Transport and Infrastructure), 2021 enables the above development works be carried out by or on behalf of a Council without consent on a public reserve.

Where minor works are undertaken, proposals may still require assessment under Part 5 of the Environmental Planning and Assessment Act, 1979, and may require exhibition of the proposal.

If there is any further development of the community land other than that authorised by this PoM, or a change in the categorisation of Waitara Park is proposed, amendment and re-exhibition of the PoM is required.

ATTACHMENT 2 - ITEM 4



Image: Mark Taylor Oval (Source: Archer Office)

# 2.0 Local Government Act Requirements

## 2.1 Classification and Categorisation

Waitara Park comprises land classified as community land in accordance with Chapter 6, Part 2, Division 1 of the Local Government Act (LGA), 1993 which represents approximately 75% of the park area. The northern 25% is Crown Reserve (refer to section 3.0)

## 2.2 Core Objectives

The LGA establishes core objectives for all categories of community land. The significance of the prescribed core objectives is to ensure that any activities or uses of the land are consistent with the core objectives for the prescribed land categorisation.

Community land within Waitara Park is proposed to be categorised as General Community Use, Park, and Sportsground. Categorisation has been determined in accordance with the LGA, Division 2, Section 36. The Categorisation Mapping (and the Waitara Park Masterplan it relates to) reflects the optimum relationship of uses and facilities to the parks physical characteristics and for access to those facilities by the community. Section 6.0 of this PoM provides further explanation of the Land Categorisation Mapping for Waitara Park .

The core objectives for management of community land categorised as a sportsground are:

(a) to encourage, promote and facilitate recreational pursuits in the community involving organised and informal sporting activities and games, and

(b) to ensure that such activities are managed having regard to any adverse impact on nearby residences.

The core objectives for management of community land categorised as general community use are to promote, encourage and provide for the use of the land, and to provide facilities on the land, to meet the current and future needs of the local community and of the wider public:

(a) in relation to public recreation and the physical, cultural, social and intellectual welfare or development of individual members of the public, and

(b) in relation to purposes for which a lease, licence or other estate may be granted in respect of the land (other than the provision of public utilities and works associated with or ancillary to public utilities).

Figure 5 on page 24, identifies the separate categories of community land within Waitara Park.

## 2.3 Environmental Planning and Assessment Act 1979

The Hornsby Local Environment Plan, 2013 (LEP) was made under the Environmental Planning and Assessment Act, 1979 (s.34A). Waitara Park is zoned as Public Recreation (RE1) within the LEP. As a public reserve under Council ownership, following adoption of a Plan of Management, the most relevant planning instrument governing any proposed development and activities in Waitara Park is the State Environmental Planning Policy (Infrastructure) 2007 (the Infrastructure SEPP), and the Hornsby Shire Local Environment Plan 2013.

## 2.4 Relevant Legislation

### Commonwealth Legislation

| | |
|---|---|
| Environment Protection and Biodiversity Conservation Act, 1999 (EPBC Act) | http://www.comlaw.gov.au/Details/C2014C00140 |

### NSW Legislation

| | |
|---|---|
| Local Government Act, 1993 | http://www.legislation.nsw.gov.au/maintop/view/inforce/act+30+1993+cd+0+N |
| Environmental Planning and Assessment Act, 1979 | http://www.legislation.nsw.gov.au/maintop/view/inforce act+203+1979+cd+0+N |
| Rural Fires Act 1997 | http://www.legislation.nsw.gov.au/maintop/view/inforce/act+65+1997+cd+0+N |
| Bio security Act 2015, No 24 | https://legislation.nsw.gov.au/view/html/inforce/current/act-2015-024 |
| Biodiversity Conservation Act 2016 No 63 | https://legislation.nsw.gov.au/view/html/inforce/current/act-2016-063 |

## 2.5 Relevant Council Policies

| | |
|---|---|
| Community Strategic Plan 2018 | https://www.hornsby.nsw.gov.au/council/forms-and-publications/publications/community-plan |
| Community and Cultural Facilities Strategic Plan 2015 | https://www.hornsby.nsw.gov.au/__data/assets/pdf_file/0007/106567/Community-and-Cultural-Facilities-Strategic-Plan-August-2015.pdf |
| Delivery Program and Operational Plan | http://www.hornsby.nsw.gov.au/council/about-council/corporate-documents-and-reports/delivery-program |
| Hornsby Local Environmental Plan 2013 | http://www.legislation.nsw.gov.au/maintop/view/inforce/epi+569+2013+cd+0+N |
| Hornsby development Control Plan | http://www.hornsby.nsw.gov.au/property/development-applications/hornsby-development-control-plan |
| Hornsby Shire Council disability inclusion action plan | www.hornsby.nsw.gov.au/community/services/people-with-disabilities/access-and-inclusion |
| Active Living Hornsby Stategy | http://www.hornsby.nsw.gov.au/council/about-council/Join-the-Conversation/active-living-hornsby-strategy-alhs |
| Hornsby Sportsground Strategy 2018 | http://hscenquiry.hornsby.nsw.gov.au/temp/001_00IX_0I7419A7Z1J_KILVGLPH.PDF |
| Unstructured Recreation Strategy | http://www.hornsby.nsw.gov.au/media/documents/about-council/corporate-documents-and-reports/unstructured-recreation-strategy/Unstructured-Recreation- |

# 3.0 Requirements of Crown Lands Management Act 2016

## 3.1 Ownership and Management

Crown land is governed by the Crown Land Management Act 2016 (CLM Act). It provides a framework for the NSW Government, local councils and community members to work together to care for, control and manage Crown reserves. It ensures that Crown reserves are responsibly managed and that natural resources such as water, flora and fauna and scenic beauty are conserved, while still encouraging public use and enjoyment of the land. The CLM Act 2016 abolished reserve trusts and reserve trust managers under the Former Act, and provided for the appointment of local Councils (and others) as 'Crown land managers' in respect of land which was previously held by reserve trusts.

## 3.2 Crown Lands Management

The Crown Land Management Regulation 2018 provides clarity and certainty for Crown land managers, tenure holders, and users of Crown land about how parts of the CLM Act are implemented. Importantly, the Regulation covers a range of operational matters relevant to Crown land managers including:

- the protection of Crown land–including activities prohibited and penalty notice offences on Crown land
- the management of Crown land–including the requirements of non-council CLMs
- information on activities, dealings and holdings.

The objectives and principles of Crown land management are key values that guide the management of Crown land to benefit the people of NSW, and to ensure that Crown land is managed for sustainable and multiple uses.

## 3.3 Objectives of Crown land management

The Objectives of the Crown Land Management Act 2016 under section 1.3 are identified as:

- Provide for the ownership, use and management of the Crown land of NSW
- Provide clarity concerning the law applicable to Crown land
- Require environmental, social, cultural heritage and economic considerations to be taken into account in decision-making about Crown land
- Provide for the consistent, efficient, fair and transparent management of Crown land for the benefit of the people of NSW
- Facilitate the use of Crown land by the Aboriginal people of NSW because of the spiritual, social, cultural and economic importance of land to Aboriginal people and, where appropriate, to enable the co-management of dedicated or reserved Crown land
- Provide for the management of Crown land having regard to the principles of Crown land management

## 3.4 Principles of Crown land management

The principles of Crown land Management as identified in the Crown Land management Act section 1.4 include:

(a) that environmental protection principles be observed in relation to the management and administration of Crown land,

(b) that the natural resources of Crown land (including water, soil, flora, fauna and scenic quality) be conserved wherever possible,

(c) that public use and enjoyment of appropriate Crown land be encouraged,

(d) that, where appropriate, multiple use of Crown land be encouraged,

(e) that, where appropriate, Crown land should be used and managed in such a way that both the land and its resources are sustained in perpetuity, and

(f) that Crown land be occupied, used, sold, leased, licensed or otherwise dealt with in the best interests of the State consistent with the above principles.

## 3.5 Public Purpose

Crown lands are to be used for the purpose for which they were dedicated or reserved. Multiple uses of reserves are encouraged, where those uses are consistent with the purpose of the reserve and the use does not invalidly impact on native title rights and interests under the Native Title Act 1993.

The public purpose for the northern section of Waitara Park is "Public Recreation and Community Purposes".

## 3.6 Classification and Categorisation of Crown Lands

The document Developing plans of management for community land Crown reserves - guidelines, December 2018, identifies that Council managers of Crown Reserves must ensure there is a compliant Plan of Management for all Crown land that they manage as community land.

Under the Crown Lands Management Act, Council managers must assign to all Crown land under their management one or more initial categories of community land referred to in Section 36 of the Local Government Act.

It is important that the initial category aligns closely with the reserve purpose, and this should be the over-arching consideration of a council manager when notifying the initial category.

The Local Government Act requires Plans of Management to identify:

- the category of land;
- objectives and outcomes for the land;
- the means by which Council proposes to achieve objectives and outcomes; and
- the way by which council proposes to assess its performance.

## 3.7 Plans of management and native title

As outlined in the document Guidelines For Council Crown Land Managers December 2016, Plans of Management for Crown reserves must be compliant with the statutory requirements prescribed by the both Crown Lands Management Act and Local Government Act. This includes a requirement for council crown land managers to obtain written advice from a qualified native title manager for any Plan of Management that covers Crown Land that is not 'excluded land'.

Excluded land is defined in the Crown Lands Management Act (CLM) to include:

a) Land subject to an approved determination of native title (as defined in the Native Title Act 1993 of the Commonwealth) that has determined that:

i. All native title rights and interests in relation to the land have been extinguished, or

ii. There are no native title rights and interests in relation to the land,

b) Land where all native title rights and interests in relation to the land have been surrendered under an indigenous land use agreement (as defined in the Native Title Act 1993 of the Commonwealth) registered under that Act,

c) An area of land to which section 24FA protection (as defined in the Native Title Act 1993 of the Commonwealth) applies,

d) Land where all native title rights and interests in relation to the land have been compulsorily acquired,

e) Land for which a native title certificate is in effect.

Section 8.7 of the CLM Act and the Native Title Manager Workbook (available from industry.nsw.gov.au/lands/what-we-do/our-work/native-title) clearly set out that written native title manager advice is required before a council Crown land manager does any of the following:

a) Grants leases, licences, permits, forestry rights, easements or rights of way over the land

b) Mortgages the land or allows it to be mortgaged

c) Imposes, requires or agrees to covenants, conditions or other restrictions on use (or removes or releases, or agrees to remove or release, covenants, conditions, or other restrictions on use) in connection with dealings involving the land

d) Approves (or submits for approval) a plan of management for the land that authorises or permits any of the kinds of dealings referred to in paragraph (a), (b) or (c). Accordingly, native title manager advice must be obtained prior to the approval (or submittal for approval) of a POM that allows a dealings in (a)–(c) and the execution of any lease, licence, permit, etc. that may be authorised under that plan.

Councils Native Title manager has been and will continue to be consulted in all relevant aspects of Native Title pertaining to the land that is covered by this PoM.

It is intended that the Crown land subject to this PoM will be excluded land for the purposes of the CLM Act, as Council intends to obtain section 24FA protection (as defined in the Native Title Act 1993).

# 4.0 Site Description

## 4.1 Context

Waitara Park is located less than 1km from the Hornsby Town Centre the largest commercial centre in the Hornsby Shire. Figures 1 and 2 show the location and surrounding context of the park. It is bordered by road frontages to:

North: Edgeworth David Avenue
West: Waitara Avenue
South: Park Lane
East: Park Avenue

Vehicular entry to the park is currently available from Waitara Avenue and Park Avenue

The land is comprised of two existing management zones:

### Oval & PCYC building (3.24ha)

- HSC Reserve No 210 ID No. 733, 902
- Lots 300 & 301 DP 832745 (Freehold)
- Council owned Community Land

### Sports Courts and Playspace (0.72ha)

- Crown Reserve No 1036828
- Lot 1020 DP 752053
- Crown Land Manager: Hornsby Shire Council
- Public Purpose: Public recreation and community purposes

On 10th June 2016, Hornsby Council was granted trusteeship over Crown Reserve No 1036828. Following the creation of the Crown Lands Management Act 2016, Hornsby Council was formally appointed as the 'Crown Land Manager' of Crown Reserve No 1036828.

The above land is zoned as (RE1) Public Recreation in the Hornsby Local Environmental Plan (LEP) 2013. Adjoining land to the east west and south is currently zoned as (R4) high density residential, and to the north R2 Low density residential. The R4 zoning allows for residential apartment buildings of 6 storeys and above.

## 4.2 Environment

The site soil is derived from Wianamatta Shales and as such is rich but can be poorly drained in locations. Vegetation is focussed at the edges of the park in particular the south and east and includes some remnant trees of Sydney Turpentine-Ironbark Forest community, in particular Turpentine (Syncarpia glomulifera). While there is no understorey to the Turpentine plantings, they are remnants of an Endangered Ecological community and are worth of conservation. Upgrading of landscape through the park should enhance where possible conditions for these specimens and should use this species for additional boundary tree planting where conditions are suitable.

The Figures below show the location of Waitara Park, in relation to surrounding town centres, roads and infrastructure:

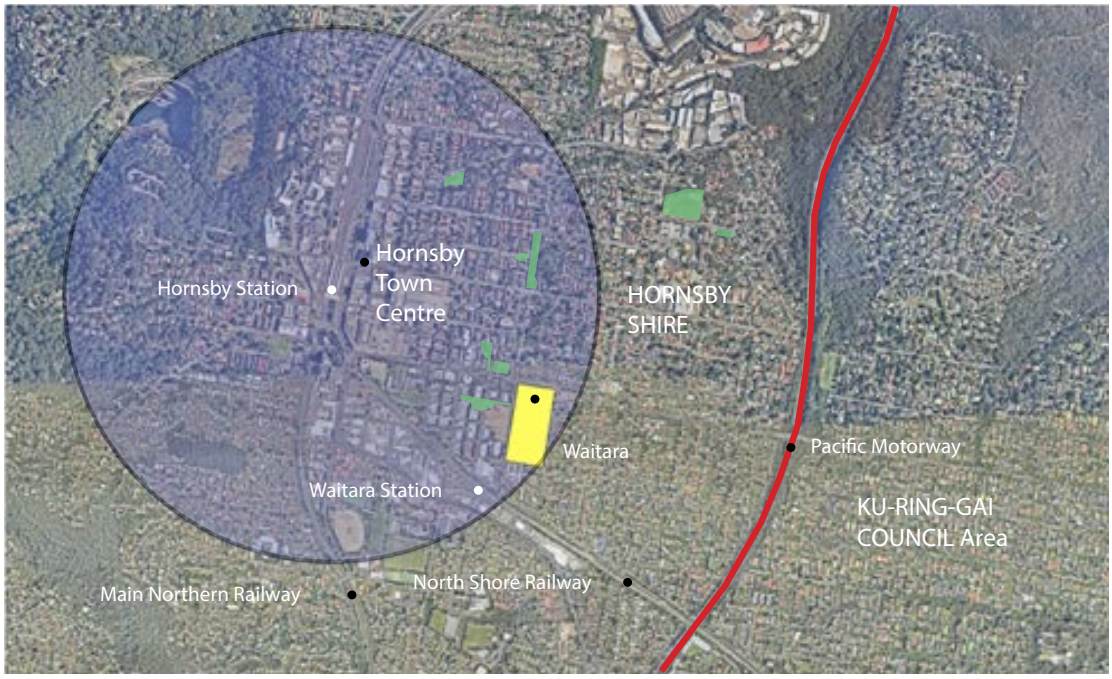



Figure 1: Context Plan, Waitara Park (Near Map, 2015). Park is approximately 900m from Hornsby Town Centre Town Centre and 300m from Waitara Station. Other parkland open space in accessible vicinity shaded green (Map not to scale)




Figure 2: Local Plan, Waitara Park (Nearmap 2026). (Map not to scale)

## 4.3 Heritage

Waitara Park is listed as a Heritage Item under the Hornsby Shire Local Environmental Plan (LEP). The LEP provides the following information for the park:

### Physical Description from LEP

"Park on flat land with central oval and brick grandstand of utilitarian design from c1930s. Cultural planting includes mature Camphor Laurel trees (to 18m) and Radiata Pine (to 15m) on western side. Possibly planted c1920-30. Also line of characteristic Oleanders on east side possibly from c1950. The eastern side (northern end) incorporated a section of precast paving footpath laid as part of relief work for unemployed in the 1930's. This scheme was the initiative of local Councillor PC Law". Historical Notes: Landscape elements, cultural trees and indigenous trees from c1920/30's.

### History

The site was identified in 1895 as being suitable for a recreation ground and a petition made to the Minister for Lands. 11 acres was granted for recreational purposes and local people appointed trustees. In August 1902 Waitara Park was cleared. After Hornsby Shire Council was inaugurated in 1906 it obtained the land. In 1919 Peace Celebrations were held in the Park to celebrate the end of World War 1. In December 1922 a new oval was opened at a cost of £2000. A pavilion was erected after 1929 and open air seating. In 1965 an amenities block was built and in 1972 the tennis court complex was built where previously there was a small oval used for practice and school events. The Bowling Club in the Crown Reserve portion in the north was developed in the early 1960's with the gazettal of the Crown Reserve date 1965. The Hornsby Bowling Club operated in this location but by the 2000's this use was on the decline as was the upkeep of the site. The PCYC obtained a perpetual lease (Lease 76311) in late 2012 for the ongoing use of the Crown Reserve which became the Hornsby/Ku-ring-gai PCYC Performing Arts Centre. A wide range of performing arts activities, primarily for school aged children, were introduced during 2012 with lawn bowls for adults and high school students continued as a PCYC activity (with the greens being maintained by volunteers (due to lack of funds to employ a greenkeeper - PCYC advise 2015).

From 2016 to 2020 a major upgrade of the park occurred including relocation of sports courts and development of new play space to the north, and the development of the PCYC adjoining Park Lane to the south.

The site contains no known Aboriginal relics (Koettig, 1996).



Aerial View of park 1943 (SixMaps)

### Sporting Use

Northern District Cricket Club was founded in 1906 and has operated continuously at Waitara Park since 1924. It has competed in the Sydney Grade competition during that time, providing a pathway to state or national selection for young players developed by the club. Former Australian Cricket captain Mark Taylor played Cricket with the NDCC and Council resolved to name the oval within Waitara Park to Mark Taylor Oval in recognition of this achievement. More information about the history of Northern District Cricket Club can be found here: http://www.northerndistrictcricket.com.au/content.aspx?file=268|33393p

Rugby Union has been played Hornsby since 1906 and has operated for most of its history in Hornsby as the winter season occupant of Waitara Park. The current rugby union club was founded in 1961 and has played and trained at Waitara Park since. It has moved through various competition structures. From 2015, Hornsby Rugby Union club was playing in a Central Coast rugby competition and hosting teams from the coast at Waitara Park. More on the history of the club can be found here: http://www.hornsbyrugby.com.au/Seniors/history.html. The Hornsby Junior Rugby Club are a separate entity who also use Waitara Park. You can find out details at http://hjruc.com.au/

The tennis courts were established in Waitara Park after world war 2, operated for much of that time by the Hornsby-Ku-ring-gai Tennis Association, and since 2012, by Kim Warwick Tennis Academy. Many young tennis players have been coached over the decades at Waitara Park. Former leading player Fred Stolle, born in Hornsby, and winner of 10 grand slam titles, is said to have played his junior tennis there.

### Statement of Significance

The following Statement of Significance was developed as part of the "Heritage Review for Waitara Park" undertaken by Mayne Wilson & Associates 2015 for Hornsby Council.

Waitara Park is of high local significance, requested by local residents under the influence of the then popular Parks Movement, and proclaimed for public recreation in 1902. It was created, developed and used by them ever since, its very generously sized oval indicating its primary purpose was for playing cricket.

By the time it was cleared – from 1902 – the initial European settlement phase of total tree clearing had been modified to the extent that some remnant trees of the original forest were left around its perimeter.

These were mostly trees of the original Sydney Turpentine Ironbark Forest (STIF).These trees have aesthetic, amenity and visual enhancement values, and are esteemed by the local community.

The STIF was declared Critically Endangered by the Commonwealth Government in August 2005 and is now subject to statutory protection.

The park has high local social significance as a regional sporting facility, having served that role for over a century. Additions of tennis courts and bowling greens were made in subsequent decades, and are still in use. Since 2009 the Police, Citizens and Youth Club obtained title over the bowling club land.

The park has little research or technical significance, but is representative of many parks created in NSW initially for playing cricket. It is not rare, but the retention of so many remnant trees of the original STIF, and their relative intactness may be considered so. They warrant protection and conservation both for this reason and their statutory listing as being 'critically endangered'.




Mark Taylor Oval Indoor Cricket Centre

## 4.4 Overview of Current Use

The park has traditionally had a sporting focus with the majority of its area dedicated to sports uses and their support facilities. Figure 3 this page indicates these current uses, and confirms current key user groups:

| | |
|---|---|
| Sports Courts and Amenities: | Kim Warwick Tennis Academy |
| Mark Taylor Oval, grandstand and pavilion | Northern District Cricket Club<br>Hornsby Rugby Club<br>School sport hire |
| Playspace | Community play space |
| Ancillary spaces | Access paths and entries and passive use space<br>Peripheral park landscape |
| Turf practise wickets | Northern District Cricket Club |
| Indoor cricket training facility | Northern District Cricket Club |
| PCYC building | PCYC NSW |
| Waitara Ave frontage | Angle parking<br>Peripheral park landscape |
| Park Ave frontage | Ninety degree parking<br>Peripheral park landscape |

Other periodic licenses for various games, sports training and community uses are consistent with the public recreation zoning.

Current council operations on the land include regular maintenance such as fertilising, garbage collection, tree pruning, mowing, line marking, resurfacing, building maintenance and floodlight maintenance.

Other occasional works include spraying for pests and diseases as required, repairs to vandalism and graffiti, upgrades to lighting and water systems and upgrades to playspace facilities.

The area to the west on Waitara Avenue has been redeveloped for high density residential buildings of 6 storeys height and over. Similar redevelopment will occur on the southern and eastern frontages of the park. These developments will place pressure on existing open space and recreational facilities in the area.

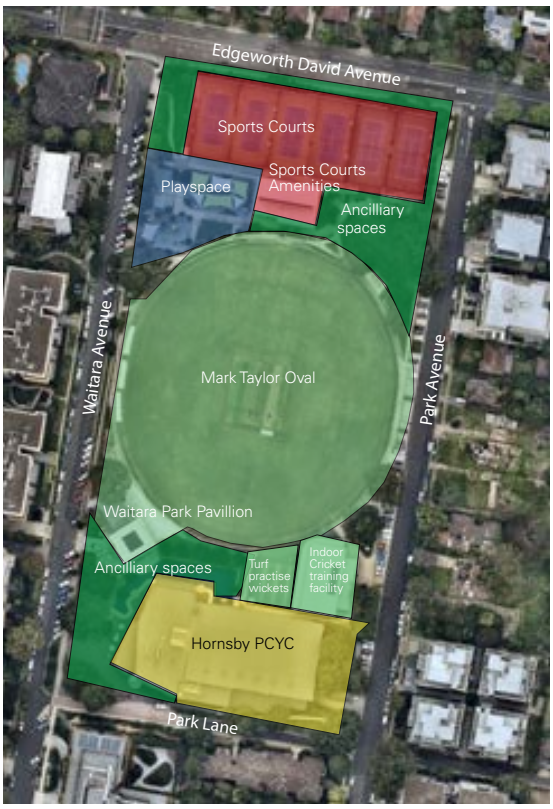



Figure 3: Existing Park Use (Nearmap 2026).
(Map not to scale)

## 4.5 Key Issues for Waitara Park

### 4.5.1 Urban context

Organised sports such as Rugby in winter, cricket in summer, along with tennis are the predominant recreational uses for this site. However the park has an increasing role to play as a 'village green' for the local community as urban redevelopment continues and population densities grow.

As such the development of the PCYC and relocation of the Sports Courts have improved informal and formalised recreational spaces and facilities within the park. This includes the series of spaces adjoining the PCYC and Waitara Park Pavilion in the south and the northern playspace and ancillary spaces in the north.

### 4.5.2 Organised sports facilities

Waitara Park has been the base of the Northern District Cricket Club (NDCC) since its formation in 1925. NDCC is the northernmost club of the twenty clubs in the Sydney Cricket Association (SCA) which provides players to the State and National competition levels.

In addition Mark Taylor Oval is home to Hornsby Senior and Junior Rugby Union Clubs and the northern sports courts are operated for tennis use through a lease agreement.

Between 2002 to 2026, Council undertook major upgrade works at Waitara Park in order to cater to the needs of the community.

These improvements included:

1) Fully upgraded playing surface: with a reshaped oval and centre square, new drainage, new irrigation
2) New indoor cricket training facility: 4 lane synthetic wickets;
3) Fully renovated turf practise wickets
4) New pavilion:
    a. Ground floor: canteen, umpires' room, public toilets and storage area
    b. First floor: mulitpurpose room, kitchette and scorer's room
5) Upgrade to existing grandstand: fully universal use changerooms, storage rooms
6) New groundsman's shed
7) Conversion of old public toilets to club storage

### 4.5.3 Pedestrian Connections and accessibility

With redevelopment of adjoining blocks to the east and west on Park and Waitara Avenues it is desirable that the park facilitates increased connectivity in, through and around the park.

The development of the PCYC and relocation of the sports court and amenities enabled increased pedestrian access and connectivity within the park. Increasing pedestrian connectivity should be continued by identifying opportunities for additional path connections and recreational loops.

Careful consideration should also be given to accessibility to all facilities to meet universal access requirements.

Finally pedestrian connections and linkages including safe crossing points outside the park, and to local transport hubs should also be carefully integrated as part of upgrades to the local area.

### 4.5.4 Environmental Conditions & Landscape

As noted vegetation on the park has been reduced to those pockets not developed for sports facilities. Generally the southern quarter of the site occupied by the tennis courts is ringed by the sites best tree canopy and is afforded a good quality of streetscape character due to these trees. Another stand of trees on the eastern boundary (Park Avenue) between the Oval and Crown Reserve lands provides the largest "informal park" area and has a pleasant park character.

The Crown Reserve land was generally of degraded character. During the development of the northern sports courts and amenities, additional landscaping was undertaken along Edgeworth David Avenue and Park Avenue to improve landscape character.

Tree assessments were undertaken as part of the PCYC development and as part of the proposed Indoor Cricket training facility design in the southern area of the park. Generally this assessment found that the majority of trees in the park were of reasonable health with a medium SULE (15-40 years safe useful life expectancy). The most recent assessment is provided at Appendix 1.

Designs for these two developments sought to retain visually and environmentally important trees and protect them from impact by the project or during construction.

## 4.6 Key Features and Opportunities

As has been noted, Waitara Park has traditionally played an important active sports role for the Hornsby Shire. However through recent initiatives Council has sought to expand the capacity of the park to provide increased open space and recreational activities for the adjoining neighbourhoods.

Opportunities exist to:

- Continue to seek to provide for a wider range of users, and meet the needs of a growing local population;
- Continue to enhance the informal parkland role of the park, enhancing and upgrading children's play equipment and youth orientated games equipment as the need arises;
- Further enhance entries into the site and connections through and around the site, linking road frontages with site facilities and with adjoining access routes and corridors;
- Provide improved pedestrian/ cycle links to and from the site, linking the park with existing pedestrian routes, local facilities, and Waitara Station;
- Improve the parks environmental capacity by retaining remnant vegetation and incorporating new native vegetation where appropriate;
- Continue to update a site masterplan that provides a basis for Council to plan and implement these opportunities as funding and other circumstances suit.



Image: Mark Taylor Oval Pavilion (Source: Archer Office)

# 5.0 Masterplan Development

## 5.1 Introduction

Hornsby Council will look to address a number of opportunities and pressures in its ongoing management of Waitara Park. The changing demographics and character of the local community, have provided a backdrop to recent improvements in the park while aging sports facilities have been funded for renewal and upgrading by the NSW Government.

The Waitara Park masterplan integrates and coordinates the recent works and proposed future works that need to be pursued to optimise the community benefit of the park. The proposed park improvements are also aimed at providing contemporary sports facilities that cater for the standard of required community use.

## 5.2 Objectives and Performance Targets of the Plan

Objectives and Performance Targets for the Plan reflect the core objectives for the proposed land categorisations:

### Sportsground

(a) to encourage, promote and facilitate recreational pursuits in the community involving organised and informal sporting activities and games

Performance Measures:

1. A balanced provision of recreational opportunities in the park that address shire wide sporting needs where possible achieving the best use of subject lands for community benefit.
2. Upgrading as required of existing sports facilities to optimise function and use and maximise sustainable lifespan
3. Provision of enhanced informal use park areas that cater for day to day community recreational use

(b) to ensure that such activities are managed having regard to any adverse impact on nearby residences.

Performance Measures:

4. Licence restriction of hours of operation, design incorporates noise management at necessary locations

### Park

(a) to encourage, promote and facilitate recreational, cultural, social and educational pastimes and activities,

Performance Measures:

Refer 1.

(b) to improve the land in such a way as to promote and facilitate its use to achieve the other core objectives for its management

Performance Measures:

8. Protection and enhancement of the landscape setting of the park to increase shade and natural habitat and enhance visual amenity

### General Community Use

To promote, encourage and provide for the use of the land, and to provide facilities on the land, to meet the current and future needs of the local community and of the wider public:

(a) in relation to public recreation and the physical, cultural, social and intellectual welfare or development of individual members of the public, and

(b) in relation to purposes for which a lease, licence or other estate may be granted in respect of the land (other than the provision of public utilities and works associated with or ancillary to public utilities

Performance Measures

9. Management of Sports and Cultural facility to provide optimum access to the local and district community
10. Leases or licences are authorised accordance with the plan.

## 5.3 Masterplan

The Conceptual Masterplan for Waitara Park has been updated by Council (Figure 4 opposite).

Key aspects of the masterplan are outlined following.

### 1. Hornsby PCYC

The PCYC building provides:

- Indoor courts
- Gymnastics space
- Boxing studio
- Cultural exercise studio
- Crèche
- Cafe kiosk

The building design was subject to separate Development Application and Construction Certificate, and included off-street basement carparking as part of the approvals conditions.

The building is currently maintained and operated by PCYC.

### 2. PCYC Square

The PCYC has as its main pedestrian address the corner of Park lane and Waitara Avenue. This links to a pedestrian / cycle link from Waitara Station. Within the building on this frontage is a Cafe / Kiosk facility which in addition to having undercover space adjoins a paved external area. The paved area (or Public Square) connects to Park Lane and Waitara Avenue and was aligned to protect existing trees.

The plaza also provides access to Mark Taylor Oval and a cross park link between the PCYC and the Cricket Nets and Indoor Cricket facility.

Gathering and seating spaces in addition to public table tennis table have been provided between the PCYC and Mark Taylor Oval and complement the cafe facility and oval uses.

The public square is an important outdoor community space for park users and residents. The space accommodates tree planting for shade, seating, informal play activities and areas for small performances or quiet contemplation. The paved square is adjoined by broad grassed areas under existing trees which integrate low sitting walls incorporating small level changes through the area.

### 3. Waitara Park Grandstand

This heritage-listed building includes:

a) Ground floor: changerooms and storage area

b) First floor: grandstand and multi-function room

### 4. Mark Taylor Oval Pavilion

This building opened in 2026 includes:

a) Ground floor: canteen, umpires' room, public toilets and storage area

b) First floor: mulitpurpose room, kitchette and scorer's room

### 5. Mark Taylor Oval and supporting facilities

In 2022, Mark Taylor Oval underwent a significant redevelopment, including a reshaped playing surface, upgraded irrigation system, new central wicket, and installation of new turf.

A new groundsman's shed was also constructed in 2022, attached to the Indoor Cricket Centre, to support maintenance of the oval and surrounding parkland

### 6. Indoor cricket training facility and turf practise wickets

In 2022, construction of the new Indoor Cricket Centre was completed. The facility includes four indoor wicket lanes and a viewing area overlooking the outdoor cricket nets.

The Indoor Cricket Centre building, along with the adjacent outdoor cricket nets, is currently leased to the Northern District Cricket Club.

### 7. Sports courts and amenities building

The sports courts where constructed in the northern section of the Park in 2018 as a result of the relocation of the PCYC. The courts are currently used primarily for tennis; however, their design allows for flexible use across a range of sports including basketball, netball, volleyball, pickleball, and small-sided soccer. The adjacent amenities building includes supporting facilities and public toilets.

The flexibility of use is to be retained to ensure Waitara Park continues to meet the recreational needs of the area into the future.

### 8. Play space

A play space is integrated into the embankment at the north-west corner of the oval.

The play space provides contemporary play experiences which caters to a range of age groups, supporting active, challenging, and inclusive play. It is further enhanced by a variety of seating and rest opportunities, as well as tree canopy cover that provides summer shade while maintaining access to winter sun.

### 9. Path and access system

The Masterplan proposes creation of a more extensive pathway circuit, which connects to key entry points to the park on Waitara Ave, Park Ave and Park Lane. The path system will connect users to facilities within the park and link adjoining open spaces to new development space east west across the park. Loops available within the park will provide attractive recreational opportunities in their own right for walking and jogging.

Adjoining the path system at appropriate locations will be individual seating that enables for community rest and contemplation day to day.

Development of the PCYC facility and relocation of the sports courts have included localised works for improved entries access and accessibility. These works are to be continued to realise loop path links for leisure and fitness.

### 10. Informal Parkland

A key objective of the masterplan is to improve the parks usability and attractiveness for general community use in addition to its established sports role. Work implemented as part of the previous plan of management recommendations has substantially commenced this program of additional tree and garden planting and park furniture provision. This should be continued through ongoing works.

### 11. Traffic and Parking Considerations

As part of the redevelopment of PCYC facilities a separate review of parking within the park and to adjoining streets was undertaken. It was resolved through liaison between PCYC and Council that the new facility should provide a number of off street parking spaces as part of the building complex. It is also proposed that the yield of spaces to Park Avenue could be improved with angle parking on the west side of the street fronting the length of the park. These works have been implemented.

Further it is proposed that Council investigate time management of parking to Waitara and Park Avenues during weekdays as part of a coordinated precinct strategy to balance commuter parking demands with parking needs related to the park facilities.

### 12. Landscape Enhancement

The masterplan identifies a range of strategies for ongoing landscape enhancement of the park. These include:

#### Conservation & Protection of significant trees

The PCYC building design was refined to minimise impact on existing trees. In addition new tree planting opportunities have increases the stock of healthy long term tree canopy within the park for future generations.

Provision of improved conditions for existing trees where possible including removal of parking from under trees, provision of mulched zones under trees with surface root systems have been / or should be implemented as part of ongoing works

#### New tree planting

To Waitara Ave the existing verge can be planted with appropriate street tree canopy that will enhance the streetscape and provide additional shade to pedestrians and car parking on the street.

### 13. Environmental Enhancement

A water quality control basin has been provided to the area at the north east corner of the oval. This takes drainage from Park Ave road and parking spaces and provides water quality control before it enters the storm water system.

### 14. Old toilet block

The old toilet block has been repurposed for storage use by sporting clubs. Public toilets have been integrated into the ground floor of the new Mark Taylor Oval Pavilion.

### 15. Mark Taylor Oval scoreboard

The scoreboard may be upgraded with new electronic equipment for use by Cricket and Rugby sporting codes.

### 16. Outdoor exercise node

The existing outdoor exercise node is to be retained, supporting informal fitness, strength training, and active recreation for park users.

## Concept Masterplan for Waitara Park

Figure 4: Concept Masterplan

**Legend:**

- Sports courts with perimeter fencing
- Asphalt roadway
- Pedestrian footpath
- Paved area
- Play areas
- Activity area with softfall
- Building/Structure to be removed
- Existing building
- Proposed building
- Sportsfield
- Open lawn area
- Planting bed
- Planted swale (Wsuds)
- Existing tree spp.

**Key:**

1. PCYC Facility - including indoor courts and cafe
2. PCYC paved forecourt - shade tree, seating, informal play activity areas, small performance areas and quiet areas
3. Mark Taylor Oval Pavilion and Grandstand - changerooms, storage, canteen, multi-function rooms and associated facilities
4. Mark Taylor Oval
5. Indoor Cricket Training Facility, Turf Practice Nets and Council Groundmans Room
6. Sports Courts and Amenities
7. Play Space
8. Path and Access Network
9. Informal Parkland
10. Street Parking - with potential future streetscape upgrade to Waitara Avenue
11. Conservation and Protection of Mature Tree Canopy
12. Environmental Enhancement - water quality control basin
13. Public Toilets
14. Refurbished Scoreboard
15. Outdoor Exercise Node



## 5.4 Staged Implementation of the Masterplan

The majority of masterplanned have now been delivered however street tree planting to Waitara Avenue and Park Avenue are still to be delivered along with adjustments to pedestrian paths along the interface of the oval with Waitara Avenue.

## 5.5 Scale and Intensity of Use and/ or Development

### 5.5.1 Sportsground Facilities

Sportsground facilities are taken to include those occurring within land categorised as 'Sportsground' that includes:

- Mark Taylor Oval and associated adjoining areas
- The sports courts

Generally this plan envisages a level of organised sports use of the Sports ground area of a comparable level to that existing currently with a focus on Cricket, Rugby, and Tennis or other sports that may be suitable to be undertaken on multi purpose sports courts.

Mark Taylor Oval is currently allocated through seasonal hire arrangements for summer and winter sporting use, subject to renewal each season.

The sports courts completed in 2017 are subject to a lease to Kim Warwick Tennis Academy which commenced in 2017 and expired in 2024.

Council considers other bookings across the seasons for weekly or weekend use that do not clash with seasonal hire on an individual basis subject to ground condition and other factors.

Across the park generally the ongoing improvements proposed in the masterplan shall enhance day to day community use and enjoyment of the park. The path upgrades will provide more effective access across the park and consolidate the loop path opportunities available in the park for exercise and recreational walking.



Organised sports use of Mark Taylor Oval is a key reserve use

### 5.5.2 PCYC Facility

Construction of the PCYC facility in 2017, considerably expanded the provision of services to the district community in terms of opportunities to partake in recreational and physical and cultural activities.

The PCYC facility provides activities such as:

- Indoor court sports such as Netball, Basketball, Futsal
- Boxing training
- Exercise / Dance / Drama

Off street parking is provided within the basement of the PCYC building to reduce impacts on local streets. Access to the off street parking is from Park Avenue at the south east corner of the park.

The paved forecourt at the entry to the PCYC building is used for informal recreation where local families, children and adults can meet socially. The square complements other small scale play equipment and circuit path developments in the park that are intended to encourage locals to access the park by bicycle or by walking.



Examples of uses / activities in the PCYC facility

# 6.0 Categorisation

## 6.1 Explanation of Categorisation Mapping

For the purposes of this Plan of Management, it is necessary to identify a categorisation of land, as mapped (Figure 5), which reflects Councils' proposed use of the community land and Crown Reserves for Waitara Park, in accordance with the LG Act 1993, Division 2 - Use and Management of Community Land along with the requirements for Crown Lands Management (CLM Act 2016).

The Masterplan (Figure 4) provides an illustration of the arrangement of facilities in Waitara park, which includes the recent development of new community facilities, provisions for informal recreation activities, entries and pathways through the park, formalised road edge parking, and street tree planting. The Masterplan recognises the proposed upgrading of Mark Taylor Oval and the Pavillion and Grandstand along with development of the Indoor Cricket Training Facility.

The Masterplan layout responds to and enhances existing site conditions, and the proposed recreation facilities are contained within appropriately categorised areas for future management.

The adoption of this PoM will legislatively enable the final suite of development and upgrade works to be carried out within the various categorisation zones. Adoption would also require commitment to management of the lands in Waitara Park in accordance with the objectives outlined in the Action Plan forming Part 2 of this PoM.

## 6.2 Land categorised as 'General Community Use'

The area defined as General Community Use within Waitara Park relates to:

- The PCYC Indoor Community Centre and its curtilage located at the southern end of the park. This generally extends along the boundary of the road reserve to Park Lane and Park Avenue. To the north it runs along the edge of the building and to the west it includes a zone of external cafe seating beyond the edge of the building.
- The Mark Taylor Oval grandstand and pavilion overlooking the oval.
- The amenities building associated with the sports courts at the northern end of the park.

The lease agreement for each facility, sets out responsibilities for public liability and maintenance within the leased area.

## 6.3 Land categorised as 'Sportsground'

The area of Mark Taylor Oval and its supporting areas and facilities including the indoor cricket training facility and pavillion / grandstand are categorised as 'Sportsground' on the Categorisation Plan (figure 5 following page.

This conserves the existing and long standing sporting role of the oval for various summer and winter sporting codes.

In addition the Waitara Park Sports Courts (courts and clubhouse) relocated through the previous plan of management to Crown Reserve 1036828 in the north of the site, is categorised as Sportsground reflecting its sports role and use.

## 6.4 Land categorised as 'Park'

Peripheral park areas adjoining the sports courts in the north and Mark Taylor Oval which will be improved as informal recreation areas including pathways and play spaces will be categorised as "Park".

This recognises that Waitara Park has an increasing role as local parkland for the adjoining community.

## Categorisation Map

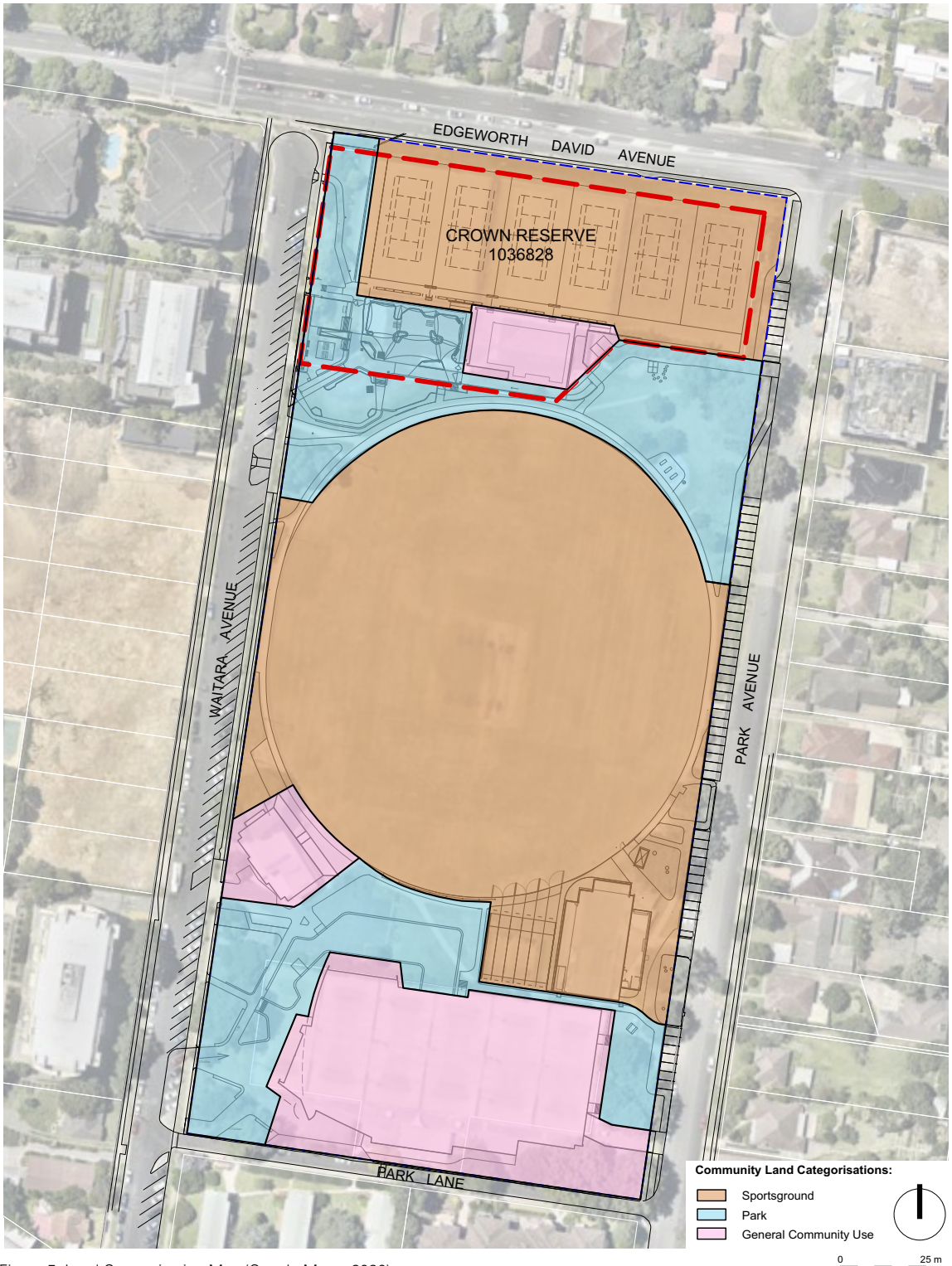



Figure 5: Land Categorisation Map (Google Maps, 2020)

# 7.0 Operational Proposals

## 7.1 Maintenance

Council is responsible for maintenance of Waitara Park to a standard that responds to the requirements outlined in this Plan of Management. Part 2 - Action Plan identifies a specific maintenance approach that will be adopted for the upkeep of the asset. Council utilises Council staff, contractors and voluntary resources to assist in meeting the targets identified.

## 7.2 Leases and Licenses

Pursuant to the provisions of Section 46 Parts (1)(b), (2), (4)(a) and (5) of the Local Government Act 1993, Council may lease or license Community Land in a Plan of Management for purposes that are consistent with the land categorisation and with this PoM.

A lease, licence or other estate may be granted for the provision of public utilities and works associated with or ancillary to public utilities, or may be granted, in accordance with an express authorisation in a plan of management. Schools and Sports Clubs are granted temporary licenses for sports competition and training purposes. These licenses are authorised by this Plan of Management.

At the time of preparation of this Plan of Management, the following lease or license agreements were in place:

### Mark Taylor Oval:

Use of Mark Taylor Oval is subject to seasonal hire arrangements, with Hornsby Rugby Club and Northern District Cricket Club holding seasonal bookings subject to renewal each season. The oval is also used by various local schools for school term sport under licence agreements subject to annual renewal.

### Mark Taylor Oval Grandstand:

The multi-purpose room within the Mark Taylor Oval Grandstand is currently leased to Hornsby Rugby Club. Following completion of the 2026 redevelopment works, the existing lease arrangements will be reviewed and updated as required.

### Mark Taylor Oval Pavilion:

The former pavilion was previously leased to Northern District Cricket Club. Following completion of the 2026 redevelopment works, a new lease arrangement for the multi-purpose room within the Mark Taylor Oval Pavilion is currently being progressed with Northern District Cricket Club.

### Indoor Cricket Training Facility:

The Indoor Cricket Training Facility is leased to Northern District Cricket Club from 2024 and expires in 2044.

### Waitara Park Sports Courts:

The sports courts and associated amenities was leased to Kim Warwick Tennis Academy from 2017 and expired in 2024. Currently the management remains in occupation on a hold over basis. Following adotption of this Plan of Managament, a new lease arrangement will be progressed.

### PCYC:

The PCYC have a ground lease for the building at the southern end of the park. The lease runs from 2017 and expires in 2047.

### 7.2.1 Future Uses

In the future, when leases expire, Council will reassess the lease and licensing arrangements. Issues to be considered when reassessing leases or entering into new agreements include:

- Ensuring all leases and licences are based on sound asset management principles with rents and charges based on current market conditions with consideration of relevant community and economic factors where applicable;
- Ensuring all leases and licences meet the requirements of relevant State and Local Government Acts and Council town planning controls and compliance standards;
- Ensuring proposed activities are compatible with the core objectives established in the Local Government Act;
- Negotiating greater financial returns which will contribute to management and maintenance of community land; and
- Requiring the lessee to carry out maintenance and / or improvement works to the leased facility.

All future lease / licence arrangements entered into shall be in accordance with Council's Policies CSISAS 12 – Delegation of Authority to Grant Lease / Licence Agreements, CSISAS 13-Use of Council Buildings by Kindergartens and CSISAS 14 - Lease/Licence of Council Land and in accordance with requirements of the Local Government Act 1993.

Future use should respond to population growth and identified community needs.

Council Policy CSISAS 14 states that the maximum length of lease/licence of Council land will generally be five (5) years. Council may however give consideration to granting an additional period of tenure where special circumstances warrant this occurring.

A lease will be appropriate where exclusive possession of premises is given to a successful organisation. A licence will be appropriate where the right to occupy is non-exclusive.

Where a lease arrangement has been entered into with Council for community land, if subleasing is permissible, it must be in accordance with the requirements of the lease and section 47C of the Local Government Act 1993.

This Plan of Management authorises the following types of leases and licences for community land within Waitara Park:

### 7.2.2 Leasing and Licensing of Facilities

The granting of leases / licences are expressly authorised for use and management of sportsgrounds and community facilities for activities permissible under this Plan of Management, the Hornsby Shire Local Environment Plan 2013, the LG Act 1993, CLM Act 2016 and pursuant to Development Consent if required.

The following types of sports and facility licences will be granted for the temporary exclusive use of sportsgrounds (including playing fields, change rooms, and canteen) or courts and indoor facilities (including tennis courts) at nominated times.

#### Licences and Leases for Sportsgrounds and Community Facilities

This Plan of Management expressly authorises the ground lease of the PCYC facility for a period of up to 30 years to allow for uses consistent with the land categorised as general community use including indoor recreation, performing arts, and other recreational and cultural uses. Annual licences in the form of hiring agreements may be granted to regular user groups of the Centre. Regular bookings include but are not limited to various forms of recreation classes (dancing, martial arts, and aerobics), educational classes and community group meetings (such as church groups), sports clubs, community organisations).

This PoM expressly authorises the leasing or licensing for the purpose of use and management of the Waitara Park Sports Courts and associated facilities.

This PoM expressly authorises the leasing or licensing for the purpose of use and management of the Waitara Park Pavilion and Grandstand, the Indoor Cricket Training Facility, turf practice nets, and their associated facilities.

Sportsgrounds and associated facilities are authorised by this plan to be leased or licensed for sports competition and training on a regular basis, and for occasional community events.

#### Licences for School Use of Sportsgrounds

The granting of licences are expressly authorised by this Plan of Management for Schools for the temporary exclusive use of sports facilities at times during weekdays. The range of sports permissible may include but will not be limited to Australian Rules Football, Rugby League or Rugby Union Football, Soccer, Cricket, Touch Football, and Tennis.

## Leasable areas in Waitara Park




Figure 6: Leasing Diagram, PCYC Building and forecourt




Figure 7: Leasing Diagram, Mark Taylor Oval Pavillion and Grandstand and Indoor Cricket Training Facility

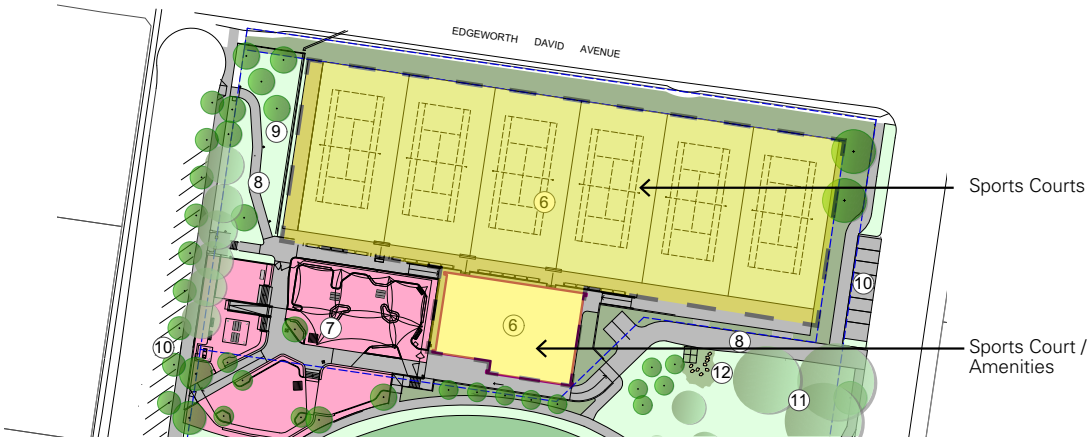



Figure 8: Leasing Diagram, Waitara Tennis Centre

### Licences for Casual Hire of Sportsgrounds

The granting of licences are expressly authorised by this Plan of Management for casual events including, but not limited to, the playing of Rugby League or Rugby Union Football, Australian Rules Football, Soccer, Cricket, Touch Football, and Tennis; for community events including organised fetes, festivals, parades and performances that may include stall holders engaging in a trade or business; and small-scale private sector events including markets, promotional events, parties, weddings, filming and photography.

These events may generally be held between the hours of 8am and 10pm. Specific approval will be required to licence events proposed outside these hours, and in consideration of limits to neighbourhood disturbance, in line with NSW Environment Protection Authority regulations. Leasing or licensing for the operation of restaurants, cafes, canteens, kiosks or other food outlets are also expressly authorised for a period of up to 30 years.

### Casual Hire of Community Facilities

Community Centres are available for casual use at times when they are not being used by regular hirers. Hiring permits are issued on the basis of prior bookings made. Charges for casual use in accordance with the Fees Schedule adopted by Council after public exhibition for twenty eight (28) days as required by the Local Government Act 1993. Casual bookings include but are not limited to weddings, birthday parties and community functions.

### Licences for Reverse Vending Machines

This Plan of Management allows Council to enter into a lease/licence agreement to provide for the installation of Reverse Vending Machines.

### Leases and Licences for Small-Scale Commercial Uses

This Plan of Management expressly authorises Council to enter into lease or licence agreements for small-scale commercial uses that are consistent with the reserve's dedication and purpose.

Such uses may be permitted within designated areas of the park at Council's discretion and in accordance with any applicable policies. Commercial uses must be ancillary to, and support, the recreational use and enjoyment of the park by visitors, and must not unreasonably detract from the park's primary function as a public open space.

Examples of such uses include personal trainers, boot camps, aerobics groups, commercial dog-walkers, guided nature walks, dance classes, yoga or Tai Chi classes, public talks, bicycle hire, small musical or vocal performances, mobile food and refreshment vendors (such as ice cream vans or coffee carts), small-scale cafés or kiosks, including associated outdoor dining, where the use primarily services park users in primary park usage times and complements the park setting.

### 7.2.3 Licences for Special Events

Licences are expressly authorised by this Plan of Management for the staging of special events such as fetes, festivals, fairs, circuses, markets, musicals, theatre, movies, fun runs, art exhibitions, charity or community fund raising performances or events, gala sports carnivals, community carol singing, large picnics, family reunions, private ceremonies, cultural or religious ceremonies, weddings, community education events, pet and animal events, miscellaneous community events, and small scale private sector events such as promotional events, musical or drama performances, art exhibitions, parties, filming and photography.

### Drones

Non-commercial operation of a remotely piloted aircraft (such as drones) within or above the park requires the written permission of the park manager and is subject to General Safety Rules to ensure that use of the remotely piloted aircraft does not create a hazard to another aircraft, person or property.

### 7.2.4 Leasing and Licensing of sportsground or community facilities for varied uses

The granting of licences are expressly authorised by this Plan of Management for use of certain parks or a portion of those parks for occasional hire. Activities subject to lease or licence may include but will not be limited to community groups using designated parks or a portion of those parks for regular market days, community fund-raising events that may include stall-holders engaging in a trade or business, private sector events including markets, promotional events, parties, filming and photography permissible under the Hornsby Shire Local Environment Plan 2013, and other uses permitted under this Plan of Management. These events may generally be held between the hours of 8am and 10pm. Specific approval will be required to licence events proposed outside these hours, and in consideration of limits to neighbourhood disturbance.

This plan of management expressly authorises leases and licences for the operation of restaurants, cafes, canteens, kiosks or other food outlets, for periods up to 30 years, and subject to the relevant Minister's approval where required.

### 7.2.5 Other Leases and Licences

#### Crossing of Reserves

Section 46 of the Local Government Act prevents Councils from granting leases, licences or other estates over community land for private purposes except in the uses described in Section 116 (3 - 5) of the Local Government (General) Regulation 2005. Short term, casual use will only be granted for a purpose consistent with the core objectives for the category of land and for a purpose referred to in section 46 (4) (a) (i) (ii) of the Local Government Act for:

"(a) The provision of goods, services and facilities, and the carrying out of activities, appropriate to current and future needs within the local community and of the wider public in relation to any of the following:

i. public recreation;

ii. the physical, cultural, social and intellectual welfare or development of persons."

Such licences are expressly authorised by this Plan of Management.

#### Easements

In accordance with the requirements of the Local Government Act 1993, this plan expressly authorises Council to grant easements for authorities, organisations or individuals in favour of private lands over lands identified in this POM, providing Council is satisfied there is no reasonable alternative and that appropriate benefits are obtained for the community land. Any adverse impacts on playing surface or drainage is to be remediated at the cost of the holder of the easement. Council will not be responsible for any loss or damage caused through any act or omission of Council to any structures or facilities within the easement.

#### Telecommunication Towers

This Plan of Management will allow establishment of telecommunications facilities where the proposal has considered Council's Policy for Telecommunication Facilities PSA 10, where the towers are low impact under the Telecommunications Act or have minimised impact to a degree acceptable to Council and where there is an approved Development Application.

#### Liquor Licences

Although granting of liquor licences are subject to other approvals and are not at the sole discretion of Council, this Plan of Management allows for Council to give permission as the landowner for liquor licences on community land subject to other necessary approvals.

Applications for liquor licences will be considered on individual merits and will only be considered when Council is satisfied that the licensee can meet legislative requirements for responsible service of alcohol. Such licences are expressly authorised by this Plan of Management.

#### Casual Liquor Licences

The consumption of alcohol in reserves under the care, control and management of Hornsby Shire Council are expressly authorised by this Plan of Management but only with written Council consent under the following conditions:

- People will not be allowed to enter or remain in reserves in an intoxicated state;
- People will not be permitted to consume alcohol in reserves while junior games are in progress; and
- People will not be permitted to consume alcohol within 10 metres of children's play areas, unless written permission is obtained from Police or Council.

The 'Park Rules' Notice contained in Appendix 3 allows for this.

#### Granting of Estates

This Plan of Management allows Council to grant 'an estate' over community land for the provision of public utilities and works associated with or ancillary to public utilities in accordance with the Local Government Act 1993. Estates may also be granted across community land for 'the provision of pipes, conduits or other connections under the surface of the ground for the connection of premises adjoining the community land to a facility of the Council or other public utility provider that is situated on the community land. Estates will be granted in accordance with the requirements of the Local Government Act 1993.

An estate in respect of community land is authorised by this Plan of Management for the purpose of a 'public road' are expressly authorised by this Plan of Management under the following conditions (S.47F):

- Where the provision of that road is consistent with the core objectives;
- Where that road is necessary to facilitate enjoyment of the land or any facility on that land; and
- Where other means of access other than public road access have been considered.

### Public Utilities

This Plan of Management expressly authorises Council to enter into leases, licenses or other forms of agreement with relevant authorities, organisations or individuals in relation to the provision of services or utilities for a public purpose.

### Community Gardens

In recent years, Council has been approached with proposals to develop community gardens on community land within Hornsby Shire. The aim of developing such gardens is to provide an opportunity to provide accessible, strategically located gardens that also contribute to community waste management and education.

Where appropriate community gardens could be developed as a component of parks where such development does not reduce the utility of open space for other uses. Community gardens are not permissible within natural areas.

For community gardens to be successful they must be well supported by the community, easily accessible to residential areas, secure, visible, have good access to solar and water resources, and have secure tenure to allow long term use.

This Plan of Management allows for leases to be established for the development of community gardens where they comply with the core objectives of the Local Government Act and where considered appropriate by Council.

ATTACHMENT 2 - ITEM 4

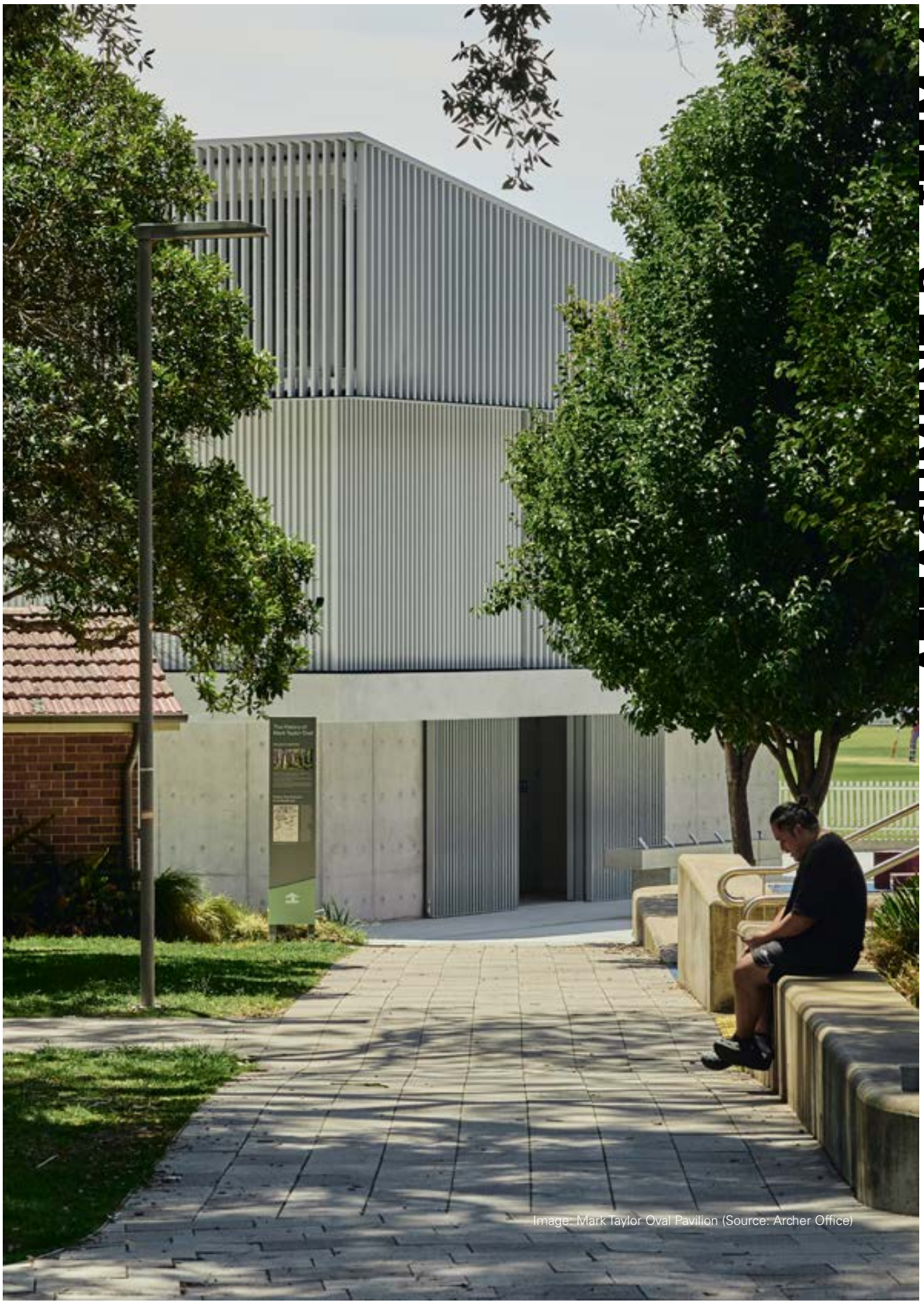


Image: Mark Taylor Oval Pavilion (Source: Archer Office)



Image: Waitara Park Playspace (Source: Proludic)

# Part 2

## 8.0 Action Plan

The Action Plan has been developed to support management goals for proposed developments in Waitara Park. It provides statements on how objectives and performance targets will be implemented and outcomes managed into the future. Following are definitions of the terms used in the Action Plan:

Management Statement indicates how the objectives of the PoM will be addressed and implemented and what users and the general public may expect in the provision of the service in Waitara Park.

Actions are the specific statements that elaborate on the strategy contained in the Management Statement.

Management Team (Mgt Team) provides which team within Council will have primary responsibility for the Action.

These are abbreviated as below:

HSC: Various Hornsby Council
MC: Management Committees
MCC: Manager Corporate and Community
MCS: Manager Community Services
MES: Manager Engineering Services
MF: Manager Financial Services
MHR: Manager Human Resources
MPR: Manager Parks, Trees and Recreation
MRI: Manager Risk and Insurance
MSP: Manager Strategic Planning
MTRS: Manager Traffic and Road Safety
MNR: Manager Natural Resources
MWM: Manager Waste Management
NL: Neighbouring Landholders
P: Proponent
PAT: Parks Asset Team
PSU: Parks Service Unit
RFS: Rural Fire Service
SU: Sportsground Users

### 8.1 Time Frame

Definitions of timing for actions are as follows:

| | | |
|---|---|---|
| ST | (Short Term) | Action completed within 2 years |
| MT | (Medium Term) | Action completed within 2 - 4 years |
| LT | (Long Term) | Action commenced after 4 years |
| O | (Ongoing) | Action carried out on a regular basis for the term of this Plan of Management |

### 8.2 Performance Measures

Performance Measure are how Council knows what progress is being made relative to the time frame established for the actions, or whether the final achievement is realised. This section of the Plan will require review to ensure it is an effective working document. It will provide a framework for management consistent with anticipated availability of resources and anticipated community needs.

### 8.3 Environmental Factors

The Action Plan contains elements that address the need to assess the environmental impacts of an activity. Measures to minimise such impacts are contained in the Action Plan. The timing determined for improvements will be subject to the availability of funds and will require revision if circumstances alter.

### 8.4 Assessment

Assessment of targets will take place in reviews of the Action Plan at intervals no greater than five years. Monitoring of actions within this Plan of Management will occur on an annual basis. Assessment will include qualitative and quantitative reviews of targets.

# 9.0 Action Plan for all Categories of Community Land

## 9.1 Operating Standards

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| 9.1A Environmental Sustainability | | | | |
| Ensure the adjoining land uses minimise impacts on the natural environment. | ■ Provide a rear setback to developments on private properties that adjoin bushland.<br>■ Ensure that active uses of Council or Crown land have a minimum impact on bushland. | MNR<br>MPR | O | ■ The improved condition of bushland edges, core and creeks. |
| 9.1B Maintenance Personnel | | | | |
| Skilled and experienced labour is used to implement specialist works | ■ Works including traffic control, pesticide applications, pruning of trees and shrubs, hedges and arboricultural work is to be carried out by suitably qualified and / or trained staff.<br>■ Appropriate training is provided for staff involved in the above tasks. | MPR<br>(PAT / PSU) | O<br>O | ■ Staff carrying out specialist maintenance works specified, are appropriately skilled and trained. |
| 9.1C Council Staff Health and Safety Standards | | | | |
| At all times Council employees and contractors will comply with Work Health and Safety Standards. | ■ Train Council staff in Occupational Health and Safety Standards.<br>■ Maintain work practices to comply with Work Health and Safety standards.<br>■ Encourage staff to report breaches of Work Health and Safety standards to the designated WH&S officers | HSC | O | ■ Safe Work Method Statements are regularly prepared, reviewed and communicated to staff. |

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| 9.1D Legislative Standards | | | | |
| Services are provided to agreed national and industry standards, SEPP Infrastructure, the HSLEP and policies and standards resultant from public consultation<br><br>Developments are undertaken with regard to the relevant legislation | ■ Staff are up to date and familiar with the relevant legislation impacting upon the level and standard of Council services.<br>■ Awareness of SEPP (Infrastructure), HSLEP, Crown Lands Act and other important legislation is promoted with staff | MPR | O | ■ Activities of Council uphold legislative requirements.<br>■ Business processes incorporate legislative requirements<br>■ Staff are trained in legislative requirements |
| 9.1E Technical Standards | | | | |
| The design of any new structures on community land must comply with the relevant Australian standards.<br><br>Monitoring requirements will comply with those specified in Service Level Agreements. | ■ New buildings and structures comply with the relevant standards.<br>■ Work will be monitored to assess compliance with requirements specified in the Service Level Agreement. | HSC<br><br>MPR PAT / (PSU) | O | ■ All new buildings and structures on community land comply with the relevant building standards.<br>■ Service Level Agreement work is monitored and reports generated to reflect monitoring outcomes. |

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| 9.1F Facility development at sportsgrounds | | | | |
| Sportsgrounds will be developed to a standard consistent with council's economic and budget sustainability objectives<br><br>Sports facilities will be developed only on suitable reserves and to meet identified needs.<br><br>Sportsground development will be funded from a variety of sources | ■ Sportsgrounds are intended to provide primarily for suburban amateur competition level sport<br>■ Development of elite-standard facilities will not necessarily be funded by Council however council may allow hirers to do so<br>■ Standards for supporting infrastructure such as canteens, change-rooms and storage areas will be basic (where they exist)<br>■ Improved or enlarged canteens, club equipment storage areas, club meeting rooms, covered spectator areas, gymnasiums and the like are outside the responsibility of Council to provide, but may be provided where a level of co-funding is present. | MPR | O | ■ Council funds are not diverted for the provision of elite-standard sports facilities and supporting infrastructure |

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| **9.2 Equity and Access** | | | | |
| 9.2A Disabled / Stroller Access | | | | |
| Provide access for disabled users and strollers onto community land where possible. | ■ Address unsuitable access, providing access paths where appropriate and as finances allow.<br>■ Satisfy the requirements of the Disability Discrimination Act 1992 and the Anti-Discrimination Act 1977.<br>■ Where parking areas are provided for the community on community land, provide appropriate number of parking spaces in accordance with the requirements of the Access and Mobility DCP, to allow access for users with disabilities | HSC | M<br>O<br>S | ■ Disabled / stroller access is provided into appropriate areas of community land.<br>■ Requirements of the Disability Discrimination Act and Anti-Discrimination Act are met as resources and conditions allow. |
| 9.2B Parking | | | | |
| Ensure parking adjoining park boundaries is managed to maximise its use and benefit to park users | ■ Investigate time management of parking to Waitara and Park Avenues during weekdays as part of a coordinated precinct strategy to balance commuter parking demands with parking needs related to the park facilities | HSC | S | ■ Investigations completed.<br>■ Impact from commuter street parking on park users is minimised. |

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| 9.2C Equity of Access to Council Reserves and Facilities | | | | |
| Strive to provide equal opportunity of access to community land for all sectors of the community.<br><br>Recognise the role of community sports clubs in using Council facilities to operate sport. | ■ Consider historical use and hiring patterns when assessing facilities for allocation.<br>■ When opportunities arise to review allocation of facilities, weighting is to be given to groups with female, disabled, non-English speaking background and other membership bases.<br>■ Organisations based in Hornsby Shire and with a high proportion of residents of the Shire shall be favoured.<br>■ Provide access to reserves and buildings within reserves for the disabled where practical and affordable<br>■ When opportunities to redistribute allocation of Council facilities arise, the principle of satisfying the greatest demonstrated recreation or leisure need is to be applied<br>■ Implement relevant findings of the Sportsground Strategy 2018. | HSC | O | ■ Equity of access is considered when an opportunity arises to review allocation of use of Council facilities. |

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| 9.2D Unauthorised Camping | | | | |
| Camping will not be allowed in most parks except in support of a special event and with a licence or other express consent of Council.<br><br>Council recognises that all people should have access to private or public housing which meets their individual needs, and equally that all people have a right to enjoy public reserves for activities that do not impact on other users' enjoyment.<br><br>People will be encouraged not to camp in public reserves unless in designated camping areas or otherwise use public reserves in ways that impact on access by other users. | ■ Parks will be patrolled in order to curtail unauthorised camping.<br>■ Council will enlist appropriate support services to assist in providing alternative accommodation for homeless people in public reserves when complaints arise.<br>■ Rangers and Parks maintenance staff will patrol parks to discourage or prevent people from unauthorised camping in public reserves. | MPR<br><br>HSC<br><br>PAT/ PSU | O<br><br>O<br><br>O | ■ Low number of reported cases of unauthorised camping.<br>■ The support of agencies able to assist the homeless where conflicts between park users and unauthorised campers occur.<br>■ Parks are patrolled as resources allow, discouraging unauthorised camping in reserves. |
| 9.2E Remotely Piloted Aircrafts (such as Drones) | | | | |
| Use of remotely piloted aircrafts is restricted and follows the guidelines from the Civil Aviation Safety Authority | ■ Users seek appropriate approvals and follow guidelines from the Civil Aviation Safety Authority. | HSC | O | ■ Flying of remotely piloted aircrafts is restricted without prior consent of the land owner or land manager.<br>■ Operators of remotely piloted aircrafts follow the guidelines from the Civil Aviation Safety Authority |
| **9.3 Anti-social behaviour** | | | | |
| 9.3A Vandalism | | | | |
| Develop and implement programs to minimise incidents of anti-social behaviour on community land. | ■ Design future facilities to allow easy surveillance where possible.<br>■ Maintain surveillance patrols as required.<br>■ Provide security lighting as appropriate. | MPR<br><br>PSU<br>MPR | O<br><br>O<br>O | ■ Facilities within parks and sportsgrounds are designed to reduce opportunities for vandalism.<br>■ Surveillance patrols are carried out at known problem times.<br>■ Lighting is provided where required. |

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| **9.4 Reserve Naming and Dedications** | | | | |
| 9.4A Naming of Reserves and Dedications | | | | |
| The naming of reserves and dedications are undertaken according to Council criteria.<br><br>Dedications on community land comprising of plaques, signs and other structures are made n recognition of substantial contributions to the conservation and maintenance of that land and require written Council permission. Other dedications will be assessed on an individual basis. | ■ Naming preference is given to geographical names (such as road and suburb), aboriginal names, historical names, or names of deceased persons who have made a major contribution to the reserve or early history of the reserve's locality.<br>■ Assessment on merits, visual amenity and applicable standards is undertaken prior to approval of any dedication. | HSC<br><br>HSC | O<br><br>O | ■ Integrity and meaning is maintained when naming community land.<br>■ Dedications within community land have high merit and significance. |
| **9.5 Protecting Fauna and Fauna Habitats** | | | | |
| 9.5A Fauna Impacts | | | | |
| Native fauna is protected and habitat conserved on community land. | ■ All work is to minimise impacts on native fauna and habitat.<br>■ Dead tree hollows retained unless they pose a risk to life or property. Hollows from dangerous trees relocated on public land nearby.<br>■ Pesticide use is considerate of impacts upon fauna. | HSC | O | ■ Fauna habitat is enhanced and conserved where possible. |

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| **9.6 Conservation of Resources** | | | | |
| 9.6A Reduction of Resource Use and Energy Efficiency | | | | |
| Use of recycled materials and energy reduction programs are implemented in capital works projects and maintenance programs. | ■ Increase use of recycled materials in capital works projects and maintenance programs.<br>■ Recycling of green waste.<br>■ Reduction of electricity and water use | HSC | O | ■ Higher percentage of recycled material is used in capital works and maintenance programs.<br>■ Green waste is recycled.<br>■ Measures for reducing the use of water derived from dam storages and energy derived from non-renewable fuels are investigated. |
| **9.7 Impacts of Developments and Activities** | | | | |
| 9.7A Impacts of Developments and Activities | | | | |
| Identify and address impacts of developments and activities on neighbouring properties where development approval is not required | ■ Address parking requirements and impacts of additional traffic from proposed developments.<br>■ Address impacts of noise and lighting from proposed developments and activities on neighbouring properties. | HSC | O | ■ Potential impacts of proposed developments and activities such as parking, traffic; noise and lighting on neighbouring properties are addressed. |

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| **9.8 Leases and Licences** | | | | |
| 9.8A Leases and Licences generally | | | | |
| Leases and licences are granted in accordance with the requirements of the Local Government Regulation and Act. | ■ Conditions apply to ensure proposed activities on community land comply with core objectives of the LGA.<br>■ Leases and licences are granted in accordance with the requirements of the Local Government Act and Local Government Regulation 1999 and in accordance with Council's policies for development, use, leasing and licensing of Community land as stated in Part 1 of this Plan of Management. | HSC | O<br>O | ■ All activities on community land comply with the core objectives of the Local Government Act and Regulations.<br>■ Leases and licences comply with the requirements of the LGA and with Council's policies. |
| 9.8B Use/Sale of Alcohol in Reserves | | | | |
| Applications to Council for use/ sale of alcohol in public reserves are considered individually. | ■ 'Park Rules Notice' permits use / sale of alcohol in public reserves subject to Council approval and approval of other relevant bodies.<br>■ Council approves / rejects applications for such licences on individual merits. | MPR<br>MPR | S<br>O | ■ Park Rules notice is posted.<br>■ Applications for use / sale of alcohol in public reserves are considered on individual merits subject to approval of other relevant bodies. |
| 9.8C Reserve Crossings | | | | |
| Reserve crossings are only granted in accordance with the requirements of the Local Government Act and Regulation, and Crown Lands Act (where relevant). | ■ No reserve crossings for private purposes are approved, except in accordance with the stated legislation and as outlined in this POM. | MPR/MNR | O | No licences for crossing of reserves for private purposes are granted except in accordance with the stated legislation and as outlined in this POM. |

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| 9.8D Community Gardens | | | | |
| Council encourages resident groups to work in partnership with relevant council staff in the establishment of new community gardens on community or Crown land. | ■ Council will consider proposals for community gardens to be established on community or Crown land on a case by case basis | HSC | O | ■ Community garden applications received and assessed on a case by case basis. |
| 9.8E Reverse Vending Machines | | | | |
| Council promotes Reverse Vending Machines in key locations throughout the shire. | ■ Council will consider proposals for Reverse Vending Machines on community or Crown land on a case by case basis. | HSC | O | ■ Reverse Vending Machine proposals assessed on a case by case basis. |
| 9.8F Licences for Small-Scale Commercial Uses (such as coffee carts) | | | | |
| To provide small-scale or low-key commercial opportunities within parks. | ■ Council will consider proposals for small-scale or low-key commercial uses on community or Crown land on a case by case basis | HSC | O | ■ Appropriate small-scale commercial uses operating within specified areas / facilities with approval. No significant impacts for other park users or neighbours. |
| **9.9 Communications Towers** | | | | |
| 9.9A Communications Towers on Community Land | | | | |
| Allow the lodgement and assessment of Development Applications for communications towers on merit. | ■ If approved, communications towers generate income for the management of community land. | HSC | O | ■ Council derives income from any approved communications towers and applies it to management of community land. |
| **9.10 Volunteer Insurance** | | | | |
| 9.10A Volunteer Insurance | | | | |
| Volunteer groups working on community land are covered by appropriate insurance as required by Council's Risk and Insurance Manager. | ■ Register volunteer workers with the Risk and Insurance Manager prior to work being undertaken, as required.<br>■ Provide instruction in safe work methods to volunteer groups. | HSC/MRI | O | ■ Volunteer workers are registered prior to working on community land. |

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| **9.11 Funding** | | | | |
| 9.11A Funds Received from User Fees | | | | |
| Funds derived from use of community land are allocated in accordance with the Local Government Act. | ■ Money derived from use of community land is expended on community land acquisition and community land management requirements in accordance with S.409 of the Local Government Act 1993. | HSC | O | ■ Funds derived from community land use are allocated to future community land management and acquisition. |
| 9.11B Through Life Costs | | | | |
| Adopt an appropriate level of funding for maintenance of facilities within a financial year and over the whole life of an asset. | ■ Determine level of funding required to maintain community land facilities in accordance with the Plan of Management.<br>■ Annually adopt an appropriate budget to allow for maintenance of reserves | HSC<br>HSC | O<br>O | ■ Facilities are maintained within budget and in accordance with the Plan of Management |
| 9.11C Fees | | | | |
| Set and maintain an appropriate level of hire fees for use of facilities on reserves. | ■ Fees are set according to community service and cost recovery principles contained in the Fees and Charges volume of Council's annual Management Plan. | HSC | O | ■ Level of fees is determined and adopted by Council annually. |

# 10.0 Action Plan for Parks and Sportsgrounds

## 10.1 Notifications

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| 10.1A Park and Sportsground Availability | | | | |
| Council will determine the status of ground closures due to weather for weekend sport by 2pm on Fridays. | ■ User groups will be notified at the earliest possible convenience of changes to sportsground and park availability due to wet weather in accordance with Hornsby Shire Sports Council Adopted Written Procedures.<br>■ User groups make a determination as to whether a ground is suitable for weekend play where rain occurs after close of business on Fridays and will be responsible for any resulting ground damage<br>■ Maintain a 'Wet Weather Line' to allow users 24 hours a day, 7 days a week access to information on ground availability affected by weather. | MPR (PAT / PSU) | O | ■ 90% satisfaction as measured by the 'to be implemented' end of season user survey.<br>■ Wet Weather Line 100% accurate at all times. |

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| 10.1B Notification of Works | | | | |
| User groups will be notified of the need to cancel events due to major maintenance or capital works.<br><br>Residences / businesses / park users will be notified of any proposed works which may impact on them. | ■ Notify user groups at the earliest possible convenience of changes to sportsground and park availability due to major maintenance or capital works.<br>■ Give residents / businesses/ park users 48 hours notice in writing of any proposed work that will affect them detailing location, date and time of work, unless otherwise directed. | MPR (PAT / PSU) | O | ■ Major user groups are always notified of major maintenance or works that will impact upon the use of the park or oval.<br>■ Residents / businesses are notified in accordance with the Service Level Agreement. |

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| **10.2 Protecting the Natural Environment** | | | | |
| 10.2A Use of Pesticides | | | | |
| The use of pesticides in parks and sportsgrounds will be kept to a minimum to comply with the relevant codes of practice and legislation to minimise any health effects and / or impacts on the environment.<br><br>Broad leaf, grass weeds and grass like weeds are effectively kept under control and / or eliminated. | ■ Use of pesticides will comply with the relevant codes of practice and a safe work method statement<br>■ Undertake notification of pesticide applications through a pesticide notification plan<br>■ Use minimum toxicity sprays for treating weeds in parks and sportsgrounds and spray when desirable grasses are dormant.<br>■ Selection of appropriate grass species<br>■ Staff utilising herbicides are to be suitably qualified and / or trained.<br>■ Utilise quality integrated turf management practices on sportsgrounds to develop vigorous dense turf to minimise weed infestation and turf pests and diseases.<br>■ Weed control to be implemented as funding allows.<br>■ Selection of low toxicity linemarking products. | MPR (PAT / PSU) | O<br>O<br>S<br>O<br>O<br>O<br>O<br>O | ■ Pesticide use is minimised and complies with the relevant codes of practice.<br>■ Programme for treating weeds is improved through application timing and methods.<br>■ Appropriate grass species are selected.<br>■ Staff utilising herbicides are suitably qualified and / or trained.<br>■ Integrated turf management practices are implemented on sportsgrounds.<br>■ Linemarking materials do not damage turf.<br>■ Legislation, plans and safe work method statements are followed. |

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| 10.2B Use of Fertilisers | | | | |
| Fertilisers are applied to maintain a safe, wear resistant playing surface. | ■ Sportsgrounds and gardens are fertilised with appropriate fertiliser at best possible application times.<br>■ Annual soil analysis tests are carried out for selected sportsgrounds to determine nutrient requirements.<br>■ Fertilising program is implemented each year for each sportsground.<br>■ Plant species are chosen for low fertiliser requirement where appropriate. | MPR (PAT / PSU) | O | ■ Sportsgrounds and gardens are fertilised in an environmentally sustainable manner. |
| 10.2C Erosion Control | | | | |
| Erosion control measures are implemented for works where there is potential for erosion of exposed soil. | ■ All activities resulting in exposed soil are to be assessed for potential erosion of exposed soil into a watercourse.<br>■ Where potential for erosion is identified, erosion control measures are to be implemented. | MPR (PAT / PSU) | O | ■ Activities resulting in exposed soil are assessed. |
| 10.2D Gardens – Species Selection | | | | |
| Plant species used in parks and sportsgrounds adjoining bushland are to be compatible with the natural areas and habitat requirements. | ■ Use indigenous plants or other non-invasive species in garden areas of parks and sportsgrounds adjoining bushland. | MPR | O | ■ Indigenous plants or other non-invasive species are used in garden areas where adjoining bushland |

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| **10.3 Availability of Facilities and Grounds** | | | | |
| 10.3A Parks Booking Service | | | | |
| During normal business hours a responsive booking service will be available. | ■ Ensure a booking officer or other Council staff member will be available between 8.30am and 5.00pm to take booking details and answer enquiries. | MPL | ST | ■ Booking service is always available during Council's business hours. |
| **10.4 Maintenance of Facilities and Grounds** | | | | |
| 10.4A General Maintenance of Parks and Sportsgrounds | | | | |
| Sportsgrounds and parks will be maintained in a safe and aesthetically pleasing condition consistent with the type of recreational use. | ■ Undertake routine safety and suitability inspections and maintenance.<br>■ Sports grounds are marked before the days play to the sporting codes specifications and standards.<br>■ Maintenance passes include checks of recreational facilities within parks. | MPR<br>MPR<br>MPR | O<br>O<br>O | ■ Carry out maintenance operations in accordance with external contract or internal Service Level Agreements.<br>■ Grounds are always correctly marked and ready for the identified sporting code before the day of play.<br>■ Requests for maintenance are responded to or actioned within 12 working days.<br>■ Turf on sportsgrounds is maintained at a height of 75mm or less, bare areas repaired following the winter season and weeds controlled where budget allows. |

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| 10.4B Level of Service | | | | |
| Parks and sportsgrounds will be provided with a level of service treatment consistent with the level of community use. | ■ Level of service grading will be allocated on a reserve by reserve basis as high, medium or low, which is generally daily for high, monthly or fortnightly for medium and quarterly or as requested for low. This frequency may be changed according to weather or budget constraints. | MPR | O | ■ Maintenance is implemented in accordance with Service Level Agreements. |
| 10.4C Upkeep of Amenities | | | | |
| Amenities, including toilets, showers and change rooms, will be made available at all sportsgrounds in a safe and aesthetically pleasing condition.<br>Amenities will be provided in major Parks where appropriate. | ■ Monitor amenities to ensure they are available in an acceptable condition.<br>■ Assess the need for amenities in sportsgrounds and parks that do not provide these services. | MPR<br>MPR | O<br>O | ■ Facilities are available at all identified major grounds in a safe and acceptable condition at all times.<br>■ Amenities constructed as required. |
| 10.4D Sportd and ball courts | | | | |
| Courts will be maintained in a useable and safe condition. | ■ Courts are clearly marked for the sporting codes played on them.<br>■ Damaged surfaces, nets, fencing and poles will be replaced | MPR (PAT / PSU) | O<br>O | ■ Requests for maintenance are responded to or actioned within 12 working days.<br>■ Maintenance is implemented in accordance with Service Level Agreements. |

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| 10.4E Barbecues | | | | |
| Barbecues in parks and sportsgrounds will be clean and operable. | ■ Barbecues will be cleaned once a week | MPR (PAT / PSU) | O | ■ Barbecues are operable 95% of the time.<br>■ Requests for maintenance are responded to or actioned within 12 working days.<br>■ Maintenance is implemented in accordance with Service Level Agreements. |
| 10.4F Fences | | | | |
| Park and sportsground fencing will be maintained in a safe condition. | ■ Replace damaged fencing as required.<br>■ Council is not required to build, maintain or contribute towards dividing fences between parks or sportsgrounds and adjoining private properties. | MPR (PAT / PSU) | O | ■ Requests for maintenance are responded to or actioned within 12 working days.<br>■ Maintenance is implemented in accordance with Service Level Agreements.<br>■ Council will not contribute towards dividing fences on park boundaries unless council deems that there is a community interest reason to do so |
| 10.4G Taps and Bubblers | | | | |
| Taps and bubblers in parks and sportsgrounds will be operational. | ■ Reports of leaking taps or bubblers will be responded to promptly. | MPR (PAT / PSU) | O | ■ Requests for maintenance are responded to or actioned within 3 working days. Maintenance is implemented in accordance with Service Level Agreements |

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| 10.4H Signs | | | | |
| Signs are legible and are erected in highly visible locations within parks and sportsgrounds. | ■ Install signs in highly visible locations.<br>■ Replace damaged / vandalised signs where they have been rendered illegible. | MPR<br>(PAT / PSU) | O<br>O | ■ Signs are visible.<br>■ Damaged signs are replaced as required. |
| 10.4I Playgrounds | | | | |
| Council will comply with the Australian Standards for playspaces and play equipment. | ■ Design and maintain playspaces and play equipment to relevant safety standards.<br>■ Provide equity of access to play facilities and experiemces wherever possible.<br>■ Undertake safety inspections and regular maintenance.<br>■ Manage playgrounds according to asset management principles. | MPR<br>(PAT / PSU) | O<br>O<br>O<br>O | ■ Safety in playspaces and for playground equipment is upheld to Australian Standards (AS 1924, AS 4422 and AS 4486).<br>■ Maintenance is implemented.<br>■ Comprehensive inspections are undertaken on a quarterly basis.<br>■ Ensure that playgrounds are managed through their life cycle and replaced at the end of it only if the replacement best meets community needs and council's economic viability. |

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| 10.4J Tree Maintenance Standards | | | | |
| Trees in all categories of community land and crown land are maintained by suitably qualified and / or trained personnel in accordance with the Service Level Agreement and Australian Standards. | ■ Tree works are carried out in accordance with Work Cover Code of Practice: Amenity Tree Industry 1998 and conform to AS 4373 – 1996.<br>■ All work is to be undertaken in accordance with the specifications in the internal Service Level Agreements or external contracts.<br>■ Staff are to appropriately trained for the tasks they perform.<br>■ Trees are underpruned to remove obstruction to footpaths, roadways, traffic visibility, electric power lines, lighting, private and public driveways or crossings (to minimum 3 m).<br>■ Trees are pruned to provide minimum 1m / optimum 3m clearance from property roof, guttering, and walls without affecting the natural form of the tree.<br>■ Trees in reserves are removed of deadwood with a diameter above 15 - 20mm. | MPR (PAT / PSU) | O | ■ Tree work is carried out in accordance with relevant standards and codes.<br>■ Staff training programs implemented as required.<br>■ Work is implemented in accordance with specifications in the Service Level Agreement.<br>■ Obstructions from trees on community land are minimised. |

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| 10.4k Floodlight Standards | | | | |
| Sportsground floodlights will be upgraded according to Australian Standards and to the most energy efficient means of operation | ■ Floodlights not meeting Australian Standards will be progressively upgraded as funding permits<br>■ Floodlight luminaires will be the most energy efficient fittings capable of meeting standards<br>■ Control systems will be manual switch -on, timer switch-off, or remotely controlled, and adjusted seasonally according to ground allocations<br>■ Lights will be checked, cleaned and aimed annually | MPR / PAT | O | ■ Floodlights are 90% operational and progress is made within any five-year capital funding period towards upgrading lights not meeting standards |

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| 10.4L Irrigation system standards | | | | |
| Irrigation systems will be maintained to maximise water efficiency | ■ Irrigation systems will be checked and repaired regularly for leaks and malfunctioning fittings<br>■ Control systems will be adjusted for prevailing weather patterns<br>■ Remote controls will be extended where funding permits<br>■ Stormwater harvesting systems and other independent water supply systems will be provided as funding permits<br>■ Subsurface irrigation systems will be considered where new systems are installed<br>■ Park and oval construction methods aimed at reducing water reliance will be used in designs | MPR / PAT | O | ■ Irrigation systems will be upgraded to a minimum 75% efficiency standard as funding permits<br>■ Progress will be made towards reducing reliance upon potable water supplies for irrigation |

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| **10.5 Risk Management** | | | | |
| 10.5A Sportsgrounds | | | | |
| Parks and Recreation Team and sportsground users are responsible for checking the risk management aspects of sportsgrounds. | ■ Parks and Recreation to check sportsgrounds on a regular basis in accordance with the internal Service Level Agreement.<br>■ Users are required to check grounds immediately prior to use to determine if appropriate for play as part of their licence conditions. | MPR (PAT / PSU)<br>SU | O<br>O | ■ Sportsgrounds are checked regularly by Parks and Recreation Team in accordance with the Service Level Agreement.<br>■ Users are aware of their responsibility to check sportsgrounds for safety prior to play. |
| 10.5B User Groups Public Liability | | | | |
| Sports clubs, school and other organised groups using parks and sportsgrounds have appropriate public liability cover as required by Council. | ■ Appropriate levels of cover are determined through consultation with the Risk and Insurance Manager.<br>■ Ensure user groups have appropriate insurance cover as required, before grounds allocation. | MPR / MRI | O<br>O | ■ Risk and Insurance Manager is consulted.<br>■ Organised user groups have appropriate insurance cover prior to using facilities in parks and sportsgrounds. |
| **10.6 General Use: Dogs, Fireworks, Fairs** | | | | |
| 10.6A Dogs | | | | |
| Encourage responsible exercising of dogs within parks and provide off leash dog exercise areas where appropriate. | ■ Notices are erected in parks and sportsgrounds regarding responsibility of dog owners.<br>■ Provide a number of leash free dog runs in appropriate parks and sportsgrounds.<br>■ Following investigations, Reserves notices are amended if required to allow for provision of leash free dog runs. | MPR<br>MPR<br>MPR | S<br>M<br>M | ■ Reserves notices are erected in parks and sportsgrounds.<br>■ Council consider provision of leash free dog runs in appropriate parks.<br>■ Reserves notice is amended if required to allow for leash free dog run. |

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| 10.6B Use of Fireworks in Reserves | | | | |
| Use of fireworks within parks and sportsgrounds comply with Council and Work Cover requirements for such activities. | ■ Proposals for fireworks displays have Council's development consent where necessary and Work Cover Authority consent. | P / HSC | O | ■ Proposals have approved Development Applications and approval from Work Cover Authority as required. |
| 10.6C Circuses, Fetes and Fairs | | | | |
| Circuses, fetes and festivals within parks and sportsgrounds comply with Council's requirements for certification and insurance. | ■ Ensure any circus, fete or festival has the appropriate certification for amusement equipment and insurance as required by Council's Risk and Insurance Manager. | MPR<br>MPR /MRI | O<br>O | ■ Licences for circuses, fetes and fairs are only granted to applicants with appropriate certification and insurance. |

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| **10.7 Use for Access or Storage for unrelated purposes** | | | | |
| 10.7A Aircraft and Vehicular Access and material storage | | | | |
| Restrict access into parks and sportsgrounds to maintenance and emergency vehicles as required. | ■ Prevent general aircraft and vehicular access to unauthorised areas of parks and sportsgrounds by use of fencing and gates.<br>■ Provide opportunities for access of maintenance and emergency vehicles as required.<br>■ Aircraft landings restricted to emergency services and occasional approved community fundraising events.<br>■ Use of parks and sportsgrounds for temporary storage of materials for construction or maintenance of public utilities and roads may be permitted in the absence of practical alternatives and where the impact upon the parks and reserve or adjoing land and waters is addressed | MPR | O | ■ General vehicular and aircraft access into parks and sportsgrounds is restricted.<br>■ Emergency and maintenance vehicle and aircraft access is provided as required.<br>■ Use of parks and sportsgrounds for temporary storage of materials for a public utility or road purposes will be infrequent, only where no practical alternative exists, and done so as to manage all impacts. |

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| **10.8 Community and Neighbour Issues** | | | | |
| 10.8A Boundary Management | | | | |
| Encourage good neighbour relations with surrounding properties while ensuring private use of community land only occurs in accordance with the guidelines established in the Local Government Act. | ■ Respond promptly to complaints from adjoining properties where complaints relate to use of parks and sportsgrounds.<br>■ Inform adjoining landholders of requirements of Local Government Act to prevent private use of community land.<br>■ Consult with sporting groups where negative impacts are directly associated with their use. If negative impacts associated with a particular group continue, consider reallocating fields to other sports. | MPR<br>MPR<br>MPR | O<br>S<br>O | ■ Adjoining properties are informed of legal limitations regarding private use of community land.<br>■ Sporting groups are given opportunity to address problems internally before Council considers reallocation of ground. |
| 10.8B Community Advertising | | | | |
| Allow opportunity for community advertising within parks and sportsgrounds. | ■ Comply with requirements of Exempt and Complying Development DCP for signs, sign displays, community banners and notices.<br>■ Ensure signage complies with the Outdoor Advertising DCP in relation to Community Advertising where required.<br>■ Remove signage which does not comply with the DCP. | MPR<br>MPR<br>MPR | O<br>O<br>O | ■ Only complying signs and banners are displayed in parks and sportsgrounds.<br>■ Advertising signage complies with the Outdoor Advertising DCP as required.<br>■ Illegal signs are removed. |

# 11.0 Action Plan for Areas of General Community Use

## 11.1 Standard of Community Centres

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| 11.1A Halls and Equipment | | | | |
| Centres / facilities will be available for use by the community at an acceptable standard. | ■ Council will ensure that halls and equipment are inspected on a regular basis | MC / MCS | O | ■ Regular asset inspections by Council. |

## 11.2 Equity and Access to Community Centres/ Other Community Assets and Facilities

| | | | | |
|---|---|---|---|---|
| 11.2A Access | | | | |

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| Centres / facilities are available for use by all sections of the community. | ■ Hiring policies of Centres / facilities are inclusive.<br>■ Removal of barriers to access by people with disabilities and strollers. | MCS<br>MCS | O<br>O | ■ No restrictive clauses in hiring conditions.<br>■ Centres / facilities and amenities are wheel chair accessible. |
| 11.2B Equity | | | | |
| Council will provide fair and equitable opportunities to community facilities for community groups | ■ Leases and licences are considered where activities comply with the core objectives of the Local Government Act (s.36E – 36N) and the zoning as set out in the Hornsby Shire LEP.<br>■ Leasing and licensing of community facilities will be in accordance with Council's Policies CSISAS 12 – Delegation of Authority to Grant Lease / Licence Agreements, CSISAS 13 – Use of Council Buildings by Kindergartens and CSISAS 14 – Lease/ Licence of Council Land), and/or any relevant, adopted strategic plan or policy.<br>■ Council will call for Expressions of Interest for leasing and licensing where appropriate. | MCS /MCC<br>MCS /MCC<br>MCS /MCC | O | ■ Leases and licences are granted only where activities comply with the core objectives of the Local Government Act and with the Hornsby Shire LEP.<br>■ Leases and licences are granted in accordance with Council Policies CSISAS 12, CSISAS 13 and CSISAS 14, and/or any relevant, adopted strategic plan or policy.<br>■ Expressions of Interest are called for by Council where appropriate. |
| 11.3 Fees and Audit | | | | |

| Management Statement | Action | Mgt. Team | Timeframe | Performance Measure |
|---|---|---|---|---|
| 11.3A Fees and Charges | | | | |
| Fees charged are fair and reasonable. | ■ Fees charged for the use of Community Centres / facilities are equivalent to those charged for similar facilities. | MC / MCS | O | ■ Fees are submitted for review by Council each year. |
| 11.3B Auditing | | | | |
| No profits shall be made from the operation of Centres / facilities. | ■ Income and expenditure of Community Centres are reviewed on a regular basis by Council and accounts forwarded to the Finance Branch. | MC / MCS / MF | O | ■ Audit of Income and Expenditure |
| **11.4 Risk Management** | | | | |
| 11.4A Community Centres/ Facilities | | | | |
| Centres / facilities are maintained at legally prescribed safety standards. | ■ Periodic review and inspection of Community Centres by Council. | MC / MCS / MRI | O | ■ Risk and safety audits completed successfully. |
| 11.4B Other Community Assets | | | | |
| Other community assets / facilities are maintained at legally prescribed safety standards | ■ Periodic review and inspection by asset managers. | MA | O | ■ Risk and safety audits completed successfully. |

## 12.1 Appendix 2:

### Park Rules Notice



ITEM 5

# ATTACHMENT/S

## REPORT NO. CE18/26

## ITEM 5

**1. HORNSBY SHIRE COUNCIL - GROWING AN UNDERSTANDING OF VALUES OF TREES AND ATTITUDES FOR LOCAL TREES**

ATTACHMENT 1 - ITEM 5



RESEARCH REPORT

# Hornsby Shire Council Tree Research

## Growing an understanding of values and attitudes for local trees

July 2025

HORNSBY SHIRE COUNCIL

Taverner RESEARCH GROUP

RESEARCH REPORT

# Hornsby Shire Council Tree Research

## Growing an understanding of values and attitudes for local trees

July 2025

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## CONTENTS


1. EXECUTIVE SUMMARY 6

2. BACKGROUND AND METHODOLOGY 8

2.1. Background 8
2.2. Computer-Assisted Telephone Interviews 8
2.3. Focus Groups 8
2.4. Historical Context 9
2.5. Demographics 9

3. UNDERSTANDING COMMUNITY ATTITUDES 10

3.1. Hornsby Resident Tree Values 10
3.2. Focus Groups – Tree Values 13
3.3. Tree Volume in Hornsby Shire 15
3.4. Planning and Management of Trees in Public Areas 17
3.5. Focus Groups – Planning and Management of Trees 18
3.6. Management And Regulation of Trees on Private Land 21
3.7. Focus Groups – Council Policy on Tree Removal 23
3.8. Personal Experience 26
3.9. Storm and Other Major Weather Events (2025 only) 30
3.10. Focus groups – Dealing with Storm Damage 31

4. APPENDIX 1 – CATI QUESTIONNAIRE 33

5. APPENDIX 2 – DISCUSSION GUIDE 43

## FIGURES


| | |
|---|---|
| **Figure 1** Tree Values - Part 1 (2025) | 10 |
| **Figure 2** Tree Values - Part 2 (2025) | 12 |
| **Figure 3** Number of trees (2025 vs. 2021) | 15 |
| **Figure 4** Should Council be addressing reduction in tree cover? (2025 vs. 2021) | 16 |
| **Figure 5** Planning and management of trees (2025) | 17 |
| **Figure 6** 2025 Management and regulation of trees on public land (2025) | 21 |
| **Figure 7** Suggestions or ideas | 23 |
| **Figure 8** Removal of trees (2025 vs. 2021) | 26 |
| **Figure 9** 2025 Reasons for tree removal (2025) | 27 |
| **Figure 10** Were trees replaced (2025 vs. 2021) | 28 |
| **Figure 11** Reasons trees were replaced (2025) | 28 |
| **Figure 12** Reasons trees were not replaced (2025) | 29 |
| **Figure 13** Can Council recover clean-up costs from residents after storms | 30 |
| **Figure 14** How should recovery costs be managed | 31 |

## TABLES


| | |
|---|---|
| **Table 1** Demographic breakdown of respondents | 9 |
| **Table 2** Tree Values Part 1 (2025 vs. 2021) | 11 |
| **Table 3** Tree Values Part 2 (2025 vs. 2021) | 13 |
| **Table 4** Tree Values Part 3 (2025 vs. 2021) | 18 |
| **Table 5** Management and regulation of trees on public land (2025 vs. 2021) | 22 |
| **Table 6** Reasons for tree removal (2025 vs. 2021) | 27 |
| **Table 7** Reasons trees were replaced (2025 vs. 2021) | 29 |
| **Table 8** Reasons trees were not replaced (2025 vs. 2021) | 30 |

## 1. EXECUTIVE SUMMARY

This research study, comprising a random telephone survey of 300 adult residents and three resident focus groups, was commissioned by Hornsby Shire Council as part of its Urban Forest Strategy.

The research was designed to benchmark community attitudes and values regarding trees within the LGA (public and private land) across three wards – especially given demographic changes since the last such survey in 2021.

In 2021, the survey was conducted via an online panel of Hornsby Shire community members who had registered an interest in trees/ environment – which may have influenced the results. In contrast, the random/ representative nature of the 2025 research via CATI (telephone) means these results should reflect more the views of an "average" resident, and to within a defined margin of sampling error.

**Among the key findings:**

### CATI/Telephone survey

1. **Residents strongly value the role that trees play in making Hornsby very much a "green" shire**. The three values that Hornsby Shire residents surveyed agreed the most with were: "Trees support local biodiversity and habitat for wildlife" (97% agree or strongly agree), "Trees are an important part of my local area character (96%)", and "Trees provide colour and shade from the hard concrete urban environment" (95%).
2. **However there was a reduction in agreement that "Trees add value to my home** – falling from 77% in 2021 to 65% in 2025.
3. **There was an inherent contradiction between collective desire for tree cover and individual autonomy over one's trees.** For example, 70% agreed that "The trees in my own yard are important to Hornsby's urban forest" – while 60% agreed that "I should be able to do what I like with trees in my own yard".
4. **There were also some interesting demographic differences in the 2025 value statements.** For example, CALD residents of Asian heritage were nearly twice as likely to agree that "Trees require too much looking after" compared to non-CALD residents. And 18-45 year-olds were significantly more likely than older residents to agree with the statement "I should be able to do what I like with the trees in my own yard."
5. Two-thirds of residents feel the current number of trees in the Hornsby shire is about right. **The proportion seeking greater tree cover has fallen since 2021, from 50% to 28%. Almost no-one wants to see less tree cover.**
6. 70% of respondents felt that Council and the community should be addressing the current reduction in tree cover.

## 1. EXECUTIVE SUMMARY

7. **Nine in ten residents agreed that Hornsby Shire's street trees provide benefits to the community.** And 97% agreed that trees in public parks provide similar benefits. However only 69% agreed Council should invest more funds to improve public trees.
8. **The proportion of residents feeling that Council should increase the number of street trees fell from 69% in 2021 to 57% in 2025.** And similarly, the proportion believing that Council should increase the number of trees in parks and reserves fell from 77% to 62%.
9. **Two in three residents agreed that both Council and the community are jointly responsible for fixing the decline in the number of trees on private land,** while 70% agreed that if a tree needs to be removed on private property and cannot be replaced, another should be planted nearby to offset the loss. **The proportion of residents feeling that Council should focus on tree planting in public spaces rather than on private land rose from 64% in 2021 to 76% in this latest survey.**
10. **44% of respondents said they had removed a tree from their property within the past decade – down from 52% in 2021.** Key reasons for removal were the tree being old or in poor health (31% of those removing trees) and concern limbs would fall (19%).
11. For those removing trees, 54% had replaced it with a new tree. For these people main drivers were aesthetics (25%), creating biodiversity (23%) and because Council told them to (20%).
12. For those not replanting trees, there was a wide variety of reasons – from "not enough space", to replacing it with other types of vegetation, to being unaware they had to, or because it was a landlord's decision.
13. In a new question for 2025, 47% of respondents agreed it was reasonable for Council to charge a levy after major storms for green waste clean ups (against 53% disagreeing).
14. Opinion was also evenly split on whether such a levy should be evenly spread across all households (39%) or on a user-pays basis (41%) – with the remainder unsure or offering different suggestions.

### Focus Groups

15. **The focus groups largely reinforced the survey findings. While participants were hugely proud of Hornsby's tree cover and its green credentials, they nonetheless felt (for the most part) that land owners should have greater rights to lop, prune or cull trees on their own (or sometimes neighbouring) properties.**
16. **There was also widespread discontent at perceived inconsistencies in Council policies on what could and couldn't be pruned or lopped.** This in turn led to negativity about process and/or policy – and even (in a few cases) reluctance to plant new trees.
17. Focus group attendees felt there needed to be clear, well communicated rules on what is and isn't permitted, greater education, and more faith in land owners to do the right thing – particularly in relation to perceived threats to life or property.
18. Largely as a result of the above points, **focus group participants were resistant to paying extra for storm damage clean-ups.** However, if such a levy were to be instituted, the strong feeling was that it should be applied equally to all households.

# 2. BACKGROUND AND METHODOLOGY

## 2.1. BACKGROUND

This research involved a random CATI (telephone) survey of 300 adult Hornsby residents, followed by three resident focus groups. The research was designed to:

1. Understand changes in values, attitudes and behaviours since 2021, when the last such wave of research was conducted
2. Measure how values and attitudes differed by age, gender, ward, cultural background etc.
3. Explore the contradiction between a high stated values for tree cover (generally) and the perceived 'rights' of landowners to prune or remove their own trees

For the CATI component, Taverner Research Group collected 300 completed responses by telephone from a random sample of adult residents in the Hornsby Shire Local Government Area (LGA).

For the focus groups, Taverner interviewed 19 locals who had taken part in the CATI research and agreed to take part in further research on the subject of trees. Three focus groups took place: the first two at Hornsby Central Library on the evening of June 30th, and the third online on the evening of July 7th. Groups last approximately 90 minutes.

## 2.2. COMPUTER-ASSISTED TELEPHONE INTERVIEWS

A telephone-based (CATI) survey was used to secure a response from 300 adult residents throughout Hornsby Shire (Ward A = 103, Ward B = 101 and Ward C = 96).

In total, 195 responses were collected from mobile phones (65% of the total telephone interviews). Interviews were conducted from 10th to 27th of June 2025 inclusive. Calls were made between 4.30pm and 8.30pm during weekdays. Thirty interviewers from Taverner's Surry Hills and Wollongong phone room conducted interviews over the course of the data collection period. The survey was implemented under Interviewer Quality Control Australia (IQCA) quality guidelines.

Median length of the telephone interviews was 16 minutes and 29 seconds.

Random sampling error for a survey of 300 adult residents is +/- 5.6% at the 95% confidence level. (This means that if the same survey was conducted 20 times using a different random sample, results should be representative of the target population to within +/- 5.6% in 19 of those 20 surveys.)

## 2.3. FOCUS GROUPS

Two in person focus groups, consisting of 12 Hornsby Shire residents were conducted on the 30th of June at Hornsby Central Library, starting at 4pm and 6pm. An additional online focus group was conducted on the 7th of July at 5pm. All groups lasted approximately 90 minutes and respondents received a $100 Giftpay for their time.

Participants were recruited from the telephone based (CATI) survey who agreed to be re-contacted to take part in a group discussion. Based on their answers to the questionnaire, they were classified as either a 'tree idealist' or a 'tree pragmatist'.

## 2. UNDERSTANDING COMMUNITY VALUES

A predetermined discussion guide was used to regulate the conversation in both focus groups and to ensure consistency of subject matter was discussed. The focus groups were recorded to assist with analysis, however participants views remained anonymous.

### 2.4. HISTORICAL CONTEXT

In 2021, Hornsby Shire Council conducted a community survey (n=319) via another research supplier. Participants to that survey completed the questionnaire using an online panel of Hornsby Shire community members who had registered an interest in trees/environment.

**Given the different methodologies, caution should be taken in interpreting differences between the 2021 and 2025 data. In particular, the "opt-in" nature of the 2021 research means the survey may have appealed more to people with a defined interest in trees – which may in turn have influenced the results.**

**In contrast, the random/representative nature of the 2025 research means that these results should reflect more the views of an "average" resident, and to within a defined margin of sampling error.**

### 2.5. DEMOGRAPHICS

The CATI survey as largely random in nature, though stratified by sub-region (to ensure a roughly one-third split among each of the three wards.). **Table 1**, below, shows the breakdown of respondents by age, gender, ward, CALD or non-CALD and home ownership status.

**Table 1** Demographic breakdown of respondents

| FACTOR | CATEGORY | % |
|---|---|---|
| Age | 18-45 | 22% |
| | 46-55 | 10% |
| | 56-65 | 17% |
| | 66-75 | 19% |
| | 76+ | 22% |
| Gender | Male | 47% |
| | Female | 53% |
| Ward | Ward A | 34% |
| | Ward B | 34% |
| | Ward C | 32% |
| CALD/Non-CALD | CALD | 22% |
| | Non-CALD | 78% |
| Own vs rent | Owned | 87% |
| | Rented | 13% |

# 3. UNDERSTANDING COMMUNITY ATTITUDES

## 3.1. HORNSBY RESIDENT TREE VALUES

### Six in ten residents strongly agree that trees support local biodiversity, and that they are an important part of their local area's character.

As shown in **Figure 1** below, the three values that Hornsby Shire residents surveyed agreed the most with were: "Trees support local biodiversity and habitat for wildlife" (97% agree or strongly agree), "Trees are an important part of my local area character (96%)", and "Trees provide colour and shade from the hard concrete urban environment" (95%).

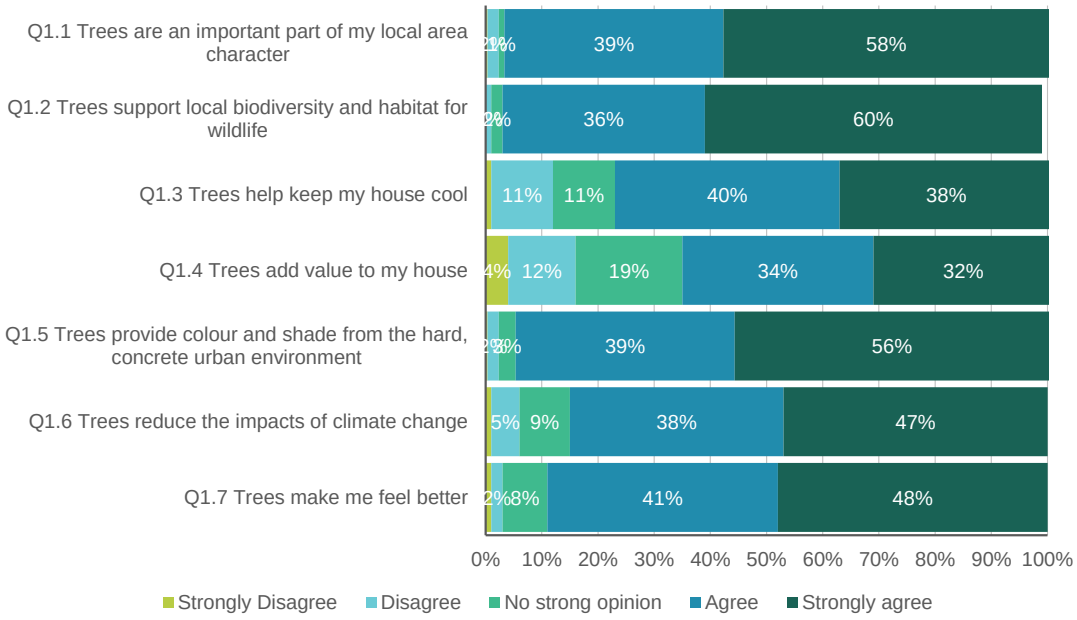
However all seven values were supported by the majority of residents, suggesting a strong affinity between residents and local trees.

The only statement for which value was somewhat divided regarded the role of trees in adding value to homes. But even here, 66% agreed while 16% disagreed.

**Figure 1** Tree Values - Part 1 (2025)

**Q1. This survey is about trees and tree cover in the Hornsby shire. Thinking about your values towards trees, please indicate whether you strongly agree, agree, have no opinion, disagree or strongly disagree to the following statements:**

**BASE: ALL RESPONDENTS (N=300)**




Males ranked slightly lower than females across all seven values. There was no noticeable difference between CALD/non-CALD, age or ward.

## 3. UNDERSTANDING COMMUNITY VALUES

**In 2025 only two out of three residents agreed that trees added value to their home. This compares with 2021, when three out of four residents agreed.**

**Table 2** Tree Values Part 1 (2025 vs. 2021)

| 2025 SAMPLE SIZE N=300 | | % AGREE | |
|---|---|---|---|
| | | 2021 | 2025 |
| Q1 Thinking about YOUR VALUES towards trees do you agree or disagree: Trees… | are an important part of my local area character | 95% | 96% |
| | support local biodiversity and habitat for wildlife | 96% | 97% |
| | help keep my house cool | 81% | 78% |
| | add value to my house | 77% | 65% |
| | provide colour and shade from the hard, concrete urban environment | 96% | 95% |
| | reduce the impacts of climate change | 86% | 85% |
| | make me feel better | 86% | 89% |

**While there was strong support for community responsibility to preserving tree cover, one in four residents agreed that trees pose too much risk in an urban environment and six in ten agreed that they should be able to do what they like with trees in their own yard.**

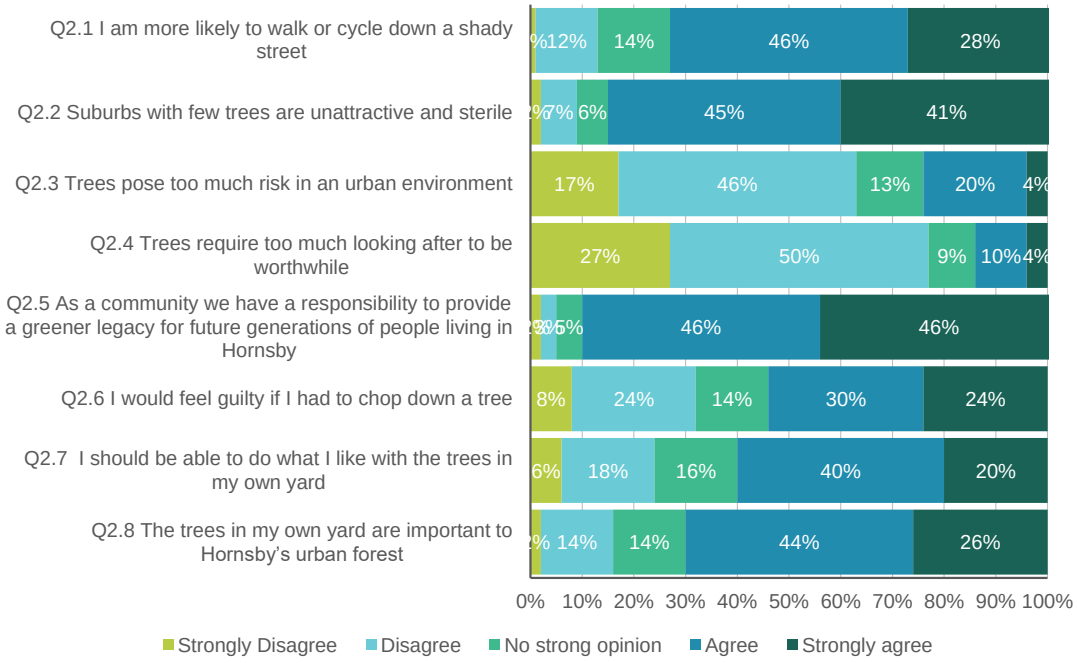
As shown in **Figure 2**, next page, Hornsby Shire residents surveyed strongly agree that "As a community we have a responsibility to provide a greener legacy for future generations of people living in Hornsby" (91%), "Suburbs with few trees are unattractive and sterile (86%)" and "I am more likely to walk or cycle down a shady street (74%)."

However, the inherent contradiction between collective desire for tree cover and individual autonomy over one's trees was apparent in the 70% who agreed that "The trees in my own yard are important to Hornsby's urban forest – while 60% agreed that "I should be able to do what I like with trees in my own yard".

## 3. UNDERSTANDING COMMUNITY VALUES

**Figure 2** Tree Values - Part 2 (2025)

**Q2. Still thinking about your values towards trees, please indicate to what extent you agree or disagree with the following statements:**
**BASE: ALL RESPONDENTS (N=300)**




CALD residents from an Asian heritage were nearly twice as likely to agree that "Trees require too much looking" after compared to non-CALD residents. 18-45 [1]year-olds were most likely to agree with the statement "I should be able to do what I like with the trees in my own yard". No noticeable difference was observed between the three wards.

[1]*Caution: Statement is based on a small sample size, N=21

## 3. UNDERSTANDING COMMUNITY VALUES

There were no significant differences in value scores for the second set of statements between 2021 and 2025.

**Table 3** Tree Values Part 2 (2025 vs. 2021)

| 2025 SAMPLE SIZE N=300 | | % AGREE | |
|---|---|---|---|
| | | 2021 | 2025 |
| **Q2 Thinking about YOUR VALUES towards trees do you agree or disagree** | I am more likely to walk or cycle down a shady street | 80% | 74% |
| | Suburbs with few trees are unattractive and sterile | 89% | 86% |
| | Trees pose too much risk in an urban environment | 16% | 24% |
| | Trees require too much looking after to be worthwhile | 9% | 14% |
| | As a community we have a responsibility to provide a greener legacy for future generations of people living in Hornsby | 89% | 91% |
| | I would feel guilty if I had to chop down a tree | 58% | 54% |
| | I should be able to do what I like with the trees in my own yard | 54% | 60% |
| | The trees in my own yard are important to Hornsby's urban forest | 73% | 70% |

### 3.2. FOCUS GROUPS – TREE VALUES

#### What do residents value about local trees and tree cover?

- Residents said they value local trees and tree cover for a multitude of reasons, reflecting both personal and communal benefits. **Firstly, trees are appreciated for their aesthetic and sensory contributions**. Residents enjoy the visual appeal of trees, particularly the changing colours with the seasons, which enhance the beauty of their walks and other interactions. This appreciation extends to the personal efforts some residents have made to plant trees in their own yards to maintain a colourful and vibrant environment throughout the year.
- Next, **trees were valued for their ecological benefits.** They provide habitats for wildlife, which residents enjoy observing, thus fostering a connection with nature. (Two participants were amateur beekeepers, and said tree cover was more important than flowers in maintaining a healthy bee population.) This connection is particularly important for families, as it offers educational opportunities for children to learn about local fauna and flora. A couple of participants believed that Council needed to maintain specific tree corridors to provide feeding connections for certain fauna. The presence of trees was also seen to contribute to a healthier environment by improving air quality and regulating local climate conditions, making the area cooler and more pleasant compared to more "urbanised" nearby LGAs.
- Residents also recognised the role of trees in **maintaining the character and identity of their community**. Hornsby's tree cover is seen as a defining feature of the Shire, distinguishing it from neighbouring LGAs that are perceived to be "more developed" or "less green". This sense of identity was important to residents, many of whom have chosen to live in the area specifically because of its natural surroundings and the lifestyle it supports.

## 3. UNDERSTANDING COMMUNITY VALUES

- Finally, there was some discussion of **the importance of trees to children**. Many residents remembered tree and forest play from their own childhood, and valued its importance in appreciating nature, fostering imagination and developing understanding of risk. A number said they had encouraged their own children to do the same (or were trying to!)

### Focus Group Quotes - Tree Values

**Trees support local biodiversity and habitat for wildlife**

- One stand of trees is much more protected because they protect themselves. A group of trees protects itself. As you slowly thin them out, the more singular trees are more susceptible to infestation. (FG2, Male, 66-75, Ward B)
- Bees get 90% of their pollen and nectar from trees rather than flowers. (FG1, Female, 46-55 Ward B)

**Trees are an important part of my local area character**

- I feel that if people are moving into this area because it's a bushland area, then you've got an obligation to look after that bush. (FG1, Female, 66-75, Ward A)
- For me, trees are really important. I also have a five-year-old who is overly energetic and going to the park and being around trees. (FG1, Male, 36-45, Ward A)
- So, love the area, love the community, and love the trees. (FG1, Male, 66-75, Ward B)
- I think personally for me, the fact that I live in Berowra, so I purchased in Berowra, and I'm surrounded by bushland, national park, things of that nature. (FG2, Male, 36-45, Ward A)

**Trees reduce the impacts of climate change**

- How important they are to the soil biome, which is so important for just the health of the general ecosystem as well. (FG3, Male, 46-55, Ward A)
- Less runoff, less pollution into Hawkesbury River and all of our little inlets, etc. etc. And, it can absorb it and utilize it rather than waste it. (FG2, Female, 46-55, Ward A)

**As a community we have a responsibility to provide a greener legacy for future generations of people living in Hornsby**

- Over the last twenty-five years, we've done a lot of planting of natives to increase the bushland density in appropriate areas and things. We certainly enjoy all the bird life and associated wildlife and things, which is in the area as a result of all that. (FG1, Male, 66-75, Ward B)
- They've (Council) really helped with that supply of trees. We planted that. And now there's eucalypts on that area of land, which are 20, 25 meters tall. (FG1, Male, 66-75, Ward B)
- I reckon that if they provided some, even if it was a focus group, there are people who are retired or maybe interested or keen and have more time on their hands, volunteer groups that could get together and consult with residents. Asking them if council was willing to provide you with a tree, would you be interested, and have these conversations with residents and add a bit of education and choice. (FG3, Female, 56-65, Ward B)
- I remembered, two years ago, maybe three years ago, we got letters in our mailbox asking if we wanted trees planted on our nature strip. And that was all a council initiative, and you could

pick the tree you wanted on your nature strip, and they actually came and planted it all down our street. (FG2, Male, 36-45, Ward A)

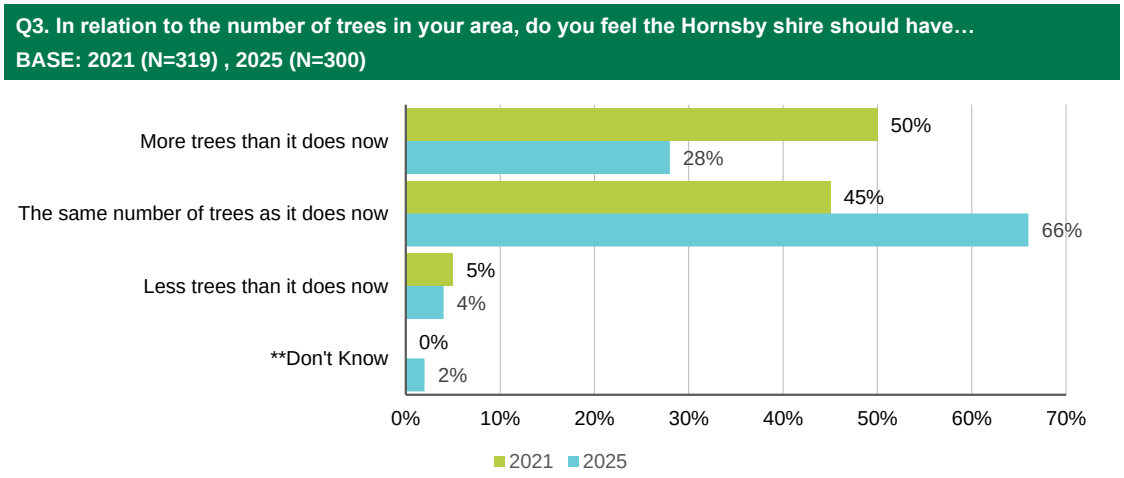
**I should be able to do what I like with the trees in my own yard**

- To be quite honest, I don't think I'd consult the council if I had to chop the tree down in my place. Why would I? (FG1, Male, 66-75, Ward A)
- I think that owners should have more autonomy too, and I feel that they probably do have, if they followed a submission process, that would be the correct way to go around it. (FG3, Female, 56-65, Ward B)
- Even a bush lover and a bush carer and look after the animals, can still have those moments where they need a tree cut down or trim or whatever and maybe can't. (FG2, Female, 46-55, Ward A)

## 3.3. TREE VOLUME IN HORNSBY SHIRE

**Above one in four residents felt there should be more trees in their area, with two in three feeling the current number is about right. However, this figure has almost halved since 2021. Virtually no-one (4%) was seeking less trees.**

**Figure 3** Number of trees (2025 vs. 2021)




** *This option was not offered in 2021*

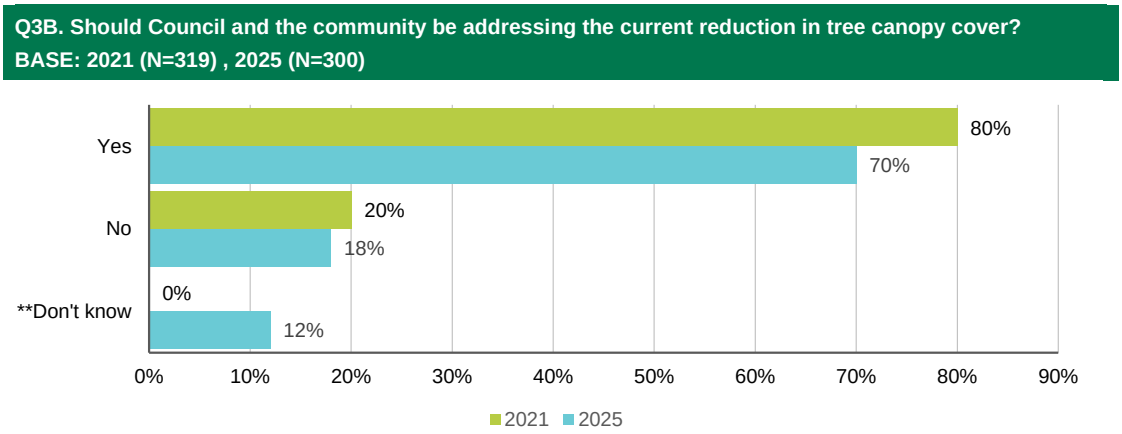
## 3. UNDERSTANDING COMMUNITY VALUES

In 2025, 29% of CALD Asian respondents felt Hornsby Shire should have less trees than it does now[2]. This compares with 2% of non-CALD residents.

Only 19% of Ward A responded with more trees than it does, compared with 33% for Ward B and 31% for Ward C. Younger respondents (18-45 year olds) were least likely to feel Hornsby Shire should have more trees than it does now (7%) whilst those aged 66-75 were most likely to feel that Hornsby Shire should have More trees than it does now (2%).

### Seven in ten residents believed Council and the community should be addressing the current reduction in tree canopy.

**Figure 4** Should Council be addressing reduction in tree cover? (2025 vs. 2021)




*** Don't know was not offered in 2021, hence these figures are not directly comparable*

CALD residents from an Asian heritage[3] were twice as likely to respond in the negative to this question compared with non-CALD residents (38% and 17% respectively). A slightly higher proportion of males compared to females also responded with No (23% against 15%).

[2] Caution: Statement is based on a small sample size, n=21

[3] Caution: statement is based on a small sample size, n=21

## 3. UNDERSTANDING COMMUNITY VALUES

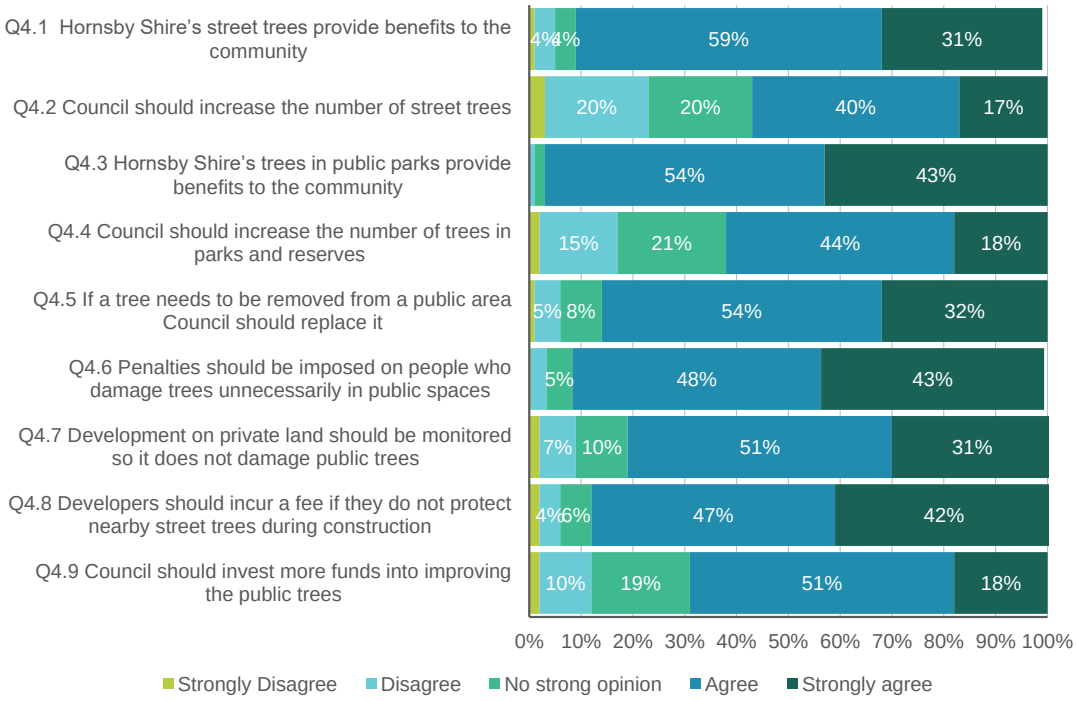
### 3.4. PLANNING AND MANAGEMENT OF TREES IN PUBLIC AREAS

**Nine in ten residents agree that Hornsby Shire's Street trees provide benefits to the community. And 97% agree that trees in public parks provide similar benefits. However only 69% agree Council should invest more funds to improve public trees.**

**Figure 5** Planning and management of trees (2025)

**Q4. Thinking about the planning and management of trees in public areas across the Hornsby shire e.g. Trees in streets, parks and public areas, please indicate whether you strongly agree, agree, have no opinion, disagree or strongly disagree to the following statements**

**BASE: ALL RESPONDENTS (N=300)**




No noticeable difference was observed between age, gender, wards or CALD and non-CALD residents.

## 3. UNDERSTANDING COMMUNITY VALUES

**In 2025 a lower proportion of residents surveyed agree that Council should increase the number of street trees (57%), increase the number of trees in parks and reserves (62%) or should invest more funds into improving the public trees (69%) compared to 2021.**

**Table 4** Tree Values Part 3 (2025 vs. 2021)

| 2025 SAMPLE SIZE N=300 | | % AGREE | |
|---|---|---|---|
| | | 2021 | 2025 |
| Q4 Thinking about the PLANNING AND MANAGEMENT OF TREES IN PUBLIC areas across the Hornsby Shire do you agree or disagree | Hornsby Shire's street trees provide benefits to the community | 89% | 90% |
| | Council should increase the number of street trees | 69% | 57% |
| | Hornsby Shire's trees in public parks provide benefits to the community | 95% | 97% |
| | Council should increase the number of trees in parks and reserves | 77% | 62% |
| | If a tree needs to be removed from a public area Council should replace it | 84% | 86% |
| | Penalties should be imposed on people who damage trees unnecessarily in public spaces | 90% | 91% |
| | Development on private land should be monitored so it does not damage public trees | 84% | 82% |
| | Developers should incur a fee if they do not protect nearby street trees during construction | 89% | 89% |
| | Council should invest more funds into improving the public trees | 82% | 69% |

### 3.5. FOCUS GROUPS – PLANNING AND MANAGEMENT OF TREES

#### What were residents' main concerns about trees?

- A significant concern among residents is **the safety risk posed by large trees, particularly during storms**. There are worries about trees being too close to houses, with the potential for falling branches or entire trees causing damage to property or posing a danger to residents. This concern is exacerbated by the perceived difficulty in obtaining council permission to remove potentially hazardous trees, especially large gum trees.

## 3. UNDERSTANDING COMMUNITY VALUES

- Residents expressed frustration with **the maintenance required due to trees, such as cleaning up fallen leaves and branches, which can be a daily chore.** There was also concern about trees affecting infrastructure, such as roots damaging footpaths and driveways, and trees interfering with power lines, leading to power outages. On resident noted that their property's tree cover had prevented them from installing solar panels on their home (though this was not a complaint, just an observation).
- There was a widespread perception that **council policies are overly restrictive, preventing residents from managing trees on their own properties effectively**. This includes difficulties in obtaining permission to remove or significantly trim trees that are deemed a risk or nuisance. Some residents argued that these restrictions discouraged them from planting new trees due to the potential future burden.
- There was **widespread concern about the impact of development on tree cover**, with some residents noting that new developments often lead to the removal of trees without adequate replacement. This contributes to a fear of losing the area's green character and canopy cover, which (as previously noted) is valued by the community.
- Residents highlighted **the need for better education and consultation regarding tree management**. They suggested that more informed choices about tree planting and maintenance could be made if residents were better educated about suitable tree species and their care. Additionally, there definitely appears to be an appetite for more community involvement in decisions about public tree planting to ensure that the species chosen are appropriate for the location and desired outcomes.
- Overall, while residents valued the presence of trees for their environmental and aesthetic benefits, **there was a clear desire for a more balanced approach to tree management that addresses safety concerns, maintenance burdens, and the impact of development, while also considering the rights and responsibilities of landowners**.
- (Interestingly many attendees argued that while they would deal responsibly with any loosening of pruning and removal restrictions, other residents would most likely exploit them! This backed up findings from the phone survey in relation to individual vs. community.)

### Focus Group Quotes - Planning and Management of Trees

**Council should increase the number of street trees**

- Perhaps if council sent out just a sheet of paper into the letter boxes saying, these are good trees to plant in your area to support our wildlife, only telling us that they only get to this height. (FG3, Female, 66-75, Ward C)
- But when they suddenly go planting eucalypts on the path, people go, we don't want that. (FG3, Female, 66-75, Ward C)
- I feel that a lot more people would probably be on board with it, if the tree was an appropriate type of tree to be planted under the power lines or on the nature strips. (FG3, Female, 56-65, Ward B)
- The one thing that we're finding in our area is that as the large canopy trees are dying off, particularly those that are on council land, well all over, but specifically council land for this

## 3. UNDERSTANDING COMMUNITY VALUES

question, they're not being replaced by large canopy trees, they're being replaced by small trees or shrubs. (FG2, Male, 66-75, Ward C)

- And really inappropriate for the streets. So, I noticed that a lot of them, people were either pulling them out or they were breaking them. (FG3, Female, 66-75, Ward C)

**Council should invest more funds into improving the public trees**

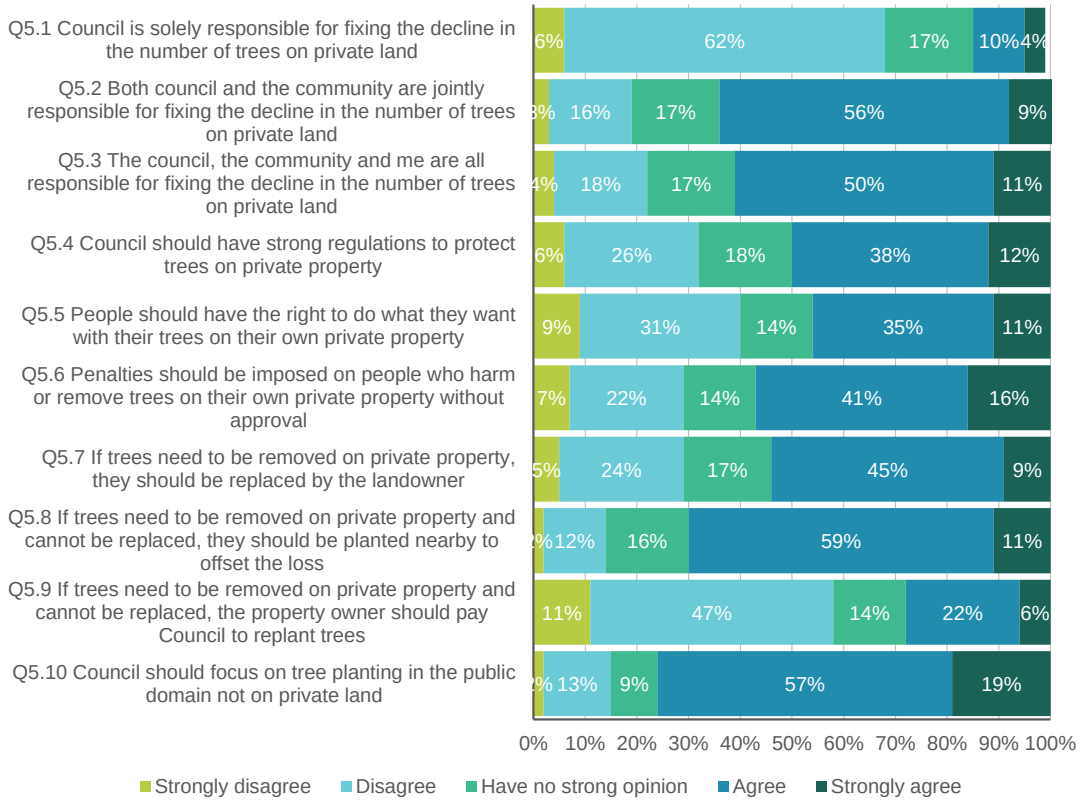
- I think the consultation engagement over that program was severely lacking. I'd be surprised if one in 30 of those trees are still here this day. (FG3, Male, 46-55, Ward A)
- And the other thing I would like to see, is the council come around a little more often, to pick up the leaves, the parkland areas and things like that. (FG1, Female, 66-75, Ward A)
- I think people need to take a bit of responsibility. And if you have something in your yard, you're responsible for looking after it. And, I think most people will do the right thing. But I think council needs to look after our public spaces. (FG3, Female, 66-75, Ward C)

## 3. UNDERSTANDING COMMUNITY VALUES

### 3.6. MANAGEMENT AND REGULATION OF TREES ON PRIVATE LAND

**Two in three residents agreed that both Council and the community are jointly responsible for fixing the decline in the number of trees on private land and seven in ten residents agreed if a tree needs to be removed on private property and cannot be replaced, they should be planted nearby to offset the loss.**

**Figure 6** 2025 Management and regulation of trees on public land (2025)




Ward B ranked the highest for seven out of 10 values compared to Ward A and C. Males were less likely to agree than females that If trees need to be removed on private property they should be replaced by the landowner.

## 3. UNDERSTANDING COMMUNITY VALUES

**In 2025 only six in ten residents agree that the Council, the community and me are all responsible for fixing the decline in the number of trees on private land compared to nearly three in four residents in 2021.**

**In 2025 three in four residents agree that Council should focus on tree planting in the public domain not on private land compared with only two in three residents in 2021.**

**Table 5** Management and regulation of trees on public land (2025 vs. 2021)

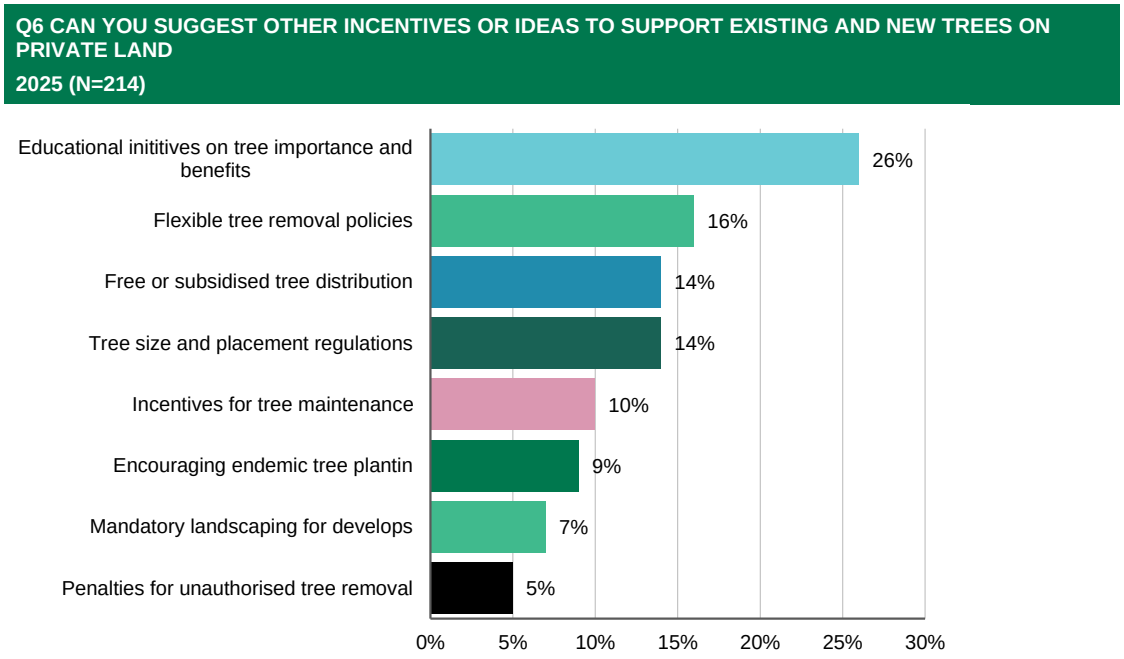
| 2025 SAMPLE SIZE N=300 | | % AGREE | |
|---|---|---|---|
| | | 2021 | 2025 |
| Q5 Tthinking about the MANAGEMENT AND REGULATION OF TREES ON PRIVATE land do you agree or disagree | Council is solely responsible for fixing the decline in the number of trees on private land | 21% | 14% |
| | Both council and the community are jointly responsible for fixing the decline in the number of trees on private land | 72% | 65% |
| | The council, the community and me are all responsible for fixing the decline in the number of trees on private land | 73% | 61% |
| | Council should have strong regulations to protect trees on private property | 51% | 49% |
| | People should have the right to do what they want with their trees on their own private property | 47% | 46% |
| | Penalties should be imposed on people who harm or remove trees on their own private property without approval | 56% | 57% |
| | If trees need to be removed on private property, they should be replaced by the landowner | 54% | 54% |
| | If trees need to be removed on private property and cannot be replaced, they should be planted nearby to offset the loss | 69% | 70% |
| | If trees need to be removed on private property and cannot be replaced, the property owner should pay Council to replant trees | 30% | 28% |
| | Council should focus on tree planting in the public domain not on private land | 64% | 76% |

## 3. UNDERSTANDING COMMUNITY VALUES

### Education was the most recommended theme to support existing and new trees on private land. A more flexible tree removal policy was also popular, together with free or subsidised tree.

(This was an open-ended question, for which responses have been themed into codes. The full range of comments will be made available to Council.)

**Figure 7** Suggestions or ideas




## 3.7. FOCUS GROUPS – COUNCIL POLICY ON TREE REMOVAL

### What changes would residents like to see in the way Council manages pruning and removal of local trees?

- Residents expressed a variety of changes they would like to see in **how Council manages the pruning and removal of local trees**. A significant concern was the balance between maintaining tree cover and ensuring safety. Residents suggested that the Council should be more proactive in replacing large canopy trees that are removed, particularly on Council land, with similar large species rather than smaller shrubs. This was seen as especially important in heritage-listed areas where the character of the street is defined by its tree cover.
- There was also a call for the **Council to consider planting native shrubs or smaller trees under power lines to maintain foliage and bird life without creating safety hazards**. Residents appreciated the aesthetic and ecological benefits of trees but were concerned about the risks posed by large trees, particularly in storm events. They suggested that the Council

should conduct regular maintenance and pruning to minimise these risks, similar to the practices of electricity companies.

- Another area of concern was the **perceived inconsistency in Council policies regarding tree removal on private properties**. Residents felt that there should be clear guidelines and more autonomy for property owners to manage trees that pose a risk to their homes. They felt that the Council should provide more education and consultation opportunities to help residents understand their rights and responsibilities regarding tree management.
- Residents also expressed **a desire for incentives to encourage tree planting, such as providing free saplings or involving community groups in tree planting initiatives**. They believed that with proper consultation and education, more residents would be willing to plant and care for trees, contributing to the overall canopy.
- Finally, there was a suggestion for the Council **to improve communication and transparency regarding tree management policies.** Residents would like to see open forums and more accessible information about the processes and criteria for tree removal and replacement. This would help alleviate tensions between landowners and the Council and ensure that everyone is working towards the common goal of maintaining a healthy and safe tree canopy.

### Focus Group Quotes – Management and Regulation on Private Land

**Council should have strong regulations to protect trees on private property**

- I think it just relates back to policy, it's not a thought thing, if there's policy in play, it's a strong enough policy, that's all that matters. (FG2, Female, 46-55, Ward A)
- The development should fit the block, not the block fit the development. (FG2, Male, 66-75, Ward C)
- And that's a bit of a touchy hard subject because how do you manage that? If you release it too much, people will just chop everything down if that's what they see fit. (FG3, Male, 46-55, Ward A)
- I think there needs to be a little bit more autonomy, but there needs to be, obviously, some sort of education to support that as well. (FG3, Male, 46-55, Ward A)
- Like if you apply it to other scenarios outside of tree removal and development etc, etc.it holds the same weight, like I can't commit a crime on my land without having repercussion, right? (FG2, Male, 36-45, Ward A)

**Penalties should be imposed on people who harm or remove trees on their own private property without approval**

- But that penalty has to be worth/ justified. I was reading something just recently where the developer has built in a contingency for being fined for knocking down the trees because it's only a few grand a ton. (FG2, Male, 66-75, Ward C)
- I hate to say this, but why should I have to apply to the council to chop a tree down on my own land? (FG1, Male, 66-75, Ward A)
- I'd agree. I think there needs to be a little bit more autonomy, but there needs to be, obviously, some sort of education to support that as well. (FG3, Female, 56-65, Ward B)

## 3. UNDERSTANDING COMMUNITY VALUES

- I think if somebody has planted a tree, my mother-in-law, and it's now 30 meters tall, and it's a risk, we should be able to take that tree out. (FG1, Male, 66-75, Ward B)
- See along the lines of something like if it can be replaced on the property where it came from, obviously, that is ideal. But perhaps something along the lines of if you've got an option to sponsor a tree replacement elsewhere within the council, if it's not ideal to put a tree in your area or in your land. (FG3, Male, 46-55, Ward A)
- Perhaps it should be a halfway measure where people who have large trees, like your trees and our trees and things, we should be able to take those out. But we should be obligated to maintain a level of tree canopy with perhaps smaller trees. (FG1, Male, 66-75, Ward B)

**If trees need to be removed on private property and cannot be replaced, the property owner should pay Council to replant trees**

- See along the lines of something like if it can be replaced on the property where it came from, obviously, that is ideal. But perhaps something along the lines of if you've got an option to sponsor a tree replacement elsewhere within the council, if it's not ideal to put a tree in your area or in your land. (FG3, Male, 46-55, Ward A)
- I think that as long as the tree comes out, the homeowner has to pay for an appropriate tree. It can be planted in a park. It can be planted on a nature strip approved by council. (FG3, Female, 66-75, Ward C)
- I think if they have to pay to replace two trees somewhere else, most people will do the right thing. (FG3, Female, 66-75, Ward C)

**Can you suggest other incentives or ideas to support existing and new trees on PRIVATE LAND?**

- It doesn't even have to be in a 'you must do this' in an educated way where it's actually, hopefully changing people's minds around it and the collective of Hornsby Shire rather than we are five people that like trees. (FG2, Female, 46-55, Ward A)
- But I think that maybe if we just had one leaflet, people might save it, put it on the fridge, and then when it comes to planting something, they know what to plant. (FG3, Female, 66-75, Ward C)
- I do think, though, that if the council let you choose your tree, plant your tree, and look after it in your yard without penalty, people would plant trees in the yard. (FG3, Female, 66-75, Ward C)

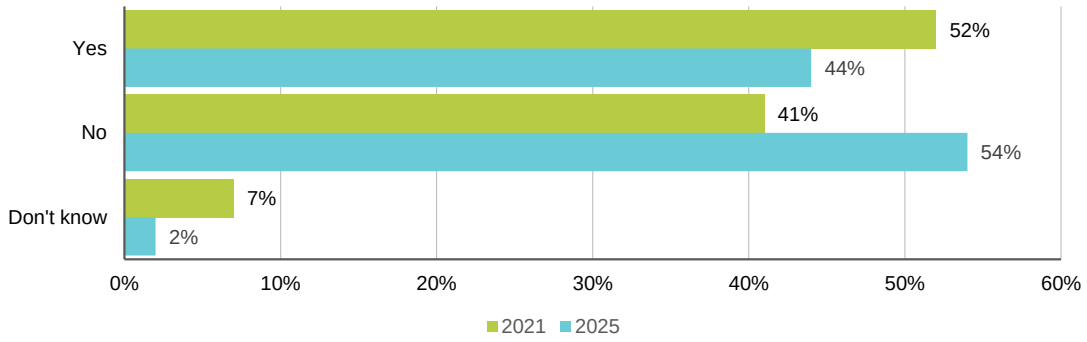
## 3. UNDERSTANDING COMMUNITY VALUES

### 3.8. PERSONAL EXPERIENCE

**Just under half of all residents surveyed removed a tree within the last 10 years. The most common reason was the Tree was old and/or in poor health (31%).**

**Figure 8** Removal of trees (2025 vs. 2021)

**Q7A Thinking now about your personal experience with trees on your property. To your knowledge, have any trees been removed from your property in the last 10 years?**
**BASE: 2021 (N=319) , 2025 (N=300)**




CALD residents of Asian heritage[4] were less likely to have removed a tree from their property in the last ten years, at 24%.

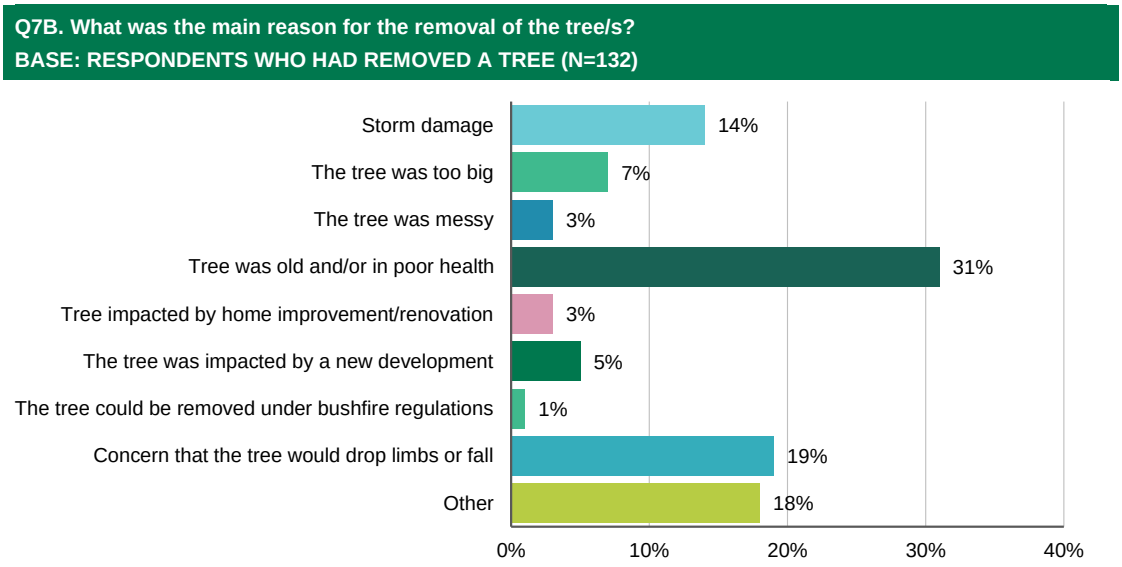
[4] Caution: Statement is based on a small sample size, n=5

## 3. UNDERSTANDING COMMUNITY VALUES

**Half of trees were removed because the tree was old and/or in poor health (31%) or concern that the tree would drop limbs or fall (19%).**

**Two thirds of "Other" related to damage of either the owner's property or that of a neighbour.**

**Figure 9** 2025 Reasons for tree removal (2025)




**In both 2025 and 2021, the most common reason trees were removed by residents surveyed was due because the tree being old and/or in poor health.**

**Table 6** Reasons for tree removal (2025 vs. 2021)

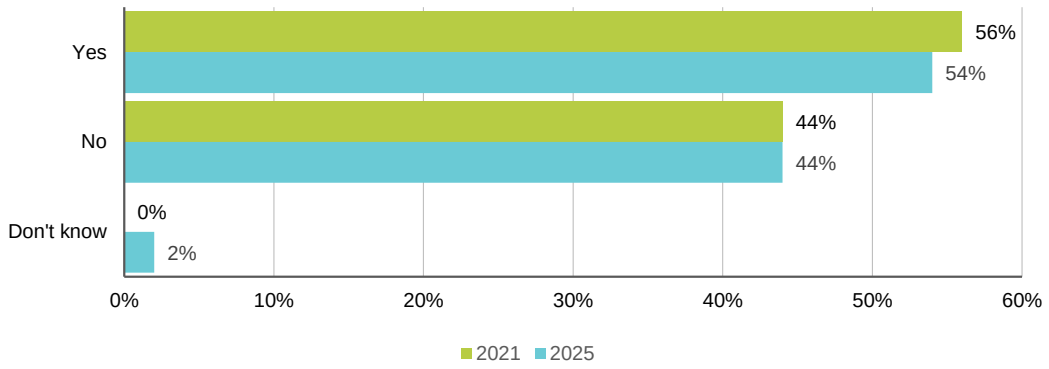
| 2025 SAMPLE SIZE N=132 | | % | |
|---|---|---|---|
| | | 2021 | 2025 |
| Q7b What was the main reason for the removal of the tree/s? | Storm damage | 19% | 14% |
| | The tree was too big | 10% | 7% |
| | The tree was messy | 2% | 2% |
| | Tree was old and/ or in poor health | 25% | 31% |
| | The tree was impacted by a home improvement/ renovation | 4% | 3% |
| | The tree was impacted by a new development | 4% | 5% |
| | The tree could be removed under bushfire regulations | 5% | 1% |
| | Concern that the tree would drop limbs or fall | 11% | 19% |
| | Other (specify) | 20% | 18% |

## 3. UNDERSTANDING COMMUNITY VALUES

### Over half of tree/s removed were replaced with another tree.

**Figure 10** Were trees replaced (2025 vs. 2021)

**Q7C. Were any of the tree/s replaced with another tree?**
**BASE: RESPONDENTS WHO HAD REMOVED A TREE (N=132)**

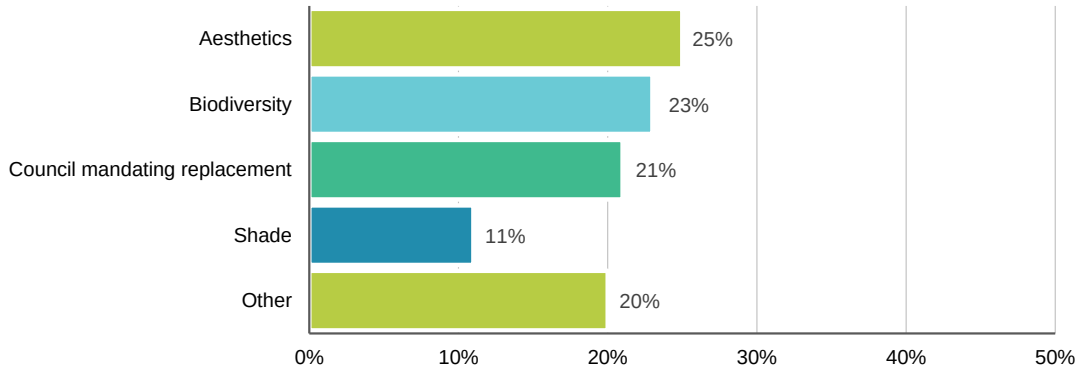



No significant differences were observed between age, gender, wards or CALD and non-CALD residents.)

### Almost half of trees in 2025 were replaced due to Aesthetics (25%) or Biodiversity (23%). A Council mandate was also a key factor.

**Figure 11** Reasons trees were replaced (2025)

**Q7D. What was the main reason why the tree was replaced?**
**BASE: RESPONDENTS WHO HAD REMOVED AND REPLACED A TREE (N=71)**



## 3. UNDERSTANDING COMMUNITY VALUES

**In 2025, Hornsby residents surveyed were less likely to replace a tree due to aesthetics compared to 2021. "Other" increased substantially in 2025: half was due to council mandating a replacement tree when a tree was removed.**

**Table 7** Reasons trees were replaced (2025 vs. 2021)

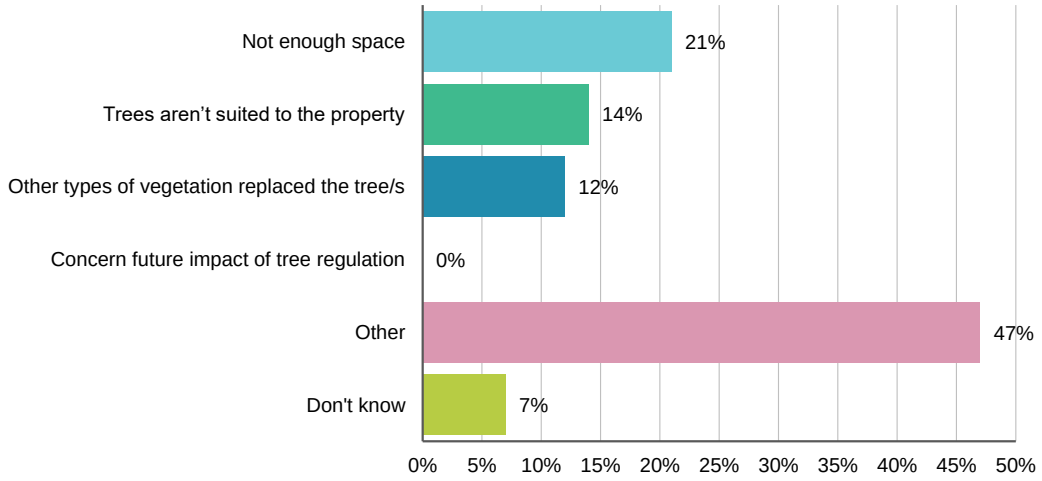
| 2025 SAMPLE SIZE N=71 | | % | |
|---|---|---|---|
| | | 2021 | 2025 |
| Q7d What was the main reason why the tree was replaced? | Aesthetics (Looks) | 37% | 25% |
| | Biodiversity (adding different types of plants) | 25% | 23% |
| | Shade | 13% | 11% |
| | Other (specify) | 25% | 41% |

**One in five residents who had removed a tree said they did not replace it due to a lack of space.**

**"Other" comprised mainly residents saying they were unaware of the need to replace a removed tree, that they will replace a tree later, or that it was the landlord's decision.**

**Figure 12** Reasons trees were not replaced (2025)

**Q7E. What was the main reason why the tree was not replaced?**
**BASE: RESPONDENTS WHO HAD REMOVED AND NOT REPLACED A TREE (N=58)**



## 3. UNDERSTANDING COMMUNITY VALUES

**In 2025, Hornsby residents surveyed were less likely to replace a tree with other types of vegetation compared to 2021.**

**"Other" more than doubled in 2025 (covering the reasons shown above).**

**Table 8** Reasons trees were not replaced (2025 vs. 2021)

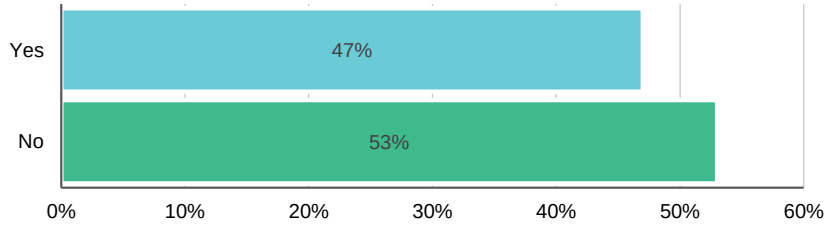
| 2025 SAMPLE SIZE N=58 | | % | |
|---|---|---|---|
| | | 2021 | 2025 |
| Q7e What was the main reason why the tree was not replaced? | Not enough space | 23% | 21% |
| | Trees aren't suited to the property | 7% | 14% |
| | Other types of vegetation replaced the tree/s | 34% | 12% |
| | Concern future impact of tree regulation | 7% | 0% |
| | Other (specify) | 19% | 47% |
| | (Don't Know) | 10% | 7% |

### 3.9. STORM AND OTHER MAJOR WEATHER EVENTS (2025 ONLY)

**Opinion was evenly split on whether it was reasonable for Council to offer a green waste disposal service from private properties after major events, and to recover costs for such a service.**

**Figure 13** Can Council recover clean-up costs from residents after storms

**Q8. Storms and other major weather events can lead to costly clean-ups. For example, after the storm of 2019, council spent over $1 million in clean-ups. Fallen trees and branches located from within private property is typically not eligible for disaster relief funding from NSW government. Do you think it is reasonable for Council to offer this service and recover these costs from residents after such events?**
**BASE: ALL RESPONDENTS (N=600)**



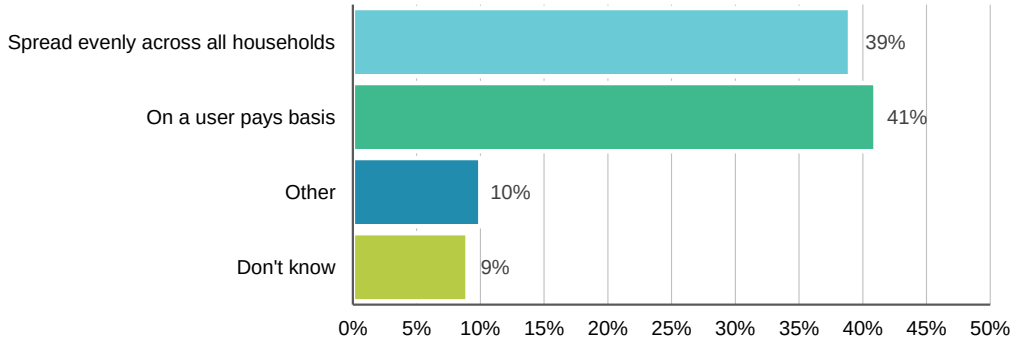

Opinions were evenly split across all demographic groupings.

## 3. UNDERSTANDING COMMUNITY VALUES

### Similarly, residents were evenly split between spreading the load of storm damage clear-ups evenly among all households, or on a user-pays basis.

**Figure 14** How should recovery costs be managed

**Q8B Storm clean-ups obviously affect some properties more than others. If Council was to recover some costs from clean-ups, do you feel it should be on a user-pays basis (e.g. up to $200 per household requesting the service) or spread evenly across all households (e.g. up to $20 per household per event)**
**BASE: N=197**




Again, this response pattern was consistent across all demographic groupings.

## 3.10. FOCUS GROUPS – DEALING WITH STORM DAMAGE

### Who should pay when Council needs to remove green waste after a major storm?

This was a fiery topic in the focus groups, with generally little sympathy for Council's plight (especially given the perceived "red tape" limiting tree culling prior to such events.)

Major themes of this discussion comprised:

- **Council's Current Role and Challenges:** Council currently bears a significant financial burden in removing green waste after major storms, with costs exceeding a million dollars in some instances. This is a substantial expense that impacts the council's budget and could potentially affect other services. Council has provided services to remove green waste from both public and private lands after storms, but this has not been widely advertised or consistently applied, leading to confusion among residents.
- **Homeowner Responsibility and Insurance Limitations:** Homeowners are typically responsible for removing green waste from their properties, as insurance does not cover the removal of debris, only damage to property. This places a financial burden on homeowners, particularly those with larger properties or those who have been denied permission by the council to remove potentially hazardous trees before a storm.
- **Equitable Cost Distribution:** There was considerable debate at the focus groups about whether the cost of green waste removal should be shared equally among all ratepayers or be more heavily borne by those with larger properties, who are more likely to generate more green waste. However **the major theme was equity – i.e. sharing the load as widely as possible.**

This was based partially on the notion that all residents use affected Council facilities, regardless of their property type and size.

- **Preventative Measures and Education:** There was a strong feeling in all three groups that the council should invest in preventative measures, such as regular pruning and the planting of appropriate tree species, to reduce the risk and impact of storm damage. Additionally, better education and communication with residents about tree management and council services could help mitigate future costs and confusion.
- In particular, some residents baulked at paying extra levies when they had been prevented from lopping or pruning trees (at their own expense) prior to the storm events.
- **Community and Council Collaboration:** Some interviewees highlighted the importance of community involvement in managing green waste, suggesting that local initiatives and volunteer groups could play a role in maintaining public spaces and assisting with cleanup efforts. This could foster a sense of community responsibility and reduce the overall burden on the council.

### Focus Group Quotes – Dealing with storm damage

**Storms and other major weather events can lead to costly clean-ups. Do you think it is reasonable for Council to offer this service and recover these costs from residents after such events?**

- Yeah. I'd say if council is aware that this is going to be an issue that is getting worse, budget for it. Right? So, you know that this is going to be an ongoing issue, and so there's obviously investments they can make from a preventative perspective to ensure that this is not an ongoing issue. (FG1, Male, 66-75, Ward A)
- I agree. I think that if it's a million dollars or however much it was to clean up after that storm, we really need to do some analysis of that and see if there are any preventative factors we can put in place for sure. (FG3, Female, 46-55, Ward A)
- I think council should put out a discussion paper on it and don't really understand their thoughts on where they think they're going with it. FG1, Male, 66-75, Ward B)
- I would pay if trees came down and impacted my ability to drive on our roads or catch a train or whatever that is. (FG2, Male, 36-45, Ward A)
- As long as the trust was there, because I don't think a lot of people maybe with this current era of council but there never used to be that trust in I think they did one thing wrong and then everybody's like well we can't trust our money, I think. (FG2, Female, 46-55, Ward A)

**Who pays?**

- Better to manage as you go rather than wait for a massive amount of damage and then go, oh, look how much we have to clean up now. (FG2, Female, 46-55, Ward A)
- A flat rate for everybody, then there's no discrepancy. (FG1, Female, 36-45, Ward C)
- Can you not wait till one falls, and then you pay for go halves, rather than paying? (FG2, Female, 46-55, Ward A)
- We pay quarterly rates, so I don't think people would notice $20. $25 extra. (FG2, Male, 36-45, Ward A)

## 4. APPENDIX 1 – CATI QUESTIONNAIRE

**Good afternoon/evening, my name is (name) and I'm calling from Taverner Research on behalf of Hornsby Shire Council. We are conducting a survey of Hornsby residents aged 18+ about an important local issue, and you have been chosen at random to participate. The survey will take less than 15 minutes, and all answers are confidential. Would you be willing to assist Council by taking part in a quick survey today?**

1. 1Yes
2. No THANK AND TERMINATE

**3. Thanks so much. This survey will be recorded and/or monitored for quality assurance and training purposes. Participation is voluntary. You can choose to not participate at any time. Is that OK?**

IF NECESSARY, SAY: Taverner Research will not collect any information that enables you to be identified. All responses will be treated confidentially and will be analysed in aggregate only. If desired, we can provide you with more details about our Privacy Policy at https://privacy.taverner.com.au

1. Yes (Consent)
2. No (Terminate)

If calling mobiles, ensure it is safe for respondents to continue the call – i.e. that if driving they are speaking hands-free.

**S1. (If yes) Thanks so much. Before we commence, can I just confirm you live in Hornsby Shire?**

1. Yes
2. No THANK AND TERMINATE

**S2. And what suburb do you live in?**

1. Arcadia
2. Asquith
3. Beecroft
4. Berowra
5. Berowra Heights
6. Berowra Waters/ Creek
7. Berrilee
8. Brooklyn
9. Canoelands
10. Carlingford
11. Castle Hill
12. Cheltenham
13. Cherrybrook
14. Cowan
15. Dangar Island
16. Dural
17. Epping
18. Fiddletown
19. Forest Glen
20. Galston

## 4. UNDERSTANDING COMMUNITY VALUES

21. Glenhaven
22. Glenorie
23. Hookhams Corner
24. Hornsby
25. Hornsby Heights
26. Laughtondale
27. Maroota
28. Middle Dural
29. Milsons Passage
30. Mount Colah
31. Mount Kuring-gai
32. Normanhurst
33. North Epping
34. Pennant Hills
35. Rogans Hill
36. Roselea
37. Singletons Mill
38. Thompsons Corner
39. Thornleigh
40. Wahroonga
41. Waitara
42. West Pennant Hills
43. Westleigh
44. Wisemans Ferry
45. None of these – Thank and Terminate

## 4. APPENDIX 1 – CATI QUESTIONNAIRE

**S4. And are you a Hornsby Councillor or permanent Council employee?**

1. Yes THANK AND TERMINATE
2. No

**3. D1. With which gender do you identify?**

1. Male
2. Female
3. Non-binary/other
4. Prefer not to say

5. **D2. Could I just get your age range? Would it be:**

READ OUT

1. 18-25
2. 26-35
3. 36-45
4. 46-55
5. 56-65
6. 66-75
7. 76+
8. Prefer not to say

**D3 And could I just get your first name for the survey please?**

OPEN-ENDED. WRITE NA IF THEY DECLINE TO PROVIDE NAME.

**Q1. Thanks so much (D3). This survey is about trees and tree cover in the Hornsby Shire. Thinking about YOUR VALUES towards trees, please indicate whether you strongly agree, agree, have no opinion, disagree or strongly disagree to the following statements:**

## 4. APPENDIX 1 – CATI QUESTIONNAIRE

RANDOMISE STATEMENTS.

**Q1a. Trees are an important part of my local area character**

**Q1b. Trees support local biodiversity and habitat for wildlife**

**Q1c. Trees help keep my house cool**

**Q1d. Trees add value to my house**

**Q1e. Trees provide colour and shade from the hard, concrete urban environment**

**Q1f. Trees reduce the impacts of climate change**

**Q1g. Trees make me feel better**

IF UNSURE, MARK AS NO STRONG OPINION

1. Strongly agree
2. Agree
3. No strong opinion
4. Disagree
5. Strongly disagree

**Q2. Still thinking about YOUR VALUES towards trees. Please indicate to what extent you agree or disagree with the following statements:**

RANDOMISE STATEMENTS.

**Q2a. I am more likely to walk or cycle down a shady street**

**Q2b.Suburbs with few trees are unattractive and sterile**

**Q2c. Trees pose too much risk in an urban environment**

**Q2d. Trees require too much looking after to be worthwhile**

**Q2e. As a community we have a responsibility to provide a greener legacy for future generations of people living in Hornsby**

**Q2f. I would feel guilty if I had to chop down a tree**

**Q2g. I should be able to do what I like with the trees in my own yard**

**Q2h. The trees in my own yard are important to Hornsby's urban forest**

## 4. APPENDIX 1 – CATI QUESTIONNAIRE

IF UNSURE, MARK AS NO STRONG OPINION

1. Strongly agree
2. Agree
3. No strong opinion
4. Disagree
5. Strongly disagree

**Q3. In relation to the number of trees in your area, do you feel the Hornsby Shire should have…**

PROMPTED EXCEPT UNSURE

1. More trees than it does now
2. The same number of trees as it does now
3. Less trees than it does now

66. Don't Know

**Q3b. Should Council and the community be addressing the current reduction in tree canopy cover?**

1. Yes
2. No
3. Don't Know

**Q4. Thinking about the PLANNING AND MANAGEMENT OF TREES IN PUBLIC areas across the Hornsby Shire e.g. trees in streets, parks and public areas, please indicate whether you strongly agree, agree, have no opinion, disagree or strongly disagree to the following statements:**

RANDOMISE STATEMENTS.

**Q4a. Hornsby Shire's street trees provide benefits to the community**

**Q4b. Council should increase the number of street trees**

**Q4c. Hornsby Shire's trees in public parks provide benefits to the community**

**Q4d. Council should increase the number of trees in parks and reserves**

**Q4e. If a tree needs to be removed from a public area Council should replace it**

**Q4f. Penalties should be imposed on people who damage trees unnecessarily in public spaces**

**Q4g. Development on private land should be monitored so it does not damage public trees**

**Q4h. Developers should incur a fee if they do not protect nearby street trees during construction**

**Q4i. Council should invest more funds into improving the public trees**

## 4. APPENDIX 1 – CATI QUESTIONNAIRE



1. Strongly disagree
2. Disagree
3. Have no strong opinion
4. Agree
5. Strongly agree

**Q5. And thinking about the MANAGEMENT AND REGULATION OF TREES ON PRIVATE land, please indicate to what extent you agree or disagree with the following statements:**

RANDOMISE STATEMENTS.

**Q5a. Council is solely responsible for fixing the decline in the number of trees on private land**

**Q5b. Both council and the community are jointly responsible for fixing the decline in the number of trees on private land**

**Q5c. The council, the community and me are all responsible for fixing the decline in the number of trees on private land**

**Q5d. Council should have strong regulations to protect trees on private property**

**Q5e. People should have the right to do what they want with their trees on their own private property**

**Q5f. Penalties should be imposed on people who harm or remove trees on their own private property without approval**

**Q5g. If trees need to be removed on private property, they should be replaced by the landowner**

**Q5h. If trees need to be removed on private property and cannot be replaced, they should be planted nearby to offset the loss**

**Q5i. If trees need to be removed on private property and cannot be replaced, the property owner should pay Council to replant trees**

**Q5j. Council should focus on tree planting in the public domain not on private land**

1. Strongly disagree
2. Disagree
3. Have no strong opinion
4. Agree
5. Strongly agree

**Q6. (D3) Can you suggest other incentives or ideas to support existing and new trees on PRIVATE LAND?**

OPEN ENDED

## 4. APPENDIX 1 – CATI QUESTIONNAIRE

**Q7a. Thinking now about your PERSONAL EXPERIENCE with trees on your property. To your knowledge, have any trees been removed from your property in the last 10 years?**

1. Yes (Go to Q7b)
2. No (Go to Q8)
3. Don't Know (Go to Q8)

## 4. APPENDIX 1 – CATI QUESTIONNAIRE

ANSWER Q7B IF Q7A=1

**Q7b. What was the main reason for the removal of the tree/s?**

UNPROMPTED DO NOT READ OUT

1. Storm damage
2. The tree was too big
3. The tree was messy
4. Tree was old and/ or in poor health
5. The tree was impacted by a home improvement/ renovation
6. The tree was impacted by a new development
7. The tree could be removed under bushfire regulations
8. Concern that the tree would drop limbs or fall
9. Other (specify)

ANSWER Q7C IF Q7A=1

**Q7c. Were any of the tree/s replaced with another tree?**

1. Yes (Go to Q7d)
2. No (Go to Q7e)
3. Don't Know

ANSWER Q7D IF Q7C=1

**Q7d. What was the main reason why the tree was replaced?**

UNPROMPTED DO NOT READ OUT

1. Aesthetics (Looks)
2. Biodiversity (adding different types of plants)
3. Shade
4. Other (specify)

ANSWER Q7E IF Q7C = 2

**Q7e. What was the main reason why the tree was not replaced?**

UNPROMPTED DO NOT READ OUT

1. Not enough space
2. Trees aren't suited to the property
3. Other types of vegetation replaced the tree/s
4. Concern future impact of tree regulation
5. Other (specify)

## 4. APPENDIX 1 – CATI QUESTIONNAIRE



6. Don't Know

ASK ALL FROM Q8

**Q8. Now (D3) Storms and other major weather events can lead to costly clean-ups. For example, After the storm of 2019, Council spent over $1 Million in clean-ups. Fallen trees and branches located from within private property is typically not eligible for disaster relief funding from NSW Government. Do you think it is reasonable for Council to offer this service and recover these costs from residents after such events?**

**Q8b Storm clean-ups obviously affect some properties more than others. If Council was to recover some costs from clean-ups, do you feel it should be on a user-pays basis (e.g. up to $200 per household requesting the service) or spread evenly across all households (e.g. up to $20 per household per event)**

PROMPTED (FIRST TWO OPTIONS ONLY)

1. Spread evenly across all households
2. On a user-pays basis
3. Other (specify)
4. Don't Know

**Q9. Is there anything else important about trees that you want to mention?**

OPEN RESPONSE

**D3.1 Thanks so much (D3), just a couple of demographic questions before we finish. How long have you lived in Hornsby LGA?**

READ OUT

1. Less than 4 years
2. 5 to 10 years
3. 11 to 15 years
4. More than 16 years

**D4. The household you live in, is it owned (including with a mortgage) or rented?**

1. Owned
2. Rented/ Other**D5. What is your highest level of education you have obtained?**

READ OUT

1. Less than Year 12 or equivalent
2. Year 12 or equivalent i.e. HSC leaving certificate
3. Vocational education i.e. Certificates Advanced Diploma

## 4. APPENDIX 1 – CATI QUESTIONNAIRE

4. Bachelor's degree (including honours)
5. Master's degree
6. Doctoral
7. Prefer not to say
8. Don't Know

**D6. And do you speak a language other than English at home?**

1. Yes (Please specify)
2. No
3. Prefer not to say

**Q10. Just before we finish (D3), council will shortly be running some research focus groups on this same topic. The groups will take 90 minutes, be held within the Hornsby Shire, and participants will be compensated $100 for their time and travel costs. Assuming the timing was convenient, is this something that may interest you?**

1. No
2. Yes

**Q10a Thanks, in that case could I just grab your email address? We'll be back in touch once the details have been finalised.**

IF NECESSARY, ASSURE RESPONDENT THIS ADDRESS WILL NOT BE SHARED WITH ANY THIRD PARTY, INCLUDING COUNCIL.

1. Email address (read back)
2. Declined

**OUTRO: Thanks that is the end of the survey, Hornsby Shire Council greatly appreciates your feedback.**

**ISO and close**

# 5. APPENDIX 2 – DISCUSSION GUIDE

## Living in Hornsby, and the role of trees (15 minutes)

- Living in Hornsby – likes and dislikes
- What attracted them to the area
- Relationship with local trees – how do you interact
- What comes to mind when you think of trees in Hornsby

## Personal experience with trees – public and private land (15 minutes)

- Have any local trees been a nuisance (or a danger) at any time? When and why?
- Do you have trees on your property? What are the benefits? What are the issues or concerns?
- What are the benefits of trees to the neighbourhood more broadly?
- Do they add or subtract value from the property – amenity and $$$
- Have you or a family member had any negative or positive experiences with trees (negative - falling branches, messy leaves, allergies) (positive – cooling shade in summer, screening neighbours, attracts wildlife).
- Where would you want to see more trees and what type of trees?
- Where would you like to see less trees, and why?

## Role of Council in managing trees (20 minutes)

- Anyone spoken to Council about removing a tree? If so, why? And what was the result?
- Any issues with Council enforcement of tree regulations?
- What should Council's role be in managing tree cover? And what should it stay out of?
- Should any tree removal be accompanied by a new planting? If so, where and at whose cost?
- Any different experiences in other Council areas?
- If Hornsby is to retain the same number of trees as it has now, how can Council accommodate this within future development?
- What incentives could Council provide property owners to plant trees?

## 5. APPENDIX 2 – DISCUSSION GUIDE

### The rights of landowners in managing their trees (15 minutes)

- Should landholders have the right to trim or remove trees from their property? Why? Why not?
- Explore the contraction between survey questions 2_7 and 5_5 – why might this be?
- How can we lessen tension between land owners and Council in relation to tree management?
- Should landholders be able to 'make safe' neighbours' trees that pose a risk – who determines the level of risk?

### Dealing with storm damage – who pays? (10 minutes)

Preamble – not all storms impact residents equally. We find typically some suburbs are locally impacted, whilst other areas are not. It can also be the case that some residents have large properties and other people live in units and town houses where issues related to fallen trees is not as prevalent.

- Explain the issue of storm damage – unpredictable and increasingly costly. Home insurance typically pays for any damaged caused to property. However, fallen tree debris (greenwaste) is not covered
- Who should pay for the removal of the tree debris? Is it reasonable to expect home owners to pay for this debris removal? Or should Council provide this service with all rate payers financial contributing or just those ratepayers seeking the service?
- If there was to be a charge for Council to pick up storm generated greenwaste, shouldthis cost be passed onto just those ratepayers using the service or the costs shared across all ratepayers?

### Final comments (5 minutes)

- Are there any other issues you feel strongly about in relation to Hornsby's tree management policy, good or bad, that haven't come up yet? (Refer to your post-it notes)
- What's one message you would send to council about trees?
- Thank and finish.

ATTACHMENT 1 - ITEM 5

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ATTACHMENT 1 - ITEM 5

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Taverner Research Group is wholly owned by Tobumo Pty Ltd | ABN 93 003 080 500

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ITEM 6

# ATTACHMENT/S

## REPORT NO. CE14/26

## ITEM 6

**1. DRAFT COMMUNITY EVENT SEED FUNDING PROGRAM POLICY**

**2. DRAFT SPONSORSHIP POLICY**

**3. DRAFT MAYOR'S YOUTH TRUST FUND POLICY**

**4. DRAFT COMMUNITY AND CULTURAL FACILITIES SUPPORT PROGRAM POLICY**

**5. DRAFT FEE WAIVER REQUESTS FOR COUNCIL HEALTH, BUILDING AND PLANNING SERVICES POLICY**

**6. DRAFT FEE WAIVER REQUESTS FOR SPECIAL EVENTS WASTE AND RECYCLING POLICY**

HORNSBY SHIRE COUNCIL

**POLICY REGISTER**

| | |
|---|---|
| **POLICY TITLE**: | **COMMUNITY EVENT SEED FUNDING PROGRAM** |
| **FOLDER NUMBER**: | F2007/00307 |
| **POLICY OWNER / DIVISION**: | Community and Environment Division |
| **POLICY OWNER / BRANCH**: | Library and Community Services |
| **FUNCTION**: | Community Services |
| **RELEVANT LEGISLATION**: | Local Government Act 1993; Local Government (General) Regulation 2021; Government Information (Public Access) Act 2009; Privacy and Personal Information Protection Act 1998; Work Health and Safety Act 2011; Environmental Planning and Assessment Act 1979; Independent Commission Against Corruption Act 1988 |
| **POLICY ADOPTION/AMENDMENT DATE**: | **REPORT NUMBER**: CE 14/26 |
| **REVIEW YEAR:** | 2028 |
| **AMENDMENT HISTORY:** | |
| **RELATED POLICIES**: | Code of Conduct; Procurement Policy; Gifts and Benefits Policy; Sponsorship and In-Kind Support – Council's Involvement; Community Grants Policy; Privacy Management Plan; Complaints Handling Policy |

**POLICY PURPOSE / OBJECTIVES**:

The Community Event Seed Funding Program aims to support community organisations to establish new, locally driven events that contribute to the vibrancy, social connection, and economic activity of Hornsby Shire.

The program is designed to provide short-term seed funding to assist not-for-profit organisations in developing events that become financially and operationally sustainable over time. It is not intended to provide ongoing operational funding for recurring or established events.

**EXPECTED OUTCOMES:**

The program seeks to:



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- Encourage community-led events that strengthen community connections.
- Increase opportunities for residents to participate in local cultural, recreational and community activities.
- Support place-making initiatives by activating local centres and public spaces.
- Build the capacity of community organisations to independently plan, deliver and sustain events.
- Encourage partnerships between community organisations, businesses and other stakeholders.
- Reduce reliance on Council funding through a staged reduction in financial support.

**SCOPE AND DEFINITION:**

This policy applies to event seed funding provided by Council to support events, programs, activities or initiatives that deliver public benefit and align with Council's strategic priorities. It applies to Council officers, Councillors, applicants, recipients and partner organisations involved in seed funding arrangements.

Seed Funding means a commercial arrangement where Council provides a financial contribution in return for agreed benefits, usually including public acknowledgement or brand recognition.
Legislative and reporting requirements

Section 356 of the Local Government Act 1993 provides that "a council may, in accordance with a resolution of the council, contribute money or otherwise grant financial assistance to persons for the purpose of exercising its functions."

Section 356 further provides that "a proposed recipient who acts for private gain is not ineligible to be granted financial assistance but must not receive any benefit under this section until at least 28 days' public notice of the council's proposal to pass the necessary resolution has been given." Public notice is not required where the financial assistance is part of a specific program, the program's details have been included in Council's draft Operational Plan for the year in which the assistance is proposed to be given, the program's proposed budget for that year does not exceed 5 per cent of Council's proposed income from ordinary rates, and the program applies uniformly to all persons within Council's area or to a significant group of persons within the area.

The *Local Government (General) Regulation 2021* requires Council's annual report to include "the total amount contributed or otherwise granted under section 356" of the *Local Government Act 1993*.

**Ethical framework**
Council will not enter seed funding arrangements with an organisation, individual or activity that:

- conflicts with Council's values, strategic priorities or statutory responsibilities;
- creates an actual, potential or perceived conflict of interest;

- could reasonably damage Council's reputation or community trust;
- involves misleading, deceptive, discriminatory or unlawful conduct;
- promotes products, services or activities likely to cause harm to the community;
- seeks to influence Council decisions, regulatory functions, procurement, planning or compliance processes;
- is currently involved in a tender, approval, compliance, legal or dispute process with Council where the arrangement could create a conflict or perceived conflict;
- does not demonstrate appropriate governance, insurance, safety or financial accountability.

**Guiding principles**
All seed funding arrangements must be guided by the following principles.

**Act ethically and in the public interest**
Council officers and Councillors must act ethically, avoid private benefit and ensure seed funding decisions are made in the public interest. Seed funding must not compromise Council's independence or create an expectation of favourable treatment.

**Be transparent and accountable**
Seed funding opportunities, assessment processes, approvals and agreements must be documented and open to appropriate scrutiny. Clear records must be kept demonstrating probity, value for money and compliance with this policy.

**Deliver value for money**
Seed funding must provide an appropriate return for Council and the community, considering financial value, community outcomes, strategic alignment, risks, costs and resource requirements.

**Support collaboration and community benefit**
Seed funding should strengthen partnerships and support activities that contribute positively to the Hornsby Shire community, including participation, inclusion, local identity, sustainability, livability and economic vitality.

**Sponsorship benefits and acknowledgement**
Benefits provided under a seed funding arrangement must be agreed before the arrangement starts and recorded in writing. Benefits may include acknowledgement in promotional material, signage, digital communications, event programs or speaking opportunities where appropriate.

Use of Council's name, logo or brand must comply with Council's brand and style requirements and be approved by Council before publication. Seed funding acknowledgement must not suggest Council endorsement of a sponsor's products, services or views.

**Funding Available**

- Council will allocate $30,000 per financial year to the program.



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- Funding will generally be offered through two funding rounds each financial year:
- July
- January (subject to funding remaining available).
- The maximum value of funding (including cash funding, in-kind assistance and sponsorship) available to any one organisation is $5,000 per financial year.
- Only one successful application may be funded per organisation each financial year.

**Seed Funding Model**

The Community Event Seed Funding Program operates as a declining funding model to encourage long-term sustainability.

Funding is available for a maximum of four consecutive years, with Council's contribution reducing by 25% each year as shown in the below worked example:

| Funding Year | Maximum Funding |
|---|---|
| Year 1 | $5,000 |
| Year 2 | $3,750 |
| Year 3 | $2,500 |
| Year 4 | $1,250 |

Applicants may apply for less funding than $5,000, with funding decreasing annually by 25% per annum.

Applicants seeking funding in subsequent years must demonstrate:

- successful delivery of previous events;
- increasing community participation and support;
- progress towards financial and operational sustainability;
- strategies to reduce reliance on Council funding.

Continuation of funding is not automatic and remains subject to assessment, available funding and Council approval.

**Eligibility**

Applicants must:

- satisfy the eligibility requirements outlined in Council's Grants and Sponsorship Policy Guide;
- be able to demonstrate the organisational capacity to plan and deliver the proposed event;
- deliver the event within Hornsby Shire;
- provide evidence of appropriate governance, insurance and risk management arrangements;



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- demonstrate that the event provides a clear community benefit and aligns with Council's strategic objectives.

Council may request additional information at any stage of the assessment process.

**Conditions of Funding**
Successful applicants must:

- enter into a Funding Agreement or Memorandum of Understanding (MOU) with Council;
- comply with all conditions contained within the Funding Agreement;
- obtain all required approvals, permits and insurance;
- acknowledge Council's contribution in promotional material where appropriate;
- submit a post-event acquittal and evaluation report by the date specified in the Funding Agreement.

Successful applicants are not eligible to receive additional Council grants, sponsorship or in-kind support for the funded event during the funding period unless expressly approved by Council.

Council reserves the right to suspend or recover funding where funding conditions are not met.

Funding provided through this program must only be used for the purposes approved by Council and cannot be transferred to another project or event without Council's prior written approval.

**Sustainability Requirements**
As this is a seed funding program, applicants are expected to demonstrate how the event will become financially and operationally sustainable.

Applications must include:

- a plan outlining how the event will continue once Council funding ceases;
- proposed alternative income sources such as sponsorship, grants, fundraising or ticket sales (where appropriate);
- opportunities to build partnerships with local businesses, community organisations or other stakeholders; and
- strategies to reduce reliance on Council funding over time.

Council encourages applicants to progressively increase self-sufficiency throughout the funding period.

**Exclusions**
The Community Event Seed Funding Program will not provide funding for:



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- events that have already occurred;
- retrospective costs or expenditure incurred before funding approval;
- ongoing operational expenses unrelated to the approved event;
- activities that duplicate existing Council-supported events without demonstrating a significant additional community benefit;
- projects that are primarily commercial or designed to generate private profit.

**Assessment Process**

Applications must:

- be submitted through Council's online grants portal;
- be received by the advertised closing date;
- include all required supporting documentation.

Applications will be assessed against criteria including:

- community benefit;
- alignment with Council's strategic objectives;
- organisational capability;
- financial viability;
- long-term sustainability;
- value for money;
- demonstrated community need;
- risk management.
- Status as a not-for-profit organisation.

Funding recommendations will be considered by Council, with grants awarded by Council resolution.

Council is under no obligation to fund any application or continue funding beyond the approved funding period.

**Expected Outcomes**

The program aims to achieve:

- increased community participation;
- stronger community connections and social inclusion;
- activation of public spaces and local centres;
- increased organisational capacity within the community sector;



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- development of sustainable annual community events;
- stronger partnerships across the community;
- reduced reliance on Council funding over time.

**Unallocated Funding**

Any funding remaining unallocated following the second funding round may be transferred to Council's Venue Fee Waiver Program or another community funding initiative, as determined by Council.

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**POLICY REGISTER**

| | |
|---|---|
| **POLICY TITLE**: | **SPONSORSHIP POLICY** |
| **FOLDER NUMBER**: | |
| **POLICY OWNER / DIVISION**: | Office of the Chief Executive Officer |
| **POLICY OWNER / BRANCH**: | Strategy and Place |
| **RELEVANT LEGISLATION**: | Local Government Act 1993; Local Government (General) Regulation 2021; Government Information (Public Access) Act 2009; Privacy and Personal Information Protection Act 1998; Work Health and Safety Act 2011; Environmental Planning and Assessment Act 1979; Independent Commission Against Corruption Act 1988 |
| **POLICY ADOPTION/AMENDMENT DATE**: | XXXX **REPORT NUMBER**: CE14/26 |
| **REVIEW YEAR:** | 2028 |
| **AMENDMENT HISTORY:** | New Policy / draft for consideration |
| **RELATED POLICIES**: | Code of Conduct; Procurement Policy; Gifts and Benefits Policy; Sponsorship and In-Kind Support – Council's Involvement; Community Grants Policy; Privacy Management Plan; Complaints Handling Policy |

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## 1. PURPOSE AND OBJECTIVES

This policy sets out Hornsby Shire Council's approach to providing corporate sponsorship. It provides a consistent framework to ensure sponsorship arrangements are ethical, transparent, accountable and aligned with Council's strategic priorities and community outcomes. Sponsorship may help strengthen partnerships, increase participation, enhance visitor experience and support Council's place, cultural, community and economic objectives.

The objectives of this policy are to:

- support the delivery of events, programs and activities that provide public benefit;

- ensure sponsorship arrangements are fair, transparent and accountable;
- manage probity, conflict of interest and reputational risks;
- ensure sponsorship delivers value for money and is consistent with Council's strategic priorities;
- provide clear guidance for staff, Councillors, and community partners.

Sponsorship does not involve Council endorsement of products or services. All arrangements must protect Council's independence, reputation and ability to carry out its statutory responsibilities impartially.

## 2. Scope and definition

This policy applies to corporate sponsorship provided by Council to support events, programs, activities or initiatives that deliver public benefit and align with Council's strategic priorities. It applies to Council officers, Councillors, applicants, recipients and partner organisations involved in sponsorship arrangements.

**Sponsorship** means a commercial arrangement where Council provides a financial contribution in return for agreed benefits usually including public acknowledgement or brand recognition.

## 3. Legislative and reporting requirements

Section 356 of the *Local Government Act 1993* provides that "a council may, in accordance with a resolution of the council, contribute money or otherwise grant financial assistance to persons for the purpose of exercising its functions."

Section 356 further provides that "a proposed recipient who acts for private gain is not ineligible to be granted financial assistance but must not receive any benefit under this section until at least 28 days' public notice of the council's proposal to pass the necessary resolution has been given." Public notice is not required where the financial assistance is part of a specific program, the program's details have been included in Council's draft Operational Plan for the year in which the assistance is proposed to be given, the program's proposed budget for that year does not exceed 5 per cent of Council's proposed income from ordinary rates, and the program applies uniformly to all persons within Council's area or to a significant group of persons within the area.

The *Local Government (General) Regulation 2021* requires Council's annual report to include "the total amount contributed or otherwise granted under section 356" of the *Local Government Act 1993*.

## 4. Responsibilities

The Chief Executive Officer and Directors are accountable for: Ensuring compliance with this policy and its associated procedures, that appropriate resources are allocated to the implementation of this policy, addressing any conflicts or issues that arise during the application, assessment and funding process, and ensuring transparency in the allocation of program funding.

Managers are accountable for: Ensuring that staff are aware of and compliant with this policy and its associated procedures, overseeing the assessment of grants, sponsorships, donations and environmental rebate programs, and ensuring that records of applications and decisions are maintained.

All employees are accountable for: Compliance with this policy and its ethics framework and associated procedures, declaring and managing any conflicts of interest, and maintaining full and accurate records of all applications and decisions.

Councillors are accountable for: Approval of this policy and any amendments, allocation of funding to programs through the budget process, and considering and approving sponsorship applications presented at a Council meeting.

Under the Code of Conduct, Councillors, and Council employees must not conduct themselves in a manner that is improper, unethical or involves the misuse of their position to obtain a private benefit. Councillors, managers, and employees must disclose and manage any pecuniary or non-pecuniary interests they may have in the administration of Council's grants, sponsorships, donations and environmental rebates programs.

## 5. Ethical framework

Council will not enter sponsorship arrangements with an organisation, individual or activity that:

- conflicts with Council's values, strategic priorities or statutory responsibilities;
- creates an actual, potential or perceived conflict of interest;
- could reasonably damage Council's reputation or community trust;
- involves misleading, deceptive, discriminatory or unlawful conduct;
- promotes products, services or activities likely to cause harm to the community;
- seeks to influence Council decisions, regulatory functions, procurement, planning or compliance processes;
- is currently involved in a tender, approval, compliance, legal or dispute process with Council where the arrangement could create a conflict or perceived conflict;
- does not demonstrate appropriate governance, insurance, safety or financial accountability.

## 6. Guiding principles

All sponsorship arrangements must be guided by the following principles.

### Act ethically and in the public interest

Council officers and Councillors must act ethically, avoid private benefit and ensure sponsorship decisions are made in the public interest. Sponsorship must not compromise Council's independence or create an expectation of favourable treatment.

### Be transparent and accountable

Sponsorship opportunities, assessment processes, approvals and agreements must be documented and open to appropriate scrutiny. Clear records must be kept demonstrating probity, value for money and compliance with this policy.

### Deliver value for money

Sponsorship must provide an appropriate return for Council and the community, considering financial value, community outcomes, strategic alignment, risks, costs and resource requirements.

### Support collaboration and community benefit

Sponsorship should strengthen partnerships and support activities that contribute positively to the Hornsby Shire community, including participation, inclusion, local identity, sustainability, liveability and economic vitality.

## 7. Sponsorship benefits and acknowledgement

Benefits provided under a sponsorship arrangement must be agreed before the arrangement starts and recorded in writing. Benefits may include acknowledgement in promotional material, signage, digital communications, event programs or speaking opportunities where appropriate.



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Use of Council's name, logo or brand must comply with Council's brand and style requirements and be approved by Council before publication. Sponsorship acknowledgement must not suggest Council endorsement of a sponsor's products, services or views.

**8. SPONSORSHIP PROCESS**

**8.1 ADVERTISING OPPORTUNITIES**

Council will make sponsorship opportunities widely known through open and accessible processes. This may include calls for expressions of interest, public notices, invitations to apply, Council's website, social media or local media. Advertising must identify the relevant eligibility and assessment criteria.

**8.2 ELIGIBILITY**

Eligibility requirements will be set out in the relevant sponsorship guidelines and must be applied consistently. Applicants must demonstrate that they are appropriately constituted, financially responsible, able to deliver the proposed activity and able to meet Council's conditions of sponsorship.

**8.3 ASSESSMENT CRITERIA**

When assessing a sponsorship proposal, Council will consider whether the arrangement:

- aligns with Council's Community Strategic Plan, Delivery Program, Operational Plan or other adopted strategies;
- provides clear community benefit for Hornsby Shire;
- represents value for money, including direct and indirect costs;
- is fair, open and transparent;
- does not create a conflict of interest or reputational risk;
- does not limit Council's statutory, regulatory, planning, procurement or compliance functions;
- can be delivered safely, lawfully and within available resources;
- includes clear benefits, responsibilities, reporting requirements and evaluation measures.

**8.4 ASSESSMENT AND APPROVAL PROCESS**

Applications will be assessed against the relevant eligibility and assessment criteria by the relevant manager or delegate. Assessment must include appropriate recordkeeping, conflict of interest management, probity controls and consideration of risks, value for money and strategic alignment. Recommendations will be approved in accordance with Council delegations or referred to Council where required.

**9. SUITABLE ACTIVITIES FOR SPONSORSHIP**

Council may consider sponsorship for activities that align with Council's strategic priorities and provide a clear community benefit. Suitable activities may include:

- community, cultural, civic and place-based events;
- business, tourism and local economic development activities;
- awards, exhibitions, conferences and public programs.

**10. EXCLUSIONS**

Council will generally not provide sponsorship for:

- individuals, unless specifically approved under an adopted Council program;



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- activities that do not provide a clear benefit to the Hornsby Shire community;
- capital purchases unless directly linked to an approved Council outcome;
- political parties, election campaigns or lobbying activities;
- activities that conflict with Council policies, values or legislative obligations;
- organisations or activities that pose an unacceptable governance, safety, financial, probity or reputational risk.

**11. CONDITIONS OF SPONSORSHIP**

Recipients must meet the conditions set by Council and any written agreement. These may include requirements to:

- hold appropriate insurance and comply with work health and safety requirements;
- obtain all required approvals, permits and licences;
- use sponsorship funds, goods or services only for the approved purpose;
- acknowledge Council as agreed and in accordance with approved brand requirements;
- provide accurate financial and activity reporting where required;
- advise Council of any material change, conflict of interest or issue that may affect the arrangement;
- provide a post-activity report or evaluation where requested.

**12. AGREEMENTS, APPROVALS AND RECORDS**

All sponsorship arrangements must be approved in accordance with Council delegations and documented in writing before benefits are exchanged. The written agreement should identify the parties, value, term, benefits, responsibilities, reporting requirements, branding requirements, termination rights and any special conditions.

**13. REPORTING, EVALUATION AND TERMINATION**

Recipients may be required to provide a post-activity report or acquittal within the timeframe specified by Council. Reporting may include confirmation that funds were used for the approved purpose, evidence of expenditure, project outcomes, benefits delivered, attendance or participation data, media or promotional outcomes and any issues arising from the activity.

Council may evaluate sponsorship arrangements to confirm whether the agreed objectives, benefits, reporting requirements and community outcomes were achieved. Council may decline, suspend or terminate a sponsorship arrangement if it is inconsistent with this policy, creates a conflict of interest, poses an unacceptable risk, damages Council's reputation, or if the sponsor or recipient fails to meet agreed conditions.

**14. PROGRAM OVERVIEW**

- A total funding pool of $30,000 will be available, subject to Council approval and budget allocation.
- Applications will generally open once per financial year.
- Event sponsorship may be available up to a total value of $10,000 per annum per applicant or organisation.
- Successful applicants will not be eligible to apply for additional funding or in-kind support from Council for the same activity during the sponsorship period.



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HORNSBY SHIRE COUNCIL

# POLICY REGISTER

| | |
|---|---|
| **POLICY TITLE**: | **MAYOR'S YOUTH TRUST FUND** |
| **FOLDER NUMBER**: | F2007/00307 |
| **POLICY OWNER / DIVISION**: | Community and Environment Division |
| **POLICY OWNER / BRANCH**: | Library and Community Services |
| **FUNCTION**: | Community Services |
| | Community Services |
| **RELEVANT LEGISLATION**: | Local Government Act 1993; Local Government (General) Regulation 2021; Government Information (Public Access) Act 2009; Privacy and Personal Information Protection Act 1998; Work Health and Safety Act 2011; Environmental Planning and Assessment Act 1979; Independent Commission Against Corruption Act 1988 |
| **POLICY ADOPTION/AMENDMENT DATE**: | **REPORT NUMBER**: CE 14/26 |
| **REVIEW YEAR:** | 2028 |
| **AMENDMENT HISTORY:** | |
| **RELATED POLICIES**: | Code of Conduct; Procurement Policy; Gifts and Benefits Policy; Sponsorship and In-Kind Support – Council's Involvement; Community Grants Policy; Privacy Management Plan; Complaints Handling Policy |

**POLICY PURPOSE / OBJECTIVES**:

To support young people participating in representative activities at regional, state, national, and international levels. Funding may assist with costs associated with sport, the arts, cultural activities, leadership programs and other recognised youth development opportunities, helping young people achieve their goals and represent their community with pride.

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**EXPECTED OUTCOMES:**

Increase the participation of young people in their local community, schools, social groups and sports groups representing Hornsby Shire at a state, national or international level in events and activities.

To encourage social contributions, cultural initiatives, and athletic achievements among young people residing in the Shire.

**POLICY STATEMENT**:

Applicants must meet the conditions of funding set out in the grants and sponsorship policy guide.

A total pool of $10,000 is available annually.

20 grants of $500.00 will be made available each financial year.

Once the total funding is expended, the application process will close, and no further applications will be assessed during that financial year.

Applications will be assessed by a Council officer monthly throughout the year.

Applications will be processed in the date order in which they are received.

Applications are accepted throughout the year but must be received by Council at least eight weeks prior to the proposed event.

Applicants will be notified of the outcome in writing.

Applicants seeking to change the purpose for which the grant was awarded must seek Council's permission to do so in writing.

Recipients must provide an evaluation report detailing their participation in the funded activity, including key achievements, experiences, skills gained, and the benefits of the opportunity. The report should highlight how the funding supported their involvement and any positive outcomes for their personal development, the community, or the organisation they represented.

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HORNSBY SHIRE COUNCIL

## POLICY REGISTER

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|---|---|
| **POLICY TITLE**: | **COMMUNITY & CULTURAL FACILITIES SUPPORT PROGRAM** |
| **FOLDER NUMBER**: | F2007/00307 |
| **POLICY OWNER / DIVISION**: | Community and Environment Division |
| **POLICY OWNER / BRANCH**: | Library and Community Services |
| **FUNCTION**: | Community Services |
| **RELEVANT LEGISLATION**: | Local Government Act 1993; Local Government (General) Regulation 2021; Government Information (Public Access) Act 2009; Privacy and Personal Information Protection Act 1998; Work Health and Safety Act 2011; Environmental Planning and Assessment Act 1979; Independent Commission Against Corruption Act 1988 |
| **POLICY ADOPTION/AMENDMENT DATE**: | **REPORT NUMBER**: CE 14/26 |
| **REVIEW YEAR:** | 2028 |
| **AMENDMENT HISTORY:** | |
| **RELATED POLICIES**: | Code of Conduct; Procurement Policy; Gifts and Benefits Policy; Sponsorship and In-Kind Support – Council's Involvement; Community Grants Policy; Privacy Management Plan; Complaints Handling Policy |

**POLICY PURPOSE / OBJECTIVES**:

To establish a fair and consistent approach to hire fee reductions for Council's Community and Cultural Facilities, Parks and Ovals, supporting community participation, inclusion, wellbeing and connectedness, while balancing the ongoing sustainability, care and effective management of Council's community assets.

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**EXPECTED OUTCOMES:**

- Increased access to Council-owned community and cultural facilities by reducing financial barriers for eligible organisations, groups and activities that deliver demonstrated community benefit.
- Strengthened capacity of local community and cultural organisations to deliver programs, services, events and initiatives that support the wellbeing, inclusion and connectedness of Shire residents.
- Greater participation in community, cultural, educational and recreational activities through improved affordability and accessibility of Council facilities.
- Enhanced social inclusion, community cohesion and opportunities for people of all ages, backgrounds and abilities to engage in community life.
- Increased activation and utilisation of Council facilities, supporting vibrant, welcoming and well-used community spaces that contribute to the social and cultural vitality of the Shire.
- Improved alignment of facility use with Council's strategic objectives by supporting activities that foster community development, cultural expression, learning, wellbeing and social connection.
- Transparent, equitable and consistent allocation of fee waivers to ensure Council resources are directed towards activities that provide a clear and measurable community benefit.

**ELIGIBILITY & APPLICATION REQUIREMENTS:**

- Eligibility for fee waiver support is dependent on an applicant's ability to demonstrate alignment with the expected outcomes of this Policy and a clear community benefit.
- One fee waiver request per financial year may be submitted by an eligible organisation.
- No concurrent Council support may be received for the same activity, program or event.
- Submission of a completed application and supporting information is required to enable assessment.
- Demonstrated community benefit must show how the proposed activity, program or event will contribute to positive social, cultural, recreational, educational or wellbeing outcomes for the Hornsby Shire community.
- Minimum six-week notice period is required prior to the proposed facility hire date.
- Assessment and review will be undertaken in accordance with Council's approved assessment process.
- Written notification of outcomes will be provided to applicants following assessment.

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- Additional information may be requested where required to support assessment and decision-making.

**POLICY STATEMENT**:

This policy supports the strategic directions of Hornsby Shire Council's Community Strategic Plan 2035: Your Vision, Your Future, particularly through enhancing access to community infrastructure, encouraging community participation and strengthening collaborative relationships with community, and cultural groups. The policy further aligns with the Community and Cultural Facilities Strategic Plan, recognising Council facilities as important, shared spaces that contribute to vibrant, connected and inclusive communities.

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HORNSBY SHIRE COUNCIL

## POLICY REGISTER

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|---|---|
| **POLICY TITLE**: | **FEE WAIVER REQUESTS FOR HEALTH, BUILDING & PLANNING PROGRAM** |
| **FOLDER NUMBER**: | F2007/00307 |
| **POLICY OWNER / DIVISION**: | Planning Division |
| **POLICY OWNER / BRANCH**: | XXXXXXXXXX |
| **FUNCTION**: | Community Services |
| **RELEVANT LEGISLATION**: | Local Government Act 1993; Local Government (General) Regulation 2021; Government Information (Public Access) Act 2009; Privacy and Personal Information Protection Act 1998; Work Health and Safety Act 2011; Environmental Planning and Assessment Act 1979; Independent Commission Against Corruption Act 1988 |
| **POLICY ADOPTION/AMENDMENT DATE**: | **REPORT NUMBER**: CE 14/26 |
| **REVIEW YEAR:** | 2028 |
| **AMENDMENT HISTORY:** | |
| **RELATED POLICIES**: | Code of Conduct; Procurement Policy; Gifts and Benefits Policy; Sponsorship and In-Kind Support – Council's Involvement; Community Grants Policy; Privacy Management Plan; Complaints Handling Policy |

**POLICY PURPOSE / OBJECTIVES**:

Circumstances can arise where it is appropriate and in the public interest for consideration to be given to waiving, reducing or refunding Council's fees and charges associated with the provision of Council's health, building and planning services.

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**This Program will be applied to assist:**

Not-for-profit local community-based organisations that provide a community benefit and which align with Council's policies, strategies and activities

Council with some of its own projects and activities; and in resolving issues that may have a potential risk or liability for the Council.

**ELIGIBILITY:**

**A recognised not-for-profit group or organisation that carries out one or more of the following activities:**

- provides services to the community such as social and age services, childcare or health services, charity services or services of a similar type
- reinvests or applies revenue it receives predominately for public interest services or activities
- principally provides social or sporting or recreational activities
- Government Public School P&C fundraising activities
- supports public events or information of an historical, cultural or community arts focus.

**A community-based organisation generally would not include:**

- any religious or political organisation
- a profit-making organisation
- schools and tertiary institutions
- professional sporting organisations
- State or Federal government agencies and departments
- any organisation where its income is derived predominately from any State or Federal government programs or from other sources of funding.

**PROCESS:**

All applications must be made on the Fee Waiver Application form and address the requirements under the heading 'Hardship' in the Method for Calculating section of the current Fees and Charges.

Prior to lodgement of a planning or building application, a request under this Policy must be forwarded to Council and a decision made under the Program.

The waiver of annual fees such as essential fire safety registration fees, food premises inspection and administration fees and the like, may be granted as a reoccurring exemption.

**Applicants will be notified in writing of Council's decision.**



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HORNSBY SHIRE COUNCIL

## POLICY REGISTER

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|---|---|
| **POLICY TITLE**: | **FEE WAIVER REQUESTS FOR SPECIAL EVENTS WASTE AND RECYCLING SERVICES** |
| **FOLDER NUMBER**: | F2007/00307 |
| **POLICY OWNER / DIVISION**: | Community and Environment Division |
| **POLICY OWNER / BRANCH**: | Waste Management |
| **FUNCTION**: | Community Services |
| **RELEVANT LEGISLATION**: | Local Government Act 1993; Local Government (General) Regulation 2021; Government Information (Public Access) Act 2009; Privacy and Personal Information Protection Act 1998; Work Health and Safety Act 2011; Environmental Planning and Assessment Act 1979; Independent Commission Against Corruption Act 1988 |
| **POLICY ADOPTION/AMENDMENT DATE**: | **REPORT NUMBER**: CE 14/26 |
| **REVIEW YEAR:** | 2028 |
| **AMENDMENT HISTORY:** | |
| **RELATED POLICIES**: | Code of Conduct; Procurement Policy; Gifts and Benefits Policy; Sponsorship and In-Kind Support – Council's Involvement; Community Grants Policy; Privacy Management Plan; Complaints Handling Policy |

**POLICY PURPOSE / OBJECTIVES**:

To facilitate the implementation of Council's adopted *Waste Matters Waste Management Guidelines for Event Organisers Policy* and to support community not-for-profit groups, charities, religious organisations, and public-school P&C fundraising groups to undertake waste-wise events that encourage participation in social, creative, cultural, and community-driven activities.

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**EXPECTED OUTCOMES:**

- Improved recycling, resource recovery, and responsible waste disposal at community-driven special events in accordance with the *Waste Matters Waste Management Guidelines for Event Organisers Policy*.
- Availability and provision of local, cost-effective Council waste and recycling collection services for not-for-profit organisations.
- Increased capacity of local not-for-profit groups, charities, religious organisations, and public school P&C groups to undertake fundraising activities through the waiving of fees associated with Council special event waste and recycling services.
- Increased participation at local events, building a sense of community and promoting social inclusion and sustainable waste management practices.
- Increased community participation in waste education and management.
- Improved awareness of waste education and waste management strategies required for events.
- Improved waste disposal methods and reduced volumes of waste sent to landfill.

**PROCESS:**

- Applicants must meet the conditions of funding set out in the Grants and Sponsorship Policy Guide.
- A total of $25,000 is available annually for not-for-profit group waste and recycling services sponsorship through fee waiver applications.
- For events attracting more than 300 attendees at Council facilities, parks, or venues, applicants must comply with the Waste Matters Waste Management Guidelines for Event Organisers Policy, including completing and submitting the required online application form and Waste Management Plan.
- Applicants must complete and submit a Special Events Waste and Recycling Services Fee Waiver Application Form to Council, together with relevant hire and service fee information. A separate Bin Hire Form may also be required.
- Applications will be assessed monthly in the order they are received.
- Applications must be received at least six weeks prior to the event date to be eligible for consideration.
- Once the annual funding allocation has been exhausted, the application process will close.
- Applicants will be notified in writing of the outcome of their application.
- Where an application for a waste and recycling service fee waiver is unsuccessful, and the event at a Council facility, park, or venue is otherwise approved, the event organiser will be responsible for arranging and funding the required waste and recycling services before the event date.

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- If the event organiser chooses to utilise Council-provided waste and recycling services on a commercial basis, an invoice will be issued in accordance with Council's adopted fees and charges.

**ELIGIBILITY:**

Eligible applicants include:

- Not-for-profit community organisations.
- Registered charities.
- Religious organisations.
- Public school Parents and Citizens (P&C) associations.
- Other incorporated community groups that meet the eligibility requirements of the Grants and Sponsorship Policy.

**FUNDING AVAILABLE:**

Fee waivers may cover approved waste and recycling service costs associated with special events, subject to budget availability and assessment against the program criteria.

**ASSESSMENT CRITERIA:**

Applications will be assessed against the following criteria:

- Demonstrated community benefits.
- Compliance with the Waste Matters Waste Management Guidelines for Event Organisers Policy.
- Commitment to waste avoidance, recycling, and resource recovery practices.
- Event viability and expected community participation.
- Availability of annual program funding.

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ITEM 7

# ATTACHMENT/S

## REPORT NO. CE22/26

## ITEM 7

**1. DRAFT DYARUBBIN (HAWKSBURY- NEPEAN RIVER SYSTEM) COASTAL MANAGEMENT PROGRAM**

**2. APPENDIX E COASTAL ZONE EMERGENCY ACTION SUBPLAN BROKEN BAY BEACHES**

**3. APPENDIX F COASTAL ZONE EMERGENCY ACTION SUBPLAN PITTWATER**

**4. APPENDIX G COASTAL ZONE EMERGENCY ACTION SUBPLAN LOWER HAWKESBURY RIVER**



# Final Report

## Dyarubbin (Hawkesbury-Nepean River System) Coastal Management Program

HNRS CMP Steering Committee

9 October 2026

WATER TECHNOLOGY
WATER, COASTAL & ENVIRONMENTAL CONSULTANTS

## Document Status

| Version | Doc type | Reviewed by | Approved by | Date issued |
|---|---|---|---|---|
| V01 | First Draft CMP for PC and DCCEEW Review | NAD | CJB | 22.09.2025 |
| V02 | Updated for Public Exhibition | NAD | CJB | 02.10.2025 |
| V03 | Updated Draft Report | NAD | CJB | 14.09.2026 |
| V04 | Final Draft Report | NAD | CJB | 09.10.2026 |

## Project Details

| | |
|---|---|
| **Project Name** | Dyarubbin (Hawkesbury-Nepean River System) Coastal Management Program |
| **Client** | HNRS CMP Steering Committee |
| **Client Project Manager** | Ana Rubio |
| **Water Technology Project Manager** | Christopher Beadle |
| **Water Technology Project Director** | Tony McAlister |
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| **Document Number** | 24050036_R05_V04a_Stage4Report |

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*Cover Image: Hawkesbury River at Crosslands. Source: Petra Holland*

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## ACKNOWLEDGEMENT OF COUNTRY

The Board and employees of Water Technology acknowledge and respect the Aboriginal and Torres Strait Islander Peoples as the Traditional Custodians of Country throughout Australia. We specifically acknowledge the Traditional Custodians of the land on which our offices reside and where we undertake our work.

We respect the knowledge, skills and lived experiences of Aboriginal and Torres Strait Islander Peoples, who we continue to learn from and collaborate with. We also extend our respect to all First Nations Peoples, their cultures and to their Elders, past and present.



*Artwork by Maurice Goolagong 2023. This piece was commissioned by Water Technology and visualises the important connections we have to water, and the cultural significance of journeys taken by traditional custodians of our land to meeting places, where communities connect with each other around waterways.*

## USE OF DUAL NAMING

The Hawkesbury-Nepean River System and its surrounding lands and waters have sustained Aboriginal peoples for countless generations and remain a living cultural landscape of deep spiritual, social and economic significance. In the languages of the traditional custodians the river is Dyarubbin.

Building on this recognition, and as a mark of respect for the Traditional Custodians and their enduring connection to Country, this CMP adopts the dual name **Dyarubbin (the Hawkesbury-Nepean River System)**. This dual name is used whenever the river system is referred to by its full name throughout the document.

The use of Dyarubbin acknowledges the continuing presence, knowledge and custodianship of Aboriginal peoples and supports the recognition of Aboriginal language and place names.

The author acknowledges that historical colonial records, maps and other sources contain phonetic variations of the name, including Deerubben and Derrubbin. These variations reflect early attempts to transcribe local Aboriginal oral language into written English. The use of Dyarubbin throughout this document respects the preferred spelling determined by language custodians.

*Image Source: Robyn Green*

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## ACKNOWLEDGEMENTS

This Coastal Management Program (CMP) has been developed through the contributions, dedication, and shared commitment of a diverse group of stakeholders.

The authors of this CMP acknowledge the 6 Partner Councils that have worked collaboratively over many years to deliver this program. Their sustained cooperation, effective sharing of knowledge and resources, and collective commitment to a common purpose have been fundamental to the success of this program. This partnership demonstrates the value of coordinated local government action in addressing complex coastal and estuary management issues.

We also acknowledge the many State agencies who have actively engaged in the development of this CMP. Their advice, technical expertise, and consistent involvement have ensured the program is informed by sound science, robust policy, and practical knowledge.

We also acknowledge the upper catchment councils whose engagement and contributions have supported a whole-of-catchment perspective, recognising that their communities and waterways, while outside the coastal zone, form an integral part of the broader catchment system.

Our sincere thanks are extended to the local First Nations groups across Dyarubbin (the Hawkesbury-Nepean River System). Their generosity in sharing time, perspectives, and cultural connections to Country has provided invaluable insights and enriched our collective understanding of place. Their contributions have been vital in ensuring that cultural values and local knowledge are interwoven throughout this CMP.

Finally, we acknowledge the local communities who care deeply for the HNRS. Their passion, local knowledge, and commitment to the river's long-term health have guided and informed this program at every stage. The energy and enthusiasm of community members - whether through participation in workshops, drop-in sessions, or written feedback - has been central to shaping a CMP that reflects the values and aspirations of the people who live, work, and recreate along the river.

This document features a wide range of photographs generously provided by community members during Stage 2 of the CMP. These images, interwoven throughout the report, provide a powerful reminder of the deep connection between people and the river system. They not only capture the natural beauty of the waterways but also reflect the strong sense of place, pride, and stewardship held by those who care for the Hawkesbury–Nepean River.

The CMP Partner Councils would also like to thank Leanne Watson of the Darug Custodian Aboriginal Corporation, who has created and provided the Aboriginal artwork featured throughout the document.



*Image Source: Thomas Banner*

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## GURUNGUTCH DREAMING

The following story is shared as a creation story of the Dyarrubin and adjoining waterways:

***When time began, the earth was in darkness and had no distinctive features to separate one Country from another. There were no colours in the earth, no flowers, no trees, no grasses. The earth was dry, hot and dark.***

***In the sky, clouds gathered, and thunder began to roar. Wind began blowing from all directions, lifting and swirling the loose, dry sands and soils.***

***As thunder roared louder, it woke lightening, and the sky became electric with its fast and furious strikes. A large and powerful strike from lightening hit the earth and the dry ground began to crack and crumble.***

***Thunder continued to roar with all his might and lightening accompanied him with his most magnificent and bright lightning strikes and flashes.***

***As the clouds closed in, gathering in the sky, they became heavy and moist and before long, tiny droplets of water fell from the sky. The tiny drops got heavier and more frequent and eventually the sky, earth and air were filled with an abundance of falling droplets of water.***

***With all the noise of thunder, and all the brightness of lightening, they had woken rain, who had been in a deep sleep for centuries. Rain wasn't happy to be woken from his sleep and became angry, releasing all his fury on the earth. Rain continued to wreak havoc on the earth and the dry, cracked ground became wet and water started filling the cracks lightening had created with his fierce strikes.***

***The rain fell deep into the crevices and cracks, inundating the underground layers of inner earth.***

***As rain continue to fall, lightening continued to light up the dark skies with his flashes and strikes, thunder continued to roar and rumble, colliding in the otherwise, dark sky.***

***The earth and underground began to tremble and shake with all the force from rain, thunder and lightning. As it rumbled and shook, the earth became brittle and larger cracks formed. As the earth separated, rain engulfed every crevice and filled the underground with water.***

***This continued for days and days, as lightening, thunder and rain competed to dominate the sky and earth with their fury. So much rain completely inundated the earth's surface, and into the cracks and crevices and began to soften the sands and soils.***

***Gradually, rain forced itself deep into the earth's crust, where the Gurungutch lives and protects the inner-earth and underground.***

***Rain kept persisting and thrashing down his fury on the earth. Thunder continued to roar and rumble as lightening wildly displayed his power across the dark sky and out of consequence, the earth got softer and softer. The cracks and crevices got wider and wider and before long, the underground and the earth's surface were exposed to the fury of thunder, lightning and rain.***

***Water rose rapidly, and hand in hand with the wind, rain spread wide and far to every corner of the earth.***

***As rain and wind joined forces, they created ripples and waves through the water that woke Gurungutch from his rest and swept him up, above the underground and away from his duty, as protector of inner- earth.***

***Gurungutch was furious with rain, wind, lightning and thunder for disturbing him, for taking him away from his duty and for exposing the fragile, sacred underground of inner earth.***

***Gurungutch began to flick his large, magnificent eel-like body to and fro, in an attempt to seal the cracks and crevices and protect inner earth. He moved across the surface thrashing his body and fins and in doing so, he created large diverts in the earth's surface. He continued to glide across the surface and through the rising waters from rain. Thrashing, flicking and swirling.***

***While Gurungutch fought to protect the underground, thunder, lightning, rain and wind continued with their havoc. This infuriated Gurungutch. So much rain had fallen to the earth that Gurungutch began to swim through the waters with the greatest force he could muster. He dove down to the bottom of the water and pushed his way through cracks and crevices and created large channels that trapped the rising waters and sealed the cracks and crevices. He swirled and twirled and dove deep into the exposed underground, creating large waterholes as he sealed the earth's surface.***

***So many cracks, so many crevices. All endangering the sacred and fragile earth's crust. Gurungutch continued his work and eventually sealed all the cracks and crevices in the earth's surface, protecting the richness within. In doing his work, thrashing, flicking, swirling and twirling, Gurungutch had created large channels from his movements.***

***Channels that were deep and long. So deep and long that they embodied the fury delivered by rain. Gradually the dispersed waters gathered and became entrapped in the channels and waterholes Gurungutch had created while he was protecting the inner earth from rain, thunder, lightning and wind.***

***Gurungutch was successful with his work and eventually sealed all exposure to the fragile earth's crust, but in doing so, he was now unable to return to the underground as protector of the inner earth.***

***Gurungutch continued drifting across the earth, creating deep channels and waterholes that filled with the water from rain, creating rivers, creeks and lakes and as the water receded over the surface, it replenished the sand and soils, awakening dormant, ancient seeds.***

***Gurungutch had completed his duty by protecting the precious inner earth's core and was very tired from all the work he had done. He rested and gazed upon the beauty he had created. His ferocious thrashing, his rapid twirling and his force beneath the water, had created deep, meandering channels, now filled with water from rain. Bright, colourful flowers and shrubs that bloomed across the landscape and cascaded down from high, tree lined ridgelines, created by the force of Gurungutch moving through the water.***

***In the beauty Gurungutch had created, rain, wind, thunder and lightning withdrew their attacks on the earth and rested. Vowing to protect the beauty Gurungutch had created across the earth's surface, by lightly watering from rain, the spreading of seeds by wind and fire from thunder and lightning to maintain the landscape and germinate precious seeds***.

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*Tracey Howie*

*Wannangini Pty.Ltd*

*Artwork provided by Leanne Watson*

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# EXECUTIVE SUMMARY

## *Overview of the CMP*

Dyarubbin (the Hawkesbury-Nepean River System) (referred to in this CMP as the "HNRS") is one of the most significant river systems in New South Wales (NSW) and represents the largest estuary system in the Greater Sydney Metropolitan Region. It supports a remarkable natural environment, contains places of deep cultural significance, provides recreational amenity for one of the nation's largest population bases, and underpins a thriving blue economy.

However, the HNRS is facing increasing pressures from urban development, population growth, coastal hazards, and the escalating impacts of climate change. In response, the 6 local councils adjoining the tidal waterways of the HNRS have joined together in an unprecedented partnership to prepare a whole-of-estuary Coastal Management Program (CMP) under the NSW Coastal Management Framework.

This CMP presents a coordinated program of management actions that address critical issues while also harnessing emerging opportunities. It provides a clear pathway for implementation over a 10-year horizon, guided by the objectives of the *Coastal Management Act 2016* (CM Act). In doing so, it seeks to protect and enhance the social, cultural, environmental, and economic values of the coastal zone for current and future generations.

This document has been prepared with funding and technical support from the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW), and in consultation with various state agencies, First Nations groups, and the local communities of the HNRS.

## *Study Area*

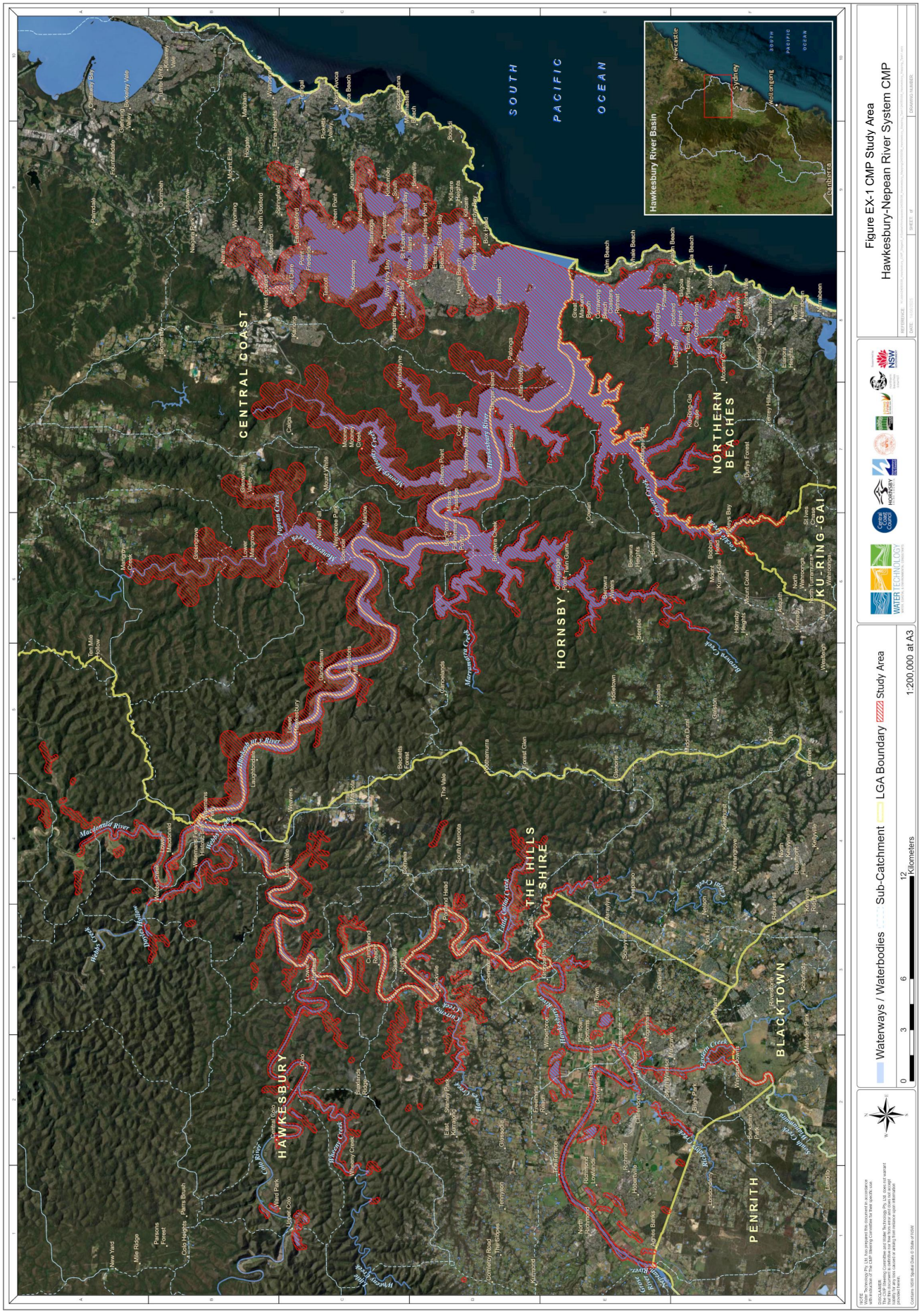
The CMP applies to the coastal zone of the HNRS as defined under the CM Act and the State Environmental Planning Policy (Resilience and Hazards) 2021 (R&H SEPP). The CMP will encompass the tidal sections of the waterway, starting from the river's entrance at Broken Bay and extending more than 145 km upstream to Yarramundi near Richmond (the tidal limit). It also includes the interconnected waterways of Pittwater and Brisbane Water, which flow into the Lower Hawkesbury estuary at Broken Bay forming one large, integrated river system (Figure EX-1).

The decision to adopt a river-wide study area reflects the recognition that key coastal processes, pressures, and opportunities extend across council boundaries. By taking an integrated, system-scale perspective, the CMP promotes management actions are strategically aligned, mutually reinforcing, and more effective than if the Partner Councils acted in isolation. This collaborative approach provides the best opportunity to safeguard the HNRS and deliver enduring outcomes for the communities who depend on it.

## *The Vision for the HNRS*

A local vision statement has been developed for the CMP to help identify with the future of the HNRS, and foster commitment to its implementation. The Vision for the CMP is:

> *To preserve and enhance the environmental, social and economic values of the Hawkesbury-Nepean River system and its catchment for current and future generations, and ensure its status as one of Australia's premier river systems.*




ATTACHMENT 1 - ITEM 7

### *Goals*

A suite of detailed objectives has been developed for the CMP, in order to ensure that the program recognises and protects the environmental, social, cultural, and economic values of the study area. These objectives have been developed to enable consistency and alignment with a range of local, regional, and state policies and plans - including the CM Act. In general terms, the goals of the CMP are to:

- Improve and maintain water quality
- Reduce coastal hazard risks
- Protect waterway ecosystems
- Improve recreational access and amenity
- Protect cultural heritage values
- Improve river governance

### *Snapshot of Issues*

The development of the CMP involved extensive assessment of the diverse issues and risks currently affecting the HNRS, as well as those projected to intensify over the next 100 years. These pressures are wide-ranging and interconnected, cutting across environmental, social, and governance domains.

Key estuarine threats include the impacts of **coastal and estuarine hazards**, such as erosion, inundation, and flooding, alongside the pressures of **urbanisation and land use change**, which continue to alter catchment inputs and place strain on estuarine ecosystems. Increasing **competition for waterway use and resources** presents further challenges, as recreational, commercial, cultural, and ecological values intersect and, at times, conflict. Overlaying these issues is the need for strong and **effective governance**, ensuring that the multiple councils, agencies, and community groups with responsibility for the system are able to work in a coordinated and collaborative way. These threats are being amplified by the twin drivers of **population growth** and **climate change**. As the region's population expands and climate impacts accelerate, the scale and urgency of the challenges facing the HNRS will continue to grow, underscoring the importance of a long-term, integrated management approach.

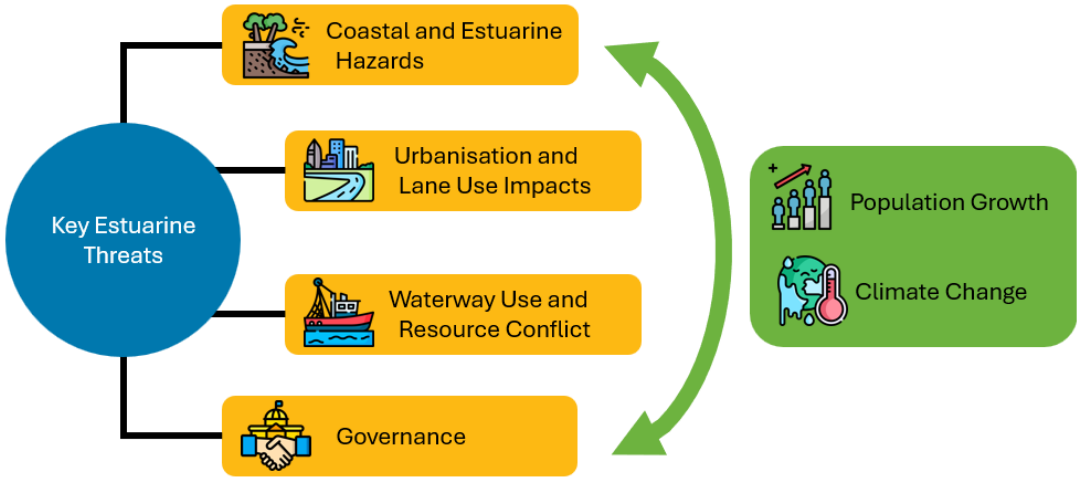



**Figure EX-2 Key Issues and Risks across the HNRS**

### *Development of the CMP*

The HNRS CMP has been prepared in accordance with the requirements of the NSW Government's Coastal Management Framework. Specifically, it has been prepared in accordance with the:

- Statutory Requirements of the CM Act, and
- The Mandatory Requirements of the NSW Coastal Management Manual (OEH, 2018a).

As per the Coastal Management Manual, the CMP has been delivered through the 5-stage risk management process (see Figure EX-3).

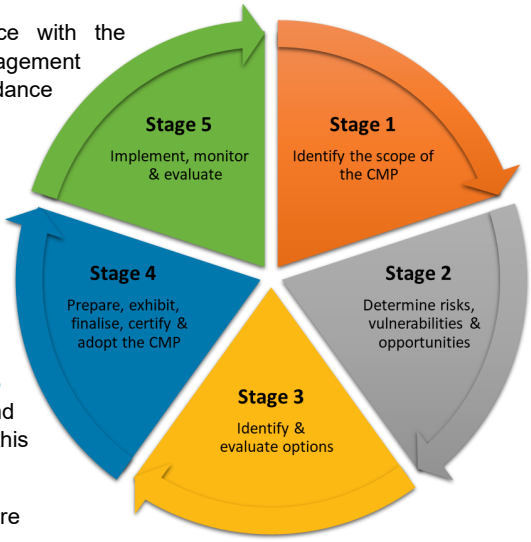



**Figure EX-3 The CMP Process**

In Stage 1, a comprehensive Scoping Study **reviewed the history** of the HNRS, documented existing studies and initiatives, and set out a program for development of this CMP.

During Stage 2, a range of **detailed technical studies** were undertaken to enhance understanding of the key issues facing the river system. These studies examined physical and ecological processes, bank erosion, coastal inundation, and the community's values and use of the river system.

In Stage 3, a wide range of **potential management options** were identified to address potential risks across the system and unlock new opportunities for improved management. A long list of over 800 potential management actions was evaluated in line with the requirements of the NSW Coastal Management Manual, considering the technical **feasibility**, economic **viability**, and the **acceptability** amongst stakeholders and communities. This rigorous assessment process prioritised the progression of 146 management actions through to Stages 4 and 5 of the CMP.

### *Community and Stakeholder Engagement*

Given the scale of the river system and the diversity of interests, the HNRS CMP has been supported by one of the most extensive community and stakeholder engagement programs undertaken for any CMP in NSW. The process was designed to ensure broad representation and meaningful input from government agencies, industry, community groups, and the wider public. Engagement has included:

- 6 Partner Councils directly responsible for tidal sections of the river system
- 18 Upper Catchment Councils whose management decisions influence the estuary downstream
- 15 State Government entities providing policy, regulatory, and technical expertise
- Local First Nations groups, sharing cultural knowledge and perspectives
- Border communities of the HNRS, reflecting the lived experience of residents and river users.

This inclusive approach has ensured that the CMP reflects a wide spectrum of values, knowledge, and priorities. It has also strengthened collaboration across jurisdictions, laying the foundation for coordinated implementation. An overview of the engagement program is provided in Figure EX-4.

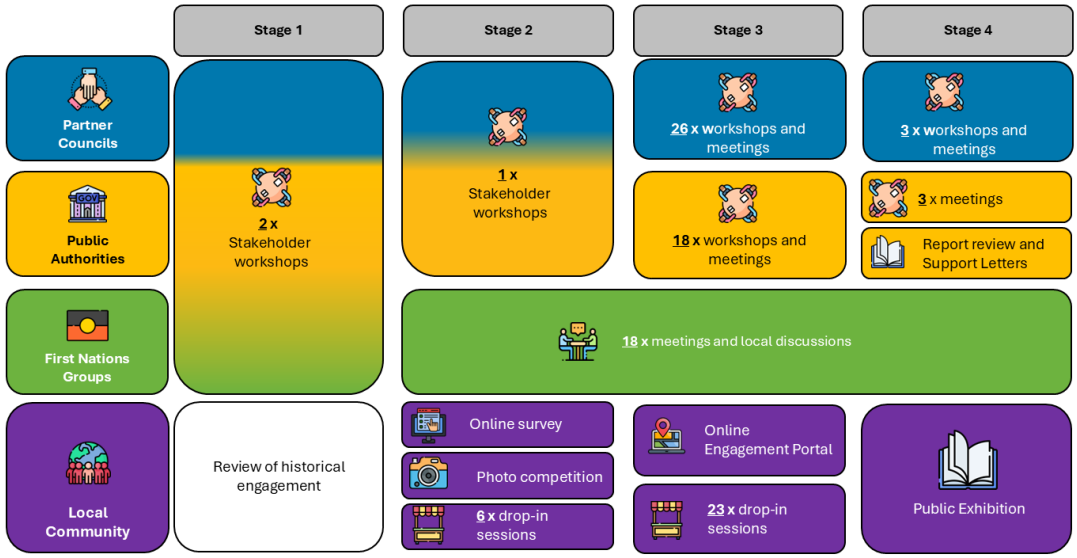



**Figure EX-4 Community and stakeholder engagement**

## *Management Strategies and Actions*

To respond to these challenges, a Strategic Direction Workshop was convened with the CMP Steering Committee at the outset of Stage 3 (see Section 4.4.2). This workshop resulted in a codesign process that developed the delivery structure of the CMP. A summary of this structure is provided in Figure EX-5, and includes:

- **Nine (9) overarching strategies** that provide the CMP with strategic direction.
- **Eight (8) Implementation Plans** that provide the CMP with specific focus, including:
  - *A Collaborative System Implement Plan* to facilitate a large scale, coordinated approach to coastal zone and estuary management. Actions in the plan are delivered by multiple Councils through coordinated delivery partnerships.
  - *6 Local Government Area (LGA) Based Implementation Plans* that provide granularity at a local level for each of the Partner Councils. These plans are also intended to assist in the integration of the CMP actions into each Partners Councils' IP&R Framework.
  - *An NPWS Implementation Plan* that provides specific focus for actions located within National Parks and Wildlife Service (NPWS) land tenure.
- **A Catchment Companion** which is external to the certifiable CMP and contains actions that are located outside of the legal defined coastal zone in the broader HNRS catchment. While clearly marked as non-certifiable under the CM Act, these actions are included within the CMP document to maintain integration with coastal zone actions and to support holistic estuary management. This approach aligns with the NSW Government's guidance on *Coastal Management Programs and Integration with Catchment Management* (DPE, 2022).

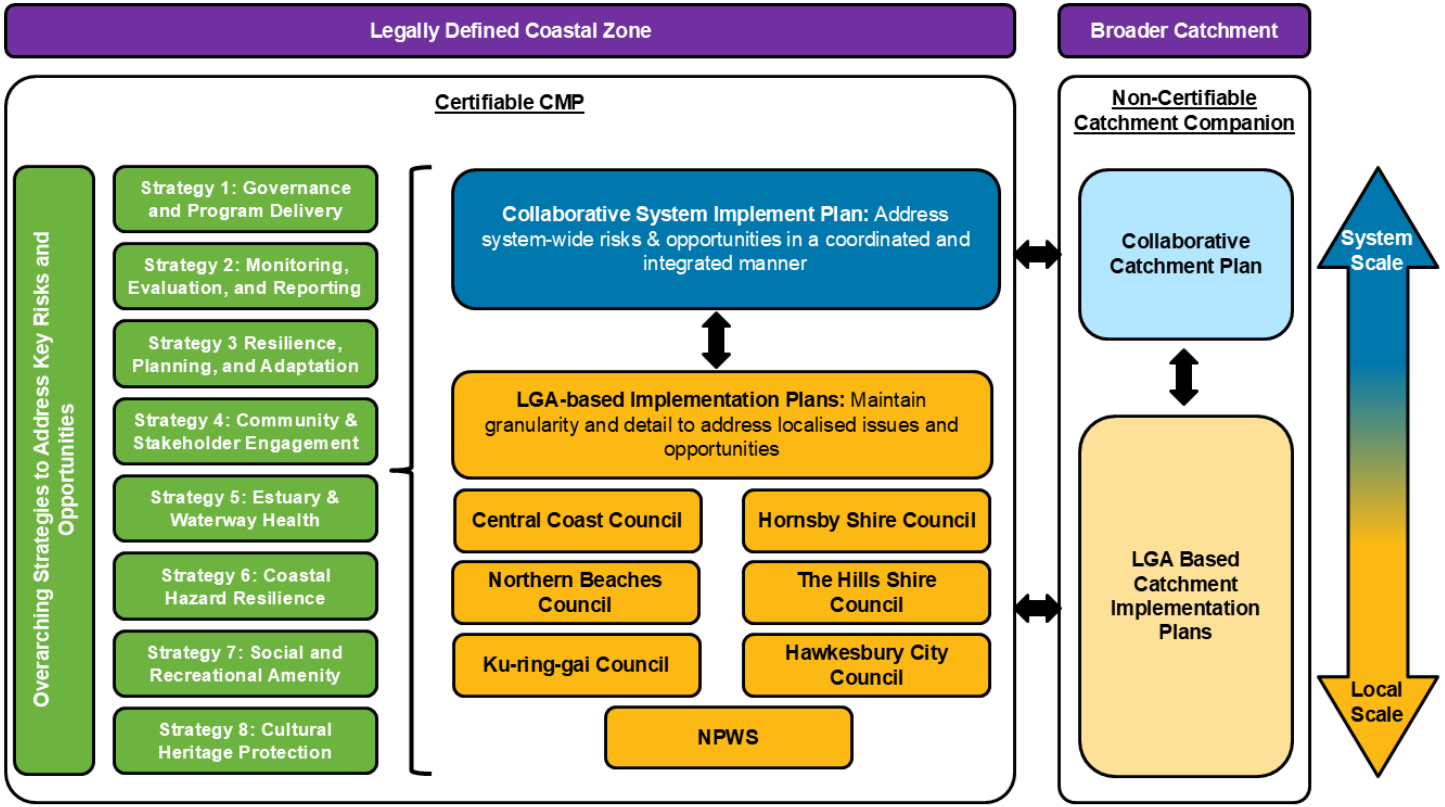



**Figure EX-5 CMP Delivery Structure**



General Meeting 11 November 2026
Attachments Page 349
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 12
ATTACHMENT 1 - ITEM 7

The CMP includes a total of 146 management actions, with an additional 9 management actions included in the associated Catchment Companion. These actions are broken down by strategy and implementation plan in Table EX-1 below. For each action, this document provides a summary of the tasks involved, roles and responsibilities, costs, and timeframes for delivery, and well as objectives and performance indicators.

Management actions have been developed for a ten-year period and have been aligned with the Partner Council's respective four-year Delivery Programs under the NSW Integrated Planning and Reporting Framework.

**Table EX-1 Breakdown of Actions across both the Certifiable CMP and the Catchment Companion**

| Total Number of Actions | Strategy 1: Governance and Program Delivery | Strategy 2: Monitoring, Evaluation, and Reporting | Strategy 3: Resilience, Planning, and Adaptation | Strategy 4: Community & Stakeholder Engagement | Strategy 5: Estuary & Waterway Health | Strategy 6: Coastal Hazard Resilience | Strategy 7: Social and Recreational Amenity | Strategy 8: Cultural Heritage Protection | Total |
|---|---|---|---|---|---|---|---|---|---|
| Collaborative System Implement Plan | 2 | 3 | 7 | 4 | 3 | 3 | 1 | 7 | **30** |
| Local Implementation Plan: Central Coast Council | 0 | 3 | 7 | 0 | 4 | 24 | 11 | 1 | **50** |
| Local Implementation Plan: Northern Beaches Council | 0 | 4 | 4 | 0 | 2 | 11 | 2 | 0 | **23** |
| Local Implementation Plan: Ku-ring-gai Council | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** |
| Local Implementation Plan: Hornsby Shire Council | 0 | 0 | 0 | 0 | 3 | 7 | 11 | 0 | **21** |
| Local Implementation Plan: The Hills Shire Council | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | **5** |
| Local Implementation Plan: Hawkesbury City Council | 0 | 0 | 2 | 2 | 1 | 5 | 1 | 0 | **11** |
| NPWS Implementation Plan | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | **6** |
| *Catchment Companion* | 0 | 1 | 1 | 2 | 5 | 0 | 0 | 0 | **9** |
| ***Total*** | **2** | **11** | **21** | **8** | **18** | **61** | **26** | **8** | **155** |

***Business Plan***

A Business Plan has been developed which outlines the key components of the funding strategy for the CMP, including the cost of proposed actions, proposed cost-sharing arrangements, and other potential funding mechanisms. Delivery of the CMP is estimated to cost $88 Million (2026 dollars) over 10 years.

Sustainable funding and financing arrangements for management actions will be established in consultation with key stakeholders. Funding for management actions may be gained from various sources, including competitive State Government grant programs, the Councils' internal funds, and local third parties.

***Implementation and Review***

This CMP is considered a 'living document' that is to be reviewed and updated over time. A strategic review of the CMP should occur at least once every 10 years to assess the effectiveness of the CMP in achieving its objectives and to incorporate changes in light of new information, legislative and policy changes, and improved understanding of the local coastal processes.

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# CONTENTS


| | | |
|---|---|---|
| 1 | INTRODUCTION | 1 |
| 1.1 | Purpose of this Coastal Management Program | 2 |
| 1.2 | Area Covered by this CMP | 2 |
| 1.3 | Vision, Purpose, and Objectives | 8 |
| 1.4 | The NSW Coastal Management Framework | 10 |
| 1.5 | Supporting Documentation | 13 |
| 1.6 | Maps | 14 |
| 1.7 | Coastal Zone Emergency Action Subplan, if the CM Act requires that subplan to be prepared | 15 |
| 1.8 | Catchment Companion | 16 |
| 2 | DYARUBBIN (THE HAWKESBURY-NEPEAN RIVER SYSTEM) | 17 |
| 2.1 | An Introduction to the Hawkesbury–Nepean River System | 18 |
| 2.2 | Environmental Significance | 34 |
| 2.3 | People, Culture, and the Local Economy | 37 |
| 2.4 | Legislative Context | 46 |
| 2.5 | Roles and Responsibilities | 48 |
| 2.6 | Related Plans and their Linkages to the CMP | 61 |
| 3 | A SNAPSHOT OF THE ISSUES | 73 |
| 3.1 | Overview | 74 |
| 3.2 | Coastal and Estuarine Hazards | 75 |
| 3.3 | Urbanisation and Land Use Impacts | 84 |
| 3.4 | Waterway Use and Resource Conflict | 96 |
| 3.5 | Planning and Governance | 97 |
| 4 | THE DEVELOPMENT OF THIS CMP | 98 |
| 4.1 | Overview | 99 |
| 4.2 | Stage 1 | 99 |
| 4.3 | Stage 2 | 99 |
| 4.4 | Stage 3 | 101 |
| 4.5 | Community and Stakeholder Engagement | 107 |
| 5 | ACTIONS TO BE IMPLEMENTED BY COUNCIL OR BY PUBLIC AUTHORITIES | 124 |
| 5.1 | CMP Structure | 125 |
| 5.2 | CMP Governance Structure | 131 |
| 5.3 | Collaborative System Implement Plan | 136 |
| 5.4 | Local Implementation Plan: Hawkesbury City Council LGA | 145 |
| 5.5 | Local Implementation Plan: The Hills Shire Council LGA | 149 |
| 5.6 | Local Implementation Plan: Hornsby Shire Council LGA | 152 |
| 5.7 | Local Implementation Plan: Ku-ring-gai Council LGA | 159 |
| 5.8 | Local Implementation Plan: Central Coast Council LGA | 160 |
| 5.9 | Local Implementation Plan: Northern Beaches Council LGA | 176 |
| 5.10 | Local Implementation Plan: NPWS | 184 |

| | | |
|---|---|---|
| 6 | A BUSINESS PLAN | 189 |
| 6.1 | Overview | 190 |
| 6.2 | The Benefits of Implementing the CMP | 190 |
| 6.3 | Potential Funding Mechanisms | 190 |
| 6.4 | Partner Council Co-funding Arrangements | 194 |
| 6.5 | Cost-Benefit Distribution | 197 |
| 6.6 | Business Plan | 197 |
| 7 | WHETHER THE CMP IDENTIFIES RECOMMENDED CHANGES TO THE RELEVANT PLANNING CONTROLS, INCLUDING ANY PROPOSED MAPS | 209 |
| 7.1 | Overview | 210 |
| 7.2 | CVA Mapping | 210 |
| 7.3 | Coastal Wetland Mapping | 211 |
| 8 | MONITORING, EVALUATION AND REPORTING PROGRAM | 213 |
| 8.1 | Purpose and Approach | 214 |
| 8.2 | Component 1: Delivery of Management Actions | 216 |
| 8.3 | Component 2: Environmental Parameters and Indicators | 216 |
| 8.4 | Component 3: Achievement of Objects of the CMP and CM Act | 218 |
| 9 | REFERENCE LIST | 220 |


## APPENDICES


Appendix A Study Area Mapping Compendium
Appendix B CMP Management Action Mapping
Appendix C Coastal Protection Works – Reference Compendium
Appendix D Alignment of the CMP with the Objects of the CM Act, and R&H SEPP
Appendix E Coastal Zone Emergency Action Subplan: Broken Bay Beaches
Appendix F Coastal Zone Emergency Action Subplan: Pittwater
Appendix G Coastal Zone Emergency Action Subplan: Lower Hawkesbury River
Appendix H Glossary of Terms and Abbreviations
Appendix I HNRS CMP Catchment Companion


## LIST OF FIGURES


| | | |
|---|---|---|
| Figure 1.1 | The HNRS CMP Partner Councils | 2 |
| Figure 1.2 | Locality Map | 5 |
| Figure 1.3 | R&H SEPP Coastal Use and Coastal Environment Area mapping | 6 |
| Figure 1.4 | R&H SEPP Coastal Wetland and Littoral Rainforest mapping | 7 |
| Figure 1.5 | The Vision, Purpose, and Objectives of the CMP | 8 |
| Figure 1.6 | The NSW coastal management and marine estate management framework | 11 |
| Figure 1.7 | The CMP process | 12 |
| Figure 2.1 | Warragamba Dam (source: Australian National Trust) | 19 |
| Figure 2.2 | The Hawkesbury River at North Richmond (source: Irene Pridham) | 20 |

| | | |
|---|---|---|
| Figure 2.3 | The Hawkesbury River at Pitt Town (source: Steve Sass) | 20 |
| Figure 2.4 | Top: The Hawkesbury River at Wisemans Ferry (source Rob van Elven) | 21 |
| Figure 2.5 | The Hawkesbury River at Spencer (Left source: Screen NSW, Right source: Susan Oleary) | 21 |
| Figure 2.6 | Brooklyn and Sandbrook Inlet (source: Alex Proimos) | 22 |
| Figure 2.7 | Berowra Creek at Collingridge Point (source: Nathan Tilbury) | 23 |
| Figure 2.8 | The Brisbane Water entrance reach (source: DCCEEW) | 24 |
| Figure 2.9 | The Brisbane Water central reach (source: DCCEEW), including Rileys Island wetlands | 24 |
| Figure 2.10 | The Pittwater Estuary (source: DCCEEW) | 25 |
| Figure 2.11 | The Pittwater Estuary at Clareville (source: *Ellaslist*) | 26 |
| Figure 2.12 | The southern arm of Pittwater, which experiences high levels of recreational boating (source: *Sydney.com*) | 26 |
| Figure 2.13 | Pittwater at Great Mackerel Beach (source: *escape.com.au*) | 27 |
| Figure 2.14 | Pittwater at The Basin (source: Ronan Herlihy) | 27 |
| Figure 2.15 | Scotland Island (source: Ronan Herlihy) | 28 |
| Figure 2.16 | Ocean / Umina Beach (source: Central Coast Council) | 29 |
| Figure 2.17 | Patonga Beach (source: lovecentralcoast.com) | 30 |
| Figure 2.18 | Pearl Beach (source: Chris Drummond) | 30 |
| Figure 2.19 | The Functional Zones of the HNRS (Alluvium, 2022a) | 32 |
| Figure 2.20 | Coastal sediment compartments | 33 |
| Figure 2.21 | Longneck Lagoon (Source: NPWS) | 34 |
| Figure 2.22 | Mangrove forests in the middle estuary (source: Rachel Whiteley) | 34 |
| Figure 2.23 | *Posidonia australis* (Source: DPIRD) | 35 |
| Figure 2.24 | Wedge-tailed eagle at Brooklyn (source: Ran Fuchs) | 36 |
| Figure 2.25 | White's Seahorse (*Hippocampus whitei*) - found in Brisbane Water (source: Central Coast Council) | 36 |
| Figure 2.26 | Fur Seals at Barrenjoey Headland (source: Rick Machan) | 37 |
| Figure 2.27 | Aboriginal cultural boundaries in the Sydney region. (Source: GML, 2021) | 37 |
| Figure 2.28 | Engraving of aquatic animal (fish, shark or dolphin) in Parr State Conservation Area. Note: the figure has been enhanced by shading. (source: GML, 2021) | 38 |
| Figure 2.29 | Community Values across the HNRS (Alluvium and Mosaic Insights, 2023) | 41 |
| Figure 2.30 | Community Uses across the HNRS (Alluvium and Mosaic Insights, 2023) | 42 |
| Figure 2.31 | Ocean Beach is a popular recreational destination (source:iCentralCoast.com) | 43 |
| Figure 2.32 | Left: Boating at Sandbrook Inlet, Brooklyn (source: Corleone Marinas), and Right: Pittwater (source: allboatbrokerage.com). | 44 |
| Figure 2.33 | Hawkesbury River Aquaculture (Source: Hornsby Shire Council) | 45 |
| Figure 2.34 | Kayaking the Hawkesbury (Source: Destination NSW) | 46 |
| Figure 2.35 | Catchment and LGA boundaries across the HNRS | 53 |
| Figure 2.36 | Top Left: Ku-ring-gai National Park. Top Right: Berowra Valley National. Bottom Left: Dharug National Park. Bottom Right: Cattai National Park (NPWS, 2025) | 55 |
| Figure 2.37 | Top Left: The Basin Campground. Top Right: Akuna Bay. Bottom Left: Bobbin Head visitor precinct. Bottom Right: Apple Tree Bay (NPWS, 2025) | 56 |
| Figure 2.38 | Dredging in the Ettalong Channel in 2025 (TfNSW, 2025) | 58 |
| Figure 2.39 | Location of WRRFs in the Hawkesbury-Nepean River catchment (Sydney Water, 2023) | 60 |
| Figure 2.40 | The nine management initiatives of the MEMS (MEMA, 2025) | 63 |
| Figure 2.41 | The NSW Water Quality Objectives | 64 |
| Figure 2.42 | Natural Hazards covered by the SDMP | 65 |

| | | |
|---|---|---|
| Figure 2.43 | The Dyarubbin CRS | 67 |
| Figure 2.44 | The Sydney Plan | 68 |
| Figure 2.45 | Integrated Planning and Reporting Framework (NSW Office of Local Government, 2025) | 69 |
| Figure 3.1 | Threat Categories across the HNRS | 74 |
| Figure 3.2 | The legally defined coastal hazards set out in the CM Act | 75 |
| Figure 3.3 | Erosion at Ocean Beach in 1985. Right: Storm Conditions at Pearl Beach, August 1986 (WorleyParsons, 2014) | 76 |
| Figure 3.4 | Beach erosion at Ocean and Umina Beaches in 2015 | 76 |
| Figure 3.5 | Top: Woy Woy tidal inundation in 2018. Middle: Spencer in 2025. Bottom: Bobbin Head NPWS facilities in 2017 (source: Central Coast News) | 78 |
| Figure 3.6 | Flooding at Wisemans Ferry (left) and Lower Portland (right) in 2022 (source: NSW RA, 2024) | 79 |
| Figure 3.7 | The impacts of catchment flooding on the marine estate in March 2022 (source: Sentinel) | 80 |
| Figure 3.8 | Bank erosion at Argyle Bailey Reserve, Windsor | 81 |
| Figure 3.9 | Bank erosion at Cumberland Reach (Alluvium, 2022b) | 82 |
| Figure 3.10 | Projected SLR for the Sydney Region over the next century (source: NASA 6AR Projection Tool) | 83 |
| Figure 3.11 | Key estuary health stressors across the HNRS catchment (Alluvium, 2022a) | 86 |
| Figure 3.12 | Key estuary health stressors across the HNRS estuary (Alluvium, 2022a) | 87 |
| Figure 3.13 | Conceptual model of critical processes operating HNRS estuary | 88 |
| Figure 3.14 | Industrial land usage at Narara Creek, Gosford (source: TfNSW) | 89 |
| Figure 3.15 | Extensive agricultural land use at Freeman Reach | 89 |
| Figure 3.16 | Total Nitrogen Load (kg/ha/year) across the HNRS catchment | 90 |
| Figure 3.17 | Total Phosphorus Load (kg/ha/year) across the HNRS catchment | 90 |
| Figure 3.18 | St Marys WWRF (source: Sydney Water) | 91 |
| Figure 3.19 | Algal blooms at Berowra Creek in the Lower Hawkesbury (MHL, 2025) | 92 |
| Figure 3.20 | The common carp Cyprinus carpio (DPI , 2010) | 93 |
| Figure 3.21 | Caulerpa taxifolia (Caulerpa). (DPIRD, 2025c) | 94 |
| Figure 3.22 | Warragamba Dam Environmental Flows Project | 95 |
| Figure 3.23 | Longitudinal and lateral connectivity within a riverine/estuarine system (CEWO Flow-MER., 2022) | 96 |
| Figure 3.24 | Example of seagrass scarring from chain mooring at Palm Beach Wharf | 97 |
| Figure 4.1 | Stage 1 Scoping Study (Water Technology, 2020) | 99 |
| Figure 4.2 | Four steps in action identification and evaluation (adapted from the CM Manual) | 101 |
| Figure 4.3 | Strategic Direction Workshop | 102 |
| Figure 4.4 | Identification of potential management options | 103 |
| Figure 4.5 | The Stage 3 options assessment process (adapted from the CM Manual) | 104 |
| Figure 4.6 | Calculation of the options ranking score | 106 |
| Figure 4.7 | Stakeholder and community engagement snapshot | 109 |
| Figure 4.8 | Stage 1 stakeholder workshop | 110 |
| Figure 4.9 | Stage 2 stakeholder workshop | 111 |
| Figure 4.10 | “Our Hawkesbury River” photo competition entries | 113 |
| Figure 4.11 | Interactive mapping dashboard used as part of community engagement in Stage 2 of the CMP | 113 |
| Figure 4.12 | Left: At the Brisbane Water Oyster Festival on Sunday, 10 November 2024. Right: Drop-in Session at the Woytopia Event on Sunday, 13 October 2024. | 119 |

Figure 4.13 Left: Drop-in Session at Parsley Bay on Friday, 4 October 2024. Right: At Berowra Waters on Wednesday, 9 October 2024. 120
Figure 4.14 Drop-in Session at the Wisemans Ferry Boat Ramp on Thursday, 3 October 2024 120
Figure 4.15 Example Screenshot from the Feedback Portal 122
Figure 4.16 Example Screenshot from the Suggestion Portal 122
Figure 5.1 HNRS CMP delivery structure 127
Figure 5.2 HNRS CMP governance structure 133
Figure 7.1 Coastal Wetlands located in Brisbane Water at Empire Bay (top) and Bensville (bottom) (source: Chris Drummond) 212
Figure 8.1 Overview of MER program for the CMP 215
Figure 8.2 Water Quality Monitoring in Lower Hawkesbury – an example of key monitoring element of the MER (source: Ana Rubio) 218


## LIST OF TABLES


Table 1.1 Objectives of the CMP 9
Table 1.2 Supporting documents for this CMP 13
Table 1.3 Schedule of maps in this CMP 15
Table 1.4 CZEASs accompanying this CMP 16
Table 2.1 HNRS snapshot 18
Table 2.2 Functional zones of the HNRS (Alluvium, 2022a) 31
Table 2.3 Population growth across the HNRS catchment 2021-2041 39
Table 2.4 Projected population growth across the Partner Council LGAs: 2021-2041 39
Table 2.5 Roles and responsibilities across the HNRS catchment 49
Table 2.6 Local government roles and responsibilities across the coastal zone 52
Table 2.7 NSW NPWS land located across the HNRS coastal zone 54
Table 2.8 Local planning instruments of the Partner Councils 72
Table 3.1 DPE estuary health report card grades (Alluvium, 2022a) between 2010 and 2021 85
Table 4.1 HNRS CMP Stage 2 studies 100
Table 4.2 Stage 2 community drop-in sessions 112
Table 4.3 Stage 3 stakeholder workshops and meetings 114
Table 4.4 Stage 3 community drop-in sessions 118
Table 4.5 Online Feedback Portal engagement metrics 121
Table 5.1 The action priority matrix 130
Table 5.2 HNRS CMP governance structure 134
Table 5.3 Action Table - Collaborative System Implement Plan 136
Table 5.4 Action Table - Hawkesbury City Council Local Implementation Plan 145
Table 5.5 Action Table – The Hills Shire Council Local Implementation Plan 149
Table 5.6 Action Table – The Hornsby Shire Council Local Implementation Plan 152
Table 5.7 Action Table – The Central Coast Council Local Implementation Plan 160
Table 5.8 Action Table – The Northern Beaches Council Local Implementation Plan 176
Table 5.9 Action Table – The NPWS Implementation Plan 184
Table 6.1 Estimated annual revenue for the Partner Councils from rates and annual charges 191
Table 6.2 Summary of potential funding sources of the CMP 191
Table 6.3 Co-funding models for collaborative and shared responsibility actions 196

| | | |
|---|---|---|
| Table 6.4 | Cost breakdown for CMP implementation | 198 |
| Table 6.5 | Legend for Funding Sources in Table 6.7 to 6.9 | 199 |
| Table 6.6 | Business Plan – Certifiable CMP: Collaborative System Implement Plan | 201 |
| Table 6.7 | Business Plan – Certifiable CMP: Local Implementation Plans | 203 |
| Table 7.1 | CVA mapping updates – technical basis and potential alignment with other CMPs | 210 |
| Table 8.1 | Components of the HNRS CMP MER Program | 214 |
| Table 8.2 | Key management actions linked to the MER | 217 |

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# 1 INTRODUCTION

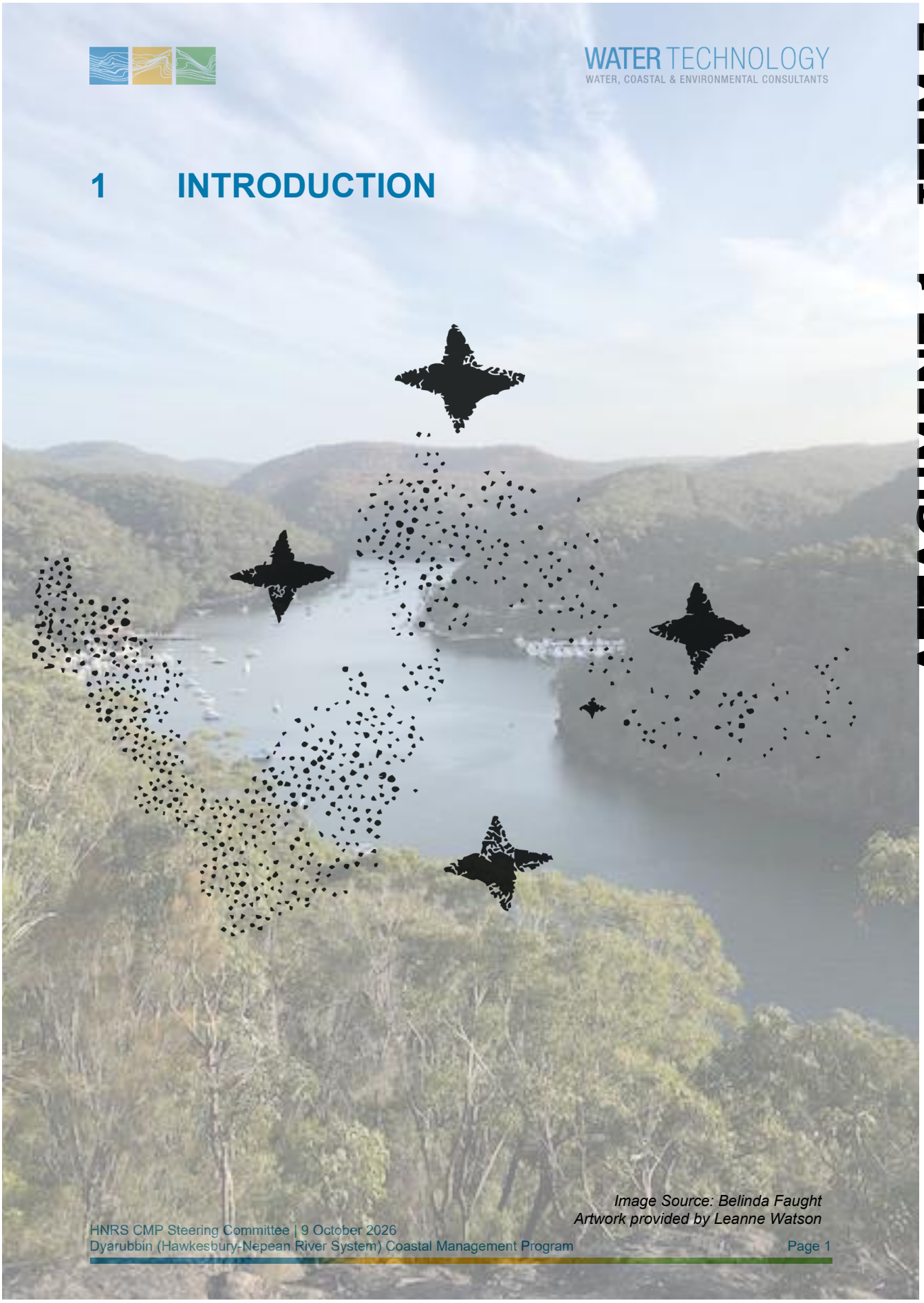


*Image Source: Belinda Faught*
*Artwork provided by Leanne Watson*

ATTACHMENT 1 - ITEM 7



## 1.1 Purpose of this Coastal Management Program

The purpose of this Coastal Management Program (CMP) is to establish an integrated program for the coordinated management of Dyarubbin (the Hawkesbury-Nepean River System (HNRS)). The 6 local councils that border the estuarine reach of the river system have agreed to partner in the development of an integrated, whole-of-estuary, CMP. The 6 councils, hereafter referred to as the Partner Councils, comprise:

- Central Coast Council (CCC)
- Hawkesbury City Council (HCC)
- The Hills Shire Council (THSC)
- Hornsby Shire Council (HSC)
- Ku-ring-gai Council (KC)
- Northern Beaches Council (NBC)

**Figure 1.1 The HNRS CMP Partner Councils**

The CMP provides strategic direction and a program of integrated management actions that are intended to achieve the objects of the *Coastal Management Act 2016* (CM Act), and preserve the environmental, social, and economic values of the coastal zone. It outlines specific actions that are to be implemented over a 10-year management timeframe and provides clear details for how actions will be implemented, funded, monitored, and reviewed.

This CMP aims to address the various risks, threats, and opportunities across the coastal zone over a range of timeframes (immediate, 20 years, 50 years, 100 years), as required by the CM Act. Longer-term pressures such as climate change and population growth have been considered in the formulation of management actions, to ensure resilience against future threats and the conservation of the values of the coastline for future generations.

The HNRS CMP has been prepared in accordance with the mandatory requirements for CMPs specified in the CM Act, and the NSW Coastal Management Manual (OEH, 2018a) (hereby referred to as the CM Manual). This document has been prepared on behalf of HNRS with funding and technical support from the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW), and in consultation with various state agencies and other relevant stakeholders.

## 1.2 Area Covered by this CMP

### 1.2.1 Coastal Management Areas

In accordance with the CM Act, this CMP gives effect to the management objectives for the 4 coastal management areas (CMAs) that define the coastal zone of the study area. Each CMA has different characteristics and objectives, and the areas may overlap. The CM Act provides the definition and objectives for each of the management areas. The State Environmental Planning Policy (Resilience and Hazards) 2021 (R&H SEPP) provides development controls for each of the management areas, and state-wide mapping of 3 of the 4 areas. The 4 coastal management areas as defined by the CM Act are (listed in hierarchical order):

- **Coastal wetlands and littoral rainforests area (CWLR)**: Land which displays the hydrological and floristic characteristics of coastal wetlands or littoral rainforests, as well as a surrounding proximity area to manage impacts of adjacent development.
- **Coastal vulnerability area (CVA)**: Land which is subject to any of the coastal hazards listed in the CM Act, including beach erosion, shoreline recession, coastal lake or watercourse entrance instability, coastal

inundation, tidal inundation, coastal cliff and slope instability. Mapping for the coastal vulnerability area has not been provided from the R&H SEPP, and no such coastal vulnerability area (CVA) map yet exists for the study area. Nonetheless, it is recognised that the HNRS is subject to coastal hazards and that the scope of this CMP also covers managing coastal vulnerability.

- **Coastal environment area (CEA):** Land containing coastal features such as the coastal waters of the state, estuaries, coastal lakes, coastal lagoons, and land adjoining those features including headlands and rock platforms. Beaches, dunes, and foreshores are included in this area.
- **Coastal use area (CUA)**: Land adjacent to coastal waters, estuaries, coastal lakes and lagoons where development is or may be carried out (at present or in the future) and impacts of development on the scenic and cultural values and use and enjoyment of the beaches, foreshores, dunes, headlands, rock platforms, estuaries, lakes and the ocean need to be considered.

The study area for the CMP therefore comprises the envelope extent of these CMAs across the HNRS catchment. A map of the CMP study area is provided in Figure 1.2, with mapping of associated CMAs provided in Figure 1.3 and Figure 1.4. A detailed mapping compendium providing this mapping in greater spatial resolution is provided in Appendix A.

More information about the R&H SEPP is provided in Section 1.4 and 2.4.

### 1.2.2 Rationale for the CMP Study Area

The overall objects of the CM Act seek to protect and enhance the environmental values and natural processes of the coastal zone as outlined in Section 1.2.1. In alignment with these objectives, the 6 Partner Councils elected during Stage 1 of the CMP to adopt a whole-of-river approach (Water Technology, 2020). As a result, the study area for this CMP extends across the tidal reaches of the Hawkesbury–Nepean River system, including the Brisbane Water Estuary, Pittwater Estuary, Hawkesbury River Estuary, and Broken Bay.

The rationale for adopting a broader, river-wide study area for the CMP is underpinned by the need for a more integrated, strategic, and effective approach to estuary management. This systems-based approach offers several key advantages:

- It supports coordinated and strategic management of the interconnected river system, allowing CMP actions to be aligned with the physical, ecological, and chemical processes that shape estuary health. These natural systems operate across catchment boundaries and are not confined by local government boundaries, making a regional approach essential to effective management.
- It enables more efficient and targeted responses to catchment-scale issues, threats, and risks, such as water pollution, sedimentation, altered flow regimes, and the cumulative impacts of urban development. A system-wide lens allows these pressures to be understood and addressed at the scale at which they actually occur.
- It better reflects First Nations cultural connections to Country, recognising that Aboriginal cultural values and heritage are deeply tied to the river system as a whole - not local government boundaries. This approach supports more meaningful engagement and representation of cultural knowledge across the full extent of the catchment.
- It aligns more effectively with regional planning and governance frameworks, including those led by State government agencies. This allows for better coordination across policies, data, and investment priorities.
- It increases cost-effectiveness through shared investment, collaborative delivery, and reduced duplication of effort. By pooling resources and addressing common issues collectively, councils can achieve greater impact, avoid fragmentation, and reduce the risk of CMP outcomes being limited by individual council budget and resource constraints.

### 1.2.3 Legal Definition of the CMP Study Area

Whilst a systems-based approach to estuary management is beneficial, there are some legislative considerations that affect the legally defined study area of the CMP. They are:

- Section 12 of the CM Act outlines the purpose of a coastal management program, being 'to set the long-term strategy for the coordinated management of land within the coastal zone with a focus on achieving the objects of this Act'.
- Section 13(2) of the CM Act specifies that, 'a Coastal Management Program may be made in relation to the whole, or any part of the area included within the coastal zone'.

In considering the statutory requirements, there is no provision in the CM Act for land or actions to be included in a CMP, where that land or those actions reside outside the "coastal zone". The coastal zone is legally defined in the CM Act as the envelope extent of the four CMAs mapped in the Resilience and Hazards SEPP (2021) (R&H SEPP) – see Section 1.2.1.

For the HNRS estuaries, it is acknowledged that the defined coastal zone is generally only a small portion of the catchment – around 2%. However, as is required under the CM Act, the focus of a CMP must be directed to activities contained within the defined coastal zone. For development of this CMP, the implications of this are:

- The study area of the CMP must be comprised only of the legally defined coastal zone as depicted in Figure 1.2.
- Any actions that are to be included in the certified CMP document must be located within the legally defined coastal zone.
- Whilst the CMP should describe areas outside the coastal zone (i.e., the broader catchment areas) and the effects these areas may have on land within the coastal zone, these areas should be distinguished from the area to which a CMP applies.
- Broader catchment-based actions that are located outside of the coastal zone are to be clearly identified and distinguished from those actions that are to be delivered as part of the certified CMP.

Subsequently, this CMP has also included a catchment-based companion section which identifies actions located outside the legally defined coastal zone (see Section 1.8 and Appendix I).

It is recognised that estuary health is strongly influenced by processes occurring in the upper estuary and broader catchment. Accordingly, consultation and collaboration with the 18 councils that lie in the Upper Catchment (beyond the tidal influence) were undertaken throughout the development of the HNRS CMP.

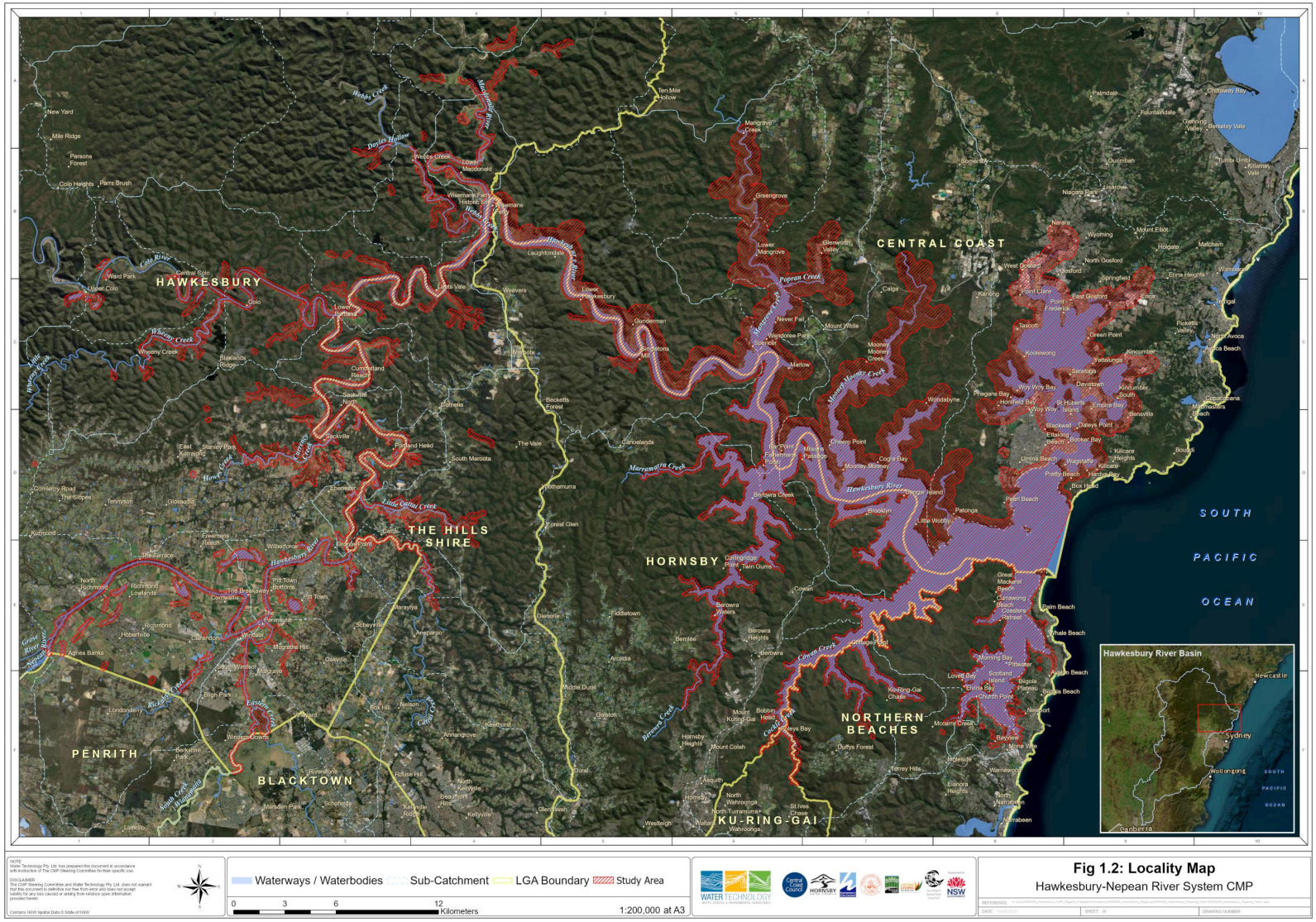
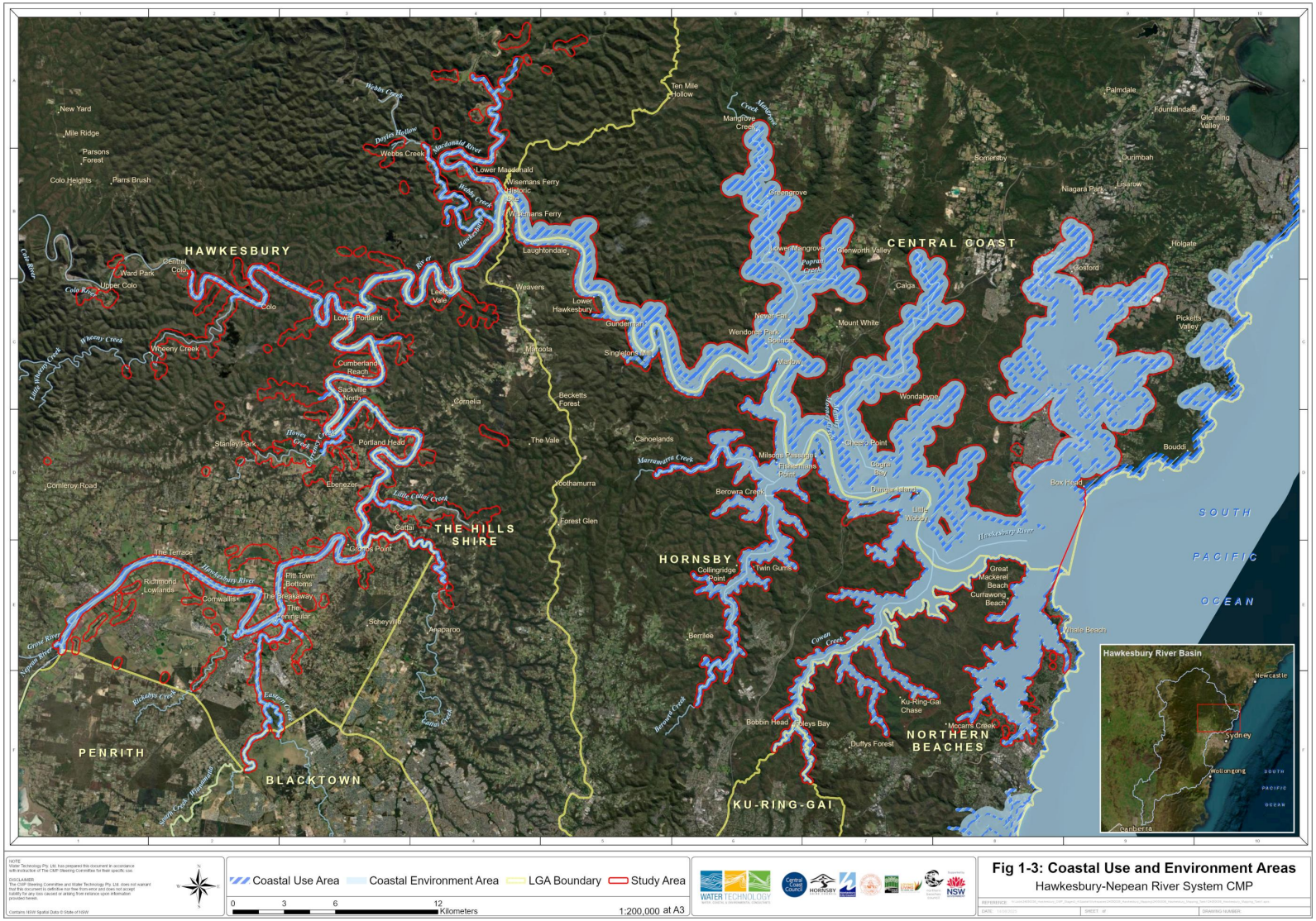



**Fig 1.2: Locality Map**
Hawkesbury-Nepean River System CMP



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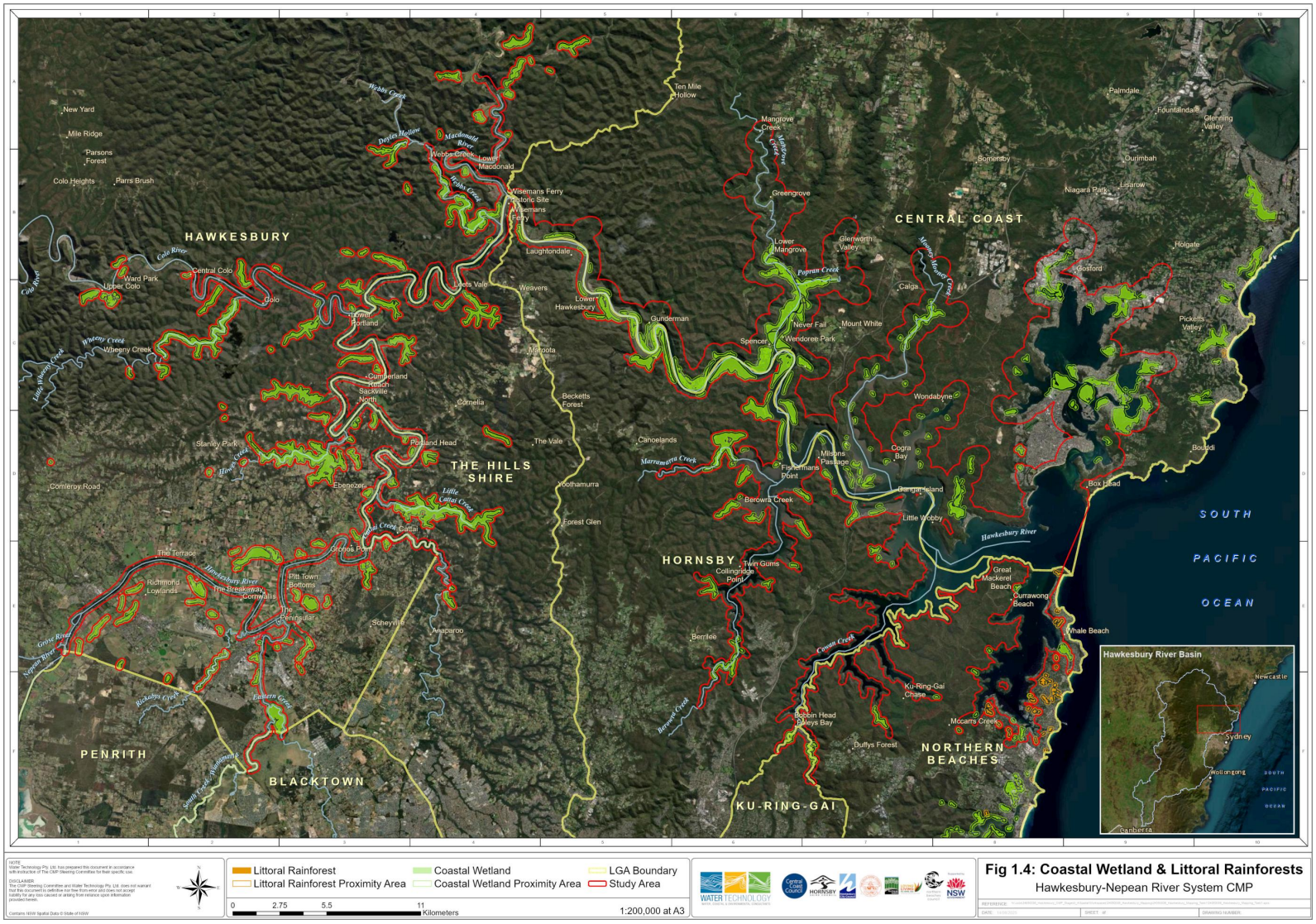



**Fig 1.4: Coastal Wetland & Littoral Rainforests**
Hawkesbury-Nepean River System CMP



# ATTACHMENT 1 - ITEM 7

## 1.3 Vision, Purpose, and Objectives

The purpose of the CMP is to create a comprehensive framework for the future management of the HNRS. This framework aims to align with the principles of ecologically sustainable development and promote the well-being of the community in social, cultural, and economic aspects.

During Stage 1 of the CMP (Water Technology, 2020), the Vision, Purpose, and Management Objectives for the project were developed. The Vision and Purpose play a crucial role in the CMP hierarchy, as they provide the framework for defining strategic objectives. These strategic objectives, in turn, enable the establishment of specific objectives. The relationship between the Vision, Purpose, and Specific Objectives is illustrated in Figure 1.5.

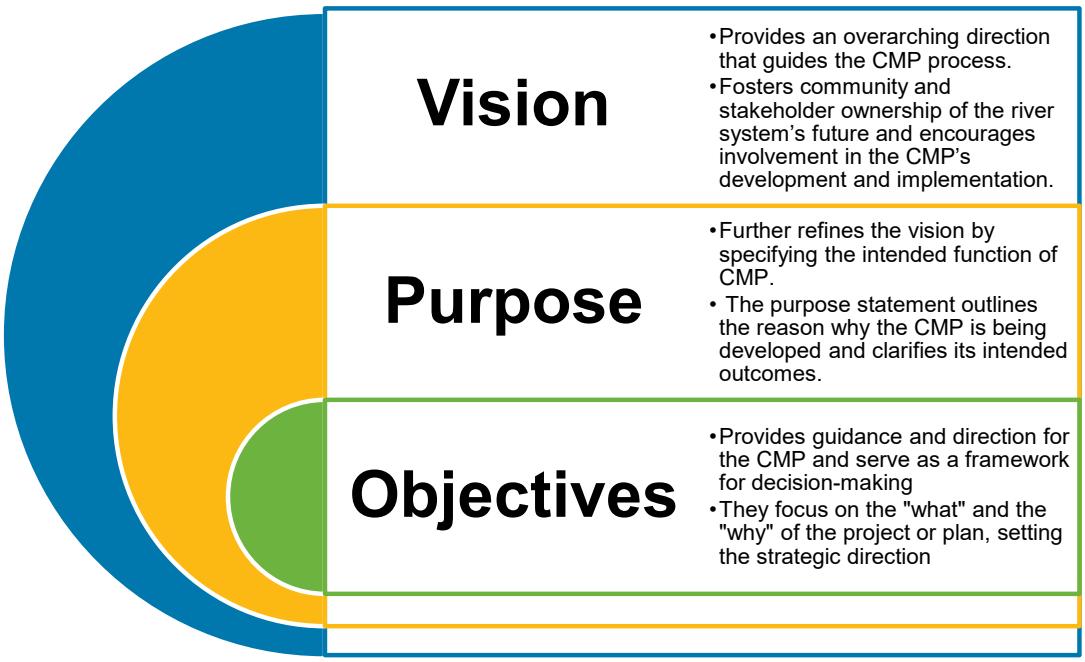



**Figure 1.5 The Vision, Purpose, and Objectives of the CMP**

### 1.3.1 Vision

The vision statement derived in Stage 1 of the CMP (Water Technology, 2020) provides an overarching direction that guides the CMP process:

> *To preserve and enhance the environmental, social and economic values of the Hawkesbury-Nepean River system and its catchment for current and future generations, and ensure its status as one of Australia's premier river systems.*

### 1.3.2 Purpose

The purpose statement further refines the vision by specifying the intended function or role of CMP:

> *The purpose of the CMP is to set the long-term strategy for the coordinated management of the Hawkesbury-Nepean River system, encompassing the estuaries of Broken Bay, Pittwater, the Hawkesbury River and Brisbane Water. The CMP seeks to achieve the objectives of the CM Act through a program to identify coastal management issues, pressures, risks and opportunities - and the actions required to address these issues in a strategic and integrated way.*

The purpose of the CMP is to set the long-term strategy for the coordinated management of the HNRS.

### 1.3.3 Objectives

The strategic management objectives determined during Stage 1 of the CMP are summarised in Table 1.1. It should be noted that the objectives of this CMP have been designed with consider of, and are intended to be complimentary to, the objectives of the CM Act (see Section 2.4) and the NSW Water Quality Objectives (see Section 2.6).

**Table 1.1 Objectives of the CMP**

| Objectives |
|---|
| a) to protect and enhance the integrity and resilience of the environmental values of the Hawkesbury River, Brisbane Water and Pittwater estuaries, including healthy, diverse aquatic ecosystems. |
| b) to maintain and protect water quality across the system and its impacts on environmental, social and economic values - including ecological condition, recreational amenity and agricultural uses; |
| c) to maintain and preserve the unique scenic amenity and natural character of the Hawkesbury River, Brisbane Water and Pittwater estuaries; |
| d) to support the social and cultural values of the system and maintain public access and recreational amenity; |
| e) to maintain the health, safety and wellbeing of those using the coastal zone (both directly and indirectly) - and to protect the health of human consumers of aquatic foods; |
| f) to acknowledge Aboriginal peoples' spiritual, social, customary and economic use of the Hawkesbury and to protect local indigenous cultural heritage; |
| g) to recognise the coastal zone as a vital economic zone and to support sustainable coastal economies such as recreational and commercial fishing, aquaculture and tourism; |
| h) to facilitate appropriate management of the coastal zone through ecologically sustainable development, and the promotion of sustainable land use planning and decision-making that is consistent with regional and local strategic plans; |

| Objectives |
|---|
| i) to mitigate current and future risks from population growth, urbanisation and coastal hazards (erosion and inundation of foreshores caused by tidal waters and the action of waves, including the interaction of those waters with catchment flooding); |
| j) to ensure co-ordination between relevant government and public authorities relating to the river system - and to facilitate the proper integration of management activities across all levels of government; |
| k) to maintain meaningful engagement with the community, and to support public participation in coastal management and planning, and to create greater public awareness, education and understanding of coastal processes and management actions; |
| l) to encourage and facilitate research and monitoring – and to maintain the scientific and educational values of the river system; |
| m) to support the objects of the *Marine Estate Management Act 2014*; and |
| n) to align with the NSW Risk-based Framework for Considering Waterway Health Outcomes in Strategic Land-use Planning Decisions. |

## 1.4 The NSW Coastal Management Framework

### 1.4.1 The Framework

The NSW coast provides a multitude of values and uses for the community. However, the coastal zone is under increasing pressure from a growing population, urbanisation, natural hazards, and climate change (OEH, 2018b). Planning for coastal communities must carefully balance the need to provide jobs, housing, community facilities and transport for a changing population, while maintaining the unique qualities and managing risks associated with development along the State's coastlines and tidal waterways (DPIE, 2019).

Sustainable management of the coastal zone often involves local councils, their communities and public authorities balancing a diverse range of challenges and opportunities. The context is one of rapid environmental, social, and economic change along with dynamic coastal processes affecting the open coast, estuaries and coastal lakes (OEH, 2018b).

In order to plan for development, protect environmental assets and manage coastal hazards across the state, the NSW Government has implemented the *NSW Coastal Management Framework*, which includes legislation and planning policy, and aims to provide an integrated framework for coastal management across the state.

Key components of the framework include:

- ***Coastal Management Act 2016* (CM Act):** An act that provides for the integrated management of the coastal environment of NSW, consistent with the principles of ecologically sustainable development, for the social, cultural, and economic wellbeing of the people of the state.
- ***Marine Estate Management Act 2014* (MEM Act):** An act that provides for the management of the marine estate of NSW in a manner that promotes a biologically diverse, healthy and productive marine estate and which facilitates the economic cultural, social and recreational use of the marine estate, scientific research, education and management of marine parks.
- ***The NSW Environmental Planning and Assessment Act 1979* (EP&A Act)**: An act that governs land use planning and development in NSW, focusing on sustainable development, environmental protection, community participation, and compliance measures.
- **State Environmental Planning Policy (Resilience and Hazards) 2021 (R&H SEPP):** One of the key environmental planning instruments for land use planning in the coastal zone. It gives effect to the

objectives of the CM Act 2016 and delivers the statutory management objectives of the act by specifying how development proposals are to be assessed if they fall within the coastal zone.

- **Coastal Management Programs (CMPs):** A 5 stage coastal management process intended to set the long-term strategy for the coordinated management of the coastal zone for a given region.
- **The NSW Coastal Management Manual (The CM Manual):** A manual that sets forth mandatory requirements and provides guidance to coastal councils in connection with the preparation, development, adoption, implementation, amendment, and review of CMPs.
- **The NSW Coastal Council:** It is responsible for providing independent and expert advice on matters relating to the Minister's functions under the CM Act, and in relation to the development and implementation of CMPs by local councils.
- **The NSW Coastal and Estuary Grants Program:** It provides technical and financial support to local government to help manage the coastal zone.

A schematic of the NSW Coastal Management Framework (and linkages to the relevant legislation and policies for the management of the NSW marine estate) is provided in Figure 1.6.

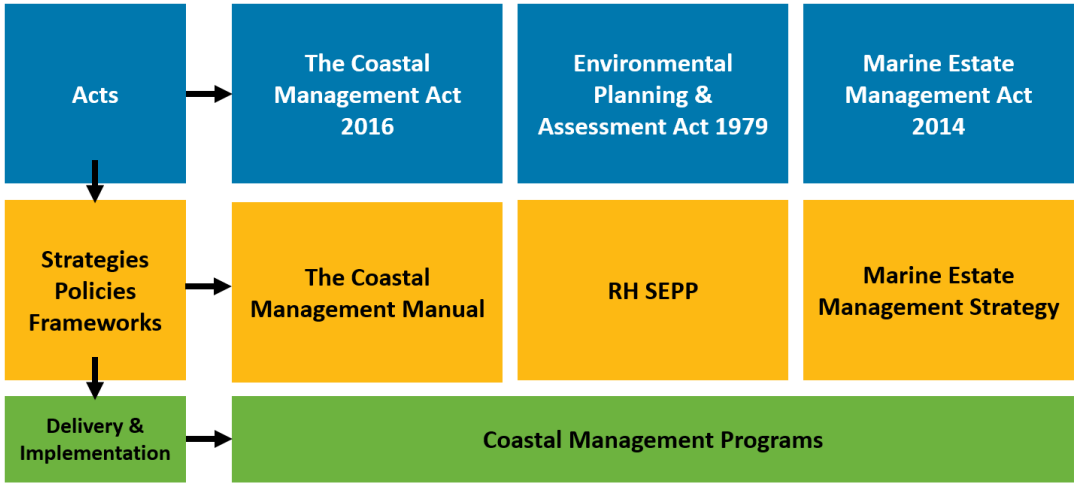



Figure 1.6 The NSW coastal management and marine estate management framework

### 1.4.2 Coastal Management Programs

The purpose of a CMP is to establish a long-term, strategic approach to managing the coastal zone - balancing environmental, social, cultural, and economic values. A CMP considers a broad range of coastal management issues and actions and sets the framework for coordinated management of a defined coastal area. It is intended to achieve the objects and objectives of the CM Act at a local level. Appendix D provides a summary of how the actions in this CMP align with the objects and objectives of the CM Act.

CMPs provide a structured opportunity for councils, public authorities, and local communities to clearly identify and balance competing interests, values, and priorities within the coastal zone (OEH, 2018a).

CMPs are prepared through a five-stage risk-based management process, as outlined in the CM Manual and depicted in Figure 1.7. This process supports councils and their communities to identify, assess, and manage risks to the environmental, social, and economic values of their coastal zone.

- **Stage 1 – Scoping Study**: Establishes the vision, objectives, study area, key stakeholders, and priority coastal management issues. It also identifies knowledge gaps and outlines the intended process for developing the CMP (OEH, 2018b).
- **Stage 2 – Technical Studies**: Involves the collection and analysis of data to understand coastal processes, hazards, vulnerabilities, and current management responses. It also assesses risks to coastal values (OEH, 2018c).
- **Stage 3 – Options Evaluation**: Identifies and evaluates potential management actions, using tools such as cost-benefit analysis, feasibility assessments, and community/ stakeholder input to identify preferred options (OEH, 2018d).
- **Stage 4 – CMP Preparation:** Prepares the full Coastal Management Program, including a clear and costed implementation program that outlines what actions will be taken, who is responsible, when they will be delivered, how much they will cost, and how they may be funded. This draft CMP is publicly exhibited, revised in response to submissions, and submitted to the Minister for certification under the CM Act (OEH, 2018e).

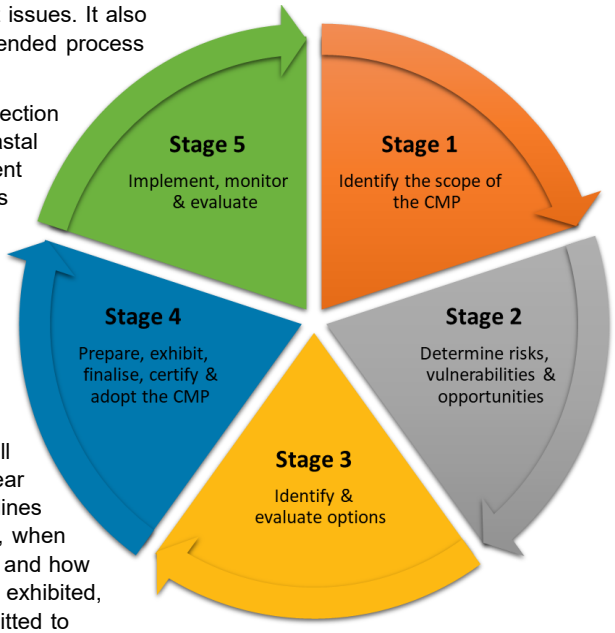



Figure 1.7 The CMP process

- **Stage 5 – Implementation:** Following certification, the CMP is implemented through council's planning and operational frameworks. Progress is monitored and reported, and the CMP is reviewed and updated as necessary to remain current and effective (OEH, 2018f).

The CM Manual sets forth mandatory requirements for CMPs, and provides guidance regarding their preparation, development, adoption, implementation, and review (OEH, 2018a). It also helps councils evaluate and select practical, locally tailored management actions. These actions are typically integrated into land use planning instruments and councils' broader Integrated Planning and Reporting (IP&R) Framework, established under the *Local Government Act 1993* (LG Act).

Under the NSW Coastal Management Framework, councils *may* prepare CMPs for their coastline, estuaries, or coastal wetlands - but *must* do so if directed by the Minister. CMPs are a key mechanism to ensure that the coast is managed in a coordinated, evidence-based, and forward-looking way.

### 1.4.3 Previous Coastal Zone and Estuary Management Plans

Historically, the approach to coastal zone management across the HNRS has been fragmented, and typically undertaken at a sub-estuary geographic scale. Subsequently, in recent decades there have been a range of Coastal Zone Management Plans and Estuary Management Plans that have applied to the various reaches of the HNRS, the most contemporary of which include:

- The Upper Hawkesbury Coastal Zone Management Plan (BMT WBM, 2014a)
- The Estuary Management Plan for the Lower Hawkesbury River (BMT WBM, 2008)
- The Brisbane Water Estuary Coastal Zone Management Plan (Cardno, 2012)
- The Pittwater Estuary Management Plan (BMT WBM, 2010)

- The Gosford Beaches Coastal Zone Management Plan (WorleyParsons, 2017)
- The Pearl Beach Lagoon Coastal Zone Management Plan (BMT WBM, 2014b)

This CMP introduces a coordinated, system-wide approach under the CM Act, superseding all previous plans listed above. It provides, for the first time, a unified framework for managing the entire Hawkesbury–Nepean River System, ensuring that actions are strategically aligned, resources are used efficiently, and management outcomes deliver benefits across the whole system.

By building on the strengths of past plans while addressing gaps and overlaps, the CMP sets a clear and collaborative path forward to protect and enhance the river system for current and future generations. These earlier studies were reviewed as part of Stage 1 scoping and background investigations, and key findings, technical methods, and practical lessons from their delivery have been integrated into the development of this CMP. This approach provides continuity with prior work while supporting a consistent, system-wide management framework.

## 1.5 Supporting Documentation

This CMP has been developed through a staged and evidence-based process. Each stage (Figure 1.7) has been documented through a suite of technical reports that provide the foundation for the analysis, decision-making, and recommendations presented in this CMP. In addition to these supporting documents, a range of relevant policies, guidelines, and best-practice manuals have been used to guide the assessment and ensure alignment with legislative and strategic planning requirements at the local, state, and national levels.

### 1.5.1 CMP Documentation

Table 1.2 outlines the key supporting technical documents produced as part of the CMP process. These reports form the technical evidence base for the CMP and are referenced throughout this document. Many of these documents are publicly available on the CMP website: https://hawkesburynepeancmp.org/, noting that online access reflects the resources available at the time of publication.

**Table 1.2 Supporting documents for this CMP**

| CMP Stage | Technical Report | Reference |
|---|---|---|
| Stage 1 | The Hawkesbury Nepean River System Coastal Management Program – Stage 1 Scoping Study | (Water Technology, 2020) |
| Stage 2 | The Hawkesbury-Nepean River System Physical and Ecological Processes Abridgement Report | (Alluvium, 2022a). |
| | The Hawkesbury-Nepean River System Community Values and Uses Report | (Alluvium and Mosaic Insights, 2023). |
| | The Hawkesbury-Nepean River System Estuary Bank Erosion Assessment and Options Report | (Alluvium, 2022b) |
| | The Hawkesbury River Estuary Coastal Inundation Study | (Rhelm and Baird, 2023) |
| | Pittwater Beach Erosion and Shoreline Recession Assessment | (WRL, 2023) |
| | The Central Coast Open Coast and Coastal Lagoons Coastal Hazard Assessment | (Bluecoast Consulting Engineers, 2024) |
| Stage 3 | The Hawkesbury Nepean River System Coastal Management Program: Stage 3 Strategic Direction Summary | (Water Technology, 2023a) |
| | The Hawkesbury Nepean River System Coastal Management Program: Stage 3 Summary Report | (Water Technology, 2025) |

### 1.5.2 Relevant References, Guidelines, and Manuals

This report and its analysis have been undertaken in accordance with, and with a clear understanding of, the key requirements and guidance outlined in the following documents:

- Supporting documentation in the *NSW Coastal Management Toolkit*:
  - NSW Risk-based Framework for Considering Waterway Health Outcomes in Strategic Land-use Planning Decisions (OEH, 2017).
  - NSW Water Quality Objectives (MEMA, 2025)
  - NSW Marine Estate Management Strategy 2018 – 2028 (MEMA, 2018)
  - NSW Marine Estate Threat and Risk Assessment (TARA) (BMT WBM, 2017)
  - NSW Estuary Health Risk Dataset (DPIE, 2019b)
  - NSW Coastal Design Guidelines (DPE, 2023a)
  - NSW Coastal Crown Land Guidelines (DPE, 2023b)
  - NSW Guide to Cost-Benefit Analysis (NSW Treasury, 2023)
  - NSW Guidelines for using Cost-Benefit Analysis to Assess Coastal Management Projects (DPE, 2020).
- Industry standards and guidelines applied in coastal management:
  - Guidelines National Climate Resilience and Adaptation Strategy 2021–2025 (Commonwealth of Australia, 2021)
  - Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC/ARMCANZ, 2000)
  - The Engineers Australia National Committee on Coastal and Ocean Engineering - Climate Change Adaptation Guidelines in Coastal Management and Planning (NCCOE, 2012)
  - Guidelines for responding to the effects of climate change in coastal and ocean engineering (NCCOE, 2017)
  - ISO 31000:2018, Risk management – Principles and guidelines, provides principles, framework and a process for managing risk (ISO, 2018)
  - ISO 14090:2019 Adaptation to climate change - Principles, requirements and guidelines (ISO , 2019)
  - The Intergovernmental Panel on Climate Change 6$^{th}$ Assessment Report (IPCC, 2023).

Together, these documents and guidelines provide a strong technical foundation for the CMP and align it with best-practice standards across all levels of planning and policy.

## 1.6 Maps

This CMP incorporates a comprehensive suite of maps to support understanding, decision-making, and on-ground implementation. The mapping covers both estuary-scale and local-scale features, capturing key geographical, environmental, and legislative information. It also depicts the representative locations of proposed CMP management actions to assist in planning and prioritisation. Together, these maps provide a spatial framework for interpreting the CMP's technical assessments, legislative context, and recommended actions. A summary of all maps included in this CMP is provided in Table 1.3.

Table 1.3 Schedule of maps in this CMP

| Content | Description | Figure(s) |
|---|---|---|
| Estuary-scale mapping: Key geographical and legislative features | The legally defined CMP study area | Figure 1.2 |
| | R&H SEPP Coastal Use and Coastal Environment Area mapping | Figure 1.3 |
| | R&H SEPP Coastal Wetland and Littoral Rainforest mapping | Figure 1.4 |
| | Coastal sediment compartment mapping | Figure 2.20 |
| | Local Government Area (LGA) boundaries across the HNRS catchment | Figure 2.35 |
| Local scale mapping: Key geographical and legislative features and land tenure | Mapping compendium depicting:<br>▪ Legally defined CMP study Area<br>▪ R&H SEPP Coastal Management Areas<br>▪ Geographic features and place names<br>▪ Land Tenure, including:<br>– Council Reserve<br>– Crown Land Reserve<br>– National Parks and Wildlife Service (NPWS) Estate | Appendix A |
| CMP Management Actions | Maps containing the representative locations of CMP management actions. | Appendix B |

## 1.7 Coastal Zone Emergency Action Subplan, if the CM Act requires that subplan to be prepared

Section 15(1)(e) of the CM Act requires that a Coastal Zone Emergency Action Subplan (CZEAS) be included in the CMP where:

- The study area contains land within a certified Coastal Vulnerability Area (CVA), and
- Beach erosion, coastal inundation or cliff and slope instability is occurring on that land due to storm activity or an extreme or irregular event.

The CM Act specifies emergency management requirements for these hazards. In particular, Section 15(3) of the Act defines a CZEAS as:

> *"A **coastal zone emergency action subplan** is a plan that outlines the roles and responsibilities of all public authorities (including the local council) in response to emergencies immediately preceding or during periods of **beach erosion**, **coastal inundation** or **cliff instability**, where the beach erosion, coastal inundation or cliff instability occurs through storm activity or an extreme or irregular event."*

While no CVA has been formally prepared for the HNRS study area at the time of certification, it is recognised that the HNRS coastal zone is subject to the coastal hazards of beach erosion and coastal inundation. Consequently, 3 CZEAS documents have been prepared in line with the mandatory requirements of the CM Act and accompanying CM Manual (OEH, 2018a).

The CZEAS documents cover the locations and hazards summarised in Table 1.4 and are provided as appendices to this CMP.

Table 1.4 CZEASs accompanying this CMP

| Area of Coverage | Coastal Hazards | Location |
|---|---|---|
| The Beaches of Broken Bay | ▪ Beach erosion<br>▪ Coastal inundation | Appendix E |
| Pittwater | ▪ Beach erosion<br>▪ Coastal inundation | Appendix F |
| Lower Hawkesbury River | ▪ Coastal inundation | Appendix G |

Proactive planning is critical to managing the risks associated with storm-related coastal hazards. The CZEAS framework provided herein provides a clear, coordinated approach for responding to emergencies such as beach erosion, and coastal inundation. By outlining the roles and responsibilities of councils and other public authorities, the CZEAS helps deliver timely, effective, and well-integrated emergency responses that support broader coastal management objectives.

## 1.8 Catchment Companion

The health and resilience of Dyarubbin (the Hawkesbury-Nepean River System) are shaped by processes occurring across its entire catchment. Although the legally defined coastal zone represents only around 2% of the broader catchment, water, sediment, nutrients, pollutants and debris generated upstream are transported through the river system and can directly affect estuarine water quality, aquatic habitats, recreational use and economic activities. Effective management of the estuary therefore requires coordination beyond the statutory boundary of the CMP.

The CM Act limits a certified CMP to land within the defined coastal zone. As a result, actions located wholly outside that area cannot form part of the certified program, even where they would provide direct benefits to the estuary. To address this limitation, the HNRS CMP is supported by a **Catchment Companion**, provided in Appendix I.

The Catchment Companion identifies complementary actions for the upper estuary and broader catchment. It draws together relevant initiatives identified through consultation with upper-catchment councils, State agencies and other stakeholders involved in managing the wider river system.

The Catchment Companion is clearly distinguished from the certified CMP and does not form part of the statutory program submitted for certification under the CM Act. Its actions therefore do not carry the same implementation or funding status as actions within the certified CMP. Delivery remains subject to the responsibilities, priorities, approvals and available resources of the relevant councils, agencies and other organisations

Despite this distinction, presenting the Catchment Companion alongside the CMP provides a single, coordinated view of management priorities across the river system. It highlights connections between upstream activities and coastal-zone outcomes, supports collaboration between catchment and estuary managers, and provides a foundation for future partnerships, investment and aligned planning. This approach is consistent with the NSW Government's guidance on *Coastal Management Programs and Integration with Catchment Management* (DPE, 2022).

WATER TECHNOLOGY
WATER, COASTAL & ENVIRONMENTAL CONSULTANTS

# 2 DYARUBBIN (THE HAWKESBURY-NEPEAN RIVER SYSTEM)

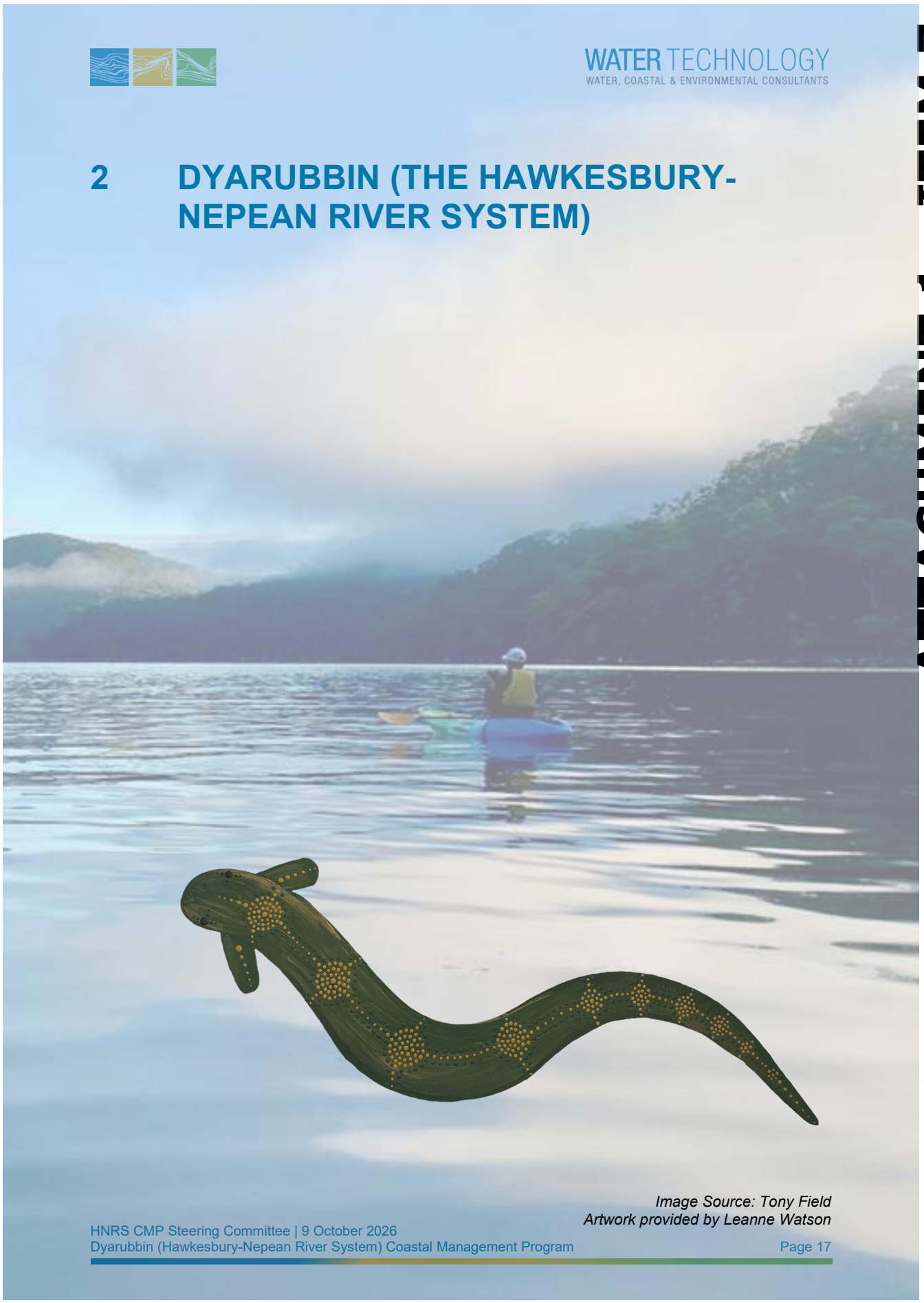


*Image Source: Tony Field*
*Artwork provided by Leanne Watson*

## 2.1 An Introduction to the Hawkesbury–Nepean River System

### 2.1.1 Overview

Dyarubbin (the Hawkesbury-Nepean River System) is one of the most important river systems in NSW and is the largest estuary system in the Greater Sydney Metropolitan region. The system occupies a unique location and bounds Sydney to the north and the west and is situated to the immediate south of a vibrant and growing Central Coast region. The tidal waterways of the HNRS are comprised of 3 predominant waterways that connect to the Tasman Sea via Broken Bay (see Figure 1-2 Locality Map):

- The Hawkesbury River Estuary
- The Brisbane Water Estuary
- The Pittwater Estuary.

Key estuary classification details for each of these waterways are provided in Table 2.1. A brief summary of the HNRS follows.

**Table 2.1 HNRS snapshot**

| Category and Data Source | Parameter | Brisbane Water | Hawkesbury River | Pittwater | HNRS Combined |
|---|---|---|---|---|---|
| **Classification** (Roy, et al., 2001) | Estuary Group | Wave dominated | Tide dominated | Tide dominated | N/A |
| | Estuary Type | Barrier estuary | Drowned valley estuary | Drowned valley estuary | N/A |
| | Evolution Stage | Youthful | Semi-mature | Youthful | N/A |
| **Waterbody Parameters** (Roper, et al., 2011) | Waterbody Area (km$^2$) | 28.3 | 114.5 | 18.4 | 161.2 |
| | Estuary Volume (ML) | 84,200 | 1,541,400 | 181,800 | 1,807,000 |
| | Average Depth (m) | 3.1 | 13.8 | 9.9 | 11.5 |
| | Foreshore Perimeter (km) | 125 | 810 | 56 | 991 |
| **Catchment Land Usage** (Roper, et al., 2011) | Catchment Area (km$^2$) | 170 | 21,400 | 77 | 21,647 |
| | Undisturbed Forest (%) | 45% | 71% | 84% | 71% |
| | Urban (%) | 46% | 2% | 14% | 2% |
| | Agricultural (%) | 5% | 25% | 0% | 25% |
| | Other (%) | 3% | 2% | 2% | 2% |
| | Population /km$^2$ | 644 | 40 | 507 | 46 |
| **Catchment Hydrology** (Roper, et al., 2011) | Annual Rainfall (mm/yr) | 1,080 | 760 | 1,070 | 764 |
| | Annual Surface Flow (ML/yr) | 24,400 | 1,468,300 | 4,100 | 1,496,800 |
| | Annual Base Flow (ML/yr) | 16,500 | 951,800 | 2,200 | 970,500 |
| | Total Annual Flow (ML/yr) | 40,900 | 2,420,100 | 6,400 | 2,467,400 |
| | Licenced Water Extraction (ML/yr) | 120 | 768,000 | 122 | 768,242 |

| Category and Data Source | Parameter | Brisbane Water | Hawkesbury River | Pittwater | HNRS Combined |
|---|---|---|---|---|---|
| **Estuarine Ecology** (DPIRD, 2025b) | Seagrass (ha) | 610 | 70 | 250 | 930 |
| | Mangrove (ha) | 240 | 1,050 | 18 | 1,308 |
| | Saltmarsh (ha) | 60 | 250 | 2 | 312 |
| | Total Coast Wetlands (ha) | 910 | 1,370 | 270 | 2,550 |
| | Aquaculture (ha) | 170 | 420 | 0 | 590 |
| **Recreational Infrastructure** (Rolyat Services, 2013) | Boat Ramps | 23 | 10 | 3 | 36 |
| | Public Wharfs | 43 | 21 | 29 | 93 |
| | Marinas | 5 | 13 | 8 | 26 |
| | Estimated wet berths | 140 | 1,060 | 1,090 | 2,290 |

### 2.1.2 Estuary Descriptions

#### 2.1.2.1 The Hawkesbury River

The HNRS is the longest coastal catchment in NSW, extending over 470 km from the southern highlands near Goulburn to its mouth at Broken Bay, north of Sydney (Figure 1.2). The river drains a catchment area of approximately 21,400 km², which is predominantly forested (~70%), with around 25% used for agriculture and only 5% urbanised (HNCMA, 2013; Roper, et al., 2011).

The river system receives inflows from key tributaries including the Nepean River to the south and the Grose River to the west. The Warragamba Dam, located on the Warragamba River (a major tributary of the Nepean), is a key hydrological control structure within the system – see Figure 2.1.



Figure 2.1 Warragamba Dam (source: Australian National Trust)

The estuarine portion of the river is generally considered to begin at the confluence of the Nepean and Grose Rivers at Yarramundi, marking the upstream tidal limit (Boon, 2017; Alluvium, 2022a).

From here, the Hawkesbury River flows in a generally northerly direction, with a relatively sandy substrate, and passes through the towns of Richmond and Windsor (see Figure 2.3) - the largest settlements on the river. In this reach, the river exhibits broad meanders and wide floodplains, with associated lagoons and wetlands such as Pitt Town Lagoon and Long Neck Lagoon (Alluvium, 2022a).

At Windsor, the river is joined by South Creek, which already carries significant urban runoff from Sydney's western suburbs, and is projected to receive substantial additional urban development. From Windsor to Sackville, the river is wide and deep, with a cleared and cultivated foreshore (Hawkesbury City Council, 2025).



Figure 2.2 The Hawkesbury River at North Richmond (source: Irene Pridham)



Figure 2.3 The Hawkesbury River at Pitt Town (source: Steve Sass)

From Sackville to Spencer (Figure 2.4), the river is characterised by steep sandstone cliffs, largely undeveloped foreshore reserves, and a series of low-density floodplain settlements (Hawkesbury City Council, 2025). This stretch includes Lower Portland, where the river is joined by the Colo River. It then meanders in a generally north-easterly direction until reaching a distinct change in course at Wisemans Ferry, where it is

joined by the Macdonald River. This section is a popular destination for recreational boating, particularly waterskiing and wakeboarding (Alluvium and Mosaic Insights, 2023).

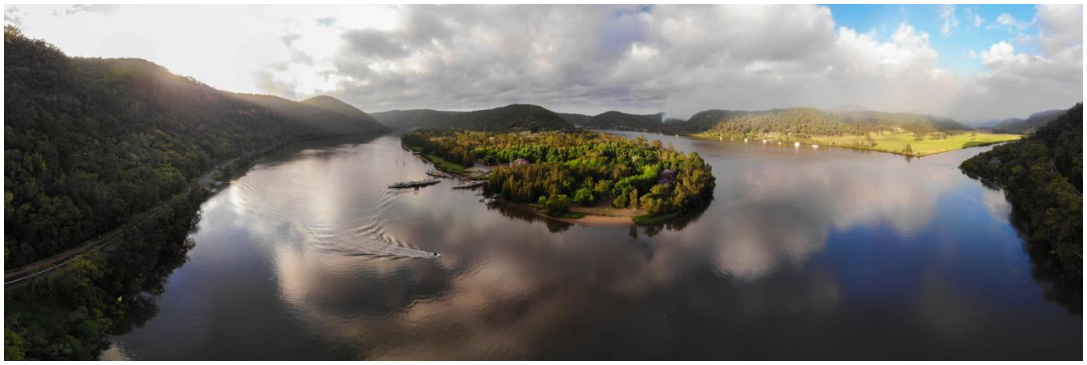


**Figure 2.4 Top: The Hawkesbury River at Wisemans Ferry (source Rob van Elven)**

Downstream of Wisemans Ferry, the river flows southeast, flanked by the forested foreshores of Dharug and Marramarra National Parks. The Lower Hawkesbury River is notable for its extensive natural vegetation and minimal foreshore development (Alluvium, 2022a).

At the riverside settlement of Spencer (Figure 2.5), the river receives Mangrove Creek from the north. Around 10 km downstream, it is further joined by Marramarra Creek and Berowra Creek (see Figure 2.7). In the Mooney Mooney–Brooklyn region (see Figure 2.6), the river flows past a series of riverside settlements, including Bar Point, Milsons Passage, Dangar Island, and Little Wobby. At Brooklyn, the river is intersected by key transport corridors linking Sydney to the Central Coast, including the M1 Pacific Motorway and the Sydney-Newcastle rail line. From here, the river flows in a generally northerly and then easterly direction to Broken Bay.



**Figure 2.5 The Hawkesbury River at Spencer (Left source: Screen NSW, Right source: Susan Oleary)**



Figure 2.6 Brooklyn and Sandbrook Inlet (source: Alex Proimos)

Tributaries of the Hawkesbury River (listed approximately from upstream down) include:

- Grose River
- Rickaby's Creek
- South Creek
- Cattai Creek
- Little Cattai Creek
- Colo River
- Webb's Creek
- MacDonald River
- Mangrove Creek
- Marramarra Creek
- Berowra Creek (see Figure 2.7)
- Mooney Mooney Creek
- Mullet Creek
- Cowan Creek
- Patonga Creek

There are 21 islands within the Hawkesbury River estuary, varying in size and ecological significance. Many of these islands provide important habitat for native flora and fauna and contribute to the overall biodiversity of the estuary. Several are afforded some form of ecological protection status.

The six largest islands, listed in downstream order, are:

- Bar Island
- Milson Island
- Peat Island
- Spectacle Island
- Long Island
- Dangar Island.



Figure 2.7 Berowra Creek at Collingridge Point (source: Nathan Tilbury)

#### 2.1.2.2 Brisbane Water

The Brisbane Water estuary is the most downstream northern arm of the HNRS. It is classified as a wave-dominated barrier estuary with an open entrance (Roy, et al., 2001) and is located on the northern side of Broken Bay. The estuary extends from Gosford in the north to its entrance at Broken Bay, covering approximately 27 km² of largely shallow open water interspersed with small embayments and inlets (Cardno Lawson & Treloar , 2008). It has a catchment area of nearly 15,000 hectares and contains more than 90 km of foreshore habitat (Astles, West, & Creese, 2010).

Land use within the catchment is mixed, with around 50% comprising undeveloped bushland and national park areas, including Brisbane Water National Park. The estuary also contains areas of ecological importance, including extensive seagrass beds, saltmarsh, mangroves, and multiple State Significant Wetlands that provide critical habitat for birdlife and aquatic species.

The remaining catchment supports a number of urban centres such as Gosford, Erina, Kincumber, Saratoga, Davistown, Empire Bay, Woy Woy, Ettalong, and Umina. Many of these townships are situated directly on the estuarine foreshore. As a result, the estuary features a high proportion of privately owned waterfront properties and modified foreshores, including seawalls, jetties, and boat ramps. These urban edges contrast with more natural stretches of foreshore found within national park and wetland areas, highlighting the diversity of land use and shoreline condition across the system.

There are 6 major zones within the Brisbane Water estuary, each representing a distinct geomorphic or hydrological reach of the system:

- The Entrance Reach – extending from the estuary mouth at Half Tide Rocks to The Rip (see Figure 2.8).
- The Central Reach – spanning from The Rip to Pelican Island and incorporating Riley's Island and St Hubert's Island (see Figure 2.9).
- The Woy Woy Reach – encompassing Woy Woy Bay and Woy Woy Inlet.
- Kincumber Broadwater – covering the shallow estuarine waters of Kincumber and Cockle bays.
- The Broadwater – the central estuarine basin extending from Pelican Island upstream to Gosford.
- Fagans Bay – a discrete embayment located adjacent to the Gosford urban area.



Figure 2.8 The Brisbane Water entrance reach (source: DCCEEW)



Figure 2.9 The Brisbane Water central reach (source: DCCEEW), including Rileys Island wetlands

The system receives inflows from several small tributaries, including Narara Creek (entering near Gosford), Erina Creek, Kincumber Creek, Woy Woy Creek, Coorumbine Creek, Ettalong Creek. While these waterways are smaller than the major tributaries of the main Hawkesbury River, they play an important role in shaping local hydrology, water quality, and estuarine ecology of Brisbane Water.

There are 3 large islands within Brisbane Water, along with numerous smaller islets. St Hubert's Island is a developed canal estate constructed in the 1970s, connected to the mainland by a bridge at Daley's Point. In contrast, Pelican Island and Riley's Island remain undeveloped and serve as nature reserves, supporting significant estuarine wetland habitats that contribute to the overall biodiversity and ecological function of the estuary.

#### 2.1.2.3 Pittwater

The Pittwater estuary is located on the southern side of Broken Bay, near the entrance to the Tasman Sea (see Figure 2.10). It is classified as a tide-dominated drowned river valley estuary (Roy, et al., 2001), extending from Newport and Church Point in the south to its mouth at Broken Bay.



**Figure 2.10 The Pittwater Estuary (source: DCCEEW)**

The estuary covers a water surface area of approximately 17 km² and is bounded by around 52 km of foreshore (Lawson & Treloar, 2003). The system is influenced by complex physical processes governed by its large and open entrance, which allows for significant exchange with ocean waters. The tidal range across Pittwater is generally consistent with that of the open coast (Lawson & Treloar, 2003).

The Pittwater catchment spans approximately 6,000 hectares (60 km²), extending from Mona Vale and Warriewood in the south, up the eastern ridge of the Barrenjoey Peninsula to Palm Beach, and along the western ridge to West Head.

Barrenjoey Head Aquatic Reserve surrounds the southern headland of Broken Bay, with its northern portion located within the CMP study area. The reserve protects important marine habitats and species, including part of the endangered *Posidonia australis* population.

The eastern and southern areas of the catchment are highly urbanised, including suburbs such as Palm Beach, Clareville, Newport, Bay View, and Church Point. These foreshore contain a high proportion of private waterway frontage and modified shorelines, with residential development extending directly to the water's edge. As a result, much of the estuarine fringe is characterised by seawalls and private jetties (see Figure 2.11 and Figure 2.12).



**Figure 2.11 The Pittwater Estuary at Clareville (source: *Ellaslist*)**



**Figure 2.12 The southern arm of Pittwater, which experiences high levels of recreational boating (source: *Sydney.com*)**

In contrast, the western catchment is largely natural and forms part of Ku-ring-gai Chase National Park, which protects significant areas of the Pittwater sub-catchment and supports a range of important estuarine and terrestrial ecosystems. The foreshores of Pittwater are lined with secluded bays, beaches, and headlands, contributing to the estuary's scenic and environmental value. The western shore of Pittwater includes a number of communities such as Great Mackerel (see Figure 2.13), Currawong, Elvina Bay, as well as National Parks and Wildlife Service (NPWS) campground facilities at the Basin (see Figure 2.14).



Figure 2.13 Pittwater at Great Mackerel Beach (source: *escape.com.au*)



Figure 2.14 Pittwater at The Basin (source: Ronan Herlihy)

At the southern end of the estuary lies Scotland Island, situated between Elvina Bay and Clareville (see Figure 2.15). The island is approximately 900 metres in diameter (or 52.5 hectares in area), accessible only by boat, and is home to a small, permanent residential community. Despite habitation, much of the island remains vegetated with Spotted Gum Forest, classified as an Endangered Ecological Community.

There are several minor tributaries to Pittwater including:

- Careel Creek
- Salt Pan Creek
- Mona Vale Main Drain
- Cahill Creek
- McCarr's Creek
- Salvation Creek

Pittwater plays an important local and regional role, valued for its unique environmental setting, delicate estuarine habitats, and its contribution to both the local economy and community well-being (Northern Beaches Council, 2017). The estuary is a major recreational and cultural asset, with high levels of boating and other recreational use, particularly during the summer peak period (see Figure 2.12).



**Figure 2.15 Scotland Island (source: Ronan Herlihy)**

#### 2.1.2.4 Broken Bay

The Hawkesbury River, Pittwater, and Brisbane Water estuaries all converge at Broken Bay, which serves as the shared marine outlet linking these systems to the Tasman Sea. Broken Bay is bounded by Box Head to the north and Barrenjoey Head to the south, forming a broad and semi-sheltered marine embayment. It is classified as a semi-mature tide-dominated drowned valley estuary (Roy, et al., 2001) and is strongly influenced by coastal processes.

The western side of Broken Bay contains several highly valued beaches (see Figure 2.17 to Figure 2.18), including:

- Ocean / Umina Beach
- Pearl Beach
- Patonga Beach
- Little Patonga Beach
- Green Point Creek

These beaches are regionally important not only for their scenic and ecological values, but also for their role in supporting local recreation, tourism, and coastal culture. Ocean Beach and Umina Beach in particular serve as primary surf and recreation beaches for the Central Coast community and visitors from the broader Sydney basin. The area is home to 2 surf lifesaving clubs and hosts major community and sporting events throughout the year

In addition to its role as a receiving basin for the region's three major estuaries, Broken Bay contains several smaller coastal estuaries, including Patonga Creek, Pearl Beach Lagoon, and Ettalong Creek, each situated adjacent to local coastal communities.

Located near the centre of Broken Bay is Lion Island, a designated nature reserve of high ecological and conservation value. The island provides critical breeding habitat for migratory seabirds and is one of the few

places in the region known to support a population of Little Penguins. It is notably free of introduced predators such as feral cats and foxes, making it an important site for species protection.





**Figure 2.16 Ocean / Umina Beach (source: Central Coast Council)**



Figure 2.17 Patonga Beach (source: lovecentralcoast.com)



Figure 2.18 Pearl Beach (source: Chris Drummond)

### 2.1.3 Functional Zones

In addition to identifying the individual estuarine waterbodies of the HNRS, it is useful to understand the system's functional zones, which describe how physical and ecological processes vary spatially. The Stage 2 Physical and Ecological Processes Abridgement Report (Alluvium, 2022a) delineated these zones across the

HNRS to support a management approach that aligns with the prevailing environmental conditions throughout the system.

These functional zones (see Figure 2.19 and Table 2.2) are primarily defined along the freshwater–saltwater continuum, which is influenced by proximity to freshwater inputs and tidal saline inflows. This continuum operates in 3 dimensions (Alluvium, 2022a).:

1. Longitudinally along the mainstem of the Hawkesbury River

2. Laterally up into its tributaries

3. Vertically through the water column due to stratification between fresh and saline layer

**Table 2.2 Functional zones of the HNRS (Alluvium, 2022a)**

| Functional zone | Description |
|---|---|
| Contributing catchments | The land area that drains to the tidal waters of the HNRS is inherently connected to the functions, processes and health of the estuaries and coastal zone. Land uses determine the characteristics of the catchment and influence physical and ecological processes. |
| Freshwater Tidal Pool | The tidally influenced freshwater zone from Yarramundi to Wisemans Ferry. It is characterised by low salinities (though reaching up to 10-12 PSU at Wisemans Ferry during dry conditions when dams are not discharging), high nutrient and sediment loads, and is at high risk of harmful algal blooms (HABs). |
| Upper Estuary | The ‘Upper Estuary’ zone of the Hawkesbury extends from Wisemans Ferry to just upstream of Spencer and Mangrove Creek. It is characterised by lower range brackish salinities (10 PSU - 20 PSU, 25 PSU during prolonged drought), tidal resuspension of sediments and benthic sources of nutrients . There are similar ‘Upper Estuary’ functional zones, though less pronounced, in the Hawkesbury tributaries, Brisbane Water and Pittwater. |
| Middle Estuary | The 'Middle Estuary’ zone of the Hawkesbury extends from Spencer to Brooklyn and has higher salinities (20-32 PSU and above) due to the stronger influence of marine exchange (Loveless, 2011). Tidal processes are stronger here than in the Upper Estuary, with sediments reworked, or mobilised, by tidal currents in this area. During flood events this area is a significant receiving zone for sediment deposition with substantial nutrient resources in the sediment. |
| Lower Estuary | The marine-dominated zone including Broken Bay, Pittwater, Cowan Creek and Brisbane Water, where salinities are high and water quality generally good due to strong ocean exchange. |

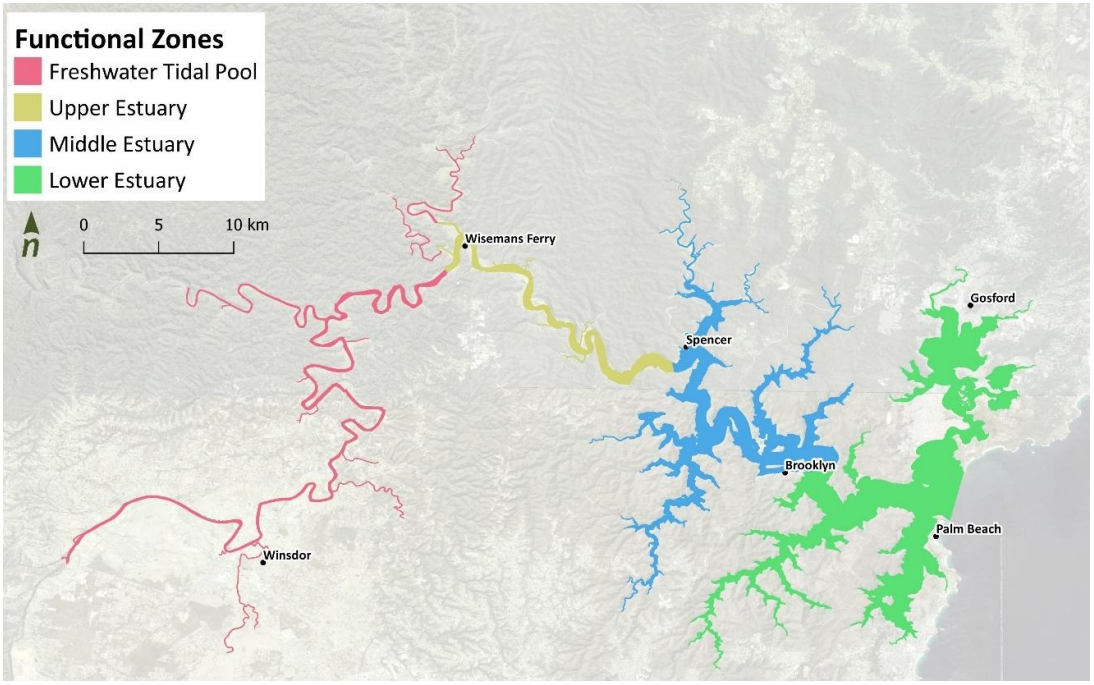



Figure 2.19 The Functional Zones of the HNRS (Alluvium, 2022a)

### 2.1.4 Sediment Compartment

The Hawkesbury River Estuary is located within the Sydney Primary sediment compartment (Geoscience Australia, 2021). In addition to these primary compartments, Thom et al (2018) also identified secondary compartments that form the basis of Part 1 of Schedule 1 of the CM Act. Of these, the CMP study area lies wholly within the wider *Broken Bay Coastal Sediment Compartment*, which extends from Third Point to Barrenjoey Head. A map of these compartments is provided in Figure 2.20. The following is noted with regards to the sediment compartment:

- The adjacent sediment compartment to the south *Sydney Northern Beaches Sediment Compartment*, is situated entirely within the Northern Beaches Local Government Area (LGA).
- The adjacent sediment compartment to the north, the *Central Coast Sediment Compartment*, is situated entirely within the Central Coast LGA.

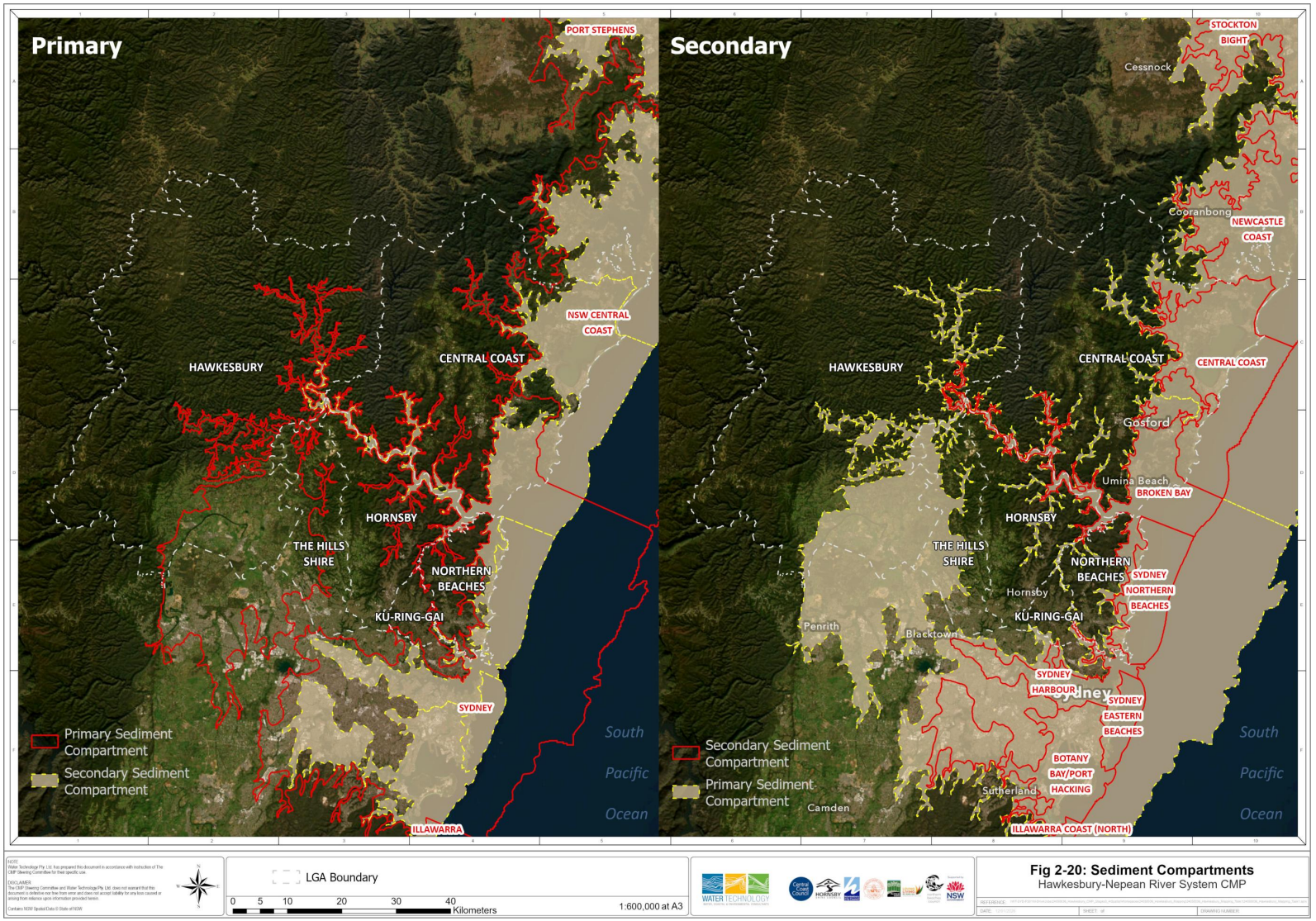



**Fig 2-20: Sediment Compartments**
Hawkesbury-Nepean River System CMP



# ATTACHMENT 1 - ITEM 7

## 2.2 Environmental Significance

The HRNS forms a vital ecological corridor, bridging a diverse range of environments, from freshwater and marine systems to terrestrial and intertidal zones. This complex interface supports a wide array of habitats, including native bushland, freshwater and estuarine wetlands, saltmarshes, mangroves, mudflats, seagrass beds, submerged rock platforms, and estuarine sediments (Water Technology, 2020).

The river system provides critical habitat for numerous terrestrial and aquatic species and supports regionally significant ecological assets, including state-listed wetlands and several National Parks and Nature Reserves (Alluvium, 2022a).

### 2.2.1 Flora

A broad variety of aquatic and riparian vegetation is distributed across the catchment. Estuary habitat statistics summarised by Roper et al (2011) indicate that the system includes more than 2,500 hectares of coastal wetlands (see Table 2.1).



Figure 2.21 Longneck Lagoon (Source: NPWS)

The freshwater tidal reach of the river, extending from Yarramundi to Wisemans Ferry, features a series of back-swamps and freshwater lagoons scattered across the floodplain. Notable examples include Pitt Town Lagoon and Long Neck Lagoon (Figure 2.21), both of which are listed on the Register of the National Estate (Water Technology, 2020). These lagoon systems are recognised for their high biodiversity value, supporting diverse aquatic plant communities, waterbird populations, and rare wetland-dependent flora.

The transition from freshwater to estuarine wetland systems occurs just downstream of Wisemans Ferry. From this point through the Upper and Middle Estuary functional zones, extensive estuarine wetlands dominate the landscape (Alluvium, 2022a) – see Figure 2.22. Noteworthy areas of saltmarsh and mangrove forest are found between Wisemans Ferry and Bar Point, particularly around Mangrove Creek and Marramarra Creek, which serve as important nurseries for estuarine fauna.



Figure 2.22 Mangrove forests in the middle estuary (source: Rachel Whiteley)

The Brisbane Water Estuary supports extensive seagrass, mangrove, and saltmarsh habitats. Large, undisturbed mangrove forests occur around Riley's Island and Pelican Island, with additional stands near Erina, Fagans Bay Inlet, and Narara Creek. Saltmarsh communities, often fringed by Estuarine Swamp Forest (dominated by swamp oak with sedge and rush understorey), are common along the major creeks throughout the estuary. Importantly, the waterway also includes over 600 hectares of seagrass meadows, with communities are concentrated in Kincumber, Cockle Bay, Cockle Channel, Riley's Island, and The Broadwater.

Pittwater supports a relatively lower proportion of mangrove forest and saltmarsh communities, including those within the Barrenjoey Head Aquatic Reserve (NSW DPIRD Fisheries, 2026). This is primarily due to a lack of suitable substrate, reflecting the estuary's steep topography and the limited development of tidal flats along its shoreline. Despite this, the estuary contains over 250 hectares of ecologically significant seagrass beds, which provide critical habitat and support high levels of biodiversity. Particularly important seagrass meadows are located at Palm Beach and Careel Bay, where extensive communities of Strapweed (*Posidonia australis*) are found – see Figure 2.23. *Posidonia australis* is listed as an endangered population under the NSW *Fisheries Management Act 1994* due to its sensitivity to physical disturbance and declining distribution across NSW estuaries. Its presence in Pittwater (and Brisbane Water) underscores the ecological importance of the estuary and the need for ongoing protection and management.



**Figure 2.23** ***Posidonia australis*** **(Source: DPIRD)**

Terrestrial vegetation in the contributing catchment plays an important role in the estuary, providing habitats for terrestrial species, underpinning hydrological processes in the catchment, as well as lending to the social amenity of the area. Coastal Swamp Oak Forest is an important terrestrial estuarine ecological community that can be intertidal (though not exclusively) and are important carbon sinks. The large, protected areas of native vegetation throughout the catchment act as natural filters of catchment runoff thus improving water quality in the estuary (Alluvium, 2022a).

### 2.2.2 Fauna

The HNRS supports an exceptionally diverse range of fauna due to its extensive aquatic, estuarine, and riparian habitats, and the significant proportion of protected lands within the catchment. Over 1,100 native vertebrate species (including more than 160 species of fish), and 1,700 invertebrate species have been recorded in the system (Gerhke & Harris, 1996; WRL, 2003).

Avifauna within the catchment is diverse, though urbanisation has altered bird populations, with smaller bush birds declining and larger, more adaptable species (e.g. Sulphur-crested Cockatoo, Rainbow Lorikeet, Noisy Miner, and Australian White Ibis) becoming more abundant (Recher, 2010). Estuarine zones support iconic waterbirds such as pelicans, cormorants, egrets, eagles (see Figure 2.24) and seagulls, while migratory shorebirds like the Eastern Curlew and Curlew Sandpiper frequent key habitats including Brisbane Water and Lower Hawkesbury mudflats.

The estuarine fish community is highly dependent on access to multiple functional zones of the system. Species exhibit varying migratory patterns, with some (e.g. estuarine residents and marine stragglers) occupying brackish zones year-round, while others (e.g. migratory species) rely on seasonal or life-stage-based movements between freshwater and marine environments (Lloyd, et al., 2012). Key estuarine and transitional species include Australian Bass, Eels, Dusky Flathead, Yellowfin Bream, and Sand Whiting.

Freshwater reaches support species such as Australian Smelt, Gudgeons, and Freshwater Mullet, while the lower estuary is home to important invertebrates like mud crabs, school prawns, and Sydney Rock Oysters (Alluvium, 2022a).

The HNRS also supports, or provides potential habitat for, several threatened aquatic species. These include White's seahorse (*Hippocampus whitei*) (see Figure 2.25), which is listed as endangered under both the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and the NSW *Fisheries Management Act 1994*. Other threatened aquatic species include Cauliflower Soft Coral (*Dendronephthya australis*), Black Rockcod (*Epinephelus daemelii*), Macquarie Perch (*Macquaria australasica*) and Australian Grayling (*Prototroctes maraena*). White's seahorse depends on structurally complex estuarine habitats, including seagrass, sponge and soft-coral habitats, and is particularly vulnerable to habitat loss and degradation (DCCEEW, 2026).

The estuary also hosts populations of marine mammals, including Indo-Pacific bottlenose dolphins, Australian Fur Seals (see Figure 2.26), and seasonal whales such as the Humpback Whale. Reptiles and amphibians such as the Green Turtle and the Green and Golden Bell Frog are also recorded across the catchment.

With extensive urban and agricultural pressures throughout the HNRS and the wider greater Australian eastern seaboard, many ecological communities and native species are listed as endangered or protected under the *Environment Protection and Biodiversity Act (1999) (Cth), NSW Biodiversity Conservation Act 2016, and Fisheries Management Act 1994.*

There are also international agreements that protect migratory birds and their habitat including the Chinese Australian Migratory Bird Agreement (CAMBA), Japanese Australian Migratory Bird Agreement (JAMBA) and Republic of Korea Australian Migratory Bird Agreement (ROKAMBA) (Water Technology, 2020; Alluvium, 2022a).



**Figure 2.24 Wedge-tailed eagle at Brooklyn (source: Ran Fuchs)**



**Figure 2.25 White's Seahorse (*Hippocampus whitei*) - found in Brisbane Water (source: Central Coast Council)**



Figure 2.26 Fur Seals at Barrenjoey Headland (source: Rick Machan)

## 2.3 People, Culture, and the Local Economy

### 2.3.1 Cultural Heritage

***Traditional Custodians***

The HNRS is home to a rich and enduring Aboriginal heritage, with cultural connections to Country that stretch back over 50,000 years and continue to this day (Dyarubbin, 2025). Given the scale of the CMP study area and its contributing catchment, multiple Aboriginal groups have longstanding connections to the land and waterways – see Figure 2.27. The cultural groupings and boundaries presented here reflect currently available information and may evolve as Traditional Custodians and First Nations organisations continue work to strengthen understanding of cultural lineages, kinship relationships and connections to Country across the HNRS.

Traditionally, the Greater Sydney region is home to several clans of the **Darug** people (alternative spelling Dharug). The Darug inhabited the area between Port Jackson and Botany Bay in the east, the Georges River to the south-west, and the Hawkesbury River in the north-west (GML Heritage, 2021) Across the Upper Hawkesbury River Estuary, the Richmond-Windsor region was inhabited by the people of the Burreberongal, Cattai and Kurrajong Clans which were situated on the south, east and north of the river respectively (Barani , 2025).

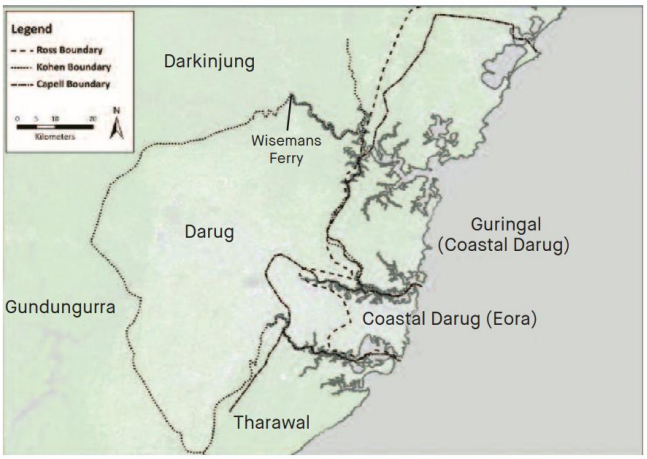



Figure 2.27 Aboriginal cultural boundaries in the Sydney region. (Source: GML, 2021)

North of the Hawkesbury in the Central Coast Region was home to the **Darkinjung** people (alternative spellings Darrkinyung, Darkinjan, Darkinung). The traditional boundaries of Darkinjung land extend from the Hawkesbury River in the south, Lake Macquarie in the north, the McDonald River and Wollombi up to Mt Yengo in the west and the Pacific Ocean in the East (GML Heritage, 2021).

The Lower Hawkesbury area was originally inhabited by the **Guringai** (also presented as GuriNgai) people, who occupy the area across Sydney stretching from Broken Bay (in the north) to Port Jackson (in the south) and the Lane Cove River (in the west). Two groups of the Guringai people occupied the area which is now Ku-ring-gai Chase National Park: the Garigal people and the Darramuragal people (AHO, 2025).

### *Cultural Heritage Values*

This deep history of connection has shaped a cultural landscape rich in both tangible and intangible Aboriginal heritage. Indigenous cultural heritage includes sites, places, objects and stories that hold significance due to traditions, customs, beliefs, and ancestral ties. These values reflect the continuous presence and cultural practices of Aboriginal peoples.

The Hawkesbury River, known to the Darug people as **Dyarubbin** (also spelled Deerubbin), was - and remains - a place of great cultural and ecological importance. It is a significant place in Dreaming stories, rich in resources, and a critical means of transport (GML Heritage, 2021). It provided food (such as fish, eels, mussels, oysters), supported bird life, and was a spiritual and cultural focal point for the community (Dictionary of Sydney, 2021; BMT WBM, 2014a).

Across the HRNS, thousands of Aboriginal cultural heritage sites have been recorded - and many more remain unidentified. These include:

- Tangible sites such as middens, grinding grooves, rock engravings (see Figure 2.28), cave art, stone arrangements, and burials.
- Intangible values including creation stories, place names, ceremonial grounds, and cultural lore associated with specific locations.



**Figure 2.28 Engraving of aquatic animal (fish, shark or dolphin) in Parr State Conservation Area. Note: the figure has been enhanced by shading. (source: GML, 2021)**

Data from the NSW State Government's Aboriginal Heritage Information Management System (AHIMS) reveals that the Hawkesbury Shelf Marine Bioregion holds the highest number of registered Aboriginal heritage sites of any marine bioregion in NSW - with over 6,500 sites located within or up to 500 m of the NSW Marine Estate. This total equals the number of sites recorded across all other marine bioregions combined (Feary, 2015).

The Hawkesbury Sandstone landscape of the broader HNRS catchment also supports one of Australia's richest and most distinctive concentrations of Aboriginal rock art, particularly engravings created on exposed sandstone platforms. These places form an important part of the cultural landscape and record enduring cultural, spiritual and social connections across the Sydney Basin (McDonald, 2008).

### 2.3.2 Population and Demographics

The Greater Sydney Region has a total population of 5.3 million persons recorded at the 2021 Australian Census (DPHI, 2025). By 2041, this number is projected to grow by an additional 1.4 million people - representing a compound annual growth rate of approximately 1.2%.

Population projection data sourced from the NSW Government (DPHI, 2025) has been aggregated at the LGA level and is summarised by region in Table 2.3. This table shows expected population growth across the 6 CMP Partner Councils LGAs and those in the broader Dyarubbin (Hawkesbury-Nepean) Catchment, highlighting urbanisation trends and future development pressures that have been considered in the development of this CMP.

**Table 2.3 Population growth across the HNRS catchment 2021-2041**

| Region | 2021 | 2041 | Annual Increase |
|---|---|---|---|
| Hawkesbury Estuary Partner Council LGAs | 1,150,000 | 1,420,000 | +1.1% |
| Hawkesbury-Nepean Catchment Councils LGAs | 2,000,000 | 2,720,000 | +1.5% |
| ***Total Across Partner and Catchment LGAs*** | ***3,150,000*** | ***4,140,000*** | ***+1.4%*** |

More detailed LGA-level projections for the 6 CMP Partner Councils are shown in Table 2.4, based on information provided by *forecast.id.* While most of these LGAs are expected to experience moderate growth, The Hills LGA stands out with a projected growth rate of 2.7% per annum - driven by major residential developments in Box Hill and Kellyville, both within the North West Growth Area. It should also be noted that much of the Central Coast LGA population growth will occur outside of the HNRS catchment.

**Table 2.4 Projected population growth across the Partner Council LGAs: 2021-2041**

| LGA | 2021 Population | 2041 Population | Annual Increase |
|---|---|---|---|
| Central Coast | 348,500 | 408,400 | +0.8% |
| Hawkesbury City | 67,600 | 77,200 | +0.7% |
| The Hills Shire | 192,700 | 328,600 | +2.7% |
| Hornsby Shire | 152,300 | 178,800 | +0.5% |
| Ku-ring-gai | 124,700 | 158,300 | +1.2% |
| Northern Beaches | 264,600 | 275,800 | +0.2% |

Significant growth is also forecast for the Western Parkland City, as outlined in *A Metropolis of Three Cities – The Greater Sydney Region Plan* (Greater Sydney Comission, 2018). This includes a major urban expansion corridor between Campbelltown and Penrith, centred around the emerging Western Sydney Airport Precinct (TfNSW, 2024) - see Section 2.6.2.

Projected population growth will be accommodated through a combination of greenfield development, urban infill and associated commercial, industrial and infrastructure land uses, particularly within the North West Growth Area and Western Parkland City, increasing development pressures and potential impacts on waterways across the broader catchment.

As urban development accelerates across the HNRS, associated increases in stormwater runoff and industrial discharges are likely to place growing pressure on the health of the river system. These impacts must be

proactively managed through the CMP to support the long-term resilience of the catchment and estuary. The CMP provides an important avenue through which to integrate water-sensitive urban design, green infrastructure, and stronger planning controls into the growth strategy for these rapidly expanding areas.

### 2.3.3 Community Uses and Values

The HNRS is a nationally significant waterway offering scenic amenity and diverse recreational opportunities to regional population of over 4 million people (see Table 2.3). The river system is deeply woven into the lives of its local communities, offering a unique blend of environmental, cultural, and recreational values. From swimming, fishing, and boating to quiet moments of connection, reflection, and escape - the waterways support physical and mental wellbeing, provide vital links to place and heritage, and underpin local tourism, recreation, and social connection. The river system isn't just a natural asset - it's a shared space where community, culture, and nature come together.

During Stage 2 of the CMP, a detailed study was undertaken to identify and map the community values and uses across the HNRS (Alluvium and Mosaic Insights, 2023):

- A snapshot of the community values across the HNRS is provided in Figure 2.29.
- A snapshot of the community uses across the HNRS is provided in Figure 2.30.

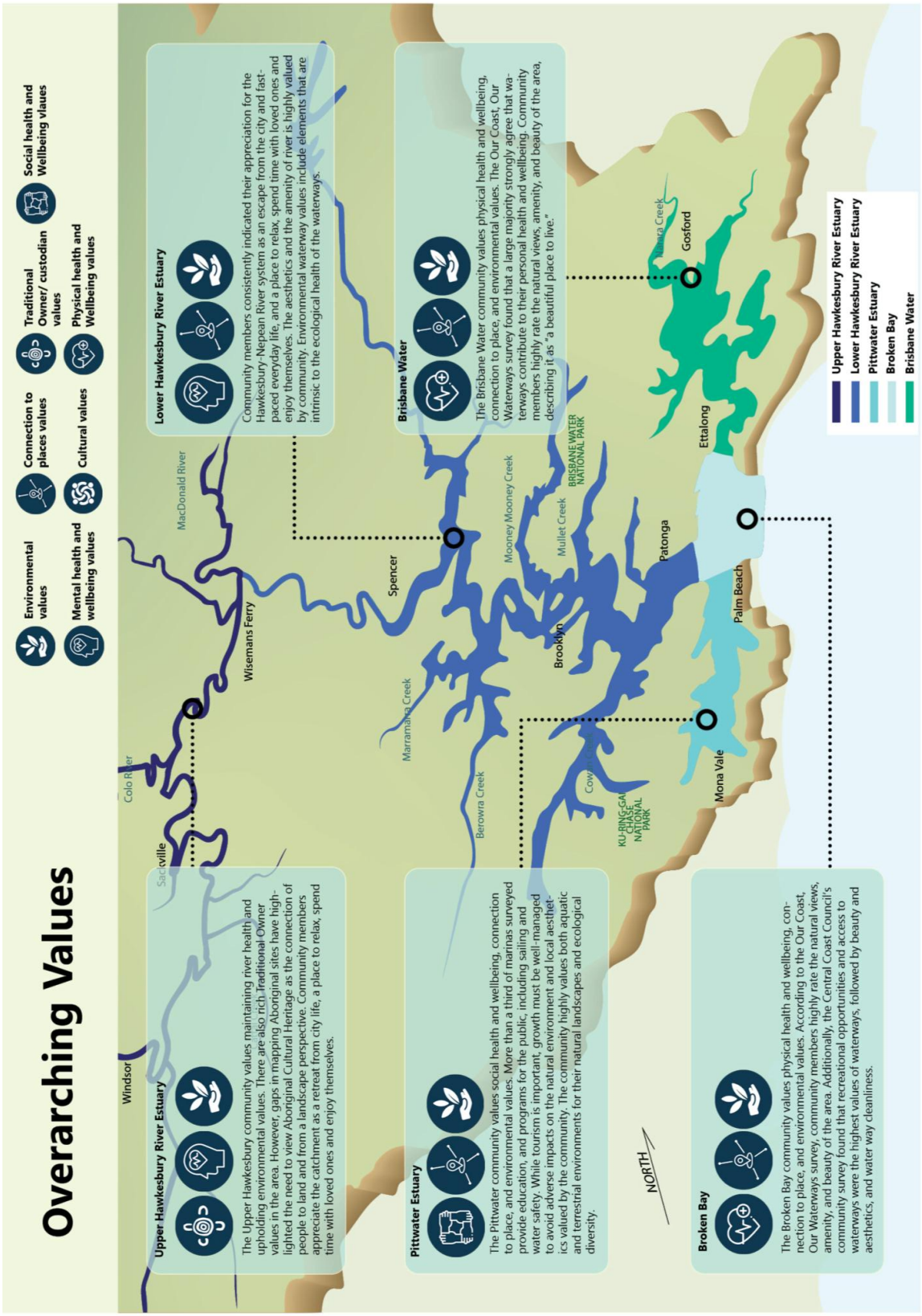



Figure 2.29 Community Values across the HNRS (Alluvium and Mosaic Insights, 2023)



ATTACHMENT 1 - ITEM 7

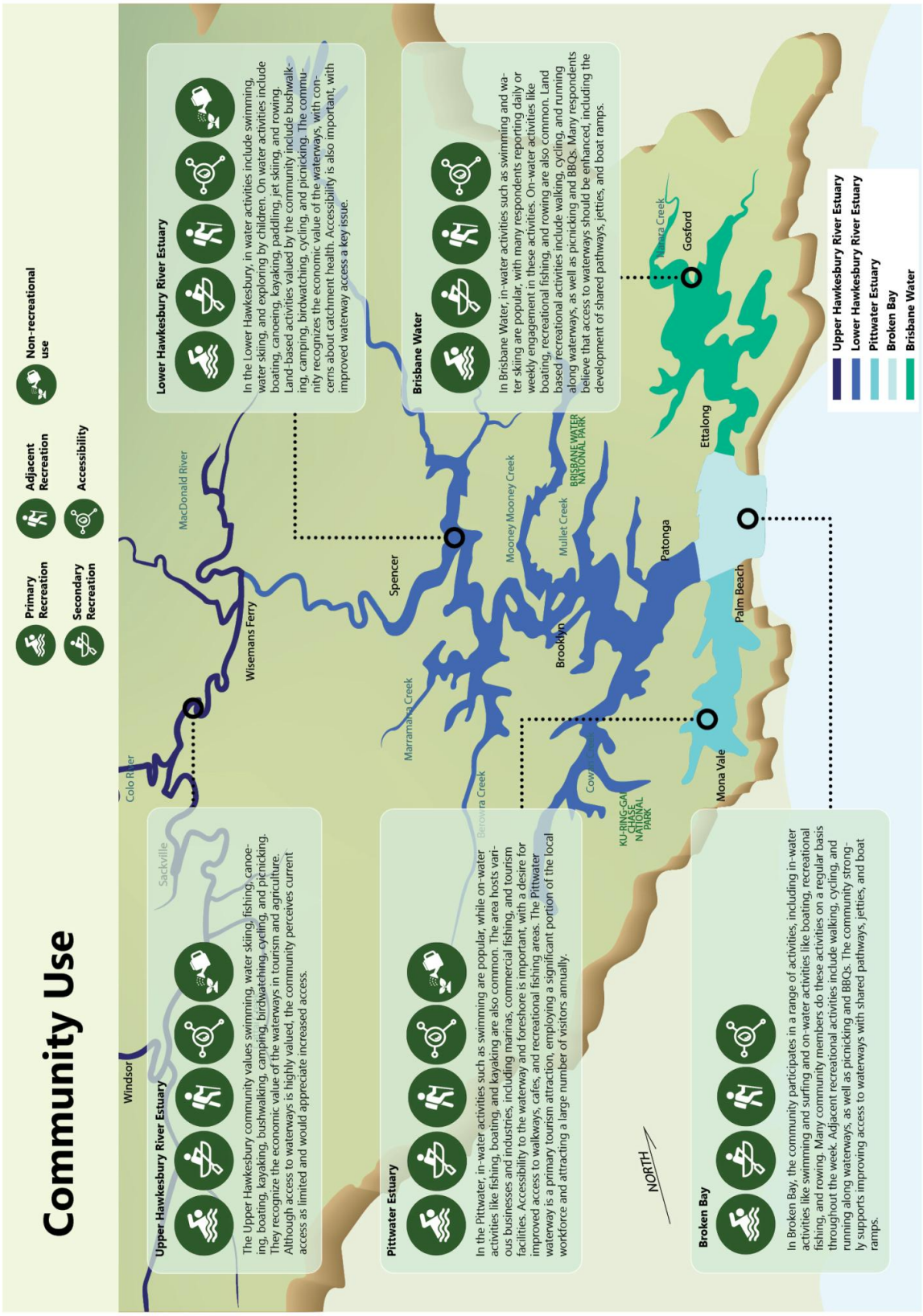



Figure 2.30 Community Uses across the HNRS (Alluvium and Mosaic Insights, 2023)



ATTACHMENT 1 - ITEM 7

The Hawkesbury River is an extremely popular, but diverse waterway in terms of its recreational usage. The river is utilised extensively for a range of different activities. Across the upper reaches of the Hawkesbury River between Windsor and Wisemans Ferry, major recreational uses include water skiing and wakeboarding. Non-powered watercraft activities such as kayaking and canoeing are popular in the more natural areas such as the Colo River and Webb's Creek (BMT WBM, 2013b; TfNSW, 2015). The Hawkesbury River also hosts several major local sporting events (sailing, rowing, and water skiing) throughout the year, including the *Bridge 2 Bridge Water Ski Classic* and *The Hawkesbury Canoe Classic*.

Throughout the Lower Hawkesbury recreational fishing is extremely popular with NSW Fisheries estimating there to be 150,000 recreational fishing outings in the Hawkesbury River per year (BMT WBM, 2008). In addition to boat-based fishing, there are a variety of locations from which fishing is permitted from the shore, including Parsley Bay, Cowan Creek and McKell Park (WRL, 2003).

Brooklyn is valued by the community as a unique gateway between the mainland and the Hawkesbury River. It provides an important transport and access hub through its rail station, road connections, marinas, public wharves, and ferry services to surrounding river communities and islands (see Figure 2.32). The area is also highly valued for its scenic riverside character, boating and fishing opportunities, tourism, recreation, and connection to surrounding bushland and national parks. Community uses include boating, kayaking, walking, cycling, dining, picnicking, and access to the Hawkesbury River's natural and cultural heritage. Brooklyn's role as a meeting point between river and land supports both local livelihoods and visitor experiences.

Brisbane Water sees a concentration of boating, fishing, kayaking, and Personal Water Craft (PWC) use, with increased activity in summer. These recreational pursuits contribute significantly to the area's lifestyle appeal, drawing both residents and visitors and supporting the local tourism and hospitality economy.

Pittwater is among the busiest waterways in NSW, featuring large vessels on swing moorings and eight marinas, with usage intensifying on weekends and during holidays (see Figure 2.32). Conflicts occur between sailing, kayaking, fishing, kite-surfing, and other activities (Water Technology, 2020).



**Figure 2.31 Ocean Beach is a popular recreational destination (source:iCentralCoast.com)**

Broken Bay's beaches - including Ocean, Umina, Pearl, and Patonga - offer high-value recreational experiences, especially for swimmers, kiteboarders, kitesurfers and surfers (see Figure 2.31).

The region supports over 100,000 boating licence holders (about 19% of all NSW licences) and 41,000 registered vessels (17% of the State's total). Recreational infrastructure includes 40 public boat ramps and over 100 public access points such as jetties, wharves, and pontoons (TfNSW, 2015; Rolyat Services, 2013) – see Table 2.1 and Figure 2.32.



**Figure 2.32 Left: Boating at Sandbrook Inlet, Brooklyn (source: Corleone Marinas), and Right: Pittwater (source: allboatbrokerage.com).**

### 2.3.4 Economic Values

***Commercial Fishing and Aquaculture***

The HRNS is a vital natural asset that supports a broad spectrum of economic activities across Greater Sydney and the Central Coast. Its economic contribution spans aquaculture, agriculture, tourism, recreation, and ecosystem services, underlining its importance to the region's "blue economy."

The river has long supported aquaculture and commercial fishing, with the Lower Hawkesbury and Brisbane Water estuaries historically serving as key hubs for oyster farming. While oyster production peaked in 2000–01 at nearly $10 million in value (adjusted to present-day dollars), the industry has since declined due to disease outbreaks, including QX disease in 2004 (Rubio, Frances, Coad, Stubbs, & Guise, 2013) and Pacific Oyster Mortality Syndrome (POMS) in 2013 (Paul-Pont, et al., 2014), which wiped out 90% of stock in some areas. By 2023-24, the total value of oyster production had recovered to generate around $4.5 million - representing around 6% of the state's total oyster production value (DPIRD, 2025a).

Oyster farming can be considered a marine equivalent of regenerative agriculture, providing ecological and socio-economic benefits alongside food production. Oysters filter suspended material and nutrients from estuarine waters, while aquaculture infrastructure can provide habitat for fish and other aquatic species. The industry also supports local employment, regional businesses, tourism, sustainable seafood production and the cultural identity of coastal communities. These benefits are closely tied to estuary health, as oyster production is particularly sensitive to pollution and declining water quality.

The NSW Government's *Healthy Estuaries for Healthy Oysters: Guidelines for Development near Waterways* (DPIRD, 2023) provides guidance for land-use planning and development near oyster-growing waterways. The guidelines support protection of the oyster industry and achievement of estuarine water-quality objectives by identifying development risks and appropriate mitigation measures. They are particularly relevant to managing wastewater, stormwater, sediment, nutrients and other pollution sources within oyster-growing catchments.

The Hawkesbury River prawn trawl fishery contributes not only to the regional economy but also to local food security through the supply of fresh, locally caught seafood. The industry supports family-owned businesses, preserves valuable local ecological knowledge and provides employment across harvesting, processing and distribution sectors. Commercial fishers have a strong interest in maintaining healthy estuarine ecosystems and are recognised as important stewards of waterway health, often contributing to environmental management discussions and advocating for high water quality standards. The fishery is subject to extensive

management and licensing arrangements aimed at ensuring the sustainable use of estuarine resources for future generations (FRDC, 2016).



**Figure 2.33 Hawkesbury River Aquaculture (Source: Hornsby Shire Council)**

The largest sector of commercial fishing in the Hawkesbury estuary is the prawn trawl (EPT) fishery. This involves the harvesting of school prawns, squid and fish (Kimmerikong, 2005). The Hawkesbury River EPT Fishery operates in waters from the ocean entrance, upstream to the vehicular ferry at Lower Portland. The fishery is estimated to generate an annual catch with a monetary value of around $3.5 million (DPI, 2017). Commercial fishing is banned in Brisbane Water but permitted in Broken Bay and offshore (TfNSW, 2015).

***Ecosystem Services***

As part of the Stage 1 Scoping Study (Water Technology, 2020), a preliminary economic valuation was undertaken of the ecosystem services across the Hawkesbury River Estuary. This assessment used the methodology developed by Costanza et al. (2014), which assigns indicative economic values to different biomes based on their ecological functions and contributions. While not a detailed economic analysis, the intent of this assessment was to provide a high-level estimate to provide an economic basis for investment in environmental asset protection across the HNRS. Ecosystem services such as storm protection, erosion control, carbon storage, and waste treatment were considered, particularly for key biomes like mangroves, saltmarsh, seagrass, and open estuarine waters. The outcomes estimated that the ecosystem services of the estuarine reach of the Hawkesbury River (including Pittwater Estuary and Brisbane Water Estuary) are of the order of $1.4 billion per year in real 2025 terms.

***Tourism and Recreation***

The Brisbane Water, Pittwater and Hawkesbury River estuaries provide significant economic value to the Greater Sydney and Central Coast regions in the form of tourism. The close proximity to the high-density population bases of Sydney and the Central Coast provide significant opportunities for day trip tourism and domestic and international overnight visitor stays.

Domestic day trip tourism is highly focused on the coastal zone – and the environmental, recreational and aesthetic aspects of the Hawkesbury River act as a strong tourist draw card for activities such as watercraft activities (such as kayaking – see Figure 2.34), fishing, nature observation, recreational and charter boating, and bushwalking through the expanse of national parks of the study area.

The system provides direct economic value through industries that include (but are not limited to) charter boating and day cruises, fishing and whale watching. The majority of these businesses operate out of Brisbane Water, Pittwater and the Lower Hawkesbury River at Brooklyn.

Rolyat Services (2013) estimated that across the activities of sightseeing, camping, swimming, recreational fishing and boating, the Hawkesbury River Estuary receives over 1.3 million annual day visits, with a combined economic value of over $45 million per annum.



**Figure 2.34 Kayaking the Hawkesbury (Source: Destination NSW)**

## 2.4 Legislative Context

The legislation and policy governing management of study area is complex and includes acts and policies from all levels of government. A brief overview of the most relevant acts is provided herein for context; however, more information can be found in the Stage 1 Scoping Study (Water Technology, 2020).

***Coastal Management Act 2016***

The CM Act establishes the framework and sets forth the objectives for coastal management in NSW. The purpose of the CM Act is to manage the use and development of the coastal environment in an ecologically sustainable way, for the social, cultural, and economic well-being of the people of NSW (DPIE, 2019).

The CM Act lists a series of objects that must be considered when developing a CMP (refer to Part 3 of the Act). There are also objectives provided for each of the 4 coastal management areas. The objectives in the CM Act have been considered and addressed in this CMP in the following ways:

- The Vision, and Objectives of this CMP are based on, and consistent with, the objectives set forth in the CM Act.
- Stage 1 of the CMP has considered the State and regional policies and plans prescribed by the Act.
- The studies undertaken in Stage 2 of the CMP have assessed in detail the various coastal zone issues, and hazards outlined in the CM Act and the CM Manual (OEH, 2018c).
- Stage 3 of the CMP (Water Technology, 2025) has involved a high level of consultation with the HRNS communities and relevant stakeholders to develop a series of management actions intended to address these issues and risks in an integrated and strategic manner. In doing so, the suite of actions:
  - Promotes the objects of the Act
  - Gives effect to the management objectives for the coastal management areas covered by the program.
- Stage 4 of the CMP has been developed in consistency with the statutory requirements of the Act, and the mandatory requirements set out in NSW Coastal Management Manual (OEH, 2018e).

***State Environmental Planning Policy (Resilience and Hazards) 2021***

State Environmental Planning Policy (Resilience and Hazards) 2021 updates and consolidates into one integrated policy a series of previously enforced SEPPs, including: SEPP 14 (Coastal Wetlands), SEPP 26

(Littoral Rainforests) and SEPP 71 (Coastal Protection), including clause 5.5. of the Standard Instrument – Principal Local Environmental Plan.

The R&H SEPP streamlines coastal development assessment requirements, identifies development controls for consent authorities to apply to each coastal management area to achieve the objectives of the CM Act, and establishes the approval pathway for coastal protection works (DPIE, 2019).

State-wide mapping that accompanies the R&H SEPP is available for the coastal wetlands and littoral rainforest area, the coastal environment area, and the coastal use area. The mapping of coastal vulnerability areas is undertaken as part of CMP development, based on either existing coastal hazard mapping, or mapping to be developed during Stage 2 of the CMP.

***Marine Estate Management Act 2014***

The *Marine Estate Management Act 2014* (MEM Act) forms part of the NSW Marine Estate Management Framework. The framework comprises statutory instruments, strategies, assessment, plans and policy settings, and is administered under the auspices of the Marine Estate Management Authority (MEMA).

The primary objective of the MEM Act is to enable the strategic and integrated management of the NSW marine estate, which includes marine waters, estuaries, and the coastal zone (MEMA, 2019). The Act aims to maintain a healthy, productive, and biologically diverse marine estate while also supporting its economic, cultural, social, and recreational use. It also facilitates scientific research, education, and the effective management of marine parks.

Key legislative instruments under the MEM Act include:

- Marine Estate Management Regulation 2017
- Marine Estate Management (Management Rules) Regulation 1999.

In addition, the NSW Marine Estate Management Strategy 2018-2028 (MEMA, 2018) was developed to guide coordinated actions over a ten-year period and is discussed further in Section 2.6.

***The Environmental Planning and Assessment Act 1979***

The *Environmental Planning and Assessment Act 1979* (EP&A Act) provides the statutory framework for land use planning and development assessment in NSW. It is a key mechanism for implementing actions identified in Coastal Management Programs (CMPs), as it governs how coastal management objectives and hazard information are integrated into local planning instruments such as Local Environmental Plans (LEPs) and Development Control Plans (DCPs). The EP&A Act also establishes the processes for environmental impact assessment, including under Part 4 (development consent) and Part 5 (activities by public authorities), which may be relevant to the implementation of CMP actions such as coastal protection works or restoration projects.

***The Local Government Act 1993***

The *Local Government Act 1993* (LG Act) establishes the statutory planning framework for NSW councils, including the Integrated Planning and Reporting (IP&R) system that governs how strategic actions are prioritised, funded, and delivered. Although CMPs are prepared under the CM Act, their implementation depends on alignment with the IP&R structure.

Following adoption, CMP actions are translated into council's Delivery Program, Operational Plan, and Long Term Financial Plan. This provides a formal pathway for coastal hazard mitigation, environmental management, capital works, and policy updates to be incorporated into council's resourcing and annual budget processes. In effect, the CMP defines the technical and strategic requirements, while the LG Act provides the mechanism for integrating those requirements into council planning cycles and long term investment programs.

## 2.5 Roles and Responsibilities

### 2.5.1 Overview

The current governance across the coastal zone is multi-layered, with the waterways, foreshore, and catchment of the study area (and associated assets) owned and managed by a number of stakeholders across multiple levels of government. An overview of the roles and responsibilities across the HRNS coastal zone and its broader catchment is provided in Table 2.5.



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Table 2.5 Roles and responsibilities across the HNRS catchment

| Details | | Governance Responsibilities | Coastal Zone Land Tenure | Coastal Zone Waterway Asset Management |
|---|---|---|---|---|
| **CMP STUDY AREA** | | | | |
| **Local Government** | | | | |
| Central Coast Council | | ✓ | ✓ | ✓ |
| Hawkesbury City Council | | ✓ | ✓ | ✓ |
| The Hills Shire Council | | ✓ | ✓ | ✓ |
| Hornsby Shire Council | | ✓ | ✓ | ✓ |
| Ku-ring-gai Council | | ✓ | ✓ | ✓ |
| Northern Beaches Council | | ✓ | ✓ | ✓ |
| **State Government** | | | | |
| Department of Climate Change, Energy, the Environment and Water | Conservation Programs, Heritage and Recreation | ✓ | | |
| | National Parks and Wildlife Service | ✓ | ✓ | ✓ |
| | Environment Protection Authority | ✓ | | |
| Department of Planning, Housing and Infrastructure | Crown Lands | ✓ | ✓ | ✓ |
| | Planning and Assessment | ✓ | | |
| Department of Primary Industries and Regional Development | Fisheries and Forestry | ✓ | | |
| | NSW Food Authority | ✓ | | |
| | Greater Sydney Local Land Services | ✓ | | |
| Transport for NSW | Maritime | ✓ | | ✓ |
| | Maritime Infrastructure Delivery Office | ✓ | | ✓ |
| Department of Communities and Justice | NSW State Emergency Service | ✓ | | |



ATTACHMENT 1 - ITEM 7

| Details | | Governance Responsibilities | Coastal Zone Land Tenure | Coastal Zone Waterway Asset Management |
|---|---|---|---|---|
| Department of Premier and Cabinet | NSW Reconstruction Authority | ✓ | | |
| State Owned Statutory Corporations | WaterNSW | ✓ | | ✓ |
| | Sydney Water | ✓ | | ✓ |
| Other | Marine Estate Management Authority | ✓ | | |
| **Local Aboriginal Land Councils (LALCs)** | | | | |
| Darkinjung LALC | | ✓ | | |
| Deerubbin LALC | | ✓ | | |
| Metropolitan LALC | | ✓ | | |
| **BROADER HNRS CATCHMENT** | | | | |
| Blacktown City Council | | ✓ | | |
| Blue Mountains City Council | | ✓ | | |
| Camden Council | | ✓ | | |
| Campbelltown City Council | | ✓ | | |
| Cessnock City Council | | ✓ | | |
| Fairfield City Council | | ✓ | | |
| Goulburn Mulwaree Council | | ✓ | | |
| Lithgow City Council | | ✓ | | |
| Liverpool City Council | | ✓ | | |
| Mid-Western Regional Council | | ✓ | | |
| Oberon City Council | | ✓ | | |
| Penrith City Council | | ✓ | | |



General Meeting 11 November 2026
Attachments Page 407
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 70
ATTACHMENT 1 - ITEM 7

| Details | Governance Responsibilities | Coastal Zone Land Tenure | Coastal Zone Waterway Asset Management |
|---|---|---|---|
| Queanbeyan-Palerang Regional Council | ✓ | | |
| Singleton Council | ✓ | | |
| Upper Lachlan Shire Council | ✓ | | |
| Wingecarribee Shire Council | ✓ | | |
| Wollondilly Shire Council | ✓ | | |
| Wollongong City Council | ✓ | | |



General Meeting 11 November 2026
Attachments Page 408
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 71
ATTACHMENT 1 - ITEM 7

### 2.5.2 Local Government

There are six (6) local government areas that border the tidal waterways of the estuary, and an additional eighteen (18) local government areas encompassing the wider Dyarubbin (Hawkesbury-Nepean River) catchment (either wholly or partly). These are listed in Table 2.5 and depicted in Figure 2.35.

An overview of the range of council roles and responsibilities as they relate to the CMP is provided in Table 2.6 below. These roles broadly fall into three categories: issue management, land and asset management, and planning.

**Table 2.6 Local government roles and responsibilities across the coastal zone**

| Issue Management | Land and Asset management | Planning |
|---|---|---|
| ▪ Coastal, estuary and waterway management<br>▪ Water quality monitoring and research<br>▪ Floodplain and flood risk management<br>▪ Vegetation protection and management<br>▪ Fauna protection and conservation<br>▪ Catchment management<br>▪ Community Events<br>▪ Community consultation, engagement and education<br>▪ Cultural Heritage<br>▪ Recreational use of the estuaries and waterways<br>▪ Compliance and education activities (environmental and development)<br>▪ Bushfire planning and management | ▪ Coastal and estuary infrastructure<br>▪ Stormwater and drainage infrastructure<br>▪ Road, traffic and parking infrastructure<br>▪ Open space and community assets<br>▪ Management of beaches and beach access<br>▪ Management of foreshore parks and access (including waterway access)<br>▪ Management of bushland reserve<br>▪ Management of WWTPs and in some cases drinking water supply and management | ▪ Strategic Planning - including implementation of regional strategies, development of Community Strategic Plans (CSP's) and Local Strategic Planning Statements (LSPS) and other strategies<br>▪ Development and implementation of planning controls (including LEPs and DCP's)<br>▪ Implementation of IP&R framework<br>▪ Development and implementation of CMP's |

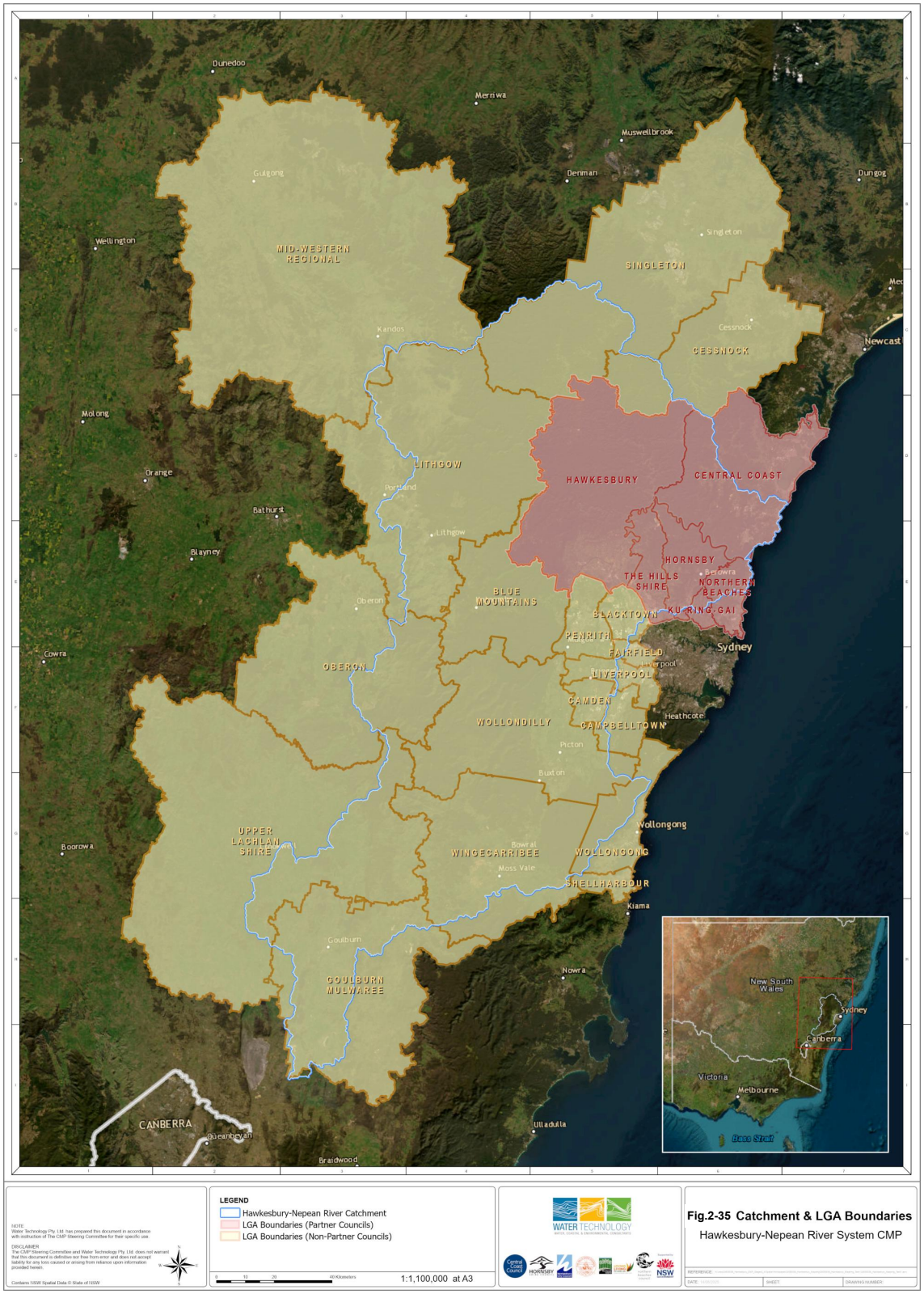
Councils are key custodians of estuarine and catchment infrastructure such as boat ramps, seawalls, breakwaters, stormwater systems, foreshore access points, and open space assets. In some cases, councils also manage significant water supply infrastructure - for example, Mangrove Creek, Mardi, and Mooney Mooney dams are owned and operated by Central Coast Council.

Beyond physical assets, councils are responsible for a range of issues across the catchment, including cultural heritage, recreational use, community events, estuary and floodplain management, and biodiversity conservation. Many also undertake water quality monitoring, as discussed in Section 9.

In their planning roles, councils regulate land use and development within their LGAs to ensure outcomes that reflect the environmental, social, and economic values of the estuary and its catchment. This includes managing cumulative impacts of development to support long-term sustainability.

For councils in the upper catchment, responsibilities focus on waterway health - including the management of agricultural runoff, stormwater discharges, and industrial waste - all of which contribute to the downstream condition of the estuary.

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### 2.5.3 State Government

There are over fifteen (15) state government agencies with management roles and responsibilities across the study area that are relevant to the CMP. These agencies are spread across 5 separate state government departments. These agencies and their position within the wider NSW state government organisational structure are identified in Table 2.5. Some of these agencies have a land and asset management role, whilst others are issues based. A brief summary of the roles and responsibilities of the most relevant state government departments and agencies is provided below.

#### 2.5.3.1 The Department of Climate Change, Energy, the Environment, and Water

Many of the CMP stakeholder organisations are positioned within DCCEEW, and their responsibilities across the study area relate to land and asset management, issues management, and planning and assessment.

***Conservation Programs, Heritage, and Recreation Group***

DCCEEW (CPHR) is responsible for administering the CM Act and provides oversight of the State's coastal management program. Within the DCCEEW (CPHR) organisation structure, the Biodiversity Conservation and Science Directorate provides oversight in the development of each council's CMPs and provides data and technical advice as needed. It also administers the Coastal and Estuary Grants Program that provides funding for councils to prepare and implement their CMPs. Responsibilities also include managing environmental water to achieve environmental objectives, water quality monitoring and reporting, and developing waterway health targets and objectives.

***National Parks and Wildlife Service***

Within the DCCEEW organisation structure, lies the NSW National Parks and Wildlife Service (NPWS), which is responsible for management under the *National Parks and Wildlife Act 1974* of 23 different reserves and parks that are located either partly or wholly within the CMP study area, including those listed in Table 2.7 and depicted in Figure 2.36. Several of these reserves have extensive water frontages, making NPWS a critical stakeholder in the management and use of the estuary and its surrounding landscapes.

Table 2.7 NSW NPWS land located across the HNRS coastal zone

| National Park Estate | | |
|---|---|---|
| ▪ Berowra Valley National Park<br>▪ Bouddi National Park<br>▪ Brisbane Water National Park<br>▪ Cattai National Park<br>▪ Cockle Bay Nature Reserve<br>▪ Dharug National Park<br>▪ Ku-ring-gai Chase National Park<br>▪ Lion Island Nature Reserve | ▪ Long Island Nature Reserve<br>▪ Maroota Ridge State Conservation Area<br>▪ Marramarra National Park<br>▪ Muogamarra Nature Reserve<br>▪ Parr State Conservation Area<br>▪ Pelican Island Nature Reserve<br>▪ Pitt Town Nature Reserve<br>▪ Popran National Park | ▪ Rileys Island Nature Reserve<br>▪ Saratoga Island Nature Reserve<br>▪ Scheyville National Park<br>▪ Spectacle Island Nature Reserve<br>▪ Wisemans Ferry Historic Site<br>▪ Wollemi National Park<br>▪ Yengo National Park |

NPWS plays a significant role in the region, with responsibilities including active conservation and habitat protection, fire management, tourism and visitation management, research, education, and the protection of both Aboriginal and European cultural heritage across its estate.

Many of the parks listed in Table 2.7 receive high levels of tourism and recreational use and contain key infrastructure such as boat ramps, walking tracks, and visitor amenities that provide direct access to the river

system and its foreshore. While a broad range of waterway infrastructure is located throughout the HNRS, some of the most notable NPWS-managed assets include (but are not limited to):

- The Basin Campground (Pittwater) – A popular site featuring camping and picnic facilities, with supporting permanent infrastructure and direct access to the Pittwater estuary.
- Akuna Bay (Cowan Creek) – Home to recreational boating infrastructure including marina facilities and associated amenities.
- Bobbin Head and Apple Tree Bay (Cowan Creek) – Well-used public spaces that include a marina, boat ramp, public pontoon, picnic facilities, and walking trails, supporting both passive and active recreational use of the estuary.



**Figure 2.36 Top Left: Ku-ring-gai National Park. Top Right: Berowra Valley National. Bottom Left: Dharug National Park. Bottom Right: Cattai National Park (NPWS, 2025)**



**Figure 2.37 Top Left: The Basin Campground. Top Right: Akuna Bay. Bottom Left: Bobbin Head visitor precinct. Bottom Right: Apple Tree Bay (NPWS, 2025)**

***Environment Protection Authority***

The NSW Environment Protection Authority (EPA) is the primary environmental regulator for New South Wales. Councils, Sydney Water and other organisations hold a number of environment protection licences issued by the NSW EPA under the *Protection of the Environment Operations Act 1997*. These licences generally relate to Wastewater Treatment Plants, Landfill Sites and Quarries, and Disused Landfill Sites Under Remediation.

#### 2.5.3.2 The Department of Planning, Housing and Infrastructure

***Crown Lands***

Within the Department of Planning, Housing and Infrastructure (DPHI), Crown Lands is responsible for the administration and / or management of Crown land under the *Crown Land Management Act 2016*. Crown lands include submerged Crown land, seabed and subsoil to 3 nautical miles from the coastline of NSW that is within the limits of the coastal waters of the State.

***Planning and Assessment***

DPHI – Planning & Assessment is responsible for assessing and determining development proposals, including State Significant Projects. Its role is to ensure that economic growth and the creation of new jobs are balanced with the needs of local communities and environmental protection, and that major developments, infrastructure, and industrial sites are delivered in accordance with strict planning and environmental conditions.

This group also has responsibilities relating to coastal policy and its implementation. Councils may need to engage with DPHI – Planning & Assessment if they propose to amend any R&H SEPP mapping of Coastal Management Areas through a planning proposal process.

#### 2.5.3.3 The Department of Primary Industries and Regional Development

***The Department of Primary Industries and Regional Development – Fisheries and Forestry***

The Department of Primary Industries and Regional Development – Fisheries and Forestry (DPIRD Fisheries) is responsible for administering the *Fisheries Management Act 1994* and ensures decisions made about land management and development avoids and minimises impacts on fisheries resources. Its responsibilities also include the licensing of recreational fishers, enforcement of bag limits, and permits for commercial fishing activities. It is responsible for threatened species conservation and marine vegetation protection (including mangroves, saltmarsh and seagrass) across the waterways of the study area.

DPIRD Fisheries administer the MEM Act in coordination with the NSW Marine Estate Management Authority (MEMA). The Act establishes a framework for the strategic management, conservation and sustainable use of the NSW marine estate, including aquatic reserves and marine parks.

The Barrenjoey Head Aquatic Reserve is located at the southern entrance to Broken Bay, with its northern portion falling within the CMP study area. DPIRD Fisheries is responsible for managing the reserve and regulating activities within it to protect its marine habitats, biodiversity and environmental values.

***NSW Food Authority***

The NSW Food Authority (NSWFA) is responsible for food safety and consumer food protection across the state. It licences approximately 300 businesses in the shellfish sector across the state - made up of around 270 oyster farmers and 30 shellfish wild harvest businesses (NSWFA, 2025). Its other core responsibility in relation to the CMP is the development of harvest area management plans for commercial shellfish cultivation and harvesting.

***Greater Sydney Local Land Services***

Greater Sydney Local Land Services (GS LLS) was established under the *Local Land Services Act 2013* to provide agricultural production advice, biosecurity, natural resource management and emergency management functions cross the Greater Sydney region (GS LLS, 2023). GS LLS engages in regional and sub-catchment Natural Resource Management (NRM) planning, training and education for the community in areas such as farm management practices, as well as environmental monitoring of horticultural practices. GS LLS also delivers grant and funding programs to support natural resource management and sustainable agriculture activities. The GS LLS region covers approximately 2,300,000 ha and sits within the Sydney Basin bioregion (GS LLS, 2023).

#### 2.5.3.4 Transport for NSW

The Transport for NSW (TfNSW) cluster is comprised of an extended network of agencies. TfNSW sets the strategic direction for transport and works in partnership with government transport operating agencies and private service providers to deliver improved transport outcomes for the community and economy of NSW.

***NSW Maritime***

NSW Maritime sits within TfNSW as the state's maritime safety regulator for commercial and recreational vessels and their operators. Maritime's role within TfNSW is to promote safe, responsible, and sustainable use of waterways, including but not limited to the enforcement of safe on-water vessel practices, the administration of recreational vessel licenses and vessel registrations, and provision of guidance for safe navigation.

It is also responsible for the direct delivery of a number of maritime infrastructure projects, as well as investment in many others across the state. Other responsibilities include property administration, policy development, strategic planning and infrastructure management related to commercial and recreational boating – including

some of the boat ramps and public jetties, wharves and pontoons across the study area (noting that most boat ramps are generally owned and managed by local councils).

***The Maritime Infrastructure Delivery Office***

The Maritime Infrastructure Delivery Office (MIDO) is a specialist unit within NSW Maritime, established as a joint initiative of the former Roads and Maritime Services and the Department of Industry. Its purpose is to enhance the coordination and delivery of coastal and boating infrastructure projects across New South Wales. MIDO supports a wide range of uses, including recreational boating, fishing, tourism, and commercial maritime activities.



**Figure 2.38 Dredging in the Ettalong Channel in 2025 (TfNSW, 2025)**

MIDO is responsible for delivering key projects and programs including programs administered by TfNSW for boating infrastructure, the NSW Coastal Infrastructure Program, and the NSW Boating Infrastructure and Dredging Scheme (see Section 2.6.1). Under the dredging scheme, the Ettalong Channel has been identified as a priority investment location (see Figure 2.38), with dredging works proposed to maintain safe navigational access, particularly for local ferry services and other marine users (TfNSW, 2025).

#### *2.5.3.5 The Department of Communities and Justice*

***The NSW State Emergency Service***

The NSW State Emergency Service (NSW SES) sits within the Department of Communities and Justice, with the major responsibilities of provision of emergency and rescue during times of natural hazard emergencies and disasters including flooding, storms (including storm tide and severe erosion events). This also includes management of tsunami events as per the NSW State Tsunami Plan (NSW SES , 2023).

#### *2.5.3.6 The Department of Premier and Cabinet*

***NSW Reconstruction Authority***

The NSW Reconstruction Authority (RA) was established under the *NSW Reconstruction Authority Act 2022* to proactively reduce the impact of future disasters across NSW and to help communities recover from them faster. RA is responsible for planning and coordinating NSW's mitigation and risk reduction activities. Core responsibilities include:

- Disaster Adaptation Planning (see Section 2.6), including leading the development of:
  - The NSW State Disaster Mitigation Plan (SDMP) – which sets out the NSW Government's strategy to reduce the impact and cost of natural hazards on people, homes, livelihoods, infrastructure, and communities (NSW RA, 2024a).
  - Place-based Disaster Adaptation Plans (DAPs) – which set out an action plan for government, local communities, and other appropriate organisations to work together to identify and implement the most effective and suitable options for reducing risk. The Hawkesbury-Nepean Valley DAP is the first of its kind in NSW.

- Programs, grants and funding – RA manages many grants and funding programs that support communities in building disaster resilience and reducing the risk to future hazards.

#### 2.5.3.7 State Owned Statutory Corporations

***WaterNSW***

WaterNSW is a state-owned corporation established under the *Water NSW Act 2014* and operates under an Operating Licence issued and regulated by the Independent Pricing and Regulatory Tribunal (IPART). It plays a key role in the Dyarubbin (Hawkesbury-Nepean River System) catchment, primarily through its responsibilities for catchment management and the provision of raw drinking water (WaterNSW, 2024).

WaterNSW owns and operates 11 drinking water supply dams in the upper catchment including Warragamba Dam, the primary water source for Greater Sydney. A core function of WaterNSW is to protect and enhance water quality within the catchments of these storages. To support this, WaterNSW operate an extensive water quality and quantity monitoring program to track the raw water quality of both surface and ground water sources. Monitoring includes physical, chemical, biological, radiological, hydrological and meteorological parameters through on-line instruments, field sampling and laboratory analysis (WaterNSW, 2025; WaterNSW, 2024).

WaterNSW also extracts water in accordance with the *Greater Sydney Metropolitan Region Unregulated River Water Sources 2011 Water Sharing Plan*, which requires the release of specified volumes from many of its storages to support environmental flows in the lower catchment.

***Sydney Water***

Sydney Water is a statutory state-owned corporation (wholly owned by the NSW Government) established under the *Sydney Water Act 1994*, that provides potable water, wastewater, and selected stormwater services to over 5 million people across Greater Sydney, the Illawarra, and the Blue Mountains (Sydney Water, 2023).

Sydney Water operates 15 Water Resource Recovery Facilities (WRRFs) in the greater Dyarubbin (Hawkesbury-Nepean River System) catchment (see Figure 2.39). All of the WRRFs, except Brooklyn, discharge to freshwater environments, with Brooklyn discharging to an estuarine environment. Each of these facilities operates under an Environment Protection Licence (EPL) issued by the NSW EPA. These EPLs set out detailed conditions for operation, including limits on discharge volumes, concentrations and loads of pollutants, and monitoring requirements for effluent released from WRRFs to the environment.

In addition to routine wastewater discharge monitoring, each EPL requires Sydney Water to undertake broader environmental monitoring as part of the *Sydney Water Aquatic Monitoring* (SWAM) program (Sydney Water, 2023). Within the broader SWAM, the *HNRS water quality and ecosystem health sub-program* includes monitoring at 42 sites across the HNRS and includes:

- Effluent monitoring – assessing the quantity, quality, and toxicity of WRRF discharges.
- Receiving water monitoring – evaluating the ecological and water quality impacts of effluent on downstream environments.
- Recreational water quality monitoring – including participation in the NSW Beachwatch program to monitor key public swimming sites.

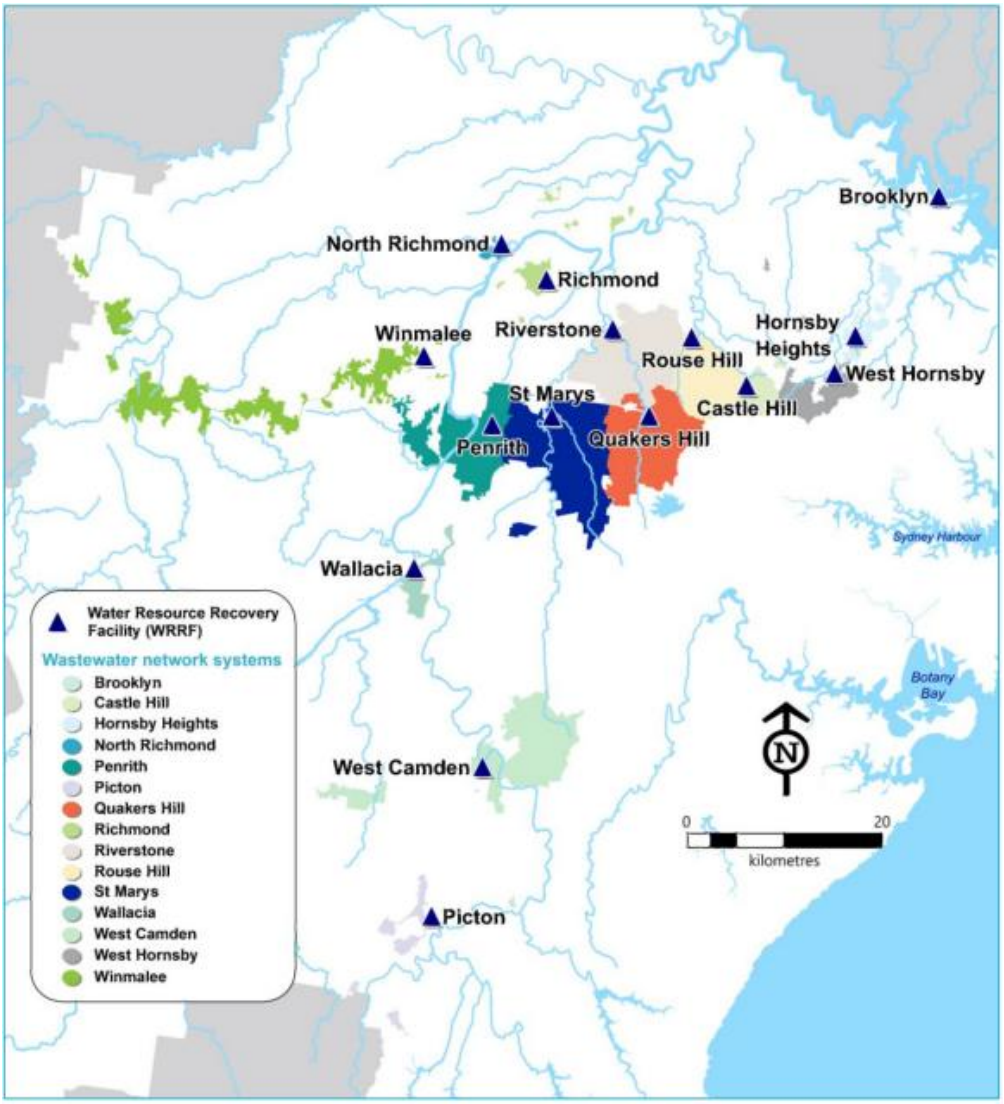



**Figure 2.39 Location of WRRFs in the Hawkesbury-Nepean River catchment (Sydney Water, 2023)**

#### 2.5.3.8 Other

The Marine Estate Management Authority (MEMA) advises the NSW government on the management of the NSW marine estate, and coordinates policies and programs for maintaining and improving the marine environment. MEMA brings together the heads of the NSW government agencies with key marine estate responsibilities including DCCEEW, DPIRD, DPHI, and Transport for NSW (TfNSW) (MEMA, 2019).

### 2.5.4 First Nations Groups

There are 3 Local Aboriginal Land Councils (LALCs) that operate within the CMP study area, including:

- Darkinjung LALC
- Deerubbin LALC
- Metropolitan LALC.

The LALCs have a degree of governance and interface with the local councils, as well as the various State and Federal Government bodies. LALCs have a right to be informed in the planning, protection and preservation of cultural sites and areas under the *NSW Aboriginal Land Rights Act 1983* on land within their boundaries. The LALCs aim to achieve long term economic and social solutions for the Aboriginal communities, and preserving connections to Country through culturally informed land management.

Engaging with First Nations communities was a central focus of the CMP process, recognising the deep cultural knowledge, lived experience, and traditional stewardship Aboriginal people bring to land and water management across the catchment.

Engagement was undertaken with a range of groups and representatives, including:

- 3 LALCs
- Advisory or heritage committees from Hornsby and Central Coast Councils
- Darug Custodians Aboriginal Corporation
- Merana Aboriginal Community Association for the Hawkesbury
- Muru Mittigar
- Wannagini and other Central Coast First Nations peoples
- First Nations representatives from Northern Beaches LGA.

### 2.5.5 Community Groups

There are a number of other non-governmental organisations (NGOs) that operate across the study area. These organisations include educational institutions, industry groups, and community and resident groups and businesses. There are also over 100 active community consultative bodies (CCBs) and community groups across the study area. The Stage 1 Scoping Study provides an overview of these groups (Water Technology, 2020).

## 2.6 Related Plans and their Linkages to the CMP

It is important to note that there are a range of external (and/or parallel) plans and programs that are relevant to the CMP and these are implemented at a local, state, and federal level. A summary of these plans is outlined in the Stage 1 Scoping Study (Water Technology, 2020). Those of particular relevance to key issues across the study area are summarised below.

### 2.6.1 State Level Plans, Strategy and Policy

***State Environmental Planning Policy (Resilience and Hazards) 2021***

The R&H SEPP provides the principal State planning framework for coastal management and development within the HNRS study area. Given its direct statutory relationship with CMP preparation and implementation, the R&H SEPP is discussed in detail in Section 2.4.

***State Environmental Planning Policy (Biodiversity and Conservation) 2021***

The State Environmental Planning Policy (Biodiversity and Conservation) 2021 (B&C SEPP) consolidates a range of planning provisions relating to biodiversity, vegetation, koala habitat, public bushland and regulated water catchments. Relevant provisions include controls for clearing vegetation in non-rural areas and the assessment and protection of koala habitat.

Chapter 6 of the SEPP applies to regulated water catchments, including the Hawkesbury-Nepean Catchment. It incorporates and updates provisions previously contained in Sydney Regional Environmental Plan No. 20 - Hawkesbury-Nepean River (No. 2 - 1997). The chapter supports the coordinated planning, protection and management of the river system, including its environmental values, biodiversity, water quality, scenic character, cultural heritage and public access.

Consent authorities must consider the relevant Chapter 6 planning principles and development controls when assessing proposals within the mapped Hawkesbury-Nepean Catchment. These provisions support the CMP by promoting integrated catchment management and requiring the potential effects of development on waterways, riparian land, aquatic habitats and water quality to be considered.

***State Environmental Planning Policy (Transport and Infrastructure) 2021***

The State Environmental Planning Policy (Transport and Infrastructure) 2021 (T&I SEPP) establishes approval pathways for infrastructure and environmental management works undertaken by public authorities. Section 2.165 allows waterway or foreshore management activities to be carried out by or on behalf of a public authority without development consent.

Relevant activities may include erosion control, bank stabilisation, beach nourishment, dune and foreshore stabilisation, revegetation, habitat restoration, dredging and associated maintenance or emergency works. This pathway may therefore apply to a range of foreshore rehabilitation, environmental protection and coastal protection actions identified in this CMP. Other statutory approvals, licences and landowner consents may also be required depending on the location and nature of the works.

***NSW Marine Estate Strategy 2018-2028***

The Marine Estate Management Strategy 2018 - 2028 (MEMS) is the overarching framework to coordinate management of the NSW marine estate until 2028. The MEMS outlines the actions needed to manage priority threats to the benefits the community obtains from marine estate (MEMA, 2018). The MEMS sets out 9 management initiatives to support the vision and principles for marine estate management in NSW (see Figure 2.40), with each initiative comprised of numerous actions to help manage priority threats. Many of the actions within each initiative are state-wide actions, whilst several actions are locally focussed to target high-risk locations across NSW.




**Figure 2.40 The nine management initiatives of the MEMS (MEMA, 2025)**

This CMP is strongly aligned with improving outcomes for the marine estate. It considers all these MEMS initiatives and supports the objectives of the MEM Act. This is demonstrated in the fact that:

- The Stage 1 Scoping Study adopted the framework of the MEMS Threat and Risk Assessment (MEMS TARA) (BMT WBM, 2017) to identify and evaluate stressors to estuaries and coastal and marine areas.
- The suite of technical studies undertaken in Stage 2 have included detailed assessment of key stressors identified in the MEMS TARA (see Section 4)
- Actions set out in Stage 4 of this CMP have been aligned with the initiatives and actions in the MEMS (see Section 5).

The progress of the MEMS is monitored through the Marine Integrated Monitoring Program 2018-2028 (Aither, 2019), which has 3 key purposes:

1. Monitor the condition of environmental assets and how the community benefits from the marine estate to inform a mid-term health-check.
2. Evaluate the effectiveness of the Strategy in reducing priority threats.
3. Fill key knowledge gaps that were identified in the Statewide Threat and Risk Assessment.

The Monitoring Program provides the tools and processes to evaluate whether the Strategy is achieving its environmental, social, cultural, and economic goals. It enables the collation and integration of data from a network of organisations including agencies, research providers, universities, local government, and the community.

This information is fed into the adaptive Monitoring and Evaluation Framework and used to improve future threat and risk assessments, evaluations, research projects, and management strategies (Aither, 2019). This framework includes:

- The NSW Community Wellbeing Framework (Gollan & Curley, 2023) provides a consistent and robust approach to monitoring the community benefits of the marine estate, assess threats to these benefits, and address social, cultural, and economic knowledge gaps identified in the MEMS TARA. It addresses the lack of systematic monitoring of the human dimensions of the marine estate, and the resulting lack of social data, which are considered key threats.
- The Environmental Condition Framework (Thornborough, et al., 2023) outlines how the environmental goals of the MEMS will be progressed and evaluated. Monitoring focuses on condition or stressors of the main environmental assets under threat or delivering monitoring projects to specifically address key knowledge gaps identified in the MEMS TARA or other relevant sources.

Both frameworks outline the indicators to be monitored, priorities, methods and timeframes, as well as information for public communication about marine estate monitoring projects

This CMP established linkages from the MEMS Marine Integrated Monitoring Program and the Monitoring, Evaluation and Reporting Program of the CMP (see Section 8).

***The NSW Water Quality Objectives***

The NSW Water Quality Objectives (WQO) are the long-term goals set for coastal waterways (MEMA, 2025). They are based on the benefits and services provided by healthy waterways that the community values. Originally developed in the NSW Government in late 1990s and early 2000s, these objectives have been recently updated as part of Initiative 1 of the MEMS (MEMA, 2018), in line with the requirements of the National Water Quality Management Strategy (Australian Government, 2018). The update of the WQOs has included the following:

- Updating the community values and uses
- Application of an updated set of Water Quality Objectives to each NSW coastal catchment.
- Nomination of reference sites for catchments and developed guideline values for the *Protection of Aquatic Ecosystems* objective, where data is available

There are 10 NSW WQOs, as depicted in Figure 2.41.

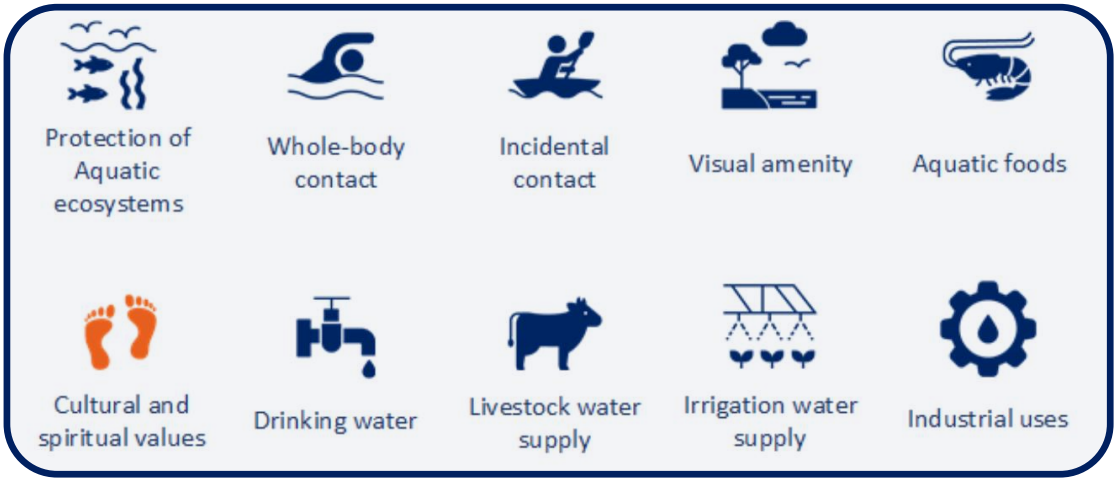



**Figure 2.41 The NSW Water Quality Objectives**

***The NSW Water Quality Governance Roadmap***

The NSW Water Quality Governance Roadmap (DCCEEW, 2024) is a strategic document prepared by the NSW DCCEEW to improve the way water quality is managed across the state. It was developed in response to longstanding fragmentation in responsibilities, duplication of effort, and gaps in monitoring and governance. The roadmap provides a coordinated pathway to strengthen governance, clarify roles, and integrate management of water, land, and natural resources to improve waterway health and resilience. The NSW Government is progressing 2 key pathways for improving water quality outcomes across NSW:

- Better integrating management of land, water and natural resources:
  - To address the complexity of the existing fragmentation of water quality management in NSW, the NSW Government is transitioning towards a more “integrated catchment management” (ICM)

approach. The roadmap sets out the need to establish a statewide integrated catchment management framework, which recognises the interconnectedness between waterways and land use, at a catchment scale. Future progression towards a statewide ICM approach can and should link with the HNRS CMP through governance, land-use planning, and monitoring and reporting (see below).

- Improving water quality data management and monitoring:
  - Water quality data is collected, stored and used by a range of state government agencies as well as councils. There is also no centralised guidance to specify what good water quality data looks like in relation to NSW's data sharing platforms, to inform what data to collect, store and manage. There are also different approaches and tools used for publication, interpretation and communication of water quality data. The roadmap recognises that while water quality data systems exist, there are opportunities to improve the efficiency and effectiveness of water quality information collection, sharing and use. This includes improving monitoring arrangements to align monitoring programs and fill gaps in data, improving the data collected (including quality assurance processes) and how to store, access, share and interpret the data and monitoring results. The progression of the roadmap should link with the MER of the HNRS CMP.

### *The NSW State Disaster Mitigation Plan*

In February 2024, the NSW Reconstruction Authority (RA) published the State Disaster Mitigation Plan (SDMP) (NSW RA, 2024a).

The NSW SDMP:

- Identifies NSW's exposure to a range of natural hazards, such as bushfires and floods, and assesses how the associated risk changes over time due to population growth and climate change (see Figure 2.42).
- Identifies a toolkit of options to reduce our exposure and vulnerability to natural hazards.
- Provides a comprehensive plan of 37 short to medium term actions to address policy and program gaps that work to reduce the costs and impacts of disasters.
- Supports local disaster adaptation planning.

The SDMP places a strong emphasis on risk reduction through strategic land use planning and integrates a broad spectrum of natural hazards including (but not limited to) all 7 coastal hazards defined in the CM Act (see Figure 2.42).

In doing so, it has clear alignment with the objectives of the CMP and serves as a state-level planning framework that complements and reinforces local CMPs by addressing coastal hazard risk at a broader, strategic scale.

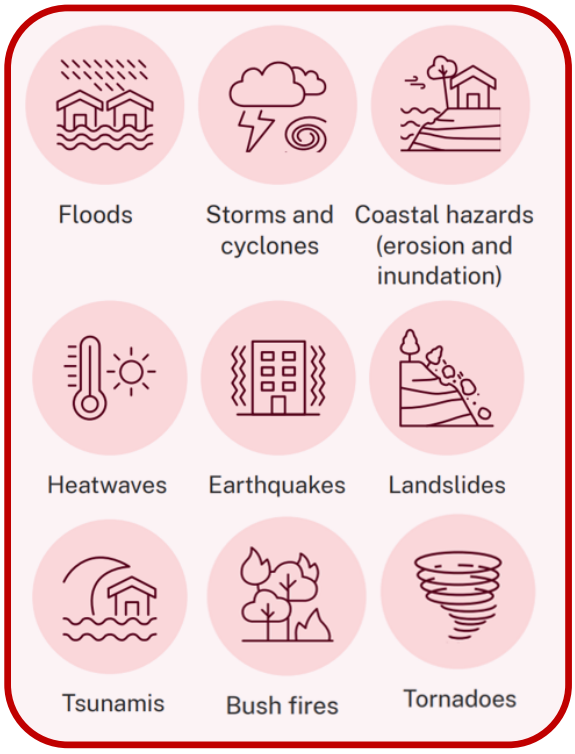



**Figure 2.42 Natural Hazards covered by the SDMP**

The SDMP serves are a state level planning document to address multi-hazard risk, with clear linkages to the CMP in that through its strategic initiatives to address coastal hazard risk at a state-wide planning scale. It considers risk reduction measures through a similar hierarchy to the CM Manual:

- Managed relocation, such as voluntary buy-back schemes and the coordinated resettlement of at-risk communities.
- Mitigation infrastructure, including seawalls, beach nourishment, and foreshore protection structures.
- Strategic planning controls, such as zoning, development restrictions, and land use exclusions in high-risk areas.
- Early warning systems to improve community response to hazard events.
- Community education and preparedness programs to build resilience at the local level.

In this context, the CMP benefits from the strategic direction set by the SDMP, particularly where it relates to long-term coastal risk reduction, planning reform, and the alignment of local actions with state-wide hazard mitigation priorities

***The NSW Boating Infrastructure and Dredging Scheme***

In 2025, TfNSW announced the commencement of the NSW Boating Infrastructure and Dredging (BID) Scheme (TfNSW, 2025). The scheme consists of 5 sub-programs:

- Boating Infrastructure for Communities Grants Program – superseding the previous *Boating Now Program*, this program will put greater emphasis on improved access for aging boaters and boaters with disabilities.
- Boating Infrastructure Maintenance Grants Program – providing funding to asset owners across NSW to undertake minor repair and maintenance works on public boating infrastructure.
- Boating Infrastructure Emergency Repair Pool – funding support for owners of public boating infrastructure to repair or replace assets impacted by natural disasters and severe weather events.
- Priority Dredging Program – funding for MIDO to deliver new dredging projects at key priority sites critical to boating and safe waterway navigation.
- Committed Dredging Projects – committed dredging projects at Swansea, Ettalong (see Figure 2.38), Coffs Harbour and Myall River, and the development of 10-year environmental planning approvals to dredge nine high priority areas.

The BID Scheme represents a major opportunity to align infrastructure investment with estuary management goals. As such, there is strong potential for synergies between the BID Scheme and the HNRS CMP, particularly where dredging, access improvements, and asset resilience projects help to address sedimentation, enhance waterway connectivity, and support long-term coastal and estuarine health.

State-led dredging activities already programmed, funded or delivered through the BIDS are administered independently of the CMP and do not need to be duplicated as CMP actions. Relevant CMP actions may still support coordination, local investigations or complementary management activities where these add value to the State-led program.

### 2.6.2 Regional and Catchment Level Plans

***Hawkesbury-Nepean Valley Disaster Adaptation Plan***

Disaster Adaptation Plans (DAPs) are local or regional place-based plans that are intended to assess the specific natural hazard risks for an area now and in the future. They are intended to set out the projects, strategies or actions to be taken to prevent or reduce the risks and the disasters they may cause.

The Hawkesbury-Nepean Valley (HNV) DAP is the first of its kind in NSW and is (initially) solely focussed on catchment flood risk – building on the outcomes of the Hawkesbury-Nepean River Flood Study (NSW RA, 2024b). It draws on decades of technical analysis and flood risk assessment to better understand the drivers and consequences of major flood events, and aims to guide coordinated action to reduce risk to life, property, and community resilience in one of the most flood-prone regions in the catchment.

The HNV NDAP serves as a complementary planning document to the CMP, addressing the risks associated with catchment flooding, just as the CMP focuses on coastal hazard risk. Together, they provide a coordinated and system-wide approach to managing natural hazards across both the estuarine and upstream catchment areas.

### *The Dyarubbin (Hawkesbury River) Cultural Restoration Strategy*

The Dyarubbin Cultural Restoration Strategy (CRS) (NSW Government and Water Technology, 2025) has been developed to guide the protection, restoration, and management of Aboriginal cultural landscapes throughout the Hawkesbury River estuary – see Figure 2.43.

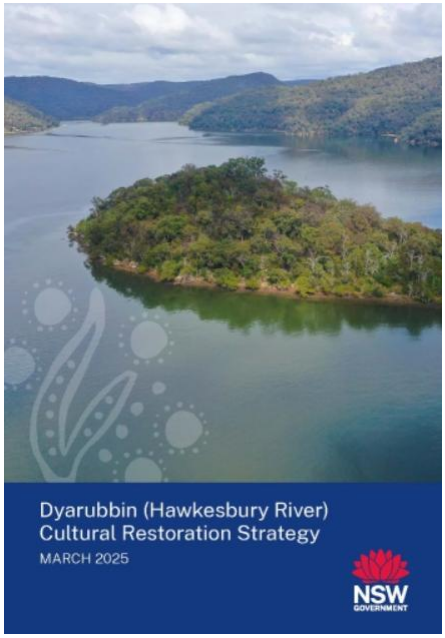



**Figure 2.43 The Dyarubbin CRS**

While the CRS responds directly to the impacts of the 2020–2024 flood events - which caused significant damage to cultural heritage sites - its purpose extends beyond physical restoration. The strategy is also focused on building long-term resilience into both the estuarine landscape and the capacity of Aboriginal communities to manage, protect, and maintain cultural values through self-determined Care for Country practices.

There are strong synergies between the CMP's management actions (particularly those outlined in Strategy 8) and the priorities identified in the CRS. Both documents were informed by extensive engagement with First Nations groups along the Hawkesbury River. These shared foundations create a unique opportunity for coordinated delivery. In practical terms, this may mean that some or all of the CMP's culturally focused management actions may be delivered through the CRS, with joint implementation arrangements and funding pathways.

This alignment not only supports the objects of the CM Act and the MEM Act - particularly in recognising Aboriginal cultural values and involving local communities in management - but also strengthens the long-term resilience of both natural and cultural assets across the estuary system.

### *The Sydney Plan*

The Sydney Plan was released by the NSW Department of Planning, Housing and Infrastructure in August 2026 and provides the strategic land use framework for the Sydney region over the next 20 years (DPHI, 2026) – see Figure 2.44. Covering 33 local government areas, the Plan guides how Sydney will accommodate a growing population, projected to exceed 6.6 million people by 2046, through the coordinated delivery of housing, jobs, infrastructure, transport, environmental management and liveable communities. The Plan replaces the previous Greater Sydney Region Plan: A Metropolis of Three Cities (Greater Sydney Comission, 2018) and associated district plans, establishing a single strategic planning framework for metropolitan Sydney.

The Sydney Plan is aligned with the priorities of the NSW State Land Use Plan, focusing on seven key outcomes: Aboriginal outcomes, housing, prosperity, connectivity, resilience, liveability, and coordination. It seeks to integrate land use, infrastructure and investment decisions to support the delivery of approximately 800,000 new homes and 950,000 new jobs by 2046 while enhancing Sydney's environmental, social and economic resilience.

Waterways, open space networks and the Blue-Green Grid are recognised as critical components of Sydney's green infrastructure system, providing environmental, recreational and resilience benefits across the metropolitan area. The Plan identifies priority Blue-Green Grid corridors to improve connections between waterways, parks and communities while protecting ecological values and supporting climate adaptation. This CMP aligns with the Sydney Plan's objectives for sustainable waterway management, environmental stewardship and improving community access to natural assets.




Figure 2.44 The Sydney Plan

The Sydney Plan recognises coastal hazards as a key consideration in building a resilient and sustainable metropolitan region. Consistent with the resilience objectives of the Plan and the broader NSW State Land Use Plan, planning and development decisions are required to consider the impacts of climate change and natural hazards, including coastal erosion, inundation, sea level rise, storm surge and flooding. The Plan promotes a risk-based approach to land use planning that avoids placing new development in areas of unacceptable hazard risk and supports the protection of coastal environments, estuaries and waterways that provide important ecological, recreational and economic benefits. Through its focus on resilience, integrated infrastructure planning and the Blue-Green Grid framework, the Plan seeks to improve the capacity of communities, ecosystems and infrastructure to adapt to changing coastal conditions while maintaining public access to and enjoyment of Sydney's coastal and estuarine environments.

The Plan also recognises the importance of integrated water management and supports initiatives that improve water security, stormwater management, waterway health and recycled water opportunities across the Sydney region, particularly in growth areas where infrastructure and environmental outcomes must be planned together.

### *The Central Coast Regional Plan 2036*

In a similar vein, the Central Coast Regional Plan 2036 (DPE, 2016) sets regional planning priorities for the Central Coast and provides guidance and direction for regional and local planning decisions over a 20-year period to 2036. It provides an overarching framework to guide land use planning, development proposals and infrastructure funding decisions. The plan outlines 4 overarching goals:

- A prosperous Central Coast with more jobs close to home;
- Protect the natural environment and manage the use of agricultural and resource lands
- Well-connected communities and attractive lifestyles
- A variety of housing choice to suit needs and lifestyles.

The NSW Government has established the Central Coast Delivery, Coordination and Monitoring Committee to deliver, coordinate and be accountable for achieving the vision and goals of the Plan (DPE, 2016).

### 2.6.3 Local Level Plans

As per the requirements of the *Local Government Act 1993*, all NSW local governments are required to prepare a series of strategic plans that conform to the structure of the state Integrated Planning and Reporting (IP&R) Framework. The structure of this framework is depicted in Figure 2.45, and a brief overview of the components is provided below. A summary of relevant planning documents is provided in Table 2.8.

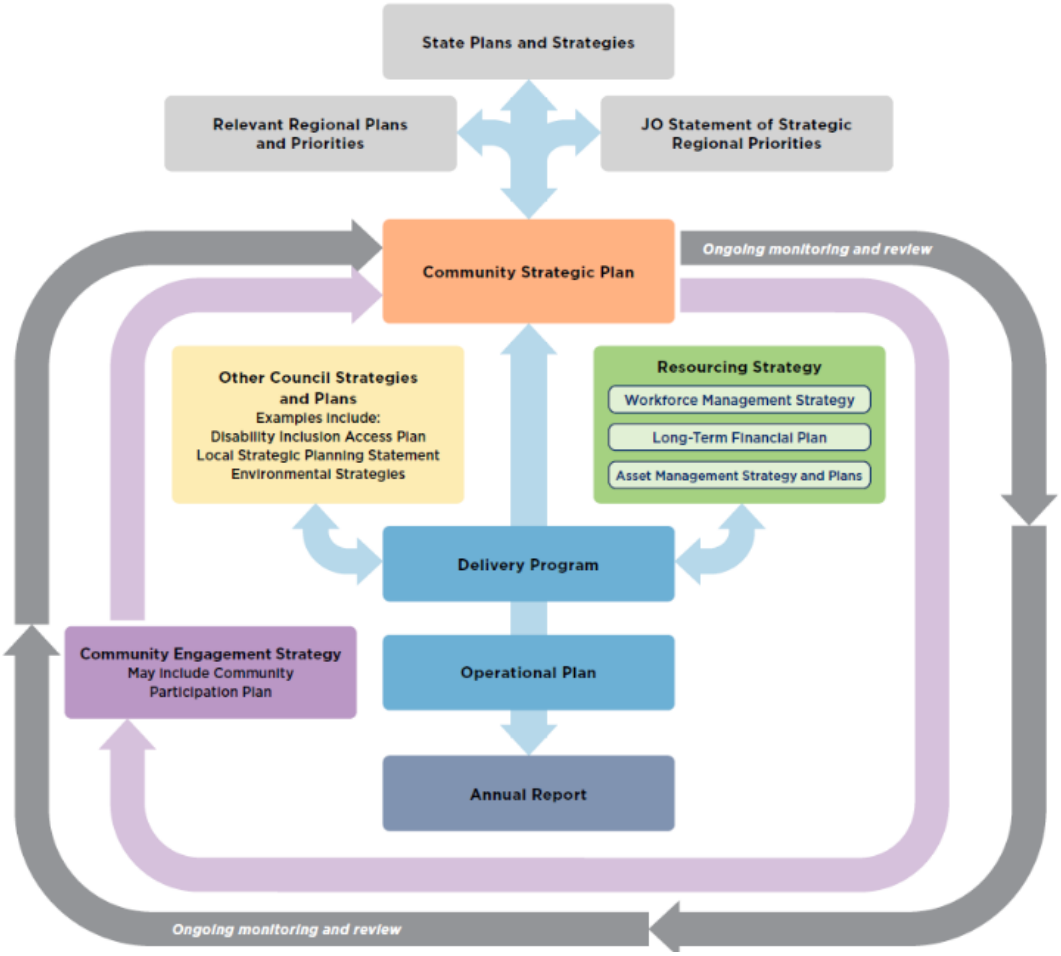



**Figure 2.45 Integrated Planning and Reporting Framework (NSW Office of Local Government, 2025)**

***Community Strategic Plans***

The Community Strategic Plan (CSP) is the overarching, visionary document that translates the community's key priorities and aspirations into long-term strategic goals that guide the future direction of the LGA. The Plan represents the highest level of strategic planning undertaken by a local council. A CSP essentially addresses 4 key questions for the community:

- Where are we now?
- Where do we want to be in ten years' time?
- How will we get there?
- How will we know when we have arrived?

All other plans developed by councils in the study area (such as CMPs) must reflect and support implementation of their CSP. In fact, under the CM Act, the objectives and management actions developed as part of CMPs are required to be strategically aligned with the objectives and strategies outlined in each partner council's CSP. Linkages to the various CSPs of the partner councils are provided in the Stage 1 Scoping Study Document (Water Technology, 2020).

***Resourcing Strategy***

The Community Strategic Plan provides a vehicle for each community to express its long-term aspirations. However, these aspirations will not be achieved without sufficient resources – time, money, assets and people – to implement them. The Resourcing Strategy is critical link when translating strategic objectives into actions. The Resourcing Strategy consists of three inter-related elements:

- Long-Term Financial Planning
- Asset Management Planning
- Workforce Planning

The Resourcing Strategy makes clear what elements of the CSP the council will take responsibility for. Other levels of government, business, non-government organisations, community groups and individuals will also have a role in achieving the outcomes of the CSP.

As its name suggests, each of the elements of the Resourcing Strategy also play a role in resourcing the achievement of the Delivery Program and Operational Plans, as well as any other strategic plans the council has developed to support the achievement of the CSP (NSW Office of Local Government, 2025).

Resourcing implications of the CMP should be reflected in the Resourcing Strategy and CMP actions relating to Partner Council assets should be considered in the relevant Asset Management Plan.

***Delivery Programs and Operation Plans***

The Delivery Program (DP) is a 4-year plan that turns the strategic goals found in the CSP into actions. It is the point where a council makes a commitment to the CSP, and act upon those issues that are within its area of responsibility. The DP identifies all of the key activities the council has committed to undertake over its four-year term. All plans, projects, activities and funding allocations of the council must be directly linked to the DP.

The Delivery Program should be reviewed every year as the council prepares the next Operational Plan. If any significant amendments are proposed to the Delivery Program, the council must re-exhibit it, explaining the proposed changes and inviting community comment (NSW Office of Local Government, 2025).

Forthcoming and ongoing CMP actions for the relevant 4-year period must be included in the associated delivery program for each Partner Council.

***Operational Plans***

The Operational Plan is a one year plan that spells out the detail of the Delivery Program, identifying the individual projects and activities that will be undertaken in a specific financial year to achieve the commitments made in the four year Delivery Program (NSW Office of Local Government, 2025).

The Operational Plan must include the council's detailed annual budget, along with the council's Statement of Revenue Policy, which includes the proposed rates, fees and charges for that financial year. Forthcoming and ongoing CMP actions are scheduled into each years' operational plan.

***Local Strategic Planning Statements***

Under the EP&A Act there is a requirement for councils to prepare and prepare a Local Strategic Planning Statement (LSPS), which sets out the 20-year vision for land use in the local area, and how change will be managed into the future.

These plans provide a link between the state government's strategic plans and local council's local land use plans and guidelines. The LSPS forms part of a council's IP&R Framework, providing an important link with the CSP.

***Local Environment Plans and Development Control Plans***

Each Partner Council possesses a Local Environment Plan (LEP), which all NSW local governments are required to prepare under the direction of the state government. The purpose of LEPs is to regulate land use and development. They guide planning decisions for local governments and allow councils to regulate the ways in which all public land may be used and protected through zoning and development controls.

The associated Development Control Plan (DCP) provides detailed planning and design guidelines to support the planning controls in each LEP.

***Reporting***

Reporting is a key element of the IP&R framework. Councils must prepare an Annual Report that provides information regarding progress and success in implementation of the Operational Plan and Delivery Program.

***Other Relevant Local Plans***

Local councils also develop and implement a range of other local level plans relevant to the study area. These plans vary from one LGA to the other, but generally include variations of the following to name just a few:

- Floodplain risk management studies and plans for creeks and sub-catchments
- Integrated water management plans and stormwater management plans
- Heritage management plans
- Climate change mitigation and adaptation plans
- Biodiversity, vegetation and pest species management plans
- Plans of Management for crown reserves and community lands
- Housing and land use strategies
- Economic development and tourism strategies
- Waste strategies
- Bushfire risk management plans
- Master planning and public domain projects.

Table 2.8 Local planning instruments of the Partner Councils

| Instrument | Central Coast Council | Northern Beaches Council | Ku-ring-gai Council | Hornsby Shire Council | The Hills Shire Council | Hawkesbury City Council |
|---|---|---|---|---|---|---|
| **Community Strategic Plan** | ▪ One Central Coast: Central Coast, Community Strategic Plan 2018-2028 | ▪ Northern Beaches Community Strategic Plan 2040 | ▪ Community Strategic Plan 2035 | ▪ Hornsby Shire Community Strategic Plan - Your vision \| Your future 2035 | ▪ Towards Hills 2050 | ▪ Our Hawkesbury 2045 - Community Strategic Plan |
| **Local Strategic Planning Statement** | ▪ Local Strategic Planning Statement 2020 | ▪ Towards 2040 - Local Strategic Planning Statement | ▪ Ku-ring-gai Local Strategic Planning Statement 2020 | ▪ Future Hornsby - Local Strategic Planning Statement 2020 | ▪ Hills Future 2036 - Local Strategic Planning Statement | ▪ Hawkesbury Local Strategic Planning Statement 2040 |
| **Local Environment Plans** | ▪ Central Coast LEP 2022 | ▪ Northern Beaches LEP 2026[#] | ▪ Ku-ring-gai LEP 2015 | ▪ Hornsby LEP 2013 | ▪ The Hills LEP 2019 | ▪ Hawkesbury LEP 2012 |
| **Development Control Plans** | ▪ Central Coast DCP 2022 | ▪ Northern Beaches DCP 2026[#] | ▪ Ku-ring-gai DCP 2016 | ▪ Hornsby DCP 2024 | ▪ The Hills DCP 2012 | ▪ Hawkesbury DCP 2023 |

[#] Note that Northern Beaches Council is currently working to consolidate its existing suite of LEPs and DCPs. This process is expected to be completed by the time the CMP in certified and enacted.



General Meeting 11 November 2026
Attachments Page 429
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 92
ATTACHMENT 1 - ITEM 7

WATER TECHNOLOGY
WATER, COASTAL & ENVIRONMENTAL CONSULTANTS

# 3 A SNAPSHOT OF THE ISSUES

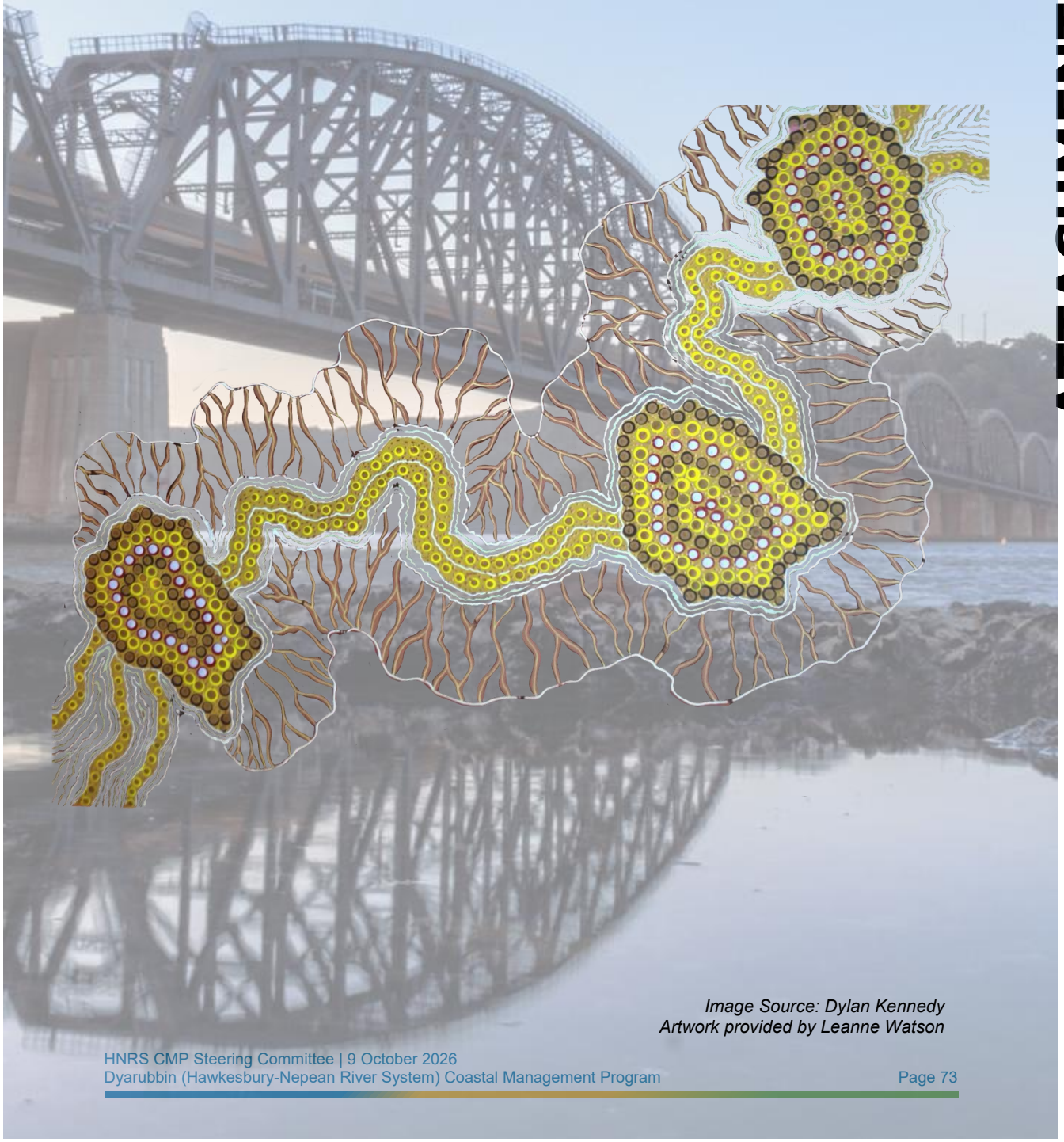


*Image Source: Dylan Kennedy*
*Artwork provided by Leanne Watson*

## 3.1 Overview

Section 21 (3) (b) of the CM Act requires the application of a risk management process when preparing CMPs and identifying where management actions are required (OEH, 2018a). Accordingly, during Stage 1 of the CMP, a first-pass qualitative risk assessment (FPRA) was undertaken in accordance with the following guidance and frameworks:

- The requirements outlined in the NSW Coastal Management Manual (OEH, 2018b).
- The threat and risk assessment framework presented in the *Marine Estate Management Strategy Threat and Risk Assessment* (BMT WBM, 2017)
- The risk management principles and process described in *ISO 31000:2018, Risk management – Principles and guidelines, provides principles, framework and a process for managing risk* (ISO, 2018)

The various threats and stressors associated with the HNRS were identified through stakeholder engagement, review of previous estuary and coastal studies, and reference to the Marine Estate Threat and Risk Assessment (BMT WBM, 2017). Based on this preliminary review, a total of 67 stressors were identified, spanning 5 key threat categories, as illustrated in Figure 3-1.

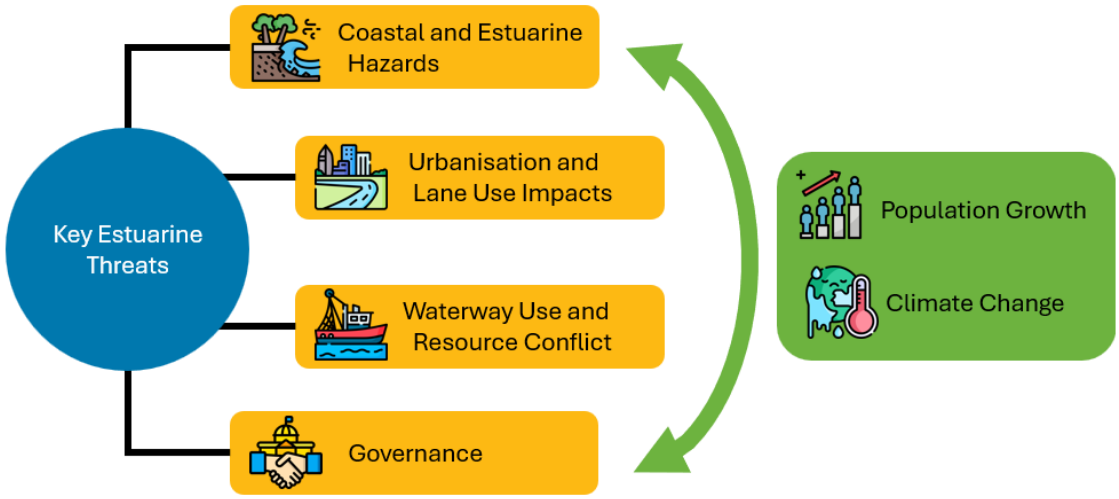



**Figure 3.1 Threat Categories across the HNRS**

During Stage 2 of the CMP, these stressors were further assessed through a suite of detailed technical studies (see Section 4.3). These studies built on the Stage 1 FPRA and focused on identifying key risks, vulnerabilities, and opportunities across the study area to inform the development and prioritisation of management actions in Stages 3 and 4.

In accordance with the Mandatory Requirements for CMPs (OEH, 2018a), the risk assessment work undertaken in Stages 1 and 2 considered both current and emerging risks over a range of planning horizons - including present-day, 20-year, 50-year, and 100-year timeframes - to account for projected impacts of climate change, population growth, and future development within the coastal zone.

A brief snapshot of these stressors and associated risks is provided in Section 3.2 to 3.5.

## 3.2 Coastal and Estuarine Hazards

The CMP process facilitates identification of areas impacted by various coastal and estuarine hazards and enables an assessment of the relative risk of each of these hazards. The CM Act recognises 7 coastal hazards within the NSW coastal zone, as summarised in Figure 3.2.

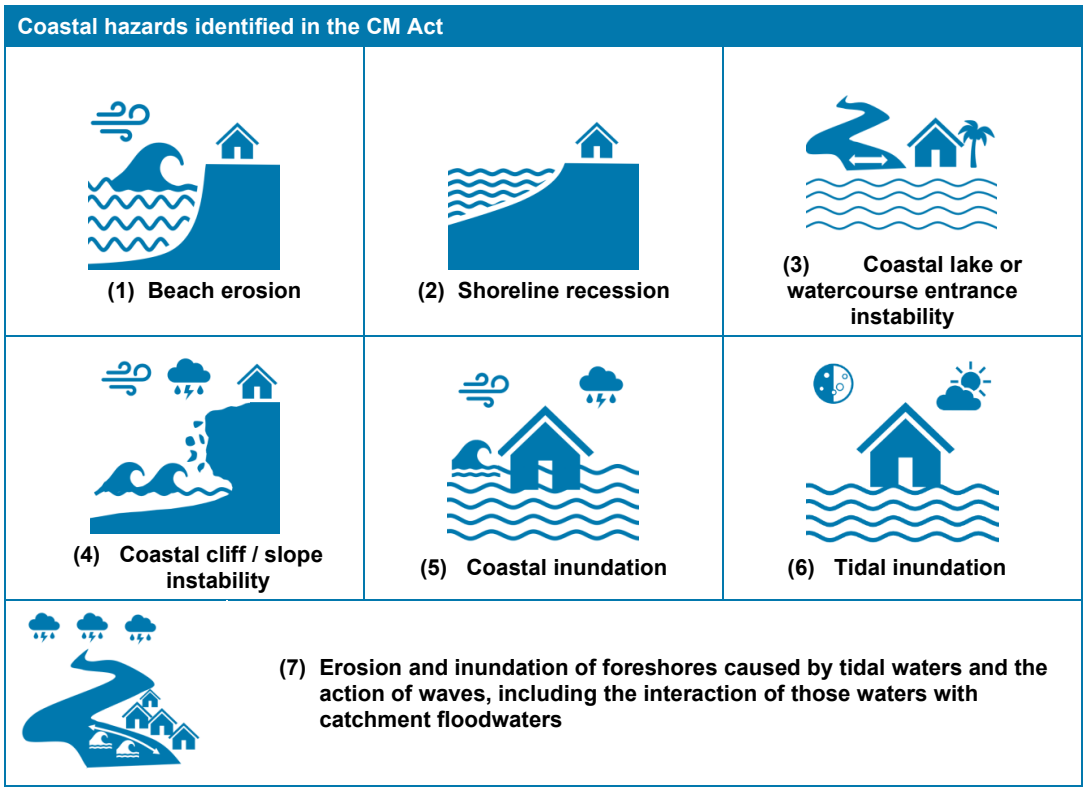



**Figure 3.2 The legally defined coastal hazards set out in the CM Act**

Over the coming decades, the impacts of climate change - including sea level rise, increased storm intensity, and altered rainfall and runoff patterns - will be superimposed over these existing hazards, increasing their severity, frequency, and spatial extent. As a result, the management of coastal risks in this CMP has considered forward-looking strategies that account for long-term climate projections and the cumulative impacts on coastal communities, ecosystems, and infrastructure. A brief summary of the key coastal hazard risks is provided below.

### 3.2.1 Beach Erosion and Long Term Shoreline Recession

The most severe beach erosion events affecting the study area are driven by East Coast Lows (ECLs) - intense, episodic low-pressure systems that develop off the east coast of Australia. These systems are characterised by damaging winds, heavy rainfall, storm surges, and high-energy wave conditions, and are a primary driver of short-term coastal hazards along the NSW coast (DPE, 2023).

The beaches of Broken Bay - including Ocean–Umina Beach, Pearl Beach, and Patonga Beach - are directly exposed to southerly and easterly swell from the Tasman Sea, making them particularly susceptible to storm-induced erosion. Historical erosion has been well documented along these shorelines, placing coastal assets

and infrastructure at significant risk during major storm events. At Ocean–Umina and Ettalong beaches, erosion processes are further influenced by the complex entrance dynamics of the Brisbane Water estuary, where interactions between tidal flows, sediment transport, and wave action create a highly variable and challenging coastal environment (WorleyParsons, 2014).

Some of the most severe coastal hazard events in living memory occurred during the mid-to-late 1970s, when a cluster of ECLs between 1974 and 1978 caused widespread beach erosion and coastal inundation along the NSW coastline, including the Broken Bay and Pittwater regions (WorleyParsons, 2014). More recently, ECL events in 1985, 1986 (see Figure 3.3), 2015 (see Figure 3.4), 2016 and 2020, have continued to cause significant impacts to beaches across the study area.



**Figure 3.3 Erosion at Ocean Beach in 1985. Right: Storm Conditions at Pearl Beach, August 1986 (WorleyParsons, 2014)**



**Figure 3.4 Beach erosion at Ocean and Umina Beaches in 2015**

In Pittwater, the northern shoreline - including Mackerel Beach on the western side and the eastern shores north of Observation Point - also experiences significant wave exposure during strong southerly and easterly storm events, particularly those associated with ECLs. Although more sheltered than the open coast beaches, Bradleys Beach on Dangar Island is also affected by coastal erosion, with local wave, tidal and catchment runoff processes contributing to instability of the beach and adjoining foreshore.

### 3.2.2 Tidal Inundation

Tidal inundation (often referred to as “sunny-day flooding”) refers to periodic inundation of low-lying estuarine foreshores due to astronomical and meteorological processes. There are a number of river riverside

communities in the study area that are considered to be at risk of tidal inundation – with this risk to increase over the coming decades with mean sea level rise.

The *NSW Estuary Tidal Inundation Exposure Assessment* (OEH, 2018g) has identified land and infrastructure around the estuaries that are at risk from inundation under a range of sea level rise scenarios. This includes the following hotspot areas:

- Brisbane Water: Ranked as the third most vulnerable estuary system in NSW, with over 200 properties currently exposed to tidal inundation. This number increases to approximately 2,000 properties under a +0.5 m SLR scenario, and over 4,000 properties with +1.0 m SLR. Highly exposed locations include Empire Bay, Davistown, Saratoga, St Huberts Island, Woy Woy, Kincumber, and Green Point (see Figure 3.5).
- Pittwater: Inundation risk increases substantially under future sea level rise, particularly in low-lying areas such as Great Mackerel Beach and the Basin Campground, which are increasingly exposed under a +1.0 m SLR scenario.
- Lower to Middle Estuary: Periodic tidal inundation is already observed in Brooklyn, Dangar Island, Milsons Passage, and Bobbin Head, with risk escalating under future conditions.
- Upper Estuary: ringing wetlands and low-lying agricultural areas around Webbs Creek, Wisemans Ferry, Gunderman, Laughtondale, and Spencer are exposed to present-day inundation, and will face increased isolation and access issues with projected sea level rise. Notably, Wisemans Ferry Road becomes vulnerable to overtopping under future conditions.

Tidal inundation represents a major long-term challenge for many waterfront townships across the HNRS. Unlike other coastal hazards that may occur episodically, the effects of sea level rise on tidal inundation will be progressive, ongoing, and effectively irreversible on human timescales. As sea levels rise, inundation will become more frequent, more severe, and ultimately permanent in some locations posing significant implications for land use planning, infrastructure, emergency access, and community resilience in the decades ahead – see Section 3.2.6.



Figure 3.5 Top: Woy Woy tidal inundation in 2018. Middle: Spencer in 2025. Bottom: Bobbin Head NPWS facilities in 2017 (source: Central Coast News)

### 3.2.3 Coastal Inundation

Coastal storm tide inundation occurs when elevated ocean water levels - driven by a combination of storm surge, wave setup, and astronomical tides - flood low-lying coastal and estuarine land. These events are typically associated with ECLs and other intense coastal storms, and while infrequent, they can result in rapid-onset flooding, damage to property and infrastructure, and pose risks to public safety.

Unlike tidal inundation, which occurs predictably and incrementally, storm tide inundation is often sudden and short-lived, but far more destructive, particularly when it coincides with high astronomical tides or catchment flooding. These events can temporarily raise water up to half a metre or more, leading to widespread flooding of estuarine foreshores, roads, and built assets - especially in areas already vulnerable to tidal inundation.

In Stage 2 of the CMP, the Hawkesbury River Estuary Coastal Inundation Study (Rhelm and Baird, 2023) utilised hydrodynamic modelling to assess coastal inundation risk across the lower estuary under a range of current and future sea level scenarios. Coastal inundation mapping generated in this study indicated that many low-lying waterfront communities throughout the HNRS - including key townships, estuarine margins, and transport routes - are exposed to this hazard. The compounding effects of storm surge, waves, and river flooding make it particularly difficult to manage, especially in narrow estuaries or those with constricted entrances.

In the main Hawkesbury River, the influence of coastal storm tide inundation generally extends up to the reach between Brooklyn and Spencer (CSS and Rhelm, 2024)

### 3.2.4 Combined Coastal and Catchment Flooding

The HNRS has one of the most significant flood risk exposures in NSW (CSS and Rhelm, 2024). It has a long and well-documented history of flooding, with records dating back to 1789 - the longest continuous flood record in Australia. More than 130 moderate to major floods have occurred since that time, including recent major events in 2020, 2021, and 2022 (NSW RA, 2024b)(see Figure 3.6).



**Figure 3.6 Flooding at Wisemans Ferry (left) and Lower Portland (right) in 2022 (source: NSW RA, 2024)**

These investigations indicate that the joint occurrence of coastal and catchment flooding is considered unlikely in the Upper Hawkesbury, due to the slow catchment response time. Typically, peak flood flows reach the estuarine reaches of the river several days after the storm systems that generate coastal flooding (NSW RA, 2024b; CSS and Rhelm, 2024). Brooklyn, in the Lower Hawkesbury, is also susceptible to combined coastal and catchment flooding. Flooding can affect low-lying areas and Brooklyn Road, the only road access to the township, creating significant access and emergency management risks during major events.

In contrast, the upper reaches of the Brisbane Water Estuary are more susceptible to combined catchment and coastal flooding, particularly in constrained or low-lying sub-catchments. Locations known to be at risk

include (but are not limited to) Fagans Bay, Narara Creek, Erina Creek, Kincumber Creek, and the Woy Woy Inlet.

It is important to note that this CMP does not address catchment flood risk within the broader Hawkesbury–Nepean Valley - this risk is addressed under the Hawkesbury-Nepean Valley Disaster Adaptation Plan (HNV DAP) and the State Disaster Mitigation Plan (SDMP) led by NSW Reconstruction Authority (NSW RA, 2024a).

However, the CMP does consider the broader environmental, ecological, and residual risks posed by the interaction of catchment and coastal flooding, particularly in estuarine systems and the marine estate - where these processes may overlap (see Figure 3.7).

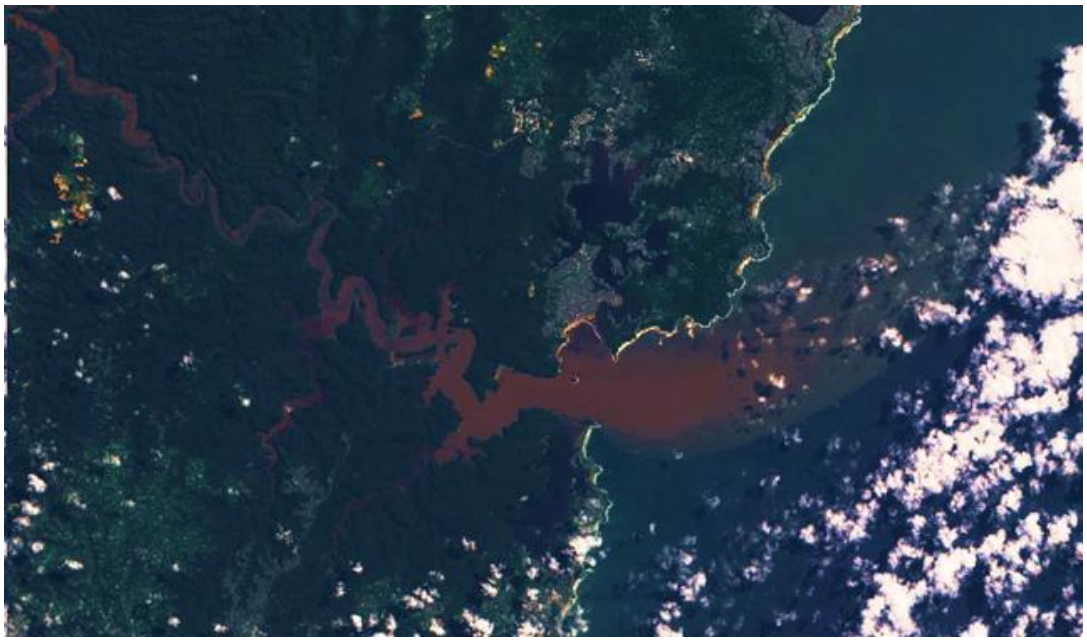


**Figure 3.7 The impacts of catchment flooding on the marine estate in March 2022 (source: Sentinel)**

### 3.2.5 Bank Erosion

Bank erosion is a widespread issue across the tidal waterways of the study area. As part of Stage 2 of the CMP, the *Hawkesbury–Nepean River System Estuary Bank Erosion Assessment and Options Report* (Alluvium, 2022b).

The study mapped erosion across 76 sites and identified several erosion hotspots, including five locations classified as having 'extreme erosion risk'. These include:

- Pittwater: Sand Point Beach and Great Mackerel Beach
- Freshwater Tidal Pool reach: Argyle Bailey Reserve (see Figure 3.8), Churchills Wharf Reserve, and The Terrace, Windsor

The study also identified a number of sites as having "high" risk, including:

- Broken Bay: Patonga Creek
- Freshwater Tidal Pool reach: Cumberland Reach (see Figure 3.9)

The study found that found that key factors contributing to bank and foreshore erosion include:

- Altered flow regimes due to catchment clearing and urban/rural development
- High-velocity flood flows, particularly on the outer bends of river meanders, increasing shear stress and bank instability
- Post-flood bank saturation, leading to failure from internal seepage and lack of root reinforcement
- Boat wash, which generates persistent wave energy causing localised erosion
- Tidal currents and fluctuations, which transport sediment and increase wave action at variable heights - a process expected to worsen with sea level rise
- Wind waves, amplified in areas with reduced riparian vegetation and increased fetch.



**Figure 3.8 Bank erosion at Argyle Bailey Reserve, Windsor**







Figure 3.9 Bank erosion at Cumberland Reach (Alluvium, 2022b)

### 3.2.6 Climate Change Impacts

The Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report (AR6) opens with a stark and unequivocal conclusion:

*"It is unequivocal that human influence has warmed the atmosphere, ocean and land. Widespread and rapid changes in the atmosphere, ocean cryosphere and biosphere have occurred"* (IPCC, 2021).

This statement confirms that climate change is already underway and will continue to shape the environment for decades to come. As such, it is essential to consider the potential impacts of climate change on local coastal processes and hazards, particularly in vulnerable estuarine systems like the HNRS.

***Sea Level Rise***

AR6 confirms that thermal expansion of the oceans and melting of glaciers and ice sheets have been the dominant contributors to global mean sea level rise throughout the 20th century - a trend that is expected to continue. Between 1901 and 2018, global sea level rose by approximately 0.20 metres, with the rate of rise accelerating over time:

- 1.3 mm/year between 1901–1971
- 1.9 mm/year between 1971–2006
- 3.7 mm/year between 2006–2018.

The nearest long-term tide gauge to the HNRS is the Fort Denison tide gauge in Sydney Harbour, which has been operational since 1914. Analysis of long-term tide records from Fort Denison reveals that local sea level rise is consistent with the long-term global trend, increasing 3.6 mm/yr between 1996 and 2022. There is a general consistency between historical mean SLR at Fort Denison over the last 30 and the global mean sea level values reported by the IPCC AR6 (IPCC, 2023). Based on this, there is no evidence to suggest that future long term SLR in the HNRS is likely to vary significantly from the global projected increases.

To assess future sea level rise, AR6 introduces a suite of Shared Socioeconomic Pathways (SSPs) - global scenarios that consider different greenhouse gas emission trajectories based on a range of assumptions about population growth, technological development, land use, and climate policy. These include:

- Low-emission scenarios (e.g. SSP1-1.9), assuming rapid decarbonisation and sustainability
- Intermediate scenarios (e.g. SSP2-4.5), assuming moderate mitigation
- High Emissions scenarios (e.g. SSP3-7.0), assuming limited international cooperation, slow economic development, weak environmental policy
- High-emission scenarios (e.g. SSP5-8.5), assuming continued fossil fuel use and limited climate action

Sea level rise projections under these scenarios suggest that, by 2100, mean sea level could rise between 0.4 and 1.4 metres relative to the 1990–2014 baseline (see Figure 3-10), depending on the global emissions pathway.

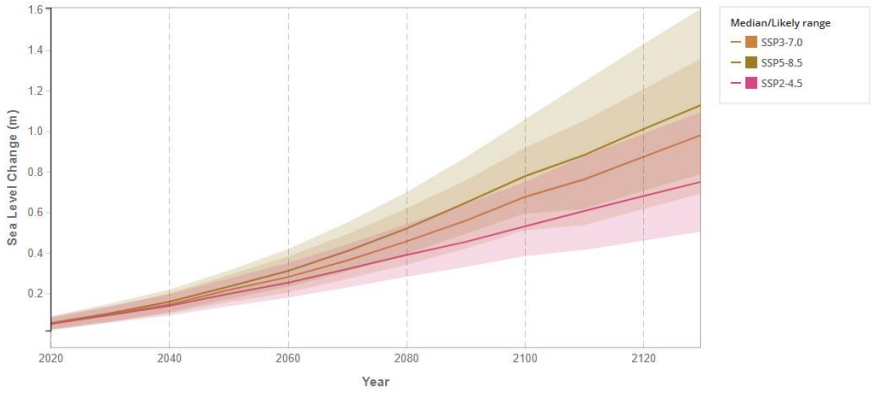



**Figure 3.10 Projected SLR for the Sydney Region over the next century (source: NASA 6AR Projection Tool)**

The impacts of SLR will manifest as they exacerbate each of the coastal hazards that impacts the study area:

- Long-term shoreline recession is expected to intensify as sea levels rise, leading to the progressive inland movement of coastlines and loss of coastal land.
- Coastal estuary entrance instability will be impacted by SLR as it can alter the equilibrium of tidal flows and affect the stability of estuary entrances.
- SLR will increase the risk of coastal cliff and slope instability as rising water levels can undermine the stability of coastal cliffs and slopes an increase the wave energy that coastal cliffs are exposed to.
- Storm tide inundation will become more severe with SLR, leading to higher water levels during storms and increased frequency and severity of coastal inundation.
- Tidal inundation, which includes both nuisance flooding and saltwater intrusion, will become more frequent and extensive as sea levels continue to rise, affecting low-lying coastal areas.

***Broader Climate Change Impacts***

The estuaries will also come under increasing pressure over the coming decades from a range of projected climate change impacts. These are detailed in the various Stage 1 and Stage 2 reports and include:

- *Ocean (and estuarine) temperature increase:* Estuaries are impacted by both changes in local coastal catchment conditions, as well as ocean warming. Scanes et al. (2020) found that estuary temperatures in South-Eastern Australia have increased by an average of ~2.1°C between 2007 and 2019, with higher rates of warming in shallow lagoons and rivers compared to deeper lakes and waterways. Ecological systems are threatened by sustained high temperatures that exceed the thermal thresholds of their species (Verges, et al., 2014).
- *Ocean acidification:* Ocean acidification has various impacts on the different components of estuarine ecosystems. It may cause dissolution of shells and other calcareous structures and has the potential to disrupt marine food chains by disrupting phytoplankton communities. In addition to the ecological impacts, increased acidity may affect physical and chemical estuarine processes by altering metal solubility and thus water chemistry. These impacts are expected to be most pronounced near the mouth of the HNRS, while upstream areas experience greater daily pH variability due to fluctuating freshwater inputs, salinity gradients, and reduced tidal and oceanic influences.
- *Altered storm frequency and severity:* In general, both the frequency and severity of damaging storms is predicted to increase under climate change conditions. This could result in increased risk to coastal development and ecosystems through increased storm surge height and wave conditions.

- *Altered hydrologic and hydrodynamic regimes:* The average rainfall across Sydney is expected to reduce over the coming decades. The reduction of average rainfall is highest in winter, with 17% reduction in average rainfall in the low-emissions scenario, and up to -33% lower in high emissions scenario by 2050 (DCCEEW, 2024). This predicted reduction in total rainfall, combined with an increase in evaporation, is likely to result in an altered balance between the marine and freshwater distribution across the estuary (Alluvium, 2022a). However, hourly extreme rainfall is projected to increase by approximately 15% per degree of warming (CSIRO and Bureau of Meteorology., 2024), resulting in more intense extreme rainfall events. Increased rainfall intensity leads to a higher likelihood and severity of flooding, resulting in increased catchment runoff and erosion during extreme events.
- *Habitat migration and 'squeeze':* Landward migration of low-lying intertidal habitats such as mangroves, saltmarshes, mudflats, sand banks, and rocky shorelines will occur in response to rising sea levels (Glamore, Rayner, & Rahman, 2016). However, existing and future coastal development will form a barrier to wetland migration in some areas, resulting in habitat squeeze (Oppenheimer, et al., 2019). This will have significant repercussions for estuarine ecology, most notably fringing wetlands and saltmarsh communities (Haines & Thom, 2007).

## 3.3 Urbanisation and Land Use Impacts

### 3.3.1 Water Quality and Estuary Health

The HNRS and its connected estuaries are shaped by the combined influence of catchment land uses, pollutant sources, hydrodynamic processes, and in-system cycling. As the final receiving environment for the entire catchment, the estuary integrates the cumulative impacts of upstream activities and is especially sensitive to inputs from urban stormwater, agricultural runoff, wastewater discharges, and disturbed sediments. Decades of human activity have altered the timing, magnitude, and composition of these inputs, reducing the system's resilience and increasing the risk of algal blooms, sediment contamination, and habitat loss.

While significant gains have been made through improved point-source controls and particularly wastewater treatment, these have been offset by ongoing pressures from diffuse pollution, urbanisation, agricultural intensification, and legacy contamination. Some reaches of the Hawkesbury River now consistently achieve good to excellent water quality; however, others remain prone to degradation, particularly after heavy rainfall when pollutant loads and turbidity rise sharply. Without continued investment in both catchment-scale management and targeted in-estuary protection, these pressures are likely to intensify under the combined influence of population growth, land use change, and climate variability.

DCCEEW Estuary Health Report Cards provide an annual high-level grade for each of the 3 main waterways of the HNRS. Grades are based on two nationally agreed water quality indicators - turbidity and chlorophyll-a - assessed against trigger values from the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC/ARMCANZ, 2000). These indicators capture both water clarity and algal abundance, allowing for a consistent assessment of estuary condition. Grades range from A (excellent) to E (very poor)

- A – excellent
- B – good
- C – fair
- D – poor
- E – very poor.

The grades for each of the waterways is provided in Table 3.1.

Table 3.1 DPE estuary health report card grades (Alluvium, 2022a) between 2010 and 2021

| Year | Upper Hawkesbury | Lower Hawkesbury | Brisbane Water | Pittwater |
|---|---|---|---|---|
| 2010-11 | D | - | A | - |
| 2013-14 | C | - | A | - |
| 2016-17 | C | - | A | - |
| 2017-18 | - | C | A | A |
| 2018-19 | - | C | A | A |
| 2019-20 | - | D | B | A |
| 2020-21 | C | C | B | A |

Conceptual diagrams of key estuary health stressors across the HNRS and its contributing catchment are provided in Figure 3.11 to Figure 3.13, as developed during the Stage 2 Abridgement Report (Alluvium, 2022a).




Figure 3.11 Key estuary health stressors across the HNRS catchment (Alluvium, 2022a)



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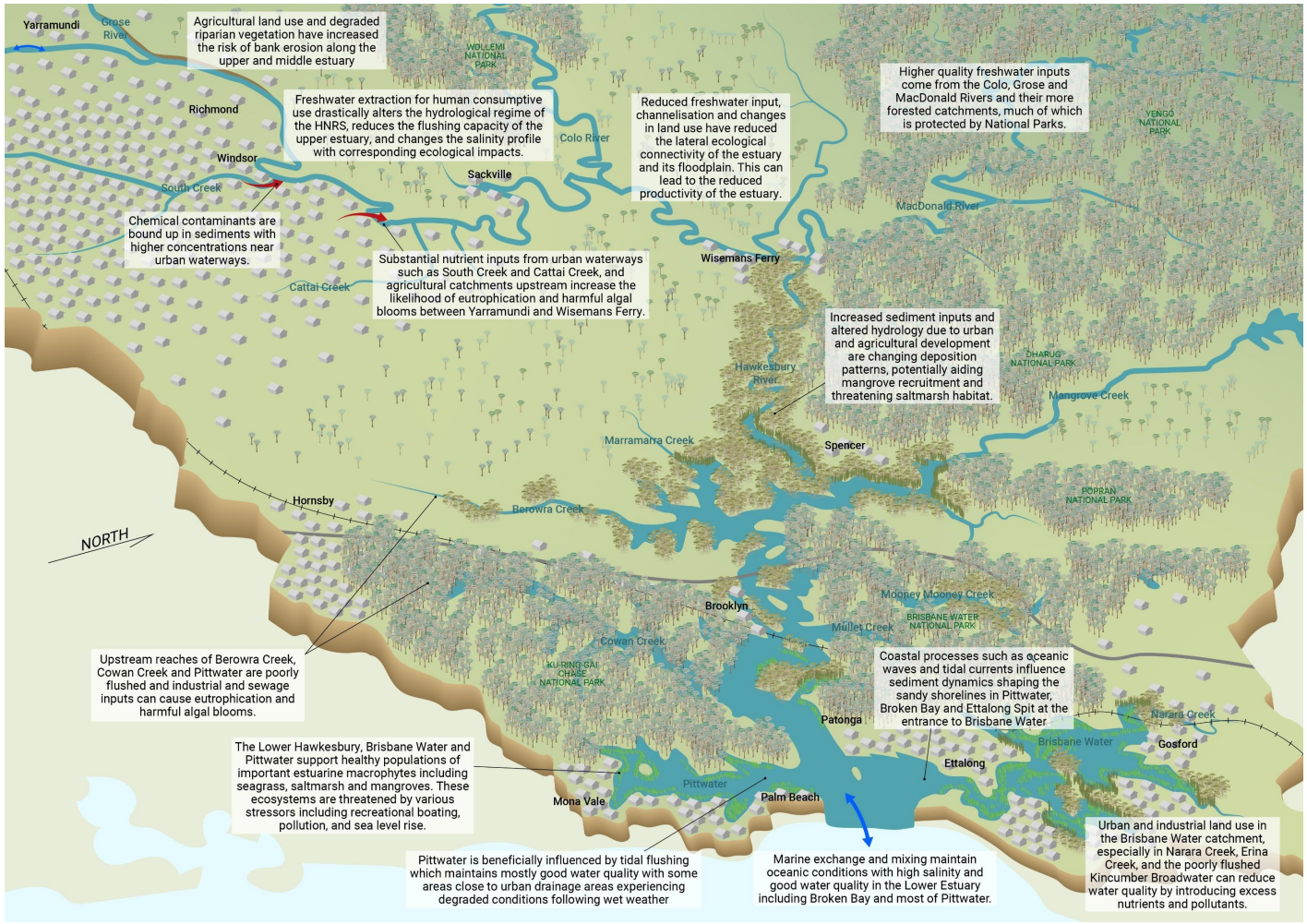



Figure 3.12 Key estuary health stressors across the HNRS estuary (Alluvium, 2022a)



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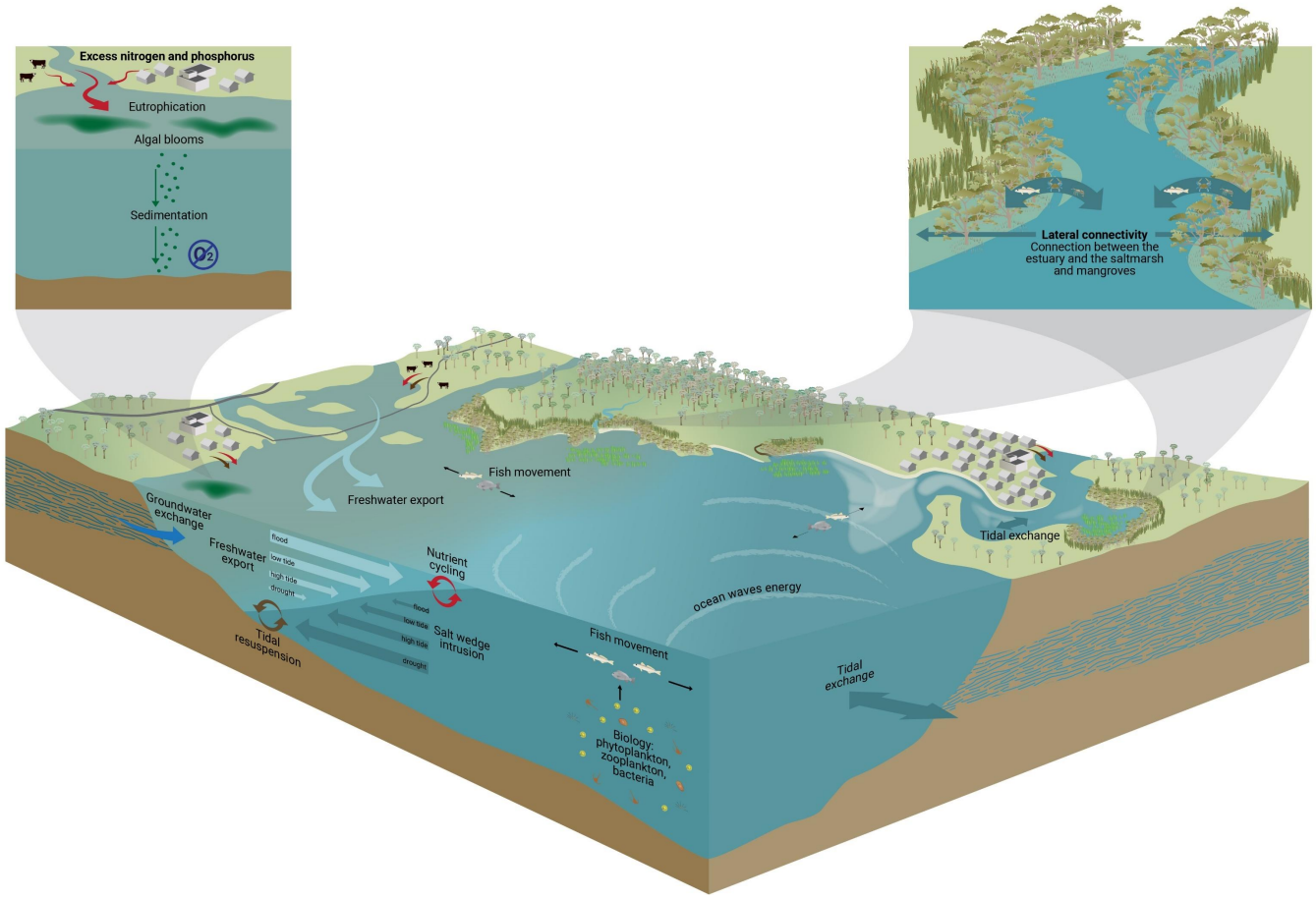



Figure 3.13 Conceptual model of critical processes operating HNRS estuary



General Meeting 11 November 2026
Attachments Page 445
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 108
ATTACHMENT 1 - ITEM 7

***Urban Stormwater and Agricultural Runoff***

The HNRS catchment supports a wide variety of land uses, including national parks and bushland, agriculture, rural residential areas, and dense urban development. While each of these land uses can contribute pollutants to waterways, the most significant and persistent impacts on water quality are typically associated with urbanised and industrial catchments.

Subsequently, urban stormwater is one of the most significant and widespread contributors to water quality decline in the HNRS, particularly in sub-catchments with high density urban and suburban land usage (see Figure 3.14). During rainfall events, these hard surfaces rapidly shed water, carrying with it a complex mixture of contaminants including sediments, nutrients, heavy metals, hydrocarbons, pesticides, and gross pollutants. Without infiltration or treatment, these pollutants are washed directly into stormwater drains and waterways. The impact is particularly severe in areas with limited tidal flushing, where contaminants can accumulate in the water column and sediments rather than being dispersed to open coastal waters (Alluvium, 2022a; Water Technology, 2020).



**Figure 3.14 Industrial land usage at Narara Creek, Gosford (source: TfNSW)**

In the Upper Hawkesbury, the most prominent stormwater-affected hotspots occur at the confluences of South Creek and Cattai Creek, with water quality generally poorer between Windsor and Sackville (BMT WBM, 2013a). These reaches receive high nutrient and sediment loads, compounded by restricted flushing during low-flow conditions. In the Lower Hawkesbury, the upper reaches of Berowra Creek are particularly affected, with limited circulation, elevated pollutant loads, and long residence times combining to create persistent water quality issues (BMT WBM, 2008). Across Brisbane Water, urbanised catchments such as Narara, Erina, and Kincumber Creeks are well-established sources of degraded water quality (see Figure 3.14), with sharp increases in turbidity and pollutant concentrations following rainfall (Cardno Lawson & Treloar , 2008).

Agricultural runoff is another major source of pollutant loads, particularly nutrients and sediments (BMT WBM, 2013a). Runoff from rural properties can contain fertilisers, pesticides, hydrocarbons, and animal wastes, all of which are mobilised during wet weather.

Intensive agricultural zones between Windsor and the Lower Hawkesbury (see Figure 3.15)



**Figure 3.15 Extensive agricultural land use at Freeman Reach**

are especially significant contributors, with South Creek and Currency Creek identified as major sources of nitrogen and phosphorus (Alluvium, 2022a). These discharges are closely linked to the proliferation of algal blooms and aquatic weeds in affected reaches (BMT WBM, 2008).

The combined influence of urban stormwater and agricultural runoff is well illustrated by pollutant load modelling and monitoring data. Figure 3.16 and Figure 3.17, present an overview of pollutant loads entering the HNRS catchment, based on the NSW Estuary Health Risk Dataset (DPIE, 2019b).

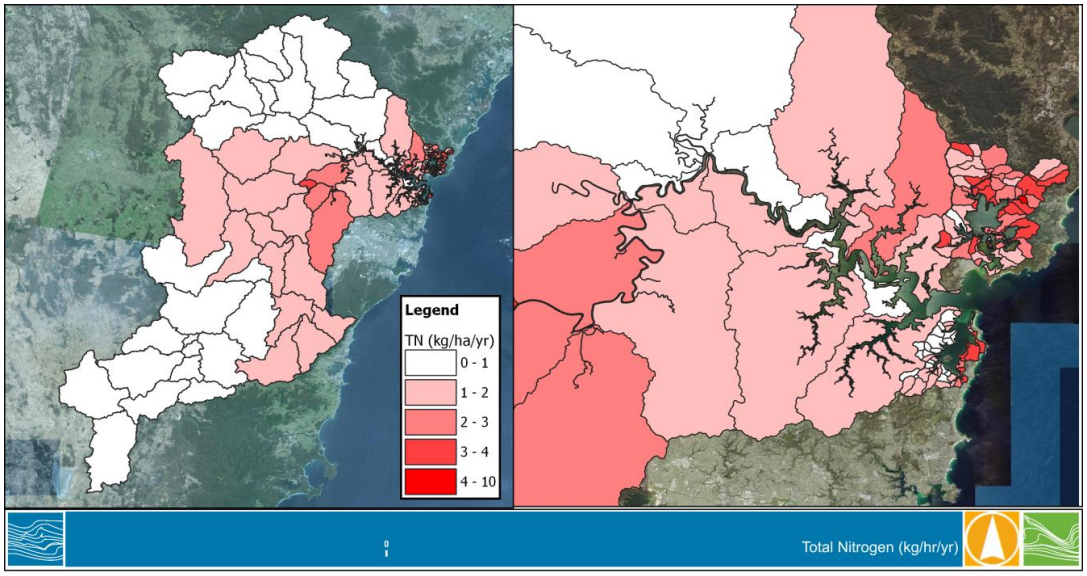



**Figure 3.16 Total Nitrogen Load (kg/ha/year) across the HNRS catchment**

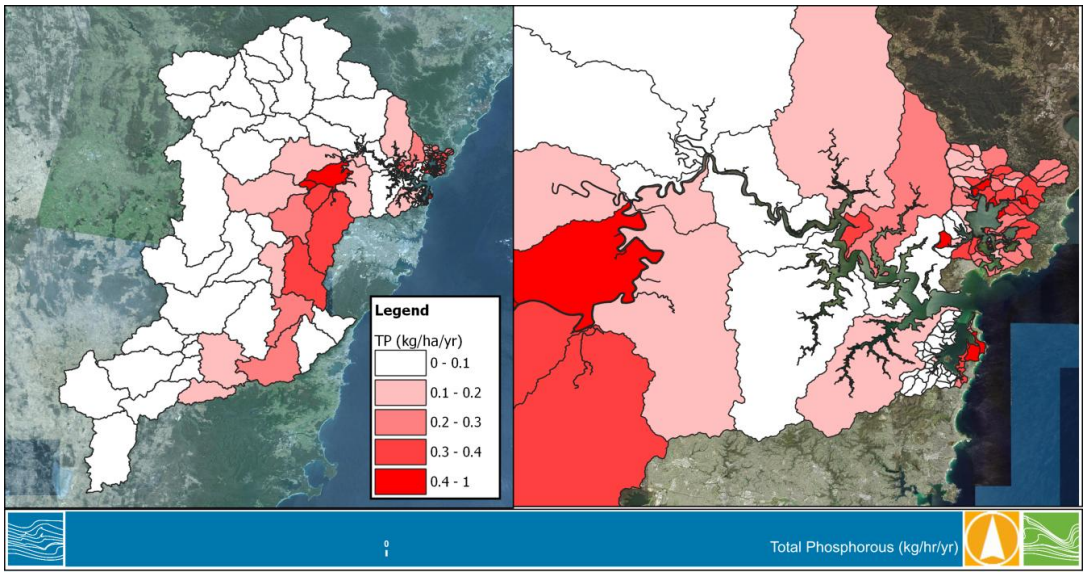



**Figure 3.17 Total Phosphorus Load (kg/ha/year) across the HNRS catchment**

These datasets show that heavily urbanised and intensively farmed sub-catchments consistently deliver the highest loads of nutrients, sediments, and contaminants. While wastewater treatment upgrades have significantly reduced point-source discharges, diffuse catchment sources remain the dominant driver of water quality decline, particularly following high-intensity rainfall events that generate rapid and largely untreated runoff to the estuary.

### *Wastewater Discharges*

Water Resource Recovery Facilities (WRRFs) have historically been a major nutrient source to the estuary. Although Sydney Water's Priority Sewerage Program and subsequent upgrades have significantly reduced the number of discharging plants and improved effluent quality, there remain at least 12 facilities discharging more than 1.2 megalitres per day into the Hawkesbury–Nepean system (see Figure 2.39).

The largest of these are at Penrith, Quakers Hill, Riverstone, Rouse Hill, and St Marys (Figure 3.18). Even with tertiary treatment, these discharges contribute nutrients that, in combination with other sources, can fuel eutrophication.



**Figure 3.18 St Marys WWRF (source: Sydney Water)**

On-site sewage management systems at rural and foreshore properties present an additional risk, as many are not designed for high intensity use such as holiday rentals, leading to nutrient and pathogen leakage into waterways.

The NSW EPA has recently developed the Hawkesbury-Nepean Nutrient Management Framework (NSW Environment Protection Authority, 2025), aimed at reducing nutrient input from sewage treatment plants. It notes that under a business-as-usual approach, urban development in western Sydney is projected to increase inflows to sewage treatment plants and consequently treated effluent discharges to the HNRS. Due to recent plant upgrades, total phosphorus loads discharged from treatment plants to the river are projected to be lower by 2030 than 2025 loads. However, total nitrogen loads discharged from the 18 treatment plants in the river's catchment are projected to increase by approximately 50% by 2028. This has the potential to increase the risk and frequency of algal blooms and aquatic weed outbreaks. The current nutrient load caps in environment protection licences for these 18 plants are not suitable for managing this risk. Therefore, a new regulatory framework was developed to reduce nutrient loads from sewage treatment plants, starting in July 2025.

Boating activities add a further layer of impact, particularly in marinas and yacht clubs where fuel residues, anti-fouling paint particles, and contaminated bilge water can enter the estuary.

### *Sediment Contamination*

Sediment contamination is a significant issue in certain locations, particularly near boating facilities and industrial discharge points. In the Upper Hawkesbury, sediment contamination is largely associated with urban stormwater and agricultural inputs between Windsor and Cattai (BMT WBM, 2013a). In the Lower Hawkesbury, Pittwater, and Brisbane Water, sediments near marinas, boatyards, and mooring areas have elevated concentrations of copper, mercury, lead, tributyltin, and other pollutants (Water Technology, 2020; BMT WBM, 2008). In Brisbane Water, contamination is also linked to urban runoff from Erina and Narara Creeks (Cardno

Lawson & Treloar , 2008). Once bound to sediments, these contaminants can persist for decades, periodically re-entering the water column through disturbance by waves, currents, dredging, or bioturbation.

***Eutrophication and Harmful Algal Blooms***

Eutrophication and harmful algal blooms (HABs) remain an ongoing concern in the HNRS, particularly in areas with high nutrient loads and conditions that promote water column stratification. particularly in locations with high nutrient loads and conditions that favour water column stratification. Elevated concentrations of nitrogen and phosphorus stimulate excessive algal growth, which reduces water clarity, depletes dissolved oxygen, and in some cases, produces toxins that pose risks to human health, aquaculture, and ecosystem stability (Alluvium, 2022a).

In the upper estuary, nutrient pulses from inflow events can rapidly trigger blooms, while in the lower estuary, stratified waters with limited vertical mixing create conditions that allow blooms to persist (BMT WBM, 2008; Alluvium, 2022a). Toxic dinoflagellate blooms, especially in Berowra Creek, are linked to shifts in nutrient ratios and both natural and human drivers (Hornsby Shire Council, 2025) – see Figure 3.19.

Although wastewater treatment upgrades since the early 2000s have reduced nitrogen loads and chlorophyll-a concentrations, nutrients are still above ANZECC guidelines. Nutrients from sediments can additionally still fuel blooms when resuspended by tidal currents, storms or boating. HABs can cause oyster harvest closures, degrade recreational amenity, and shift ecosystem composition. Managing the risk requires tackling both catchment nutrient sources and in-estuary processes, reducing external inputs while also limiting internal nutrient release and improving flushing in vulnerable areas.

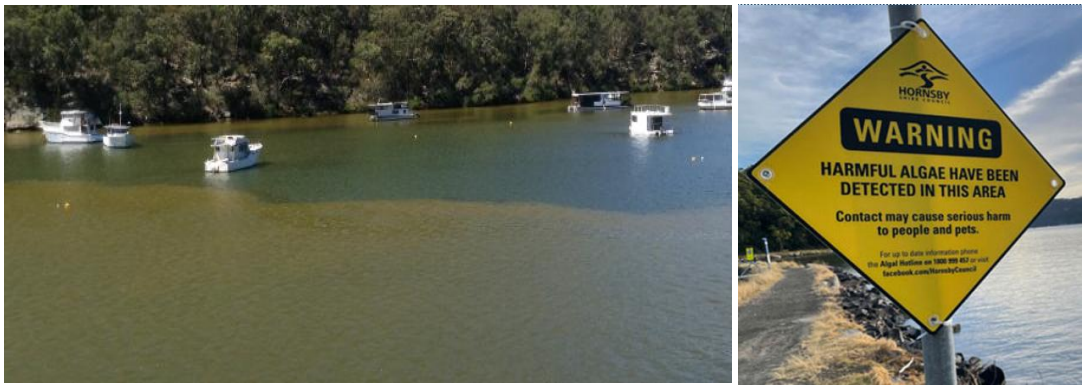



**Figure 3.19 Algal blooms at Berowra Creek in the Lower Hawkesbury (MHL, 2025)**

### 3.3.2 Habitat Disturbance and Loss of Biodiversity

***Clearing and Disturbance of Riparian and Aquatic Habitats***

Loss and degradation of riparian and aquatic habitats is a widespread and ongoing issue across the HNRS, reducing ecosystem resilience and habitat diversity.

The historical studies of the Freshwater Tidal Pool and upper estuary have identified disturbance and clearing of riparian vegetation as a priority concern (BMT WBM, 2013a). Key causes include large-scale land clearing associated with housing and urban developments, illegal vegetation clearing by landowners to improve views or access, unregulated or ad hoc bank stabilisation works that disturb soils and vegetation, stock access that damages banks and tramples native vegetation, and the encroachment of private development onto public riparian land. These activities can result in total loss of habitat, destabilise banks, increase erosion, and reduce shading and habitat complexity (Water Technology, 2020). Historically, urban development within the HNRS

has often occurred with limited application of best-practice habitat and stormwater management, compounded by fragmented governance and limited coordination between agencies. These legacy practices have resulted in ongoing degradation of water quality and habitat condition, with consequential impacts on aquatic and riparian biodiversity across the HNRS.

Across the Lower Hawkesbury, a long history of agricultural expansion and urban development has resulted in the widespread removal of riparian vegetation and the degradation of adjoining terrestrial habitats (WRL, 2003; BMT WBM, 2008). This has reduced the buffering capacity of riparian zones, allowing more sediment, nutrients, and pollutants to reach the waterway.

Pittwater and Brisbane Water feature long stretches of urbanised shoreline, where foreshore development and seawalls have replaced complex natural edges with simplified structures that support fewer species. Erina and Narara Creeks, in particular, have experienced substantial loss of riparian vegetation in their middle and upper reaches, reducing bank stability and contributing to sedimentation (Cardno Lawson & Treloar , 2008).

Foreshore infrastructure such as jetties, pontoons, and seawalls further exacerbate impacts by shading the seabed, reducing seagrass growth, and altering benthic fauna communities. Increased development also brings more visitation, pollution, trampling of vegetation, and disturbance to wildlife. Where erosion or flooding threatens built assets, the response is often hardening the foreshore, further simplifying habitat and reducing suitability for intertidal and shallow-water species. While sensitive design can reduce these effects, it is not always incorporated into development approvals (Alluvium, 2022a).

***Invasive Species***

The HNRS is affected by a range of invasive species - both flora and fauna - that threaten biodiversity, alter ecosystem processes, and in some cases, directly impact commercial and recreational use of the waterways.

Invasive fauna include both aquatic and terrestrial pests. Oyster aquaculture has suffered significant losses from disease outbreaks such as Pacific Oyster Mortality Syndrome (POMS) and QX disease, which can decimate stock within weeks and take years to recover (DPI, 2021).

Feral Pacific Oysters have also established on foreshores and maritime infrastructure, displacing native species and altering intertidal habitat structure. In freshwater environments, introduced fish such as the common carp (*Cyprinus carpio*) disturb sediments during feeding, increasing turbidity, releasing nutrients, and reducing habitat quality for native fish – see Figure 3.20. Other pest fish, including mosquitofish (*Gambusia affinis*), prey on or outcompete native species (DPI , 2010).



**Figure 3.20 The common carp Cyprinus carpio (DPI , 2010)**

Terrestrial pests are common in surrounding national parks and reserves, with cats, dogs, foxes, rabbits, and European honeybees preying on native fauna, competing for nesting sites, and altering vegetation communities (BMT WBM, 2008; BMT WBM, 2013a). Emerging pest animal species reported in the Hawkesbury–Nepean region by Livestock Health and Pest Authorities include feral horses (*Equus caballus*), and feral and wild deer (*Dama, Cervus, Axis spp*) (DPI , 2010).

Invasive flora is also widespread along riparian margins and foreshores. The aquatic weed *Leafy elodea (Egeria densa)* proliferates through much of the Upper Hawkesbury, forming dense mats that restrict water flow, reduce light penetration, and alter oxygen levels (BMT WBM, 2013a). In the Lower Hawkesbury and Pittwater, the noxious macroalga *Caulerpa taxifolia* colonises estuarine sediments, outcompeting seagrasses and modifying fish and invertebrate habitats (Water Technology, 2020) – see Figure 3.21. The invasive rush *Juncus acutus* is also present, replacing native saltmarsh in many areas and changing intertidal plant community composition.



**Figure 3.21 Caulerpa taxifolia (Caulerpa). (DPIRD, 2025c)**

Foreshore development amplifies invasive species pressures by clearing or degrading critical habitats such as saltmarsh, mangroves, and riparian woodland. This not only fragments ecological corridors but also increases human-driven disturbance. Added nutrient inputs, physical damage, and sediment resuspension from boating further erode habitat quality, tipping conditions in favour of invasive species and accelerating their spread (Alluvium, 2022a).

### 3.3.3 Hydrological Modifications

***Modified Surface and Groundwater Regime***

The HNRS supplies the majority of drinking water to Greater Sydney, making it one of the most regulated river systems in Australia. Large-scale water extraction, dams, and flow regulation have significantly altered natural freshwater and groundwater regimes (Warner, 2014), with direct consequences for estuarine ecology, fish assemblages, and habitat condition (Alluvium, 2022a).

Freshwater inflows are now a fraction of natural levels, with current environmental releases estimated at just 3% of the long-term average - significantly below ~80% recommended for effective ecological maintenance (Warner, 2014). This reduction has weakened the estuary's natural flushing capacity, allowing pollutants and sediments to accumulate. Seasonal flow patterns and key components such as "freshes" have been lost, disrupting environmental cues that trigger fish migration, spawning, and other biological processes. Prolonged low-flow conditions increase water column stratification, reduce oxygenation, and favour marine and invasive species over estuarine specialists. The Hawkesbury River estuary has therefore shifted irreversibly to a new, regulated freshwater regime. In contrast, Brisbane Water and Pittwater are not subject to the same level of extraction and retain relatively natural flow patterns.

Maintaining environmental flows from Greater Sydney's water storages to protect, maintain, and enhance river health is a key priority in the NSW Government's Greater Sydney Water Strategy. Subsequently, WaterNSW is progressing the Warragamba Dam Environmental Flows Project, which aims to modify the dam to enable controlled, variable environmental releases that mimic natural patterns, supporting river health without compromising flood management, emergency response, water security, or water quality – see Figure 3.22 (WaterNSW, 2025).

Additional dams include the Nepean, Avon, Cordeaux and Cataract, which significantly modulate water inputs into the HNRS.

These dams are of large capacity – however, during extreme rainfall events, dams such as the Warragamba can overflow.




Figure 3.22 Warragamba Dam Environmental Flows Project

Groundwater extraction and reduced recharge have further altered hydrology, affecting the local groundwater-dependent ecosystems and weakening connections between surface and subsurface flows. These changes influence destratification, wetland hydrology, and the persistence of baseflows in tributaries (Water Technology, 2020).

***Ecological Impacts***

Freshwater inflow and sediment delivery play a key role in forming and maintaining intertidal habitats. Reductions in flow, including from the construction of dams, combined with anthropogenic land use change, have contributed to altered sedimentation patterns, including seaward expansion of mangroves and encroachment into saltmarsh areas (Saintilan & Hashimoto, 1999). While increased mangrove cover can provide benefits such as carbon sequestration and shoreline protection, it often comes at the expense of saltmarsh, which is critical for nutrient cycling, energetic subsidies to estuarine food webs, and habitat provision.

Hydrological structures such as dams and weirs are widespread across the HNRS (see Figure 2.1), disrupting longitudinal connectivity by blocking fish passage and migration (see Figure 3.23). Reduced overbank flows, compounded by floodplain development, further constrain lateral connectivity, leading to wetland loss and a decline in habitat diversity and complexity (Alluvium, 2022a).

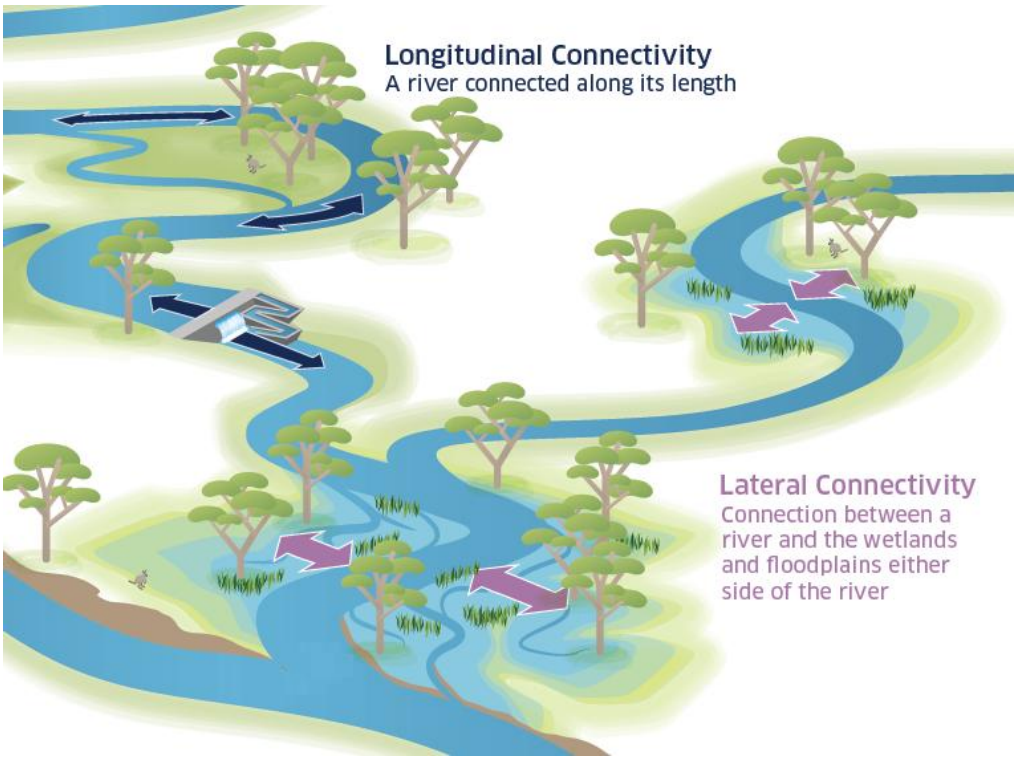



**Figure 3.23 Longitudinal and lateral connectivity within a riverine/estuarine system (CEWO Flow-MER., 2022)**

## 3.4 Waterway Use and Resource Conflict

The HNRS supports a wide range of commercial and recreational activities, which, while highly regulated, place cumulative pressures on estuarine habitats and ecological processes.

Commercial fishing remains an important industry in the middle and lower estuary, but harvesting biomass alters food web dynamics and can reduce the abundance of targeted species. Lost or discarded fishing gear can damage benthic habitats, entangle wildlife, and degrade waterway aesthetics (Alluvium, 2022a) .

Recreational fishing is widespread across the Freshwater Tidal Pool, upper, middle, and lower estuary. Similar to commercial fishing, it removes biomass from the system and can introduce waste products such as lines, hooks, and bait packaging. Shore-based fishing can also disturb intertidal habitats, which provide feeding and refuge areas for birds, fish, and invertebrates (Water Technology, 2020; Alluvium, 2022a).

Boating is a major use of the HNRS, ranging from active water sports to passive cruising. Powered boats and water skiing generate wake waves that erode and destabilise banks, increasing turbidity and sedimentation. Anchoring and mooring in sensitive areas can damage seagrass beds and benthic habitats, while vessel groundings can scar shallow-water environments.

Boat moorings have historically caused chronic “scouring” of the seabed, removing seagrass beds - a critical fish habitat - and altering shallow-water environments (Lawson & Treloar, 2003) – see Figure 3.24. In addition, vessel operations can introduce pollutants such as fuel, oil, antifouling agents, and litter into the waterway (Water Technology, 2020).

Key management needs include improving awareness of and compliance with fishing and boating regulations, reducing impacts of fishing on the waterways, and promoting environmentally responsible tourism and recreation. Potential management responses should consider opportunities to reduce habitat disturbance, wildlife entanglement, pollution and conflict between waterway users while supporting the continued social and economic use of the HNRS.

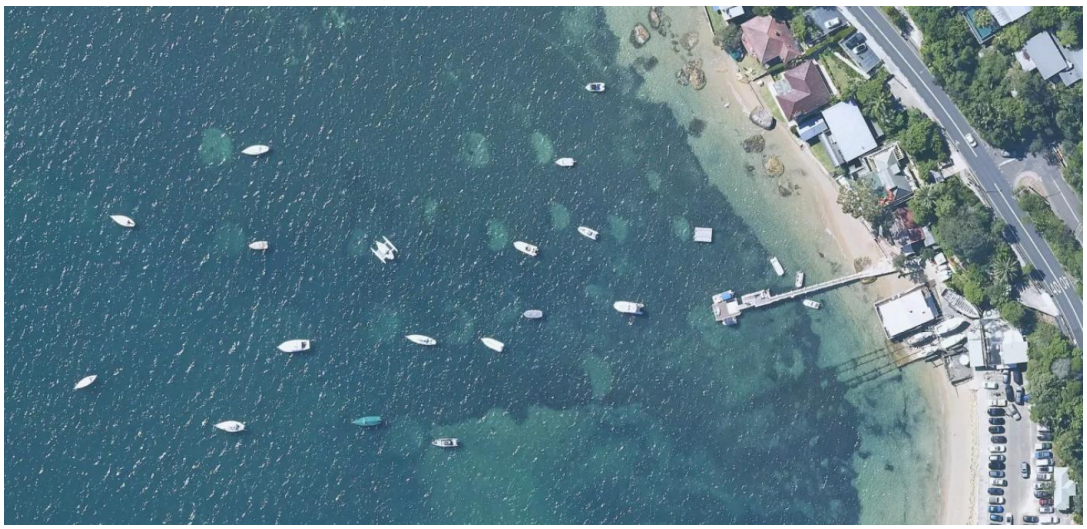


**Figure 3.24 Example of seagrass scarring from chain mooring at Palm Beach Wharf**

## 3.5 Planning and Governance

The Stage 1 Scoping Study (Water Technology, 2020) identified that the long-term health of the HNRS has been historically hindered by governance and funding challenges. A lack of coordination between estuary councils, catchment councils, and relevant state agencies has limited the ability to address system-wide issues and manage cumulative impacts effectively. Without a clear framework for collaboration, opportunities for integrated, efficient management - such as a coordinated water quality monitoring program - are often missed.

Funding limitations compound these governance gaps. Stakeholder engagement undertaken through Stages 1 to 3 of the CMP have identified that both local and state government entities consistently identify inadequate resourcing as a barrier to effective estuary and catchment management. Insufficient funding restricts councils' capacity to:

- Collect essential data and commission technical studies to identify key threats and evaluate management options
- Deliver and maintain management actions, including both capital works and ongoing maintenance
- Monitor environmental outcomes and regulate compliance consistently across the river system and its catchment.

These constraints reduce the ability to implement proactive, evidence-based management, leaving the system vulnerable to ongoing degradation and limiting progress toward long-term restoration goals. The CMP therefore represents an opportunity to establish stronger governance arrangements, secure sustainable funding streams, and implement a coordinated, system-wide approach to estuary and catchment management that addresses cumulative impacts and delivers long-term environmental, social, and economic benefits.

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# 4 THE DEVELOPMENT OF THIS CMP



*Image Source: Liz Surrest*
*Artwork provided by Leanne Watson*

## 4.1 Overview

The HNRS CMP has been prepared in alignment with the mandatory requirements of the NSW Coastal Management Manual (OEH, 2018a). As outlined in Section 1.4, the CMP has been delivered through the prescribed 5-stage risk-based management framework, consistent with guidance provided in the supporting Coastal Management Manual components (OEH, 2018b; OEH, 2018c; OEH, 2018d; OEH, 2018e; OEH, 2018f). This staged approach ensures that the CMP is evidence-based, strategically focused, and aligned with the objectives of the CM Act.

The following sections provide an overview of each stage of the CMP process, including the key investigations, engagement activities, and outcomes that have informed the development of coastal management actions for this CMP.

## 4.2 Stage 1

Stage 1 of the CMP was undertaken between September 2019 and April 2020. The Scoping Study (Water Technology, 2020) formalised a strategic, system-wide approach to the CMP, to be delivered through a coordinated partnership between six local councils. This stage laid the foundation for all subsequent work and established the CMP as a "whole-of-system" program focused on the interconnected HRNS.

Key activities completed during Stage 1 included:

- A review of relevant background information – including over 230 relevant informational studies, management plans, and additional datasets.
- Detailed stakeholder analysis and engagement strategy - identifying key stakeholder groups and their roles, interests, and influence.
- A first pass risk assessment - used to prioritise major threats and identify those requiring further investigation in future stages of the CMP.
- A critical data gap analysis – highlighting missing or outdated information and forming the basis for targeted technical studies in Stage 2.
- Development of a forward program, outlining indicative timing, costs, and responsibilities for key tasks and partner contributions across the CMP process.

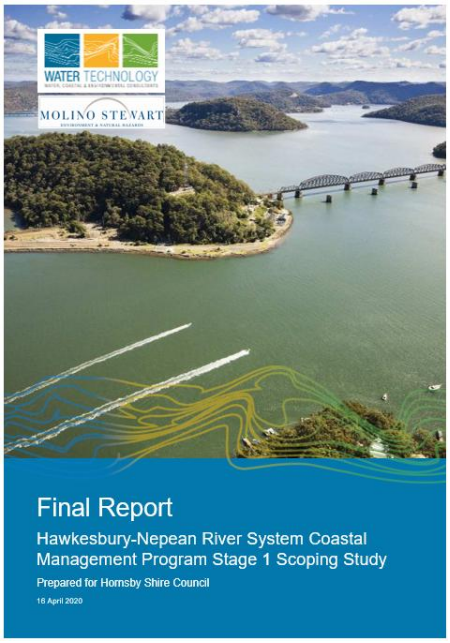



**Figure 4.1 Stage 1 Scoping Study (Water Technology, 2020)**

## 4.3 Stage 2

Stage 2 was delivered between 2020 and 2023. This stage was focused on addressing the critical data gaps and priority risks identified in Stage 1, with the overarching goal of strengthening the scientific and technical foundation for subsequent decision-making and action planning.

Stage 2 involved the commissioning and completion of 5 targeted technical studies. Together, these studies aimed to improve understanding of the threats and risks to the environmental, social, and economic values of the HNRS, and to ensure that future management responses are both evidence-based and appropriately scaled to the complexity of the system. The technical studies completed under Stage 2 are listed in Table 4.1.

Table 4.1 HNRS CMP Stage 2 studies

| Study and Reference | | Summary |
|---|---|---|
|  | **The Hawkesbury-Nepean River System Physical and Ecological Processes Abridgement Report** (Alluvium, 2022a). | This study synthesised existing scientific knowledge to provide a system-wide summary of key physical and ecological processes that shape and influence the estuary and riverine environments across the CMP area. It presented a unified conceptual model of how the system functions, supporting consistent interpretation of data and risk assessments across councils and management areas. |
|  | **The Hawkesbury-Nepean River System Community Values and Uses Report** (Alluvium and Mosaic Insights, 2023). | This study identified, mapped, and analysed how local communities use, value, and interact with the river system. Through a combination of spatial analysis, surveys, and community input, the report helped to identify key social and cultural values and provided a framework for embedding these values into future CMP actions and priorities. |
|  | **The Hawkesbury-Nepean River System Estuary Bank Erosion Assessment and Options Report** (Alluvium, 2022b) | This study evaluated the extent, severity, and underlying causes of bank erosion within the estuarine sections of the river system. It identified erosion hotspots, assessed potential risks to infrastructure and ecological assets, and presented a suite of management options aimed at reducing the impacts of erosion while improving estuary health. |
|  | **The Hawkesbury River Estuary Coastal Inundation Study** (Rhelm and Baird, 2023) | This study utilised hydrodynamic modelling to assess coastal inundation risk across the lower estuary under a range of current and future sea level scenarios. The modelling incorporated tidal hydrodynamics, storm surge events, and projected sea level rise based on updated climate change scenarios. The outputs of the study included spatially explicit inundation mapping. |
|  | **Pittwater Beach Erosion and Shoreline Recession Assessment** (WRL, 2023) | This study evaluated the vulnerability of Pittwater's beaches to coastal erosion and long-term shoreline recession over a 100-year planning timeframe. Using a combination of historical shoreline data, wave climate analysis, sediment dynamics, and sea level rise projections, the assessment identified key erosion hotspots and forecasted potential recession lines for both open coast and estuarine beach environments. |

Together, the outputs of these 5 studies provide a robust technical foundation to guide the development, assessment, and prioritisation of management options in Stage 3. The studies were designed to be complementary, with findings integrated across ecological, social, and hazard-related domains to support a whole-of-system understanding and response. The Scoping Study (Water Technology, 2020) originally proposed that a standalone detailed risk assessment would be completed during Stage 2. Instead, the detailed risk assessment was integrated into the Stage 3 options development and assessment process, with the risks associated with each coastal hazard and management issue considered through the feasibility, viability and acceptability criteria described in Section 4.3 below. The detailed assessment criteria, scores and supporting rationale are documented in the *HNRS CMP Stage 3 Summary Report* (Water Technology, 2025).

In addition to the core Stage 2 studies developed as part of the formal CMP process, an additional technical study was developed by NPWS in the form of a riverbank and riparian condition assessment – which was funded by the DPIRD NSW Estuary Asset Program (NEAP). The NEAP assessment (Alluvium, 2025) used spatial data to identify potential erosion likelihood before undertaking field assessment of 188km of shoreline. Bank and riparian condition was assessed, including the severity of any potential erosion. A multi-criteria

analysis (MCA) was used to score and rank the top eroding sites to prioritise sites for works. The MCA considered risk to recreation, built, natural and cultural assets as well as potential for natural recovery and constructability. Concept designs were prepared for the 11 highest priority sites, with 6 priority sites included for work in this CMP. These works are outlined in Action S6.NPW.E – and cover NPWS foreshore at Coasters Retreat, Marramarra Creek, Cowan Creek, Gentlemans Halt, Berowra Creek, and Mooney Mooney Creek.

## 4.4 Stage 3

### 4.4.1 Overview

Stage 3 of the CMP process involved the development of management actions to address the risks and issues identified in Stage 2. A key objective of the CMP is to utilise a strategic and practical approach to developing management actions. Management actions included in the program have been rationalised and prioritised by a robust, and comprehensive decision-making framework. The framework adopted in the CMP was developed in order to make sound comparisons between each option and to rank options in a transparent and unbiased manner to identify those that have the greatest overall benefit for management of the coastal zone. The approach to the identification and assessment of options is provided in Figure 4.2.




Figure 4.2 Four steps in action identification and evaluation (adapted from the CM Manual)

### 4.4.2 Strategic Direction

The purpose of a CMP is to set the long-term strategy for the coordinated management of land within the coastal zone with a focus on achieving the objects of the CM Act. For the HRNS, this strategic direction is articulated through a shared vision and a set of local coastal management objectives (see Section 1.3), developed in alignment with the CM Act and endorsed by the Partner Councils. Given the size, scale, and complexity of the HNRS CMP, spanning multiple councils, estuarine systems, and overlapping values and risks, a Strategic Direction Workshop was convened with Steering Committee members on 5 December 2023 (see Figure 4.3). The workshop played a critical role in shaping the CMP by facilitating collective decision-

making on key strategic matters, including the CMP vision, priorities, delivery structure, and the proposed approach to addressing catchment based stressors emanating from outside of the legally defined coastal zone. The outcomes of this session, including key decisions and agreed directions, are documented in the Strategic Direction Document (Water Technology, 2023a).



**Figure 4.3 Strategic Direction Workshop**

### 4.4.3 Identifying Options

Once the strategic direction for the CMP was confirmed, the next step in the assessment process was to develop a suite of potential management options aimed at addressing the key risks identified in Stage 2 and delivering on the objectives of the CMP.

To do this, a broad “long list” of potential options was compiled through the process summarised in Figure 4.4 and in line with the guidance provided in the NSW Coastal Management Manual (OEH, 2018d). This process drew on a range of inputs, including a review of prior works such as historical Coastal Zone Management Plans (CZMPs), Estuary Management Plans (EMPs), and other legacy studies. It also incorporated insights from community and stakeholder engagement activities, as well as a risk-based analysis of key environmental datasets relevant to the HRNS.

Based on this process, a preliminary long list of over 800 potential management actions was developed. Before detailed assessment, a preliminary screening process was carried out through workshops and consultation with Partner Councils and key stakeholders. This included:

- Auditing legacy CZMPs and EMPs to remove completed or outdated actions
- Consolidating duplicate or overlapping actions
- Reviewing community suggestions and excluding those inconsistent with policy or legislation
- Removing routine operational tasks or actions already covered by existing management plans.

This process refined the list to a more strategic and manageable list of 195 potential management actions. The list represented a wide range of possible actions - from site-specific works to system-scale policy and planning initiatives - and served as the foundation for further refinement and prioritisation during Stage 3.

The full set of options assessed as part of the CMP, along with the detailed methodology used to identify and evaluate them, is documented in the Stage 3 Report (Water Technology, 2025).



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**Figure 4.4 Identification of potential management options**

### 4.4.4 Assessment of Options

Once the long list of management options was developed, the next step was to assess and prioritise these options. To ensure the Stage 4 program of management options are appropriate, are able to be implemented, and meet the objectives the CM Act, Stage 3 of the CMP employed a robust multi-criteria decision-making framework. Full details of the options assessment process are provided in the Stage 3 report (Water Technology, 2025), however a brief summary has been provided below.

The options assessment followed a 3-step process, as outlined in the CM Manual (OEH, 2018d), and summarised in Figure 4.5 below. The process involves evaluating the **feasibility**, **viability**, and **acceptability** of each potential option.

The purpose of this approach was to evaluate and choose among alternatives based on multiple criteria through a systematic analysis that used stakeholder participation to inform economic, social, and environmental criteria. This provided a tool that enabled different stakeholders' perspectives and values to be explicitly included in the analysis. This process was used as a transparent tool to help determine which options may progress to Stage 4 of the CMP.

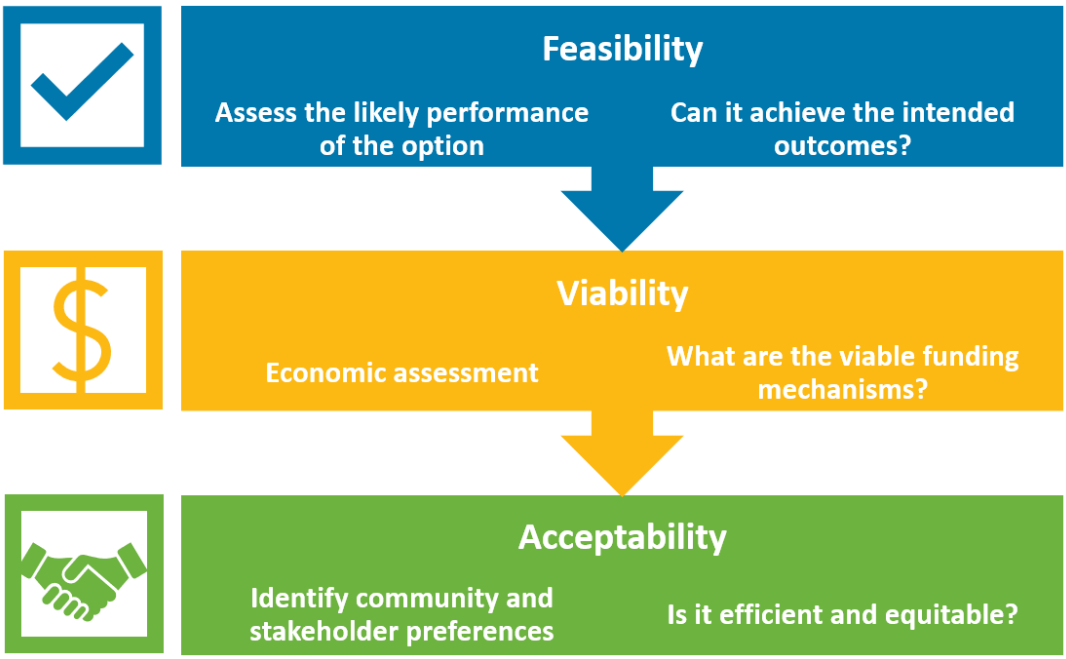



**Figure 4.5 The Stage 3 options assessment process (adapted from the CM Manual)**

As outlined in Section 4.3, the options assessment also incorporated the detailed assessment of risks associated with the identified coastal hazards and management issues. The assessment criteria, scoring and supporting rationale are documented in the *Stage 3 Summary Report* (Water Technology, 2025).

***Feasibility Assessment***

Each management option was assessed for feasibility based on guidance set out in the NSW Coastal Management Manual (OEH, 2018d). This included alignment with the objectives of the CM Act, risk mitigation effectiveness, environmental and social impacts, practical deliverability, policy consistency, and adaptability.

A high-level, semi-quantitative multi-criteria analysis (MCA) was used to score each option against key factors such as:

- The level and type of risk it addresses
- Its effectiveness in mitigating risk
- Potential impacts (positive or negative) on environmental, social, and cultural values
- Alignment with statutory requirements.

Under this approach, each option was scored against a set of feasibility criteria using a numerical scale from -4 to +4 - where +4 indicated strong positive benefits (e.g. high risk reduction or strong environmental outcomes), 0 indicated a neutral or negligible effect, and -4 indicated significant negative impacts or poor feasibility. Based on this, each option received a **Total Feasibility Score**. Options receiving strongly negative scores in key areas were deemed unfeasible.

To recognise the broader value of system-wide initiatives, a scaling factor was applied to options with benefits extending across the full study area. The total feasibility score for each option was used to help identify a coordinated and achievable program of actions.

***Viability Assessment***

The viability assessment considered whether each management option is financially practical and deliverable. This included:

- Estimating the cost of each option (capital, operational, and maintenance)
- Identifying the distribution of coasts and benefits amongst relevant stakeholders and delivery partners
- Considering potential funding sources and (where applicable) cost-sharing arrangements
- Assessing whether options are affordable and viable for implementation in Stage 5.

Stage 3 included an economic assessment of all long-listed options. Two levels of assessment were applied, depending on the scale and complexity of each option:

- Detailed Cost-Benefit Analysis (CBA): For five (5) high-impact options where economic benefits and costs could be reliably estimated, a full probabilistic CBA was undertaken to calculate a Benefit-Cost Ratio (BCR). This followed NSW Government guidance in:
  - NSW Guide to Cost-Benefit Analysis (NSW Treasury, 2023)
  - DPE Guidelines for using Cost-Benefit Analysis to Assess Coastal Management Projects (DPE, 2020).
- Preliminary Economic Assessment: For all other options, a simplified approach was used to estimate 10-year net present value (NPV) costs, drawing on council records, industry standards (e.g. Rawlinsons, 2023), stakeholder input, and the project team's engineering expertise.

Each option was then assigned a **Viability Score** based on the order of magnitude of its estimated cost, using a logarithmic scale. Lower-cost options received higher viability scores, reflecting greater affordability. These scores were incorporated into the overall multi-criteria analysis (MCA) to support option prioritisation.

***Acceptability Assessment***

In addition to technical feasibility, the CMP also considered how acceptable each management option was to key stakeholder groups. This assessment focused on three distinct groups:

- Local communities across the HRNS

- Local First Nations stakeholders (as identified in the Community & Stakeholder Engagement Plan)
- Relevant public authorities, including State Government agencies.

To inform this assessment, a robust stakeholder and community engagement program was undertaken during Stage 3. This process gave participants the opportunity to provide feedback on the proposed options and suggest additional actions. Engagement outcomes are summarised in Section 4.5.

Each option was assigned an Acceptability Score, calculated using input from each of the three stakeholder groups. Equal weighting was applied across the groups, and scores were normalised to a scale between 0 and 1. For example:

- Full support from a group scored **1**
- Conditional or partial support scored **0.5**
- Non-support scored **0**, with some exclusions applied (e.g. State Government opposition automatically excluded the option)

If an option was introduced after the engagement period, or where no opposition was received, a default score of **1** was applied, with further engagement scheduled in Stage 4 (including public exhibition).

The final **Total Acceptability Score** for each option was calculated as the product of the three component scores, providing a clear measure of broad stakeholder support. Detailed scoring and results are provided in the Stage 3 Report (Water Technology, 2025).

***Options Assessment Outcomes***

The output of the three-phase assessment described was the calculation of an **Options Ranking Score**, which was the arithmetic combination of the **Feasibility Score**, the **Viability Score**, and the **Acceptability Score**, as demonstrated in Figure 4.6.

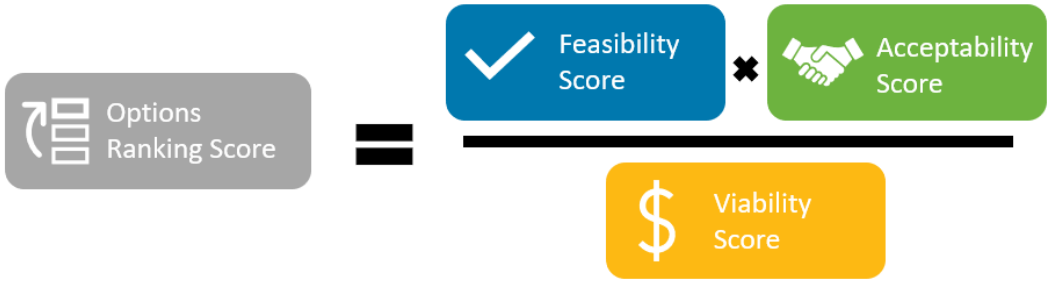



**Figure 4.6 Calculation of the options ranking score**

Each component of the Options Ranking Score provided a distinct perspective on the performance of an option:

- The **Total Feasibility Score** assessed the extent to which an option addressed the various risks across the study area - either directly or indirectly - and considered its social and environmental impacts.
- The **Acceptability Score** reflected the level of support for each option among local community members and key project stakeholders.
- The **Viability Score** captured the full life-cycle cost of each option and provided an indication of economic viability and value for money.

The Options Ranking Score provided a numerical measure of the overall value of each option, offering a clear and transparent way to assess their relative benefits. This scoring formed the final step in the three-phase assessment process and was used to inform which options from the long list should progress to Stage 4 of the CMP.

However, while the Options Ranking Score served as a useful decision-support tool, it was not applied as a rigid or definitive metric. It is acknowledged that the scoring process carries inherent subjectivity and uncertainty, and that some options may offer important strategic, political, cultural, or community benefits that are not easily captured through numerical or heuristic evaluation alone.

As such, the Options Ranking Score was treated as a starting point for informed discussion with Partner Council staff and delivery partners. Final decisions about which options would proceed to Stage 4 were guided not only by the score but also by each Council's local knowledge and understanding of environmental priorities, social context, and resource constraints.

Based on the process described herein, a total of 146 options progressed through to Stage 4 of the CMP, with an additional 9 actions progressing through to the associated catchment companion.

## 4.5 Community and Stakeholder Engagement

### 4.5.1 Overview

***Community and Stakeholder Engagement Strategy***

During Stage 1 of the CMP, a comprehensive Stakeholder and Community Engagement Strategy was prepared (Water Technology, 2020). Developed in line with the NSW CMP Engagement Guidelines (OEH, 2018h) and the International Association for Public Participation (IAP2) framework, the strategy set out clear objectives, timing, content, and engagement methods tailored to the needs of the HNRS.

The strategy has been applied consistently throughout the CMP's development, embedding stakeholder and community engagement into every stage of the process. Given the scale of the river system and the diversity of interested parties, the HNRS CMP has delivered one of the most extensive engagement programs undertaken for any CMP in NSW, ensuring broad representation and input from government agencies, industry, community groups, and the wider public.

A summary of the engagement process for the CMP is depicted in Figure 4.7 and described in the following sections.

***Project Communications***

The primary (centralised) online presence for the project was hosted at the project website: https://hawkesburynepeancmp.org/. Throughout Stages 1 and 3 the project website served as a vital information hub for the project, and included the following information:

- **Background:** An overarching description of the project, and background to the CMP process – including the intent of the CMP, who is involved, and how it is developed. This has also been provided in the form of project summary videos, to clearly explain the project to the community.
- **Updates:** Updates on project progress as each stage of the CMP has evolved. This has been in the form of periodic project bulletins.
- **Key project deliverables:** including publishing the Stage 1, Stage 2, and Stage 3 reports for public consumption.
- **Engagement facilitation:** Information pertaining to community consultation events, and avenues for engagement – including links to the online survey facilitated during Stage 3 community consultation.





- **Explainer videos:** A video library that provides the community with short, clear video packages explaining the project and the CMP process.
- **Newsletters:** Eleven project newsletters were issued during development of the CMP, comprising four during Stage 2, five during Stage 3 and two during Stage 4. The newsletters provided updates on project progress, milestones and opportunities for involvement. Wider Catchment Councils were added to the mailing list from Stage 3, with the distribution list reaching approximately 740 recipients by Stage 4. Copies of the newsletters were made available on the project website.

In addition to the website, Partner Councils issued CMP Newsletters 2 to 4 times per year during Stages 2 to 4, distributed via a voluntary subscription email list. These updates have kept subscribers informed of progress, milestones, and opportunities to get involved.

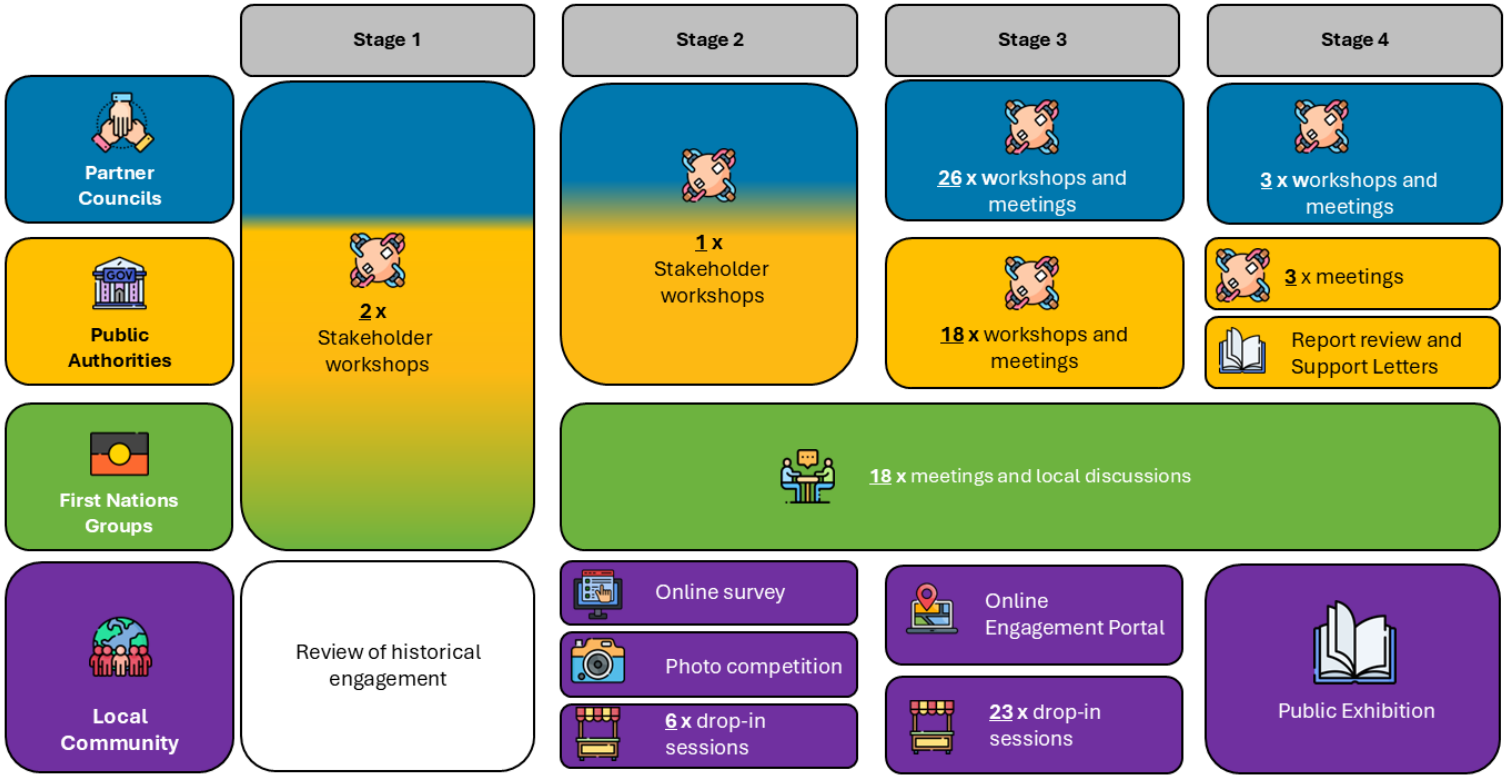



Figure 4.7 Stakeholder and community engagement snapshot



ATTACHMENT 1 - ITEM 7

### 4.5.2 Stage 1

***Stakeholder Engagement***

The main stakeholder engagement activities undertaken during Stage 1 comprised the holding of 2 workshops, which were attended by the Partner Councils, numerous State Government Agencies, Local Aboriginal Land Councils, and other local councils from the wider Dyarubbin (Hawkesbury-Nepean River System) catchment.

- **Workshop #1 - Project Scoping:** Attended by 20 representatives from councils and state agencies, this session provided background on the CMP, confirmed management roles, and identified key values, threats, and risks across the river system (see Figure 4.8).
- **Workshop #2: Stakeholder Engagement Strategy Development:** Brought together at least 2 staff from each Partner Council to co-design the CMP Stakeholder and Community Engagement Strategy, focusing on tailored messages, engagement methods, and logistics. It began with a context-setting briefing, followed by "world café" sessions to capture local expertise and ideas for a bespoke engagement plan.

Further detail of this engagement is provided in the Stage 1 Scoping Study (Water Technology, 2020).

Local councils from the upper catchment (see Section 2.5.2) were advised of the project commencement and invited to participate in the CMP process. These councils were also provided a copy of the Draft Scoping Study Report for review and comment.



**Figure 4.8 Stage 1 stakeholder workshop**

***Community Engagement***

The Partner Councils chose not to undertake direct community engagement during Stage 1, deferring detailed community engagement on issues and values to Stage 2. This decision aimed to:

- Align community engagement with Stage 2 studies, ensuring findings could be effectively integrated into technical investigations.
- Reduce engagement fatigue within communities, noting that the Brisbane Water, Pittwater, and Hawkesbury River estuaries – and their catchments – had already undergone significant consultation over the past 10–15 years. This included engagement for 5 separate coastal and estuary management plans, along with numerous other relevant strategies.

To streamline planning, outcomes from previous engagement activities were reviewed and consolidated to inform the CMP's approach.

### 4.5.3 Stage 2

***Stakeholder Engagement***

As part of Stage 2, a full-day stakeholder workshop was convened to bring government agencies up to date on the progress of the CMP and to strengthen inter-agency collaboration. This built on the strong relationships and shared understanding established during Stage 1 workshops, ensuring that momentum and commitment carried forward into the next stage.



Figure 4.9 Stage 2 stakeholder workshop

The session was attended by representatives from a wide range of state and local government agencies operating within the HNRS, including those responsible for environmental management, planning, infrastructure, and community engagement (see Figure 4.9).

The workshop provided an opportunity for agencies to:

- Share updates on their current and planned initiatives within the river system.
- Exchange knowledge and technical insights to ensure alignment between complementary projects.
- Reaffirm their commitment to working together to address shared challenges and achieve the CMP's long-term objectives.

The workshop reinforced the value of a coordinated, system-wide approach, with participants recognising that collective effort is essential to managing the complex, interconnected issues facing the HNRS.

***Upper Catchment Council Engagement***

Upper catchment councils were also engaged during Stage 2, recognising the connected nature of the wider Hawkesbury-Nepean catchment and the potential for upstream activities to influence the estuary. Representatives from these councils attended the full-day stakeholder workshop described above. In January 2020, letters were also issued to 17 councils across the wider catchment, advising them of the Stage 2 process and inviting their involvement.

***Community Engagement***

Stage 2 placed a stronger focus on broad community involvement, using a range of tools and activities to capture local knowledge, perspectives, and priorities for the HNRS.

- **Photo Competition - "Our Hawkesbury River":** In September 2021, to coincide with World Rivers Day, Partner Councils launched the Our Hawkesbury River photo competition. The aim was to celebrate the river's environmental, cultural, and social values while encouraging community connection to the CMP process. The competition attracted an overwhelming response, with more than 360 entries showcasing the beauty, diversity, and significance of the river system – see Figure 4.10. Many of these images have been featured throughout this CMP document, providing a strong visual link between community perspectives and the planning process.

- **Community Survey:** Between late 2022 and early 2023, an online community survey was conducted to build a clearer understanding of how the local communities and users of the HNRS perceive threats to the river system and where they see management priorities. The survey comprised 10 targeted questions designed to tap into local knowledge and highlight the threats and pressures most in need of attention in future stages of the CMP. Responses provided valuable insight into community priorities, helping to ensure the CMP reflects local concerns alongside technical assessments.
- **Interactive Mapping:** To complement the survey, an interactive web-based mapping tool was deployed, allowing participants to pinpoint locations they considered to be high-priority for management or protection - see Figure 4.11. This spatial input has helped identify hotspots for action and provided context for how community priorities align with scientific and technical findings.
- **Community Drop-in Sessions:** The HNRS CMP project team engaged with over 300 people while hosting drop-in sessions at several community events organised within the Partner Council LGAs over the duration of Stage 2, including those listed in Table 4.2.

Through this multi-modal engagement program, Stage 2 created opportunities for the local community and river users to contribute meaningfully to the CMP, blending qualitative stories, visual records, and geospatial data into a richer understanding of the river system.

**Table 4.2 Stage 2 community drop-in sessions**

| Date | Event | Location |
|---|---|---|
| 9 June 2022 | Let's Talk Woy Woy | Woy Woy |
| 18 June 2022 | Celebrating Deerubbin – a Festival of the Hawkesbury River | Brooklyn |
| 31 October 2022 | Woytopia | Woy Woy |
| 18 February 2023 | Taste of Seafood Festival | Mooney Mooney |
| 22 February 2023 | Tide2Tip | Mooney Mooney |
| 25 to 27 February 2023 | Annual fishing festival Fishfest | Penrith |
| 30 March 2023 | Let's Talk Gosford | Gosford |

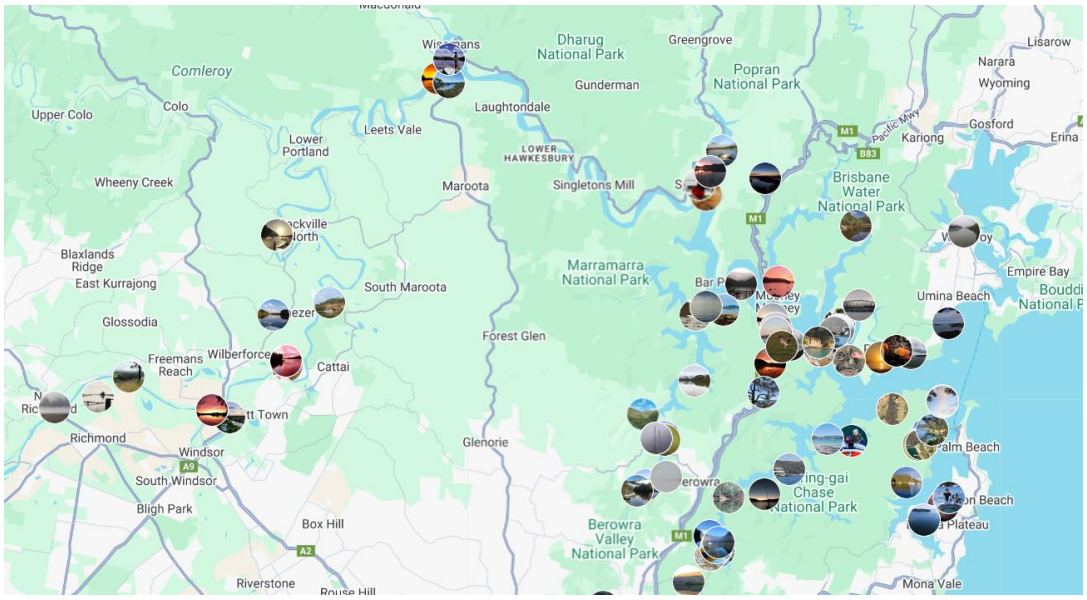



**Figure 4.10 "Our Hawkesbury River" photo competition entries**

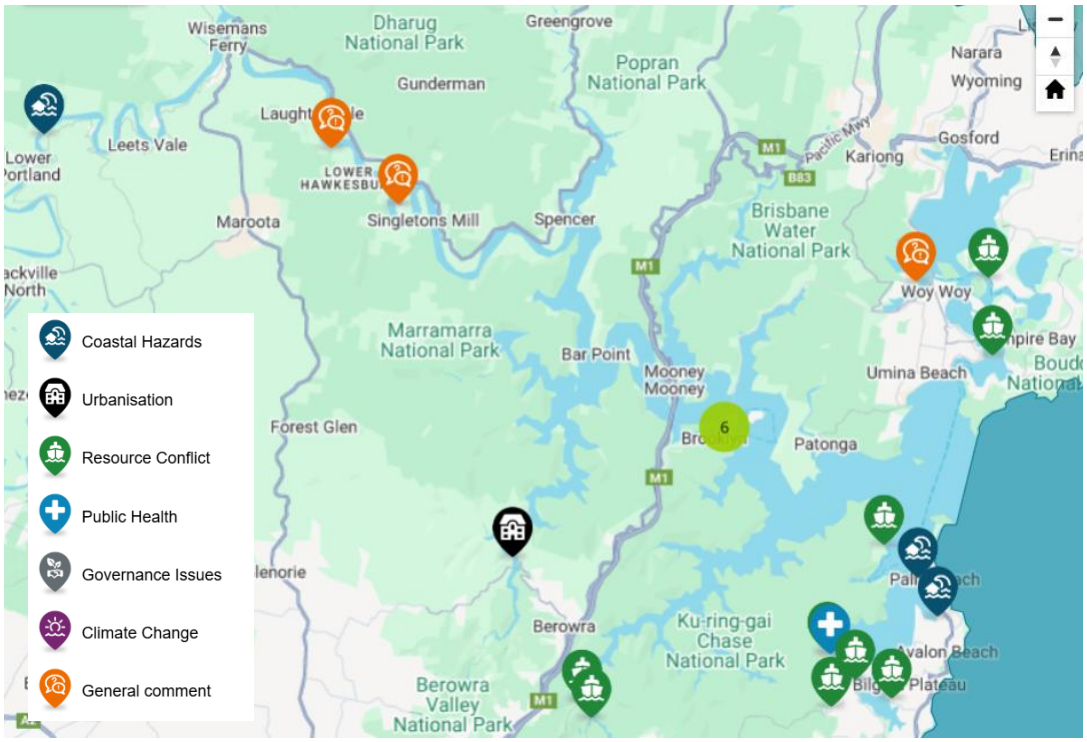



**Figure 4.11 Interactive mapping dashboard used as part of community engagement in Stage 2 of the CMP**

### 4.5.4 Stage 3

Given the nature of Stage 3 – focused on identifying, assessing, and refining management options – this phase of the CMP required an intensive and wide-ranging program of community and stakeholder engagement. Engagement was deliberately designed to be multi-modal, ensuring that all sectors of the community, industry, and government could participate in ways that suited their needs and capacity.

Activities combined in-person and online formats, including drop-in information sessions, targeted stakeholder workshops, interactive mapping tools, online surveys, and direct liaison with key interest groups. This approach allowed the CMP team to reach a broad cross-section of stakeholders – from state agencies, partner councils, Local Aboriginal Land Councils, and industry groups, through to residents, recreational users, environmental organisations, and local businesses.

***Stakeholder Engagement Overview***

Table 4.3 provides a summary of the stakeholder engagement activities conducted throughout the Stage 3 program, categorised by stakeholder group. It details the mode of engagement, number of sessions, and estimated total hours of interaction.

**Table 4.3 Stage 3 stakeholder workshops and meetings**

| Category | Stakeholders | Mode | Quantity | Total Hours |
|---|---|---|---|---|
| Internal Partner Council Engagement | Northern Beaches Council | Workshops | 5 | 11 |
| | Ku-ring-gai Council | Workshops | 1 | 2 |
| | Hornsby Shire Council | Workshops | 6 | 12 |
| | Hills Shire Council | Workshops | 2 | 4 |
| | Hawkesbury City Council | Workshops | 3 | 7 |
| | Central Coast Council | Workshops | 5 | 14 |
| | Collaborative Partner Council Workshops (including DCCEEW-BCS) | Workshops | 4 | 10 |
| State Government Agencies | DCCEEW - MCEF | Workshops | 1 | 2 |
| | Dept of Education | Meeting | 1 | 1 |
| | DPHI - Crown Lands | Workshops | 1 | 2 |
| | DPHI - Planning & Assessment | Workshops | 1 | 2 |
| | DPIRD - Biosecurity & Food Safety | Workshops | 1 | 1 |
| | DPIRD - Fisheries | Workshops | 1 | 2 |
| | Greater Sydney Local Land Services | Workshops | 1 | 2 |
| | NSW National Parks and Wildlife Service | Workshops | 2 | 4 |
| | NSW Reconstruction Authority / Infrastructure NSW | Workshops | 1 | 1 |
| | NSW SES | Workshops | 1 | 1 |
| | Sydney Water | Workshops | 1 | 2 |
| | TfNSW - MIDO | Workshops | 2 | 5 |
| | Water NSW | Workshops | 2 | 1 |

| Category | Stakeholders | Mode | Quantity | Total Hours |
|---|---|---|---|---|
| Upper Catchment Councils | Upper Catchment Council Group | Briefing | 1 | 1 |
| | Blue Mountains City Council, Blacktown City Council, Camden Council, Liverpool Council, Penrith City Council, Wollondilly Council, Wollongong Council | Workshops | 1 | 2 |
| First Nations Representatives | Darkinjung LALC | Meeting | 4 | 8 |
| | Deerubbin LALC | Meeting | 2 | 2 |
| | Muru Mittigar | Meeting | 4 | 10 |
| | CCC Heritage Committee | Meeting | 1 | 1 |
| | Merana Aboriginal Community Association for the Hawkesbury | Meeting | 2 | 4 |
| | Darug Custodians Aboriginal Corporation | Meeting | 2 | 4 |
| | Hornsby Council Aboriginal & Torres Strait Islander Advisory Committee (HATSIC) | Meeting | 1 | 1 |
| | Central Coast First Nations Groups including Wannangini | Meeting | 4 | 8 |
| | Northern Beaches First Nations Group | Meeting | 1 | 2 |
| | | **Total** | **65** | **127** |

***Internal (Partner Council) Engagement***

Internal stakeholders are those who are part of the project steering committee (the Partner Councils). During Stage 3, a series of workshops were held with Partner Council representatives in:

- Environmental management.
- Planning and development.
- Roads & drainage.
- Utilities, such as water & wastewater and Sections.
- Open space & recreation.
- Communications/engagement.

Workshops were facilitated through a series of in-person and virtual workshop for the purposes of:

- Management Option Identification.
- Management Option Refinement.
- Management Option Assessment and Identification.

Engaging internal stakeholders across a broad range of disciplines provided critical insight into local conditions, operational constraints, and community priorities. Involving council staff from several sections and disciplines was not only technically sound but also aligned with local policy frameworks, existing strategies and plans, service delivery capabilities, and community expectations. The structured workshops during Stage 3 created a space for collaboration, knowledge sharing, and joint problem-solving, which improved the quality and practicality of the proposed management options.

A summary of the Partner Council workshops is provided in Table 4.3.

***Public Authority Engagement***

A summary of the engagement undertaken with State Government Agencies and Upper Catchment Councils workshops is provided in Table 4.3.

A targeted and coordinated engagement program was undertaken with a range of NSW Government departments, agencies, and entities to ensure the CMP is strongly aligned with relevant legislation, policy frameworks, and current state-led initiatives. Key agencies were engaged through a series of structured workshops and meetings, involving representatives from DCCEEW, Department of Planning, Housing and Infrastructure (Crown Lands and Planning & Assessment), Department of Primary Industries (Biosecurity and Fisheries), Greater Sydney Local Land Services, NSW State Emergency Service (NSW SES), Transport for NSW (MIDO), Water NSW, and others.

These engagements provided a platform for two-way dialogue - enabling the project team to present emerging findings and management options while gaining valuable insights into agency priorities, statutory roles, and technical requirements. This collaborative approach helped to ensure the CMP is not only informed by the latest state policy directions but also responsive to operational realities and interagency dependencies. This engagement also ensures the CMP is both strategically aligned with state and regional planning instruments and practically integrated with existing and future agency-led projects.

The workshops served as a key touch point for discussion with the agencies regarding potential management options for the CMP. The aims of the workshops were to:

- Provide project background - including a summary of project progress to date, and a summary of the key risks and opportunities identified in Stage 2.
- Commence initial discussions of potential management options where inter-agency coordination and/or agreement could be required.
- Undertake a ‘whiteboarding’ session to identify stakeholder ideas for potential management options, and linkages to existing state agency initiatives and actions.

Engagement with Upper Catchment Councils included an initial briefing to the Upper Catchment Council Group (comprising the entire HNRS catchment council collective), as well as a follow up workshop with the Greater Sydney Area councils to help identify and refine management actions for the CMP.

***First Nations Groups***

A summary of the engagement undertaken with local representatives is provided in Table 4.3.

Engagement with First Nations representatives was a key component of the CMP process, recognising the deep cultural connections and traditional knowledge Aboriginal communities hold in relation to land and water management across the catchment. All LALCs in the study area were asked to provide input to the identification of possible CMP management options. Meetings were held with a range of groups and representatives, including Muru Mittigar, the Merana Aboriginal Community Association for the Hawkesbury, Darug Custodians Aboriginal Corporation, Darkinjung LALC, Deerubbin LALC, Wannagini and other Central Coast First Nations peoples, First Nations peoples from Northern Beaches LGA, and advisory or heritage committees from Hornsby and Central Coast Councils.

These engagements provided valuable opportunities to listen to Country-based perspectives, cultural values, and site-specific knowledge that might otherwise be overlooked in conventional planning processes. This input informed the development of management options and ensured that cultural heritage considerations were embedded throughout the CMP. By building respectful relationships and providing space for genuine dialogue,

the CMP is better placed to reflect shared stewardship principles, acknowledge cultural heritage, and support alignment with the NSW Government's commitments to working in partnership with Aboriginal communities.

Engagement with these stakeholders directly led to the development of a number of CMP Actions as specified in the Stage 3 Summary Report (Water Technology, 2025).

***Community Engagement***

During Stage 3, a comprehensive program of community engagement was delivered with 2 primary objectives:

- Gauge community support for the potential management options identified in the Stage 3 long list.
- Capture new ideas and suggestions from the community for consideration in the final management actions.

The engagement period lasted for 10 weeks, from Monday 16 September 2024 to Sunday 24 November 2024 (inclusive). This extended timeframe was deliberately chosen to accommodate the large and diverse geographic area covered by the project, and to provide ample opportunity for communities across the HNRS to engage meaningfully with the CMP process.

A longer engagement window also enabled a more sustainable and manageable delivery of over 20 drop-in sessions, ensuring that Partner Council resources could be allocated effectively across multiple locations and dates. Spreading the sessions over several weeks allowed project staff to maintain a consistent and high-quality presence at each event, support meaningful interactions with community members, and respond to local needs and interests as they emerged throughout the engagement period.

*Community Drop-In Sessions*

To support those community members who preferred face-to-face engagement, a series of community drop-in sessions were held to gather input for the Stage 3 options identification and assessment process.

Each session was open for 2 to 4 hours, allowing community members to attend at a time convenient for them. This flexible format helped reduce overcrowding and enabled more relaxed, personalised conversations between attendees and project staff.

Community members were encouraged to drop in at any time during the session window. The sessions were designed to:

- Provide clear and accessible information about the project.
- Explain the proposed Stage 3 Management Options
- Direct community members to the online engagement portal so that they could review and add to the long list of possible management options that could be included in the CMP.

Participants could provide both verbal and written feedback on the proposed management options, as well as the project more broadly. They were also invited to suggest additional options, informed by their local knowledge, values, and aspirations for the coastal zone.

Engagement was robust and constructive, with many in-depth discussions between community members and representatives from the Partner Councils and Water Technology.

In total, 23 drop-in sessions were held across the community engagement period, spanning 18 separate locations throughout the HNRS study area. Table 4.4 provides session details, including estimated attendance. Across all sessions, approximately 600 community members were engaged. A selection of photographs from the sessions is presented in Figure 4.12 to Figure 4.14.

Most sessions were strategically located at estuary foreshore areas - such as parks and boat ramps - to engage directly with estuary users and others with a vested interest in the system's health. In addition, several sessions were delivered as pop-up stalls at existing community events, helping to broaden awareness and participation. These included the Hornsby Organic Food Market, Hornsby Second-Hand Markets, Woytopia (Woy Woy), Sustainable Futures Day (Turramurra), Umina Beachside Markets, Brisbane Water Oyster Festival (Woy Woy), and the Central Coast Lakes Festival 2024 (Gosford).

This approach enabled access to a broad and diverse cross-section of the community, providing an inclusive opportunity to share project information and invite feedback.

**Table 4.4 Stage 3 community drop-in sessions**

| Date | Time | Address | Suburb | Host Council | Approx. Attendance |
|---|---|---|---|---|---|
| Saturday, 21 September 2024 | 10am - 1pm | 58 Araluen Dr, Hardys Bay | Hardys Bay | Central Coast | 55 |
| Thursday, 26 September 2024 | 8am - 4pm | Hornsby Organic Food Market, Hornsby Mall | Hornsby | Hornsby | 15 |
| Friday, 27 September 2024 | 2pm - 4pm | Church Point Square, 2105 Pittwater Rd, Church Point | Church Point | Northern Beaches | 20 |
| Sunday, 29 September 2024 | 9am - 1pm | Second-Hand Hornsby Market, Jersey Lane, Hornsby | Hornsby | Hornsby | 15 |
| Thursday, 3 October 2024 | 9am - 2pm | Wisemans Ferry Boat Ramp, Old Northern Road, Wisemans Ferry | Wisemans Ferry | Central Coast, Hornsby, Hawkesbury, Hills | 20 |
| Friday, 4 October 2024 | 9am - 1pm | Parsley Bay Boat Ramp, 25 Karoola St, Brooklyn | Brooklyn | Hornsby | 40 |
| Friday, 4 October 2024 | 2pm - 5pm | The Cottage, 10 Dangar Rd, Brooklyn | Brooklyn | Hornsby | 15 |
| Saturday, 5 October 2024 | 9am - 11am | Bayview Dog Park, 1670 Pittwater Rd, Bayview | Bayview | Northern Beaches | 30 |
| Wednesday, 9 October 2024 | 12pm - 5pm | Berowra Waters Marina, 199 Bay Rd, Berowra Waters | Berowra Waters | Hornsby | 10 |
| Friday, 11 October 2024 | 3pm - 6pm | Dunkirk Hotel, 4666 Wisemans Ferry Rd, Spencer | Spencer | Central Coast | 20 |
| Sunday, 13 October 2024 | 9am - 4pm | Woytopia @ Woy Woy South School, 14 Waterloo Ave, Woy Woy | Woy Woy | Central Coast | 50 |
| Saturday, 19 October 2024 | 10am-3pm | Sustainable Futures Day, Cameron Park, 5 Eastern Rd, Turramurra | Turramurra | Ku-ring-gai | 35 |
| Saturday, 19 October 2024 | 9am - 11am | Palm Beach Wharf, 1149 Barrenjoey Rd, Palm Beach | Palm Beach | Northern Beaches | 10 |

| Date | Time | Address | Suburb | Host Council | Approx. Attendance |
|---|---|---|---|---|---|
| Sunday, 20 October 2024 | 9am - 2pm | Umina Beachside Markets, Sydney Ave, Umina | Umina | Central Coast | 40 |
| Thursday, 24 October 2024 | 10am – 12pm | Cromer Admin Building, 55 Middleton Rd, Cromer | Cromer | Northern Beaches | 25 |
| Thursday, 24 October 2024 | 9am - 9pm | Erina Fair, outside Shaver Shop, 620 Terrigal Dr, Erina | Erina | Central Coast | 30 |
| Saturday, 26 October 2024 | 9am – 12pm | The Bays RFS Brigade, 17 Wattle Cres, Phegans Bay | Phegans Bay | Central Coast | 30 |
| Saturday, 2 November 2024 | 9am - 12pm | Patonga Wharf (Blues across the Bay), 12 Patonga Drive, Patonga | Patonga | Central Coast | 40 |
| Sunday, 10 November 2024 | 10am - 4pm | Brisbane Water Oyster Festival, Lions Park, 2 N Burge Rd, Woy Woy | Woy Woy | Central Coast | 50 |
| Tuesday, 12 November 2024 | 9am - 1pm | Lakes Festival Cleanaway Pop-up, Kibble Park, 118 Donnison St, Gosford | Gosford | Central Coast | 20 |
| Saturday, 16 November 2024 | 4 pm - 10pm | Lakes Festival Gather & Groove, Lions Park, 2 N Burge Rd, Woy Woy | Woy Woy | Central Coast | 30 |
| Sunday, 24 November 2024 | 9am – 12pm | Lions Park, 10 Masons Parade, Gosford | Gosford | Central Coast | 40 |
| | | | | **Total** | **640** |




**Figure 4.12 Left: At the Brisbane Water Oyster Festival on Sunday, 10 November 2024. Right: Drop-in Session at the Woytopia Event on Sunday, 13 October 2024.**



Figure 4.13 Left: Drop-in Session at Parsley Bay on Friday, 4 October 2024. Right: At Berowra Waters on Wednesday, 9 October 2024.




Figure 4.14 Drop-in Session at the Wisemans Ferry Boat Ramp on Thursday, 3 October 2024

*Online Engagement*

To support and enhance Stage 3 community engagement, a dedicated *Online Engagement Portal* was developed and made available via the project website. The web-based mapping portal included 2 key interactive tools designed to collect feedback and ideas from the community and stakeholders.

- **A Feedback Portal:** This web-based mapping tool enabled users to review and comment on the Stage 3 long list of proposed local area options. Each option was represented by a geolocated pin on the map. By clicking a pin, users could view a brief description of the option and provide feedback in 2 ways:
  - An indication of support from a drop-down list, with choices of: '**Support**', 'or '**Do Not Support**'.
  - A free text response where more detailed comments and feedback could be provided.
- **A Suggestion Portal:** This complementary tool allowed users to propose additional local area management options. Suggestions were submitted by placing a pin on the relevant area of the map and entering a short description or comment to explain the idea.

A snapshot of the Online Engagement Portal is provided in Figure 4.15 and Figure 4.16.

The online engagement portal received a strong response from local communities, demonstrating active interest and participation in the CMP process – as summarised in Table 4.5. The Feedback Portal received

strong community engagement, with a total of 4,029 Action Votes cast across the Stage 3 long list of proposed management options. On average, each option received 32 responses (median: 16 responses), with individual options receiving as many as 211 votes and as few as 2 votes. Community sentiment was overwhelmingly positive, with an average support rate of 97%. Even the least supported action still received 75% support, highlighting a high level of overall endorsement for the proposed local management options.

Importantly, this community input informed the subsequent assessment of potential management options, in line with the approach set out in the NSW Coastal Management Manual. Feedback was used to generate quantitative indicators of community and stakeholder support, helping to identify which actions were broadly acceptable and where concerns or opposition might exist. These insights were considered alongside other key assessment criteria, including technical feasibility and economic viability.

The Suggestion Portal allowed community members to provide their own comments and suggestions using "pinpoints" that they could place on the Suggestion Portal map. In total, 162 comments were recorded in the mapping.

Further details regarding the Stage 3 community engagement outcomes are provided in the Stage 3 Summary Report (Water Technology, 2025).

**Table 4.5 Online Feedback Portal engagement metrics**

| Feedback Portal Metrics | Value |
|---|---|
| Total Action Responses on Proposed Actions | 4,029 |
| Average (and median) number of responses received on each option | 32 (16) |
| Highest Total Responses Received on an Action | 211 |
| Fewest Total Responses Received on an Action | 2 |
| Average (and median) % Support for each Action | 97% (100%) |
| Highest % Support for an Action | 100% |
| Lowest % Support for an Action | 75% |

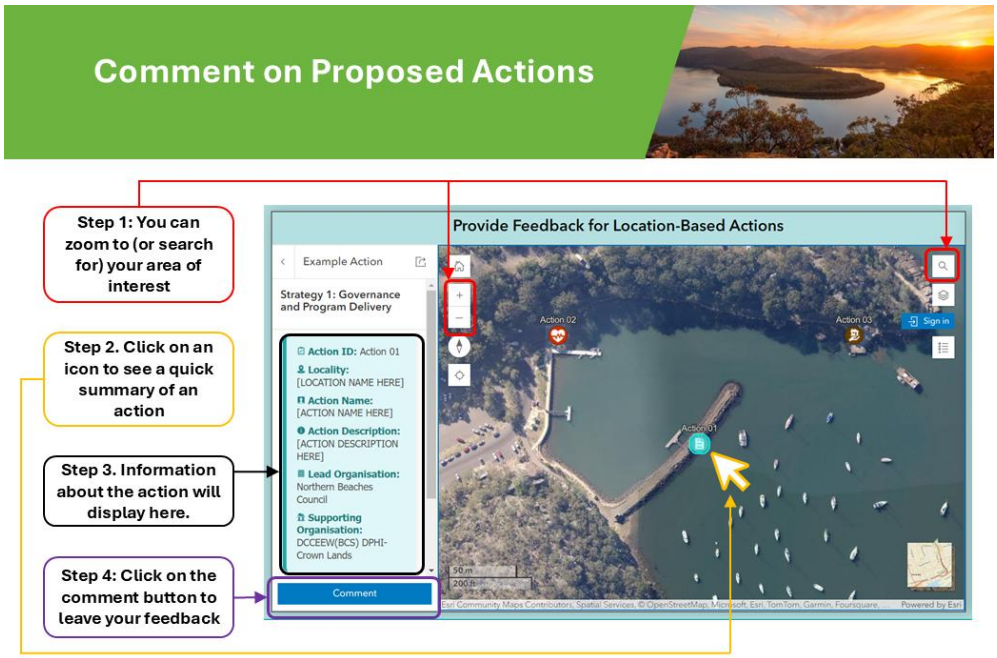



Figure 4.15 Example Screenshot from the Feedback Portal




Figure 4.16 Example Screenshot from the Suggestion Portal

### 4.5.5 Stage 4

***Council and DCCEEW (CPHR) Review***

The first step in the Stage 4 submission process involved circulating the First Draft CMP to the Partner Councils and to the DCCEEW (CPHR) team for detailed review and comment. This review phase ensured that the draft aligned with Partner Council priorities, legislative requirements, and technical expectations before moving into the broader consultation process.

***Public Exhibition***

Under the requirements of the CM Act, a draft CMP must be placed on public exhibition for a minimum of 28 calendar days. During this period, the broader community is invited to review the document and provide feedback. Subsequently, the Draft CMP was placed on public exhibition for 6 weeks, from Monday 20 April 2026 to Sunday 31 May 2026. The partner councils agreed to an extended 42-day exhibition period in recognition of the scale, complexity and regional significance of the CMP. The extended exhibition period provided additional time for community members, agencies, organisations, landholders and other stakeholders to review the draft CMP and prepare submissions.

The Draft CMP was made available online through each Partner Council's public exhibition portal. This approach allowed each council to engage with its own local community while presenting consistent core information across the six council areas. Each council hosted its own exhibition page, supported by common exhibition material.

To support different user preferences and accessibility needs, submissions could be made through multiple pathways, including:

- Online submission form – allowing open-text responses via the council portal
- Email submission option – for users who prefer to provide written feedback directly
- Postal submission option – enabling hard-copy responses to be submitted.

Submissions received through the Partner Council portals and other accepted pathways were collated and reviewed as part of the response to submissions process. The key matters raised, and the responses to those matters, are summarised in the following sections of this report.

A total of 111 submissions were received during public exhibition of the Draft HNRS CMP. Submissions were received from private residents, community associations, environmental groups, commercial waterway users, agency stakeholders and other interested community members. The submissions covered a broad range of matters, reflecting the scale and complexity of the HNRS and the different ways in which communities use and value the estuary, river, foreshore and coastal environments.

The key matters raised and the corresponding responses are documented in the *HNRS CMP Response to Submissions Report* (Water Technology, 2026). The report describes the public exhibition process, submissions received, overarching themes and locations of interest, responses to the matters raised, and the resulting updates to the CMP.

***Agency Letters of Support***

Management actions in this CMP have been developed in consultation with a wide range of relevant stakeholders, including state government agencies and First Nations groups. Subsequently, there are a number of actions that are nominated to be carried out by Council in conjunction with supporting partners. Official letters of support have been provided from all nominated support agencies for the relevant actions in this CMP as part of the CMP certification process.

ATTACHMENT 1 - ITEM 7

WATER TECHNOLOGY
WATER, COASTAL & ENVIRONMENTAL CONSULTANTS

# 5 ACTIONS TO BE IMPLEMENTED BY COUNCIL OR BY PUBLIC AUTHORITIES



*Image Source: Thomas Banner*
*Artwork provided by Leanne Watson*

## 5.1 CMP Structure

### 5.1.1 CMP Structure and Delivery Framework

***The Challenge for the CMP***

The HNRS is one of the largest river systems in NSW, and its waterways and catchments span across a range of range of different local government areas. This scale creates key challenges for both the practical implementation and formal certification of the CMP:

***Scale of Application***



The CMP must address interconnected issues at a system-wide level, including estuary health, water quality, ecological risks, coastal hazards, and development pressures. This requires a coordinated and integrated approach that operates seamlessly across the entire catchment, its waterways, and foreshore areas.



At the same time, the CMP must retain sufficient granularity and focus to respond to the wide range of localised issues, risks, and opportunities that exist across such a large and diverse study area, ensuring management actions remain practical and place specific.



The CMP must also enable a collaborative approach to management among all stakeholders - particularly Partner Councils - while providing a transparent understanding of each party's financial responsibilities and resourcing commitments

***Certification Requirements***



A key objective of the CMP is to address estuary health risks that require a catchment-management approach. However, under Section 13(2) of the CM Act, there is no provision actions to be included in a certified CMP, where those actions reside outside the legally defined coastal zone - which represents only 2% of the total HNRS catchment area (see Section 1.2.3).

***Structure of the CMP***

To respond to these challenges, a Strategic Direction Workshop was convened with CMP Steering Committee at the outset of Stage 3 (see Section 4.4.2). This workshop resulted in a codesign process that developed the delivery structure of the CMP. A summary of this structure is provided in Figure 5.1, and includes:

- **Nine (9) overarching strategies** that provide the CMP with strategic direction. These include:
  - Strategy 1: Governance and Program Delivery
  - Strategy 2: Monitoring, Evaluation, and Reporting
  - Strategy 3: Resilience, Planning, and Adaptation
  - Strategy 4: Community & Stakeholder Engagement
  - Strategy 5: Estuary & Waterway Health
  - Strategy 6: Coastal Hazard Resilience
  - Strategy 7: Social and Recreational Amenity
  - Strategy 8: Cultural Heritage Protection
- **Eight (8) Implementation Plans** that provide the CMP with specific focus, including:

- *A Collaborative System Implement Plan* to facilitate a large scale, coordinated approach to coastal zone and estuary management. Actions in the plan are delivered by multiple Councils through coordinated delivery partnerships. These Actions are detailed in Section 5.3.
- *6 LGA-Based Implementation Plans* that provide granularity at a local level for each of the Partner Councils These plans are also intended to assist in the integration of the CMP actions into each Partners Councils' IP&R Framework (see Section 2.5.2). These Actions are detailed in Sections 5.4 to 5.9.
- *An NPWS Implementation Plan* that provides specific focus for actions located within NPWS land tenure. These Actions are detailed in Section 0.

- **A Catchment Companion** which is external to the certifiable CMP and contains actions that are located outside of the coastal zone in the broader HNRS catchment.
  - While clearly marked as non-certifiable under the CM Act, these actions are included within the CMP document to maintain integration with coastal zone actions and to support holistic estuary management.
  - This approach aligns with the NSW Government's guidance on *Coastal Management Programs and Integration with Catchment Management* (DPE, 2022). The guidance notes that actions within the companion section may still be eligible for funding under the Coastal and Estuary Grants Program, provided they meet all 3 of the following criteria:
    - Significantly benefit the coastal zone and is a critical factor in estuary health.
    - Give effect to the management objectives for the coastal management areas and the objects of the CM Act.
    - Assist in addressing a key coastal management issue affecting the areas to which a certified CMP applies.
  - The management actions to be implemented in the *catchment companion* to this CMP are outlined in Appendix I. *Note that this catchment companion is separate and external to the certifiable CMP*.

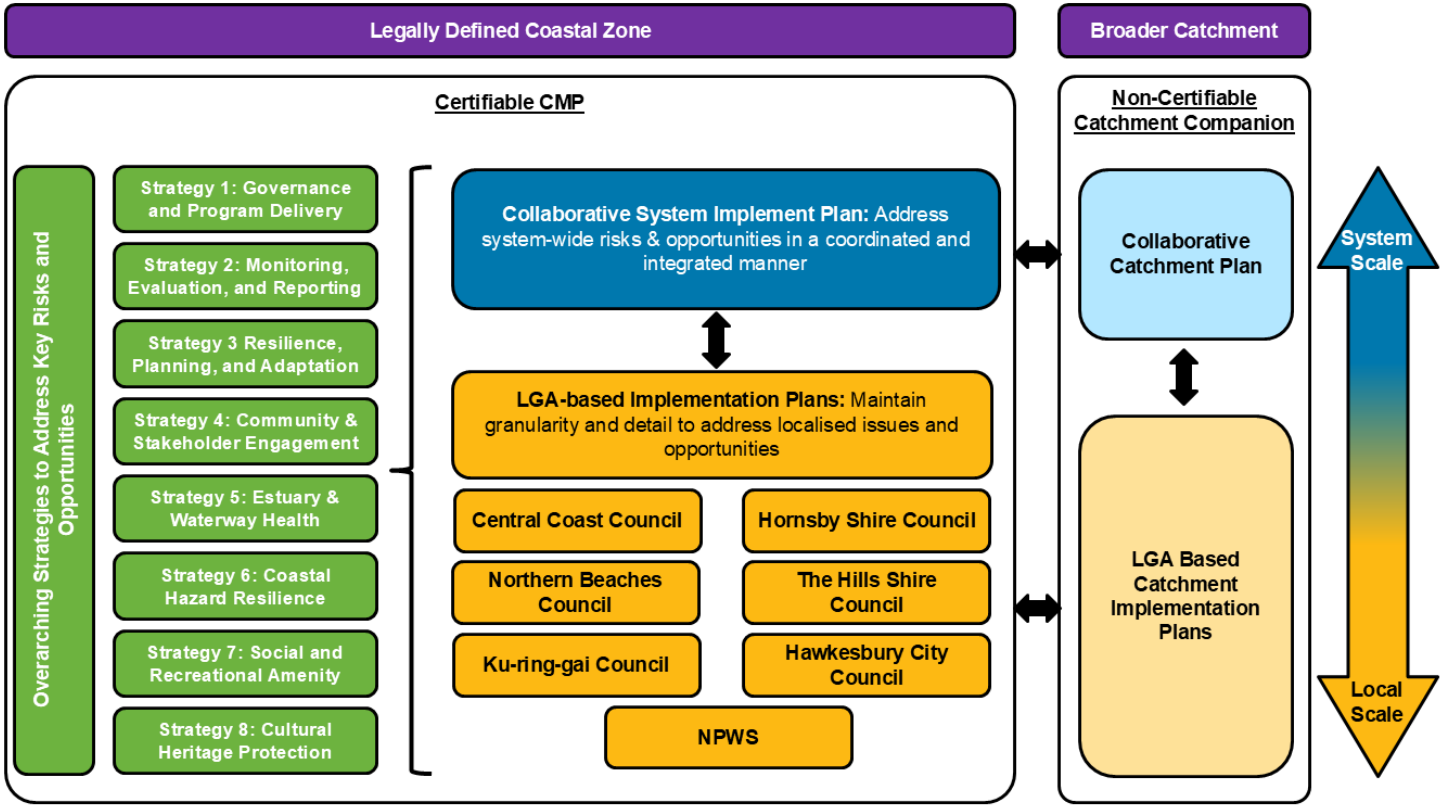



Figure 5.1 HNRS CMP delivery structure



General Meeting 11 November 2026
Attachments Page 484
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 147
ATTACHMENT 1 - ITEM 7

### 5.1.2 Action Information Provided in the CMP

***Action Descriptions***

The management actions identified for implementation under this CMP are detailed in Sections 5.3 to 0. Each section provides a concise yet comprehensive description of the actions, structured to support transparency and ease of reference. For every action, the following information is presented:

- Strategic alignment – the overarching Strategy that the action contributes to.
- Action ID – a unique identifier that enables cross-referencing across this CMP and supporting documents.
- Location and scale – including the functional zone of the estuary within which the action will occur.
- Action name and description – summarising the scope, intent, and key features of the action.
- Implementation responsibility – identifying the lead organisation responsible for delivery, along with supporting agencies and partners. Shorthand is applied in this table for Central Coast Council (CCC), Hawkesbury City Council (HCC), Hornsby Shire Council (HSC), Ku-ring-gai Council (KC), Northern Beaches Council (NBC), and The Hills Shire Council (THSC).
- Priority and indicative timing – categorised to reflect the relative importance and the proposed sequencing of delivery (see Section 5.1.3).

This structure provides clarity for decision-makers and stakeholders, ensuring each action can be readily understood in terms of purpose, accountability, and timing

***Action Mapping***

Mapping of actions with a geographically specific focus (for example, on-ground works, site-based investigations, or foreshore projects) is provided in Appendix B to highlight the spatial context of proposed works and initiatives. These maps are intended to give a clear visual representation of where actions will be implemented and to support place-based engagement and delivery planning. References to the relevant Appendix B action map are provided within each action description.

Conversely, actions that are programmatic, system-wide, or broadly applicable across the estuary (for example, policy development or education programs) are not mapped but remain fully described in the action tables.

***An Important note on Coastal Protection Works and Environmental Protection Works***

There are two categories of actions in this CMP that have specific statutory definitions under NSW legislation and planning instruments:

- Coastal Protection Works (CPW):
  - These are defined in the CM Act as:
    - "*(a) beach nourishment activities or works, and*
    - *(b) activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters, including (but not limited to) seawalls, revetments and groynes*".
  - It is recommended that the CPW identified in this CMP - to the greatest extent practical – are designed and implemented in consistency with the NSW Coastal Design Guidelines (DPE, 2023a), and the NSW Coastal Crown Guidelines (DPE, 2023b).
  - Appendix C provides an overview of concept designs for actions in the CMP that are designated as designated as CPW. The purpose of these concept designs is to provide sufficient technical detail on the nature and scope of proposed CPW to enable determining authorities to consistently interpret the

actions and apply streamlined approval pathways as relevant. References to the relevant concept design(s) are provided within each action description.

- Environmental Protection Works (EPW): These are defined in the Standard Instrument - Principal Local Environmental Plan (2006 EPI 155a) as:
  - *"works associated with the rehabilitation of land towards its natural state or any work to protect land from environmental degradation, and includes bush regeneration works, wetland protection works, erosion protection works, dune restoration works and the like, but does not include coastal protection works*".

For land use planning purposes, the application of a planning pathway is guided by the definition and particular purpose of the proposed development, activity, or work (NSW Government, 2021). Accordingly, the action descriptions in this CMP explicitly identify, where relevant, whether a proposed activity qualifies as CPW or EPW. This approach provides consistency with the R&H SEPP and underpins the implementation of a streamlined planning approvals pathway under Section 2.16 of the SEPP.

***An Important note on the need for authorisation under the CLM Act***

Where management actions are proposed on Crown land (including Crown waterways), authorisations and approvals may be required under the *Crown Land Management Act 2016* (CLM Act). Where proposed works and activities occur on Crown land and Council is the appointed Crown Land Manager, if the use is consistent with the reserve purpose and there is an adopted Plan of Management, then in most circumstances no other form of authorisation under the CLM Act is required. Council will remain responsible for administration, maintenance, and end-of-life removal/replacement of any structures built on Crown land under such authorisations unless specified otherwise. Management actions undertaken on Crown land must consider Aboriginal Land Claims lodged under the *Aboriginal Land Rights Act 1983*. All activities relating to the use of Crown land must be consistent with *Commonwealth Native Title Act 1993*.

### 5.1.3 Prioritisation of Actions

Given the limited funding and resources of the Partner Councils, a key element of CMP implementation is the prioritisation and rationalisation of management actions. With this in mind, this CMP has established a framework for prioritisation of management actions – based on a logical Action Priority Matrix. This considers both the importance and the urgency of each individual action in order to develop a coherent plan for prioritisation.

For this task, the "Importance" of each action has been assigned a score out of 10 based on how critical implementing that action is towards achieving the overall goals of the CMP:

- **Critical (8-10)**: Those that are critical for addressing key risks and the long-term effective management of the estuaries. These actions are critical for successful implementation of the CMP.
- **High (5-7)**: Those considered of high importance, or high impact, in addressing risks and opportunities.
- **Medium (1-4)**: Those that whilst still important, are considered to be moderately effective or impactful in terms of addressing risks and opportunities.

The second consideration is the "Urgency" of the various actions. This consideration acknowledges that whilst some actions may be highly important to success of the CMP, they may not need to be (or perhaps are not able to be) implemented immediately. This could be due to budget or resourcing limitations, or the need to schedule some actions first in order to allow others to proceed effectively. The urgency of the actions has been assigned a score out of 3 based on the following criteria:

- **Pressing (3)**: Actions that require immediate attention and implementation, or actions that affect the critical path of other actions (i.e., are a prerequisite for other actions) and therefore need to be implemented in the short term.

- **Moderate / Dependant (2)**: Actions that are of moderate urgency or are dependent on the implementation of other actions before they can commence.
- **Opportunistic (1)**: Actions that do not have an immediately pressing timeframe for implementation but rather can be implemented opportunistically as resources and funding become available.

The Action Priority Matrix is provided in Table 5.1. It outlines a process to generate a Priority Score for each action. The Priority Score can be banded to outline an approximate timeframe for implementation and alignment with the City's 4-year Delivery Program (DP) under the NSW IP&R Framework:

- **High Priority** (score of 24-30): To be implemented in the short term - within 1-4 years
- **Medium Priority** (score of 8-23): To be implemented in the medium term - within 4-8 years
- **Low Priority** (score of 1-8): To be implemented in the long term - within 8-10 years

It should be noted that this process is intended to provide a broad indication of action priority. However, it is acknowledged that this may not marry with the "on the ground" reality over the forward CMP timeframe, and a flexible approach to undertaking works should be adopted as grants and funding opportunities arise from time to time that may allow some options to be progressed ahead of others.

While some actions may be identified as a priority for implementation in the CMP, it is recognised that the Plan needs to retain sufficient flexibility such that the Partner Councils (or other responsible agencies) may implement any of the management actions at any time on an opportunistic basis, regardless of their priority. Such an opportunity may arise where, for example, funding becomes available through a specific grant or funding program.

It should also be acknowledged that some of the actions whose urgency is listed as "Opportunistic" may provide an opportunity for "quick, easy wins" throughout the process, particularly those that require minimal cost or effort to implement. Therefore, the delivery partners of the CMP should remain vigilant for opportunities to implement these actions as they may arise.

**Table 5.1 The action priority matrix**

| Priority | | | Urgency | | |
|---|---|---|---|---|---|
| | | | Pressing | Medium / Dependant | Opportunistic |
| | | | 3 | 2 | 1 |
| Importance | Critical | 10 | 30 | 20 | 10 |
| | | 9 | 27 | 18 | 9 |
| | | 8 | 24 | 16 | 8 |
| | High | 7 | 21 | 14 | 7 |
| | | 6 | 18 | 12 | 6 |
| | | 5 | 15 | 10 | 5 |
| | Medium | 4 | 12 | 8 | 4 |
| | | 3 | 9 | 6 | 3 |
| | | 2 | 6 | 4 | 2 |
| | | 1 | 3 | 2 | 1 |

High Priority
Medium Priority
Low Priority

## 5.2 CMP Governance Structure

### 5.2.1 Importance of Governance

The scale and complexity of the HNRS CMP demands a governance framework that is clear, durable, and capable of coordinating action across multiple councils, agencies, and stakeholders. Effective governance provides:

- Authority and advocacy – to keep the CMP visible and relevant within council priorities.
- Coordination – to align delivery across a large and diverse river system.
- Capacity – to manage grants, reporting, and engagement.
- Flexibility – to adapt as circumstances change and lessons are learned during implementation.

### 5.2.2 Governance Structure Development

The governance model for the delivery of Stage 5 of the CMP was co-designed with input from Partner Councils, DCCEEW, and other stakeholders through a staged workshop process. This ensured the structure was grounded in best practice, equitable, and tailored to the unique needs of the HNRS.

Through a series of dedicated workshops, stakeholders were able to examine contemporary models, identify guiding principles, and collaboratively refine the governance structure. This iterative approach provided the necessary depth of analysis and broad ownership to give the final framework both equity and practical utility.

- **Workshop #1: Best practice fact-finding:** The first workshop focussed on building an evidence base from comparable multi-council estuary partnerships across NSW. Attendees included representatives from the Hunter Estuary Alliance (HEAL), the Parramatta River Catchment Group (PRCG), the Cooks River Alliance (CRA), and the Georges Riverkeeper (GRK). The session centred on distilling lessons from each group around:
  - The *WHERE* – their geographical scope of operations
  - The *WHY* – their core purpose and role within catchment or estuary management
  - The *WHAT* – their organisational structures and membership models
  - The *HOW* – funding approaches and the nature of formal agreements (e.g., Constitutions, Terms of Reference, and/or Memoranda of Understanding)
  - Incorporation of Indigenous custodianship and cultural perspectives
  - Model refinement – identifying what works well and where improvements could be made.
- **Workshop #2: Objectives and governance structure design:** Building on these insights, the second workshop brought together representatives from the Partner Councils and DCCEEW. The objective was to establish the overarching principles of governance for the HNRS CMP, agree on the desired outcomes of the structure, and co-design the framework that would balance governance oversight with operational delivery. This process ensured that the governance model was not only technically robust but also practical, equitable, and responsive to the needs of the Partner Councils.
- **Workshop #3: Development of key details and determination of the way forward:** The third workshop refined the draft governance model into a workable framework, resolving critical design elements such as the composition and roles of governance bodies, the frequency and format of meetings, and the integration of technical and cultural advice. It also confirmed the commitment of Partner Councils to progress the model, providing a clear mandate to finalise terms of reference, nominate representatives, and establish the governance structure in practice.

Informed by this process, the following section outlines the agreed governance structure for the HNRS CMP, including the roles, responsibilities, and interactions of its key components.

### 5.2.3 Governance Structure Principals

The governance structure has been established to provide effective oversight, ensure accountability, and facilitate coordination across multiple councils, agencies, and stakeholders. At its core, the governance structure rests on 3 guiding principles:

- **Purpose**: The primary purpose of the governance structure is to oversee and drive the delivery of CMP actions. It is not intended as a broader management group with wider roles and responsibilities. A purposeful decision was made to maintain a specific focus on CMP delivery – to ensure that governance adds demonstrable value by maintaining focus on outcomes and supporting the long-term objectives of the CMP.
- **Form**: The three-tiered structure (Executive Group, Steering Committee, Project Delivery Groups) is supported by a dedicated Project Coordinator. Formal agreements such as Memoranda of Understanding or constitutions give the framework durability and legitimacy.
- **Function**: The governance framework is to be supported by clearly defined Terms of Reference for each body, setting out roles, responsibilities, membership, and decision-making processes. Membership is structured to achieve equity of representation across Partner Councils and State Agencies, while also ensuring that cultural knowledge and community perspectives are embedded. Formal arrangements such as Memoranda of Understanding or Constitutions provide a durable basis for collaboration and accountability.

### 5.2.4 Overview

The adopted governance framework is tiered, inclusive, and action oriented. It balances strategic oversight with operational capacity, ensuring actions are coordinated across the catchment while still reflecting local needs. The governance structure for the CMP is summarised in Figure 5.2 with the respective elements described in Table 5.2.

- The Executive Group provides strategic leadership and advocacy, raising the profile of the CMP and integrating actions into Council programs.
- The Steering Committee acts as the coordinating hub, aligning delivery across councils, overseeing progress, and guiding project delivery groups.
- Project-based Delivery Groups, responsible for targeted implementation of actions.
  - Multi-council and non-council projects group councils, agencies, and technical experts to deliver collaborative initiatives.
  - Individual council projects are led internally, with support from technical partners as required
  - Dedicated First Nations Action Group - established to guide delivery of collaborative actions under Strategy 8. This group provides a transparent, culturally appropriate, and accountable forum to administer funds, assess project submissions, and oversee implementation. By creating a dedicated group, the governance framework ensures that First Nations knowledge, priorities, and perspectives are meaningfully embedded in CMP delivery.
- A central feature is the appointment of a dedicated Project Coordinator, employed on a 0.6 - 1.0 FTE basis. Partner Councils agreed unanimously that this role is fundamental to success, given the breadth and scale of the CMP. The Coordinator provides continuity, integration across councils, and the capacity to manage grants, reporting, and stakeholder engagement – functions that cannot be effectively delivered on a part-time or ad-hoc basis by existing council staff.

Together, these elements create a governance model that is inclusive, transparent, and action oriented. By combining strong oversight with operational flexibility, the structure provides a robust platform for the delivery of CMP actions. Importantly, the governance structure is intended to be adaptive. As the CMP progresses through its implementation phases, the structure may evolve to reflect emerging priorities, changing stakeholder needs, or lessons learned, ensuring that it remains both flexible and effective over the long term.

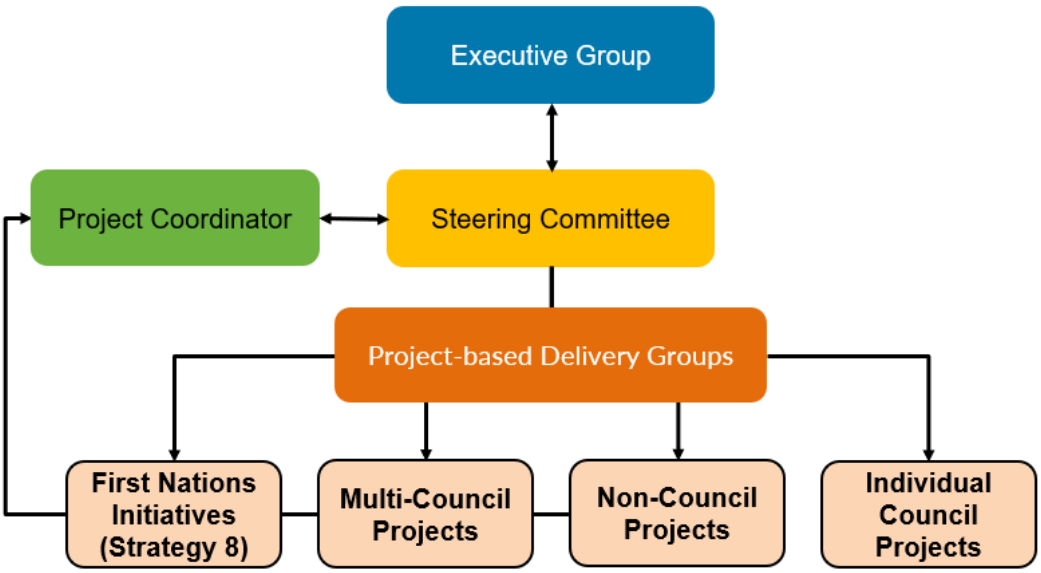



Figure 5.2 HNRS CMP governance structure

Table 5.2 HNRS CMP governance structure

| Element | Function and Scope | Representation | Operational Considerations |
|---|---|---|---|
| Executive Group | ▪ Provide high-level advocacy and visibility for the CMP<br>▪ Support integration of CMP actions into each Council's Delivery Program and IP&R<br>▪ Advocate for CMP implementation in the face of competing Council priorities | ▪ 1 x Director or Senior Manager from each Partner Council (or delegate) | ▪ The EG could be provided with quarterly / semi-annual / annual updates by the Steering Committee |
| Steering Committee | ▪ Coordinate delivery of CMP actions across LGAs in line with the CMP strategic priorities and forward program<br>▪ Promote system-wide actions in the Collaborative Implementation Plan, including those not led by Partner Councils<br>▪ Guide and support project delivery groups | ▪ 1-2 x representatives from each Partner Council – typically coastal/estuary officers but others can be included in an as needed basis<br>▪ 1-2 x representatives from DCCEEW<br>▪ Leadership is reinforced through the appointment of strong chairs to provide authority, continuity, and impartial guidance<br>▪ State Agency representation may be most efficiently garnered through the Project Delivery Groups – so that it is focussed on CMP action delivery | ▪ Scheduled Meeting Frequency: Approx. Quarterly<br>▪ Meeting Location: Rotate across Partner Council locations |
| Project Coordinator | ▪ Project coordination and administration of actions in the Collaborative System Implement Plan<br>▪ Grant management and coordination<br>▪ Monitoring, evaluation, and reporting on CMP implementation status<br>▪ Design and execution of both internal and external engagement (Council, stakeholder, and community) | ▪ 1 x Project Coordinator, employed in a 0.6 to 1.0 FTE role | ▪ Salary to be co-funded through CMP Business Plan (see Action S1.CMP.A)<br>▪ Employment Status: There are 4 potential options:<br>1. Directly employment by one of the Partner Councils<br>2. Sourced externally (through a consultancy or contract arrangement)<br>3. A practical combination of (1) and (2) above<br>4. Develop an incorporated body and deliver Project Management for the CMP through that entity (employment of the PM and any required assets) |



General Meeting 11 November 2026
Attachments Page 491
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 154
ATTACHMENT 1 - ITEM 7

| Element | Function and Scope | Representation | Operational Considerations |
|---|---|---|---|
| Project Delivery Groups (Multi-Council Projects and Non-Council Lead Projects) | ▪ Delivery of specific CMP actions that sit within the "Collaborative System Implement Plan". That is, any action that is "multi-Council" in delivery<br>▪ Similar Actions can be grouped together for coordinated delivery – so that we don't need a "group" for every action. For instance, multiple actions within a particular strategy can use a common project delivery group.<br>▪ Groups would be sunset upon delivery of that (those) Action(s) | ▪ Representatives from any organisation listed in the CMP Delivery Plan as either:<br>– Lead Organisation<br>– Support Organisation<br>▪ Technical Support to assist in delivery of the action(s) – including representatives from industry, academia, and First Nations Groups | ▪ Reports to: Steering Committee<br>▪ Meeting Frequency: As required<br>▪ Project Coordination: Nominated by Steering Committee |
| Project Delivery Groups (Individual Council Lead Projects) | ▪ Delivery of specific CMP actions that sit within the "Implementation Plan" of an individual council.<br>▪ Can be one "group" for all actions in Councils implementation plan | ▪ Council officers from relevant departments (environmental services, planning, open space, engagement, assets and infrastructure etc):<br>▪ Technical Support to assist in delivery of the Action(s) - including representatives from any "Supporting Partners" listed in the delivery plan | ▪ Reports to: Steering Committee - to keep the broader group updated.<br>▪ Meeting Frequency: As required<br>▪ Project Coordination: Nominated by Council officer. |
| First Nations Initiatives (Strategy 8) | ▪ Provide a culturally appropriate and transparent forum to lead, fund, and oversee First Nations–related actions under Strategy 8.<br>▪ The group ensures that First Nations knowledge and priorities are embedded in delivery, strengthens trust and accountability, and builds enduring partnerships between councils, LALCs, and custodians. | ▪ Chairperson (1): A Traditional Owner with recognised cultural ties and knowledge across the Hawkesbury River.<br>▪ Traditional Owner Representatives (6): 6 seats reserved for representatives with ancestral connection to distinct geographic regions of the HNRS.<br>▪ Local Council Representation: 6 Partner Councils (individually or collectively).<br>▪ LALC Representation: The 3 LALCs (Darkinjung, Deerubbin, and Metro) (individually or collectively).<br>NOTE – the above will be further developed through discussions with First Nations Groups along the HNRS | ▪ Fund Administration: Manage allocation and oversight of Strategy 8 funds with transparent, accountable processes.<br>▪ Assessment of Submissions: Apply culturally appropriate criteria to review and select projects proposed by Traditional Owner groups, LALCs, and Aboriginal organisations.<br>▪ Project Oversight and Monitoring: Track delivery of funded initiatives to ensure timely, high-quality outcomes.<br>▪ Reporting and Accountability: Provide progress reports to the CMP governance bodies and stakeholders.<br>▪ Dispute Resolution: Act as a culturally informed mediator for any disputes during implementation. |



General Meeting 11 November 2026
Attachments Page 492
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 155
ATTACHMENT 1 - ITEM 7

## 5.3 Collaborative System Implement Plan

A summary of the actions within the Collaborative System Implement Plan are provided in Table 5.3. Maps depicting relevant actions are provided in Appendix B.

**Table 5.3 Action Table - Collaborative System Implement Plan**

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|
| Strategy 1: Governance and Program Delivery | S1.CMP.A | Entire HNRS | Estuary-Wide | Implement the CMPs formal governance partnership for the river system | This will involve the implementation of a new partnership for the governance of Dyarubbin (the Hawkesbury-Nepean River System) and its catchment. The partnership will be tasked with the implementation of the CMP, and the broader management of the river system. The aim of the partnership will be to:<br>> Ensure collaboration and coordination between local councils, the state government and other stakeholders<br>> Define the roles and responsibilities of all stakeholders<br>> Ensure dedicated resourcing for river management<br>This Action will also include the employment of a permanent project coordinator for the CMP - as per the Project Governance Structure discussed in Section 5.2. | CCC, NBC, HSC, KC, THSC, HCC | DCCEEW-CPHR, NPWS, Sydney Water, DPIRD-Fisheries, DPHI-Crown Lands, TfNSW, | High (30) | Within 1-4 years | Governance group established and operating, with a coordinator role maintained for the CMP's duration. |
| Strategy 1: Governance and Program Delivery | S1.CMP.B | Entire HNRS | Estuary-Wide | Develop and execute a communications plan for Stage 5 of the CMP | Develop a communications plan for the 10 year implementation phase of the CMP. This will include maintenance of the CMP Website and other associated Partner Council information pages. The purpose of the plan should be to provide the community with the following information:<br>> The purpose of the CMP.<br>> The CMP background, and an overview of the NSW Coastal Management Framework.<br>> Key CMP information, including reports available for public consumption.<br>> The Status of CMP actions, with details of the actions and recent updates/progress.<br>> Information pertaining to upcoming community consultation or education events, and avenues for engagement; and<br>> Links to relevant materials such as The NSW Coastal Management Framework, and the Marine Estate Management Strategy.<br>This may also include the ongoing social media presence, mailing lists and newsletters publishing. | CCC, NBC, HSC, KC, THSC, HCC | DCCEEW-CPHR | High (24) | Within 1-4 years | Plan developed and implemented. Improved community understanding of CMP goals, priorities, and implementation status. |
| Strategy 2: Monitoring, Evaluation, and Reporting | S2.CMP.A | Entire HNRS | Estuary-Wide | HNRS Water Quality Monitoring - Data Aggregation and Program Design | Water quality across the HNRS is currently monitored by a range of stakeholders, including partner councils, catchment councils, the NSW Government and Sydney Water. These programs generate valuable data, but they are not currently coordinated through a single estuary-wide framework. This can result in inconsistent methods, duplicated effort, data gaps and limited ability to assess system-wide trends. This action involves reviewing existing water quality monitoring programs across the HNRS coastal zone and designing a coordinated monitoring, data management and reporting framework. The intent is to establish an agreed foundation for future monitoring and reporting, prior to implementation.<br><br>This action would include:<br>1. Review existing monitoring programs<br>> Map existing water quality monitoring programs, including sampling locations, parameters, frequency, methods, responsibilities and reporting arrangements.<br>> Identify gaps, overlaps, inconsistencies and opportunities for improved coordination across councils, agencies and other stakeholders.<br>> Review existing datasets to assess their suitability for estuary-wide trend analysis and reporting.<br><br>2. Design a coordinated monitoring framework<br>> Develop agreed protocols for sampling locations, frequency, parameters, analytical methods, quality control and data management.<br>> Identify priority monitoring locations and indicators to support CMP implementation, waterway health assessment and adaptive management.<br>> Confirm roles and responsibilities for councils, DCCEEW, Sydney Water and other relevant stakeholders. | CCC, NBC, HSC, KC, THSC, HCC | N/A | High (30) | Within 1-4 years | Existing monitoring programs and datasets reviewed.<br><br>Monitoring gaps, overlaps and opportunities for coordination identified.<br><br>Coordinated HNRS water quality monitoring and reporting framework developed.<br><br>Roles, responsibilities and implementation pathway agreed. |



General Meeting 11 November 2026 Attachments Page 493
Hornsby Shire Council Attachment to Report No. CE22/26 Page 156
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 3. Design a reporting and data management approach<br>> Develop the preferred structure for storing, managing, analysing and sharing water quality data.<br>> Define reporting requirements, including technical reporting, council and agency reporting, and public-facing communication.<br>> Identify opportunities for resource sharing, including equipment, laboratory services, field teams, technical support and staff training.<br><br>The output of this action would be an agreed HNRS water quality monitoring, data management and reporting framework that can be implemented through S2.CMP.B. | | | | | |
| Strategy 2: Monitoring, Evaluation, and Reporting | S2.CMP.B | Entire HNRS | Estuary-Wide | HNRS Water Quality Monitoring - Implement a Coordinated Monitoring Program | Following the completion of the monitoring program review and design process under S2.CMP.A, this action involves implementing the agreed HNRS water quality monitoring, data management and reporting framework.<br><br>The action would be delivered collaboratively through the HNRS CMP governance arrangements, with implementation roles to be confirmed during S2.CMP.A. The intent is to improve consistency, reduce duplication, support shared understanding of waterway health, and provide a stronger evidence base for coastal management decision-making.<br><br>1. Implement the coordinated monitoring program<br>> Roll out the agreed monitoring program in accordance with the sampling locations, frequency, parameters and methods developed under S2.CMP.A.<br>> Coordinate fieldwork, laboratory analysis and quality control processes across participating councils and agencies.<br>> Provide training and technical support where needed to promote consistent data collection and interpretation.<br><br>2. Deliver regular reporting and communication<br>> Prepare regular reporting on water quality conditions, trends and key findings for councils, agencies and other stakeholders.<br>> Develop a user-friendly public-facing reporting platform or communication product to share key water quality information.<br>> Present findings in a clear and accessible format to support community awareness, transparency and engagement.<br><br>3. Review and refine the program<br>> Periodically review the monitoring program to confirm it remains fit for purpose.<br>> Refine monitoring locations, parameters, methods and reporting products in response to monitoring outcomes, stakeholder feedback, emerging issues and CMP implementation needs.<br>> Use the monitoring results to inform adaptive management across the HNRS CMP. | CCC, NBC, HSC, KC, THSC, HCC | N/A | High (30) | Within 1-4 years | Coordinated monitoring program implemented.<br><br>Collected data is of tangible benefit from a research, reporting and management perspective.<br><br>Reporting mechanism established and executed. |
| Strategy 2: Monitoring, Evaluation, and Reporting | S2.CMP.C | Entire HNRS | Estuary-Wide | Implement a bank stability and condition monitoring program across the estuary foreshores | Systematically monitor and assess bank stability and geomorphic conditions in the Hawkesbury River Estuary to identify erosion risks and support effective riverbank management. While monitoring is currently conducted by individual Partner Councils, an integrated and coordinated program would enable a more comprehensive estuary-wide assessment, facilitate resource sharing, and improve cost efficiencies. This program will be designed to be cost-effective, replicable, and adaptable over time, ensuring consistent data collection and long-term riverbank health management. | CCC, NBC, HSC, THSC, HCC | DCCEEW-CPHR, NPWS | High (24) | Within 1-4 years | Monitoring undertaken and recorded.<br>Collected data is of tangible benefit from a risk and asset management perspective. |



General Meeting 11 November 2026
Attachments Page 494
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 157
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|
| Strategy 3: Resilience, Planning, and Adaptation | S3.CMP.A | Entire HNRS | Estuary-Wide | Review and update Partner Council planning instruments for alignment of a consistent best practice approach to managing stormwater and downstream estuarine water quality | The objective of this action is to establish a consistent and best-practice approach to development controls that enhance estuary health, by reviewing and updating the Development Control Plans (DCPs) and Local Environment Plan (LEP) initiatives of the six Partner Councils. This action will also set pollution reduction targets to ensure measurable improvements in estuarine environments. This action would include:<br>> Target setting: Determination of a consistent set of targets for relating to water quality and quantity that are consistent with the Risk-based Framework for Considering Waterway Health Outcomes in Strategic Land-use Planning and the NSW Water Quality Objectives .<br>> Policy review : Conducting a detailed review of the existing DCPs and LEPs across the six Partner Councils - in relation to how they address stormwater management, sediment and erosion management, and water sensitive urban design (WSUD) applications and requirements.<br>> Gap analysis: Identification of gaps, inconsistencies, and areas needing improvement in the current DCPs and LEPs, particularly those affecting estuary health.<br>> Planning proposals and amendments: Preparing planning proposals to implement the required amendments to LEPs, and drafting updates to DCPs, to embed best-practice stormwater and water quality provisions and achieve greater consistency across the catchment wherever practical.<br>This Action should use the Parramatta River Catchment Groups "Standardise the standards" initiative as an example of contemporary good practice.<br>As supporting agencies, Sydney Water and DPHI can provide technical assistance as required. | CCC, NBC, HSC, KC, THSC, HCC | DPHI-Planning and Assessment, Sydney Water | High (30) | Within 1-4 years | Review completed, and planning controls updated in a consistent manner. |
| Strategy 3: Resilience, Planning, and Adaptation | S3.CMP.B | Entire HNRS | Estuary-Wide | Review and update Partner Council planning instruments for coastal hazard risk planning controls every 10 years | The objective of this action is to establish a consistent and best-practice approach to development controls that manage coastal and estuarine hazard risk, by reviewing and updating as relevant the following planning instruments of the six Partner Councils:<br>> Development Control Plans (DCPs)<br>> Local Environment Plans (LEPs)<br>> R&H SEPP Coastal Management Areas - including the Coastal Vulnerability Area<br>Each Partner Council should review their relevant planning controls at least every 10 years, in order to ensure that these controls are based on contemporary climate change projections, consider observed coastal hazard impacts, and are consistent with state government policies. Where necessary, preparing planning proposals to implement the required amendments to LEPs and Coastal Management Areas may be required to embed best-practice. | CCC, NBC, HSC, KC, THSC, HCC | DPHI-Planning and Assessment | Low (7) | Opportunistic, within 8-10 Years | Review completed. Updated applied as necessary. |
| Strategy 3: Resilience, Planning, and Adaptation | S3.CMP.C | Entire HNRS | Estuary-Wide | Encourage eco-friendly features in seawall development applications | Partner Councils are to review and update their DCPs to encourage development applications for private seawalls to include eco-friendly features.<br>Priority should be given to designs that integrate habitat into the structure itself, including stepped seawalls incorporating marine vegetation and gently sloping rock revetments constructed from natural materials such as sandstone. These approaches should be considered before vertical seawalls and applied where site conditions, coastal processes, access needs and engineering requirements allow.<br><br>Additional measures could also include:<br>> Using textured surfaces, crevices, rock pools and other integrated habitat features to increase ecological value.<br>> Ensuring that all relevant Conditions of Consent include reference to the relevant NSW government guidance: *Environmentally Friendly Seawalls A Guide to Improving the Environmental Value of Seawalls and Seawall-lined Foreshores in Estuaries* (OEH, 2012)<br>> Providing educational material to foreshore residents promoting eco-friendly features and the ecological value they provide.<br>> Providing access to suppliers and contractors to help install ecofriendly features.<br><br>Any DCP review and subsequent implementation should be consistent with the NSW Coastal Design Guidelines 2023 (DPE, 2023a), and the Coastal Crown Lands Guidelines 2023 (DPE, 2023b). | CCC, NBC, HSC, KC, THSC, HCC | DCCEEW-CPHR, DPIRD-Fisheries, DPHI-Crown Lands | Medium (12) | Within 4-8 years | Review completed. |



General Meeting 11 November 2026
Attachments Page 495
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 158
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|
| Strategy 3: Resilience, Planning, and Adaptation | S3.CMP.D | Entire HNRS | Estuary-Wide | Develop Intertidal Marine Vegetation Strategy for Hawkesbury River estuary | Intertidal Marine Vegetation Strategies (IMVS) developed as part of the MEMS program use evidence-based methods to coordinate protection and build resilience of intertidal wetlands now and into the future. The IMVS [Hawkesbury River estuary] would contain detailed information on recommended responses to the key threats and risks to saltmarsh and mangrove communities in the Hawkesbury River estuary. It would include management actions categorised under Hydrology, Sediments, Vegetation and, People and Planning.<br><br>The IMVS would consider, with an estuary-wide perspective, the benefits of undertaking adaption actions informed by current and projected SLR. Development of such approaches is important because not acting on sea level rise, or, attempting to isolate ecological communities from their changing environmental settings ultimately reduce the time available for ecosystems to adapt or migrate, consequently increasing their vulnerability and diminishes the valuable services they provide to residence and visitors using the estuary.<br><br>IMVS actions can be delivered with suitable partnership and funding opportunities. For example, this could include:<br>> projects identified in approved Coastal Management Programs<br>> projects aligned with environmentally focused Non-Government Organisation or community groups<br>> Aboriginal land managers who are looking to deliver projects that involve working on and restoring culturally significant areas or habitats<br>> major developers that are required to offset unavoidable impacts on mangrove or saltmarsh habitat with an identified action under Section 220 of the NSW Fisheries Management Act 1994<br>> a court ordered directive for environmental rehabilitation<br><br>> private land conservation agreements under the Biodiversity Conservation Trust that facilitate the redistribution of intertidal and adjacent habitats that is underway with sea level rise<br>> enforceable undertakings under Environment Protection Authority for the purpose of s 253a Protection of Environment Operations Act 1997<br>> opportunities to participate in the emerging nature repair market. | DPIRD-Fisheries | DCCEEW-CPHR, NPWS, CCC, NBC, HSC, KC, THSC, HCC | High (32) | Within 1-4 years | Strategy completed and adopted to guide management of saltmarsh and mangroves. |
| Strategy 3: Resilience, Planning, and Adaptation | S3.CMP.E | Entire HNRS | Estuary-Wide | Develop Foreshore Stabilisation and Rehabilitation Guidelines for the HNRS | Develop comprehensive Foreshore Stabilisation and Rehabilitation Guidelines to provide clear, consistent guidance for landowners and managers on best practices for stabilizing and restoring foreshore areas. These guidelines will help balance environmental sustainability, erosion control, and land use requirements, ensuring that foreshore management aligns with ecological and planning objectives.<br>The guidelines will outline appropriate stabilisation treatments and construction techniques suited to different site conditions, promote nature-based solutions where feasible, and support ecological function while mitigating erosion risks. They will also serve as a supporting document to each Council's Development Control Plan (DCP) for foreshore and waterway development, ensuring consistent advice for development proponents across the HNRS.<br>The guidelines should build on, rather than duplicate, the bank management guidance and Decision Support Tool developed through the NSW Marine Estate Management Strategy's *Estuary Bank Management Strategies* project. These resources should be adapted to the HNRS context to support consistent assessment of bank condition, selection of appropriate stabilisation and rehabilitation treatments, and delivery of foreshore management works across the Partner Councils.<br>This approach builds on successful models, such as the Lake Macquarie City Council's foreshore management framework, which can serve as a reference point for guideline development. The guidelines should be consistent with the NSW Coastal Design Guidelines 2023 (DPE, 2023a), and the NSW Environmentally Friendly Seawalls guidelines (OEH, 2012). | CCC, NBC, HSC, KC, THSC, HCC | DCCEEW-CPHR, DPIRD-Fisheries, DPHI-Crown Lands | Medium (14) | Within 4-8 years | Guidelines prepared and endorsed, providing consistent advice across councils. |



General Meeting 11 November 2026
Attachments Page 496
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 159
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|
| Strategy 3: Resilience, Planning, and Adaptation | S3.CMP.G | Entire HNRS | Lower Estuary, Broken Bay, Pittwater | Undertake a Planning Proposal to adopt a CVA | Mapping for the Coastal Vulnerability Area (CVA) has not been provided from the RH SEPP, and no such CVA map yet exists for the HNRS. Subsequently, it is the intent of the two Partner Councils who are significantly impacted by coastal hazards (Central Coast Council and Northern Beaches Council) to propose, by way of a planning proposal, the adoption of a map indicating a CVA – which may be comprised of a combination of the following hazards across the study area, which are identified in the CM Act:<br>> Beach erosion.<br>> Shoreline recession.<br>> Estuary entrance instability.<br>> Coastal cliff and slope instability.<br>> Coastal inundation.<br>> Tidal inundation.<br>> Erosion and inundation of foreshores caused by tidal waters and the action of waves, including the interaction of those waters with catchment floodwaters.<br><br>** It is the intent of Hornsby Shire Council to undertake an initial step to review and consider the necessity and suitability of CVA mapping and undertake a gap analysis of existing R&H SEPP controls and CVA controls to inform any future decision by Hornsby Council about CVA mapping.*<br><br>It should be noted that the CM Act requires the consideration of a 100 year planning horizon (considering future climate change impacts). As such, all extents used in defining the CVA should be based on a suitable forward planning horizon, which incorporates the projected effects sea level rise on coastal hazards.<br><br>The Partner Council's existing coastal hazard mapping and controls within the LEP and DCP will be required to be updated to reflect, and be supplementary to, the proposed CVA mapping. | CCC, NBC, HSC | NPWS, DPHI-Planning and Assessment | High (24) | Within 1-4 years | Planning proposal lodged and mapping incorporated into statutory controls. |
| Strategy 3: Resilience, Planning, and Adaptation | S3.CMP.H | Entire HNRS | Estuary-Wide | Collaborate with local universities and research institutions to establish a list of research priorities for the HNRS | This Action would include the Partner Councils collaborating to determine a list of priorities for research project across the HNRS - and establishing formal connections with local universities and research institutions in order to facilitate research projects. | CCC, NBC, HSC, KC, THSC, HCC | GS LLS | Medium (8) | Within 4-8 years | Research priorities identified and partnerships established. Research output is of tangible benefit from a management perspective. |
| Strategy 4: Community & Stakeholder Engagement | S4.CMP.A | Entire HNRS | Estuary-Wide | Design and Implement a Community Engagement and Education Program to support the vision and objectives of the CMP | The action includes the design and implementation of a Community Engagement and Education Program to support the vision and objectives of the CMP. The purpose of the program would be to educate the community regarding the keys threats and risks facing the estuary system, and how they can actively contribute to mitigating these risks and improving the resilience of the coastal zone.<br>It would include the following components, or themes:<br>> Water quality and marine litter<br>> Riparian zone and foreshore management (focusing on foreshore residents)<br>> Ecosystems of the estuary and biodiversity<br>> Aboriginal and European cultural heritage values of the estuary<br>> Coastal hazard risk (focusing on residents impacted by such hazards)<br>> Recreational use impacts (including boating)<br>The program can leverage off the existing community education material developed by the state government (DPIRD-Fisheries, DCCEEW-CPHR, NPWS, TfNSW) and be implemented across the Hawkesbury River System by the Partner Councils in a strategic and integrated manner. | CCC, NBC, HSC, KC, THSC, HCC | NPWS, TfNSW, GS LLS, DPIRD-Fisheries | High (24) | Within 1-4 years | Program developed, materials produced, and implementation commenced. Improved community awareness of program subject matter. |



General Meeting 11 November 2026
Attachments Page 497
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 160
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|
| Strategy 4: Community & Stakeholder Engagement | S4.CMP.B | Entire HNRS | Estuary-Wide | Community education and outreach program for estuary frontage communities | This Action would be a specalised extension of the broader community and stakeholder education program (S4.CMP.01). The purpose of this action is to undertaken targeted engagement with private landowners in the Coastal Zone (particularly those with river frontage), in order to help increase their awareness of estuary management issues riverfront residents would be provided with information on best practice for management of the foreshore within their property boundaries – including recommended riparian species, weed identification and management.<br>The program material should leverage off information set out in the NSW Coastal Design Guidelines (DPE, 2023a), the NSW Coastal Crown Land Guidelines (DPE, 2023b), and DPIRD Fisheries Policy and Guidelines for fish habitat and conservation (DPI-Fisheries, 2013). | CCC, NBC, HSC, THSC, HCC | DCCEEW-CPHR, GS LLS, DPIRD-Fisheries, DPHI-Crown Lands | High (24) | Within 1-4 years | Program and materials created, and program implemented. Improved community awareness of program subject matter. |
| Strategy 4: Community & Stakeholder Engagement | S4.CMP.D | Freshwater Tidal Pool | Upper Estuary | Implementing a community-based carp fishing initiative | European Carp pose a serious threat to local ecosystems, degrading water quality and displacing native species. This Action involves implementing a community-based carp fishing initiative - an effective and engaging way to control invasive carp populations in the freshwater sections of the Hawkesbury River System. Such activities not only contribute to the management of this invasive species but also raise public awareness and foster ongoing community involvement in environmental conservation.<br>This could be similar to the "Catch a Carp Day" programs in other estuaries, or even could be modelled on the "Carp to Croc" program implemented by Central Coast Council | CCC, HCC, THSC, HSC | N/A | Low (6) | Opportunistic, within 8-10 Years | Program and materials created, and program implemented. |
| Strategy 4: Community & Stakeholder Engagement | S4.CMP.E | Entire HNRS | Estuary-Wide | Hawkesbury River Marine Industry Compliance & Education Campaign | Deliver a targeted compliance and education program across the Hawkesbury River to promote best-practice environmental management within the marine industry and reduce impacts on estuary health. The program will engage vessel operators, fishers, marinas, boatyards and waterfront businesses through education, industry outreach, compliance monitoring and enforcement where required.<br><br>The action will also include the development and implementation of a Hawkesbury River Vessel Waste Management Strategy to improve vessel waste collection and disposal practices. This will include assessment of pump-out infrastructure needs, promotion of oil-absorbent devices and routine pump-out services, and strengthening spill prevention and response measures to support improved water quality and protection of aquatic ecosystems. | NBC, CCC, HSC | TfNSW, DPIRD-Fisheries | Medium (18) | Within 4-8 years | Program and materials created, and program implemented. |
| Strategy 5: Estuary & Waterway Health | S5.CMP.A | Entire HNRS | Estuary-Wide | Undertake a coordinated riparian rehabilitation works program across the River System | Implement a targeted riparian rehabilitation program to improve the condition of riparian vegetation and manage the spread and introduction of weeds across the coastal zone. These activities are considered 'Environmental protection works' (EPW) for mapped coastal wetlands and littoral rainforest in accordance with the R&H SEPP, and the Standard Instrument - Principal Local Environmental Plan (2006 EPI 155a).<br><br>Figure B-1 provides an overview of the potential works areas as identified by the Partner Councils. Figures B-2 onwards provides more local, site specific mapping. These maps include overlays of R&H SEPP Coastal Wetlands and Littoral Rainforest layers, so that areas subject to EPWs are clearly identified.<br><br>Priority will be given to high-value riparian areas where weed infestations overlap with Threatened Ecological Communities (TECs), as identified using the most current and relevant Plant Community Type (PCT) mapping.<br>The program will adopt a multi-species control strategy, supported by follow-up treatment and revegetation with native species suited to each PCT. Activities will include wetland restoration, weed suppression, and the establishment of resilient native vegetation communities.<br><br>This program will be coordinated with relevant agencies, including NPWS, to leverage existing systems, datasets, and operational capacity. The approach will focus on achieving resource efficiencies through collaborative planning, shared funding opportunities, and integration with existing on-ground works programs. | CCC, NBC, HSC, HCC | DCCEEW-CPHR, DPHI-Planning and Assessment, GS LLS, NPWS, KC, THSC, | High (30) | Within 1-4 years | Restoration works successfully implemented. |



General Meeting 11 November 2026
Attachments Page 498
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 161
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|
| Strategy 5: Estuary & Waterway Health | S5.CMP.B | Entire HNRS | Estuary-Wide | Continue to support landcare networks across the river system | Landcare groups play a vital role in improving the health of waterways and foreshore environments through volunteer-driven activities. The activities range from litter collection and weed removal through to native planting and surveys of local wildlife. Support for these programs from the participating Partner Council's would in the form of:<br>> Financial and logistical support for Floating Landcare Activities - including the allocation of agreed-upon funding pipelines<br>> Technical support and identification of priority sites and activities<br>> Promotion of Floating Landcare through Council communications channels<br>> Utilising Council networks with existing businesses and chambers of commerce to actively promote Floating Landcare corporate volunteering events and donations | CCC, NBC, HSC, HCC | GS LLS, KC, THSC, | High (24) | Within 1-4 years | Support provided - and associated works undertaken and monitored. |
| Strategy 5: Estuary & Waterway Health | S5.CMP.C | Middle Estuary | Estuary-Wide | Fencing of riparian foreshores on high risk agricultural lands | Conduct a comprehensive audit of high-risk agricultural locations to identify areas where livestock access to estuaries is prevalent. Develop and implement a targeted program to undertake fencing installation and stabilisation in these critical riparian zones. It would include:<br>> Identify High-Risk Areas: Conduct field surveys and use geographic information systems (GIS) to map high-risk agricultural areas where livestock frequently access riparian zones.<br>> Evaluate Impact: Assess the extent of damage caused by livestock and prioritize sites based on the severity of impact and potential for recovery.<br>> Engage Landowners: Work collaboratively with landowners and stakeholders to secure permissions and support for the fencing installations.<br>> Install Fencing: Carry out the installation of fences in the identified high-risk areas, ensuring minimal disruption to the environment.<br>Sydney Water can provide technical assistance as required. | GS LLS | CCC, HCC, THSC | High (24) | Within 1-4 years | Works undertaken. LLS monitoring of works indicates reduced livestock impacts on waterways at nominated locations. |
| Strategy 6: Coastal Hazard Resilience | S6.CMP.A | Broken Bay, Pittwater, Lower Hawkesbury | Broken Bay, Pittwater, Lower Hawkesbury | Activate the "Coastal Hazard Emergency Action Sub-Plans" (CZEAS) for each beach as required after storm events | Undertake planning, engagement and emergency works, if appropriate, to manage beach erosion before, during and after storm events in accordance with the Coastal Zone Emergency Action Subplans for the CMP. | CCC, NBC, HSC, NPWS | DCCEEW-CPHR, NSW SES | High (30) | Within 1-4 years | Plans activated and implemented in a timely manner when needed. |
| Strategy 6: Coastal Hazard Resilience | S6.CMP.B | Entire HNRS | Estuary-Wide | Develop a Tide Alert Calendar Tool for the low lying communities of the river system to encourage citizen science in monitoring tidal inundation | There are numerous areas across the river system that are exposed to a high level of tidal inundation risk (sunny day flooding), with increasing vulnerability to this risk over time due to future sea level rise. As the tides can be predicted many years in advance, this action involves development of a "Tide Alert" Calendar, and a public engagement program. It specifically includes:<br>A) The creation of a Tide Alert Calendar: This would be a simple and practical tool that clearly communicates dates of higher-than-normal high tides to indicate when low-lying land is particularly vulnerable to tidal inundation and coastal flooding. Red-alert tide calendars are highly visual and easily interpreted, and do not require technical expertise or interpretation of large amounts of data or text.<br>B) Public awareness and citizen science: This initiative would focus on public engagement and awareness around the highest red-alert days each year, encouraging citizens to "snap the coast" at the designated time of the high tide and upload the photograph to Councils social media channels or a Council web repository. This kind of public engagement initiative allows both Council and the local community to utilize these red-alert tide days and visualize the impacts rising sea levels may have on their communities in the future. | CCC, NBC, HSC | DCCEEW-CPHR | Medium (12) | Within 4-8 years | Calendar developed, and communication system implemented - and considered to be of value by the Partner Councils and key impacted communities. |
| Strategy 6: Coastal Hazard Resilience | S6.CMP.C | Middle Estuary | Middle Estuary | Undertake a combined coastal and catchment inundation study for the middle estuary | Undertake a study of how coastal inundation and catchment flooding may combine in the middle estuary under present-day conditions and with 0.4 m and 0.9 m of sea level rise above 1990 levels. The study will identify areas where the combined effects may increase inundation extent or severity, improving understanding of current and future risk. Use the findings to inform adaptation priorities, land-use and infrastructure planning, and emergency management | CCC, HSC | DCCEEW | High (27) | Within 1-4 years | Study completed. |



General Meeting 11 November 2026
Attachments Page 499
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 162
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|
| Strategy 7: Social and Recreational Amenity | S7.CMP.A | Entire HNRS | Estuary-Wide | Prepare and implement an Environmental Tourism Strategy for the Hawkesbury River System | Prepare and implement a regional environmental tourism strategy and plan for the Hawkesbury River System. The strategy should promote sustainable tourism experiences that showcase the region's rich cultural heritage, ecological values, and natural landscapes. This would include:<br>> Stakeholder Engagement: Meetings, workshops with relevant state government agencies, and First nations Groups<br>> Review of Existing Programs: Desktop review, site visits, analysis of current tourism and heritage activities<br>> Market & Opportunity Assessment: Identification of new tourism opportunities, market demand, regional gaps<br>> Strategy & Plan Development: Drafting the strategy, incorporating feedback, producing final deliverables | First Nations Groups, CCC, NBC, HSC, KC, THSC, HCC | NPWS | Low (5) | Opportunistic, within 8-10 Years | Strategy completed, and implementation commenced. |
| Strategy 8: Cultural Heritage Protection | S8.CMP.A | Entire HNRS | Estuary-Wide | Engage First Nations teams where appropriate to undertake bush regeneration works including weeding and revegetation | To enhance the involvement of First Nations peoples in the stewardship and management of the estuary system and its catchment by building strong, collaborative partnerships with First Nations Ranger Groups and Bush Regeneration Teams. This approach aims to integrate traditional knowledge and contemporary conservation practices for sustainable environmental management. This would include:<br>> Identify key First Nations Ranger Groups and Bush Regeneration Teams that are active in the region. Initiate dialogues to understand their perspectives, goals, and areas of expertise.<br>> Engage teams where appropriate to undertake bush regeneration works including weeding and revegetation<br>> Provide training and capacity-building opportunities to First Nations Rangers and community members. This can include workshops on estuary management, ecological monitoring, and restoration techniques. | First Nations Groups, CCC, NBC, HSC, KC, THSC, HCC | GS LLS, NPWS | High (24) | Within 1-4 years | Quantifiably increased role for FN Groups in coastal management across the LGA |
| Strategy 8: Cultural Heritage Protection | S8.CMP.B | Entire HNRS | Estuary-Wide | Further develop and implement community education programs for awareness and appreciation of Indigenous cultural heritage | Develop and implement a program of Indigenous cultural education activities along the HNRS. The objective is to increase community awareness and appreciation of the Indigenous cultural heritage values of the estuary and Indigenous management practices along the Hawkesbury River. This Action would be a specalised extension of the broader community and stakeholder education program (S4.CMP.01). | First Nations Groups, CCC, NBC, HSC, KC, THSC, HCC | GS LLS, NPWS | High (24) | Within 1-4 years | Program and materials created, and program implemented. |
| Strategy 8: Cultural Heritage Protection | S8.CMP.C | Entire HNRS | Estuary-Wide | Support cultural education and awareness of estuary health issues for First Nations Groups | Provide funding and technical support for the development of a coordinated program of cultural education activities that are designed to enable local First Nations groups to further their understanding and awareness of key estuary health issues and associated management approaches. The objective of these activates are to increase First Nations participation in catchment and estuary management. | First Nations Groups, CCC, NBC, HSC, KC, THSC, HCC | GS LLS, NPWS | High (24) | Within 1-4 years | Support provided and considered to be of tangible benefit to FN Groups |
| Strategy 8: Cultural Heritage Protection | S8.CMP.D | Entire HNRS | Estuary-Wide | Develop a Hawkesbury heritage central display | Develop a mobile exhibition for the display of artefacts, models, and other items that educates the community and tourists about the maritime heritage of the river. The exhibition will be designed to travel between locations for public display.<br><br>The mobile format will enable the exhibition to be hosted at a variety of venues — such as community centres, libraries, schools, and local events — increasing its accessibility and reach. It will allow for seasonal or themed displays, incorporate interactive elements, and be adaptable to different audiences. This approach will maximise opportunities for community engagement, foster pride in local heritage, and promote the river's historical significance to both residents and visitors | CCC, NBC, HSC, THSC, HCC | First Nations Groups, KC, | Low (5) | Opportunistic, within 8-10 Years | Display developed. |
| Strategy 8: Cultural Heritage Protection | S8.CMP.E | Entire HNRS | Estuary-Wide | Identify opportunities for, and undertake cultural land management practices, including cultural burning | The Partner Council's should engage with local First Nations groups to identify opportunities for, and undertake cultural practices (including cultural burning) across the river catchment where culturally and ecologically appropriate. This would involve the Partner Councils working closely with local First Nations Groups to develop and implement appropriately.<br>This action can link with existing technical resources regarding cultural land management practices currently used by NPWS, NWS RFS, and GS LLS - and liaising with these agencies to technical advice communications regarding activities. | First Nations Groups, CCC, NBC, HSC, KC, THSC, HCC | NPWS, RFS, GS LLS, | Medium (10) | Within 4-8 years | Quantifiably increased role for FN Groups in coastal management across the LGA |



General Meeting 11 November 2026
Attachments Page 500
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 163
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|
| Strategy 8: Cultural Heritage Protection | S8.CMP.F | Entire HNRS | Estuary-Wide | Engage with local First Nations Groups to protect and preserve cultural heritage items across the coastal zone | This action involves engaging with the relevant First Nations Groups to protect and preserve Aboriginal Cultural Heritage (ACH) items across the Hawkesbury River System. It is anticipated that there would be four main tasks for this action:<br>> Consultation with the relevant First Nations Groups.<br>> A literature review of existing ACH databases (such as AHIMS) and existing cultural heritage plans<br>> An Aboriginal cultural heritage survey of the legally defined coastal zone, which should include field work, and recording of cultural heritage sites (such as middens sites) and detailed documentation of findings.<br>> The development and prioritisation of local, site specific management plans for protection and preservation of sites exposed to coastal hazard risk. | First Nations Groups, CCC, NBC, HSC, KC, THSC, HCC | NPWS | High (30) | Within 1-4 years | Local protection actions identified and implemented. |
| Strategy 8: Cultural Heritage Protection | S8.CMP.G | Entire HNRS | Estuary-Wide | Identify locations for cultural connections across the HNRS | Identify, map, and promote key locations across the HNRS that support cultural connections – including opportunities for gathering, knowledge sharing, and strengthening the interrelationship of ideas, people, and Country. This may include locations of cultural significance aligned with known songlines or other important cultural pathways. Key elements include:<br>> Engage with Traditional Custodians to identify culturally significant places, especially those already mapped or emerging from projects such as the Wisemans Ferry cultural mapping initiative.<br>> Focus on public land where opportunities exist for culturally respectful access and use – including Council-managed Crown Land subject to Plans of Management (PoMs).<br>> Explore the use of these locations for cultural gathering places, yarning circles, interpretive signage, art installations, or ceremonial activities, where appropriate.<br>> Explore opportunities, in partnership with Traditional Custodians, to pursue dual naming of the Hawkesbury River through the Geographical Names Board of NSW, recognising Dyarubbin as an Aboriginal first placename for the river. | First Nations Groups, CCC, NBC, HSC, KC, THSC, HCC | NPWS | High (24) | Within 1-4 years | Connection areas identified and implemented. |



General Meeting 11 November 2026
Attachments Page 501
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 164
ATTACHMENT 1 - ITEM 7

## 5.4 Local Implementation Plan: Hawkesbury City Council LGA

A summary of the actions within the Hawkesbury City Council Local Implementation Plan are provided in Table 5.4. Maps depicting relevant actions are provided in Appendix B.

**Table 5.4 Action Table - Hawkesbury City Council Local Implementation Plan**

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|
| Strategy 3: Resilience, Planning, and Adaptation | S3.HCC.A | Freshwater Tidal Pool | LGA Wide | Write a specific WSUD chapter in Hawkesbury City Council DCP | Water Sensitive Urban Design (WSUD) is an approach to urban planning that integrates land and water planning and management into urban design. WSUD is based on the premise that urban development and redevelopment must address the sustainability of water. WSUD s one of the key management measures that can control pollutants, such as nutrients, sediments, pathogens and gross pollutants, being exported into the estuary from urban lands.<br>It is recommended that Council specifies and applies pollution reduction targets within their Development Control Plan. Council should accompany this with a WSUD policy, which advocates WSUD as a means to help achieve proposed pollution reduction and improve the quality of inflows entering the Hawkesbury River and the broader Estuary (especially nitrogen, phosphorus and suspended sediments). | HCC | N/A | High (30) | Within 1-4 years | DCP updated. |
| Strategy 3: Resilience, Planning, and Adaptation | S3.HCC.B | Freshwater Tidal Pool | LGA Wide | Environmental Conservation zoning for coastal wetland areas | Analysis undertaken in the CMP has identified a number of locations around the Upper Estuary foreshore and waterways where land containing important coastal wetlands mapped under the NSW Hazards and Resilience State Environmental Planning Policy (RH SEPP) is currently not zoned as a "'conservation zones" in the Local Environment Plan. This action would therefore involve Council investigating land use planning options for improved coastal and environmental management – including potential rezoning of RHSEPP Mapped coast wetland areas from to a C2 (Environmental Conservation). The purpose of a LEP zoning amendment would be to protect and preserve its environmental values of these wetlands for future generations, and to help enhance the resilience of these wetlands to future sea level rise by allowing for upslope migration pathways. | HCC | DPHI-Planning and Assessment | Medium (12) | Within 4-8 years | LEP Zoning Amendment completed. |
| Strategy 4: Community & Stakeholder Engagement | S4.HCC.A | Freshwater Tidal Pool | LGA Wide | Establish an environmental program for Agricultural Operators across the Hawkesbury LGA | The Action would involve developing an environmental program for Agricultural Operators across the LGA through targeted extension, technical assistance and grants to improve on-farm management practices, and in doing so, reduce the impacts of horticulture on downstream estuary health.<br>This would include providing education regarding:<br>> The importance of native and healthy riparian vegetation in stabilising riverbanks and providing key fish habitat<br>> On-site management drainage and water quality<br>The program can utilise existing education materials from GS LLS and the DPIRD Fisheries "fish-friendly farms" initiative.<br>The program can also provide technical assistance for operators by providing information regarding available State Government grants and other funding mechanisms to help implement adopt enhanced land management practices – with a focus on improving downstream estuary health outcomes. | HCC | WSU, GS LLS, Sydney Water | High (27) | Within 1-4 years | Program successfully implemented over CMP 10 year lifecycle. |
| Strategy 4: Community & Stakeholder Engagement | S5.HCC.A | Freshwater Tidal Pool | LGA Wide | Supporting private landowners to undertake best practice management of their riparian zones | Incentivizing private landowners to undertake best practice management of their riparian zones involves implementing strategies that encourage and support sustainable and environmentally friendly practices along waterways on private lands. This would include providing education regarding the importance of native and healthy riparian vegetation in stabilising riverbanks and providing key fish habitat. It would also provide assistance private land owners by providing information regarding available State Government grants and other funding mechanisms to help implement adopt enhanced land management practices such as:<br>> revegetation of riverbanks<br>> fencing of riverbanks for stock exclusion<br>> weed control<br>> erosion control and bank stability enhancement<br>It could also provide access to Councils nursery to promote planting of native riparian vegetation. | HCC | GS LLS | Medium (21) | Within 4-8 years | Program successfully implemented over CMP 10 year lifecycle. |
| Strategy 5: Estuary & Waterway Health | S5.HCC.B | Freshwater Tidal Pool | LGA Wide | Continue Council's Yabby Trap Round-Up Program | Opera House yabby traps are illegal in NSW and no longer permitted to be used as they have been implicated in the drowning of air breathing fauna such as platypus, turtles, and water rats.<br>This program involves using the CMP to fund the continued implementation of Councils Yabby Trap Round-Up program. The program allows community members to drop off their Opera House yabby traps at designed locations so that they can be recycled into useful products for fishers, with the proceeds funding habitat restoration. | HCC | DPIRD-Fisheries | Low (6) | Opportunistic, within 8-10 Years | Program successfully implemented over CMP 10 year lifecycle. |



General Meeting 11 November 2026
Attachments Page 502
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 165
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|
| Strategy 6: Coastal Hazard Resilience | S6.HCC.A | Freshwater Tidal Pool | Cumberl and Reach | Coastal Protection Works at Holmes Drive Reserve | In Stage 2 of the CMP, the bank erosion at Holmes Drive Reserve was investigated - referred to as Site HCC27 in the Stage 2 Report (Alluvium, 2022b). Based on the outcomes of the MCA, the recommended stabilisation option for management is "Bank reprofiling, large wood installation and revegetation". As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be "activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters". These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works:<br>> Foreshore survey (if/where required)<br>> Preparation of an engineering design report and detailed design by suitably qualified engineers – specifying key design parameters.<br>> Bank reprofiling to a slope of 1V:3H to aid in vegetation establishment and improve slope stability to reduce the risk of mass failure<br>> Establishment of riparian vegetation along the reprofiled bank and overbank zone (≈ 5 m). This will increase the root network at the top of the bank providing a greater degree of reinforcement and decreasing the level of bank saturation by intercepting precipitation and by transpiration<br>>Large wood installed at the toe of the bank will provide structural protection to dissipate the wave energy and protect the bank from wave action and fluvial scour. Each log will be secured by a timber pile at each end lashed together with stainless steel cable<br>> Stormwater outflow upgrade to include scour protection (e.g. piped outlet with rock protection)<br>> Fish habitat features such as concrete habitat reefs could also be incorporated below low tide level on the subtidal bench (Optional)<br>>Formalised access such as aluminium stairs should be installed to provide safe public access to the beach area.<br>References:<br>> Figure B-6 provides the location and indicative extent of the proposed CPW.<br>> Figure C-4 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. | HCC | DCCEEW-CPHR | High (24) | Within 1-4 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |
| Strategy 6: Coastal Hazard Resilience | S6.HCC.B | Freshwater Tidal Pool | Sackville | Coastal Protection Works at Churchills Wharf Reserve | In Stage 2 of the CMP, the bank erosion at Churchills Wharf Reserve was investigated - referred to as Site HCC26 in the Stage 2 Report (Alluvium, 2022b). The site is approximately 25 m in length and is located on the left bank (looking downstream) of the Hawkesbury River at the beginning of the outside of a tight meander, encompassing the Churchills Wharf Reserve (Sackville Ferry). There has been significant bank retreat of up to 5 m between 2010 and April 2022, and without management intervention ongoing erosion and bank retreat will likely place the car park and amenities block at risk. Bank reprofiling and construction of a rock toe are recommended at this site. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be "activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters". These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works:<br>> Foreshore survey (if/where required)<br>> Preparation of an design report by suitably qualified practitioner – specifying key design parameters.<br>> Reprofiling of the steep upper bank to a more stable gradient - This will reduce the likelihood of further slumping or large-scale failures by creating a more geotechnically stable slope profile.<br>> Revegetation of the upper bank - Native riparian vegetation will be planted to provide long-term surface stabilisation, improve habitat values, and reduce erosive forces from rainfall and runoff.<br>> Construction of a rock toe - A robust rock toe will be installed at the base of the bank to provide structural support, protect against ongoing fluvial scour, and anchor the reprofiled slope.<br>References:<br>> Figure B-5 provides the location and indicative extent of the proposed CPW.<br>> Figure C-10 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations. | HCC | DCCEEW-CPHR | High (24) | Within 1-4 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |



General Meeting 11 November 2026
Attachments Page 503
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 166
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. | | | | | |
| Strategy 6: Coastal Hazard Resilience | S6.HCC.C | Freshwater Tidal Pool | Ebenezer | Provide technical advice to utilities providers regarding infrastructure risk at Argyle Bailey Memorial Reserve | In Stage 2 of the CMP, the bank erosion at Argyle Bailey Memorial Reserve was investigated (referred to as Site HCC25b). The site is approximately 160 m in length and is located on the left bank on a meander of the Hawkesbury River adjacent to Argyle Bailey Reserve at Ebenezer.<br><br>The erosion is currently placing at risk a number of utilities assets, including three power poles and associated transmission lines owned by Endeavour Energy. These assets are located on Council Managed Crown Land (Lot No: 556/-/DP704504). Analysis in Stages 2 and 3 of the CMP indicate that landward relocation of the assets represents the most cost effective solution.<br><br>This Action involves Council formally advising Endeavour Energy of the current and projected erosion risk to their infrastructure located within the reserve. While Council does not own the assets, it has a duty to highlight the public safety risk associated with the ongoing erosion. It is expected that Endeavour Energy will consider this advice in determining appropriate asset relocation measures. | HCC | N/A | Medium (18) | Within 4-8 years | Advice provided. |
| Strategy 6: Coastal Hazard Resilience | S6.HCC.D | Freshwater Tidal Pool | Windsor | Coastal Protection Works Investigation and Design: The Terrace, Windsor | In Stage 2 of the CMP, the bank erosion at The Terrace (Windsor) was investigated (referred to as Site HCC24). The site is approximately 340 m in length and is located on the right bank of the Hawkesbury River immediately adjacent to The Terrace at Windsor.<br>The 2022 flood events had a significant impact on the site. Across the extent of the site, there has been stripping of understory vegetation (primarily weeds) which has left the bank surface exposed. Major erosion has occurred at two locations resulting in significant damage to the public pedestrian path and loss of the upper bank gabion wall in both locations.<br>The Stage 2 Study noted that more detailed investigations are required to determine the nature and extent of the required coastal protection works. Given the height and steepness of the bank, limited or no setback available at the top of the bank, and lack of intertidal bench the management options will likely largely be limited to a 'hard' engineering approach. For example, this may require the construction of a retaining wall structure at the toe of the bank to enable infill of the upper bank with some combination of rock and suitable compacted soil, followed by revegetation. However, significant geotechnical investigations and design will be required to determine the appropriate extent of works, slope stability, type of works, and construction methodology. Figure B-2 and B-3 provides the location of the design investigation. | HCC | DCCEEW-CPHR | High (27) | Within 1-4 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |
| Strategy 6: Coastal Hazard Resilience | S6.HCC.E | Freshwater Tidal Pool | Windsor | Foreshore Management Works at Governor Phillip Park | The foreshore at Governor Phillip Park experienced a bank erosion and landslip event following flooding in 2022, and continues to experience ongoing erosion from tidal waters. This erosion has impacted the public walkway, and the erosion scarp is within a 10 m proximity to the Upper Hawkesbury Power Boat Club building. Reprofiling and revegetation of the bank are proposed at this site to restore the bank, improve its natural resilience and maintain safe public access.<br>For the purposes of this CMP, the works are classified as Environmental Protection Works, reflecting their focus on rehabilitation of the natural foreshore using non-structural treatments. The site is not located within or near a mapped Coastal Wetlands and Littoral Rainforests Area under the R&H SEPP.<br>These works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works:<br>> Flattening the slope of the landslip area to a more stable slope (1V:3H)<br>> Planting of native riparian vegetation across the foreshore of Governor Phillip Park in order to increase erosion resilience - with an emphasis on low height vegetation in order to maintain safe sightlines to the river for recreational boating and water sports.<br>> Realignment of the public walkway<br>> Frequent monitoring of the foreshore<br>References:<br>> Figure B-3 and B-2 provides the location and indicative extent of the proposed works.<br>> Figure C-5 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway: | HCC | DCCEEW-CPHR | Medium (14) | Within 4-8 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |



General Meeting 11 November 2026
Attachments Page 504
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 167
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
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| | | | | | The works associated with this action are categorised as waterway or foreshore management activities under the T&I SEPP and appropriate planning pathways will be used during action implementation. | | | | | |
| Strategy 7: Social and Recreational Amenity | S7.HCC.A | Freshwater Tidal Pool | Pitt Town | Punt Road Public Boat Ramp - Upgrade Feasibility Study | The boat ramp at Punt Road Pitt Town (and the access road leading to it) are in relatively poor condition and currently presents challenges for safe launching and retrieval, particularly due to shallow water depths. These constraints limit usability and pose safety risks. This Action involves investigation into the feasibility of upgrading the boat ramp and access road to improve safety and usability for both powered and non-powered vessels. The feasibility assessment will consider:<br>> The dynamic nature of the foreshore<br>> The need for all-tide or partial-tide access<br>> The ramp gradient and depth requirements to avoid vehicles entering excessive distances into the river<br>> Compliance with the TfNSW Boat Ramp Facility Guidelines<br>Subject to the outcomes of the investigation, detailed design and resurfacing works may be undertaken. This action may be eligible for external funding under Transport for NSW boating infrastructure grant programs. | HCC | TfNSW | Medium (12) | Within 4-8 years | Study completed. |



General Meeting 11 November 2026
Attachments Page 505
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 168
ATTACHMENT 1 - ITEM 7

## 5.5 Local Implementation Plan: The Hills Shire Council LGA

A summary of the actions within The Hills Shire Council Local Implementation Plan are provided in Table 5.5. Maps depicting relevant actions are provided in Appendix B.

**Table 5.5 Action Table – The Hills Shire Council Local Implementation Plan**

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|
| Strategy 6: Coastal Hazard Resilience | S6.THC.A | Freshwater Tidal Pool | Lower Portland | Implement the outcomes of the Blundells Swamp Inundation Mitigation Study | River Road frequently experiences inundation at Blundells Swamp due to the combined effects of coastal and catchment flooding. This persistent issue poses challenges for infrastructure resilience, access, and safety. To address these concerns, a comprehensive investigation will be undertaken to assess potential options for reducing inundation risk.<br>THSC has recently completed an options assessment to identify an optimised solution to mitigate inundation risk while preserving the sensitive environmental values of the lagoon. This Action therefore includes undertaking a detailed environmental assessment technical study.<br>Blundells Swamp is mapped as a coastal wetland under the Resilience and Hazards State Environmental Planning Policy (RHSEPP) and serves as a locally significant wildlife refuge. The lagoon system provides important habitat for native flora and fauna, including species reliant on wetland ecosystems. Changes to hydrology, drainage, or land use would be thoroughly evaluated to prevent unintended ecological impacts. A robust environmental assessment is essential to safeguarding the long-term health of the wetland ecosystem while developing solutions that enhance the resilience of River Road. | THSC | DCCEEW-CPHR | High (24) | Within 1-4 years | Study completed. |
| Strategy 6: Coastal Hazard Resilience | S6.THC.B | Upper Estuary | Wisemans Ferry | Coastal Protection Works at Wisemans Ferry | In Stage 2 of the CMP, the bank erosion at Wisemans Ferry was investigated (referred to as Site HSC45b in the Stage 2 Report (Alluvium, 2022b). The site is approximately 50 m in length and is located on the right bank on the inside of a tight meander. The erosion is within 18 m of public assets including a car park and recreational infrastructure (picnic benches). The Stage 2 Report recommended a seawall constructed of geotextile sand containers (GSCs).<br>As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be "activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters". These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works:<br>It is anticipated that over time the natural replenishment observed at the downstream extent will continue upstream, however the following works should be implemented as an interim measure in order to reduce public safety risk:<br>> Foreshore survey (if/where required)<br>> Preparation of an engineering design report and detailed design by suitably qualified engineers – specifying key design parameters.<br>> Installation of sand-filled geobags at the upstream extent to approximately 0.5 m above high tide level - in accordance with the approved detailed design, including site preparation, placement of GSCs to specified alignment and levels, and completion of ancillary works such as reinstatement of adjoining foreshore areas and access paths.<br>> Reprofiling of steeper upper bank (backfill to geobag toe to a gentle slope i.e. min 1V:3H)<br>> Formalised access installation such as a rollout composite boardwalk<br>> Establishment of riparian vegetation along the reprofiled bank and overbank zone (≈ 5 m).<br>> Ongoing monitoring of the site<br>References:<br>> Figure B-9 provides the location and indicative extent of the proposed CPW.<br>> Figure C-1 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. | THSC | DCCEEW-CPHR | High (24) | Within 1-4 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |
| Strategy 6: Coastal Hazard Resilience | S6.THC.C | Upper Estuary | Wisemans Ferry | Coastal Protection Works at Webbs Creek Ferry Foreshore | Severe bank erosion is occurring over a 100 m stretch of foreshore immediately south of the Webbs Creek Ferry. Erosion is impacting an amenities block, which has now been closed and demolished in order to reduce public safety risk. The erosion is within 5 m of River Road in some locations. A bank remediation design should be developed and implemented that includes reprofiling, vegetation, and the installation of woody debris. | THSC | DCCEEW-CPHR | High (24) | Within 1-4 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |



General Meeting 11 November 2026
Attachments Page 506
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 169
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
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| | | | | | As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be "activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters". These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works:<br>The remediation design should incorporate sustainable and resilient solutions to stabilize the foreshore while considering environmental impacts, hydrodynamic conditions, and long-term maintenance requirements. The proposed works include:<br>> Bank reprofiling to a slope of 1V:3H to aid in vegetation establishment and improve slope stability to reduce risk of mass failure<br>> Establishment of riparian vegetation along the reprofiled bank and overbank zone (≈ 5 m)<br>> Large wood installation to provide structural toe protection<br>References:<br>> Figure B-9 provides the location and indicative extent of the proposed CPW.<br>> Figure C-4 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. | | | | | |
| Strategy 6: Coastal Hazard Resilience | S6.THC.D | Freshwater Tidal Pool | Leets Vale | Erosion investigation and design at River Road, Leets Vale | In Stage 2 of the CMP, the bank erosion at Leets Vale was investigated - referred to as Site HSC41 and HSC 42 in the Stage 2 Report (Alluvium, 2022b). The foreshore at these two sites comprise a mix of exposed bedrock, rock rubble and rock revetment at water level that are protecting road infrastructure. Some sections are new and engineered, others older and in need of maintenance.<br>Sections of old rock revetment in variable condition that may require structural assessment and redesigns or infill/top up of existing material. There is insufficient information to develop and assess discrete options that account for the variability in conditions across the sites. It is recommended more detailed investigations are undertaken including geotechnical design/condition assessment, and survey including bathymetry to develop and assess appropriate management options at the site. While the erosion rate appears to be low, ongoing monitoring is recommended given the proximity to road infrastructure. Ultimately management options are likely going to be limited to hard engineering approaches such as rock revetment due to the limited set back and proximity to road assets.<br>Figure B-8 provides the location and indicative extent of the proposed investigation study area. | THSC | DCCEEW-CPHR | Medium (21) | Within 4-8 years | Study completed. |
| Strategy 6: Coastal Hazard Resilience | S6.THC.E | Freshwater Tidal Pool | Lower Portland | Coastal Protection Works at River Road, Lower Portland | In Stage 2 of the CMP, the bank erosion at Lower Portland was investigated - referred to as Site HSC34 in the Stage 2 Report (Alluvium, 2022b). The site is approximately 20 m in length and is located on the right bank on an outside meander of the Hawkesbury River. River Road is between 5 – 10 m from the top of the bank, and the identified management approach for the site includes bank reprofiling, revegetation, and monitoring.<br>As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be "activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters". These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works:<br>Erosion remediation at this site would include:<br>> Bank reprofiling to a slope of 1V:3H to aid in vegetation establishment and improve slope stability to reduce the risk of mass failure<br>> Establishment of riparian vegetation along the reprofiled bank and overbank zone (≈ 5 m). This will increase the root network at the top of the bank providing a greater degree of reinforcement and decreasing the level of bank saturation by intercepting precipitation and by transpiration.<br>> Ongoing monitoring and evaluation of the site should be undertaken every ~2 years.<br>References:<br>> Figure B-7 provides the location and indicative extent of the proposed CPW.<br>> Figure C-5 provides a concept design cross-section. Note that key design parameters would | THSC | DCCEEW-CPHR | Medium (10) | Within 4-8 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |



General Meeting 11 November 2026
Attachments Page 507
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 170
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. | | | | | |



General Meeting 11 November 2026
Attachments Page 508
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 171
ATTACHMENT 1 - ITEM 7

## 5.6 Local Implementation Plan: Hornsby Shire Council LGA

A summary of the actions within the Hornsby Shire Council Local Implementation Plan are provided in Table 5.5. Maps depicting relevant actions are provided in Appendix B.

**Table 5.6 Action Table – The Hornsby Shire Council Local Implementation Plan**

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|
| Strategy 5: Estuary & Waterway Health | S5.HSC.A | Middle Estuary | Parsley Bay | Installation of Stormwater Quality Improvement Devices at Parsley Bay | The project involves the installation of a vortex-style gross pollutant trap and a biofilter to treat the runoff from a 10-hectare catchment area flowing into the bay. The biofilter, which is subject to design, could consist of a series of stepped salt marsh areas leading into Parsley Bay from the stormwater outlet. This innovative approach aims to remove up to 1.5 tonnes of pollution annually from entering Parsley Bay, significantly improving the water quality and overall health of the bay's ecosystem | HSC | DCCEEW-CPHR | High (24) | Within 1-4 years | Works completed. |
| Strategy 5: Estuary & Waterway Health | S5.HSC.B | Middle Estuary | Brooklyn | Installation of Stormwater Quality Improvement Devices at The Gateway | The project involves the installation of a vortex-style gross pollutant trap on Dangar Road, situated between the Brooklyn Leisure Centre and the bay. This system will treat runoff from a 13-hectare catchment area. By implementing this solution, the project aims to remove 1.2 tonnes of pollution annually from entering the Brooklyn Wharf area, thereby enhancing the water quality and overall environmental health of the region. | HSC | DCCEEW-CPHR | High (24) | Within 1-4 years | Works completed. |
| Strategy 5: Estuary & Waterway Health | S5.HSC.C | Middle Estuary | Brooklyn | Installation and upgrade of Stormwater Quality Improvement Devices at Brooklyn Park | The project involves the installation of an appropriate gross pollutant trap and the upgrading of the existing wetland at Brooklyn Park. This initiative aims to mitigate the impact of the urban catchment on the estuary at this location. By implementing these measures, the project is expected to remove 5 tonnes of gross pollution and nutrient pollution annually, thereby significantly improving the water quality and ecological health of the estuary. | HSC | DCCEEW-CPHR | High (24) | Within 1-4 years | Works completed. |
| Strategy 6: Coastal Hazard Resilience | S6.HSC.A | Lower Estuary | Parsley Bay | Repair and renewal of the Parsley Bay Breakwater (Coastal Protection Works) | Asset condition inspections by Hornsby Shire Council have indicated that the Parsley Bay rock-armoured breakwater structure is in a relatively poor structural condition. The breakwater provides an important function to the safe operability of the Parsley Bay boat ramp by providing protection from south-easterly waves. A repair and renewal project will be undertaken to maintain the function of the structure, extend the functional life, and adapt it for future sea level rise impacts. The objective of this repair would be to return the structure to a "make safe" condition, and extend the life of the structure by another 50+ years. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be "activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters". These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore.<br>Scope of Works:<br>Repair and renewal works would likely comprise the placement of additional rock armour units and repacking of units to increase interlocking and hydraulic stability. It would also include raising the crest level to mitigate future SLR impacts – however this would be subject to a detailed design process. Specific works for this project would therefore include:<br>> Structure Survey and coastal engineering condition inspection: To survey the structure and identify the exact nature of the required repair and renewal works - including the required quantity of rock armour material.<br>> Land tenure and authorisation review: Confirm the existing authorisations applying to the breakwater and associated maritime assets, identify any additional requirements under the *Crown Land Management Act 2016*, and establish an appropriate long-term tenure arrangement for their management and renewal<br>> Breakwater repair and renewal design: To prepare a specific repair design detailing the sizing and quantity of the required rock armour, and specifying the required grades and levels.<br>> Repair and renewal works: Implementation of the repair design, including a safety in design assessment, construction of the works and development of As-Constructed certification from an suitably qualified engineer for Council records.<br>The repair design should also include provision of safe waterway access ramp for non-powered craft (kayaks, sailing boats) at the south-eastern trunk of the breakwater. | HSC | DCCEEW-CPHR, DPHI-Crown Lands | High (24) | Within 1-4 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |



General Meeting 11 November 2026
Attachments Page 509
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 172
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
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| | | | | | References:<br>> Figure B-14 provides the location and indicative extent of the proposed CPW.<br>> Figure C-10 provides a reference concept for the repair works. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. Any required Crown landowner consent, tenure arrangements or other authorisations would be resolved with DPHI - Crown Lands before construction. | | | | | |
| Strategy 6: Coastal Hazard Resilience | S6.HSC.B | Lower Estuary | Parsley Bay | Repair and renewal of the Loading Dock Access Road Coastal Protection Works | This work will focus on reinforcing the seawall's structural stability to prevent erosion and maintain the integrity of the access road. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be "activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters". These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore.<br>Scope of Works:<br>> Structure Survey and coastal engineering condition inspection: To survey the structure and identify the nature of the required repair and renewal works<br>> Repair and renewal design: To prepare a specific repair design detailing the sizing and quantity of the required armour, and specifying the required grades and levels.<br>> Repair and renewal works: Implementation of the repair design, including a safety in design assessment, construction of the works and development of As-Constructed certification from a suitably qualified engineer for Council records. The works will comprise the repair of the structure of a make-safe / functional condition - through the placement of additional rock armour units on the structure in locations where it has experienced significant armour unit loss, core exposure, and loss of crest height and width. The objective would be to extend the life of the structure by another 50+ years. The renewal will ensure long-term protection against coastal hazards and improve the overall safety and resilience of the infrastructure.<br>References:<br>> Figure B-14 provides the location and indicative extent of the proposed CPW.<br>> Figure C-10 provides a reference concept for the repair works. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. | HSC | DCCEEW-CPHR, DPHI-Crown Lands | Medium (16) | Within 4-8 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |
| Strategy 6: Coastal Hazard Resilience | S6.HSC.C | Middle Estuary | Brooklyn | Brooklyn Road sea level rise adaptation planning | Inspection of topographic road survey and future sea level rise projections has indicated that up to 200 m of Brooklyn Road will be impacted by sunny day tidal inundation under a +0.5 m sea level rise (SLR) scenario, with up to 1 km impacted under a +1.0 m SLR scenario. Therefore, road raising will be required in order to maintain safe all-tide vehicle access in the future.<br>This Actions covers planning and design work for the eventual upgrade. It does not include delivery of the physical road upgrade or construction works. Works in the Action will include:<br>>Topographic/detail survey: Collection of accurate elevation and alignment data to inform design layouts. This should also include obtaining boundary survey along the subject sections of road.<br>> Geotechnical and pavement testing: Assessment of subgrade conditions and pavement strength to guide design of suitable raising treatments.<br>> Waste Classification Report: For any excavated earth material that will need to be taken to a licenced landfill or recycling facility (during demolition/preparation stage).<br>> Hydraulic and climate resilience assessment: Analysis of SLR and drainage conditions to develop resilient road profiles.<br>> Concept design and options report: Preparation of design scenarios, staging options, and costed concept layouts.<br>> Cost estimates by registered Quantity Surveyor | HSC | DCCEEW-CPHR | Low (7) | Opportunistic, within 8-10 Years | Design prepared. |



General Meeting 11 November 2026
Attachments Page 510
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 173
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
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| | | | | | > Stormwater Drainage design: To ensure surface water is not trapped on the high side of the road when the road level is raised. This will also include assessment of stormwater discharging from piped outlets will be suitably treated.<br>> Traffic Management Plan / Construction Methodology: Details on how construction would be staged and managed to allow motorists (and emergency vehicles) to pass the works at all times.<br>> Obtaining relevant Planning Approval (including consulting with relevant Agencies)<br>The eventual implementation (which is not included in this CMP) may be initiated through one of two pathways:<br>> Trigger Based: Implementation once sea levels reach a defined threshold (+0.5 m SLR).<br>> Opportunistic: Integration with future road renewal programs or as funding opportunities arise.<br>The study area for the investigation is provided in Figure B-13. | | | | | |
| Strategy 6: Coastal Hazard Resilience | S6.HSC.D | Middle Estuary | Brooklyn | Repair and renewal of the Coastal Protection Works at Wharf Street | Foreshore improvement works at the end of Wharf Street will focus on renewal of the existing seawall (which is in poor structural condition) and providing safe recreational access to the waterway for passive recreation. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be "activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters". These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access<br>Scope of Works:<br>> Foreshore survey (if/where required)<br>> Land tenure and authorisation review: Confirm the existing authorisations applying to the maritime assets, identify any additional requirements under the *Crown Land Management Act 2016*, and establish an appropriate long-term tenure arrangement for their management and renewal<br>> Preparation of an engineering design report and detailed design by suitably qualified engineers – specifying key design parameters.<br>> Renewal of the existing seawall to provide long-term protection for Wharf Street and associated public infrastructure against coastal hazards. The renewal works will include replacement of the existing structure with a stepped sandstone blockwork seawall.<br>> Incorporation of waterway access for non-powered vessels into the renewal design<br>> Stormwater management at the end of Wharf Street to prevent overland flows damaging the structure from behind.<br>References:<br>> Figure B-13 provides the location and indicative extent of the proposed CPW.<br>> Figure C-9 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. | HSC | DCCEEW-CPHR | Medium (18) | Within 4-8 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |
| Strategy 6: Coastal Hazard Resilience | S6.HSC.E | Middle Estuary | Bar Island | Repair and renewal of the Bar Island jetty Coastal Protection Works | This work will focus on reinforcing the seawall's structural stability to prevent erosion and maintain the integrity of the access jetty. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be "activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters". These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore.<br>Scope of Works:<br>> Structure Survey and coastal engineering condition inspection: To survey the structure and identify the nature of the required repair and renewal works<br>> Repair and renewal design: To prepare a specific repair design detailing the sizing and quantity of the required armour, and specifying the required grades and levels.<br>> Repair and renewal works: Implementation of the repair design, including a safety in design assessment, construction of the works and development of As-Constructed certification from a suitably qualified engineer for Council records. The works will comprise | HSC | DCCEEW-CPHR | High (24) | Within 1-4 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |



General Meeting 11 November 2026
Attachments Page 511
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 174
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
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| | | | | | the repair of the structure of a make-safe / functional condition - through the placement of additional rock armour units on the structure in locations where it has experienced significant armour unit loss, core exposure, and loss of crest height and width. The objective would be to extend the life of the structure by another 50+ years. The renewal will ensure long-term protection against coastal hazards and improve the overall safety and resilience of the infrastructure.<br>References:<br>> Figure B-12 provides the location and indicative extent of the proposed CPW.<br>> Figure C-10 provides a reference concept for the repair works. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. | | | | | |
| Strategy 6: Coastal Hazard Resilience | S6.HSC.F | Middle Estuary | Dangar Island | Bradleys Beach Coastal Protection Works | Foreshore Restoration Works at Bradleys Beach would address beach erosion issues and enhance the natural resilience of the foreshore to coastal hazards. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be “activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters”. These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>This action would involve engaging suitably qualified coastal engineering advice to assess the local wave climate, sediment dynamics and erosion processes affecting the foreshore. This assessment would inform the detailed design and determine whether suitable sand characteristics.<br>Scope of Works:<br>Works would cover a 300 m long stretch of the beach and would involve:<br>> Beach scraping works to increase the volume of sand on the upper beach profile. Sand would be scraped from the intertidal zone to an approximate depth of 0.2 metres to win a total volume of around 700m3 of sand.<br>>Sand redistribution works on the upper beach profile as part of a small foredune building process<br>> Planting appropriate native foredune species along the foredune to promote natural dune building and recovery<br>> Construction of a small swale running behind the foreshore to prevent overland flow exacerbating the current erosion issues<br>Works would be undertaken as part of an ongoing program of beach grooming and sand distribution, with works triggered based on observed erosion risk along the foreshore - estimated to be every 4 years on average.<br>References:<br>> Figure B-15 provides the location and indicative extent of the proposed CPW.<br>> Figure C-8 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. A Review of Environmental Factors (REF) will be completed before works commence to assess potential environmental impacts and identify appropriate mitigation measures and safeguards. | HSC | DCCEEW-CPHR | High (24) | Within 1-4 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |
| Strategy 6: Coastal Hazard Resilience | S6.HSC.G | Middle Estuary | Parsley Bay / Brooklyn | Repair and renewal of Coastal Protection Works from Brooklyn to Parsley Bay | This work will focus on reinforcing the seawall's structural stability to prevent erosion and maintain the integrity of the coastal shared path. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be “activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters”. These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works: | HSC | DCCEEW-CPHR | High (24) | Within 1-4 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |



General Meeting 11 November 2026
Attachments Page 512
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 175
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
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| | | | | | > Structure Survey and coastal engineering condition inspection: To survey the structure and identify the nature of the required repair and renewal works<br>> Repair and renewal design: To prepare a specific repair design detailing the sizing and quantity of the required armour, and specifying the required grades and levels.<br>> Repair and renewal works: Implementation of the repair design, including a safety in design assessment, construction of the works and development of As-Constructed certification from a suitably qualified engineer for Council records. The works will comprise the repair of the structure of a make-safe / functional condition - through the placement of additional rock armour units on the structure in locations where it has experienced significant armour unit loss, core exposure, and loss of crest height and width. The objective would be to extend the life of the structure by another 50+ years. The renewal will ensure long-term protection against coastal hazards and improve the overall safety and resilience of the infrastructure.<br>References:<br>> Figure B-14 provides the location and indicative extent of the proposed CPW.<br>> Figure C-10 provides a reference concept for the repair works. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. | | | | | |
| Strategy 7: Social and Recreational Amenity | S7.HSC.A | Lower Estuary | Parsley Bay | Parsley Bay loading dock upgrade | The Parsley Bay loading dock, which is currently in poor condition, is a vital infrastructure component for servicing the remote river settlements of the Lower Hawkesbury. This project involves undertaking comprehensive repairs and upgrades to ensure the dock's safety, functionality, and longevity, thereby supporting the communities that rely on it for transport and logistics.<br>Upgrades include multipurpose design and infrastructure to ensure the dock can be used for potential public ferry and commercial services. Council will use the Brooklyn Place Plan consultation process to confirm if there is community support for this to inform TfNSW decision making and potential funding. A public ferry stop at this location is a key potential outcome to disperse demand for car parking in the town centre. | HSC | DCCEEW-CPHR, DPHI-Crown Lands | High (27) | Within 1-4 years | Works completed. |
| Strategy 7: Social and Recreational Amenity | S7.HSC.B | Lower Estuary | Parsley Bay | Upgrade of public pontoons at Parsley Bay | The two public pontoons at Parsley Bay, situated on the eastern and western sides, require upgrades to enhance safety, accessibility, and durability. The planned improvements will address structural wear and ensure the pontoons can better accommodate community use, supporting boating activities and providing safer access for all users. | HSC | DPHI-Crown Lands | High (24) | Within 1-4 years | Works completed. |
| Strategy 7: Social and Recreational Amenity | S7.HSC.C | Middle Estuary | Brooklyn | Upgrade of McKell Park tidal pool and Coastal Protection Works | The project will involve the repair and upgrade of the McKell Park Tidal Pool, including renewal of the approximately 58 m-long vertical concrete seawall within the baths. The scope of work will be determined by a thorough condition assessment to identify necessary improvements. The upgrade plan will be developed based on available funding and resources, ensuring that the pool meets safety standards and enhances the overall user experience.<br>The upgrade should consider the concepts developed through the draft Brooklyn Place Plan, including opportunities to replace or modify the existing seawall using an environmentally sensitive design that improves public access to the water and supports the social and recreational use of the baths. The final scope and staging of the works would be informed by the condition assessment, detailed design investigations, community needs and available funding.<br>References:<br>> Figure B-14 provides the location and indicative extent of the proposed CPW.<br>> Figure C-9 provides a reference concept for the CPW upgrade works. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The CPW upgrade works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. | HSC | DCCEEW-CPHR | Low (7) | Opportunistic, within 8-10 Years | Works completed. |



General Meeting 11 November 2026
Attachments Page 513
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 176
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
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| Strategy 7: Social and Recreational Amenity | S7.HSC.D | Middle Estuary | Brooklyn | Design and install boardwalk from Brooklyn Public Wharf to Lower McKell Park | The project involves the construction of a boardwalk/path from Brooklyn Public Wharf to Lower McKell Park. This initiative has been identified by the community and staff as the 'missing link' needed to complete the foreshore walk around to Parsley Bay from the Brooklyn Public Ferry Wharf. The boardwalk/path will provide a continuous and scenic route for pedestrians, enhancing the accessibility and enjoyment of the foreshore area. Some sections of the boardwalk/path will be accommodated on land, while others will need to be constructed over water to ensure a seamless connection. This project aims to improve the overall experience for residents and visitors, promoting outdoor activities and fostering a stronger connection with the natural environment | HSC | DCCEEW-CPHR | Medium (12) | Within 4-8 years | Works completed. |
| Strategy 7: Social and Recreational Amenity | S7.HSC.E | Middle Estuary | Brooklyn | Bayden Powell Avenue dinghy and foreshore access improvement | This action involves enhancing dinghy storage and improving foreshore access at the end of Bayden Powell Avenue to support safe and sustainable waterway use. The project will focus on providing designated and orderly dinghy storage to reduce clutter, minimize environmental impact, and improve accessibility for boat users.<br>Additionally, improvements to foreshore access will ensure safer and more convenient launching and retrieval of small watercraft, benefiting both recreational and commercial users. Works may include installing secure storage racks, upgrading pathways, stabilising the shoreline to prevent erosion, and enhancing accessibility features. These upgrades will help protect the surrounding environment, improve user experience, and support responsible waterway management. | HSC | N/A | Medium (12) | Within 4-8 years | Works completed. |
| Strategy 7: Social and Recreational Amenity | S7.HSC.F | Middle Estuary | Brooklyn | Cost-benefit assessment of Kangaroo Point pumpout pontoon | Undertake a cost-benefit assessment of evaluating future options for upgrading the Kangaroo Point Pumpout Pontoon and associated landside facilities, focusing on the long-term operational, environmental, and community benefits.<br>> Evaluate current system performance, maintenance costs, and user demand.<br>> Prepare a comparison table of sewage pump-out facilities across the Hawkesbury River, showing their location, access type, cost, and suitability for large vessels,<br>> Assess potential improvements in functionality, durability, and environmental compliance.<br>> Compare asset management, improvement, replacement, or decommissioning and operational costs against projected benefits, including reduced pollution, improved user experience, and alignment with waterway health objectives.<br>> Use findings to determine the preferred future management approach and, where justified, inform the scope, design, and delivery of any recommended works or service changes. | HSC | N/A | High (24) | Within 1-4 years | Study completed. |
| Strategy 7: Social and Recreational Amenity | S7.HSC.G | Lower Estuary | Dangar Island | Dangar Island loading dock upgrade | The Dangar Island loading dock, which is currently in poor condition, is a vital infrastructure component for servicing the remote river settlement of the Lower Hawkesbury. This project involves undertaking comprehensive repairs and upgrades to ensure the dock's safety, functionality, and longevity, thereby supporting the communities that rely on it for transport and logistics. | HSC | DCCEEW-CPHR | High (27) | Within 1-4 years | Works completed. |
| Strategy 7: Social and Recreational Amenity | S7.HSC.H | Upper Estuary | Wisemans Ferry | Upgrade of the Wisemans Ferry old public wharf | The public wharf at Wisemans Ferry will require upgrades to enhance safety, accessibility, and durability. The planned improvements will address structural wear and ensure the pontoons can better accommodate community use, supporting boating activities and providing safer access for all users. | HSC | N/A | Medium (12) | Within 4-8 years | Works completed. |
| Strategy 7: Social and Recreational Amenity | S7.HSC.I | Middle Estuary | Brooklyn | Undertake a dredging feasibility study for Sandbrook Inlet, Brooklyn Harbour, and Parsley Bay | Navigational access within Sandbrook Inlet, Brooklyn Harbour and Parsley Bay is currently affected by siltation within key navigation channels. This creates access constraints for recreational and commercial users of the estuary, as well as remote river communities that rely on these waterways for safe and reliable access to Brooklyn.<br>Undertake a feasibility study that includes:<br>> Navigational requirements: Analyse contemporary bathymetric survey data and identify the navigation depths, channel alignments and access requirements across Sandbrook Inlet, Brooklyn Harbour and Parsley Bay.<br>> Technical feasibility: Assess potential dredging methods and equipment, together with opportunities to beneficially reuse suitable dredged material through beach nourishment. This would include consideration of material volumes, placement locations and conceptual designs.<br>> Environmental impacts: Assess potential environmental impacts and identify the associated environmental planning and approval requirements. | HSC | DCCEEW-CPHR, DPHI-Crown Lands, DPIRD-Fisheries, TfNSW | High (24) | Within 1-4 years | Study Completed |



General Meeting 11 November 2026
Attachments Page 514
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 177
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | > Economic feasibility: Estimate the capital and ongoing maintenance costs associated with establishing and maintaining navigable access.<br>The study would investigate the logistical, environmental and economic feasibility of dredging to reinstate and maintain all-tide navigational access within Sandbrook Inlet, Brooklyn Harbour and Parsley Bay. | | | | | |
| Strategy 7: Social and Recreational Amenity | S7.HSC.J | Middle Estuary | Brooklyn | Develop a foreshore infrastructure strategy for the Lower Hawkesbury | The Lower Hawkesbury has been identified by local and state government as a critical regional asset for community recreation, commercial boating and fishing, and access to remote riverside settlements. To address infrastructure pressures and enhance usability, Hornsby Shire Council, in coordination with the State Government, will develop an Infrastructure Strategy for the Lower Hawkesbury. This strategy will identify and implement key infrastructure improvements, considering recreational needs, foreshore protection, and long-term sustainability. | HSC | DCCEEW-CPHR, TfNSW | Medium (12) | Within 4-8 years | Strategy Completed |
| Strategy 7: Social and Recreational Amenity | S7.HSC.K | Middle Estuary | Crosslands Reserve | Improve estuary access and recreational facilities at Crosslands Reserve | Crosslands Reserve is a highly valued recreational destination located on the eastern bank of Berowra Creek. The reserve attracts significant visitor use for bushwalking, picnicking, camping and passive water-based recreation, providing one of the few accessible locations in the Lower Hawkesbury estuary where families and community groups can launch kayaks, canoes and paddleboards safely.<br><br>Over time, sediment and mud deposition associated with tidal processes and flood events has impacted the informal watercraft launching area, reducing accessibility and functionality. As a result, additional informal estuary access points are creating significant impact on riparian habitat and riverbank stability. Natural recruitment of mangroves and other riparian vegetation has also occurred in parts of the foreshore. While these habitats provide important ecological values, their expansion is reducing accessibility to the waterway.<br><br>This action will investigate opportunities to improve estuary access while protecting and enhancing the ecological values of the foreshore.<br>An ecological assessment will consider:<br>> formalising passive recreational waterway access<br>> local hydrodynamic conditions<br>> bank stabilisation that supports and protects riparian vegetation and estuarine habitat values.<br><br>On-ground works may include formalisation and stabilisation of the watercraft launching area, improvements to access pathways between the reserve and the estuary, reconfiguration of the launch area to improve safety and functionality, and stabilisation of adjacent banks to reduce erosion and sediment mobilisation. | HSC | N/A | High (27) | Within 1-4 years | Works completed. |



General Meeting 11 November 2026
Attachments Page 515
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 178
ATTACHMENT 1 - ITEM 7

### 5.7 Local Implementation Plan: Ku-ring-gai Council LGA

Due to the geographic position of the Ku-ring-gai Council LGA, the majority of waterway and foreshore environments within its boundaries are situated outside of the legally defined HNRS coastal zone. Accordingly, all actions for Ku-ring-gai Council are captured under the Catchment Companion – see Appendix I. These actions primarily address land-based pressures that influence waterway health and estuarine condition, such as stormwater management, water quality improvement, and riparian corridor protection. While they may not involve direct on-ground works along the estuary foreshore, they form a critical contribution to the overall management of the HNRS by addressing upstream drivers of change. Ku-ring-gai Council will therefore play an important supporting role in catchment-scale initiatives, working alongside partner councils and State agencies to ensure that actions upstream are effectively coordinated and deliver tangible benefits downstream.



General Meeting 11 November 2026
Attachments Page 516
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 179
ATTACHMENT 1 - ITEM 7

## 5.8 Local Implementation Plan: Central Coast Council LGA

A summary of the actions within the Central Coast Council Local Implementation Plan are provided in Table 5.7. Maps depicting relevant actions are provided in Appendix B.

**Table 5.7 Action Table – The Central Coast Council Local Implementation Plan**

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|
| Strategy 2: Monitoring, Evaluation, and Reporting | S2.CCC.A | Broken Bay | Broken Bay Beaches | Develop and implement a Broken Bay Coastal Monitoring Program | The coastal monitoring program would use progressive monitoring techniques to collect essential information about coastal processes and hazards to improve the management of our beaches. It would include beach surveys to monitor changes in sand volumes, risk exposure, dune condition and beach amenity. The data collected would allow annual Beach Health Reports to be developed and better inform future coastal hazard studies and investigations. Beach usage should be included in the monitoring to better understand current demand and locations requiring further investment in the future. | CCC | DCCEEW-CPHR | High (30) | Within 1-4 years | Monitoring undertaken and recorded. Collected data is of tangible benefit from a risk and asset management perspective. |
| Strategy 2: Monitoring, Evaluation, and Reporting | S2.CCC.B | Broken Bay Brisbane Water | Broken Bay Brisbane Water | Develop and implement a program for regular and ongoing monitoring of public coastal assets and infrastructure | This action involves the development and implementation of a monitoring program designed to assess and track the condition of various coastal assets and infrastructure, including:<br>> Coastal protection structures (revetments, seawalls, training walls)<br>> Recreational assets including viewing platforms & coastal access tracks<br>> Stormwater outlets.<br>> Sewer and water infrastructure<br>The program should be integrated into Councils broader asset management program - and should be consistent with the asset monitoring undertaken as part of the Open Coast Beaches CMP. | CCC | N/A | High (24) | Within 1-4 years | Monitoring undertaken and recorded. Collected data is of tangible benefit from a risk and asset management perspective. |
| Strategy 2: Monitoring, Evaluation, and Reporting | S2.CCC.C | Broken Bay Brisbane Water | Green Point Creek Ettalong Creek Pearl Beach Lagoon | Install permanent water level gauges at key locations within Brisbane Water and Broken Bay | There is currently no permanent water level gauge at a number of key locations within Brisbane Water and Broken Bay. This has resulted in an absence of recorded water level data that can assist in understanding localised impacts of coastal and catchment flooding on the numerous foreshore communities across the waterways and their catchment. This information will be particular important over future time frames as the impacts of Sea Level Rise become more severe.<br>This action therefore involves the installation of a permanent water level gauges at the following locations:<br>> Green Point Creek<br>> Ettalong Creek<br>> Pearl Beach Lagoon<br>The exact positions of the gauges should be determined in consultation with the State Government, based on an assessment of strategic locations that can achieve the objectives outlined above, whilst maintaining a practical location for installation and maintenance. Furthermore, water level data can be transmitted and published through the MHL web page, and this will help to manage and mitigate estuarine flood risk by providing publicly available water levels in real time. | CCC | DCCEEW-CPHR | Medium (10) | Within 4-8 years | Gauge implemented and maintained, and data considered to be of tangible benefit for coastal management by Council. |
| Strategy 3: Resilience, Planning, and Adaptation | S3.CCC.A | Brisbane Water | Brisbane Water | Environmental Conservation zoning for coastal wetland areas | Analysis undertaken in the CMP has identified a number of locations around the Brisbane Water foreshore and waterways where land containing important coastal wetlands mapped under the NSW Hazards and Resilience State Environmental Planning Policy (RH SEPP) is currently not zoned as a "'conservation zones" in the Local Environment Plan. This action would therefore involve Council investigating land use planning options for improved coastal and environmental management – including potential rezoning of RHSEPP Mapped coast wetland areas to a C2 (Environmental Conservation). The purpose of a LEP zoning amendment would be to protect and preserve the environmental values of these wetlands for future generations, and to help enhance the resilience of these wetlands to future sea level rise by allowing for upslope migration pathways.<br>The scope of this undertaking should consider the findings of the Central Coast Council Wetland Refugia Study (WRL, 2023) | CCC | DPHI-Planning and Assessment | Medium (8) | Within 4-8 years | LEP Zoning Amendment completed. |
| Strategy 3: Resilience, Planning, and Adaptation | S3.CCC.B | Brisbane Water | Hardys Bay | Implement the Hardys Bay Foreshore Master Plan | 'Implement the elements of the Foreshore Master Plan (FMP) for Hardys Bay that are relevant to coastal management. This would include the following elements:<br>> Provision of recreational amenity and foreshore access<br>> Drainage upgrades<br>> Landscaping and green space design<br>> Habitat restoration and vegetation plans | CCC | DPHI-Crown Lands | High (24) | Within 1-4 years | Masterplan designed and implemented. Improved recreational amenity, environmental values, |



General Meeting 11 November 2026
Attachments Page 517
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 180
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | > Protection of Indigenous cultural heritage<br>> Addressing siltation issues at the at the boat ramp, and the potential relocation of the Pretty Beach pool such that it will be suitable for swimming under all tidal conditions and is not subject to sediment build-up.<br>> Investigate and implement opportunities to authorise existing and future assets/infrastructure located on Crown Reserve R53994 through the appointment of Council as the Crown Reserve Manager or licencing. Note that erosion control and shoreline stabilization measures for Hardy Bay and Pretty Beach foreshore areas are described by, and covered in CMP Actions S6.CCC.G, S6.CCC.I, and S6.CCC.J - and those actions will integrate with this Master Plan. | | | | | and foreshore resilience. |
| Strategy 3: Resilience, Planning, and Adaptation | S3.CCC.C | Brisbane Water | Phegans Bay | Implement the Phegans Bay Waterfront Foreshore Master Plan | Council was approached by the Phegans Bay community with concerns that the condition of the foreshore was deteriorating and that if not addressed infrastructure, including Phegans Bay Road, would be compromised. The site was subsequently assessed as a high priority for investigation, and a commitment was made to work with the community to develop a masterplan outlining upgrades required to improve the amenity, access, safety and environmental integrity of the site. This action therefore includes implementing the elements of the masterplan for Phegans Bay that are relevant to coastal management, including:<br>> Provision of recreational amenity and foreshore access<br>> Foreshore protection, rehabilitation and habitat restoration<br>> Protection of Indigenous cultural heritage<br>Note that erosion control and shoreline stabilization measures for Phegans Bay are described by, and covered in CMP Actions S6.CCC.E - and that action will integrate with this Master Plan. | CCC | N/A | High (24) | Within 1-4 years | Masterplan designed and implemented. Improved recreational amenity, environmental values, and foreshore resilience. |
| Strategy 3: Resilience, Planning, and Adaptation | S3.CCC.D | Brisbane Water | Brisbane Water | Undertake a Planning Proposal to update RH SEPP Coastal Wetlands Mapping for Brisbane Water | Undertake a planning proposal to update the Coastal Wetland Mapping for Brisbane Water in the NSW Resilience and Hazards State Environmental Planning Policy (RH SEPP).<br>This update would be based on the mapping provided in the Brisbane Waters Coastal Wetland Mapping study (ELA, 2022).<br>The Planning Proposal may be submitted in conjunction with the planning proposal for the CVA (see Action S3.CMP.01), and/or it may be submitted in conjunction with a proposal for updates to CMA mapping for areas within the Central Coast LGA subject to a CMP. | CCC | DPHI-Planning and Assessment | High (27) | Within 1-4 years | Planning Proposal completed and RH SEPP Mapping Updated |
| Strategy 3: Resilience, Planning, and Adaptation | S3.CCC.E | Brisbane Water | LGA Wide | Review and update Council's Development Control Plan | Review and update Councils DCP to maintain consistency with the goals and objectives of the CMP. This would include review and update of:<br>> Chapter 2.12 Waterfront Structures<br>> Chapter 2.17 Character and Scenic Quality<br>> 3.1 Floodplain Management and Water Cycle Management<br>> 3.2 Coastal Hazard Management<br>> 3.3 On-Site Sewage Management<br>> 3.4 Water Catchment Areas<br>> 3.5 Tree and Vegetation Management<br>> 3.6 Heritage Conservation<br>> 3.7 Geotechnical Requirements | CCC | DPHI-Planning and Assessment | High (24) | Within 1-4 years | DCP updated. |
| Strategy 3: Resilience, Planning, and Adaptation | S3.CCC.F | Multiple across LGA | Estuary-Wide across LGA | Compliance auditing of private development encroachment onto public land | Initiate a thorough compliance auditing process to address the issue of private development encroachment onto public land along the Brisbane Water, Lower Hawkesbury River and Broken Bay foreshores (including encroachment onto Crown Land, below the Mean High Water Mark). This auditing will encompass a range of activities, including detailed desktop assessments utilizing aerial imagery to identify instances of encroachment. The aim is to ensure that all private developments adhere to established regulations and do not unlawfully extend onto public land. This process will involve cross-referencing current property boundaries with historical records and conducting on-site inspections where necessary. By undertaking this comprehensive audit, we aim to safeguard public spaces, protect natural resources, and uphold the integrity of our coastal environments for the benefit of the community. | CCC | DPHI-Crown Lands | Low (7) | Opportunistic, within 8-10 Years | Auditing undertaken over CMP 10 year lifecycle. |
| Strategy 3: Resilience, Planning, and Adaptation | S3.CCC.G | Multiple across LGA | Estuary-Wide across LGA | Investigate opportunities to purchase saltmarsh areas for incorporation into Council's reserve system. | The purpose of this action is to investigate opportunities for acquiring saltmarsh areas to integrate into Council's reserve system - thereby enhancing environmental protection, biodiversity conservation, and providing a future adaptation pathway for these wetland ecosystems to mitigate sea level rise impacts.<br>The investigation should identify and prioritise suitable properties, consider landholder willingness and assess available acquisition and funding mechanisms, including potential use of the Central Coast Conservation Fund.<br>This would be in alignment with Councils Wetland Management Policy, specifically | CCC | N/A | Low (6) | Opportunistic, within 8-10 Years | Study completed. |



General Meeting 11 November 2026
Attachments Page 518
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 181
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
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| | | | | | > Policy 5.1 Council will investigate options for protecting or acquiring wetlands on private land.<br>> Policy 5.2 Where possible Council will acquire wetlands in accordance with a priority program. Acquisition of wetlands would be in accordance with Council Policy A5.02 Land and Property Transactions. | | | | | |
| Strategy 5: Estuary & Waterway Health | S5.CCC.A | Brisbane Water | Brisbane Water | Water Quality Improvement Plan for Brisbane Water | The Water Quality Improvement Plan (WQIP) for Brisbane Water aims to enhance and protect the water quality of the Brisbane Water estuary and its catchment areas. The plan will outline the actions, responsibilities, and timelines for achieving sustainable water quality improvements. The WQIP will include:<br>> Collation and review of existing water quality data, details on current point source loads to the estuaries, catchment land use data and existing environmental values/water quality objectives<br>> Identify opportunities to collaborate with key stakeholders including the oyster industry and commercial & tourism operators<br>> Catchment Audits: Undertake detailed audits of each sub-catchment across Brisbane Water<br>> Water Quality Assessment and Modelling: Comparisons to be made between actual water quality across Brisbane Water and the identified waterway objectives by way of an effects-based assessment. Where modelling tools are available, these tools will be applied at this stage to enhance the rigour of the assessments.<br>> Management Options: Development of a suite of potential management responses, and evaluate the options based on cost effectiveness and risk treatment. This includes investigation of the use of constructed wetlands, sediment, and detention basins and other WSUD options to minimise the effect of freshwater and sediment inflows, with particular reference to areas of high biodiversity value around entrances to creeks. Consideration should be given to both current and future meteorological conditions.<br>> Action Plan: Define the roles and responsibilities, costs, and timeframes for implementation of the action plan. | CCC | DCCEEW-CPHR | High (30) | Within 1-4 years | Study completed. |
| Strategy 5: Estuary & Waterway Health | S5.CCC.B | Brisbane Water | Woy Woy | Investigate the feasibility of Naturalisation of the Austin Butler drainage channel | Undertake a feasibility study into the naturalisation the Concrete Drain section of Austin Butler Drainage Channel. The naturalisation project would involve:<br>> Replacing the concrete banks with native wetland vegetation - thereby increasing the number and diversity of native plants and vegetation<br>> Expanding the salt marsh around the creek and creating intertidal rock pools within the channel where possible.<br>The project would improve waterway health through the creation of a wetland to naturally treat and remove pollutants from the water before it enters Brisbane Water<br>The feasibility study would consider:<br>> Impacts of naturalisation on local flood levels.<br>> Impacts of naturalisation on serviceability of drainage infrastructure<br>> Costs/benefits of naturalisation<br>The feasibility study should also investigate other options to improve water quality outcomes from the Austin Butler drain network. This could include installing, biofiltration/sediment/gross pollutant infrastructure where appropriate. | CCC | DCCEEW-CPHR | Low (5) | Opportunistic, within 8-10 Years | Study completed. |
| Strategy 5: Estuary & Waterway Health | S5.CCC.C | Multiple across LGA | Estuary-Wide across LGA | Implement a wetland monitoring, management and restoration program | This would include the development of an LGA wide wetland management strategy for Central Coast Council. This initiative aims to enhance ecosystem health, improve biodiversity, and bolster the resilience of the region's wetlands in the face of climate change and urbanisation.<br><br>Upon completion of the strategy, this action would include implementation of wetland restoration works in priority locations across the CMP study area. For the Davistown Wetlands, works should align with Council's adopted *Ten-Year Works Implementation Plan for the Davistown Wetlands* (Central Coast Council, 2025). These activities are considered 'Environmental protection works' (EPW) for mapped coastal wetlands and littoral rainforest in accordance with the R&H SEPP, and the Standard Instrument - Principal Local Environmental Plan (2006 EPI 155a). Note that the "works" component of this Action links would be implemented through Action S5.CMP.A. Figure B-1 provides an overview of the potential works areas as identified by the Partner Councils. Figures B-2 onwards provides more local, site specific mapping. These maps include overlays of R&H SEPP Coastal Wetlands and Littoral Rainforest layers, so that areas subject to EPWs are clearly identified.<br><br>An important component of the wetland management strategy is monitoring. The monitoring program would utilise both physical on-ground monitoring techniques such as floristic surveys | CCC | DCCEEW-CPHR | High (27) | Within 1-4 years | Program designed. Restoration works successfully implemented. Monitoring undertaken and show improvement in riparian condition over time. |



General Meeting 11 November 2026
Attachments Page 519
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 182
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
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| | | | | | as well as remote sensing techniques looking at changes in the wetlands over time in response to climate change. | | | | | |
| Strategy 5: Estuary & Waterway Health | S5.CCC.D | Brisbane Water | Davistown | Develop a Green and Golden Bell Frog Key Population Management Plan | The objective of this action is to protect and enhance the Green and Golden Bell Frog (GGBF) populations within the coastal management zones of the Hawkesbury CMP (Davistown), ensuring their long-term viability in the face of estuarine dynamics, human activities, and climate change impacts such as sea level rise. The plan will:<br>> Assess current population health, habitat condition, and key threats.<br>> Identify priority areas for habitat protection, restoration, and connectivity.<br>> Develop adaptive management strategies to mitigate the impacts of estuarine change and sea level rise.<br>> Provide recommendations for water quality management, habitat enhancement, and invasive species control.<br>> Establish monitoring protocols to track population trends and habitat changes over time.<br>> Engage with relevant stakeholders, including local councils, research institutions, environmental groups, and government agencies, to coordinate conservation efforts. | CCC | DCCEEW-CPHR | High (24) | Within 1-4 years | Plan developed. |
| Strategy 6: Coastal Hazard Resilience | S6.CCC.A | Brisbane Water | Green Point | Coastal Protection Works at Bayside Drive Reserve | The Brisbane Water Foreshore Prioritisation Tool helps plan and prioritize restoration and stabilisation work along the foreshore. It is regularly updated as conditions and priorities change. In this location, the tool recommends stabilisation using low height native vegetation and ecofeatures to create a 'living foreshore' across key area of the Bayside Drive Reserve Foreshore. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be “activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters”. These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works:<br>> Foreshore survey (if/where required)<br>> Preparation of an engineering design report and detailed design by suitably qualified engineers – specifying key design parameters.<br>> This living shoreline would include a step-type rock bench structure that incorporates a bench of estuarine vegetation such as salt marsh or mangroves. This may be similar to what has been recently constructed at Davistown Rd, Yattalunga.<br>References:<br>> Figure B-23 provides the location and indicative extent of the proposed CPW.<br>> Figure C-3 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. | CCC | DCCEEW-CPHR | High (24) | Within 1-4 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |
| Strategy 6: Coastal Hazard Resilience | S6.CCC.B | Brisbane Water | Green Point | Coastal Protection Works at Edgewater Avenue Reserve | The Brisbane Water Foreshore Prioritisation Tool helps plan and prioritize restoration and stabilisation work along the foreshore. It is regularly updated as conditions and priorities change. In this location, the tool recommends stabilisation using geotextile sand containers (GSC). As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be “activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters”. These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works:<br>> Foreshore survey (if/where required)<br>> Preparation of an engineering design report and detailed design by suitably qualified engineers – specifying key design parameters.<br>> Construction of GSC protection works in accordance with the approved detailed design, including site preparation, placement of GSCs to specified alignment and levels, and completion of ancillary works such as reinstatement of adjoining foreshore areas and access paths.<br>References:<br>> Figure B-23 provides the location and indicative extent of the proposed CPW. | CCC | DCCEEW-CPHR | High (24) | Within 1-4 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |



General Meeting 11 November 2026
Attachments Page 520
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 183
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | > Figure C-1 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. | | | | | |
| Strategy 6: Coastal Hazard Resilience | S6.CCC.C | Brisbane Water | Davistown | Coastal Protection Works at Illoura Reserve | The Brisbane Water Foreshore Prioritisation Tool helps plan and prioritize restoration and stabilisation work along the foreshore. It is regularly updated as conditions and priorities change. In this location (from Lintern Street to Pyang Avenue), the tool recommends stabilisation using a geotextile sand container structure. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be “activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters”. These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works:<br>> Foreshore survey (if/where required)<br>> Preparation of an engineering design report and detailed design by suitably qualified engineers – specifying key design parameters.<br>> Construction of GSC protection works in accordance with the approved detailed design, including site preparation, placement of GSCs to specified alignment and levels, and completion of ancillary works such as reinstatement of adjoining foreshore areas and access paths.<br>References:<br>> Figure B-21 provides the location and indicative extent of the proposed CPW.<br>> Figure C-1 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. | CCC | DCCEEW-CPHR | Medium (12) | Within 4-8 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |
| Strategy 6: Coastal Hazard Resilience | S6.CCC.D | Brisbane Water | Koolewong | Repair and renewal of the Coastal Protection Works at Lara Street | The Brisbane Water Foreshore Prioritisation Tool helps plan and prioritize restoration and stabilisation work along the foreshore. It is regularly updated as conditions and priorities change. In this location, the tool recommends stabilisation through repair and renewal of the existing rock armoured seawall and inclusion of "living shoreline" elements which could include inter-tidal/sub-tidal oyster reefs and planting of mangroves where appropriate. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be “activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters”. These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works:<br>> Foreshore survey (if/where required)<br>> Preparation of an engineering repair design report and detailed design by suitably qualified engineers – specifying key design parameters.<br>> The works will comprise the repair of the structure of a make-safe / functional condition - through the placement of additional rock armour units on the structure in locations where it has experienced significant armour unit loss, core exposure, and loss of crest height and width. The objective would be to extend the life of the structure by another 50+ years. The renewal will ensure long-term protection against coastal hazards and improve the overall safety and resilience of the infrastructure.<br>References:<br>> Figure B-22 provides the location and indicative extent of the proposed CPW.<br>> Figure C-10 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. | CCC | DCCEEW-CPHR | Medium (16) | Within 4-8 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |



General Meeting 11 November 2026
Attachments Page 521
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 184
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
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| Strategy 6: Coastal Hazard Resilience | S6.CCC.E | Broken Bay | Phegans Bay | Coastal Protection Works at Phegans Bay Road | The Brisbane Water Foreshore Prioritisation Tool helps plan and prioritize restoration and stabilisation work along the foreshore. It is regularly updated as conditions and priorities change. In this location, the tool recommends the implementation of a "living shoreline" across the 380 m stretch of foreshore located east of the Phegans Bay Road. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be "activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters". These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works:<br>> Foreshore survey (if/where required)<br>> Preparation of an engineering design report and detailed design by suitably qualified engineers – specifying key design parameters.<br>> This living shoreline would include a step-type rock bench structure that incorporates a bench of estuarine vegetation such as salt marsh or mangroves. This may be similar to what has been constructed at Davistown Rd, Yattalunga.<br>References:<br>> Figure B-22 provides the location and indicative extent of the proposed CPW.<br>> Figure C-3 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation.<br><br>This area is covered by the Phegans Bay Foreshore Masterplan and the objectives of that plan should also be considered in the restoration if this foreshore (see Action S3.CC.C). | CCC | DCCEEW-CPHR, DPHI-Crown Lands | High (24) | Within 1-4 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |
| Strategy 6: Coastal Hazard Resilience | S6.CCC.F | Brisbane Water | Empire Bay | Coastal Protection Works at Empire Bay | Empire Bay Reserve and Ferry Wharf have been identified as a high priority sites for foreshore stabilisation, due to significant active erosion and the presence of important Aboriginal cultural heritage items. Initial concept design investigations have indicated that these sites will be treated with stepped sandstone blockwork structures. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be "activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters". These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works:<br>> Foreshore survey and geotechnical information (if/where required)<br>> Preparation of an engineering design report and detailed design by suitably qualified engineers – specifying key design parameters.<br>> This foreshore treatment would include a step-type sandstone blockwork structure.<br>References:<br>> Figure B-21 provides the location and indicative extent of the proposed CPW.<br>> Figure C-9 provides a concept design cross-section.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. | CCC | DCCEEW-CPHR | High (24) | Within 1-4 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |
| Strategy 6: Coastal Hazard Resilience | S6.CCC.G | Brisbane Water | Hardys Bay | Repair and renewal of the Coastal Protection Works at the Hardys Bay extension wharf | Erosion along the foreshore near the Hardys Bay extension wharf (at 25-19 Hardys Bay Pde) is putting key infrastructure at risk, including Hardys Bay Parade, which in some areas is less than one metre from the eroded scarp. The Brisbane Water Foreshore Prioritisation Tool helps plan and prioritize restoration and stabilisation work along the foreshore. It is regularly updated as conditions and priorities change. In this location, the tool recommends stabilisation through repair and renewal of the existing rip rap seawall - focussing on the stretch approximately 50 metres on either side of the wharf. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be "activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters". These coastal protection works | CCC | DCCEEW-CPHR | Medium (21) | Within 4-8 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |



General Meeting 11 November 2026
Attachments Page 522
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 185
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works:<br>> Foreshore survey (if/where required)<br>> Preparation of an engineering repair design report and detailed design by suitably qualified engineers – specifying key design parameters.<br>> Repairs work will comprise the placement of additional rock armour units, and the repacking of existing rock armour units to improve interlocking and stability, and to stabilise existing areas of core/backfill exposure.<br>References:<br>> Figure B-19 provides the location and indicative extent of the proposed CPW.<br>> Figure C-11 provides a repair concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation.<br><br>This area is covered by the Hardys Bay Foreshore Masterplan and the objectives of that plan should also be considered in the restoration if this foreshore (see Action S3.CC.B). | | | | | |
| Strategy 6: Coastal Hazard Resilience | S6.CCC.H | Brisbane Water | Hardys Bay | Investigate the potential inclusion of RSL Creek and Mudflat Creek in the Central Coast Council Priority Creek Program | As part of the Central Coast Council's Priority Creek Program, high-priority creeks across the LGA are actively managed to help maintain adopted flood planning levels and reduce the risk of flooding to nearby developments. This work includes creek stabilisation, repair projects, and the ongoing management of sediment, debris, and vegetation build-up.<br><br>This action proposes an initial investigation to assess whether RSL Creek and Mudflat Creek should be added to the program. The investigation would consider flood risk, environmental health, maintenance needs, and alignment with program objectives. Recommendations would inform future decisions regarding the inclusion of these creeks in the program. | CCC | N/A | Medium (14) | Within 4-8 years | Study completed. |
| Strategy 6: Coastal Hazard Resilience | S6.CCC.I | Brisbane Water | Hardys Bay | Coastal Protection Works at Araluen Drive Reserve | The Brisbane Water Foreshore Prioritisation Tool helps plan and prioritize restoration and stabilisation work along the foreshore. It is regularly updated as conditions and priorities change. In this location, the tool recommends the implementation of a "living shoreline" across the 360 m stretch of foreshore located west of the Killcare public wharf. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be “activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters”. These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works:<br>> Foreshore survey (if/where required)<br>> Preparation of an engineering design report and detailed design by suitably qualified engineers – specifying key design parameters.<br>> This living shoreline would include a step-type rock bench structure that incorporates a bench of estuarine vegetation such as salt marsh or mangroves. This may be similar to what has been constructed at Davistown Rd, Yattalunga.<br>References:<br>> Figure B-19 provides the location and indicative extent of the proposed CPW.<br>> Figure C-3 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. This area is covered by the Hardys Bay Foreshore Masterplan and the objectives of that plan should also be considered in the restoration if this foreshore (see Action S3.CC.02). | CCC | DCCEEW-CPHR | Medium (21) | Within 4-8 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |
| Strategy 6: Coastal Hazard Resilience | S6.CCC.J | Brisbane Water | Pretty Beach | Coastal Protection Works at Pretty Beach Road | The Brisbane Water Foreshore Prioritisation Tool helps plan and prioritize restoration and stabilisation work along the foreshore. It is regularly updated as conditions and priorities change.<br>In this location, the tool recommends stabilisation through the implementation of a "living | CCC | DCCEEW-CPHR | High (24) | Within 1-4 years | Design prepared and works completed. Improved foreshore |



General Meeting 11 November 2026
Attachments Page 523
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 186
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
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| | | | | | shoreline" across the 620-metre stretch of foreshore along Pretty Beach Road. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be "activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters". These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works:<br>> Foreshore survey (if/where required)<br>> Preparation of an engineering design report and detailed design by suitably qualified engineers – specifying key design parameters.<br>> This living shoreline would include a step-type rock bench structure that incorporates a bench of estuarine vegetation such as salt marsh or mangroves. This may be similar to what has been constructed at Davistown Rd, Yattalunga.<br>References:<br>> Figure B-19 provides the location and indicative extent of the proposed CPW.<br>> Figure C-3 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation.<br><br>This area is covered by the Hardys Bay Foreshore Masterplan (S3.CCC.B) and the objectives of that plan should also be considered in the restoration if this foreshore - along with flood mitigation (inundation and overland flooding), which is key considerations in the design process. | | | | | resilience to coastal hazards. |
| Strategy 6: Coastal Hazard Resilience | S6.CCC.K | Brisbane Water | Wagstaffe | Coastal Protection Works at Wagstaffe Wharf | The Brisbane Water Foreshore Prioritisation Tool helps plan and prioritize restoration and stabilisation work along the foreshore. It is regularly updated as conditions and priorities change. In this location (at the end of Mulhall Street ), the tool recommends stabilisation works to protect the wastewater pump station south of the wharf - using a geotextile sand container structure. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be "activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters". These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works:<br>> Foreshore survey (if/where required)<br>> Preparation of an engineering design report and detailed design by suitably qualified engineers – specifying key design parameters.<br>> Construction of GSC protection works in accordance with the approved detailed design, including site preparation, placement of GSCs to specified alignment and levels, and completion of ancillary works such as reinstatement of adjoining foreshore areas and access paths.<br>References:<br>> Figure B-19 provides the location and indicative extent of the proposed CPW.<br>> Figure C-1 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. | CCC | DCCEEW-CPHR | Medium (14) | Within 4-8 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |
| Strategy 6: Coastal Hazard Resilience | S6.CCC.L | Brisbane Water | Ettalong | Repair and renewal of the Lance Webb Reserve Coastal Protection Works | Asset condition inspections by Central Coast Council have indicated that the Lance Webb Reserve Seawall is in a relatively poor structural condition. A repair and renewal project will be undertaken to maintain the function of the structure, extend the functional life, and adapt it for future sea level rise impacts. The objective of this repair would be to return the structure to a "make safe" condition, and extend the life of the structure by another 50+ years. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be "activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters". These coastal protection works form part of a strategic program to enhance the | CCC | DCCEEW-CPHR | High (27) | Within 1-4 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |



General Meeting 11 November 2026
Attachments Page 524
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 187
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
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| | | | | | resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works:<br>> Structure Survey and coastal engineering condition inspection: To survey the structure and identify the nature of the required repair and renewal works<br>> Repair and renewal design: To prepare a specific repair design detailing the sizing and quantity of the required armour, and specifying the required grades and levels.<br>> Repair and renewal works: Implementation of the repair design, including a safety in design assessment, construction of the works and development of As-Constructed certification from a suitably qualified engineer for Council records. The works will comprise the repair of the structure of a make-safe / functional condition - through the placement of additional rock armour units on the structure in locations where it has experienced significant armour unit loss, core exposure, and loss of crest height and width. The objective would be to extend the life of the structure by another 50+ years. The renewal will ensure long-term protection against coastal hazards and improve the overall safety and resilience of the infrastructure.<br>References:<br>> Figure B-19 provides the location and indicative extent of the proposed CPW.<br>> Figure C-11 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. | | | | | |
| Strategy 6: Coastal Hazard Resilience | S6.CCC.M | Broken Bay | Ettalong | Ettalong Beach foreshore stabilisation investigation | Ettalong Beach has experienced chronic erosion since the 1940s, with ongoing shoreline recession affecting both recreational use and coastal infrastructure. The foreshore is currently protected by the Lance Webb Reserve seawall, which is in poor structural condition (see Action S6.CCC.10), and is periodically nourished through the entrance dredging program. However, the highly dynamic coastal processes at Ettalong Beach have resulted in rapid loss of nourished sand, often leaving the beach in an eroded state. This not only reduces recreational amenity for locals and visitors but also increases the risk of undermining the seawall foundations.<br>This study will investigate long-term stabilisation strategies to maintain a sandy beach state at Ettalong Beach, including:<br>>Assessment of Local Coastal Processes – Development of a morphological conceptual model.<br>> Numerical Modelling of Existing Conditions – Establishing a base case scenario.<br>> Modelling of Potential Stabilisation Options – Testing nourishment volumes and potential groyne field configurations to improve sand retention (including consideration of the existing groynes along Ettalong Beach).<br>> Identification of potential adverse impacts on coastal processes and ecology<br>> Recommendations for Long-Term Foreshore Management – Providing strategic guidance for inclusion in future CMP revisions.<br>The study area for the investigation is provided in Figure B-19 and B-20. | CCC | DCCEEW-CPHR, DPHI-Crown Lands, | Medium (12) | Within 4-8 years | Study completed. |
| Strategy 6: Coastal Hazard Resilience | S6.CCC.N | Broken Bay | Umina Beach | Prepare a Broken Bay beach nourishment framework | Coastal erosion poses a persistent risk to infrastructure, public access, and recreational amenity across the beaches of Broken Bay. While natural sand movement plays a significant role in shaping these beaches, targeted sand nourishment can be a valuable management tool to help maintain beach volume and reduce erosion risk - and is considered to be the preferred form of Coastal Protection Works along Ocean-Umina Beach.<br><br>At the same time, the NSW Government periodically undertakes dredging works in the Ettalong Channel - generating sand that can be beneficially reused for beach nourishment. However, in the absence of a clear local framework, decisions about where to place dredged sand are often made without full consideration of local erosion risks, beach conditions, or community priorities.<br><br>This action aims to develop a Beach Nourishment Framework that enables Council to proactively plan, prioritise, and coordinate sand placement across Pearl, Ocean, Umina, and Ettalong Beaches. It would guide local decision-making, support more effective collaboration with State Government agencies, and help maximise the community and environmental | CCC | DCCEEW-CPHR, TfNSW, DPHI-Crown Lands | High (24) | Within 1-4 years | Framework prepared. |



General Meeting 11 November 2026
Attachments Page 525
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 188
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
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| | | | | | benefits of available sand resources. The study area for this action is provided in Figure B-18 and B-19. | | | | | |
| Strategy 6: Coastal Hazard Resilience | S6.CCC.O | Broken Bay | Umina Beach | Implement the Umina-Ocean Beach Erosion Management Strategy | The Umina-Ocean Beach Erosion Management Strategy (RHDHV, 2019) provides a detailed framework for managing coastal erosion at Umina-Ocean Beach over the long term. This strategy was developed based on extensive technical studies of the complex coastal dynamics of Broken Bay and involved collaboration with State Government Agencies.<br>The preferred approach to managing coastal erosion risk at Umina-Ocean Beach is through beach nourishment – as developed through the Broken Bay Beach Nourishment Framework (see Action S6.CCC.N). However, Erosion Management Strategy also includes provision for the future construction of a terminal protection structure (TPS) - if coastal erosion reaches a trigger point where it significantly threatens critical infrastructure along the Esplanade. The strategy outlines a concept design for coastal protection, which features:<br>> A rock-armoured revetment stretching from Kourung Street Boat Ramp to Ocean Beach SLSC and<br>> A stepped concrete seawall in front of the Ocean Beach SLSC (RHDHV, 2019).<br>As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be "activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters". These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works:<br>> Development of a trigger for installation of coastal protection works. This should be based on the proximity of observed (or predicted) coastal erosion to key assets and infrastructure – to a point where erosion is believed to place key assets and infrastructure at risk. It is Council's strong preference to maintain a natural dune profile in front of Ocean Beach SLSC for as long as this remains feasible. Council would endeavour to maintain and enhance the existing dune buffer by a combination of vegetation planting and maintenance, beach scraping to enhance beach recovery following storm erosion, and opportunistic beach nourishment campaigns using sand sourced from entrance maintenance dredging. As such, the installation of a TPS in the form of a stepped concrete seawall would only be considered as a last resort option if progressive erosion results in the complete loss of the foredune (RHDHV, 2020). The trigger to undertake the CPWs should also include any major upgrades of The Esplanade and associated foreshore amenities.<br>> Preparation of a detailed engineering design report and detailed design by suitably qualified engineers – specifying key design parameters. Additionally, there will be community engagement to ensure public input and feedback are incorporated into the final design, promoting transparency and local support for the project.<br>> Implementation of the Coastal Monitoring Program (see Action S2.CCC.A) – to determine when triggers for implementation may be reached.<br>This action therefore includes the ongoing implementation of this strategy, which includes developing detailed designs for the coastal protection works – so that the works can be implemented if/when erosion triggers are reached at some point in the future.<br><br>References:<br>> Figure B-18 provides the location and indicative extent of the proposed CPW.<br>> Figure C-13 and C-14 provides a concept design cross-sections for the rock armoured revetment and the stepped concrete seawall respectively. Note that key design parameters would be refined as part of detailed design investigations.<br><br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. | CCC | DCCEEW-CPHR | Medium (10) | As determined by Trigger thresholds | Design prepared and works completed in a timely manner if trigger(s) reached. |
| Strategy 6: Coastal Hazard Resilience | S6.CCC.P | Broken Bay | Umina Beach | Monitoring of coastal stormwater outlets | The inspection of all coastal stormwater outlets to identify those at risk from coastal hazards and opportunities where upgrades can be implemented or retrofitted in order to protect assets, reduce erosion from stormwater scour and/or improve public safety. These locations would also be regularly monitored to assess performance and improvements. The study area for this action is provided in Figure B-18. | CCC | N/A | Medium (14) | Within 4-8 years | Program for inspection of stormwater outlets developed, inspections undertaken and |



General Meeting 11 November 2026
Attachments Page 526
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 189
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
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| | | | | | | | | | | concept designs developed<br>Improved public safety, water quality and amenity<br>Reduced erosion at stormwater outlets and reduced impact on surrounding assets |
| Strategy 6: Coastal Hazard Resilience | S6.CCC.Q | Broken Bay | Pearl Beach | Coastal Protection Works at Pearl Beach | This action involves beach nourishment and the restoration and revegetation of 200 m of foreshore along Pearl Beach - from Emerald Ave to Tourmaline Ave. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be "activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters". These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works:<br>> Foreshore survey (if/where required)<br>> Preparation of an engineering design report and detailed nourishment design by suitably qualified engineers – specifying key design parameters.<br>> An ongoing program of beach scraping / beach nourishment to surcharge the upper beach profile and the foredune with additional sand<br>> Revegetation and restoration works to extend the vegetated foredune areas landwards by around 10 m.<br>These works would be intended to increase the natural resilience of the foreshore to coastal erosion and inundation.<br>References:<br>> Figure B-17 provides the location and indicative extent of the proposed CPW.<br>> Figure C-8 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. | CCC | DCCEEW-CPHR, DPHI-Crown Lands, | High (24) | Within 1-4 years | Design prepared and works completed.<br>Improved foreshore resilience to coastal hazards. |
| Strategy 6: Coastal Hazard Resilience | S6.CCC.R | Broken Bay | Patonga | Repair and renewal of Patonga Coastal Protection Works | Undertake the repair and renewal of the Patonga Seawall at the Boat Ramp Reserve - to ensure it effectively protects the coastline, surrounding infrastructure, and community from coastal erosion, storm surges, and rising sea levels. This initiative will address current structural deficiencies and future-proof the seawall to meet the challenges of a changing climate. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be "activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters". These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works:<br>> Structure Survey and coastal engineering condition inspection: To survey the structure and identify the nature of the required repair and renewal works<br>> Repair and renewal design: To prepare a specific repair design - including the required armour materials, grades and levels.<br>> Repair and renewal works: Implementation of the repair design, including a safety in design assessment, construction of the works and development of As-Constructed certification from a suitably qualified engineer for Council records. The works will likely comprise the installation of a filter layer and repacking of re-placement of sandstone block units. The renewal will ensure long-term protection against coastal hazards and improve the overall safety and resilience of the infrastructure.<br>References:<br>> Figure B-16 provides the location and indicative extent of the proposed CPW.<br>> Figure C-9 provides a concept design cross-section. Note that key design parameters would | CCC | DCCEEW-CPHR | High (30) | Within 1-4 years | Design prepared and works completed.<br>Improved foreshore resilience to coastal hazards. |





ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
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| | | | | | be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. | | | | | |
| Strategy 6: Coastal Hazard Resilience | S6.CCC.S | Broken Bay | Patonga | Prepare the Patonga Sand Management Plan | Investigate and design a sand management plan for Patonga Beach and Patonga Creek. The action would contain the following key elements:<br>> A detailed investigation of the local sediment transport processes. A key outcome of this model would be an enhanced understanding of the local sediment dynamics - including a quantified sediment budget that includes sediment exchange between the creek and beach. This would include investigation erosive process currently occurring in the creek such as along Larkins Flat.<br>> Development of a sand redistribution program to improve the coastal hazard resilience of key foreshore assets and infrastructure. This would involve an ongoing program of the redistribution of sand sourced from western beach and creek entrance shoals to be placed in front of Patonga Drive to provide a buffer against storm erosion.<br>> This should also investigate opportunities for periodic maintenance dredging of sand from the creek entrance providing a viable source of sand.<br>The study area for this action is provided in Figure B-16. | CCC | DCCEEW-CPHR, DPHI-Crown Lands | High (24) | Within 1-4 years | Study completed. |
| Strategy 6: Coastal Hazard Resilience | S6.CCC.T | Broken Bay | Patonga | Repair and renewal of the Patonga Creek Coastal Protection Works | The Patonga Creek foreshore protection works, which are constructed of stepped sandstone blocks, is in need of repair. It is recommended that a repair and renewal project is undertaken to maintain the function of the structure, extend the functional life, and adapt it for future sea level rise impacts.<br>Repair and renewal works would likely comprise the re-packing of displaced or unstable sandstone block units, and the placement of additional sandstone block units to increase interlocking and hydraulic stability. It may also include incorporation of improved access arrangements for small watercraft – however this would be subject to a design process.<br>Scope of Works:<br>> Structure Survey and coastal engineering condition inspection: To survey the structure and identify the nature of the required repair and renewal works<br>> Repair and renewal design: To prepare a specific repair design - including the required armour materials, grades and levels.<br>> Repair and renewal works: Implementation of the repair design, including a safety in design assessment, construction of the works and development of As-Constructed certification from a suitably qualified engineer for Council records. The works will likely comprise the installation of a filter layer and repacking of re-placement of sandstone block units. The renewal will ensure long-term protection against coastal hazards and improve the overall safety and resilience of the infrastructure.<br>References:<br>> Figure B-16 provides the location and indicative extent of the proposed CPW.<br>> Figure C-9 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. | CCC | DCCEEW-CPHR | High (24) | Within 1-4 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |
| Strategy 6: Coastal Hazard Resilience | S6.CCC.U | Broken Bay | Patonga | Patonga Levee Feasibility Investigation and Design | Sea Level Rise (SLR) inundation mapping indicates that under a +0.5 m SLR scenario, some areas of Patonga will be exposed to sunny day king tide inundation. Under a future +1.0 m SLR scenario the potentially impacted areas increases significantly. Subsequently, Council should undertake a feasibility investigation of implementing a vegetated earthen levee along the western foreshore of Patonga, adjacent to Patonga Creek. The levee would be located on public reserve and would extend from approximately from Meroo Avenue to Jacaranda Avenue.<br>The feasibility study would include:<br>> Problem Definition and Objectives<br>> Site Assessment (survey geotechnical assessment, hydrology, land ownership, and utilities)<br>> Concept Design Options and Associated Cost Estimates<br>> Environmental and Planning Constraints<br>> Social and Community Considerations<br>> Recommendations | CCC | DCCEEW-CPHR | Medium (9) | Within 4-8 years | Study completed. |





ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
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| Strategy 6: Coastal Hazard Resilience | S6.CCC.V | Broken Bay | Broken Bay Beaches | Review and implement updated Beach Maintenance Program | Council's Beach Maintenance Program would be reviewed and implemented to improve public beach access, amenity and safety. The action would include prioritisation and upgrades to beach accessways in line with the Recreational Use Study and Council's Disability Inclusion Action Plan.<br>The program would outline the management of post-storm beach access and safety, where small scale works such as beach scraping for amenity purposes may be undertaken and beach and dune fencing.<br>It will also include an audit on beach maintenance operations to maximise inhouse efficiencies to ensure that the necessary plant and equipment is available to effectively implement the program.<br>The study area for this action is provided in Figure B-16 to B-18. | CCC | DCCEEW-CPHR | High (30) | Within 1-4 years | Beach Maintenance Program reviewed, updated and implemented in conjunction with Council's beach maintenance crews. Improved beach access, safety and amenity, improved dune environment |
| Strategy 6: Coastal Hazard Resilience | S6.CCC.W | Broken Bay | Broken Bay Beaches | Develop and implement a coastal vegetation and dune management strategy | This action would involve surveying coastal and dune vegetation to inform the development of a Coastal Vegetation Strategy aimed at supporting and enhancing coastal resilience, ecosystem integrity, beach amenity and conservation outcomes. The strategy will guide the on-ground management to achieve these outcomes and involve elements such as the management of priority weed species, dune stabilisation and planting, tree restoration and succession planting, education opportunities for the public and community groups and remediation actions required in instances of illegal clearing. | CCC | DCCEEW-CPHR | High (27) | Within 1-4 years | Strategy developed, published and implemented |
| Strategy 6: Coastal Hazard Resilience | S6.CCC.X | Broken Bay | Broken Bay | Implement recommendations from Gosford Lagoons & Creek Entrance Management Review (Salients 2017) for Green Point Creek, Pearl Beach Lagoon and Ettalong Creek. | This action would include updating the Opening of Coastal Lagoons policy to include recommendations of the Gosford Lagoon and Creek Entrance Management Review (Salients, 2017).<br>These recommendations relate to Green Point Creek, Pearl Beach Lagoon and Ettalong Creek, and include the identification of triggers for entrance management intervention to mitigate flood impacts in low lying areas.<br>This action should also include investigating appropriate authorisation arrangements for entrance management works which may occur on Crown land.<br>The study area for this action is provided in Figure B-17 to B-18. | CCC | DCCEEW-CPHR, DPHI-Crown Lands | High (27) | Within 1-4 years | Works implemented. |
| Strategy 7: Social and Recreational Amenity | S7.CCC.A | Broken Bay | Gosford | Support the Gosford Foreshore Masterplan | This action would seek to identify and support components of the Gosford Foreshore Masterplan that relate to estuary management. The intention of this action would be to embed the consideration of water quality outcomes and improvement to estuarine habitat as part of any future detailed design processes. This would also include embedding coastal hazard resilience into the development design (especially coastal inundation). | CCC | DCCEEW-CPHR, Hunter Central Coast Development Corporation (HCCDC) | Medium (8) | Within 4-8 years | Masterplan design appropriately embeds water quality outcomes in design. |
| Strategy 7: Social and Recreational Amenity | S7.CCC.B | Broken Bay | Ocean Beach | Construction of an all-abilities beach access point at Ocean Beach SLSC | The project involves the construction of a dedicated all-abilities beach access point at Ocean Beach Surf Life Saving Club (SLSC). This initiative aims to enhance beach accessibility, ensuring that all members of the community, regardless of their physical abilities, can enjoy the beach and its amenities.<br>This action is consistent with Council's Disability Inclusion Action Plan (Central Coast Council 2021) which has four focus areas, one of which is "2: Making the Central Coast more accessible, inclusive and liveable", and one of the objectives is "We will make it easier to access the places we love on the Central Coast – the beaches, waterways and bushland". It is also consistent with the Central Coast Recreational Use Study Stage 1: Open Coast and Coastal Lagoons - Improving and increasing disabled access with states that "Council should work with SLS clubs to ensure that they all have either beach access wheelchairs or beach mats". | CCC | N/A | Medium (9) | Within 4-8 years | Increased accessibility at Ocean Beach. |
| Strategy 7: Social and Recreational Amenity | S7.CCC.C | Broken Bay | Patonga | Develop and implement a foreshore masterplan for Patonga Creek | This master planning process would provide a holistic vision for the Patonga Creek foreshore. Key elements of the plan would include:<br>> Parking and amenities<br>> Safe and equitable foreshore access<br>> Riparian vegetation management<br>> Dingy/water craft storage<br>> Road drainage and management of overland flow<br>The master plan will be developed through stakeholder engagement, site analysis, and | CCC | N/A | Medium (16) | Within 4-8 years | Masterplan designed and implemented. Improved recreational amenity, environmental values, and foreshore resilience. |



General Meeting 11 November 2026
Attachments Page 529
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 192
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
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| | | | | | alignment with relevant coastal management policies. The outcome will be a clear, actionable strategy to ensure the long-term sustainability and enjoyment of the Patonga Creek foreshore.<br>The study area for the plan is depicted in Figure B-16. | | | | | |
| Strategy 7: Social and Recreational Amenity | S7.CCC.D | Broken Bay | Pearl Beach | Investigate the feasibility of ambulant access at Pearl Beach Rock Pool | This feasibility investigation will assess options for a low-impact handrail to assist ambulant access from the sand at Pearl Beach to the rock pool platform. The study will consider the environmental, structural, and accessibility requirements for a minimal-intervention solution that enhances safety while preserving the natural character of the area. Key elements of the investigation will include site assessments, design feasibility, regulatory considerations, and potential impacts on coastal processes.<br><br>Community consultation will form an essential part of the study, ensuring that a range of viewpoints are considered in selecting the most suitable option. This will involve engaging local stakeholders to explore preferences for materials, positioning, and design. The investigation will result in a summary report outlining feasible design options, estimated costs, and implementation considerations for Council's review. | CCC | N/A | Medium (12) | Within 4-8 years | Study completed. |
| Strategy 7: Social and Recreational Amenity | S7.CCC.E | Broken Bay | Broken Bay Beaches | Prioritise and upgrade beach life guard patrol towers and ancillary structures | This action would involve undertaking an audit of beach life guard patrol towers and ancillary structures to ensure their adequacy, performance and safety from coastal hazards. Necessary upgrades and improvements required would be prioritised and implemented to ensure required functions continue to be performed. | CCC | N/A | Low (7) | Opportunistic, within 8-10 Years | Vulnerable life guard patrol towers identified and improvements/upgrades implemented |
| Strategy 7: Social and Recreational Amenity | S7.CCC.F | Broken Bay | Broken Bay Beaches | Review waste collection assets and servicing in coastal public spaces | Work with internal business units and service providers to review the adequacy of waste collection assets and servicing along the coast. The review would be focused on ensuring that infrastructure and assets are sufficient to meet current demands, seasonal and event variations and opportunities for improvement to reduce the environmental and amenity impacts from marine litter and debris. This action should also include the management of post-storm and flood debris. | CCC | N/A | Medium (10) | Within 4-8 years | Waste collection assets identified and upgraded.<br>Management plan for removal of post storm debris developed and implemented. |
| Strategy 7: Social and Recreational Amenity | S7.CCC.G | Multiple across LGA | Estuary-Wide across LGA | Prepare a Central Coast Council Dinghy Management Plan | Dinghies and other small watercraft are a popular way to access the public foreshores across Council's waterways. However, better management is needed to balance accessibility with environmental protection and community use of foreshore reserves. A Strategic Dinghy Management Plan would guide the responsible storage and use of dinghies on public land, ensuring they are kept in designated areas and do not obstruct shared spaces. The goal of the plan would be to:<br>> Establish and maintain designated dinghy storage facilities to support authorised vessels while aligning with Council's open space objectives.<br>> Maintain high-quality foreshore reserves for the enjoyment of the whole community.<br>> Minimise environmental impacts, safety hazards, and obstructions caused by unattended watercraft.<br>> Provide a framework for the removal of unclaimed or improperly stored dinghies from public land.<br>The development of the plan should consider alignment with the Central Coast Watercraft Storage on Public Land Policy (CCC086) | CCC | N/A | Medium (16) | Within 4-8 years | Plan developed. |
| Strategy 7: Social and Recreational Amenity | S7.CCC.H | Middle Estuary | Spencer | Develop and implement a foreshore masterplan for Spencer | This master planning process would provide a strategic and holistic vision for the Spencer foreshore - extending from the boat ramp in the south to the public swimming enclosure in the north. Key elements of the plan would include:<br>> Parking and amenities<br>> Safe vessel access to the waterway<br>> Pedestrian access and safety<br>> Renewal of the Spencer swimming enclosure<br>> Riparian vegetation management<br>> Road drainage and management of overland flow.<br>The master plan will be developed through stakeholder engagement, site analysis, and alignment with relevant coastal management policies. The outcome will be a clear, actionable strategy to ensure the long-term sustainability and enjoyment of the Spencer foreshore.<br>The study area for the plan is depicted in Figure B-10 and B-11. | CCC | N/A | Medium (14) | Within 4-8 years | Masterplan designed and implemented.<br>Improved recreational amenity, environmental values, and foreshore resilience. |



General Meeting 11 November 2026
Attachments Page 530
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 193
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
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| Strategy 7: Social and Recreational Amenity | S7.CCC.I | Brisbane Water | Estuary-Wide | Undertake strategic upgrades of Council owned boat ramps in Brisbane Water | This would include implementing boat ramp upgrades identified by Councils boat ramp action plan. Works may include improvements to ramp structures, associated car and trailer parking, lighting, signage, and accessibility features, ensuring facilities meet contemporary safety, usability, and environmental standards. Upgrades will be staged and prioritised to align with community demand, asset condition, and available funding. | CCC | TfNSW, DPHI-Crown Lands | Low (7) | Opportunistic, within 8-10 Years | Review completed. Priority upgrades established and implemented. |
| Strategy 7: Social and Recreational Amenity | S7.CCC.J | Brisbane Water | Estuary-Wide | Implement the St Huberts Island Canals maintenance program | The purpose of the St Huberts Island Canals maintenance program is to enable residents and Council to conduct maintenance and improvement activities within the St Huberts Island Drainage Reserves (canals) in an informed and consistent manner. The Guideline provides advice and direction for the undertaking of activities to protect and restore foreshores, seawalls and canal depths in a manner that minimises impacts on the hydraulic, sedimentary or ecological processes occurring within the canals, foreshores and surrounding water body (Brisbane Water).<br><br>Whilst the program predominantly includes provision of guidelines for waterfront residents, there are a number of actions for Council, including the following:<br>> Undertaking hydrographic surveying of the canals every 10 years<br>> In conjunction with the surveying and monitoring of sedimentation program, a program of visual monitoring for foreshore management should be undertaken. Similarly, this should be undertaken every three to five years<br>> Preparation of a dredging and disposal feasibility assessment & strategy. The strategy should be developed following consideration of the required dredging volume. This also includes a review available funds to determine whether dredging works are economically feasible | CCC | N/A | High (27) | Within 1-4 years | Survey undertaken. Monitoring completed. Feasibility study completed. |
| Strategy 7: Social and Recreational Amenity | S7.CCC.K | Brisbane Water | Woy Woy | Support the implementation of the Woy Woy foreshore masterplan | Support the staged implementation of the Woy Woy Foreshore Masterplan and subsequent concept designs to improve public access, recreation, environmental values and resilience along the foreshore.<br>Relevant works would include:<br>> Undertaking condition and structural assessments of existing seawalls and revetments, supported by a suitably qualified coastal engineer, to identify maintenance, repair and renewal requirements. Maintaining and upgrading coastal protection structures where required, including consideration of environmentally friendly seawall design, habitat enhancement and opportunities to improve the intertidal zone. The works would include replacement and recapping of sandstone blockwork units.<br>> Upgrading the Woy Woy tidal pool and swimming enclosure, including improved access to the water, renewal of supporting infrastructure and consideration of the proposed tidal terrace and accessible slipway garden.<br>The scope, staging and approval pathways for individual works would be confirmed through detailed design, coastal engineering investigations and environmental assessment. Works should be consistent with the Woy Woy Foreshore Concept Design Report, while recognising that coastal defence works require further investigation and were outside the original concept-design scope.<br>As per the CM Act, CPW repair works would be classified as Coastal Protection Works (CPW), as they are considered to be “activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters”. These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access<br>References:<br>> Figure B-22 provides the location and indicative extent of the proposed CPW repairs.<br>> Figure C-9 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. | CCC | DCCEEW-CPHR | High (27) | Within 1-4 years | Works completed. |
| Strategy 8: Cultural Heritage Protection | S8.CCC.A | Broken Bay | Entrance channel | Identify the location and condition of ship wrecks near the old bar via a | The project involves conducting a comprehensive maritime archaeological survey to identify the likely location and assess the condition of shipwrecks near the Old Bar. This initiative aims to uncover historical maritime artifacts, preserve cultural heritage, and contribute to the understanding of the region's maritime history. | CCC | N/A | Low (5) | Opportunistic, within 8-10 Years | Survey completed. |



General Meeting 11 November 2026
Attachments Page 531
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 194
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
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| | | | | maritime archaeological survey. | | | | | | |



General Meeting 11 November 2026
Attachments Page 532
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 195
ATTACHMENT 1 - ITEM 7

## 5.9 Local Implementation Plan: Northern Beaches Council LGA

A summary of the actions within the Northern Beaches Council Local Implementation Plan are provided in Table 5.8. Maps depicting relevant actions are provided in Appendix B.

**Table 5.8 Action Table – The Northern Beaches Council Local Implementation Plan**

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|
| Strategy 2: Monitoring, Evaluation, and Reporting | S2.NBC.A | Pittwater | Pittwater-wide | Install a CoastSnap Camera Cradles at strategic locations across the LGA foreshore | Install CoastSnap Camera Cradles at strategic locations across the foreshores of Pittwater. CoastSnap is a global citizen science project to capture our changing coastlines. It allows citizens to capture and upload photos of their beaches in order to improve our scientific understanding of erosion and coastal shoreline change. These camera cradles are a low cost resource that enables citizen science to monitor the movement of the shoreline over time, and to identify when erosion at the reserve may represent an increased risk to land and infrastructure. Locations within Pittwater that may be suitable include:<br>> Station Beach<br>> Sandy Beach<br>> Currawong Beach<br>> Great Mackerel Beach<br>Council can liaise with CoastSnap to identify opportunities to install camera cradles at additional locations as funding and resourcing allow. | NBC | DCCEEW-CPHR | Low (5) | Opportunistic, within 8-10 Years | Cradles installed, and data considered to be beneficial for coastal risk management and planning, and community engagement. |
| Strategy 2: Monitoring, Evaluation, and Reporting | S2.NBC.B | Pittwater | Pittwater-wide | Develop and implement a Pittwater beach monitoring program | Implement a foreshore monitoring program for the swell exposed beaches of Pittwater. These sites could include beach surveys of:<br>> Great Mackerel Beach<br>> Currawong Beach<br>> Station Beach<br>> Snapperman Beach<br>> Sandy Beach<br>> Paradise Beach<br>> Additional beaches maybe be included in the monitoring over time as necessary<br>These beach surveys are essential for improving our understanding of coastal erosion and shoreline changes. A critical aspect of this monitoring program is the calculation of the Beach Volume Index (BVI). The BVI is a key metric that quantifies the amount of sand and sediment on the beach. | NBC | DCCEEW-CPHR, NPWS | High (24) | Within 1-4 years | Monitoring undertaken and recorded.<br>Collected data is of tangible benefit from a risk and asset management perspective. |
| Strategy 2: Monitoring, Evaluation, and Reporting | S2.NBC.C | Entire HNRS | Pittwater, Cottage Point | Install permanent tide gauges at strategic locations around the waterway | Whilst there are a number of tide gauges located throughout the river system, there are still some locations where there is an absence of local tide recorded tide data that can assist to understanding localised impacts of tidal inundation, and the impacts of combined coastal and catchment flooding. This information will be particular important over future time frames as the impacts of Sea Level Rise become more severe.<br>This action therefore involves the installation of a new tide gauges at strategic locations across the waterway, including:<br>> The southern area of Pittwater<br>> Cottage Point<br>This list is not exhaustive, and additional gauges may be installed as deemed necessary by Council and the State Government. | NBC | DCCEEW-CPHR | Medium (12) | Within 4-8 years | Gauge implemented and maintained, and data considered to be of tangible benefit for coastal management by Council. |
| Strategy 2: Monitoring, Evaluation, and Reporting | S2.NBC.D | Pittwater | Pittwater-wide | Develop and implement a program for regular and ongoing monitoring of public coastal assets and infrastructure | This action involves the development and implementation of a monitoring program designed to assess and track the condition of various public coastal assets and infrastructure, including:<br>> Public coastal protection structures (revetments, seawalls, training walls)<br>> Recreational assets including viewing platforms & coastal access tracks<br>> Stormwater outlets.<br>> Sewer and water infrastructure<br>The program should be integrated into Councils broader asset management program | NBC | N/A | Medium (21) | Within 4-8 years | Monitoring undertaken and recorded.<br>Collected data is of tangible benefit from a risk and asset management perspective. |
| Strategy 3: Resilience, Planning, and Adaptation | S3.NBC.A | Pittwater | Pittwater-wide | Develop and update coastal hazard information | Develop and update coastal hazard information including coastal erosion and coastal inundation considering climate change and sea level rise | NBC | N/A | Medium (9) | Within 4-8 years | Studies completed. |



General Meeting 11 November 2026
Attachments Page 533
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 196
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|
| Strategy 3: Resilience, Planning, and Adaptation | S3.NBC.B | Pittwater | Pittwater-wide | Update planning certificates with coastal hazard information | Update coastal hazard information on 10.7 Planning Certificates including coastal erosion and estuarine inundation | NBC | DPHI-Planning and Assessment | High (27) | Within 1-4 years | Planning Certificates updated. |
| Strategy 3: Resilience, Planning, and Adaptation | S3.NBC.C | Pittwater | Pittwater-wide | Develop planning controls to ensure buildings are sited and designed to consider coastal hazard information including coastal erosion and estuarine inundation. | Undertake regular reviews and updates of existing planning controls in LEP, DCP and Policy's / Guidelines to ensure the controls are consistent with current best practice and consider contemporary information regarding climate change and sea level rise, and reflect best practice hazard and environmental management | NBC | DPHI-Planning and Assessment | Medium (8) | Within 4-8 years | Review completed. Planning controls updates as necessary. |
| Strategy 3: Resilience, Planning, and Adaptation | S3.NBC.D | Pittwater | Pittwater-wide | Develop a long term adaptation plan for coastal assets and infrastructure | A comprehensive audit of coastal assets and infrastructure will be undertaken to assess their current condition, vulnerability to coastal hazards, and future adaptation needs. This audit will inform a structured approach to managing coastal infrastructure over the next 50–100 years, ensuring resilience to sea level rise, erosion, and extreme weather events. key components of this action include:<br>> Auditing Coastal Assets: Conducting a detailed assessment of key coastal infrastructure, including seawalls, stormwater outlets, walkways, and public amenities. This will document asset condition, maintenance requirements, and exposure to coastal hazards.<br>> Determining Adaptation Triggers: Identifying environmental and structural thresholds (e.g., erosion rates, inundation levels, structural degradation) that will signal when adaptation or intervention is required. These triggers will be based on climate change projections, historical trends, and asset vulnerability.<br>> Developing a Long-Term Response Framework: Establishing a strategic framework for asset adaptation, including short-, medium-, and long-term management options such as maintenance, reinforcement, managed retreat, or realignment.<br>> Prioritising Works: Developing a prioritised list of coastal asset management and adaptation works based on risk, urgency, and cost-effectiveness. These works will be incorporated into future Coastal Management Programs (CMPs) to ensure funding and implementation align with broader coastal planning objectives. | NBC | N/A | Medium (20) | Within 4-8 years | Plan developed. |
| Strategy 5: Estuary & Waterway Health | S5.NBC.A | Pittwater | Careel Bay | Naturalisation of Careel Creek: Design and Implementation | This naturalisation project aims to restore ecological function, improve waterway health, and enhance public access and amenity, while recognising the need to maintain flood conveyance capacity in the existing concrete-lined section.<br>The project will include:<br>Design Study: Assess technical, environmental, cultural, and community considerations to inform design options, staging, and investment priorities.<br>Implementation:<br>>Access Improvements: Enhance pedestrian access to improve safety and connectivity along the creek corridor.<br>> Habitat Enhancement with Native Vegetation: Introduce and expand native wetland vegetation in suitable areas to increase biodiversity and habitat value. Extend salt marsh areas to support aquatic life and improve ecological resilience. These works would be considered 'Environmental protection works' (EPW) for mapped coastal wetlands and littoral rainforest in accordance with the R&H SEPP, and the Standard Instrument - Principal Local Environmental Plan (2006 EPI 155a).<br>> Concrete Channel Improvements: Where the detailed design study indicates, implement opportunities to soften the channel environment (e.g., retrofitting with habitat features, planting in margins, or using textured surfaces) to improve ecological function while retaining flood conveyance<br>> Installation of Water Quality Improvement Devices and WSUD: Integrate water-sensitive urban design (WSUD) elements such as biofiltration systems, sediment traps, and constructed | NBC | DCCEEW-CPHR | Medium (10) | Within 4-8 years | Design and implementation completed. Increase in local extent of coastal wetlands and enhanced biodiversity values. No significant loss of flood conveyance. |



General Meeting 11 November 2026
Attachments Page 534
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 197
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
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| | | | | | wetlands to naturally treat stormwater and reduce pollutant loads entering the creek and Pittwater.<br>Outcomes:<br>This action will improve flood resilience, support biodiversity, and enhance water quality through the creation of a functional wetland system that naturally treats pollutants before they reach downstream environments, while also maximising ecological and community benefits within the constraints of the existing channel. | | | | | |
| Strategy 5: Estuary & Waterway Health | S5.NBC.B | Pittwater | Careel Bay | Upgrade the Careel Bay litter trap | Upgrade the Careel Creek baramy trap to a more modern design that incorporates advanced technology for improved waste capture and environmental sustainability. This will involve adoption of a modern litter trap/boom design, ensuring minimal impact on local ecosystems, and implementing ongoing maintenance to keep the system operating efficiently. | NBC | N/A | High (24) | Within 1-4 years | Works completed. |
| Strategy 6: Coastal Hazard Resilience | S6.NBC.A | Pittwater | Station Beach | Foreshore Management Works at Station Beach | Undertake foreshore restoration and naturalisation works across Station Beach in order to improve erosion resilience and ecological values.<br>For the purposes of this CMP, the works are classified as Environmental Protection Works, reflecting their focus on rehabilitation of the natural foreshore. The site is not located within or near a mapped Coastal Wetlands and Littoral Rainforests Area under the R&H SEPP.<br>These works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works:<br>The works would include:<br>> Planting appropriate native foredune species along the foredune to promote natural foreshore building and recovery.<br>> Formalisation of beach access points to protect dune vegetation<br>The initial priority for the works would be the area of foreshore directly in front of the Car Park - but works could also extent to other areas across the Station Beach foreshore as needed.<br>References:<br>> Figure B-25 provides the location and indicative extent of the proposed works.<br>> Figure C-7 provides a concept design cross-section. Note that key design parameters would be refined as part of planning investigations.<br>Approvals Pathway:<br>The works associated with this action are categorised as waterway or foreshore management activities under the T&I SEPP and appropriate planning pathways will be used during action implementation. | NBC | DCCEEW-CPHR | High (27) | Within 1-4 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |
| Strategy 6: Coastal Hazard Resilience | S6.NBC.B | Pittwater | Great Mackerel Beach | Foreshore Management Works at Great Mackerel Beach (Whole-of Beach) | Undertake foreshore restoration and naturalisation works across Great Mackerel Beach (whole-of-beach) in order to improve erosion resilience and ecological values. These works would be complimentary to the master-planning works undertaken as part of the Great Mackerel Beach Foreshore Master Plan (Action S6.NBC.H) – but would focus on aspects of the plan associated with sand redistribution and foreshore revegetation.<br>The action is based on the established understanding of Great Mackerel Beach as a single sediment system in which sand transported southward from the marine delta at the northern end maintains the active beach along the whole length of the embayment (Cowell, 1989; Cowell & Nelson, 1991; Kulmar & Gordon, 1987). A coordinated approach should be undertaken with NPWS.<br>For the purposes of this CMP, the works are classified as Environmental Protection Works, reflecting their focus on rehabilitation of the natural foreshore. Part of the site is located within or near a mapped Coastal Wetlands and Littoral Rainforests Area under the R&H SEPP.<br>These works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works:<br>> Sand Redistribution and Foredune Building: Periodic and targeted sand redistribution will strengthen the upper beach profile and improve coastal resilience. This will involve beach scraping combined redistribution of sand from the flood tide delta at the northern end of the beach towards the southern, down-drift sections of the beach. Similar works carried out in 1989 and 1990 remained stable until the June 2016 storm event. Subject to engineering advice, the | NBC | DCCEEW-CPHR, NPWS | High (24) | Within 1-4 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |



General Meeting 11 November 2026
Attachments Page 535
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 198
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
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| | | | | | project may also include constructing a low foredune crest and swale to mitigate overland flow, which is contributing to ongoing erosion. The eligible sand placement zones may extend across the full length of the Great Mackerel Beach foreshore, adopting a holistic, "whole of beach compartment approach". Placement zones will be informed by foreshore monitoring (Actions S2.NBC.A and S2.NBC.B), and determination of local needs.<br>> Foreshore Naturalisation: Strengthening the natural dune system by planting native foredune species to promote dune formation and stability. Protective fencing will be installed to support vegetation colonization and long-term dune recovery.<br>> Formalisation of beach access points to protect dune vegetation<br>References:<br>> Figure B-26 provides the location and indicative extent of the proposed works.<br>> Figure C-7 provides a concept design cross-section. Note that key design parameters would be refined as part of planning investigations.<br>Approvals Pathway:<br>The works associated with this action are categorised as waterway or foreshore management activities under the T&I SEPP and appropriate planning pathways will be used during action implementation. | | | | | |
| Strategy 6: Coastal Hazard Resilience | S6.NBC.C | Pittwater | Sand Point Beach | Foreshore Management Works along Sand Point Beach | Undertake foreshore restoration and naturalisation works across Sand Point Beach in order to improve erosion resilience and ecological values.<br>For the purposes of this CMP, the works are classified as Environmental Protection Works, reflecting their focus on rehabilitation of the natural foreshore. The site is not located within or near a mapped Coastal Wetlands and Littoral Rainforests Area under the R&H SEPP.<br>These works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works:<br>> Beach Scraping – including both the redistribution of sand along the foreshore within the existing local compartment, as well as cross-shore sand redistribution as necessary.<br>> Planting appropriate native foredune species along the foredune to promote natural foreshore building and recovery.<br>> Formalisation of beach access points to protect dune vegetation<br>References:<br>> Figure B-26 provides the location and indicative extent of the proposed works.<br>> Figure C-7 provides a concept design cross-section. Note that key design parameters would be refined as part of planning investigations.<br>Approvals Pathway:<br>The works associated with this action are categorised as waterway or foreshore management activities under the T&I SEPP and appropriate planning pathways will be used during action implementation. | NBC | DCCEEW-CPHR | High (24) | Within 1-4 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |
| Strategy 6: Coastal Hazard Resilience | S6.NBC.D | Pittwater | Careel Bay | Investigate the feasibility of channel maintenance works within Careel Bay and Careel Creek | Investigate the feasibility of channel maintenance works within Careel Creek and Careel Bay to maintain effective drainage and reduce the risk of flooding in the surrounding areas. The investigation will assess the potential for removal of accumulated sediment, debris, and vegetation that may obstruct water flow and contribute to inundation during combined coastal and catchment flooding events. The study would consider environmental constraints and the requirements of relevant permits and approvals. If feasible, this action would also include the delivery of the works (these works would be considered 'Environmental protection works' (EPW) for mapped coastal wetlands and littoral rainforest in accordance with the R&H SEPP, and the Standard Instrument - Principal Local Environmental Plan (2006 EPI 155a). The study area for in investigation is provided in Figure B-27. | NBC | DCCEEW-CPHR | Medium (16) | Within 4-8 years | Study completed. |
| Strategy 6: Coastal Hazard Resilience | S6.NBC.E | Pittwater | Clareville Beach | Foreshore Management Works at Clareville Beach Reserve | Undertake foreshore restoration and naturalisation works along the foreshore south of Delecta Ave, in order to enhance erosion resilience and ecological values.<br>For the purposes of this CMP, the works are classified as Environmental Protection Works, reflecting their focus on rehabilitation of the natural foreshore using non-structural treatments. The site is not located within or near a mapped Coastal Wetlands and Littoral Rainforests Area under the R&H SEPP.<br>These works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by | NBC | DCCEEW-CPHR | Medium (14) | Within 4-8 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |



General Meeting 11 November 2026
Attachments Page 536
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 199
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
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| | | | | | protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works:<br>> Planting appropriate native foredune species along the foredune to promote natural foreshore building and recovery.<br>> Formalisation of beach access points to protect dune vegetation.<br>References:<br>> Figure B-27 provides the location and indicative extent of the proposed works.<br>> Figure C-7 provides a concept design cross-section. Note that key design parameters would be refined as part of planning investigations.<br>Approvals Pathway:<br>The works associated with this action are categorised as waterway or foreshore management activities under the T&I SEPP and appropriate planning pathways will be used during action implementation. | | | | | |
| Strategy 6: Coastal Hazard Resilience | S6.NBC.F | Pittwater | Bayview | Foreshore Management Works at Rowland Reserve foreshore | Undertake foreshore restoration and naturalisation works across the eastern side of the Rowland Reserve Dog Park foreshore, in order to enhance erosion resilience and ecological values.<br>For the purposes of this CMP, the works are classified as Environmental Protection Works, reflecting their focus on rehabilitation of the natural foreshore using non-structural treatments. The site is not located within or near a mapped Coastal Wetlands and Littoral Rainforests Area under the R&H SEPP.<br>These works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works:<br>> Planting appropriate native foredune species along the foredune to promote natural foreshore building and recovery.<br>> Implementation of formalised access points to the beach from the park.<br>References:<br>> Figure B-28 provides the location and indicative extent of the proposed works.<br>> Figure C-7 provides a concept design cross-section. Note that key design parameters would be refined as part of planning investigations.<br>Approvals Pathway:<br>The works associated with this action are categorised as waterway or foreshore management activities under the T&I SEPP and appropriate planning pathways will be used during action implementation. | NBC | DCCEEW-CPHR | Low (6) | Opportunistic, within 8-10 Years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |
| Strategy 6: Coastal Hazard Resilience | S6.NBC.G | Pittwater | Currawong Beach | Foreshore Management Works at Currawong Beach | Undertake foreshore restoration and naturalisation works along Currawong Beach in order to enhance erosion resilience and ecological values.<br>For the purposes of this CMP, the works are classified as Environmental Protection Works, reflecting their focus on rehabilitation of the natural foreshore using non-structural treatments. The site is not located within or near a mapped Coastal Wetlands and Littoral Rainforests Area under the R&H SEPP.<br>These works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works:<br>> Beach Scraping – including both the redistribution of sand along the foreshore within the existing local compartment, as well as cross-shore sand redistribution as necessary.<br>> Planting appropriate native foredune species along the foredune to promote nature dune building and recovery<br>> Subject to engineering advice, construction of a small swale running behind the foreshore to prevent overland flow exacerbating the current erosion issues.<br>References:<br>> Figure B-26 provides the location and indicative extent of the proposed works.<br>> Figure C-7 provides a concept design cross-section. Note that key design parameters would be refined as part of planning investigations. | NBC | DCCEEW-CPHR | Medium (14) | Within 4-8 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |



General Meeting 11 November 2026
Attachments Page 537
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 200
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
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| | | | | | Approvals Pathway:<br>The works associated with this action are categorised as waterway or foreshore management activities under the T&I SEPP and appropriate planning pathways will be used during action implementation. | | | | | |
| Strategy 6: Coastal Hazard Resilience | S6.NBC.H | Pittwater | Great Mackerel Beach | Great Mackerel Beach Foreshore Master Plan (Whole-of-Beach) | The Great Mackerel Beach Foreshore Master Plan aims to maintain the integrity of Great Mackerel Beach as an integrated sediment system (whole-of-beach plan) and enhance the amenity and environmental values of the foreshore. The plan seeks to support sustainable foreshore management and improve the experience of residents and visitors while protecting and enhancing the beach's natural character.<br>The action is based on the established understanding of Great Mackerel Beach as a single sediment system in which sand transported southward from the marine delta at the northern end maintains the active beach along the whole length of the embayment (Cowell, 1989; Cowell & Nelson, 1991; Kulmar & Gordon, 1987). It recognises that the beach may be unable to recover fully between storm events and that active management may be required to manage the beach (Cowell, 1992; Fellowes, et al., 2021; Gallop, et al., 2020).<br>The plan will include key components with some works classified as Environmental Protection Works (EPW) reflecting the focus on rehabilitation of the natural foreshore using non-structural treatments. These works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Key elements of the masterplan may include:<br>> Sand Redistribution and Foredune Building: As described by, and undertaken through, Action S6.NBC.B.<br>> Foreshore Naturalisation: Strengthening the natural dune system by planting native foredune species to promote dune formation and stability. Protective fencing will be installed to support vegetation colonization and long-term dune recovery.<br>> Formalisation of pedestrian access and connectivity around foreshore dune: Consideration of designated beach access points and paths to reduce dune trampling and associated erosion (Cowell & Nelson, 1991; WRL, 2026). This is intended to limit breaks in the foredune while ensuring that access to and from the beach is available for pedestrians and that a single vehicular access point is provided for deliveries and maintenance that is provided by barge. Existing access points and paths may be maintained in line with Action S7.NBC.A.<br>> Utilities Providers and NPWS: Engaging with utilities providers and NPWS regarding utility infrastructure and management in the coastal zone.<br>> Watercraft Dinghy Storage: Installing structured dinghy racks to eliminate on-ground storage, which currently contributes to localized erosion. This will provide a designated, organized solution that preserves the foreshore while maintaining access for boat users.<br>Community engagement will be a key part of the process, ensuring local input shapes the plan and that proposed actions align with community values and priorities. This may be facilitated through the community groups and resident representatives.<br>The elements of the Masterplan should be consistent with actions and priorities set out in the Ku-ring-gai Chase National Park Plan of Management (NPWS, 2024).<br>Development of the plan should consider, management of encroachments onto public land, equitable use of public space and safe access along the foreshore.<br>References:<br>> Figure B-25 and Figure B-26 provides the location and indicative extent of the proposed EPW.<br>> Figure C-8 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The works associated with this action are categorised as waterway or foreshore management activities under the T&I SEPP and appropriate planning pathways will be used during action implementation. | NBC | DCCEEW-CPHR | High (30) | Within 1-4 years | Design prepared and works completed. |
| Strategy 6: Coastal Hazard Resilience | S6.NBC.I | Pittwater | Pittwater | Provide coastal hazard risk information to | This action involves Council sharing relevant coastal hazard information - such as technical studies, monitoring data, and hazard mapping - with public asset owners as new information becomes available. The aim is to improve awareness of current and future coastal hazard risks, and to support longer-term planning and risk management by asset owners. | NBC | N/A | High (24) | Within 1-4 years | Information provided and considered to be of tangible benefit to relevant asset owners |



General Meeting 11 November 2026
Attachments Page 538
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 201
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
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| | | | | public asset owners | Where relevant, Council may also provide examples of potential adaptation responses - including nature-based solutions, coastal protection works, or asset relocation - to assist asset owners in understanding possible management pathways. Final decisions and implementation of any specific response remain the responsibility of the asset owner. | | | | | for planning and decision making purposes. |
| Strategy 6: Coastal Hazard Resilience | S6.NBC.J | Pittwater | Pittwater | Pittwater dredging and beach nourishment design and pilot project | This would include a detailed study investigating dredging and beach nourishment as a long term strategy for managing coastal hazard risk at key high risk beaches across the estuary including Great Mackerel Beach, Currawong, Snapperman Beach, Station Beach, Paradise Beach and other relevant high-risk beaches as required. It would include:<br>> Identification and confirmation of sand source, extraction method and beach nourishment profile and volumes.<br>> Investigating and securing funding mechanisms.<br>> Following consultation and community acceptance of funding options and impacts associated with beach nourishment:<br>- Secure all necessary approvals and permits<br>- Complete environmental assessment<br>> Undertake a sand nourishment pilot project subject to investigations, funding and consultation.<br>Sand nourishment works undertaken as part of this Action are classified as Coastal Protection Works (CPW) under the CM Act, as they are considered to be "activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters". These CPW form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>References:<br>> Figure B-25 and B-26 provides the location and indicative extent of the proposed CPW.<br>> Figure C-8 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. | NBC | DCCEEW-CPHR, NPWS, DPHI-Crown Lands | High (27) | Within 1-4 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |
| Strategy 6: Coastal Hazard Resilience | S6.NBC.K | Pittwater | Northern Estuary | Pittwater Wave Climate Study | A coastal engineering investigation should be undertaken to investigate the propagation of offshore swell energy into the Pittwater Estuary. The Stage 2 Coastal Hazard Study for Pittwater identified that there is currently very little information available to properly quantify this process with little recorded wave data and the most recent modelling studies very 20 years old. This currently represents a major data gap and has flow-on effects in terms of being able to prepare for coastal storm events, to adequately design coastal infrastructure to resist swell energy, and to understand sediment transport processes inside the estuary.<br>The Stage 2 hazard study recommended that a comprehensive wave climate study be undertaken for the Pittwater Estuary. It would include the following elements:<br>> Data Collection: Collection of wave data through the installation of field instrumentation (pressure transducers, ADCP, wave buoys) at various points within and outside the estuary to measure wave height, period, and direction.<br>> Numerical modelling: Development wave models to simulate wave propagation into the estuary, using the wave buoy data to calibrate and validate the modelling.<br>> Analysis and Reporting: Determination of design & operational wave conditions around the estuary, including an improved understanding of the penetration of swell wave energy into the estuary.<br>This could be undertaken in conjunction with Action S6.NBC.J if deemed beneficial. | NBC | DCCEEW-CPHR | Medium (14) | Within 4-8 years | Study completed. |
| Strategy 7: Social and Recreational Amenity | S7.NBC.A | Pittwater | Pittwater | Upgrade and repair of waterway access points | Undertake maintenance, repairs and upgrade works at public wharfs across Pittwater Estuary. Relevant wharfs and ramps may include:<br>> Great Mackerel Beach<br>> Currawong<br>> Coasters Retreat (Bonnie Doon)<br>> Lovett Bay<br>> Church Point | NBC | N/A | High (27) | Within 1-4 years | Assets maintain appropriate engineering and safety standards. |



General Meeting 11 November 2026
Attachments Page 539
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 202
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
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| | | | | | > Scotland Island (4 x wharfs)<br>> Careel Bay<br>> Paradise Beach<br>Additional wharfs may be included as required.<br>Before works commence, confirm that the relevant land tenure and authorisations are in place. This should include confirming appropriate tenure for the Lovett Bay public wharf, noting its location within land dedicated as a Landing Place under section 104 of the *Crown Lands Act* in 1906.<br>This Action will be delivered and funded through Northern Beaches Council's business-as-usual (BAU) asset management and delivery program, forming part of the ongoing renewal and upkeep of public maritime infrastructure | | | | | |
| Strategy 7: Social and Recreational Amenity | S7.NBC.B | Pittwater | Sand Point | Boat Ramp Upgrade | Upgrade work will consist of ramp resurfacing with the inclusion of appropriate engineering works for the ramp foundation. This Action will be delivered and funded through Northern Beaches Council's business-as-usual (BAU) asset management and delivery program, forming part of the ongoing renewal and upkeep of public maritime infrastructure. | NBC | TfNSW | High (24) | Within 1-4 years | Works completed. |



General Meeting 11 November 2026
Attachments Page 540
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 203
ATTACHMENT 1 - ITEM 7

## 5.10 Local Implementation Plan: NPWS

A summary of the actions within the NPWS Implementation Plan are provided in Table 5.9. Maps depicting relevant actions are provided in Appendix B.

**Table 5.9 Action Table – The NPWS Implementation Plan**

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|
| Strategy 6: Coastal Hazard Resilience | S6.NPW.A | Pittwater | Station Beach | North Station Beach Coastal Protection Works - Sand Redistribution and Dune Building | Stage 2 coastal hazard mapping has indicated that key NPWS Assets at Station Beach are likely to be vulnerable to severe storm erosion over the coming decades - and 3 options have been considered and assessed as part of the Stage 3 Analysis. The preferred option involves sand scraping to restore and revegetate 80m of foreshore in front of the assets. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be "activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters". These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works: Subject to actual erosion/recession rates observed, detailed design, environmental assessments and approvals, the works would include:<br>> An ongoing program of beach scraping and dune building. As the longshore sediment transport at the sites moves from North to South (as identified in the Stage 2 Hazard Study), this action would include a beach scraping process to move sand from farther south along Station Beach - returning it northwards to build the beach and increase the dune buffer in front of the at-risk assets.<br>> The dune building and buffer in front of the assets is expected to provide a buffer from a 100-year ARI storm event, providing an additional ~18m3/m of sand in front of the assets.<br>> Sand could be won from a 250 m long stretch of foreshore located to the south of the assets. This would involve a shallow scraping of ~0.2 m of surface sand from the intertidal zone across the borrow area.<br>> Revegetation and restoration works could be undertaken to help build the local dune and trap the nourished sand in place.<br>> Ongoing program of works, likely required around every 5 years given the relatively low rate of longshore drift.<br>> Monitoring of the beach profile and sand movement to inform the required frequency of scraping events.<br>References:<br>> Figure B-26 provides the location and indicative extent of the proposed CPW.<br>> Figure C-8 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. | NPWS | NBC, DPHI-Crown Lands | High (24) | Within 1-4 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |



General Meeting 11 November 2026
Attachments Page 541
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 204
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|
| Strategy 6: Coastal Hazard Resilience | S6.NPW.B | Pittwater | The Basin | The Basin Coastal Protection Works - Sand Redistribution Program | Erosion along the western foreshore of The Basin impacting safe recreational and emergency access and placing heritage assets at risk. This action involves undertaking periodic sand redistribution program - transferring sand from the Basin sand delta to the upper beach profile to stabilise the foreshore. This could include the formation of a dune and swale in order to mitigate impacts of overland flow on foreshore erosion.<br>As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be "activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters". These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works: Subject to actual erosion/recession rates observed, detailed design, environmental assessments and approvals, including any required licences, the works would include:<br>> A coastal process study and nourishment design - to confirm sediment transport dynamics, erosion rates, assess the suitability and sustainability of the sand source area, and determine optimal placement volumes and profile.<br>> An ongoing program of sand redistribution - required a total volume of around 1,800m3 of sand to be sourced from the adjacent sand delta, and placed along the 180 m of foreshore to create an additional sand buffer-(10m3/m) along the foreshore to provide safe access and protection of trees. This would provide a 5 m width of dry beach sand at the current erosion scarp at high tide. Sand would be placed to match the existing foreshore slope for stability.<br>> Ongoing works every 2-5 years.<br>> A monitoring plan for the site to monitor beach profile, sand movement and existing seawall condition. Monitoring results will help inform the required frequency of scraping events, as well as assess the existing walls structural integrity and identify any areas requiring maintenance.<br>> Revegetation and restoration works to help build the local dune and trap the nourished sand in place.<br>References:<br>> Figure B-26 provides the location and indicative extent of the proposed CPW.<br>> Figure C-27 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. | NPWS | DPHI-Crown Lands | Medium (21) | Within 4-8 years | Study completed, design prepared and works completed. Improved foreshore resilience to coastal hazards. |



General Meeting 11 November 2026
Attachments Page 542
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 205
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|
| Strategy 6: Coastal Hazard Resilience | S6.NPW.C | Lower Estuary | Bobbin Head | Bobbin Head Foreshore Sea Level Rise Adaptation Study | Several low-lying areas around the Bobbin Head foreshore — including Orchard Park, Gibberagong Park, and the Wharf Area — are currently exposed to tidal inundation (commonly referred to as "sunny day flooding"). This issue was recognised in the Bobbin Head Masterplan (NPWS, 2006), which highlighted the negative impacts of saltwater inundation on the park's aesthetic, recreational, and environmental values. The NSW Tidal Inundation Exposure Assessment also projects that the frequency and severity of tidal inundation will increase over time due to sea level rise.<br>This action involves undertaking a detailed SLR adaptation options assessment followed by detailed investigations and design for key NPWS assets at Bobbin Head. This will include:<br>1. Detailed options assessment of potential sea level rise adaptation and coastal protection work options to replace the failing seawalls and investigate the need for raising the parkland, wharf area and seawalls to prevent continued inundation. This will recommend a preferred long-term solution, and be informed by:<br>> Bobbin Head and Cowan Creek geomorphic and hydrodynamic assessment (Action S6.NPW.D) to inform hydrologic and geomorphic changes to the system with increased sedimentation and sea level rise.<br>> Establish the rate of subsidence for the site through LiDAR and geotechnical assessments<br>> Condition assessment of existing seawalls<br>2. Investigation and design for the preferred adaptation solution, including:<br>> Concept design<br>> Environmental assessments<br>> Cultural and historic heritage assessments<br>> Detailed design<br>The investigation would build on and reassess concepts previously proposed in the Bobbin Head Masterplan (NPWS, 2006) in light of updated sea level rise projections, current infrastructure condition, and visitor use patterns. Outcomes will inform the prioritisation and planning of any future adaptation works.<br>The study area for this investigation is provided in Figure B-29. | NPWS | N/A | Medium (10) | Within 4-8 years | Study completed. |
| Strategy 6: Coastal Hazard Resilience | S6.NPW.D | Lower Estuary | Bobbin Head | Bobbin Head hydrodynamic assessment | The Cowan Creek system is experiencing ongoing direct, indirect, and cumulative impacts from riverine processes, flooding, bed and bank erosion, and geomorphological, hydrological, and hydraulic change – including the effects of sea level rise. An integrated assessment is required to better understand these processes and support effective precinct planning and adaptation responses. It would include the following:<br>> Hydrodynamic modelling to simulate current and future flood behaviour under a range of climate and sea level rise scenarios.<br>> Assessment of land raising and dredging options, including how these would affect flood storage, tidal exchange, and flow conveyance in the estuary.<br>> Evaluation of sediment transport and erosion dynamics, including bank stability and the implications of any intervention on downstream or adjacent areas.<br>> Assessment of cumulative impacts from past and potential future modifications (e.g. urban development, previous dredging, reclamation works).<br>If feasible, this action could be undertaken in concurrently with Action S5.KRG.01 (Cowan Creek Catchment Study) | NPWS | KC | Medium (16) | Within 4-8 years | Study completed. |



General Meeting 11 November 2026
Attachments Page 543
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 206
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|
| Strategy 6: Coastal Hazard Resilience | S6.NPW.E | Lower Estuary | Apple Tree Bay | Repair and renewal of the Bobbin Head Coastal Protection Works | The Bobbin Head foreshore is almost entirely flanked by seawalls, many of which are heritage-listed and dating from the original parkland in the early 1900s. Ongoing impacts from tidal inundation and flooding have resulted in numerous sections of the walls failing. These sections are posing a safety risk at the high visitation precinct with temporary fencing placed around the affected areas. NPWS will maintain and repair seawalls on a regular basis throughout the life of the CMP to maintain safety and functionality. Approximately 300m of the seawall requires immediate repair/replacement that is scoped in this Action, split into two separate repair design types:<br>1. 250 m of sandstone block work seawall requires repair. This is located along the immediate east and south of the creek bridge and comprises repacking/replacement of sandstone blockwork, with the additional of an aggregate filter layer, drainage features and geotextile underlay. This also include the raising of the crest level to mitigate tidal inundation impacts both under present day conditions and future SLR.<br>2. On the south-western bank of Cockle Creek, a section of cement grouted rock wall is failing, placing a footpath and carpark at risk. The proposed works include restoration of the existing rock protection and revegetation of planting new mangroves in the tidal flat in front of the structure.<br>Scope of Works:<br>> Structure Survey and coastal engineering condition inspection: To survey the structure and identify the nature of the required repair and renewal works<br>> Repair and renewal design: To prepare a specific repair design - including the required armour materials, grades and levels.<br>> Implement the planning, design and construction of the repair works. The works are subject to detailed designs, investigations and approvals, and will likely comprise the installation of a filter layer and repacking or replacement of sandstone block units. The renewal will ensure long-term protection against coastal hazards and improve the overall safety and resilience of the infrastructure.<br>References for Sandstone Blockwork Upgrade:<br>> Figure B-29 provides the location and indicative extent of the proposed CPW.<br>> Figure C-28 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations.<br>References for Rockwall Upgrade:<br>> Figure B-29 provides the location and indicative extent of the proposed CPW.<br>> Figure C-29 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. | NPWS | N/A | High (24) | Within 1-4 years | Works completed. |
| Strategy 6: Coastal Hazard Resilience | S6.NPW.F | Lower Estuary | Coasters Retreat, Marramarra Creek, Cowan Creek, Gentlemans Halt, Berowra Creek, Mooney Mooney Creek | Coastal Protection works for NPWS Bank Erosion Hotspot Sites | This Action involves implementing the finding of the NPWS Riverbank and Riparian Condition Assessment and Options Report (Alluvium, 2025). This erosion and bank condition assessment was undertaken across NPWS estate in the HNRS to identify erosion hotspots that are placing assets and infrastructure at risk, and to manage bank health. The NPWS assets at risk include a mix of walking tracks, cultural sites, heritage sites, campground infrastructure and mapped coastal wetlands.<br>A total of 11 priority sites were identified for bank stabilisation works – of which 6 specific sites have been selected for short term implementation through the CMP. Works at these sites are classified as Coastal Protection Works (CPW) under the CM Act, as they are considered to be “activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters”. These CPW form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access.<br>Scope of Works:<br>The selected CPW are to be undertaken at the following locations:<br>> Cowan Creek: A combination of two CPW approaches, including:<br>a) the re-construction of the existing walking track using sandstone blocks to create a new walking surface and sandstone retaining wall, and<br>b) the construction of a rock revetment to protect the bank from further erosion caused by tidal flows and wave action. | NPWS | DPHI-Crown Lands | High (24) | Within 1-4 years | Design prepared and works completed. Improved foreshore resilience to coastal hazards. |



General Meeting 11 November 2026
Attachments Page 544
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 207
ATTACHMENT 1 - ITEM 7

| CMP Strategy | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Figure B-33 provides the location and indicative extent of the proposed CPW. Figures C-15 and C-16 provide associated concept designs.<br>> Coasters Retreat: Stabilising the segments of eroding shoreline threatening the track using riprap rock protection, rebuilding failing track segments, and incorporating drainage where needed. Figure B-26 provides the location and indicative extent of the proposed CPW. Figures C-17 and C-18 provide associated concept designs.<br>> Mooney Mooney Creek: These works aim to stabilise the existing creek bank to protect nearby assets, and realign the Hawkesbury Track away from the high-risk area to increase the "buffer" zone. Stabilisation and protection of the banks will involve the placement of two rows of rock parallel to the bank and approximately 3 m apart. On either end of the site, additional rock walls perpendicular to the bank will connect the longer rows, thereby creating a rectangular "box" structure. The area within this box will then be graded back up to create a gently sloping bank. This will be revegetated with mangroves, creating a mangrove bar that will act to dissipate energy coming in from tides or boat wash, and stabilise the sediments to prevent further erosion. Figure B-30 provides the location and indicative extent of the proposed CPW. Figures C-19 and C-20 provide associated concept designs.<br>> Berowra Creek: Rock armoured CPW are to be constructed across a 100 m stretch of foreshore. The rocks should be placed in front of the existing trees to provide them with protection. The rock protection should be 2 m wide and 1 m high and follow the contour of the bank around the entire site. Rock protection is proposed around the historic boathouse floor to prevent disturbance. Figure B-31 provides the location and indicative extent of the proposed CPW. Figures C-21 and C-22 provide associated concept designs.<br>> Marramarra Creek: A mix of revegetation, coir logs and a riprap toe are to be applied throughout the site according to the needs and constraints at the time of construction. Figure B-32 provides the location and indicative extent of the proposed CPW. Figures C-23 and C-24 provide associated concept designs - including a concept reference of where each solution is most applicable to protect built assets and maintain beach access.<br>> Gentlemans Halt: A rock revetment constructed on either side of the existing wharf structure, both upstream and downstream of the wharf where the existing protection is failing. Figure B-11 provides the location and indicative extent of the proposed CPW. Figure B-11 provides the location and indicative extent of the proposed CPW. Figures C-25 and C-26 provide associated concept designs.<br>Approvals Pathway:<br>The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. | | | | | |



General Meeting 11 November 2026
Attachments Page 545
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 208
ATTACHMENT 1 - ITEM 7

WATER TECHNOLOGY
WATER, COASTAL & ENVIRONMENTAL CONSULTANTS

# 6 A BUSINESS PLAN

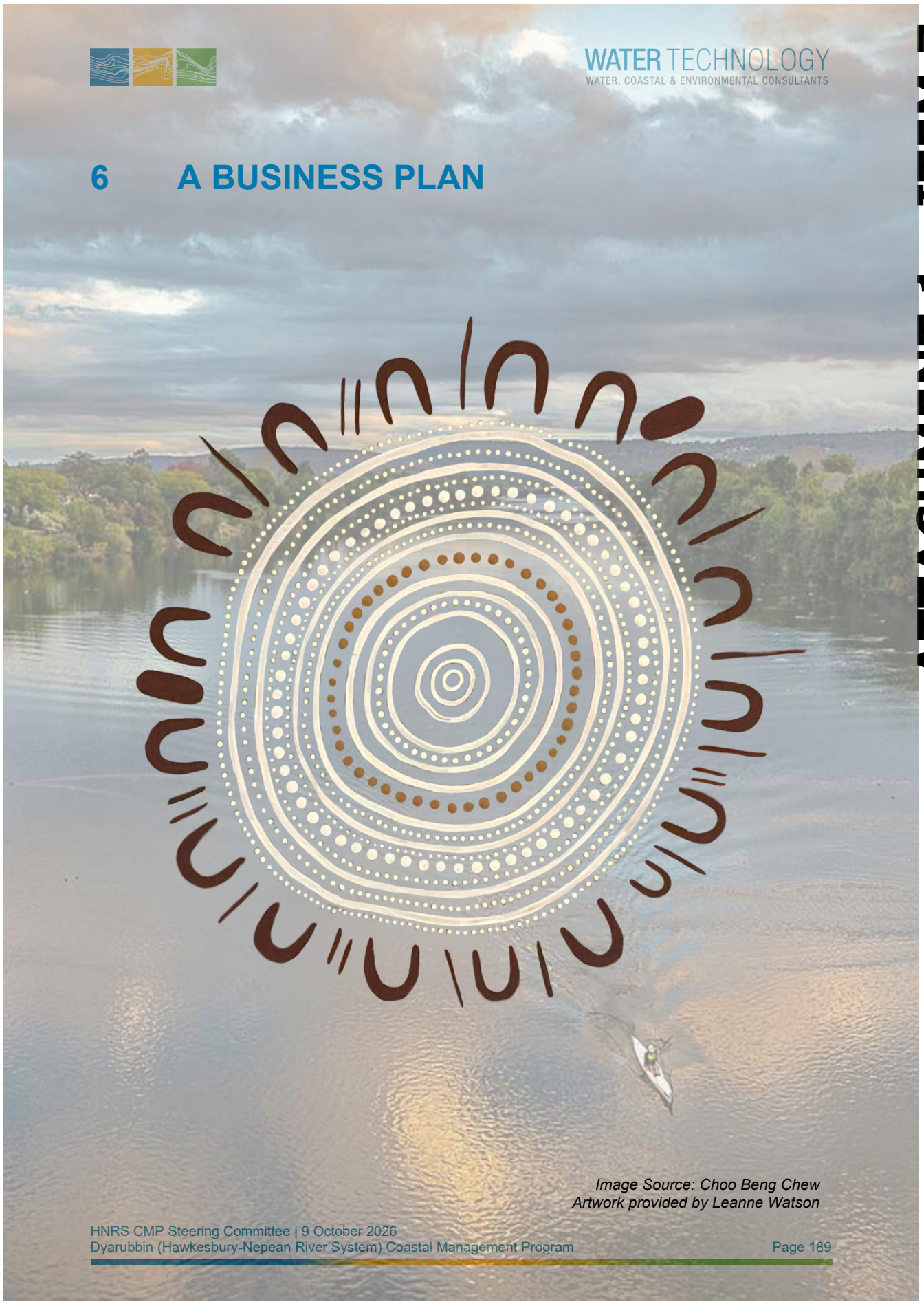


*Image Source: Choo Beng Chew*
*Artwork provided by Leanne Watson*

## 6.1 Overview

The business plan outlines the key components of the funding strategy for the CMP, including the cost of the proposed actions, proposed cost-sharing arrangements and other potential funding mechanisms. It has been prepared in accordance with the requirements of the NSW CM Manual (OEH, 2018e).

## 6.2 The Benefits of Implementing the CMP

The HNRS is one of the Greater Sydney and Central Coast's most significant environmental, social, and economic assets. The river system supports high environmental values and plays a vital role in the social and cultural wellbeing of surrounding communities.

The Stage 1 Scoping Study (Water Technology, 2020) identified the river system as a major contributor to the regional economy through various ways, including:

- An estimated $1 billion per annum in ecosystem services (high-level estimate)
- Approximately $270 million in the replacement value of fixed foreshore assets
- Around $45 million per annum in tourism and domestic day trips
- Approximately $8 million per annum in direct value from commercial fishing and aquaculture
- An estimated $500 million per annum in agriculture value within the Partner Council LGAs.

However, a range of threats and stressors identified in this CMP pose risks to the river system's environmental, social, and economic values. These pressures are expected to intensify over coming decades due to climate change, population growth, and urban development.

The core objective of this CMP is to identify, address, and mitigate these threats - both now and into the future - through a long-term, coordinated strategy for the management of the river system and its broader coastal zone. The CMP encompasses a diverse suite of actions, including physical works, monitoring programs, technical studies, and education and engagement initiatives.

Investment in the CMP presents an opportunity to strengthen and protect the region's natural hazard resilience, water quality, environmental habitats, cultural values, and recreational amenity, delivering broad public benefits.

This business plan focusses on mitigating coastal risks in the public interest, recognising the diverse settings, pressures, and priorities across the HNRS. As such, the plan does not allocate costs to private beneficiaries but rather focuses on public good outcomes across the catchment.

## 6.3 Potential Funding Mechanisms

A business plan has been developed for the CMP which outlines the key components of the funding strategy for the CMP, including the cost of proposed actions, proposed cost-sharing arrangements and other potential funding mechanisms.

Sustainable funding and financing arrangements for management actions will be established in consultation with key stakeholders. Funding for management actions may be gained from various sources, including the Partner Council's operational budgets, competitive State Government grant programs, and local third parties.

### 6.3.1 Council Funding

Funding for the Partner Councils is allocated based on their respective Resource Strategies and Long Term Financial Plan, which supports the Delivery Program (4-yearly) and the Operational Plan (yearly) under the IP&R Framework.

Key funding sources for the Partner Councils are statutory rates and charges (e.g., water, sewer, and waste), which can be applied to private landowners and businesses. Under the LG Act, ordinary rates can be applied to all rateable land within an LGA. Ordinary rates fund a range of Council operations and services and therefore may also be a key revenue stream to support the implementation of activities recommended in this CMP. The estimated annual revenue from ordinary rates and annual charges is provided in Table 6.1, based on information provided from the Partner Councils publicly reported financial statements.

**Table 6.1 Estimated annual revenue for the Partner Councils from rates and annual charges**

| Partner Council | Estimated Annual Revenue from Rates ($ million) | Source |
|---|---|---|
| Hawkesbury City Council | $ 77.2 | HCC Financial Statement – FY 23/24 |
| The Hills Shire Council | $128.7 | THSC Financial Statement – FY 23/24 |
| Hornsby Shire Council | $116.6 | HSC Financial Statement – FY 23/24 |
| Ku-ring-gai Council | $98.3 | KC Financial Statement – FY 23/24 |
| Northern Beaches Council | $246.4 | NBC Financial Statement – FY 23/24 |
| Central Coast Council | $421.5 | CCC Financial Statement – FY 23/24 |
| **Total** | **$1.1 billion** | |

Together, the Partner Councils generate over $1 billion annually in rates and charges, providing a substantial and stable revenue base to support their ongoing service delivery and infrastructure investment. While this funding is already allocated across a wide range of essential council services, it also presents an opportunity to strategically align existing financial resources with the implementation of priority actions outlined in this CMP. Moving forward, effective integration of CMP initiatives into each council's IP&R framework will be critical to ensuring that funding commitments are both realistic and sustainable over the long term.

### 6.3.2 External Sources of Funding

It will not be possible for the Partner Councils to implement all actions identified in this CMP without additional sources of funding. As such, the identification of grants and the submission of successful funding applications is an important component of this CMP.

There are a range of other funding mechanisms available for financing the implementation of the CMP. For example, the Partner Councils can take advantage of various state grant programs, as listed in Table 6.2. The value of this funding cannot be accurately quantified until such time as it is awarded. It should be noted that this is not an exhaustive list of all funding opportunities, and that over the ten-year lifecycle of the CMP additional or new funding sources may become available.

**Table 6.2 Summary of potential funding sources of the CMP**

| Funding Source | Details / Description |
|---|---|
| **State Government** | |
| **NSW Coastal and Estuary Grants Program** | The costs associated with delivery of the CMP can be partly funded by the NSW Coastal and Estuary Grants Program administered by DCCEEW. The program supports coastal and estuary planning projects, and the implementation of works identified in certified CMPs. Funding is available under 5 funding streams:<br>▪ A planning stream: for planning and studies including investigation, design and cost-benefit analyses for infrastructure works recommended in a certified CMP. |

| Funding Source | Details / Description |
|---|---|
| | ▪ Four implementation streams – one for each of the coastal management areas. The focus of these streams are projects that manage risks from coastal hazards, and improve the health of estuaries, wetlands and littoral rainforests across NSW.<br>For projects that address a documented action in a certified CMP, funding is $2 from the State Government for every $1 provided by a Council. Certification of this CMP will facilitate eligibility for funding of many of the actions proposed in this CMP under the program.<br>This grant funding program is contestable and prioritised to Council applications with certified CMPs and subject to State Government funding priorities and allocations. |
| **NSW Estuary Asset Protection (NEAP) Program** | As part of a two-year, National Emergency Management Authority approved $64 million Riparian Stabilisation Package, co-funded by the Australian and NSW Governments under Disaster Recovery Funding Arrangements, the NSW Estuary Asset Protection program will support the repair, restoration and regeneration of priority riparian and estuarine areas significantly affected by the February 2022 flooding.<br>The aims of the NSW Estuary Asset Protection program are to:<br>▪ Assess the severity of flood impacts on estuarine and floodplain assets<br>▪ Identify priority areas for asset protection and increased resilience<br>▪ Implement actions that will provide increased resilience for estuarine and floodplain assets from flooding events. |
| **Marine Estate Management Strategy (MEMS)** | A number of management actions in the CMP may be eligible for funding under the NSW Marine Estate Management Strategy (MEMS). The MEMS provides an overarching, strategic approach to the coordination and management of the marine estate through to 2028.<br>The management of priority threats is grouped into 9 management initiatives that summarise the objectives, benefits, threats, stressors and proposed management actions. An implementation plan (developed by the Authority's member agencies in consultation with key stakeholders) articulates the management actions in more detail. CMPs are key delivery mechanisms for the MEMS. |
| **NSW Disaster Risk Reduction stream grants** | Under 2 funding pathways, Discovery and Scale, the State Risk Reduction stream aims to reduce or enable the reduction of state-level risks, risks of state significance and systemic risks potentially impacting NSW (NSW Government, 2023).<br>The Discovery Projects pathway offers funding of up to $500,000, for projects that will test and pilot new approaches to achieve breakthrough disaster risk reduction outcomes. The projects must have potential for state-wide significance or impact.<br>The Scale Projects pathway offers funding of up to $2.5 million, for projects that aim to generate a new product, technology, platform, or approach that will have state-wide impact at a scale beyond piloting or testing. |
| **Saving our Species (SoS) Program** | Administered by DCCEEW, the Saving our Species (SoS) sets out the NSW Government's threatened species management plan. The main objectives of SoS are to increase the number of threatened species that are secure in the wild in NSW for 1 year and control the key threats facing the states threatened plants and animals. |
| **NSW Heritage Grants** | This program is administered by DCCEEW and aims to fund projects that provide sustainable, long-term heritage benefits and provide public benefit and enjoyment from heritage. Funding may be available for the management of heritage items in the coastal environment. Areas of interest include:<br>▪ Aboriginal Cultural Heritage grants<br>▪ Caring for State Heritage grants<br>▪ Community Heritage grants |



WATER TECHNOLOGY
WATER, COASTAL & ENVIRONMENTAL CONSULTANTS

| Funding Source | Details / Description |
|---|---|
| | ▪ Grants for local government. |
| **NSW Environment Trust Grants** | Funding is available under the NSW Environment Trust to a broad range of organisations for projects that enhance the environment of NSW. Grants may be awarded for on ground rehabilitation and improvement works, research applications, land acquisition, waste reduction and promotion of environmental education.<br>The NSW Environment Trust is an independent statutory body established by the NSW Government to make and supervise the environment grants. The Trust is administered by DCCEEW. Suitable coastal management grant applications may relate to dune care, for example. |
| **Crown Reserves Improvement Fund Program** | Administered by Crown Lands, the Crown Reserves Improvement Fund Program provides financial support for the development, maintenance, and improvement of Crown reserves. Funding under this program is subject to a competitive grant application process and eligibility requirements which may change from year to year and in accordance with departmental priorities. |
| **DPIRD Fisheries Habitat Action Grants** | Habitat Action Grants are administered by NSW DPIRD Fisheries and funded through the Recreational Fishing Trusts, which invest revenue from the NSW Recreational Fishing Fee directly into on-ground projects that improve fish habitat and enhance recreational fishing opportunities across the state.<br>Grants of up to $40,000 are available to angling clubs, individuals, community groups, local councils, and other organisations committed to rehabilitating fish habitats in both freshwater and saltwater environments throughout NSW.<br>Habitat rehabilitation projects which may be funded include:<br>▪ removal or modification of barriers to fish passage<br>▪ rehabilitation of riparian lands (river banks, wetlands, mangrove forests, saltmarsh)<br>▪ re-snagging waterways with timber structure<br>▪ removal of exotic vegetation from waterways and replace with native species<br>▪ bank stabilisation works. |
| **Federal Government** | |
| **Disaster Ready Fund** | The Disaster Ready Fund (DRF) is the Australian Government's flagship disaster resilience and risk reduction initiative which will deliver projects that support Australians to manage the physical, social and economic impacts of disasters caused by climate change and natural hazards (NEMA, 2013). The DRF was established through the *Disaster Ready Fund Act 2019*. The DRF is intended to be an enduring fund, to provide all levels of government and affected stakeholders the certainty they need to plan for robust investments in resilience projects to reduce the impacts of disasters. |
| **Urban Rivers and Catchments Program** | The $200 million Urban Rivers and Catchments Program was established by the Federal Government to assist in restoring the health of urban waterways for native plants, animals, and local communities. The program is funding projects including, but not limited to (Australian Government, 2025):<br>▪ Creation of wildlife habitats and ecological corridors to support native species<br>▪ Replacement of concrete channels and drains with restored, vegetated stream environments<br>▪ Development of wetlands and interconnected ponds to slow and filter stormwater, enhance aquatic habitats, and improve water quality for native wildlife<br>▪ Removal of in-stream barriers (e.g., weirs) to facilitate fish passage<br>▪ Installation of litter and pollutant traps to prevent stormwater-borne plastics from entering aquatic and marine ecosystems. |

| Funding Source | Details / Description |
|---|---|
| **Other funding opportunities** | |
| **Landcare Grants** | Landcare Australia works with governments, corporate and philanthropic organisations, and donors to facilitate funding for good quality, hands on projects and programs that will improve environmental outcomes for the Landcare community (Landcare Australia, 2023). |
| **Coastcare Grants** | Coastcare grants support community groups working on projects across Australia. Grants support Landcare and Coastcare groups with projects like dune protection, revegetation of native coastal environments, protection of endangered coastal species habitats, collection and prevention of stormwater pollution, weed and non-native plant removal, and control of human access to sensitive and vulnerable areas (Landcare Australia, 2023). |

## 6.4 Partner Council Co-funding Arrangements

### 6.4.1 Overview

Approximately $10.7 million in Actions are proposed under the Collaborative System Implement Plan, to be delivered over a 10-year period. Funding contributions will vary for each Action depending on its location, intent, and underlying rationale. Broadly, the Actions fall into three categories:

- **Collaborative Actions:** All 6 Partner Councils contribute funding.
- **Shared Actions:** Only a subset of Partner Councils contribute, reflecting localised benefits or responsibilities.
- **State-led Actions:** Delivered by State Agencies and do not require direct Council funding contributions.

For Actions requiring co-funding from one or more of the Partner Councils, proportionate cost-sharing arrangements have been applied, based on physical and economic parameters. Several cost-sharing models were first explored in the Stage 1 Scoping Study (Water Technology, 2020), considering equity, ratepayer distribution, foreshore and waterway area, and the spread of risks and pressures across the six LGAs.

While one model guided the transition from Stage 2 to Stage 4, the implementation phase (Stage 5) adopts a revised approach to better align financial contributions with the benefits, responsibilities, and pressures experienced by each council across the catchment

### 6.4.2 Co-funding Models

The CMP adopts a flexible and tailored funding approach, applying different co-funding models for different actions depending on:

- The cause and nature of the risk being addressed
- The distribution of potential/likely benefits across each council area
- The responsibilities held by each council.

Through a collaborative workshop, the Partner Councils agreed on 4 co-funding models to guide the allocation of council contributions. These are summarised in Table 6.3, along with the types of actions each model is best suited for, and their respective strengths and weaknesses. This approach allows funding to be matched to the risk drivers, beneficiaries, and responsibilities associated with each action.



WATER TECHNOLOGY
WATER, COASTAL & ENVIRONMENTAL CONSULTANTS

None of these methods is perfectly equitable on its own - each has advantages and limitations depending on the Action type, risk drivers, and location. However, these models provide a practical, agreed framework for sharing costs, ensuring transparency and consistency while keeping the approach simple enough for councils to apply.

It is also important to note:

- The percentages apply only to the Council contribution component of project funding. They do not include the two-thirds funding expected from the NSW Government under the Coastal and Estuary Grants Program. To estimate the residual cost to each Council after State funding, these percentages can be divided by three.
- Where only a subset of councils contributes to an Action, the same proportions are pro-rated across the participating councils only, ensuring the funding split remains fair and consistent.

Table 6.3 Co-funding models for collaborative and shared responsibility actions

| ID | Description | Most Appropriate For | Strengths | Weaknesses | CCC | NBC | KC | HSC | THSC | HCC |
|---|---|---|---|---|---|---|---|---|---|---|
| A | Equal Contribution | Actions where councils share responsibilities and benefits equally. | ▪ Simple and transparent.<br>▪ Signals shared ownership and collective responsibility. | ▪ Does not reflect differing levels of risk causation, management responsibility, or benefit distribution. | 16.7% | 16.7% | 16.7% | 16.7% | 16.7% | 16.7% |
| B | Weighted by the catchment population within each LGA (based on ABS 2021 Census SA1 data). | Actions related to catchment based stressors, water quality and estuary health | ▪ Broadly reflects the relative distribution of urbanisation pressures linked to population density. | ▪ Assumes population pressure is proportional to estuary health risk, which may not be appropriate for some actions.<br>▪ May not reflect the distribution or rural or semi-rural pressures on catchment health (e.g., agriculture) | 26% | 7% | 8% | 22% | 24% | 12% |
| C1 | Weighted by the proportion of the legally defined coastal zone (the CMP Study Area) across each LGA. | Actions related to waterway and foreshore management – including as CPW or EPW | ▪ Aligns funding with the geographic extent of waterways, foreshore, and sensitive environments.<br>▪ Suitable where area-based hazards (e.g., erosion, flooding) drive risk. | ▪ Includes areas (e.g., NPWS land) where councils have no direct role in managing risks.<br>▪ May not fully capture differences between urban and rural risk drivers. | 51% | 6% | 0.3% | 9% | 8% | 26% |
| C2 | Weighted by the proportion of the legally defined coastal zone (the CMP Study Area) - excluding NPWS land tenure. | Actions related to waterway and foreshore management, which exclude NPWS estate | ▪ Better aligns with actual council responsibilities by excluding public land outside council control. | ▪ Still may not capture differences between urban and rural risk drivers.<br>▪ Private land contributions to risks (e.g., agriculture) remain under-represented. | 46% | 3% | 0% | 6% | 10% | 35% |
| C3 | Weighted by the proportion of the Council managed foreshore within the legally defined coastal zone (the CMP Study Area). | Actions related to waterway and foreshore management – specifically riparian restoration | ▪ Aligns with extent of potential riparian restoration works | ▪ Limited in application outside of riparian works | 60.3% | 3.4% | 0.0% | 22.3% | 0.0% | 14.0% |



General Meeting 11 November 2026
Attachments Page 553
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 216
ATTACHMENT 1 - ITEM 7

## 6.5 Cost-Benefit Distribution

As per the CM Manual (OEH, 2018d), an analysis of the distribution of costs and benefits to the public authorities, other stakeholders and the environment is recommended when preparing a CMP. During the Options Assessments undertaken in Stage 3 (Water Technology, 2025), a multi-criteria analysis was undertaken in order to assess the direct and indirect impact of each potential option on identified threats, weighted towards the level of threat. None of the recommended actions aim to benefit private interests, although they may do so indirectly as a consequence of improved estuary health (e.g., to commercial businesses in the nearby area including tourism operators and hospitality).

There are no actions within the CMP that aim to directly benefit private interests. Therefore, no public-private cost sharing arrangements are required.

## 6.6 Business Plan

### 6.6.1 Overview

This CMP has been prepared in good faith, with the intent that all actions be delivered in line with the schedule outlined in the accompanying Business Case and Implementation Plan. The sequencing and timing of actions have been developed to align with the strategic objectives of the CMP and to promote a logical, staged implementation.

However, it is important to note that many actions are dependent on external funding sources – including competitive grant programs – which are inherently uncertain and subject to change. Delivery timeframes may also be influenced by the availability of Council resources, competing priorities identified in Council's Operational and Delivery Plans, and the operational budgets of relevant State Agencies. As such, the timing and delivery of actions may not occur exactly as outlined in this CMP.

The cost estimates contained within this plan are presented in 2026 dollars and are intended as high level figures for strategic budgeting and forward planning purposes only. They exclude allowances for future inflation, escalation, and market variability. These estimates are not suitable for detailed design, construction, or procurement purposes, and should be regarded as indicative values only, with an expected tolerance of approximately plus or minus 30%.

Both cost estimates and delivery timeframes are subject to a range of risks, including adverse weather events, legislative or regulatory changes, shifts in market conditions, and fluctuations in the availability of suitably qualified contractors or materials. These factors may materially influence the scope, sequencing, and budget requirements for specific actions.

### 6.6.2 Summary of Costs

A summary breakdown of the costs associated with implementing this CMP is provided in Table 6.4, with cost for the associated cost breakdown for the catchment companion provided in Appendix I. These tables summarise the combined commitments required from State Agencies and Partner Councils to deliver both river-wide and locally focused actions over the next decade. They demonstrate the scale of resources needed not only to address immediate management priorities, but also to build adaptive capacity for future challenges such as climate change and population growth. Delivery of the CMP is estimated to cost $88 Million (2026 dollars) over 10 years.

Table 6.4 Cost breakdown for CMP implementation

| Certifiable CMP | | | Total 10-Year Funding Contributions | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Total Cost | Common-wealth Funding | NSW State Agencies | Central Coast Council | Northern Beaches Council | Ku-ring-gai Council | Hornsby Shire Council | The Hills Shire Council | Hawkesbury City Council |
| Cost Break-down by Implem-entation Plan | Collaborative System Implement Plan | $12,695,000 | $0 | $8,596,667 | $1,661,628 | $525,223 | $41,831 | $786,264 | $399,301 | $684,087 |
| | Local Implementation Plan: Central Coast Council | $45,183,000 | $1,000,000 | $28,035,333 | $16,147,667 | $0 | $0 | $0 | $0 | $0 |
| | Local Implementation Plan: Northern Beaches Council | $3,238,000 | $0 | $2,158,667 | $0 | $1,079,333 | $0 | $0 | $0 | $0 |
| | Local Implementation Plan: Ku-ring-gai Council | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| | Local Implementation Plan: Hornsby Shire Council | $18,275,000 | $0 | $12,146,667 | $0 | $0 | $0 | $6,128,333 | $0 | $0 |
| | Local Implementation Plan: The Hills Shire Council | $835,000 | $0 | $556,667 | $0 | $0 | $0 | $0 | $278,333 | $0 |
| | Local Implementation Plan: Hawkesbury City Council | $1,410,000 | $0 | $840,000 | $0 | $0 | $0 | $0 | $0 | $570,000 |
| | NPWS Implementation Plan | $6,950,000 | $0 | $6,950,000 | $0 | $0 | $0 | $0 | $0 | $0 |
| ***Total 10 Year Financial Commitment*** | | **$88,586,000** | **$1,000,000** | **$59,284,000** | **$17,809,295** | **$1,604,556** | **$41,831** | **$6,914,598** | **$677,634** | **$1,254,087** |
| Cost Break-down by Type and Timing | Capital Costs | $68,082,500 | $1,000,000 | $48,554,667 | $15,290,527 | $595,612 | $3,333 | $6,169,837 | $202,667 | $452,357 |
| | Operational and Maintenance Costs | $20,283,167 | $0 | $11,729,333 | $2,518,768 | $1,008,944 | $38,498 | $744,760 | $474,967 | $801,730 |
| | | | | | | | | | | |
| | Cost Total: Years 1 to 4 | $35,863,750 | $1,000,000 | $23,641,500 | $6,306,613 | $665,620 | $16,944 | $3,287,242 | $367,736 | $578,094 |
| | Cost Total: Years 5 to 8 | $26,327,250 | $0 | $17,991,833 | $3,755,933 | $751,946 | $13,333 | $3,106,253 | $211,184 | $496,767 |
| | Cost Total: Years 9 to 10 | $26,395,000 | $0 | $17,650,667 | $7,746,749 | $186,990 | $11,553 | $521,103 | $98,714 | $179,225 |

### 6.6.3 Detailed Implementation Plan

The Business Plan for the HNRS CMP translates the recommended management actions into a practical, costed pathway for delivery. The following tables present a structured summary of responsibilities, forward cost estimates, and potential funding arrangements across the Collaborative System Implementation Plan, Local Implementation Plans, and Catchment Companions:

- Table 6.6 summarises the business plan for the Collaborative System Implement Plan.
- Table 6.7 summarises the business plan for the various Local Implementation Plans.

These tables provides the following information:

- **Action ID and Name** – as per the action implementation plans in Section 5.
- **Responsibilities** – including the lead agency for implementation and any supporting agencies. Shorthand is applied in this table for Central Coast Council (CCC), Hawkesbury City Council (HCC), Hornsby Shire Council (HSC), Ku-ring-gai Council (KC), Northern Beaches Council (NBC), and The Hills Shire Council (THSC).
- **Forward cost estimates** – including capital costs, and ongoing implementation and maintenance costs. These costs have been discretised into four year bands to assist with broader alignment with Delivery Program (DP) periods of the Partner Council IP&R frameworks. Where an action would only require Council in-kind staff time, assets, and services, these are noted as "$0". Definitions for cost categories include:
  - Capital Costs: Expenditure incurred to acquire, construct, or significantly upgrade physical assets. In the CMP context, capital costs typically relate to planning, design, and construction of new infrastructure or major upgrades intended to provide long-term service capacity and resilience. These costs are generally one-off and accounted for as fixed assets.
  - Operational Costs: Recurrent expenditures associated with the routine operation of programs, systems, or assets. This includes staffing, administration, utilities, and other resource inputs required to maintain functional delivery of CMP initiatives. Operational costs are ongoing and do not directly extend the service life of an asset
  - Maintenance Costs: Expenditures required to preserve the functional condition and performance of an asset over its design life. Maintenance costs include inspections, servicing, repairs, and minor renewals undertaken to mitigate deterioration, sustain safety and compliance, and avoid premature capital replacement.
- **Potential funding mechanisms** – refer to Section 6.3.
- **Co-funding model -** for actions in the Collaborative System Implement Plan (see 6.4.2).

The proposed timing of actions is provided in the respective action plans in Section 5.

**Table 6.5 Legend for Funding Sources in Table 6.7 to 6.9**

| # | Funding Source |
|---|---|
| 1 | Council Operational and Delivery Plan Process |
| 2 | NSW Coasts and Estuary Grants Program |
| 3 | NSW Marine Estate Management Strategy |
| 4 | NPWS Operating Budget |
| 5 | NEAP Program |

| # | Funding Source |
|---|---|
| 6 | NSW Heritage Grants Program |
| 7 | Environmental Trust Grants |
| 8 | TfNSW / MIDO Grants |
| 9 | NSW Local Government Recovery Grants Program |
| 10 | Landcare / Coastcare Grants |
| 11 | Commonwealth Urban Rivers and Catchments Program |
| 12 | NSW Dept of Education Operating Budget |
| 13 | TfNSW Regional and Local Roads Repair Program |
| 14 | Commonwealth Government Grants / Contributions (other) |

Table 6.6 Business Plan – Certifiable CMP: Collaborative System Implement Plan

| S4 ID | Locality | Action Name | Lead | Support | Total 10 Yr Cost | Capital Costs | Operational / Maintenance Costs | Costs Years 1 to 4 | Costs Years 5 to 8 | Costs Years 9-10 | Funding Mechan-isms | PC Co-funding Model |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S1.CMP.A | Estuary-Wide | Implement the CMPs formal governance partnership for the river system | CCC, NBC, HSC, KC, THSC, HCC | DCCEEW-CPHR, NPWS, Sydney Water, DPIRD-Fisheries, DPHI-Crown Lands, TfNSW | $1,500,000 | $0 | $1,500,000 | $600,000 | $600,000 | $300,000 | 1 | A |
| S1.CMP.B | Estuary-Wide | Develop and execute a communications plan for Stage 5 of the CMP | CCC, NBC, HSC, KC, THSC, HCC | DCCEEW | $0 | $0 | $0 | $0 | $0 | $0 | N/A | N/A |
| S2.CMP.A | Estuary-Wide | HNRS Water Quality Monitoring - Data Aggregation and Program Design | CCC, NBC, HSC, KC, THSC, HCC | N/A | $100,000 | $0 | $100,000 | $100,000 | $0 | $0 | 1,2 | A |
| S2.CMP.B | Estuary-Wide | HNRS Water Quality Monitoring - Implement a Coordinated Monitoring Program | CCC, NBC, HSC, KC, THSC, HCC | N/A | $2,000,000 | $0 | $2,000,000 | $800,000 | $800,000 | $400,000 | 1,2 | C1 |
| S2.CMP.C | Estuary-Wide | Implement a bank stability and condition monitoring program across the estuary foreshores | CCC, NBC, HSC, THSC, HCC | DCCEEW-CPHR, NPWS | $300,000 | $0 | $300,000 | $120,000 | $120,000 | $60,000 | 1,2 | C2 |
| S2.CMP.D | Estuary-Wide | Review and update Partner Council planning instruments for alignment of a consistent best practice approach to managing stormwater and downstream estuarine water quality | CCC, NBC, HSC, KC, THSC, HCC | DPHI-Planning and Assessment, Sydney Water | $60,000 | $0 | $60,000 | $60,000 | $0 | $0 | 1 | A |
| S3.CMP.A | Estuary-Wide | Review and update Partner Council planning instruments for coastal hazard risk planning controls every 10 years | CCC, NBC, HSC, KC, THSC, HCC | DPHI-Planning and Assessment | $0 | $0 | $0 | $0 | $0 | $0 | N/A | N/A |
| S3.CMP.B | Estuary-Wide | Encourage eco-friendly features in seawall development applications | CCC, NBC, HSC, KC, THSC, HCC | DCCEEW-CPHR, DPIRD-Fisheries, DPHI-Crown Lands | $0 | $0 | $0 | $0 | $0 | $0 | N/A | N/A |
| S3.CMP.C | Estuary-Wide | Develop Intertidal Marine Vegetation Strategy for Hawkesbury River estuary | DPIRD-Fisheries | DCCEEW-CPHR, NPWS, CCC, NBC, HSC, KC, THSC, HCC | $65,000 | $0 | $65,000 | $65,000 | $0 | $0 | 1,2,3 | N/A |
| S3.CMP.D | Estuary-Wide | Develop Foreshore Stabilisation and Rehabilitation Guidelines for the HNRS | CCC, NBC, HSC, KC, THSC, HCC | DCCEEW-CPHR, DPIRD-Fisheries, DPHI-Crown Lands | $0 | $0 | $0 | $0 | $0 | $0 | N/A | N/A |
| S3.CMP.E | Estuary-Wide | Undertake a Planning Proposal to adopt a CVA | CCC, NBC, HSC | NPWS, DPHI-Planning and Assessment | $75,000 | $0 | $75,000 | $75,000 | $0 | $0 | N/A | A |
| S3.CMP.F | Estuary-Wide | Collaborate with local universities and research institutions to establish a list of research priorities for the Hawkesbury-Nepean River System | CCC, NBC, HSC, KC, THSC, HCC | GS LLS | $0 | $0 | $0 | $0 | $0 | $0 | N/A | N/A |
| S4.CMP.A | Estuary-Wide | Design and Implement a Community Engagement and Education Program to support the vision and objectives of the CMP | CCC, NBC, HSC, KC, THSC, HCC | NPWS, TfNSW, GS LLS, DPIRD-Fisheries | $500,000 | $0 | $500,000 | $200,000 | $200,000 | $100,000 | 1,2 | A |
| S4.CMP.B | Estuary-Wide | Community education and outreach program for estuary frontage communities | CCC, NBC, HSC, THSC, HCC | DCCEEW-CPHR, GS LLS, DPIRD-Fisheries | $250,000 | $0 | $250,000 | $100,000 | $100,000 | $50,000 | 1,2,7 | A |
| S4.CMP.D | Upper Estuary | Implementing a community-based carp fishing initiative | CCC, HCC, THSC, HSC | N/A | $250,000 | $0 | $250,000 | $100,000 | $100,000 | $50,000 | 1,2,7 | A |
| S4.CMP.E | Estuary-Wide | Hawkesbury River Marine Industry Compliance & Education Campaign | NBC, CCC, HSC | TfNSW, DPIRD-Fisheries | $500,000 | $0 | $500,000 | $200,000 | $200,000 | $100,000 | 1,2,7 | C2 |
| S5.CMP.A | Estuary-Wide | Undertake a coordinated riparian rehabilitation works program across the River System | CCC, NBC, HSC, HCC | DCCEEW-CPHR, DPHI-Planning and Assessment, GS | $1,000,000 | $0 | $1,000,000 | $400,000 | $400,000 | $200,000 | 1,2,3,7,11 | C3 |



General Meeting 11 November 2026
Attachments Page 558
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 221
ATTACHMENT 1 - ITEM 7

| S4 ID | Locality | Action Name | Lead | Support | Total 10 Yr Cost | Capital Costs | Operational / Maintenance Costs | Costs Years 1 to 4 | Costs Years 5 to 8 | Costs Years 9-10 | Funding Mechan-isms | PC Co-funding Model |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | LLS, NPWS, KC, THSC | | | | | | | | |
| S5.CMP.B | Estuary-Wide | Continue to support landcare networks across the river system | CCC, NBC, HSC, HCC | GS LLS, KC, THSC | $0 | $0 | $0 | $0 | $0 | $0 | N/A | N/A |
| S5.CMP.C | Estuary-Wide | Fencing of riparian foreshores on high risk agricultural lands | GS LLS | CCC, HCC, THSC | $500,000 | $0 | $500,000 | $200,000 | $200,000 | $100,000 | 1,2,3 | N/A |
| S6.CMP.A | Broken Bay, Pittwater, Lower Hawkesbury | Activate the "Coastal Hazard Emergency Action Sub-Plans" (CZEAS) for each beach as required after storm events | CCC, NBC, HSC, NPWS | DCCEEW-CPHR, NSW SES | $1,000,000 | $0 | $1,000,000 | $400,000 | $400,000 | $200,000 | 1,2 | A |
| S6.CMP.B | Estuary-Wide | Develop a Tide Alert Calendar Tool for the low lying communities of the river system to encourage citizen science in monitoring tidal inundation | CCC, NBC, HSC | DCCEEW-CPHR | $200,000 | $0 | $200,000 | $0 | $160,000 | $40,000 | 1,2 | C2 |
| S6.CMP.C | Middle Estuary | Undertake a combined coastal and catchment inundation study for the middle estuary | CCC, HSC | DCCEEW-CPHR | $120,000 | $0 | $120,000 | $120,000 | $0 | $0 | 1,2 | A |
| S7.CMP.A | Estuary-Wide | Prepare and implement an Environmental Tourism Strategy for the Hawkesbury River System | First Nations Groups, CCC, NBC, HSC, KC, THSC, HCC | NPWS First Nations Groups | $60,000 | $0 | $60,000 | $0 | $0 | $60,000 | 1,3,6 | B |
| S8.CMP.A | Estuary-Wide | Engage First Nations teams where appropriate to undertake bush regeneration works including weeding and revegetation | First Nations Groups, CCC, NBC, HSC, KC, THSC, HCC | GS LLS, NPWS | $1,000,000 | $0 | $1,000,000 | $400,000 | $400,000 | $200,000 | 1,2,3,5,7, 11 | A |
| S8.CMP.B | Estuary-Wide | Further develop and implement community education programs for awareness and appreciation of Indigenous cultural heritage | First Nations Groups, CCC, NBC, HSC, KC, THSC, HCC | GS LLS, NPWS | $485,000 | $0 | $485,000 | $185,000 | $200,000 | $100,000 | 1,2,3,5,6 | A |
| S8.CMP.C | Estuary-Wide | Support cultural education and awareness of estuary health issues for First Nations Groups | First Nations Groups, CCC, NBC, HSC, KC, THSC, HCC | GS LLS, NPWS | $500,000 | $0 | $500,000 | $200,000 | $200,000 | $100,000 | 1,2,3,5,7 | A |
| S8.CMP.D | Estuary-Wide | Develop a Hawkesbury heritage central display | CCC, NBC, HSC, THSC, HCC | First Nations Groups, KC | $60,000 | $30,000 | $30,000 | $0 | $0 | $60,000 | 1,6 | A |
| S8.CMP.E | Estuary-Wide | Identify opportunities for, and undertake cultural land management practices, including cultural burning | First Nations Groups, CCC, NBC, HSC, KC, THSC, HCC | NPWS, RFS, GS LLS | $50,000 | $0 | $50,000 | $50,000 | $0 | $0 | 1,2,3,5,7, 11 | C1 |
| S8.CMP.F | Estuary-Wide | Engage with local First Nations Groups to protect and preserve cultural heritage items across the coastal zone | First Nations Groups, CCC, NBC, HSC, KC, THSC, HCC | NPWS | $2,000,000 | $2,000,000 | $0 | $800,000 | $800,000 | $400,000 | 1,2,3,5,6, 11 | C3 |
| S8.CMP.G | Estuary-Wide | Identify locations for cultural connections across the HNRS | First Nations Groups, CCC, NBC, HSC, KC, THSC, HCC | NPWS | $120,000 | $60,000 | $60,000 | $60,000 | $40,000 | $20,000 | 1 | A |



General Meeting 11 November 2026
Attachments Page 559
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 222
ATTACHMENT 1 - ITEM 7

Table 6.7 Business Plan – Certifiable CMP: Local Implementation Plans

| S4 ID | Locality | Action Name | Lead | Support | Total 10 Yr Cost | Capital Costs | Operational & Maintenance Costs | Costs Years 1 to 4 | Costs Years 5 to 8 | Costs Years 9-10 | Funding Mechanisms |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Local Implementation Plan: Hawkesbury City Council LGA** | | | | | | | | | | | |
| S3.HCC.A | LGA Wide | Write a specific WSUD chapter in Hawkesbury City Council DCP | HCC | N/A | $0 | $0 | $0 | $0 | $0 | $0 | N/A |
| S3.HCC.B | LGA Wide | Environmental Conservation zoning for coastal wetland areas | HCC | DPHI-Planning and Assessment | $0 | $0 | $0 | $0 | $0 | $0 | N/A |
| S4.HCC.A | LGA Wide | Establish an environmental program for Agricultural Operators across the Hawkesbury LGA | HCC | GS LLS, Sydney Water | $250,000 | $0 | $250,000 | $100,000 | $100,000 | $50,000 | 1,2,3 |
| S5.HCC.A | LGA Wide | Supporting private landowners to undertake best practice management of their riparian zones | HCC | GS LLS | $0 | $0 | $0 | $0 | $0 | $0 | N/A |
| S5.HCC.B | LGA Wide | Continue Council's Yabby Trap Round-Up Program | HCC | DPIRD-Fisheries | $200,000 | $0 | $200,000 | $80,000 | $80,000 | $40,000 | 1,2 |
| S6.HCC.A | Cumberland Reach | Coastal Protection Works at Holmes Drive Reserve | HCC | DCCEEW-CPHR | $300,000 | $300,000 | $0 | $300,000 | $0 | $0 | 1,2 |
| S6.HCC.B | Sackville | Coastal Protection Works at Churchills Wharf Reserve | HCC | DCCEEW-CPHR | $280,000 | $280,000 | $0 | $280,000 | $0 | $0 | 1,2 |
| S6.HCC.C | Ebenezer | Provide technical advice to utilities providers regarding infrastructure risk at Argyle Bailey Memorial Reserve | HCC | N/A | $0 | $0 | $0 | $0 | $0 | $0 | N/A |
| S6.HCC.D | Windsor | Coastal Protection Works Investigation and Design: The Terrace, Windsor | HCC | DCCEEW-CPHR | $150,000 | $0 | $150,000 | $150,000 | $0 | $0 | 1,2 |
| S6.HCC.E | Windsor | Foreshore Management Works at Governor Phillip Park | HCC | DCCEEW-CPHR | $80,000 | $20,000 | $60,000 | $0 | $80,000 | $0 | 1,2,7 |
| S7.HCC.A | Pitt Town | Punt Road Public Boat Ramp - Upgrade Feasibility Study | HCC | TfNSW | $150,000 | $150,000 | $0 | $0 | $150,000 | $0 | 1,2,8 |
| **Local Implementation Plan: The Hills Shire Council LGA** | | | | | | | | | | | |
| S6.THC.A | Lower Portland | Implement the outcomes of the Blundells Swamp Inundation Mitigation Study | THSC | DCCEEW-CPHR | $55,000 | $0 | $55,000 | $55,000 | $0 | $0 | 1,2 |
| S6.THC.B | Wisemans Ferry | Coastal Protection Works at Wisemans Ferry | THSC | DCCEEW-CPHR | $230,000 | $230,000 | $0 | $230,000 | $0 | $0 | 1,2 |
| S6.THC.C | Wisemans Ferry | Coastal Protection Works at Webbs Creek Ferry Foreshore | THSC | DCCEEW-CPHR | $150,000 | $150,000 | $0 | $150,000 | $0 | $0 | 1,2 |
| S6.THC.D | Leets Vale | Erosion investigation and design at River Road, Leets Vale | THSC | DCCEEW-CPHR | $200,000 | $0 | $200,000 | $200,000 | $0 | $0 | 1,2,9 |
| S6.THC.E | Lower Portland | Coastal Protection Works at River Road, Lower Portland | THSC | DCCEEW-CPHR | $200,000 | $200,000 | $0 | $0 | $200,000 | $0 | 1,2 |



General Meeting 11 November 2026
Attachments Page 560
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 223
ATTACHMENT 1 - ITEM 7

| S4 ID | Locality | Action Name | Lead | Support | Total 10 Yr Cost | Capital Costs | Operational & Maintenance Costs | Costs Years 1 to 4 | Costs Years 5 to 8 | Costs Years 9-10 | Funding Mechanisms |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Local Implementation Plan: Hornsby Shire Council LGA** | | | | | | | | | | | |
| S5.HSC.A | Parsley Bay | Installation of Stormwater Quality Improvement Devices at Parsley Bay | HSC | DCCEEW-CPHR | $500,000 | $500,000 | $0 | $500,000 | $0 | $0 | 1,2 |
| S5.HSC.B | Brooklyn | Installation of Stormwater Quality Improvement Devices at The Gateway | HSC | DCCEEW-CPHR | $500,000 | $500,000 | $0 | $500,000 | $0 | $0 | 1,2 |
| S5.HSC.C | Brooklyn | Installation and upgrade of Stormwater Quality Improvement Devices at Brooklyn Park | HSC | DCCEEW-CPHR | $530,000 | $530,000 | $0 | $530,000 | $0 | $0 | 1,2 |
| S6.HSC.A | Parsley Bay | Repair and renewal of the Parsley Bay Breakwater (Coastal Protection Works) | HSC | DCCEEW-CPHR, DPHI-Crown Lands | $5,320,000 | $5,320,000 | $0 | $0 | $5,320,000 | $5,320,000 | 1,2,8 |
| S6.HSC.B | Parsley Bay | Repair and renewal of the Loading Dock Access Road Coastal Protection Works | HSC | DCCEEW-CPHR, DPHI-Crown Lands | $1,250,000 | $1,250,000 | $0 | $0 | $1,250,000 | $0 | 1,2 |
| S6.HSC.C | Brooklyn | Brooklyn Road sea level rise adaptation planning | HSC | DCCEEW-CPHR | $250,000 | $250,000 | $0 | $0 | $0 | $250,000 | 1,2,13 |
| S6.HSC.D | Brooklyn | Repair and renewal of the Coastal Protection Works at Wharf Street | HSC | DCCEEW-CPHR | $350,000 | $350,000 | $0 | $0 | $350,000 | $0 | 1,2 |
| S6.HSC.E | Bar Island | Repair and renewal of the Bar Island jetty Coastal Protection Works | HSC | DCCEEW-CPHR | $310,000 | $310,000 | $0 | $310,000 | $0 | $0 | 1,2 |
| S6.HSC.F | Dangar Island | Bradleys Beach Coastal Protection Works | HSC | DCCEEW-CPHR | $170,000 | $0 | $170,000 | $170,000 | $0 | $0 | 1,2,7 |
| S6.HSC.G | Parsley Bay / Brooklyn | Repair and renewal of Coastal Protection Works from Brooklyn to Parsley Bay | HSC | DCCEEW-CPHR | $1,330,000 | $1,330,000 | $0 | $1,330,000 | $0 | $0 | 1,2 |
| S7.HSC.A | Parsley Bay | Parsley Bay loading dock upgrade | HSC | DCCEEW-CPHR, DPHI-Crown Lands | $2,655,000 | $2,655,000 | $0 | $2,655,000 | $0 | $0 | 1,2 |
| S7.HSC.B | Parsley Bay | Upgrade of public pontoons at Parsley Bay | HSC | DPHI-Crown Lands | $380,000 | $380,000 | $0 | $380,000 | $0 | $0 | 1,2,8 |
| S7.HSC.C | Brooklyn | Upgrade of McKell Park tidal pool and Coastal Protection Works | HSC | DCCEEW-CPHR | $800,000 | $800,000 | $0 | $0 | $0 | $800,000 | 1,2 |
| S7.HSC.D | Brooklyn | Design and install boardwalk from Brooklyn Public Wharf to Lower McKell Park | HSC | DCCEEW-CPHR | $850,000 | $850,000 | $0 | $0 | $850,000 | $0 | 1,2 |
| S7.HSC.E | Brooklyn | Bayden Powell Avenue dinghy and foreshore access improvement | HSC | N/A | $200,000 | $200,000 | $0 | $0 | $200,000 | $0 | 1,2 |
| S7.HSC.F | Brooklyn | Cost-benefit assessment of Kangaroo Point pumpout pontoon | HSC | N/A | $55,000 | $0 | $55,000 | $55,000 | $0 | $0 | 1,2,8 |
| S7.HSC.G | Dangar Island | Dangar Island loading dock upgrade | HSC | DCCEEW-CPHR | $2,140,000 | $2,140,000 | $0 | $2,140,000 | $0 | $0 | 1,2 |
| S7.HSC.H | Wisemans Ferry | Upgrade of the Wisemans Ferry old public wharf | HSC | N/A | $400,000 | $400,000 | $0 | $0 | $400,000 | $0 | 1,2 |
| S7.HSC.I | Brooklyn | Undertake a dredging feasibility study for Sandbrook Inlet, Brooklyn Harbour, and Parsley Bay | HSC | DCCEEW-CPHR, DPHI-Crown Lands, DPIRD-Fisheries | $120,000 | $0 | $120,000 | $120,000 | $0 | $0 | 1,2,8 |
| S7.HSC.J | Lower Hawkesbury | Develop a foreshore infrastructure strategy for the Lower Hawkesbury | HSC | DCCEEW-CPHR, TfNSW | $65,000 | $0 | $65,000 | $0 | $65,000 | $0 | 1,2 |
| S7.HSC.K | Crosslands Reserve | Improve estuary access and recreational facilities at Crosslands Reserve | HSC | N/A | $100,000 | $100,000 | $0 | $100,000 | $0 | $0 | 1,2 |



General Meeting 11 November 2026
Attachments Page 561
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 224
ATTACHMENT 1 - ITEM 7

| S4 ID | Locality | Action Name | Lead | Support | Total 10 Yr Cost | Capital Costs | Operational & Maintenance Costs | Costs Years 1 to 4 | Costs Years 5 to 8 | Costs Years 9-10 | Funding Mechanisms |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Local Implementation Plan: Central Coast Council LGA** | | | | | | | | | | | |
| S2.CCC.A | Broken Bay Beaches | Develop and implement a Broken Bay Coastal Monitoring Program | CCC | DCCEEW-CPHR | $250,000 | $0 | $250,000 | $100,000 | $100,000 | $50,000 | 1,2 |
| S2.CCC.B | Broken Bay Brisbane Water | Develop and implement a program for regular and ongoing monitoring of public coastal assets and infrastructure | CCC | N/A | $0 | $0 | $0 | $0 | $0 | $0 | N/A |
| S2.CCC.C | Green Point Creek, Ettalong Creek, Pearl Beach Lagoon | Install permanent water level gauges at key locations within Brisbane Water and Broken Bay | CCC | DCCEEW-CPHR | $60,000 | $60,000 | $0 | $0 | $60,000 | $0 | 1,2 |
| S3.CCC.A | Brisbane Water | Environmental Conservation zoning for coastal wetland areas | CCC | DPHI-Planning and Assessment | $0 | $0 | $0 | $0 | $0 | $0 | N/A |
| S3.CCC.B | Hardys Bay | Implement the Hardys Bay Foreshore Master Plan | CCC | DPHI-Crown Lands | $500,000 | $500,000 | $0 | $500,000 | $0 | $0 | 1,2 |
| S3.CCC.C | Phegans Bay | Implement the Phegans Bay Waterfront Foreshore Master Plan | CCC | N/A | $500,000 | $500,000 | $0 | $500,000 | $0 | $0 | 1,2 |
| S3.CCC.D | Brisbane Water | Undertake a Planning Proposal to update RH SEPP Coastal Wetlands Mapping for Brisbane Water | CCC | DPHI-Planning and Assessment | $0 | $0 | $0 | $0 | $0 | $0 | N/A |
| S3.CCC.E | LGA Wide | Review and update Council's Development Control Plan | CCC | DPHI-Planning and Assessment | $0 | $0 | $0 | $0 | $0 | $0 | N/A |
| S3.CCC.F | LGA Wide | Compliance auditing of private development encroachment onto public land | CCC | DPHI-Crown Lands | $0 | $0 | $0 | $0 | $0 | $0 | N/A |
| S3.CCC.G | LGA Wide | Investigate opportunities to purchase saltmarsh areas for incorporation into Council's reserve system. | CCC | N/A | $0 | $0 | $0 | $0 | $0 | $0 | N/A |
| S5.CCC.A | Brisbane Water | Water Quality Improvement Plan for Brisbane Water | CCC | DCCEEW-CPHR | $250,000 | $0 | $250,000 | $100,000 | $100,000 | $50,000 | 1,2,3,11 |
| S5.CCC.B | Woy Woy | Investigate the feasibility of naturalisation of the Austin Butler drainage channel | CCC | DCCEEW-CPHR | $40,000 | $0 | $40,000 | $0 | $0 | $40,000 | 1,2,11 |
| S5.CCC.C | Estuary-Wide across LGA | Implement a wetland monitoring, management and restoration program | CCC | DCCEEW-CPHR | $35,000 | $0 | $35,000 | $35,000 | $0 | $0 | 1,2,3,7,11 |
| S5.CCC.D | Davistown | Develop a Green and Golden Bell Frog Key Population Management Plan | CCC | DCCEEW-CPHR | $25,000 | $0 | $25,000 | $25,000 | $0 | $0 | 1,2,3,7,11 |
| S6.CCC.A | Green Point | Coastal Protection Works at Bayside Drive Reserve | CCC | DCCEEW-CPHR | $1,406,250 | $1,406,250 | $0 | $1,406,250 | $0 | $0 | 1,2 |
| S6.CCC.B | Green Point | Coastal Protection Works at Edgewater Avenue Reserve | CCC | DCCEEW-CPHR | $2,500,000 | $2,500,000 | $0 | $2,500,000 | $0 | $0 | 1,2 |
| S6.CCC.C | Davistown | Coastal Protection Works at Illoura Reserve | CCC | DCCEEW-CPHR | $656,250 | $656,250 | $0 | $0 | $656,250 | $0 | 1,2 |
| S6.CCC.D | Koolewong | Repair and renewal of the Coastal Protection Works at Lara Street | CCC | DCCEEW-CPHR | $2,187,500 | $2,187,500 | $0 | $0 | $2,187,500 | $0 | 1,2 |
| S6.CCC.E | Phegans Bay | Coastal Protection Works at Phegans Bay Road | CCC | DCCEEW-CPHR, DPHI-Crown Lands | $1,188,000 | $1,188,000 | $0 | $0 | $1,188,000 | $0 | 1,2 |
| S6.CCC.F | Booker Bay | Coastal Protection Works at Empire Bay | CCC | DCCEEW-CPHR | $800,000 | $800,000 | $0 | $800,000 | $0 | $0 | 1,2 |



General Meeting 11 November 2026
Attachments Page 562
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 225
ATTACHMENT 1 - ITEM 7

| S4 ID | Locality | Action Name | Lead | Support | Total 10 Yr Cost | Capital Costs | Operational & Maintenance Costs | Costs Years 1 to 4 | Costs Years 5 to 8 | Costs Years 9-10 | Funding Mechanisms |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S6.CCC.G | Hardys Bay | Repair and renewal of the Coastal Protection Works at the Hardys Bay extension wharf | CCC | DCCEEW-CPHR | $375,000 | $375,000 | $0 | $0 | $375,000 | $0 | 1,2 |
| S6.CCC.H | Hardys Bay | Investigate the potential inclusion of RSL Creek and Mudflat Creek in the Central Coast Council Priority Creek Program | CCC | N/A | $0 | $0 | $0 | $0 | $0 | $0 | N/A |
| S6.CCC.I | Hardys Bay | Coastal Protection Works at Araluen Drive Reserve | CCC | DCCEEW-CPHR | $1,125,000 | $1,125,000 | $0 | $0 | $1,125,000 | $0 | 1,2 |
| S6.CCC.J | Pretty Beach | Coastal Protection Works at Pretty Beach Road | CCC | DCCEEW-CPHR | $1,937,500 | $1,937,500 | $0 | $0 | $1,937,500 | $0 | 1,2 |
| S6.CCC.K | Wagstaffe | Coastal Protection Works at Wagstaffe Wharf | CCC | DCCEEW-CPHR | $125,000 | $125,000 | $0 | $0 | $125,000 | $0 | 1,2 |
| S6.CCC.L | Ettalong | Repair and renewal of the Lance Webb Reserve Coastal Protection Works | CCC | DCCEEW-CPHR | $2,437,500 | $2,437,500 | $0 | $2,437,500 | $0 | $0 | 1,2 |
| S6.CCC.M | Ettalong | Ettalong Beach foreshore stabilisation investigation | CCC | DCCEEW-CPHR, DPHI-Crown Lands | $65,000 | $0 | $65,000 | $0 | $65,000 | $0 | 1,2 |
| S6.CCC.N | Umina Beach | Prepare a Broken Bay beach nourishment framework | CCC | DCCEEW-CPHR, TfNSW, DPHI-Crown Lands | $205,000 | $0 | $205,000 | $85,000 | $80,000 | $40,000 | 1,2 |
| S6.CCC.O | Umina Beach | Implement the Umina-Ocean Beach Erosion Management Strategy | CCC | DCCEEW-CPHR | $19,500,000 | $19,500,000 | $0 | $0 | $0 | $19,500,000 | 1,2 |
| S6.CCC.P | Umina Beach | Monitoring of coastal stormwater outlets | CCC | N/A | $0 | $0 | $0 | $0 | $0 | $0 | N/A |
| S6.CCC.Q | Pearl Beach | Coastal Protection Works at Pearl Beach | CCC | DCCEEW-CPHR, DPHI-Crown Lands | $50,000 | $0 | $50,000 | $50,000 | $0 | $0 | 1,2 |
| S6.CCC.R | Patonga | Repair and renewal of Patonga Coastal Protection Works | CCC | DCCEEW-CPHR | $570,000 | $570,000 | $0 | $570,000 | $0 | $0 | 1,2 |
| S6.CCC.S | Patonga | Prepare the Patonga Sand Management Plan | CCC | DCCEEW-CPHR, DPHI-Crown Lands | $80,000 | $0 | $80,000 | $80,000 | $0 | $0 | 1,2 |
| S6.CCC.T | Patonga | Repair and renewal of the Patonga Creek Coastal Protection Works | CCC | DCCEEW-CPHR | $300,000 | $300,000 | $0 | $300,000 | $0 | $0 | 1,2 |
| S6.CCC.U | Patonga | Patonga Levee Feasibility Investigation and Design | CCC | DCCEEW-CPHR | $65,000 | $0 | $65,000 | $0 | $65,000 | $0 | 1,2 |
| S6.CCC.V | Broken Bay Beaches | Review and implement updated Beach Maintenance Program | CCC | DCCEEW-CPHR | $550,000 | $0 | $550,000 | $250,000 | $200,000 | $100,000 | 1,2 |
| S6.CCC.W | Broken Bay Beaches | Develop and implement a coastal vegetation and dune management strategy | CCC | DCCEEW-CPHR | $350,000 | $0 | $350,000 | $140,000 | $140,000 | $70,000 | 1,2,7,10 |
| S6.CCC.X | Broken Bay | Implement recommendations from Gosford Lagoons & Creek Entrance Management Review (Salients 2017) for Green Point Creek, Pearl Beach Lagoon and Ettalong Creek. | CCC | DCCEEW-CPHR | $0 | $0 | $0 | $0 | $0 | $0 | N/A |
| S7.CCC.A | Gosford | Support the Gosford Foreshore Masterplan | CCC | DCCEEW-CPHR, HCCDC | $0 | $0 | $0 | $0 | $0 | $0 | N/A |
| S7.CCC.B | Ocean Beach | Construction of an all-abilities beach access point at Ocean Beach SLSC | CCC | N/A | $20,000 | $20,000 | $0 | $0 | $20,000 | $0 | 1,2 |
| S7.CCC.C | Patonga | Develop and implement a foreshore masterplan for Patonga Creek | CCC | N/A | $250,000 | $250,000 | $0 | $0 | $250,000 | $0 | 1,2 |



General Meeting 11 November 2026
Attachments Page 563
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 226
ATTACHMENT 1 - ITEM 7

| S4 ID | Locality | Action Name | Lead | Support | Total 10 Yr Cost | Capital Costs | Operational & Maintenance Costs | Costs Years 1 to 4 | Costs Years 5 to 8 | Costs Years 9-10 | Funding Mechanisms |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S7.CCC.D | Pearl Beach | Investigate the feasibility of ambulant access at Pearl Beach Rock Pool | CCC | N/A | $0 | $0 | $0 | $0 | $0 | $0 | N/A |
| S7.CCC.E | Broken Bay Beaches | Prioritise and upgrade beach life guard patrol towers and ancillary structures | CCC | N/A | $250,000 | $0 | $250,000 | $100,000 | $100,000 | $50,000 | 1,2 |
| S7.CCC.F | Broken Bay Beaches | Review waste collection assets and servicing in coastal public spaces | CCC | N/A | $0 | $0 | $0 | $0 | $0 | $0 | N/A |
| S7.CCC.G | LGA Wide | Prepare a Central Coast Council Dinghy Management Plan | CCC | N/A | $0 | $0 | $0 | $0 | $0 | $0 | N/A |
| S7.CCC.H | Spencer | Develop and implement a foreshore masterplan for Spencer | CCC | N/A | $400,000 | $400,000 | $0 | $0 | $400,000 | $0 | 1,2 |
| S7.CCC.I | Estuary-Wide | Undertake strategic upgrades of Council owned boat ramps in Brisbane Water | CCC | TfNSW, DPHI-Crown Lands | $600,000 | $600,000 | $0 | $600,000 | $0 | $0 | 1,8 |
| S7.CCC.J | Estuary-Wide | Implement the St Huberts Island Canals maintenance program | CCC | N/A | $280,000 | $0 | $280,000 | $280,000 | $0 | $0 | 1,2 |
| S7.CCC.K | Woy Woy | Support the implementation of the Woy Woy foreshore masterplan | CCC | DCCEEW-CPHR | $5,000,000 | $5,000,000 | $0 | $2,000,000 | $1,000,000 | $2,000,000 | 1,2,14 |
| S8.CCC.A | Entrance channel | Identify the location and condition of ship wrecks near the old bar via a maritime archaeological survey | CCC | N/A | $50,000 | $0 | $50,000 | $0 | $0 | $50,000 | 1,6 |
| **Local Implementation Plan: Northern Beaches Council LGA** | | | | | | | | | | | |
| S2.NBC.A | Pittwater-wide | Install a CoastSnap Camera Cradles at strategic locations across the LGA foreshore | NBC | DCCEEW-CPHR | $100,000 | $100,000 | $0 | $40,000 | $40,000 | $20,000 | 1,2 |
| S2.NBC.B | Pittwater-wide | Develop and implement a Pittwater beach monitoring program | NBC | DCCEEW-CPHR, NPWS | $300,000 | $0 | $300,000 | $120,000 | $120,000 | $60,000 | 1,2 |
| S2.NBC.C | Pittwater, Cottage Point | Install permanent tide gauges at strategic locations around the waterway | NBC | DCCEEW-CPHR | $40,000 | $40,000 | $0 | $0 | $40,000 | $0 | 1,2 |
| S2.NBC.D | Pittwater-wide | Develop and implement a program for regular and ongoing monitoring of public coastal assets and infrastructure | NBC | N/A | $0 | $0 | $0 | $0 | $0 | $0 | N/A |
| S3.NBC.A | Pittwater-wide | Develop and update coastal hazard information | NBC | N/A | $50,000 | $0 | $50,000 | $0 | $50,000 | $0 | 1,2 |
| S3.NBC.B | Pittwater-wide | Update planning certificates with coastal hazard information | NBC | DPHI-Planning and Assessment | $0 | $0 | $0 | $0 | $0 | $0 | N/A |
| S3.NBC.C | Pittwater-wide | Develop planning controls to ensure buildings are sited and designed to consider coastal hazard information including coastal erosion and estuarine inundation. | NBC | DPHI-Planning and Assessment | $0 | $0 | $0 | $0 | $0 | $0 | N/A |
| S3.NBC.D | Pittwater-wide | Develop a long term adaptation plan for coastal assets and infrastructure | NBC | N/A | $150,000 | $0 | $150,000 | $0 | $150,000 | $0 | 1,2 |
| S5.NBC.A | Careel Bay | Naturalisation of Careel Creek: Design and Implementation | NBC | DCCEEW-CPHR | $800,000 | $800,000 | $0 | $160,000 | $640,000 | $0 | 1,2,11 |
| S5.NBC.B | Careel Bay | Upgrade the Careel Bay litter trap | NBC | N/A | $150,000 | $150,000 | $0 | $150,000 | $0 | $0 | 1,2,7,11 |
| S6.NBC.A | Station Beach | Foreshore Management Works at Station Beach | NBC | DCCEEW-CPHR | $180,000 | $0 | $180,000 | $120,000 | $40,000 | $20,000 | 1,2,7 |



General Meeting 11 November 2026
Attachments Page 564
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 227
ATTACHMENT 1 - ITEM 7

| S4 ID | Locality | Action Name | Lead | Support | Total 10 Yr Cost | Capital Costs | Operational & Maintenance Costs | Costs Years 1 to 4 | Costs Years 5 to 8 | Costs Years 9-10 | Funding Mechanisms |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S6.NBC.B | Great Mackerel Beach | Foreshore Management Works at Great Mackerel Beach (Whole-of Beach) | NBC | DCCEEW-CPHR | $80,000 | $0 | $80,000 | $40,000 | $0 | $40,000 | 1,2 |
| S6.NBC.C | Sand Point Beach | Foreshore Management Works along Sand Point Beach | NBC | DCCEEW-CPHR | $160,000 | $0 | $160,000 | $160,000 | $0 | $0 | 1,2,7 |
| S6.NBC.D | Careel Bay | Investigate the feasibility of channel maintenance works within Careel Bay and Careel Creek | NBC | DCCEEW-CPHR | $200,000 | $0 | $200,000 | $80,000 | $80,000 | $40,000 | 1,2 |
| S6.NBC.E | Clareville Beach | Foreshore Management Works at Clareville Beach Reserve | NBC | DCCEEW-CPHR | $65,000 | $0 | $65,000 | $0 | $65,000 | $0 | 1,2,7 |
| S6.NBC.F | Bayview | Foreshore Management Works at Rowland Reserve foreshore | NBC | DCCEEW-CPHR | $33,000 | $0 | $33,000 | $0 | $0 | $33,000 | 1,2,7 |
| S6.NBC.G | Currawong Beach | Foreshore Management Works at Currawong Beach | NBC | DCCEEW-CPHR | $100,000 | $0 | $100,000 | $0 | $100,000 | $0 | 1,2,7 |
| S6.NBC.H | Great Mackerel Beach | Great Mackerel Beach Foreshore Master Plan (Whole-of-beach) | NBC | DCCEEW-CPHR | $250,000 | $100,000 | $150,000 | $250,000 | $0 | $0 | 1,2 |
| S6.NBC.I | Pittwater-wide | Provide coastal hazard risk information to public asset owners | NBC | N/A | $0 | $0 | $0 | $0 | $0 | $0 | N/A |
| S6.NBC.J | Pittwater-wide | Pittwater dredging and beach nourishment design and pilot project | NBC | DCCEEW-CPHR, | $500,000 | $500,000 | $0 | $250,000 | $250,000 | $0 | 1,2 |
| S6.NBC.K | Northern Estuary | Pittwater Wave Climate Study | NBC | DCCEEW-CPHR | $80,000 | $0 | $80,000 | $0 | $80,000 | $0 | 1,2 |
| S7.NBC.A | Pittwater-wide | Upgrade and repair of waterway access points | NBC | N/A | $0 | $0 | $0 | $0 | $0 | $0 | 1 |
| S7.NBC.B | Sand Point | Boat Ramp repair and upgrade | NBC | TfNSW | $0 | $0 | $0 | $0 | $0 | $0 | 1,8 |
| **Local Implementation Plan: NPWS** | | | | | | | | | | | |
| S6.NPW.A | Station Beach | North Station Beach Coastal Protection Works - Sand Redistribution and Dune Building | NPWS | NBC, DPHI-Crown Lands | $114,000 | $0 | $114,000 | $72,000 | $0 | $42,000 | 4 |
| S6.NPW.B | The Basin | The Basin Coastal Protection Works - Sand Redistribution Program | NPWS | DPHI-Crown Lands | $350,000 | $0 | $350,000 | $290,000 | $0 | $60,000 | 4 |
| S6.NPW.C | Bobbin Head | Bobbin Head Foreshore Sea Level Rise Adaptation Study | NPWS | N/A | $300,000 | $0 | $300,000 | $0 | $300,000 | $0 | 4 |
| S6.NPW.D | Bobbin Head | Bobbin Head hydrodynamic assessment | NPWS | KC | $300,000 | $0 | $300,000 | $300,000 | $0 | $0 | 4 |
| S6.NPW.E | Apple Tree Bay | Repair and renewal of the Bobbin Head Coastal Protection Works | NPWS | N/A | $3,000,000 | $3,000,000 | $0 | $3,000,000 | $0 | $0 | 4 |
| S6.NPW.F | Coasters Retreat, Marramarra Creek, Cowan Creek, Gentlemans Halt, Berowra Creek, Mooney Mooney | Coastal Protection works for NPWS Bank Erosion Hotspot Sites | NPWS | DPHI-Crown Lands | $2,886,000 | $2,886,000 | $200,000 | $1,165,000 | $1,321,000 | $400,000 | 4,5 |



General Meeting 11 November 2026
Attachments Page 565
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 228
ATTACHMENT 1 - ITEM 7

WATER TECHNOLOGY
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# 7 WHETHER THE CMP IDENTIFIES RECOMMENDED CHANGES TO THE RELEVANT PLANNING CONTROLS, INCLUDING ANY PROPOSED MAPS

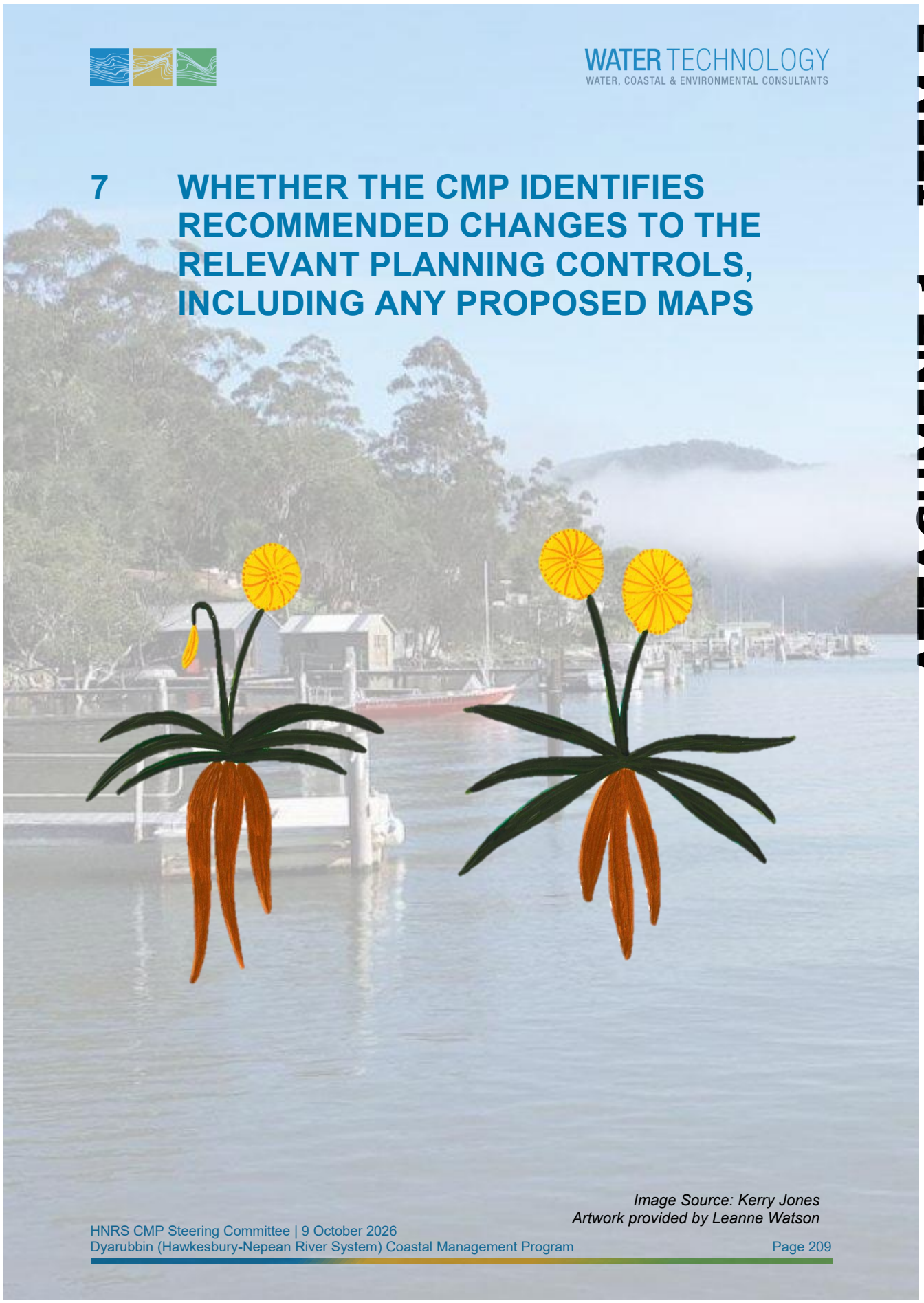


*Image Source: Kerry Jones*
*Artwork provided by Leanne Watson*

## 7.1 Overview

There are 2 specific actions identified in this CMP that relate to updating and amending the R&H SEPP coastal management area (CMA) mapping across the HNRS. These updates are necessary to:

- Incorporate the latest technical studies, coastal hazard mapping, and coastal wetland mapping
- Address gaps in current R&H SEPP mapping coverage
- Support long-term land use planning and risk management across multiple LGAs.

The following sections summarise the recommended updates relating to Coastal Vulnerability Area (CVA) mapping and Coastal Wetland (CW) mapping.

## 7.2 CVA Mapping

At present, no R&H SEPP CVA mapping exists for the HNRS. To address this, each of the 3 Partner Councils significantly impacted by coastal hazards - Central Coast Council, Northern Beaches Council, and Hornsby Shire Council - intend to prepare planning proposals seeking adoption of CVA mapping within their LGAs.

The CVA mapping may be comprised of a combination of the following hazards within each LGA, which are identified in the CM Act:

- Beach erosion
- Shoreline recession
- Estuary entrance instability
- Coastal cliff and slope instability
- Coastal inundation
- Tidal inundation
- Erosion and inundation of foreshores caused by tidal waters and the action of waves, including the interaction of those waters with catchment floodwaters.

This is outlined in Action ***S3.CMP.G Undertake a Planning Proposal to adopt a R&H SEPP CVA***. This process is summarised in Table 7.1 which outlines the technical basis for the proposed CVA updates, and opportunities for Northern Beaches and Central Coast Councils to coordinate planning proposals within their LGAs to include the outputs of other relevant neighbouring CMPs.

**Table 7.1 CVA mapping updates – technical basis and potential alignment with other CMPs**

| Council | Technical Basis | Alignment with other CMPs |
|---|---|---|
| Central Coast Council | ▪ Coastal Inundation Mapping from the Hawkesbury River Estuary Coastal Inundation Study (Rhelm and Baird, 2023)<br>▪ Beach Erosion, Coastal Inundation, and Geotechnical Slope Instability Mapping from the Open Coast and Coastal Lagoons Coastal Hazard Assessment (Bluecoast Consulting Engineers, 2024) | Potential to combine with hazard mapping from all CMPs within the LGA to prepare a single CVA planning proposal – including:<br>▪ The Central Coast Open Coast CMP<br>▪ The Tuggerah Lakes CMP<br>▪ The Central Coast Lagoons CMP<br>▪ The Lake Macquarie CMP |

| Council | Technical Basis | Alignment with other CMPs |
|---|---|---|
| Northern Beaches Council | ▪ Coastal Inundation Mapping from the Hawkesbury River Estuary Coastal Inundation Study (Rhelm and Baird, 2023)<br>▪ Pittwater Beach Erosion and Shoreline Recession Assessment (WRL, 2023) | Potential to combine with hazard mapping from all CMPs within the LGA to prepare a single CVA planning proposal – including:<br>▪ The Northern Beaches Open Coast CMP<br>▪ The Collaroy-Narrabeen CMP |
| Hornsby Shire Council | ▪ Coastal Inundation Mapping from the Hawkesbury River Estuary Coastal Inundation Study (Rhelm and Baird, 2023) | N/A |

## 7.3 Coastal Wetland Mapping

In addition to CVA mapping, this CMP recommends updating R&H SEPP Coastal Wetland Mapping for Brisbane Water within the Central Coast Council LGA. This recommendation is captured under Action ***S3.CCC.D Undertake a Planning Proposal to update R&H SEPP Coastal Wetlands Mapping for Brisbane Water***.

This update would be based on the mapping provided in the *Brisbane Waters Coastal Wetland Mapping* study (ELA, 2022), which provides contemporary mapping of wetland boundaries and ecological values.

To improve efficiency and reduce administrative burden, this planning proposal could:

- Be submitted in conjunction with the CVA planning proposal (Action S3.CMP.G), or
- Be combined with any future CMA mapping proposals arising from other CMPs within the Central Coast LGA.

A coordinated approach would streamline the planning proposal process while delivering consistent, up-to-date mapping across multiple CMP study areas.



Figure 7.1 Coastal Wetlands located in Brisbane Water at Empire Bay (top) and Bensville (bottom) (source: Chris Drummond)

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# 8 MONITORING, EVALUATION AND REPORTING PROGRAM

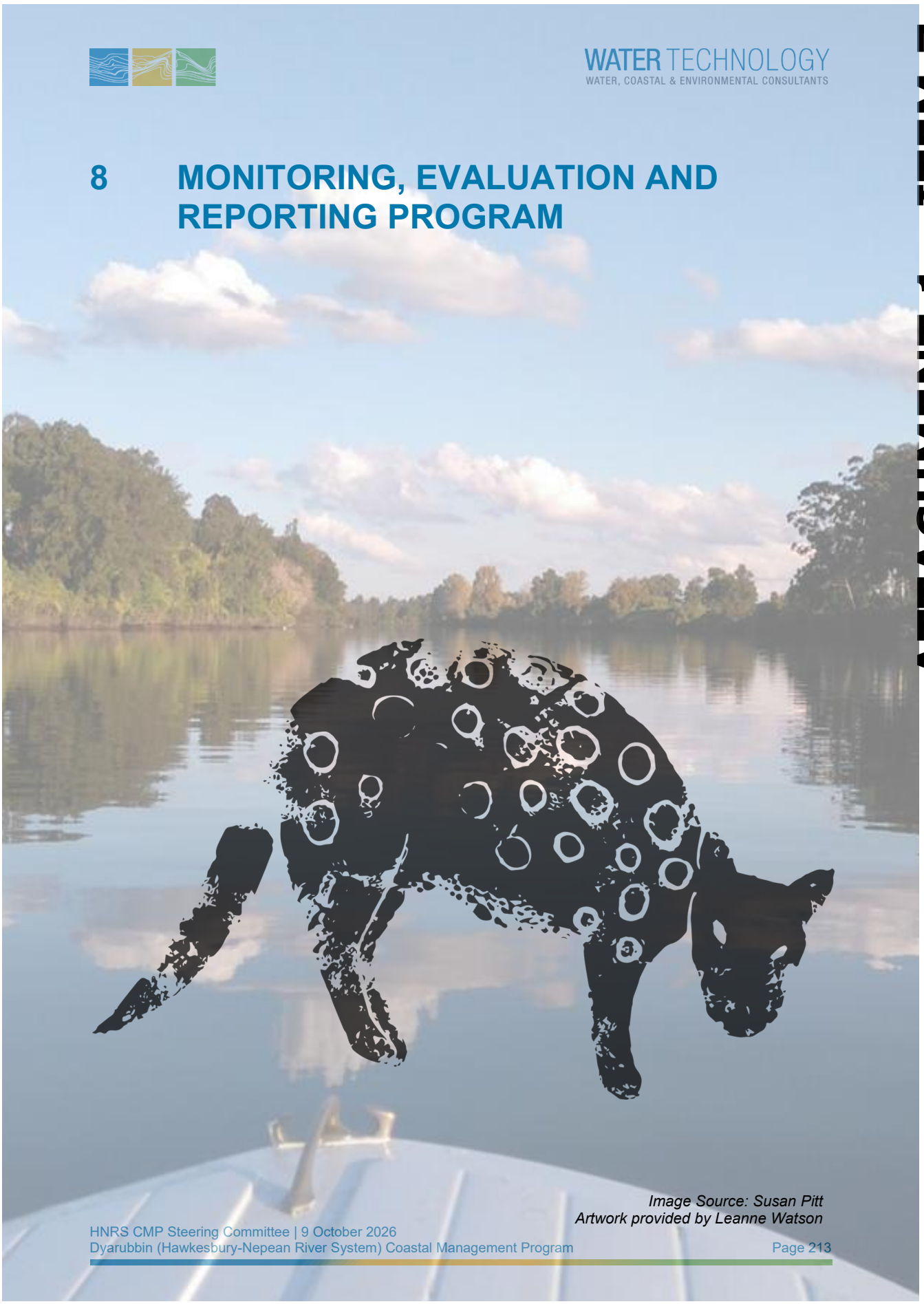


*Image Source: Susan Pitt*
*Artwork provided by Leanne Watson*

## 8.1 Purpose and Approach

Monitoring, evaluation, and reporting (MER) for the CMP is both a mandatory requirement of the CM Act, and a critical tool to assess the performance of the CMP in achieving its intended outcomes over the short, medium, and long term (OEH, 2018f). The purpose of the MER is to enable:

- Accountability – to track progress in implementing the CMP's management actions
- Performance assessment - assessing whether actions achieve their intended objectives
- Adaptive management - using evidence to refine future actions and priorities.

The MER framework for this CMP has been designed to be fit-for-purpose, systematic, and pragmatic. It follows the "Program Logic Model" approach, that links CMP management actions with outputs, intermediate impacts and longer-term outcomes. The program logic model supports a systematic and integrated approach to CMP planning, implementation, and evaluation. There is a logical flow to this process, which is summarised in Figure 6-1 below and contains three key elements described in Table 8.1.

**Table 8.1 Components of the HNRS CMP MER Program**

| Component | Purpose | Key Evaluation Questions |
|---|---|---|
| Component 1: Implementation status | Tracks whether CMP management actions are being delivered as planned and on schedule. | ▪ Have actions been implemented in accordance with the implementation plan? |
| Component 2: Environmental Outcomes | Monitors key environmental and social indicators to assess whether CMP actions are improving estuary health and values. | ▪ Has the implementation of individual management actions, and the integrated CMP more generally, resulted in an improvement in the health of the coastal environment and the social / cultural values of the study area? |
| Component 3: Overall CMP Performance | Reviews the CMP's long-term effectiveness in meeting its objectives and the CM Act requirements. | ▪ Has the CMP more broadly achieved its intended objectives?<br>▪ How has the CMP made a difference?<br>▪ Has the level of risk associated with the various stressors and hazards facing the HNRS been reduced? |

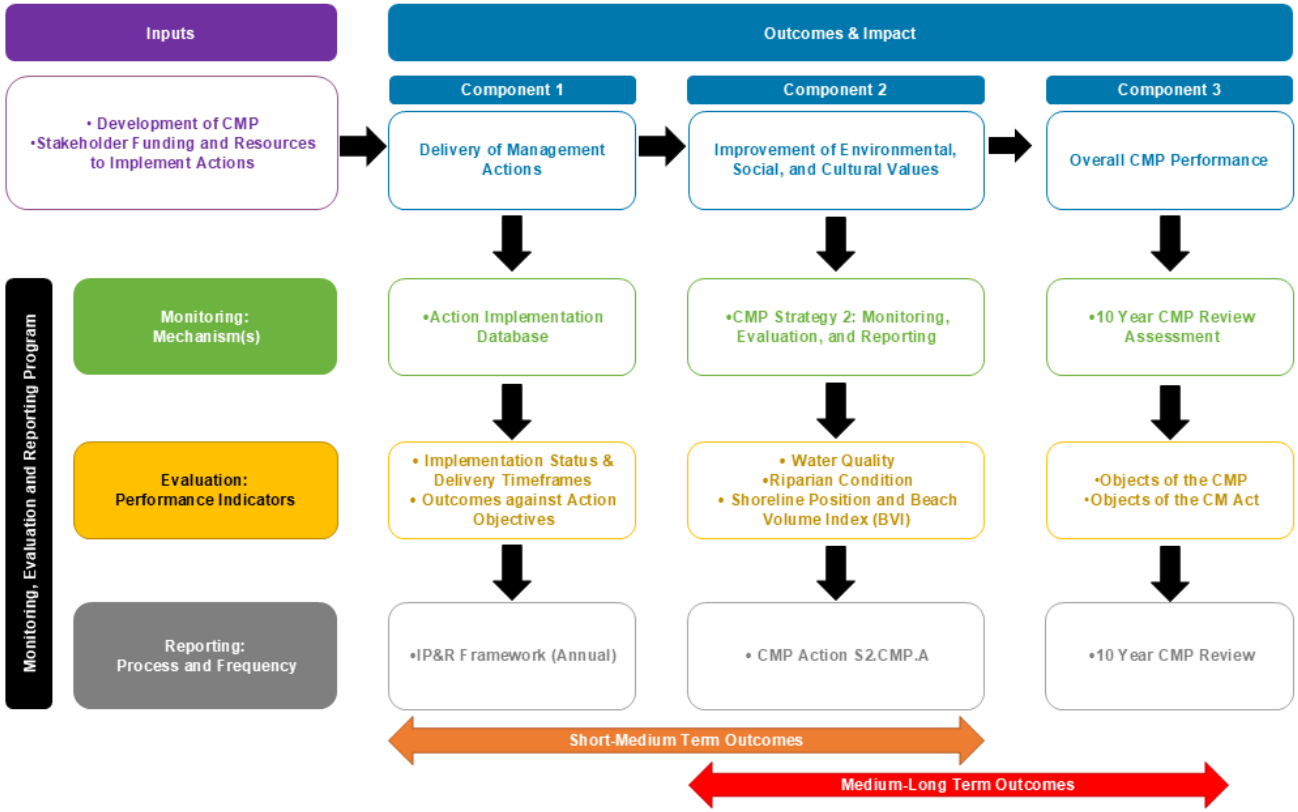



Figure 8.1 Overview of MER program for the CMP



General Meeting 11 November 2026
Attachments Page 572
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 235
ATTACHMENT 1 - ITEM 7

## 8.2 Component 1: Delivery of Management Actions

The CMP Project Coordinator and the Partner Councils will monitor the implementation status of the various CMP actions – including which actions have been implemented, the progress of actions, barriers and issues, allocated funding and resources, and timeline of implementation.

It is recommended that an *Action Implementation Database* (AID) be maintained to monitor the status of the various CMP actions and support the CMP requirements. The fields include information relating the practical implementation of the works, and the overall status of the action:

- Implementation Status: For each action, a monitoring designation should be provided regarding the current status of that action using one of 5 categories:
  - *Completed:* Where discrete (one-off) actions items have been completed and no further actions are required.
  - *Implemented and Ongoing:* Where actions have an ongoing component and are currently being implemented.
  - *In progress/Incomplete:* This includes actions that are in progress or not yet finalised.
  - *Not Yet Commenced/Outstanding:* Where outstanding actions have not yet commenced - but have been marked for future implementation.
  - *No Longer Applicable:* Where actions are no longer applicable due to changed circumstances or superseding actions from other management plans.
- Dates of commencement and practical completion.
- Links to supporting documentation or evidence of completion.

Each action itemised in this CMP has been assigned a corresponding performance indicator(s). Each CMP action should be evaluated for its performance in achieving its objectives, using the established indicator(s). These should be recorded in the AID.

The IP&R reporting system of each Partner Council (including annual operational reporting and longer interval strategic reporting) provides the opportunity to formally report on monitoring of coastal management and its outcomes. Each Partner Council delivers an Annual Report to document its progress in implementing its 4 Year Delivery Program and Annual Operational Plan activities over each financial year. This provides for a yearly evaluation of the implementation status of each action in the CMP.

Where actions have not been included in the IP&R Framework, a yearly evaluation of those CMP actions by the officer(s) responsible for facilitating implementation of the CMP is recommended. This may be undertaken through the annual review of the Business Plan, or as a separate process.

## 8.3 Component 2: Environmental Parameters and Indicators

A key component of the MER process will be to utilise physical datasets that can provide an indication of key physical and environmental parameters and track the progress of the CMP towards key achieving intended outcomes.

It should be noted that while the monitoring of environmental indicators is important to ascertain the health state and/or condition of the coastal zone, it cannot always be reliably used to determine the short term "success" of individual management actions. This is because:

- The physical processes affecting the coastal zone act over a wide range of timeframes including short term (storm erosion and recovery, seasonal effects), medium term (beach rotation and impacts related to

the El Niño Southern Oscillation) and long term (such as responses to sediment budget imbalances and climate change impacts such as SLR).

- The ecological and chemical processes affecting estuary health and water quality respond to both short term stressors across the catchment, as well as to longer term historical legacy impacts.

For this reason, environmental indicators can demonstrate variability over short-, medium- and long-term cycles that may range from several days, to years or even decades. Furthermore, the cause and effect of such variability may not always be readily understood, nor easily detected in short-term datasets. In this context, linking short to medium term changes in environmental indicators to specific stressors, or the impact of CMP management actions, can often be fraught with complexity.

Nonetheless, over the *long term*, the monitoring of key environmental indicators is the most efficient and practical way to assess the overall performance of the CMP at achieving its outcomes. Assessing outcomes over the short to medium term will require consideration of the physical process context, and expert technical judgement.

With this in mind, a pragmatic approach to monitoring and evaluation is proposed for the CMP. Strategy 2 of the CMP includes a range of management actions that are inherently linked to the MER process, including those listed in Table 8.2.

**Table 8.2 Key management actions linked to the MER**

| Monitoring Type | Action ID | Action Name |
|---|---|---|
| Water Quality | S2.CMP.A | HNRS Water Quality Monitoring - Data Aggregation and Reporting |
| Water Quality | S2.CMP.B | HNRS Water Quality Monitoring - Implement a Coordinated Monitoring Program (see Figure 8.2) |
| Foreshore Condition | S2.CMP.C | Implement a bank stability and condition monitoring program across the estuary foreshores |
| Beach Monitoring | S2.NBC.B | Develop and Implement a Pittwater Beach Monitoring Program |
| Beach Monitoring | S2.CCC.A | Develop and implement a Broken Bay Coastal Monitoring Program |

There are also a number of monitoring programs external to the CMP process that can provide physical datasets to support the MER, including:

- The NSW Beachwatch Programs (DCCEEW, 2025).
- Annual State of the Beaches Reporting (DCCEEW, 2024).

***Using Indicators to Inform Management***

The ‘environmental indicators’ proposed to be monitored through action S2.NBC.B and S2.CCC.A (which include shoreline position, beach volume, dune vegetation condition, and water quality) may be applied to inform and 'trigger’ certain management actions such as beach scraping or post storm re-profiling etc. This information may also be applied to facilitate an adaptive approach to defining when coastal protection works are constructed at specific locations. An example of this trigger based approach is provided in Action S6.CCC.O (Implementation of the Umina-Ocean Beach Erosion Management Strategy).

***Importance of Vertical Integration***

This component of the MER framework will be vertically integrated with statewide monitoring and evaluation systems to ensure consistency, comparability, and transparency. This means that:

- Data collected under the CMP will be structured and reported in a way that aligns with state-level frameworks, including the NSW Government's Statewide MER for Estuaries (DCCEEW, 2025) and the MEMS Environmental Condition Monitoring Framework (Aither, 2019; Thornborough, et al., 2023).
- Consistent indicators, metrics, and reporting formats will allow the condition of the HNRS to be rolled up into broader regional and statewide assessments, providing a clear line of sight from local action to state priorities.
- This alignment will reduce duplication, strengthen data sharing across agencies, and enable evidence-based planning at multiple levels of government.

By embedding vertical integration into the MER process, the CMP ensures that local monitoring contributes to a cohesive, statewide understanding of estuary and coastal health, supporting both local decision-making and state-level policy development.




**Figure 8.2 Water Quality Monitoring in Lower Hawkesbury – an example of key monitoring element of the MER (source: Ana Rubio)**

## 8.4 Component 3: Achievement of Objects of the CMP and CM Act

The CMP should be treated as a living document, reviewed and updated over time to ensure it remains relevant and effective. While annual reviews track implementation progress through the IP&R framework of the respective Partner Councils, the MER program also requires a strategic review at set intervals to evaluate the CMP's overall performance.

The CM Act (Section 18(1)) and CM Manual requires Council to ensure that the CMP is reviewed at least once every 10 years. However, it should be noted that it may be reviewed and/or updated sooner for any reason, including if there are significant new circumstances which need to be considered.

***The Purpose of the Review***

The review of the CMP should be undertaken through a formalised process and represents a significant opportunity to:

- Assess the extent to which the CMP has achieved its stated objectives, providing an evidence base for whether the program is delivering on its promises.

- Examine how well the CMP has contributed to meeting the broader objectives of the CM Act, ensuring alignment between local implementation and legislative intent.
- Reflect on what has worked well, where challenges have arisen, and what lessons can be carried forward into future CMP cycles.

***Key Issues for Evaluation***

The review should focus on 3 main areas:

- Risk Assessment: The primary mechanism for gauging whether the CMP has been successful should be the re-evaluation of the threats and risks across the study area through a repeat of the CMP's Stage 1 (first pass) and Stage 2 (detailed) risk assessment process. Controls that assist with managing the threats should be included when assessing the level of risk, particularly those actions that have or are being implemented through the CMP. There are 3 specific questions to be answered:
  - Has the level of risk changed?
  - Have the very high or high threats been adequately managed?
  - Are there any new or emerging threats that need to be captured? – including those associated with climate change. These emerging and evolving risks include the impacts of sea level rise on inundation risk, and habitat squeeze and migration.
- CMP Performance: This will include a formal review of the implemented management actions. The review should include a granular assessment of:
  - The status of CMP actions, including the extent to which actions proposed to be wholly implemented within that 10-year period have been implemented.
  - Identification of the CMP's successes, highlights, limitations, and any barriers to the effective implementation.
- Future Improvements: Finally, the review should identify opportunities to strengthen the effectiveness of the CMP moving forward. This might include:
  - Refining existing actions, incorporating new priorities or emerging issues, or adapting management approaches in response to evolving risks.
  - Consideration of any new or updated scientific knowledge, including data garnered and compiled from the monitoring programs included in the CMP.
  - The progress of any actions and commitments which continue beyond the original 10-year timeframe.

If the need arises, new actions or items can also be added to the CMP as part of the review process. Any such changes to the CMP would need to be endorsed by stakeholders and relevant government agencies, as well as the communities of the river system.

***Outcomes***

The strategic review ensures the CMP remains current, evidence-based, and responsive to evolving risks and priorities. It provides a foundation for the next CMP cycle, integrating lessons learned with emerging challenges and opportunities.

ATTACHMENT 1 - ITEM 7

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*Image Source: Gary Harris*
*Artwork provided by Leanne Watson*

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# APPENDIX A
# STUDY AREA MAPPING COMPENDIUM





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# APPENDIX B
# CMP MANAGEMENT ACTION MAPPING





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# APPENDIX C
# COASTAL PROTECTION WORKS – REFERENCE COMPENDIUM



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# C-1 Overview

Concept designs are a critical step in translating the strategic directions of the CMP into practical, on-ground outcomes. By setting out the form and function of proposed works at a concept level, they provide a shared reference point for Councils, agencies, and the community, bridging the gap between high-level strategy and detailed design.

This Appendix presents an overview of concept designs for actions in the CMP that are designated as designated as Coastal Protection Works (CPW), as per the definition provided in the CM Act (see Section 5.1.1). The purpose of these concept designs is to provide sufficient technical detail on the nature and scope of proposed CPW to enable determining authorities to consistently interpret the actions and apply streamlined approval pathways as relevant.

The Appendix is structured into two parts:

- Section C-2 - Provides a set of generic concept designs for common types of CPW, including rock-armoured seawalls and revetments, geotextile sand container (GSC) seawalls and revetments, “living shoreline” seawalls, beach nourishment, and dune management works. These designs are provided for CPW actions where no site-specific technical design study has yet been undertaken.
- Section C-3 Provides concept designs for specific sites and actions where detailed site-specific technical investigations have already been completed.

This compendium has been developed to provide clarity, promote consistency, and build confidence in the interpretation and application of CPW actions under the CMP. By setting out concept-level designs, it supports both the streamlined approvals pathway, and the practical implementation of priority works across the HNRS. These designs will also serve as the foundation for the progression to detailed engineering design, cost refinement, and future funding applications.

All design parameters depicted are indicative only, high level in nature, and remain subject to refinement through geotechnical investigations, detailed design development, cost estimation, and stakeholder engagement.

## C-2 Generic Concept Designs for CPW and EPW

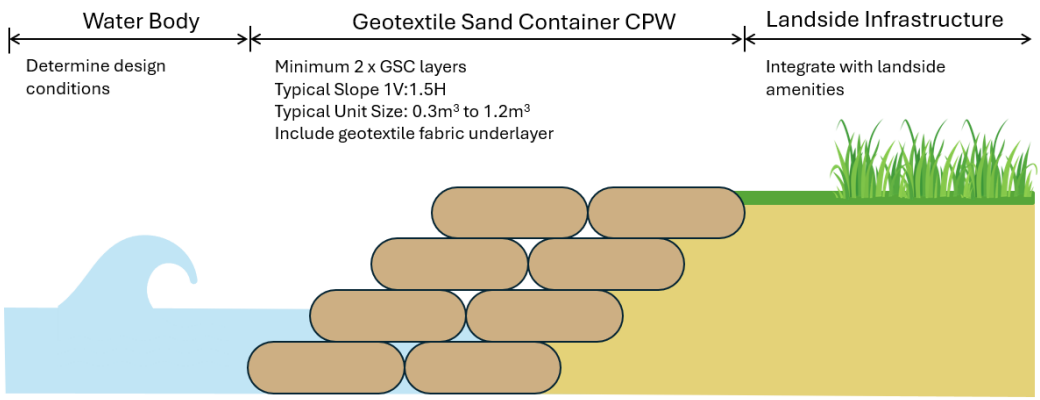



**Figure C-1 Concept Design for CPW: Geotextile Sand Container (GSC) structures**

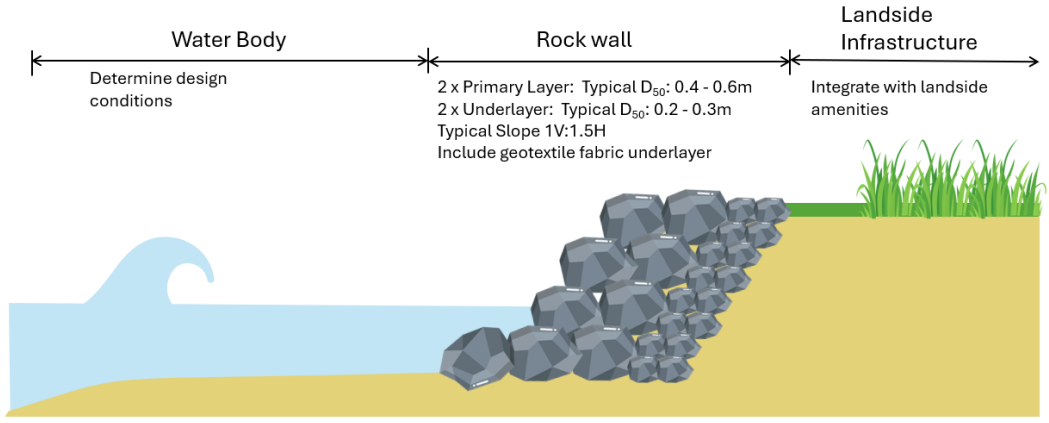



**Figure C-2 Concept Design for CPW: Rock armoured structures**

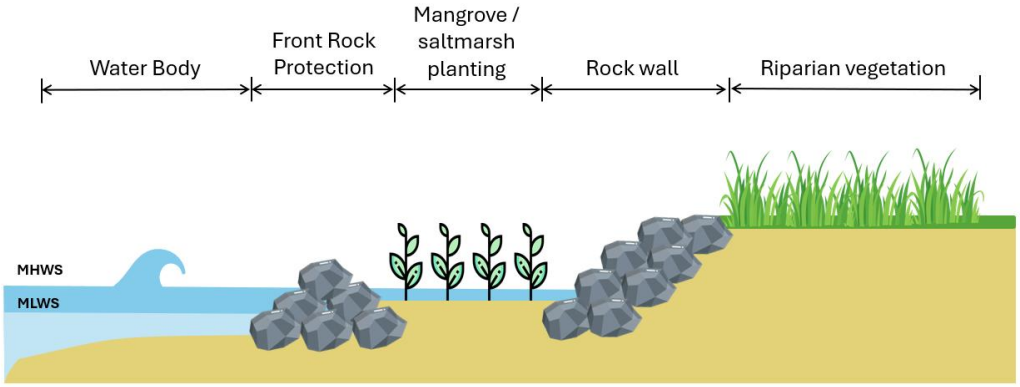



Figure C-3 Concept Design for CPW: Rock bench living shoreline structures

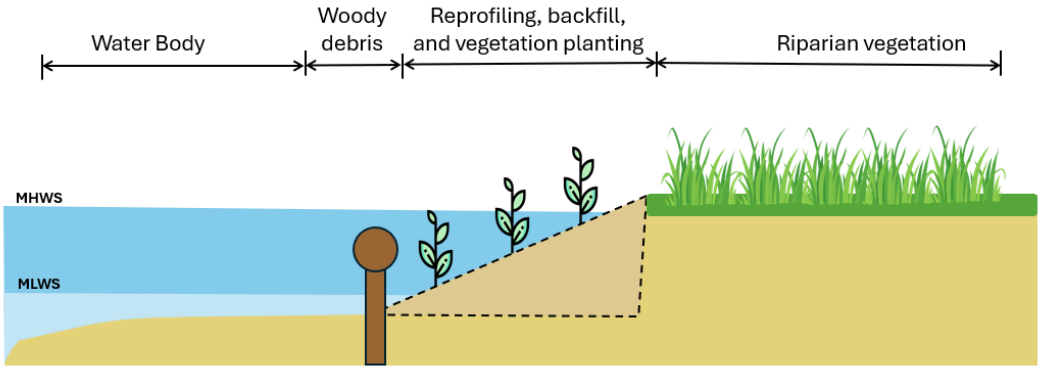



Figure C-4 Concept Design for CPW: Bank reprofiling and woody debris installation

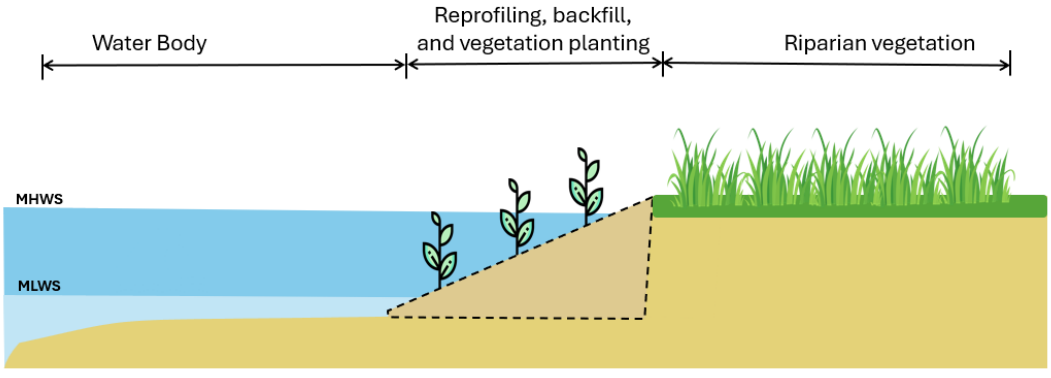



Figure C-5 Concept Design for EPW: Bank reprofiling and revegetation

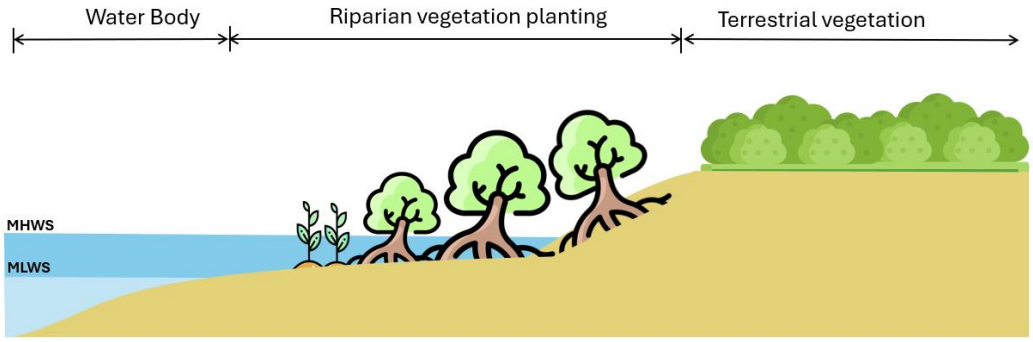



Figure C-6 Concept Design for EPW: Riparian vegetation planting

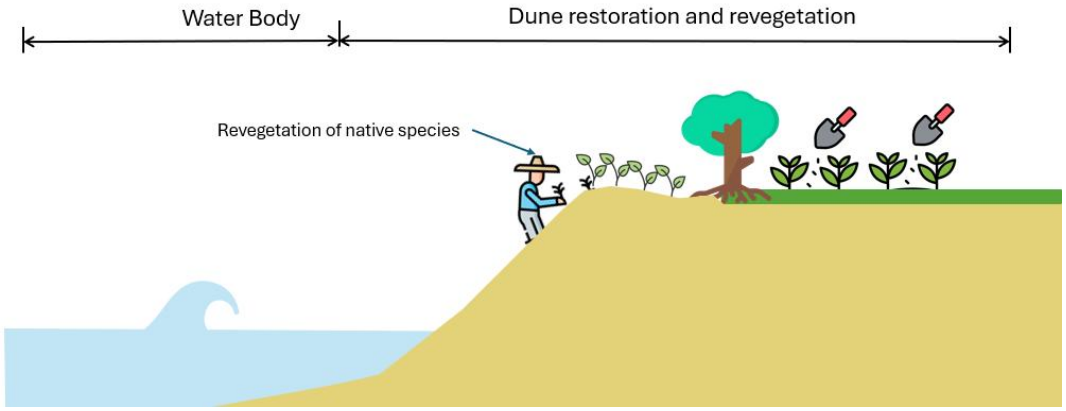



Figure C-7 Concept Design for EPW: Dune restoration and revegetation

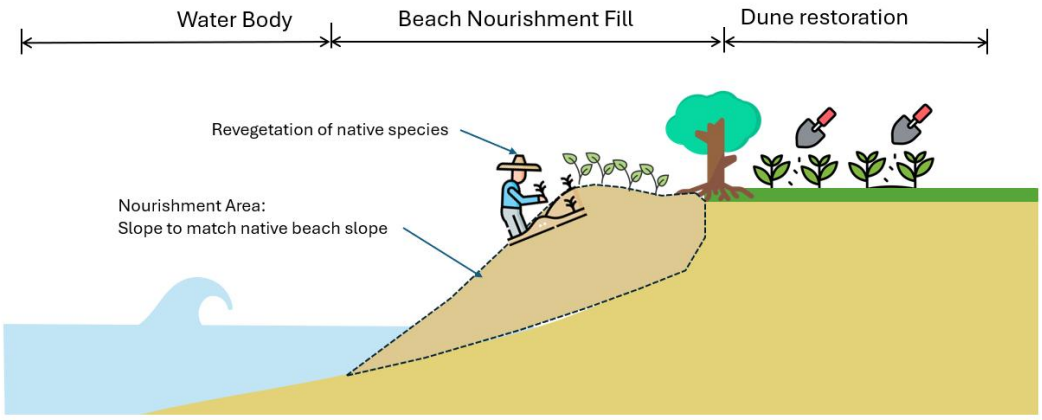



Figure C-8 Concept Design for CPW: Beach nourishment and dune restoration

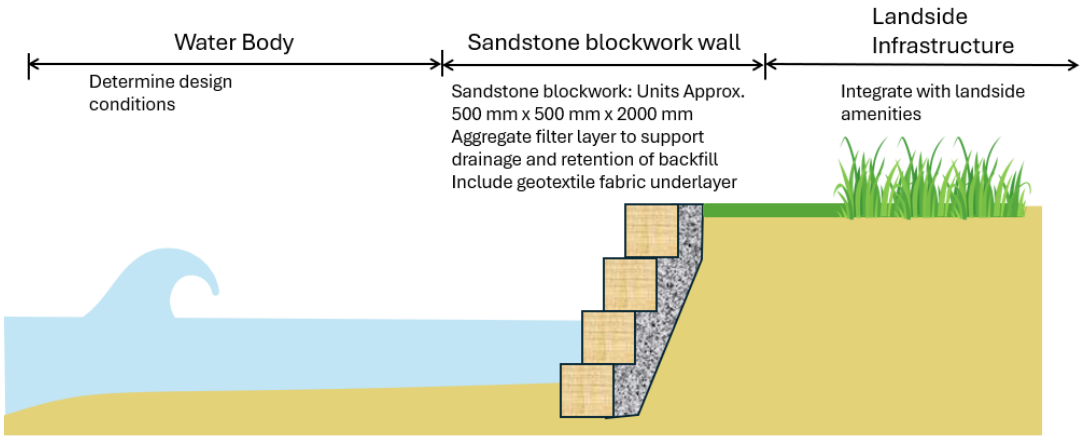



Figure C-9 Concept Design for CPW: Sandstone blockwork revetment

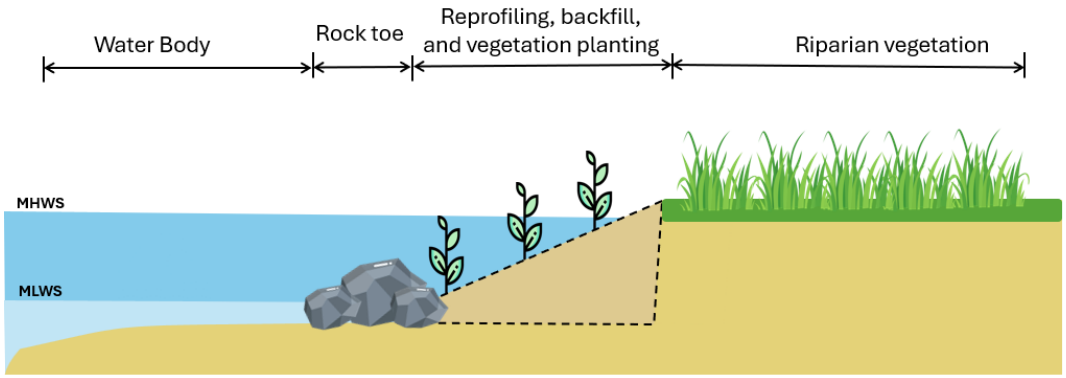



Figure C-10 Concept Design for CPW: Reprofiling with rock toe

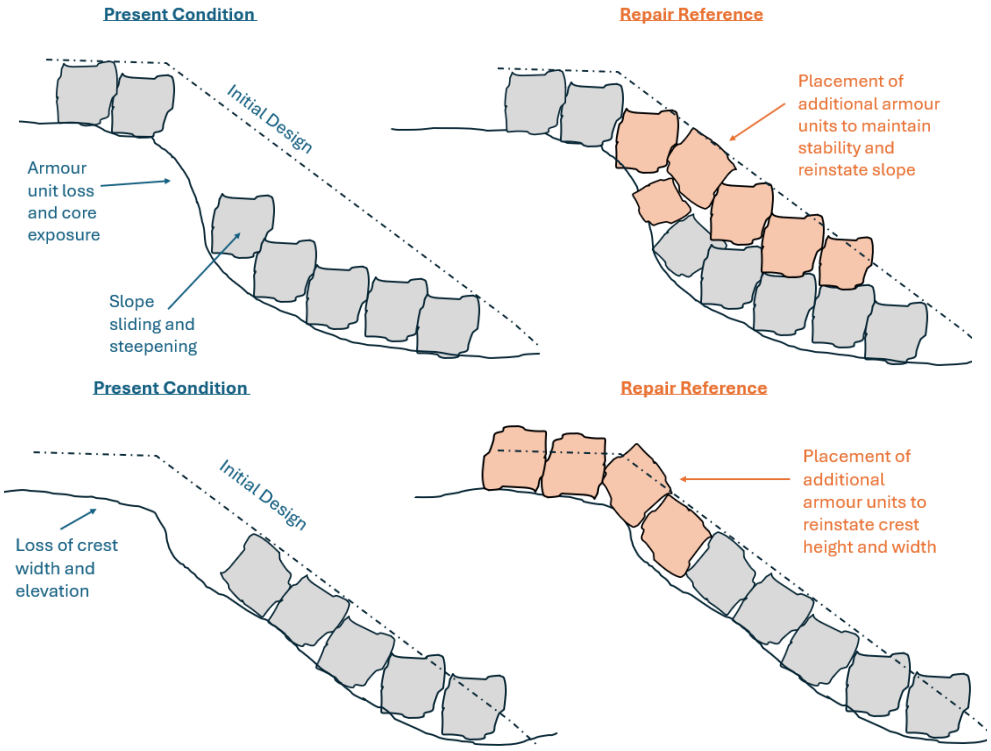



**Figure C-11 Repair reference concept for rock armoured CPW**

## C-3 Specific Concept Designs for CPW

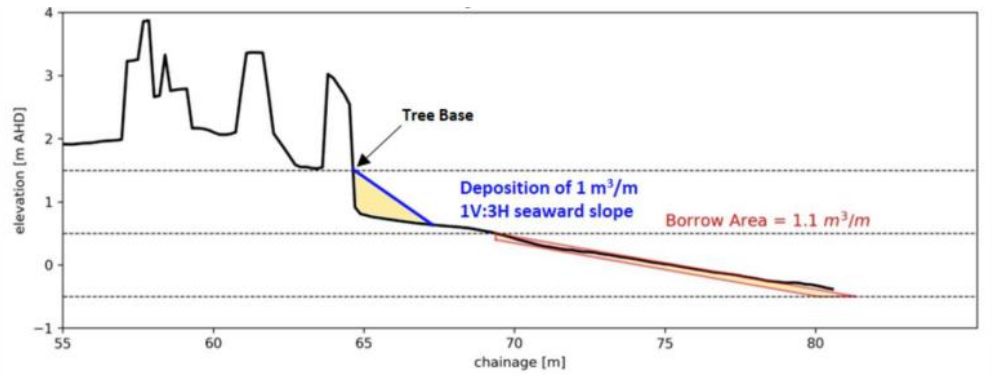



**Figure C-12 Concept Design for Action S6.NBC.B. Source and further reference: (WRL, 2019)**

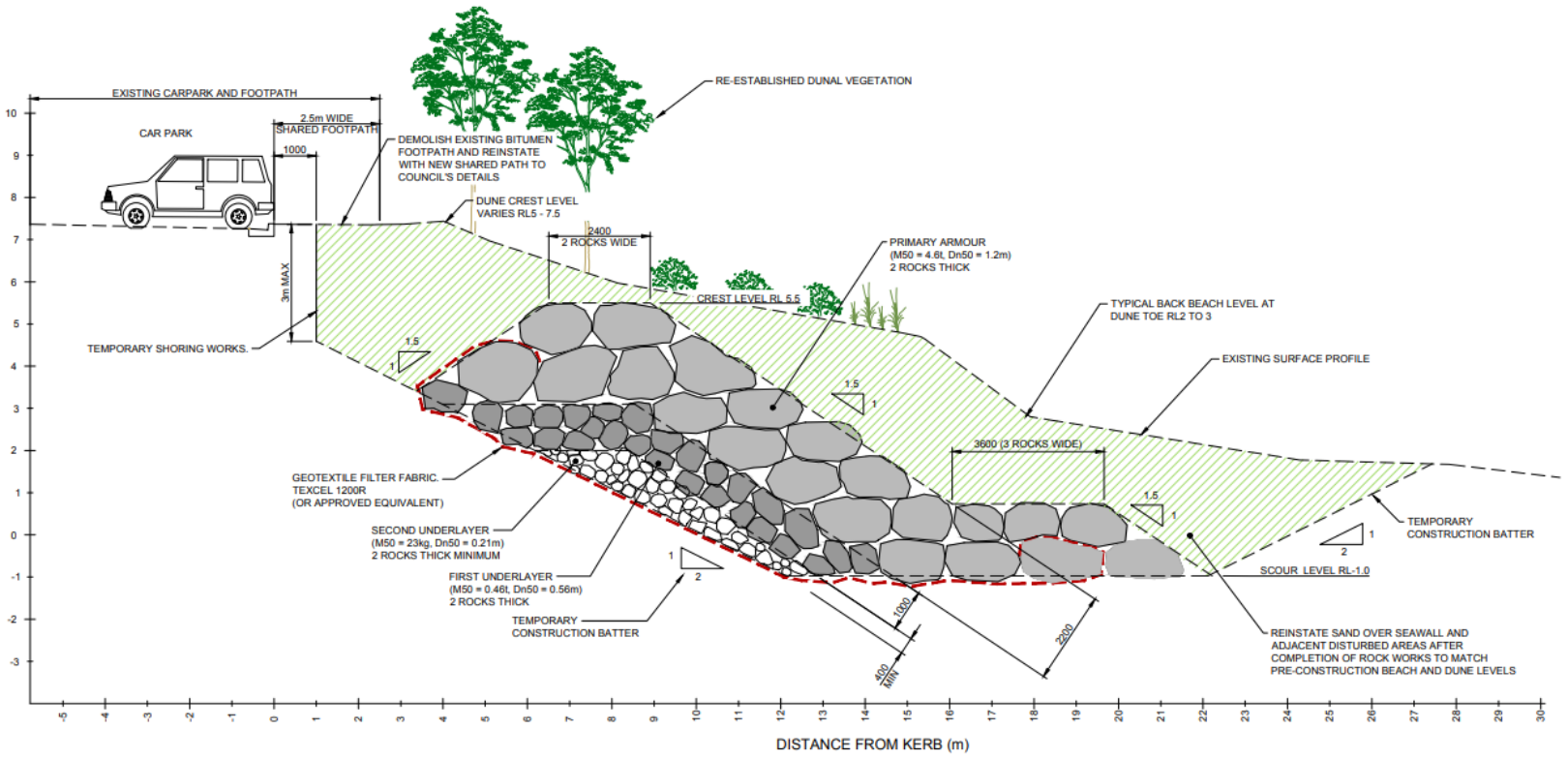



**Figure C-13 Concept Design for Action S6.CCC.O. Source and further reference: (RHDHV, 2019)**



General Meeting 11 November 2026
Attachments Page 596
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 259
ATTACHMENT 1 - ITEM 7

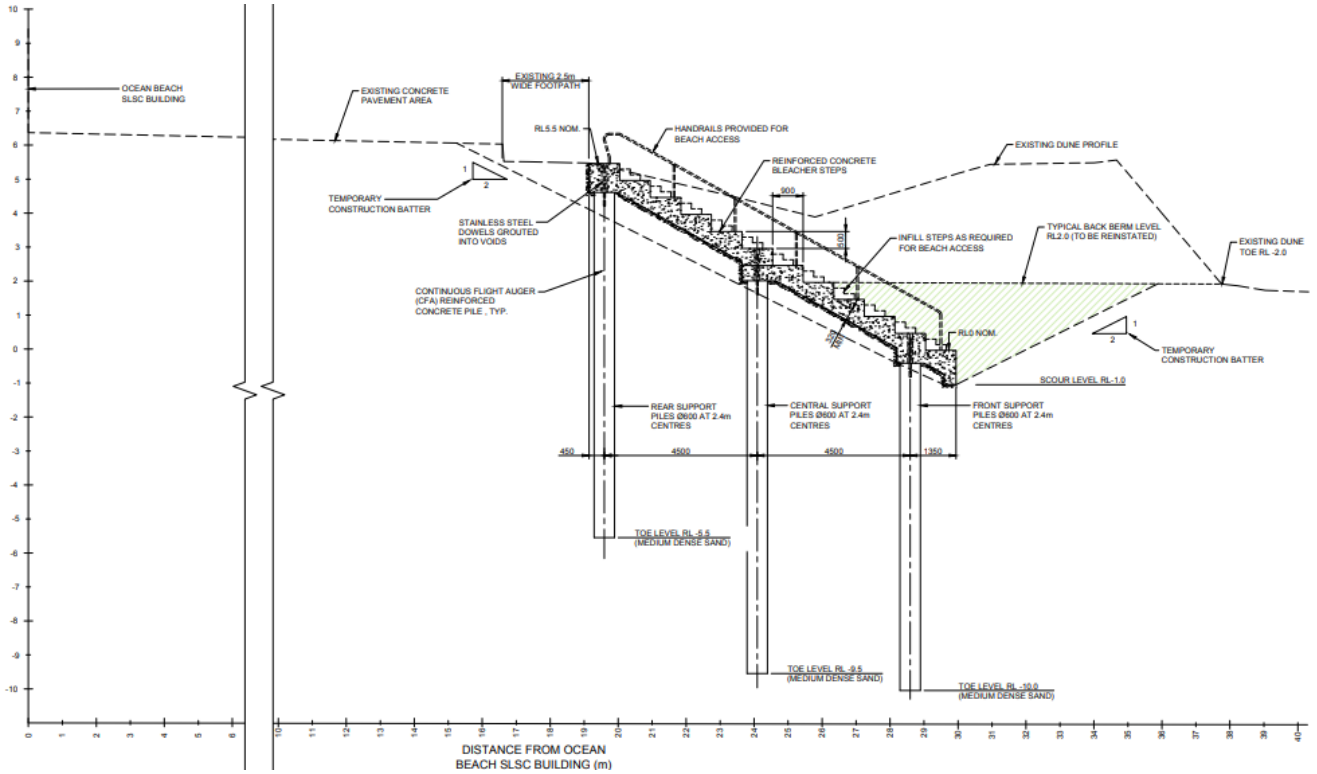



**Figure C-14 Concept Design for Action S6.CCC.O. Source and further reference: (RHDHV, 2019)**





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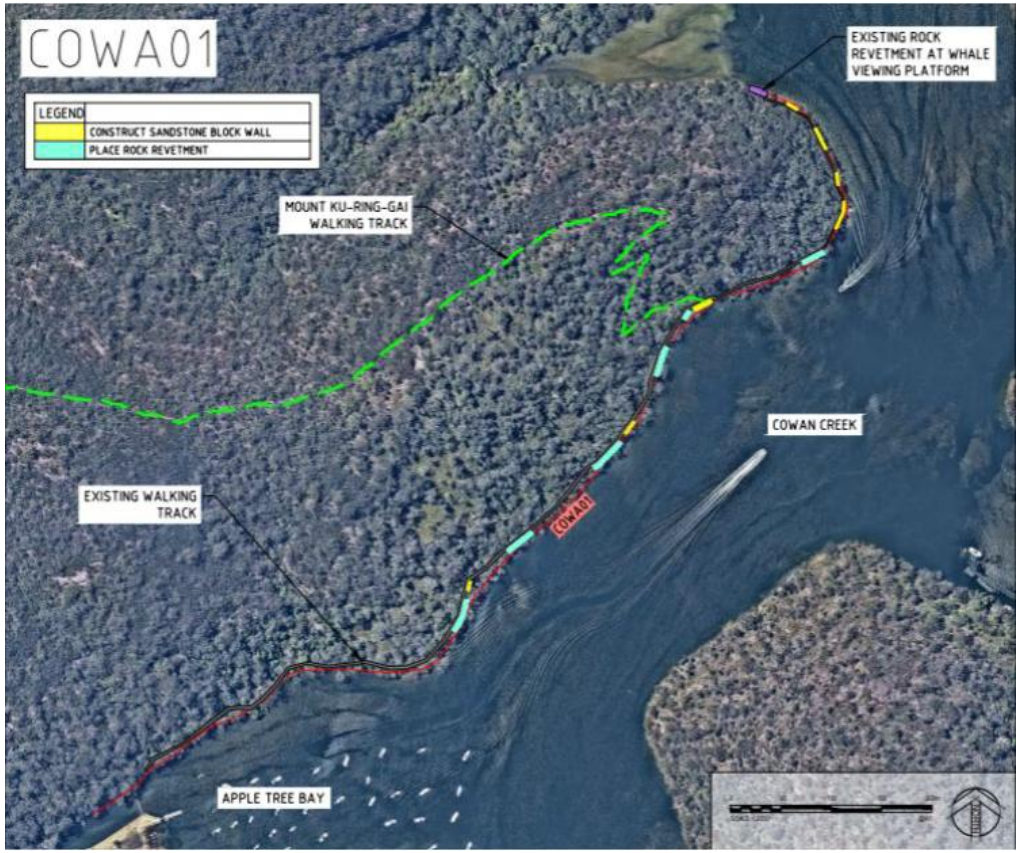



**Figure C-15 Concept Design for Action S6.NPW.F at Cowan Creek. Source and further reference: (Alluvium, 2025)**



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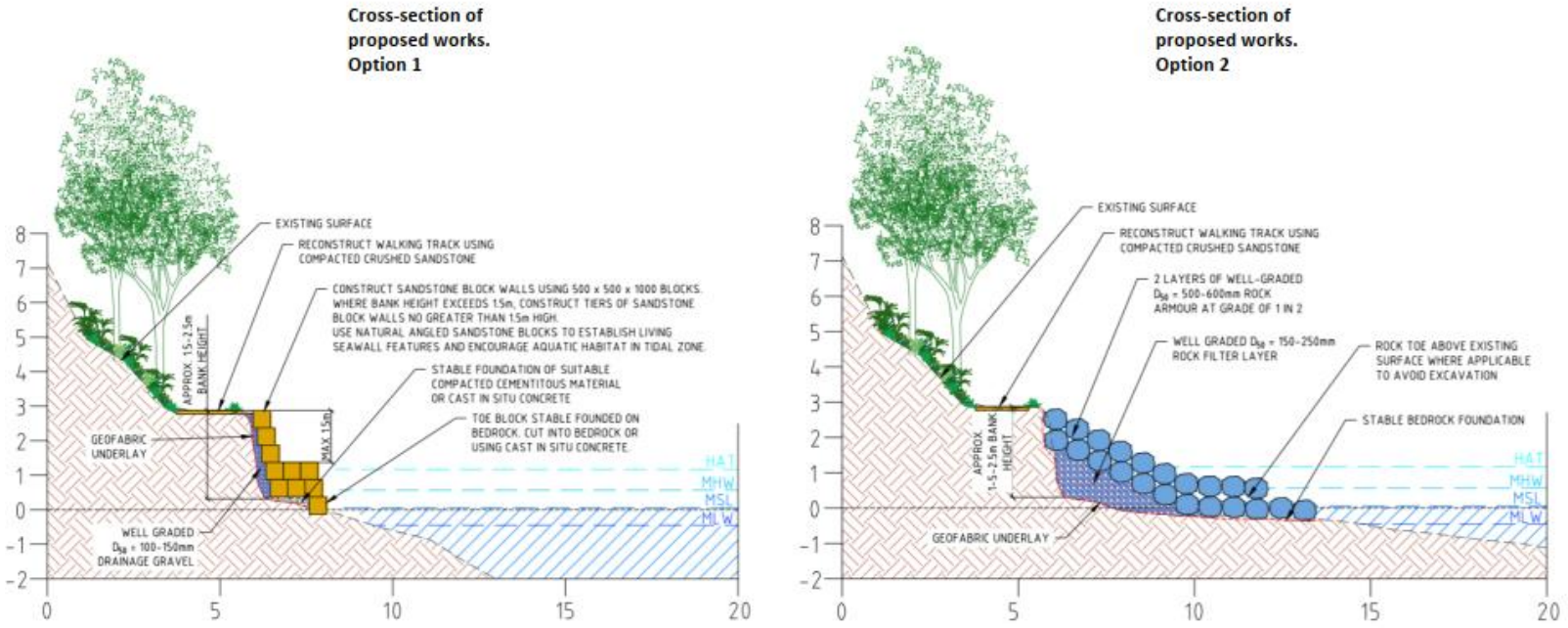



Figure C-16 Concept Design for Action S6.NPW.F at Cowan Creek. Source and further reference: (Alluvium, 2025)



General Meeting 11 November 2026
Attachments Page 599
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 262
ATTACHMENT 1 - ITEM 7




**Figure C-17 Concept Design for Action S6.NPW.F at Coasters Retreat. Source and further reference: (Alluvium, 2025)**



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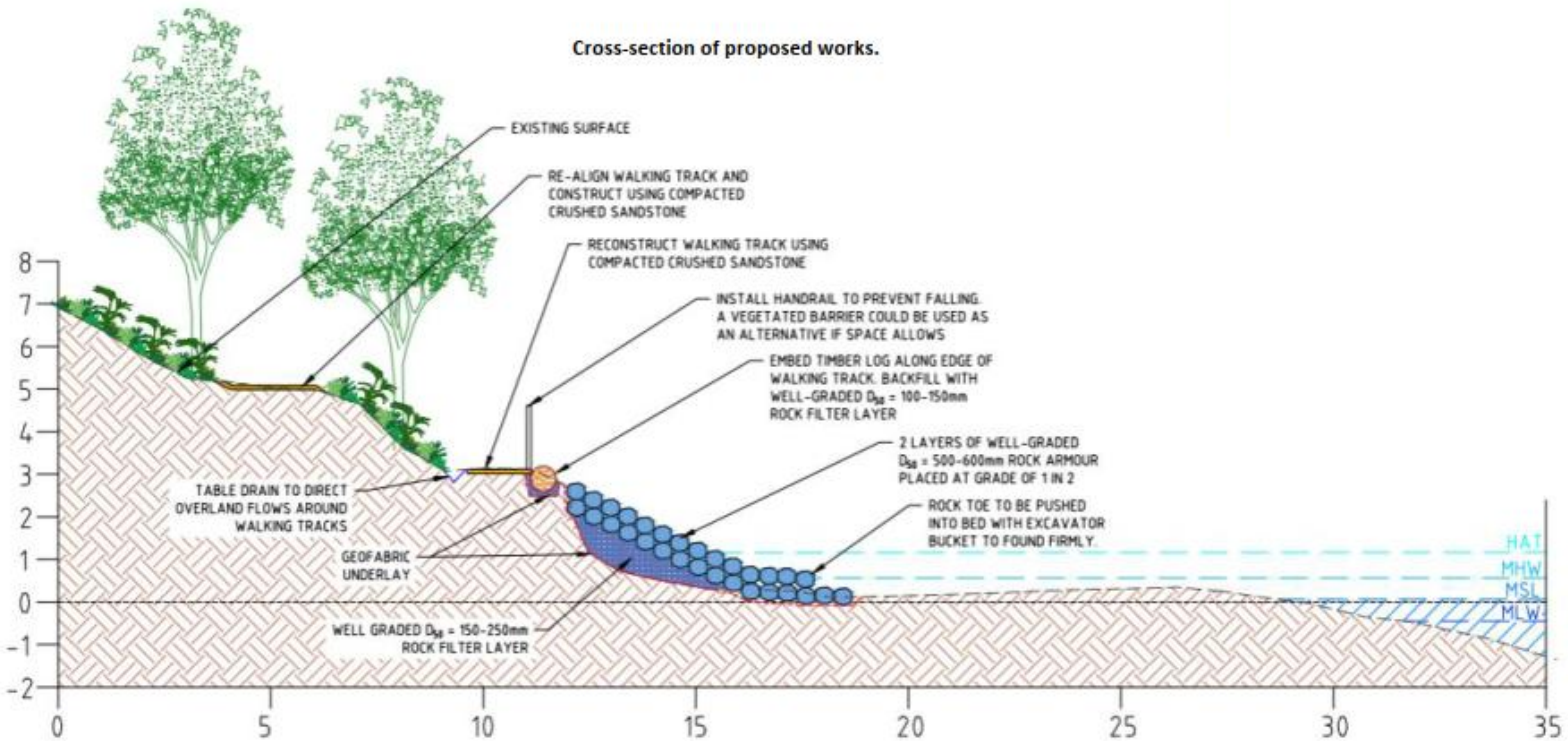



Figure C-18 Concept Design for Action S6.NPW.F at Coasters Retreat. Source and further reference: (Alluvium, 2025)



General Meeting 11 November 2026
Attachments Page 601
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 264
ATTACHMENT 1 - ITEM 7

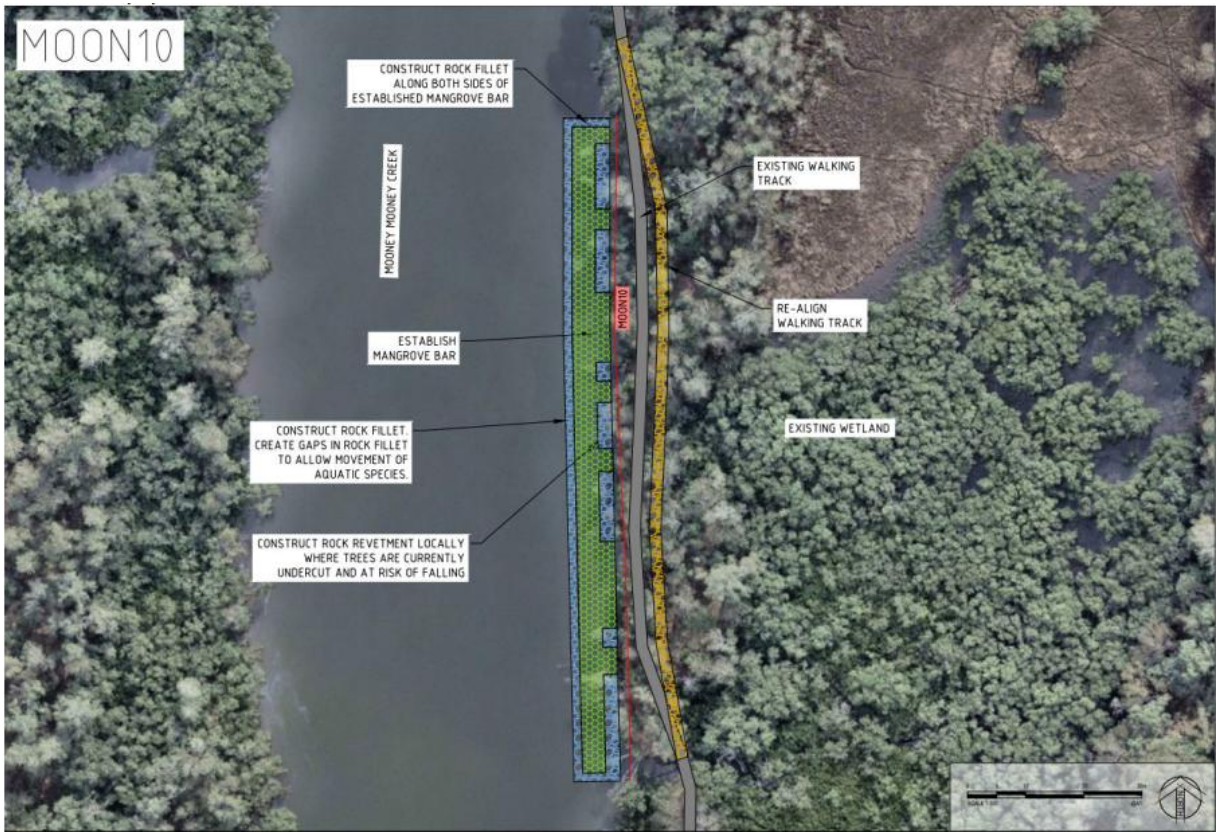



**Figure C-19 Concept Design for Action S6.NPW.F at Mooney Mooney Creek. Source and further reference: (Alluvium, 2025)**



# ATTACHMENT 1 - ITEM 7

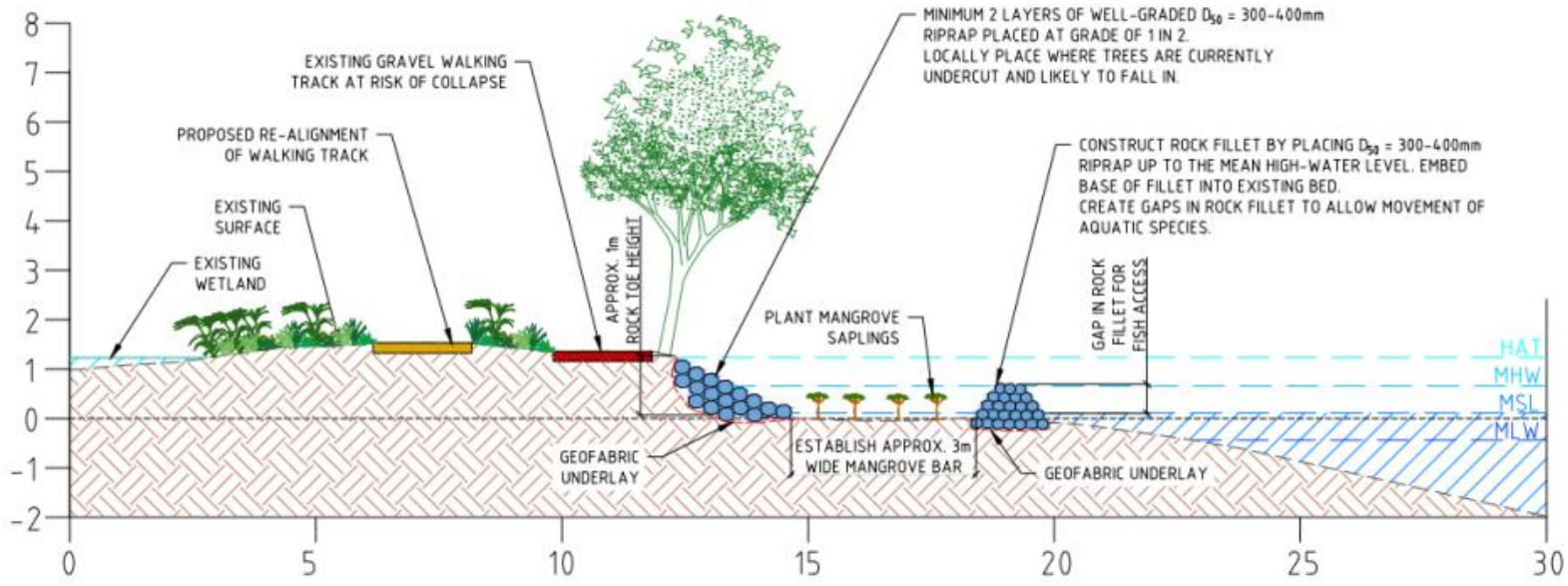



**Figure C-20 Concept Design for Action S6.NPW.F at Mooney Mooney Creek. Source and further reference: (Alluvium, 2025)**



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**Figure C-21 Concept Design for Action S6.NPW.F at Berowra Creek. Source and further reference: (Alluvium, 2025)**



General Meeting 11 November 2026
Attachments Page 604
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 267
ATTACHMENT 1 - ITEM 7

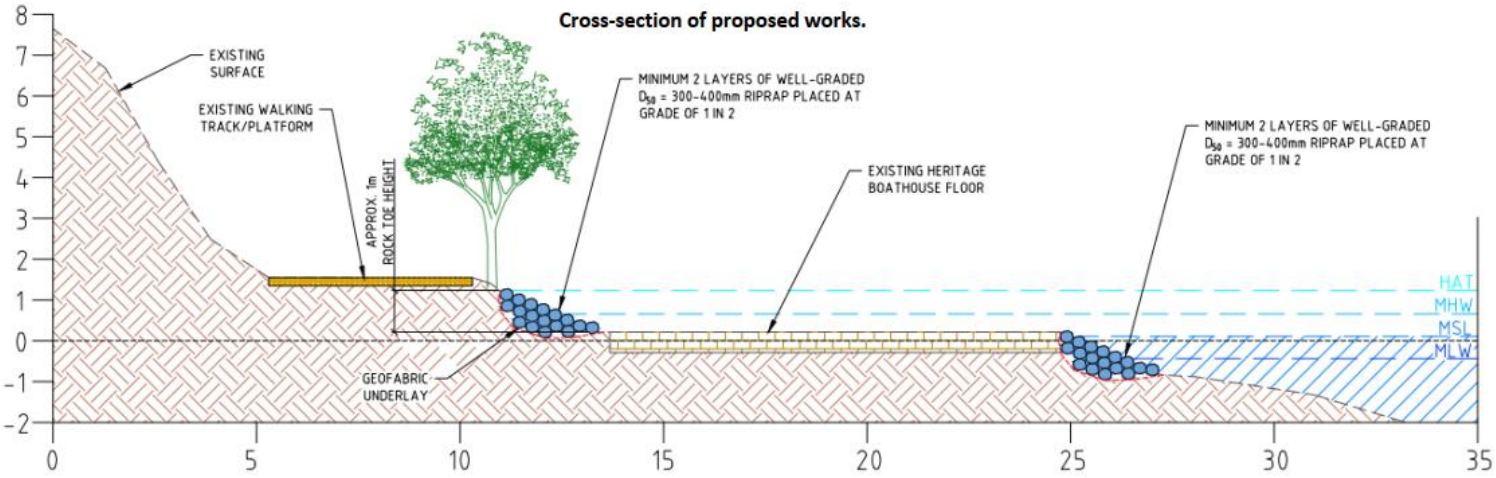



Figure C-22 Concept Design for Action S6.NPW.F at Berowra Creek. Source and further reference: (Alluvium, 2025)



General Meeting 11 November 2026
Attachments Page 605
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 268
ATTACHMENT 1 - ITEM 7

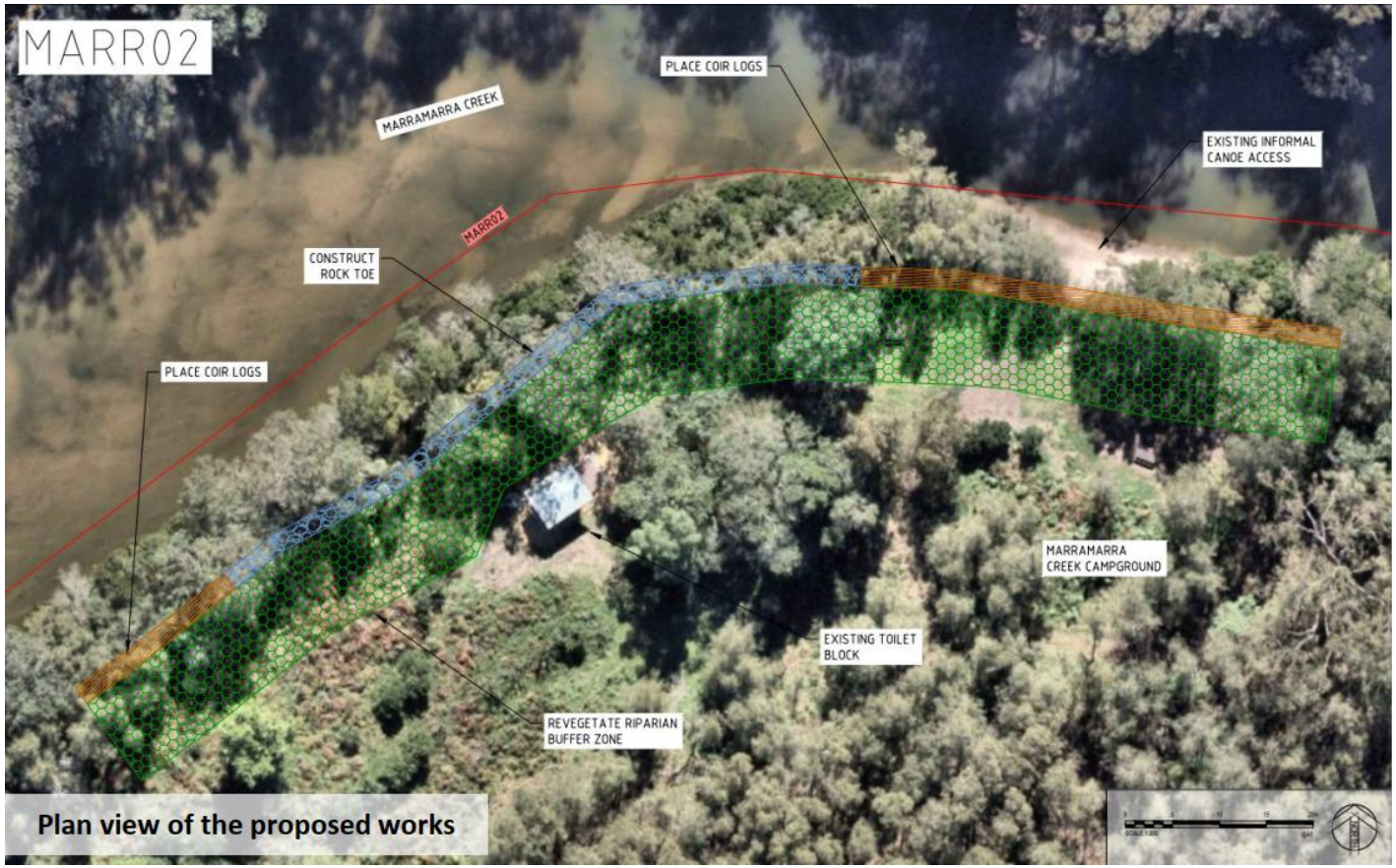



Figure C-23 Concept Design for Action S6.NPW.F at Marramarra Creek. Source and further reference: (Alluvium, 2025)



General Meeting 11 November 2026
Attachments Page 606
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 269
ATTACHMENT 1 - ITEM 7

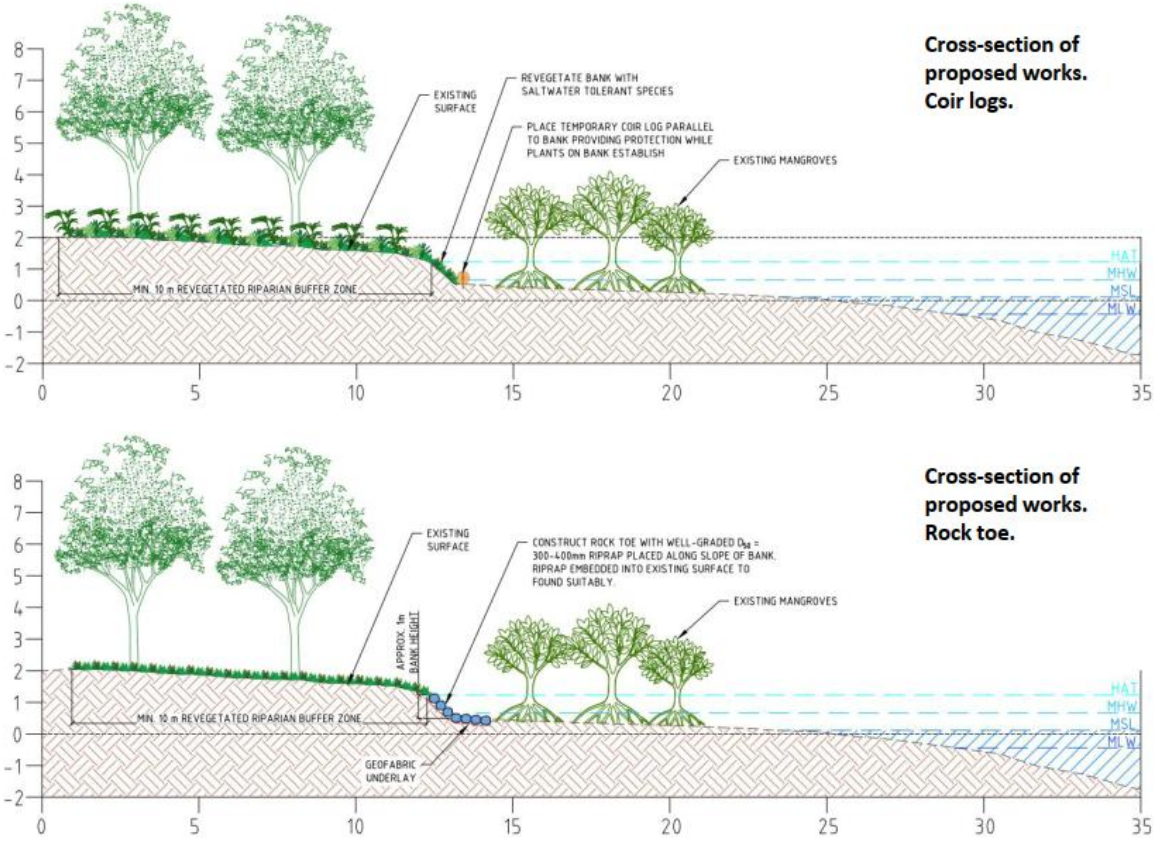



**Figure C-24 Concept Design for Action S6.NPW.F at Marramarra Creek. Source and further reference: (Alluvium, 2025)**



General Meeting 11 November 2026
Attachments Page 607
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 270
ATTACHMENT 1 - ITEM 7




**Figure C-25 Concept Design for Action S6.NPW.F at Gentlemans Halt. Source and further reference: (Alluvium, 2025)**



General Meeting 11 November 2026
Attachments Page 608
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 271
ATTACHMENT 1 - ITEM 7

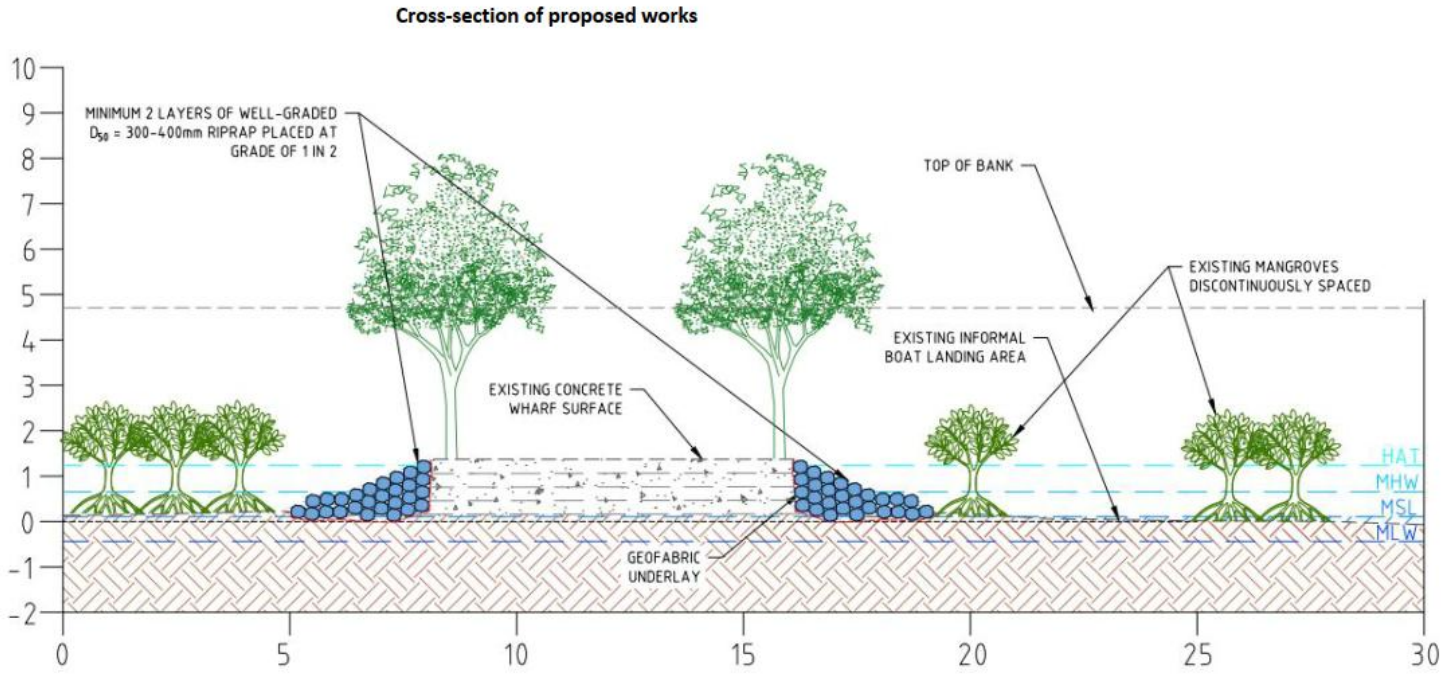



Figure C-26 Concept Design for Action S6.NPW.F at Gentlemans Halt. Source and further reference: (Alluvium, 2025)



General Meeting 11 November 2026
Attachments Page 609
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 272
ATTACHMENT 1 - ITEM 7

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| Concept design option 1 |
| --- |
| Beach nourishment and revegetation |
| Import sand to form a sand dune, then revegetate |
| **Pros:** A nature-based solution that does not impact beach use |
| **Cons:** The need to import or scrape sand, and the risk of a major storm washing away the sand leading to a need to top up again. |
| **Design life estimate:** 5-10 years |

Plan view of the proposed works




Cross-section of proposed works

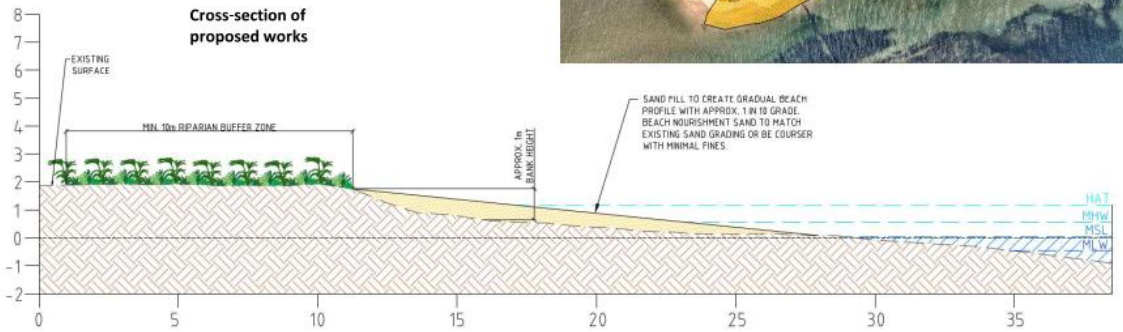



Figure C-27 Concept Design for Action S6.NPW.B at The Basin. Source and further reference: (Alluvium, 2025)



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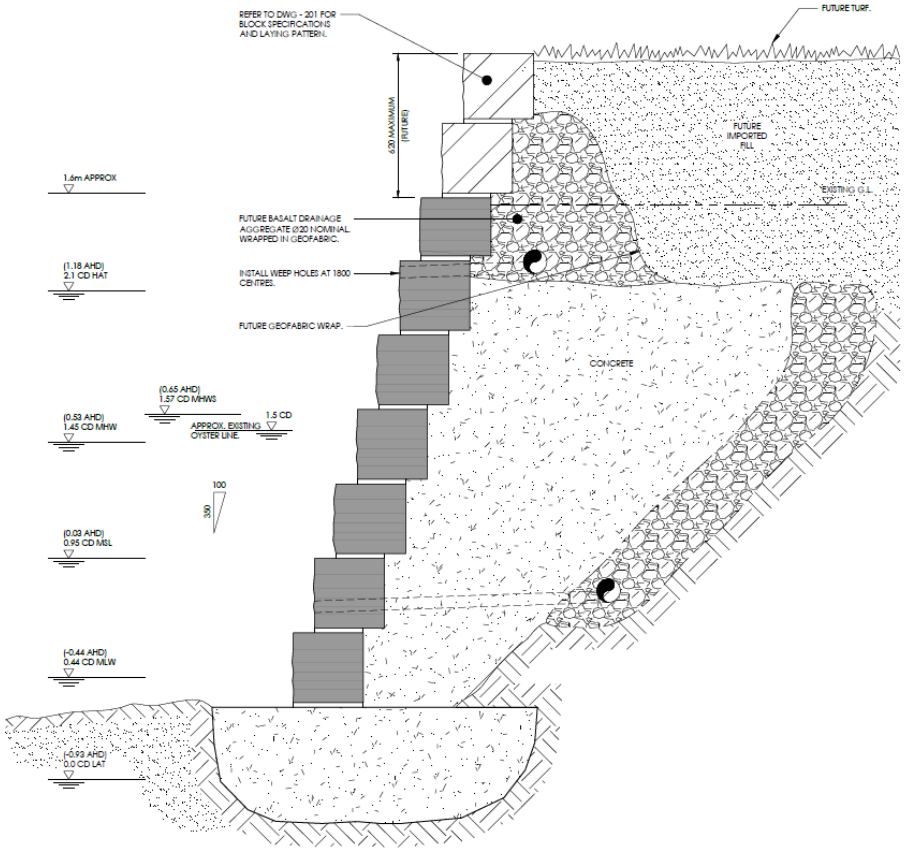



**Figure C-28 Concept Design for Action S6.NPW.E at Bobbin Head (sandstone blockwork sections). Source and further reference: (Alluvium, 2025)**



General Meeting 11 November 2026
Attachments Page 611
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 274
ATTACHMENT 1 - ITEM 7

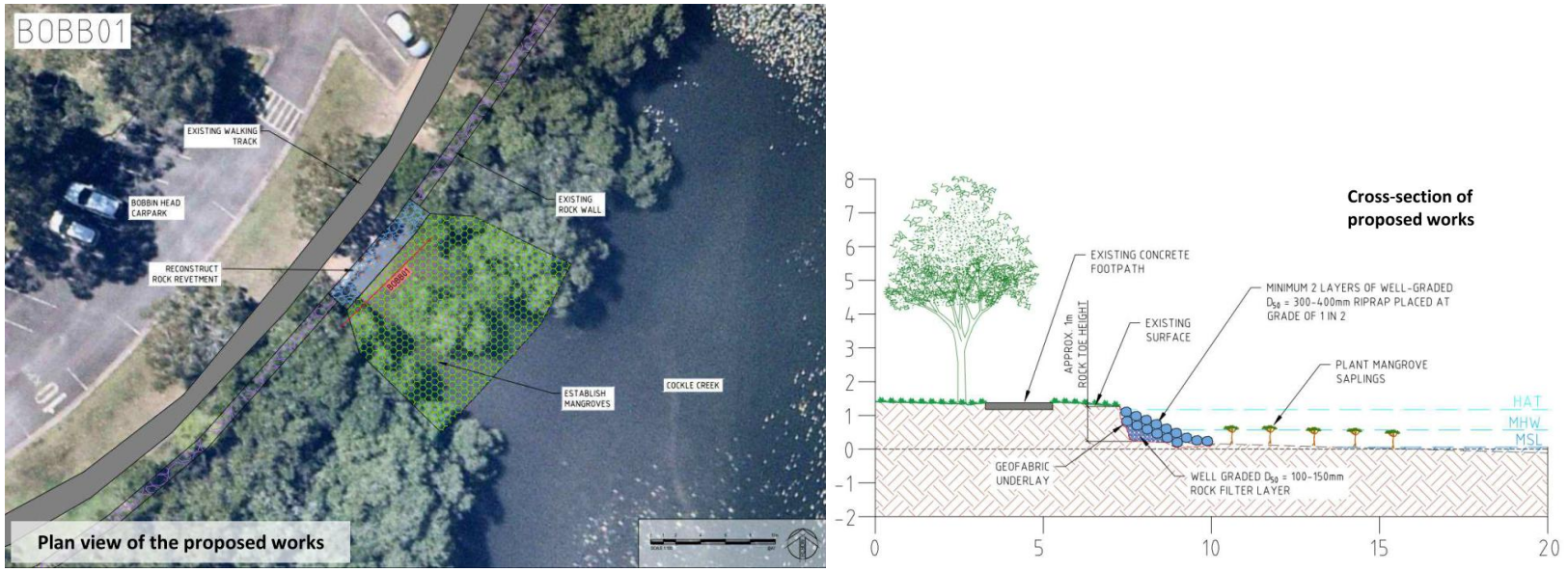



Figure C-29 Concept Design for Action S6.NPW.E at Bobbin Head (grouted rock wall section). Source and further reference: (Alluvium, 2025)



General Meeting 11 November 2026
Attachments Page 612
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 275
ATTACHMENT 1 - ITEM 7

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# APPENDIX D
# ALIGNMENT OF THE CMP WITH THE OBJECTS OF THE CM ACT, AND R&H SEPP



**Table D-1 Objects of the CM Act and how they have been addressed in this CMP**

| CM Act Objects | How this is addressed in this CMP |
|---|---|
| a. to protect and enhance natural coastal processes and coastal environmental values including natural character, scenic value, biological diversity and ecosystem integrity and resilience | Stage 2 included a range of detailed studies of the various threats to physical coastal processes and environmental values of the study area. This is discussed in the CMP in Section 4 with a summary of key issues in Section 3.<br>Stage 3 of the CMP process involved the development of management actions to address the risks and issues identified in Stage 2. Management options were identified that address the threats to the natural coastal processes and environmental values of the coastal zone.<br>These actions were then assessed and prioritised using key criteria that included their efficacy in terms of the protection of these values. A number of actions outlined in Section 5 aim to protect and enhance natural coastal processes and coastal environmental values |
| b. to support the social and cultural values of the coastal zone and maintain public access and recreational amenity | Stage 2 included a range of detailed studies of the various threats to social and cultural values of the study area. This is discussed in the CMP in Section 4 with a summary of key issues in Section 3.<br>Key social and cultural issues indigenous and non-indigenous cultural risks, population impacts and public safety hazards, including safe access to the coastal zone, amenity of the coastal zone and use.<br>Stage 3 of the CMP process involved the development of management actions to address these risks and issues identified in Stage 2. Management options were identified that address the threats to the social and environmental values of the coastal zone.<br>These actions were then assessed and prioritised using key criteria that included their efficacy in terms of the protection of these values. These actions are spelt out in Section 5. |
| c. to acknowledge Aboriginal peoples' spiritual, social, customary and economic use of the coastal zone | Extensive engagement with First Nations Groups has been undertaken as part of the preparation of this CMP – as described in Section 4.5. Through this engagement the CMP has identified the threats and risks to ACH values (see Section 3) and developed specific management actions aimed at protection of ACH and increasing the participation of local First Nations groups in coastal zone management detailed in Section 5. |
| d. to recognise the coastal zone as a vital economic zone and to support sustainable coastal economies | The Stage 1 Scoping Study of this CMP provided an overview of the economic value of the coastal zone, and this information is reiterated in the Business Plan (see Section 6). Management options were identified that address the threats to the economic value of the coastal zone (including coastal hazards, and the loss of social and recreational amenity). These actions were then assessed and prioritised using key criteria that included their efficacy in terms of the protection of these values. More information is provided in Section 5. |
| e. to facilitate ecologically sustainable development in the coastal zone and promote sustainable land use planning decision-making | Stage 2 included a range of detailed studies of the various threats to environmental and ecological values of the study area. This is discussed in the CMP in Section 3.<br>Numerous actions are related to maintaining sustainable planning controls that appropriately manage development in the dynamic coastal zone. These actions were then assessed and prioritised using key criteria that included their efficacy in terms of the protection of these values. More information is provided in Section 5. |
| f. to mitigate current and future risks from coastal hazards, taking into account the effects of climate change | The extent of current and future coastal hazards - and the associated risks – were assessed in detail in Stage 2 of the CMP and summarised in the CMP in Section 3). Numerous options were developed with the aim to mitigate the impacts of coastal hazards on the study area. These actions are spelt out in Section 5. This includes incorporating the effects of climate change, including sea level rise. |
| g. to recognise that the local and regional scale effects of coastal processes, and the inherently ambulatory and dynamic nature of the shoreline, may result in the loss of coastal land to the sea | Local and regional coastal processes were assessed in detail in Stage 2 of the CMP, for example coastal erosion, and inundation, and regional processes.<br>Numerous actions related to maintaining sustainable planning controls to appropriately managed development in the dynamic coastal zone, with recognition of the local and regional scale effects of coastal processes, understanding that coastal land may be lost to the sea. More information is provided in Section 5. |

| CM Act Objects | How this is addressed in this CMP |
|---|---|
| (including estuaries and other arms of the sea), and to manage coastal use and development accordingly | |
| h. to promote integrated and co-ordinated coastal planning, management and reporting | This CMP includes a Collaborative System Implement Plan to facilitate a large scale, coordinated approach to coastal zone and estuary management. Actions in the plan are delivered by multiple Councils through coordinated delivery partnerships. These Actions are detailed in Section 5.3.<br>Inherently, the CMP process provides an integrated approach to coastal planning and management by providing a holistic "system wide" view of the coastal zone across the HNRS.<br>The CMP also sets out a clear MER framework to monitor progress towards implementing the coastal management actions outlined in the CMP, and to assess the performance of the CMP in achieving its intended outcomes, and the objects of the CM Act. This provides an integrated and co-ordinated approach to reporting.<br>The proposed MER program has followed the structure of a "Program Logic Model", that describes how the program is intended to work by linking activities with outputs, intermediate impacts, and longer-term outcomes. The program logic model supports a systematic and integrated approach to CMP planning, implementation, and evaluation. |
| i. to encourage and promote plans and strategies to improve the resilience of coastal assets to the impacts of an uncertain climate future including impacts of extreme storm events | The CMP includes a range of actions aimed at improving the resilience of coastal assets and infrastructure. These are covered in Section 5 in the action tables.<br>These actions have been developed based on a thorough review of coastal hazard risks, and associated impacts of assets and infrastructure – this is discussed in Section 3.<br>Future hazard projections have included a range of future SLR scenarios that account for future uncertainty associated with climate change and the response of coastal systems, including extreme storm events. |
| j. to ensure co-ordination of the policies and activities of government and public authorities relating to the coastal zone and to facilitate the proper integration of their management activities | This CMP has included a review and assessment of policies and activities from government and public authorities relating to the coastal zone, which facilitates the proper integration of management programs. This is provided in Section 2, and in further detail in the Stage 1 Scoping Study.<br>To ensure the coordination of government and public authorities, a robust program of engagement with a range of public authorities was performed - including relevant state government agencies, and adjacent local government stakeholders. |
| k. to support public participation in coastal management and planning and greater public awareness, education and understanding of coastal processes and management actions | During Stage 1 of the CMP, a comprehensive Stakeholder and Community Engagement Strategy was developed. This outlined the timing, content, and engagement methods to be utilised during Stages 2 to 4 of the CMP. The engagement strategy was developed in accordance with the CMP Engagement Guidelines (OEH, 2018), and the use of the International Association for Public Participation (IAP2) guidelines.<br>This strategy has been implemented through the development of the CMP, which has involved a robust regime of stakeholder and community engagement integrated through all stages. A summary of the engagement process for the CMP is described in Section 4.5.<br>In addition, public participation in coastal management is encouraged through a series of actions, includes set out in Section 5. |
| l. to facilitate the identification of land in the coastal zone for acquisition by public or local authorities in order to promote the protection, enhancement, maintenance and restoration of the environment of the coastal zone | Whilst there are no actions in this CMP with the explicit intention to purchase private properties - the CMP has included a range of actions intended to promote the protection, enhancement, maintenance, and restoration of the environment of the coastal zone. This includes numerous actions related to dune restoration work, access tracks to minimise damage to vegetation and others. |

| CM Act Objects | How this is addressed in this CMP |
|---|---|
| m. to support the objects of the Marine Estate Management Act 2014; and | Stage 1 of this CMP identified a range of threats and risks to the study area, including the NSW Marine Estate Threat and Risk Assessment (TARA) (BMT WBM, 2017) – and included strong consideration of stressors identified in the TARA as high priority. This is described in Section 3 and 4. The CMP supports the objectives of the MEM Act by identifying and implementing actions that address these high priority stressors – both in the present day and over future planning horizons. |

Table D-2 Objects of the CM Act for the various CMAs, and how they have been addressed in this CMP

| CMA Objectives | How this is addressed in this CMP |
|---|---|
| **Coastal Wetlands and Littoral Rainforests** | |
| (a) to protect coastal wetlands and littoral rainforests in their natural state, including their biological diversity and ecosystem integrity, | Potential risks to the coastal wetlands and littoral rainforests across the CMP study area have been identified and assessed in various Stage 2 studies.<br>The identification and design of management actions in Stage 3 and 4 are cognisant of the need to protect coastal wetlands and littoral rainforests in their natural state and to improve the resilience of coastal wetlands and littoral rainforests to the impacts of climate change. Actions that may have a potential impacts on these areas were assessed as such and did not proceed to Stage 4. |
| (b) to promote the rehabilitation and restoration of degraded coastal wetlands and littoral rainforests, | |
| (c) to improve the resilience of coastal wetlands and littoral rainforests to the impacts of climate change, including opportunities for migration, | |
| (d) to support the social and cultural values of coastal wetlands and littoral rainforests, | |
| (e) to promote the objectives of State policies and programs for wetlands or littoral rainforest management | |
| **Coastal Vulnerability Area** | |
| (a) to ensure public safety and prevent risks to human life, | A detailed risk assessment of coastal hazard risks to public safety and public and private assets was undertaken in Stage 2 of the CMP, through the following studies:<br>▪ The Hawkesbury River Estuary Coastal Inundation Study (Rhelm and Baird, 2023)<br>▪ Pittwater Beach Erosion and Shoreline Recession Assessment (WRL, 2023)<br>▪ Central Coast Open Coast and Coastal Lagoons Coastal Hazard Assessment (Bluecoast Consulting Engineers, 2024)<br>This included associated risks to public safety through coastal hazards, infrastructure and use of the coastal zone, including both in the present day and into the future, incorporating climate change.<br>Subsequently, in Stage 3, actions were developed and prioritised in terms of their ability to mitigate these risks – whilst also considering social, environmental and cultural values. |
| (b) to mitigate current and future risk from coastal hazards by taking into account the effects of coastal processes and climate change | |
| (c) to maintain the presence of beaches, dunes and the natural features of foreshores, taking into account the beach system operating at the relevant place | Numerous actions relate to foreshore restoration works – in order to conserve wetlands, beaches, dunes and the natural features of foreshores.<br>This takes into account the beach systems and natural sediment transport pathways. |
| (d) to maintain public access, amenity and use of beaches and foreshores, | Numerous actions relate to maintenance and upgrade of foreshore accessways in order to maintain and, where practicable, improve public access, amenity and use of beaches, foreshores, headlands and rock platforms.<br>This also includes dune restoration works, dinghy storage racks to increase the use of beaches and foreshores and retaining public foreshores and recreational areas. |
| (e) to encourage land use that reduces exposure to risks from coastal hazards, including through siting, design, construction and operational decisions | Several actions relate to maintaining and enforcing planning controls to encourage land use that reduces exposure to risks from coastal hazards and ensures ecologically sustainable development. |

| CMA Objectives | How this is addressed in this CMP |
|---|---|
| | This includes the design, construction and operational decisions of land use, including adaptation pathways for landwards movement. |
| (f) to adopt coastal management strategies that reduce exposure to coastal hazards<br>(i) in the first instance and wherever possible, by restoring or enhancing natural defences including coastal dunes, vegetation and wetlands, and<br>(ii) if that is not sufficient, by taking other action to reduce exposure to those coastal hazards, | Numerous actions relate to beach restoration and dune restoration works – in order to preserve beaches, dunes and the natural features of foreshores. All potential options in Stage 3 were assessed, not just on their ability to provide coastal hazard protection, but their impact on the coastal environment, public safety, social and recreational amenity.<br>As a result, this CMP promotes the use of "nature-based solutions", and numerous actions relate to beach restoration and dune restoration works.<br>If these are not sufficient, then other actions, for example relocation of assets, are management actions that are promoted through the CMP. |
| (g) if taking that other action to reduce exposure to coastal hazards—<br>(i) to avoid significant degradation of biological diversity and ecosystem integrity, and<br>(ii) to avoid significant degradation of or disruption to ecological, biophysical, geological and geomorphological coastal processes, and<br>(iii) to avoid significant degradation of or disruption to beach and foreshore amenity and social and cultural values, and<br>(iv) to avoid adverse impacts on adjoining land, resources or assets, and<br>(v) to provide for the restoration of a beach, or land adjacent to the beach, if any increased erosion of the beach or adjacent land is caused by actions to reduce exposure to coastal hazards, | |
| (h) to prioritise actions that support the continued functionality of essential infrastructure during and immediately after a coastal hazard emergency | Numerous studies in Stage 2 of the CMP specifically investigated coastal hazard risks to essential infrastructure including roads, wastewater assets, major infrastructure. In Stage 3, actions were developed specifically to address these risks.<br>The CZEAS documents attached to this CMP (Appendix E, F and G) prioritises actions that support the continued functionality of essential infrastructure during a coastal hazard emergency.<br>The actions that improve the resilience of coastal development and communities are provided in Section 5, after being evaluated for their feasibility, acceptability and viability to meet these objectives in Section 4. |
| (i) to improve the resilience of coastal development and communities by improving adaptive capacity and reducing reliance on emergency responses. | |
| **Coastal Environment Area** | |
| (a) to protect and enhance the coastal environmental values and natural processes of coastal waters, estuaries, coastal lakes and coastal lagoons, and enhance natural character, scenic value, biological diversity and ecosystem integrity, | The various threats to the environmental, social and cultural values of the study area were assessed in detail in the various Stage 2 studies. These values and their associated threats were considered in the development and assessment of management actions in Stage 3.<br>Numerous actions relate to foreshore / riparian restoration and dune restoration works – in order to preserve the natural features of foreshores.<br>Numerous actions relate to maintenance and upgrade of foreshore accessways in order to maintain and, where practicable, improve public access, amenity and use of beaches, foreshores, headlands and rock platforms. |
| (b) to reduce threats to and improve the resilience of coastal waters, estuaries, coastal lakes and coastal lagoons, including in response to climate change, | |
| (c) to maintain and improve water quality and estuary health, | |
| (d) to support the social and cultural values of coastal waters, estuaries, coastal lakes and coastal lagoons, | |

| CMA Objectives | How this is addressed in this CMP |
|---|---|
| (e) to maintain the presence of beaches, dunes and the natural features of foreshores, taking into account the beach system operating at the relevant place, | |
| (f) to maintain and, where practicable, improve public access, amenity and use of beaches, foreshores, headlands and rock platforms | |
| **Coastal Use Area** | |
| (a) to protect and enhance the scenic, social and cultural values of the coast by ensuring that—<br>(i) the type, bulk, scale and size of development is appropriate for the location and natural scenic quality of the coast, and<br>(ii) adverse impacts of development on cultural and built environment heritage are avoided or mitigated, and<br>(iii) urban design, including water sensitive urban design, is supported and incorporated into development activities, and<br>(iv) adequate public open space is provided, including for recreational activities and associated infrastructure, and<br>(v) the use of the surf zone is considered | The various threats to the scenic, social and cultural values of the study area were assessed in detail in the various Stage 2 studies (See Section 4). These values and their associated threats were considered in the development and assessment of management actions in Stage 3.<br>All potential options in Stage 3 were assessed, not just on their ability to provide coastal hazard protection, but also their impact on the coastal environment, public safety, social and recreational amenity. This is outlined in Section 3, and if they did not meet this criteria, then the proposed option did not proceed through to Stage 4 of the CMP. |
| (b) to accommodate both urbanised and natural stretches of coastline | |

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WATER, COASTAL & ENVIRONMENTAL CONSULTANTS

# APPENDIX E
# COASTAL ZONE EMERGENCY ACTION SUBPLAN: BROKEN BAY BEACHES





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WATER, COASTAL & ENVIRONMENTAL CONSULTANTS

ATTACHMENT 1 - ITEM 7

WATER TECHNOLOGY
WATER, COASTAL & ENVIRONMENTAL CONSULTANTS

# APPENDIX F
# COASTAL ZONE EMERGENCY ACTION SUBPLAN: PITTWATER





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ATTACHMENT 1 - ITEM 7

WATER TECHNOLOGY
WATER, COASTAL & ENVIRONMENTAL CONSULTANTS

# APPENDIX G
# COASTAL ZONE EMERGENCY ACTION SUBPLAN: LOWER HAWKESBURY RIVER



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# APPENDIX H
# GLOSSARY OF TERMS AND ABBREVIATIONS



| Term | Definition |
|---|---|
| Acceptable risk | A risk that, following an understanding of the likelihood and consequences, is sufficiently low to require no new treatments or actions to reduce risk further. Individuals and society can live with this risk without feeling the necessity to reduce risks further. Positive and negative risks are negligible or so small that no risk treatments are needed. |
| Accretion | As the build-up of sediments to form land or shoaling in coastal waters or waterways. It may be either natural or artificial. Natural accretion is the build-up of land on the beach, dunes, or in the water by natural processes, such as waves, current and wind. Artificial accretion is a similar build-up of land resulting from built structures such as groynes or breakwaters, or activities such as filling and beach nourishment, or also aggradation. |
| ACH | Aboriginal Cultural Heritage. |
| Adaptation | Adjustment in natural or human systems in response to actual or expected climate change or its effect, to moderate harm or to take advantage of beneficial opportunities. |
| AHD | Australian Height Datum (AHD) is the geodetic datum for altitude measurement in Australia. The level of 0.0 m AHD approximately corresponds to mean sea level. |
| Alongshore or Longshore | Parallel to and near the shoreline. |
| Ambulatory | In relation to the coastal foreshore, this means the movement of the foreshore seaward or landward over time, in response to coastal processes and sediment budgets. The movement of the foreshore may occur at different rates or in different directions along a beach or within a sediment compartment. |
| Annual Exceedance Probability (AEP) | The probability (expressed as a percentage) of an exceedance (e.g., large wave height or high water level) in a given year. |
| Aquatic habitat | Typical submerged communities extending from near sea, river, or lake level down several feet, such as tidal flats, oyster beds, clam flats, seagrass beds, or fishing reefs. |
| Asset | Something of value and may be environmental, economic, social, recreational or a piece of built infrastructure. |
| Astronomical tide | Water level variations due to the combined effects of the Earth's rotation, the Moon's orbit around the Earth and the Earth's orbit around the Sun. It excludes and oceanographic or meteorological influences. |
| Back beach or back shore | The zone of the shore or beach lying between the foreshore and the coastline comprising the berm or berms and acted upon by waves only during severe storms, especially when combined with exceptionally high water. |
| BCR | Benefit-Cost Ratio. |
| Beach | The CM Act defines beach as an area that is generally composed of sand or pebbles or similar sediment that extends landward from the lowest astronomical tide to the line of vegetation or bedrock or structure. |
| Beach erosion | Refers to landward movement of the shoreline and/or a reduction in beach volume, usually associated with storm events or a series of events, which occurs within the beach fluctuation zone. Beach erosion occurs due to one or more process drivers; wind, waves, tides, currents, ocean water level, and downslope movement of material due to gravity. |



WATER TECHNOLOGY
WATER, COASTAL & ENVIRONMENTAL CONSULTANTS

| Term | Definition |
|---|---|
| Beach nourishment | Beach restoration or augmentation using clean dredged or fill sand. Dredged sand is usually hydraulically pumped and placed directly onto an eroded beach or placed in the littoral transport system. When the sand is dredged in combination with constructing, improving, or maintaining a navigation project, beach nourishment is a form of beneficial use of dredged material. |
| Beach plan shape | The shape of the beach in plan; usually shown as a contour line, combination of contour lines or recognisable features such as beach crest and/or the still water line. |
| Beach profile | A cross-section taken perpendicular to a given beach contour; the profile may include the face of a dune or seawall, extend over the backshore, across the foreshore, and seaward underwater into the nearshore zone. |
| Beach rotation | Beach rotation refers to a natural morphological process whereby the opposing ends of an embayed beach may narrow and widen in opposition to one another in response to seasonal or periodic changes in climate parameters such as wave direction and/or gradients in wave energy. |
| Beach scraping | Also referred to as 'nature assisted beach enhancement' (NABE) is a mechanical intervention to speed up the natural processes of berm and foredune recovery after a storm event. |
| Beach system | The CM Act defines as 'the processes that produce the beach fluctuation zone and the incipient foredunes and foredunes landward of the relevant beach'. In general, this means coastal lands, composed of sand, gravel or shell, between a seaward limit of 40 metres depth in the State coastal waters and a landward limit at the lee side of the dunes. |
| Berm | On a beach, a nearly horizontal plateau on the beach face or backshore, formed by the deposition of beach material by wave action or by means of a mechanical plant as part of a beach renourishment scheme. Some natural beaches have no berm, others have several. |
| Biodiversity | The variety and variability of wildlife (both plants and animals) and habitats. Biodiversity is typically a measure of variation at the genetic, species, and ecosystem level. |
| Blow out | A depression on the land surface (usually a dune) caused by wind erosion. |
| Bluff | A high, steep bank or cliff. |
| BoM | The Australian Bureau of Meteorology. |
| Breaker zone (or surf zone) | The zone within which waves approaching the coastline commence breaking, typically in water depths of between 5 and 10 metres for ocean coasts, but sometimes in shallower water. |
| Buffer area | A parcel or strip of land that is designed and designated to permanently remain vegetated in an undisturbed and natural condition to protect an adjacent aquatic or wetland site from upland impacts, to provide habitat for wildlife and to afford limited public access. |
| Capital Costs | Expenditure incurred to acquire, construct, or significantly upgrade physical assets. In the CMP context, capital costs typically relate to planning, design, and construction of new infrastructure or major upgrades intended to provide long-term service capacity and resilience. These costs are generally one-off and accounted for as fixed assets |

| Term | Definition |
|---|---|
| CBA | Cost-Benefit Analysis (CBA) is a systematic economic evaluation technique used to assess and compare the costs and benefits of a proposed project, policy, or investment. It involves quantifying both the positive outcomes (benefits) and the negative aspects (costs) of a decision to determine if the benefits outweigh the costs. CBA typically assigns monetary values to all relevant factors, allowing decision-makers to make informed choices by comparing the net benefits (benefits minus costs) of different options. The goal of CBA is to maximize societal welfare by ensuring that resources are allocated efficiently and that projects or policies with a positive net benefit are favoured. |
| CEA | Coastal Environment Area – a mapped area under the R&H SEPP. |
| Cliff | A high, steep face of rock; a precipice. |
| Climate | The characteristic weather of a region, particularly regarding temperature and precipitation, averaged over some significant interval of time (years). |
| Climate change | The long-term change (decades or longer) in pattern of weather, and related changes in oceans, land surfaces and ice sheets. |
| CM Act | *NSW Coastal Management Act 2016.* |
| CM Manual | The NSW Coastal Management Manual. |
| CMA | Coastal Management Area - Any one of 4 areas that make up the coastal zone as defined in the CM Act. These are the coastal wetlands and littoral rainforests area, coastal vulnerability area, coastal environment area, and the coastal use area. |
| CMP | Coastal Management Program – a long-term strategy for the coordinated management of land within the coastal zone, prepared and adopted under Part 3 of the CM Act. |
| Coast | A strip of land of variable width that extends from the shoreline inland to the first significant landform that is not influenced by coastal processes (such as waves, tides and associated currents). |
| Coastal cliff and slope instability | Geotechnical instabilities on coastal cliffs and bluffs, including rock falls, slumps, and landslides. |
| Coastal dune | Vegetated and unvegetated sand ridges built-up at the back of a beach. They comprise dry beach sand that has been blown landward and trapped by plants or other obstructions. Stable sand dunes act as a buffer against wave damage during storms, protecting the land behind from salt water intrusion, sea spray and strong winds. Coastal dunes also act as a reservoir of sand to replenish and maintain the beach at times of erosion. |
| Coastal emergency | An emergency due to actual or imminent coastal inundation, coastal erosion, or coastal cliff and slope instability which (a) threatens endangers, or threatens to endanger, the safety or health of persons; or (b) destroys or damages, or threatens to destroy or damage, any property or the natural environment. |
| Coastal engineering | A branch of civil engineering that applies engineering principles specifically to projects within the coastal zone (nearshore, estuary, marine, and shoreline). |



WATER TECHNOLOGY
WATER, COASTAL & ENVIRONMENTAL CONSULTANTS

| Term | Definition |
|---|---|
| Coastal hazard | Defined in the CM Act to mean the following:<br>▪ beach erosion<br>▪ shoreline recession<br>▪ coastal lake or watercourse entrance instability<br>▪ coastal inundation<br>▪ coastal cliff and slope instability<br>▪ tidal inundation<br>▪ erosion and inundation of foreshores caused by tidal waters and the action of waves, including the interaction of those waters with catchment floodwaters |
| Coastal inundation | Coastal inundation occurs when a combination of marine and atmospheric processes raises the water level at the coast above normal elevations, causing land that is usually 'dry' to become inundated by sea water. Alternatively, the elevated water level may result in wave run-up and overtopping of natural or built shoreline structures (e.g., dunes, seawalls). |
| Coastal lake or watercourse entrance instability | Refers to the variety of potential hazards and risks associated with the dynamic nature of both natural and trained entrances. Coastal lake and watercourse entrances are highly active environments with their shape constantly changing in response to processes such as alongshore sediment transport, tidal flows, storms and catchment flooding. |
| Coastal processes | Marine, physical, meteorological and biological activities that interact with the geology and sediments to produce a particular coastal system. |
| Coastal protection works (CPW) | The CM Act defines coastal protection works as:<br>*a) beach nourishment*<br>*b) activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters, including (but not limited to) seawalls, revetments and groynes.* |
| Coastal sediment compartment | An area of the coast defined by its sediment flows and landforms. Coastal sediment compartments may be mapped at primary, secondary or tertiary (local) scales. Boundaries are generally defined by structural features related to the geologic frameworks that define the planform of the coast. |
| Coastal wetland | Wetlands are areas that are inundated cyclically, intermittently or permanently with fresh, brackish or saline water and have soils, plants and animals in them that are adapted to, and depend on, moist conditions for at least part of their lifecycle. Coastal wetlands include marshes, mangroves, swamps, melaleuca forests, casuarina forests, sedgelands, brackish and freshwater swamps and wet meadows. |
| Coastal zone | As defined in the CM Act and CM SEPP: the area of land comprised of the following coastal management areas: the coastal wetlands and littoral rainforest area, the coastal vulnerability area, the coastal environment area and the coastal use area. |
| Crown Land | In NSW, crown land refers to land that is owned by the NSW government and managed by various government agencies. In relation to this CMP, Crown lands include submerged Crown land, seabed and subsoil to 3 nautical miles from the coastline of NSW that is within the limits of the coastal waters of the State. |



WATER TECHNOLOGY
WATER, COASTAL & ENVIRONMENTAL CONSULTANTS

| Term | Definition |
|---|---|
| CSP | Community Strategic Plan. The CSP forms the overarching, visionary document that translates the community's key priorities and aspirations into long-term strategic goals that guide the future direction of a given LGA. The Plan represents the highest level of strategic planning undertaken by a local council.<br>The CMP must reflect and support implementation of the CSP. Under the CM Act, the objectives and management actions developed as part of CMPs are required to be strategically aligned with the objectives and strategies outlined in the CSP. |
| CUA | Coastal Use Area – land identified by the CM Act and R&H SEPP as being land adjacent to coastal waters, estuaries, coastal lakes and lagoons where development is or may be carried out (now or in the future). The R&H SEPP maps the extent of the coastal use area for planning purposes. |
| CVA | Coastal Vulnerability Area – defined in the CM Act as land subject to 7 coastal hazards. |
| CWLR | Coastal Wetland and Littoral Rainforests – a mapped area under the R&H SEPP. |
| CZEAS | A coastal zone emergency action subplan – Defined in the CM Act as plan that outlines the roles and responsibilities of all public authorities (including the local council) in response to emergencies immediately preceding or during periods of beach erosion, coastal inundation or coastal cliff and slope instability, where the beach erosion, coastal inundation or coastal cliff and slope instability occurs through storm activity or an extreme or irregular event. |
| CZMP | Coastal Zone Management Plan – a plan for managing the coastal zone developed under the old (now superseded) coastal management framework for NSW. Now replaced by CMPs. |
| DCCEEW | The NSW Department of Climate Change, Energy, the Environment and Water. |
| Design storm | A hypothetical extreme storm with waves that coastal protection structures will often be designed to withstand. The severity of the storm (i.e., return period) is chosen in view of the acceptable level of risk of damage or failure. A design storm consists of a design wave condition, a design water level, and a duration. |
| DP | Delivery Programs. The Delivery Program is a 4 year program that translates the strategic objectives of the Community Strategic Plan into actions. It is a fixed 4 year program, which is a statement of commitment from each newly elected Council.<br>It identifies all key activities a council has committed to undertake over its 4 year life cycle. |
| DPIRD | The NSW Department of Primary Industries and Regional Development |
| DPHI | The NSW Department of Planning, Housing and Infrastructure. Prior to 1 January 2024, the responsibilities of the department were carried out by the former NSW Department of Planning and Environment (DPE). |
| East Coast Low (ECL) | An intense low-pressure system that occurs off the east coast of Australia, bringing storms, high waves and heavy rain. East coast lows generally occur in autumn and winter off NSW, southern Queensland, and eastern Victoria. |

| Term | Definition |
|---|---|
| Economic evaluation | An assessment that helps decision-makers to understand the socioeconomic implications of adopting alternative management options and to make choices that will provide net benefits to the community. Cost-benefit analysis is a type of economic evaluation that considers and evaluates a wide range of costs and benefits associated with a proposal, in qualitative or quantitative (monetary) terms (with future costs and benefits reduced to today's prices), compared with a base case. It may be used in conjunction with other criteria (such as technical feasibility, community acceptance or environmental impact) to select optimal management responses. A multi-criteria assessment is not an economic evaluation but may assist decision-making in other ways. |
| Ecosystem | The living organisms and the non-living environment interacting in an area, encompassing the relationships between biological, geochemical, and geophysical systems; or a community and its environment including living and non-living components. |
| Entrance management | Includes artificial opening of entrances, managing the configuration, height or location of the beach berm to facilitate entrance opening at a level lower than the natural range. |
| Environmental Protection Works (EPW) | These are defined in the Standard Instrument - Principal Local Environmental Plan (2006 EPI 155a) as:<br>*"works associated with the rehabilitation of land towards its natural state or any work to protect land from environmental degradation, and includes bush regeneration works, wetland protection works, erosion protection works, dune restoration works and the like, but does not include coastal protection works".* |
| EP&A Act | The NSW Environmental Planning and Assessment Act - An act that governs land use planning and development in NSW, focusing on sustainable development, environmental protection, community participation, and compliance measures. |
| Erosion | The removal of land by natural forces such as waves, tidal currents and / or littoral currents. |
| Essential infrastructure | The CM Act defines infrastructure for the following purposes: electricity generation, transmission and distribution, telecommunications, rail, roads, gas, sewerage systems, water supply systems or stormwater management systems, airports, ports shipping and harbours. |
| Estuary | The CM Act defines as any part of a river, lake, lagoon, or coastal creek whose level is periodically or intermittently affected by coastal tides, up to the highest astronomical tide. |
| Extreme storm event | The storm for which characteristics (wave height, period, water level etc.) were derived by statistical 'extreme value' analysis. Typically, these are storms with average recurrence intervals (ARI) ranging from one to 100 years. |
| Fit for purpose | Right for the job it is intended to do. A fit for purpose assessment considers the level of data detail and the types of consultation required to make a reasonable management decision. In general, the detail and consultation required will increase with risk, complexity and impact. |
| Flood tide delta | Deposit of marine sediment (usually sand) within a coastal embayment that has formed at the landward side of a tidal inlet by rising (or flood) tidal currents and wave action. |
| Foredune | The larger and more mature dune lying between the incipient dune and the hind dune area. Foredune vegetation is characterised by grasses and shrubs. Foredunes provide an essential reserve of sand to meet the erosion demand during storm conditions. During storm events, the foredune can be eroded back to produce a pronounced dune scarp. |

| Term | Definition |
|---|---|
| Foreshore | The part of the shore, lying between the crest of the seaward berm (or upper limit of wave wash at high tide) and the ordinary low water mark, that is ordinarily traversed by the uprush and backrush of the waves as the tides rise and fall; or the beach face, the portion of the shore extending from the low water line up to the limit of wave uprush at high tide. The CM Act defines the foreshore as 'the area of land between highest astronomical tide and the lowest astronomical tide'. |
| Geomorphology | A branch of physical geography encompassing the formation of the earth's surface, including the distribution of land and water. |
| Geotechnical investigations | Subsurface investigation of soils, rock, and other strata for the purposes of engineering design. |
| Groyne | A shore protection structure built (usually perpendicular to the shoreline) to trap littoral drift or retard erosion of the shore; or a narrow, roughly shore normal structure built to reduce longshore currents, and/or to trap and retain littoral material. Most groynes are of timber or rock and extend from a seawall, or the backshore, well onto the foreshore and rarely even further offshore. |
| GSC | Geotextile Sand Container. A sand filled container made out of a synthetic geotextile synthetic fabric which may be woven or non woven. |
| HHWSS | High High Water Solstice Springs. The HHWSS tidal plane was originally defined as the level beyond which tides seldom reach. It is consistent with predicted levels for higher (king) tides but is slightly lower than highest astronomical tide (HAT). |
| Hydrodynamic | Relates to the specific scientific principles that deal with the motion of fluids and the forces acting on solid bodies immersed in fluids, and in motion relative to them. |
| IAP2 | International Association for Public Participation. |
| ICOLL | Intermittently Closed and Open Lakes and Lagoons. Coastal lakes and lagoons where the entrance may be closed to the sea from time to time and for varying periods, by accretion of a berm. ICOLLs have sensitive water quality because they accumulate loads of sediment and nutrients from the catchment and may have poor water circulation and flushing. The most sensitive waterways listed in the R&H SEPP are all ICOLLs. The catchments of these lakes and lagoons are included in the coastal environment area. |
| Impacts | Include damage, harm or losses to exposed communities, property, services, livelihoods, access, use and amenity, heritage, ecosystems and the environment because of exposure and sensitivity. Impacts may also be positive. |
| Incipient dune | The most seaward and immature dune of the dune system. Vegetation characterised by grasses such as spinifex. On an accreting coastline, the incipient dune will develop into a foredune. |
| Intertidal zone | The region of the foreshore that is above the water at LAT but submerged at HAT. |
| IPCC | Intergovernmental Panel on Climate Change. A scientific and intergovernmental body under the auspices of the United Nations, set up at the request of member governments, dedicated to the task of providing the world with an objective, scientific view of climate change and its political and economic impacts. |
| IP&R | NSW Integrated Planning and Reporting Framework. |
| King tides | Any high water level that is well above the average, commonly applied to two spring tides that are the highest for the year, one during summer and one in winter. |

| Term | Definition |
|---|---|
| LALC | A Local Aboriginal Land Council (LALC) in New South Wales, Australia, is a statutory body established under the New South Wales *Aboriginal Land Rights Act 1983*. These councils are created to represent the interests and needs of the local Aboriginal communities within their respective areas. The primary purpose of Local Aboriginal Land Councils is to acquire, hold, and manage land on behalf of the Aboriginal people in their local areas. |
| LEP | Local Environmental Plan. |
| LG Act | *The Local Government Act 1993* |
| LGA | Local Government Area. |
| Littoral | Of or pertaining to a shore, especially of the sea. Often used as a general term for the coastal zone influenced by wave action, or, more specifically, the shore zone between the high and low water marks. |
| Littoral rainforest | A closed forest ecological community recognised by its close proximity to the ocean (generally <2km) and closed canopy (i.e., ~70% of the sky obscured by tree leaves and limbs). Listed as an endangered ecological community under the *NSW Biodiversity Conservation Act 2016.* Littoral rainforest areas are mapped with coastal wetlands in the R&H SEPP, to form the coastal wetlands and littoral rainforests management area. Development controls apply to the management area and a proximity area which is also mapped. |
| LLS | NSW Local Land Services. |
| Longshore transport (littoral drift) | Refers to the sediment moved along a coastline under the action of wave-induced longshore currents. The net drift is the sum of the positive (conventionally northwards direction in NSW) and negative (southwards in NSW) direction. The gross drift is the sum of the drift magnitudes (absolute values). The differential drift is the difference between the net drift into and out of a coastal compartment. Both gross and net drift are typically averaged over a year and expressed in m3/yr. |
| Maintenance costs | Expenditures required to preserve the functional condition and performance of an asset over its design life. Maintenance costs include inspections, servicing, repairs, and minor renewals undertaken to mitigate deterioration, sustain safety and compliance, and avoid premature capital replacement. |
| Marine estate | The *Marine Estate Management Act 2014* defines it as:<br>*(a) the coastal waters of the State within the meaning of Part 10 of the Interpretation Act 1987,*<br>*(b) estuaries (being any part of a river whose level is periodically or intermittently affected by coastal tides) up to the highest astronomical tide,*<br>*(c) lakes, lagoons and other partially enclosed bodies of water that are permanently, periodically or intermittently open to the sea,*<br>*(d) coastal wetlands (including saltmarsh, mangroves and seagrass),*<br>*(e) lands immediately adjacent to, or in the immediate proximity of, the coastal waters of the State that are subject to oceanic processes (including beaches, dunes, headlands and rock platforms),*<br>*(f) any other place or thing declared by the regulations to be the marine estate, but does not include any place or thing declared by the regulations not to be the marine estate.* |

| Term | Definition |
|---|---|
| MCA | Multi-criteria analysis. A decision-making methodology used to evaluate and compare multiple options or alternatives based on a set of diverse and often conflicting criteria. It enables a systematic approach to complex decision processes by assigning weights to these criteria to reflect their relative importance. MCA helps decision-makers assess the trade-offs and make informed choices, considering a variety of factors, such as cost, environmental impact, social implications, and more. This method assists in addressing decisions that involve multiple objectives, enabling a structured and transparent evaluation process that supports rational and well-informed decision-making. |
| MEMA | Marine Estate Management Authority. |
| MEMS | Marine Estate Management Strategy. |
| MER | Monitoring, evaluation, and reporting. MER is an essential component of any CMP and is a mandatory requirement for CMPs under the CM Act. The purpose of the MER component is to monitor progress towards implementing the coastal management actions outlined in the CMP, and to assess the performance of the CMP in achieving its intended outcomes, and the objects of the CM Act. |
| MHW | Mean high water mark – the line of the medium high tide between the highest tide each lunar month (the springs) and the lowest tide each lunar month (the neap) averaged over out over the year. In NSW, the methods for determining the position of the MHWM are outlined in the Crown Directions to Surveyors - No. 6 Water as a Boundary. |
| MIDO | The NSW Maritime Infrastructure Delivery Office. |
| MSL | Mean Sea Level. The mean level of the sea over a long period (preferably 18.6 years) or the mean level which would exist in the absence of tides. |
| Multi-criteria analysis | A logical and structured decision-making tool for complex problems involving multiple factors or criteria, where a consensus is difficult to achieve. It may involve processes such as ranking, rating (with relative or ordinal scales) or pairwise comparisons. The process allows participants to consider, discuss and test complex trade-offs among alternatives. |
| Natural character | Includes all-natural aspects of the land and sea, including the underlying ecological, hydrological and geomorphological processes that shape landforms (including underwater features) and the natural movements of water and sediment. Natural character also includes aspects of the environment that affect human experience including the natural darkness of the night sky, the sounds and smell of the coast, and the context and setting of natural places. |
| Near shore | The area of ocean close to the coast that is affected by waves, tides and longshore currents. |
| No or low regrets actions | Options which would be justified under any plausible future scenario (i.e., they are best practice in any circumstance), and similarly, actions which require only moderate investment to achieve a beneficial outcome. |
| NPV | Net Present Value, the difference between the present value of cash inflows and the present value of cash outflows over a period of time. |
| NPWS | The NSW National Parks and Wildlife Service. |
| NSW | New South Wales. |
| NSW Coastal Council | Established under Part 4 of the CM Act. A group of 3 to 7 coastal experts, appointed by the Minister to provide advice on coastal management issues. |

| Term | Definition |
|---|---|
| Operational Costs | Recurrent expenditures associated with the routine operation of programs, systems, or assets. This includes staffing, administration, utilities, and other resource inputs required to maintain functional delivery of CMP initiatives. Operational costs are ongoing and do not directly extend the service life of an asset. |
| Outflanking or end effects | Erosion behind or around the land-based end of a groyne, jetty, or breakwater or the terminus of a revetment or seawall, usually causing failure of the structure or its function. |
| Overwash | The part of the wave uprush that runs over the crest of a berm or structure and does not flow directly back to the ocean or lake. When waves overtop a coastal protection structure, they often carry sediment landwards, which is then lost to the beach system. Also defines a process in which waves penetrate inland of the beach, which is common on low barriers. |
| Progradation | The building forward or outward toward the sea of a shoreline or coastline (as with a beach, delta, or fan) by nearshore deposition of river-borne sediments or by continuous accumulation of beach material thrown up by waves or moved by longshore drifting. |
| Public Authority | Defined in the CM Act as a Minister of the Crown of the State, a State owned corporation, an electricity supply authority, a department or instrumentality of the State, a local council and any other public or local authority constituted by or under any Act and includes any prescribed body. |
| Recession | A continuing landward movement of the shoreline; or a net landward movement of the shoreline over a specified time. |
| Resilience | The ability of a system (human or natural) to adapt to changing conditions (including hazards or threats, variability, and extremes), and rapidly recover from disruption due to emergencies. Resilient systems or communities have the capacity to 'bounce back' after a disrupting event such as a major storm or an extended heat wave, to moderate potential damages, take advantage of opportunities, maintain, or restore function or to cope with the consequences. |
| Revetment or seawall | A type of coastal protection works which protects assets from coastal erosion by armouring the shore with erosion–resistant material. Large rocks/boulders, concrete or other hard materials are used, depending on the specific design requirements. |
| R&H SEPP | State Environmental Planning Policy (Resilience and Hazards) 2021. |
| Risk | Chance of something happening that will have an impact. It is measured in terms of consequences and likelihood. |
| Sea level rise | An increase in the mean level of the oceans. Relative sea level occurs where there is a local increase in the level of the ocean relative to the land, which might be caused by ocean rising, the land subsiding, or both. In areas with rapid land level uplift (e.g., seismically active areas), relative sea level can fall. |
| Sediment transport | The process whereby sediment is moved offshore, onshore or along shore by wave, current or wind action. |
| Sediment Compartment | A sediment compartment is an area in which coastal processes, and their effects on the geology of the coast, are broadly homogeneous. The compartment boundary is usually a feature such as a headland or river mouth which effectively divides the compartment and its processes from its neighbour. |
| SEPP | State Environmental Planning Policy. |
| Shoreline recession | Refers to continuing landward movement of the shoreline, that is, a net landward movement of the shoreline, generally assessed over a period of several years. As shoreline recession occurs the beach fluctuation zone is translated landward. |

| Term | Definition |
|---|---|
| Significant wave height (Hs) | Due to the random nature and size of waves, the term "significant wave height" is used by engineers and scientists to quantify wave heights in a sea state. It represents the average of all the third highest waves that occur over a particular timeframe. It is typically written as Hs. It is important to appreciate that in deep offshore waters the largest individual wave in the sea state may be around twice the significant wave height |
| Stakeholder | A person or organisation with an interest or concern in something. |
| Storm demand | Storm demand is the volume of beach sand eroded from the subaerial (visible) part of the beach and dunes during a storm. Typically, it has been defined as the volume of eroded sand as measured above mean sea level (~ 0 m AHD datum). |
| Storm surge | The increase in coastal water levels caused by the barometric and wind set-up effects of storms. Barometric set-up refers to the increase in coastal water levels associated with the lower atmospheric pressure of storms. Wind set-up refers to the increase in coastal water levels caused by an onshore wind driving water shorewards and piling it up against the coast. |
| Storm tides | The total observed sea level during a storm, which is the combination of storm surge and normal astronomical tide. |
| Storm tide inundation | Flooding of coastal land due to inundation from storm tides. Inundation generally persists for the duration of a high tide, though it may persist longer in extreme cases. |
| Subaerial | On the earth's surface, not underwater or underground. |
| TfNSW | Transport for NSW. |
| Tidal currents | Currents caused by the incoming (ebb) or outgoing (flood) tide (see Tide). Tidal currents are typically the main current within estuaries, particularly in the entrance area where tidal currents transport marine sediments (sand). |
| Tidal inundation | The inundation of land by tidal action under average meteorological conditions and the incursion of sea water onto low lying land that is not normally inundated, during a high sea level event such as a king tide or due to longer-term sea level rise. Sometimes referred to as "sunny day flooding". |
| Tide | The periodic rise and fall of the water of oceans, seas, bays, etc., caused mainly by the gravitational interactions between the Earth, Moon and Sun. |
| T&I SEPP | State Environmental Planning Policy (Transport and Infrastructure) 2021 |
| Tolerable risk | A risk that, following an understanding of the likelihood and consequences, is low enough to allow the exposure to continue, and at the same time high enough to require new treatments or actions to reduce risk. Society can live with this risk but believe that as much as is reasonably practical should be done to reduce the risks further. Note that individuals may find this risk unacceptable and choose to take their own steps, within reason, to make this risk acceptable. Residual risks are considered tolerable only if risk reduction is impractical. |
| Trigger | Pre-negotiated decision-making points and commitments, so that action on coastal risks is taken when necessary, and when it is most convenient and affordable for the affected community. |

| Term | Definition |
|---|---|
| Vulnerability | A function of exposure and sensitivity of assets to a hazard, which determines the potential impacts of the hazard. For instance, the vulnerability of coastal assets may be influenced by the extent and impact of environmental, social and economic factors such as saline contamination of soils from flooding, erosion of built-up and natural areas, loss of vegetation, disruption to use, or access, or continuity of service, or loss of amenity, corrosion of built structures, undermining of foundations or damage to contents. Vulnerability also considers the adaptive capacity which is the capacity to adapt or the resilience in the system to manage the impacts and changes. |
| Wave climate | The seasonal and annual distribution of wave height, period and direction. |
| Wave energy | The capacity of waves to do work. The energy of a wave system is theoretically proportional to the square of the wave height; a high–energy coast is characterised by breaker heights greater than 50 centimetres and a low–energy coast is characterised by breaker heights less than 10 centimetres. Most of the wave energy along equilibrium beaches is used in shoaling and in sand movement. The NSW coast is a high wave energy coast. |
| Wave Height (H) | The vertical difference between the elevation of a wave crest and a neighbouring trough. |
| Wave Length (L) | The horizontal distance between two wave crests. |
| Wave Period (T) | The time it takes for two successive wave crests to pass a given point. |
| Wave run-up | The vertical distance above mean water level reached by the uprush of water from waves across a beach or up a structure. |
| Wave set-up | The rise in the water level above the still water level when a wave reaches the coast. It can be very important during storm events as it results in further increases in water level above the tide and surge levels. |
| Zone of reduced foundation capacity (ZRFC) | A Zone of Reduced Foundation Capacity (ZRFC) for building foundations is delineated to take account of the reduced bearing capacity of the sand adjacent to the storm erosion escarpment. Nielsen et al (1992) recommended that structural loads should only be transmitted to soil foundations outside of this zone (i.e., landward, or below), as the factor of safety within the zone is less than 1.5 during extreme scour conditions at the face of the escarpment. |
| Zone of slope adjustment (ZSA) | The area landward of an escarpment cut by storm bite, which may be affected by slumping to the angle of repose of the sand as it dries. |

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# APPENDIX I
# HNRS CMP CATCHMENT COMPANION



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# I-1 Introduction

The health and resilience of Dyarubbin (the Hawkesbury-Nepean River System) are shaped by activities and processes occurring across its broader catchment. Urban development, stormwater, wastewater, agriculture, land clearing, sediment movement and changes to catchment hydrology can affect water quality, ecological condition and community values throughout the downstream estuary.

However, the *Coastal Management Act 2016* limits the geographic application of a certified CMP to land within the defined coastal zone. For the HNRS, this represents only a small proportion of the broader catchment. Actions located wholly outside the coastal zone therefore cannot be included within the certified CMP, even where they respond to pressures affecting the estuary.

This Catchment Companion addresses that limitation by identifying complementary actions for the upper estuary and broader catchment. It provides a coordinated pathway for addressing catchment-scale pressures and strengthens the connection between coastal management, catchment planning and existing council and agency programs. It has been developed through consultation with the Partner Councils, upper-catchment councils, State agencies and other stakeholders. It supports collaboration across jurisdictional boundaries and identifies opportunities to align programs, share information and coordinate investment across the river system.

The actions in this appendix are clearly distinguished from the certified CMP program. They do not form part of the CMP for certification under the CM Act and are not subject to the same statutory implementation and reporting requirements. Their delivery remains subject to the priorities, responsibilities, resources and approval processes of the nominated organisations.

The Companion should be read alongside the CMP implementation plans. Together, they provide a more complete framework for managing the interconnected coastal, estuarine and catchment processes affecting the HNRS, consistent with the NSW Government's guidance on *Coastal Management Programs and Integration with Catchment Management* (DPE, 2022).

# I-2 Action Table and Mapping

The Catchment Companion actions are presented in Table I-1 using the same structure and terminology as the certified CMP action tables. For each action, the table identifies the relevant CMP Strategy and Implementation Plan, action ID, location, description, lead and supporting organisations, priority, timing and performance criteria. This consistent format allows the Catchment Companion to be read alongside the broader CMP program and supports coordinated implementation, monitoring and reporting. Mapping of relevant action locations is provided in Appendix B.

Table I-1 Catchment Companion – Action Table

| CMP Strategy | Implementation Plan | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Strategy 2: Monitoring, Evaluation, and Reporting | Collaborative System Implement Plan | S2.CMP.D | Entire HNRS | Upper catchments | Implement a bank stability and condition monitoring program across the creeks and waterways of the catchment | The objective of this action would be to collate and integrate existing bank stability and geomorphic condition monitoring information collected by the Partner Councils across the Hawkesbury River Estuary catchment. Rather than duplicating efforts, this action would focus on bringing together the existing datasets at a system-wide scale to better understand erosion patterns, riverbank health, and key risks across the entire estuary. The collation process would include use of the NSW SEED Portal as a central platform for data sharing and access. By adopting an integrated and coordinated approach, Partner Councils would gain a more holistic understanding of estuary health, identify system-wide priorities, and unlock opportunities for resource sharing and cost efficiencies | CCC, NBC, HSC, KC, THSC, HCC | DCCEEW-CPHR, NPWS | High (24) | Within 1-4 years | Monitoring undertaken and recorded. Collected data is of tangible benefit from a risk and asset management perspective. |
| Strategy 3: Resilience, Planning, and Adaptation | Collaborative System Implement Plan | S3.CMP.F | Lower Estuary | Ku-ring-gai Chase National Park | Support the proposal for the development of the Ku-ring-gai GeoRegion | In October 2018, Friends of Ku-ring-gai Environment (FOKE) resolved to initiate a campaign advocating for the UNESCO World Heritage listing of Ku-ring-gai Chase National Park (KCNP). This campaign has since focussed on the development of a designated 'GeoRegion,' which will include the creation of geotrails, signage, and efforts to promote the region's geological significance. The proposal aims to leverage the area's existing recognised values, which include its biodiversity, natural and cultural heritage, as well as its exceptional geological and geomorphological features. These elements have shaped the landscape and created the distinctive traits that make the region globally significant.<br>Once agreed upon by stakeholders, a defined area within the 'Ku-ring-gai GeoRegion' could be put forward for submission as an Aspiring UNESCO Global Geopark.<br>Establishing this GeoRegion and pursuing UNESCO Global Geopark status will provide significant environmental benefits, particularly for downstream estuary health. By preserving and enhancing the region's geological and ecological integrity, the project will support the natural hydrological processes that flow downstream, ensuring better water quality and habitat conditions for estuaries. The protection of this vital landscape will help mitigate erosion, reduce sediment runoff, and preserve natural buffers, all of which contribute to healthier estuarine ecosystems and improve the overall resilience of coastal environments.<br>Relevant stakeholders can offer continued support for the proposal through the provision of technical advice and political support. | KC, HSC, NBC | N/A | Low (5) | Opportunistic, within 8-10 Years | Proposal submission advanced with supporting technical and political advocacy. |
| Strategy 4: Community & Stakeholder Engagement | Collaborative System Implement Plan | S4.CMP.C | Entire HNRS | Estuary-Wide | Develop and implement a Hawkesbury River school environmental education program focused on water quality, estuary health, and coastal hazards | This Action would be a specalised extension of the broader community and stakeholder education program (S4.CMP.01). It would involve the development and implementation of a coordinated school education program across the HNRS catchment that educates the local school students regarding the unique values of the river system and current and emerging stressors and risks. The program would focus on water quality, estuary health, and coastal hazards.<br>The program may include a curriculum-based program, and/or excursion based learning modules - and could make of the existing environmental education centres that are active across the HNRS catchment. | NSW Department of Education | CCC, NBC, Hornsby Council, KC, THSC, HCC, First Nations Groups, GS LLS | High (24) | Within 1-4 years | Program and materials created, and program implemented. |
| Strategy 5: Estuary & Waterway Health | Collaborative System Implement Plan | S5.CMP.D | Entire HNRS | Estuary-Wide | Undertake a coordinated creek rehabilitation works program across the Partner Council's upper catchment waterways | This action includes the implementation of a targeted creek rehabilitation works program – with the aim of managing both the spread and introduction of weeds across the foreshore of the four estuaries, and improve the condition of riparian vegetation across the coastal zone.<br>The works program would use this mapping and prioritise weed control in high value riparian areas - prioritising high value riparian areas, particularly those that overlay the presence of weeds with Threatened Ecological Communities (TEC's) using the most relevant Plant Community Type (PCT) mapping available at the time. This will require a "targeting multi-species" approach, along with both follow up control and planting of native vegetation suited to that PCT. | CCC, NBC, HSC, KC, THSC, HCC | DPHI-Planning and Assessment, GS LLS | High (24) | Within 1-4 years | Restoration works successfully implemented. |



General Meeting 11 November 2026
Attachments Page 641
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 304
ATTACHMENT 1 - ITEM 7

| CMP Strategy | Implementation Plan | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Strategy 5: Estuary & Waterway Health | Local Implementation Plan: Hawkesbury City Council | S5.HCC.C | Freshwater Tidal Pool | Richmond | Implement the recommendations of the Hawkesbury Floodplain Drainage Review | In 2023, a review was undertaken into the drainage network across the Hawkesbury River floodplains, within the Hawkesbury LGA boundary from Yarramundi bridge in the west down to Pitt Town in the east. The purpose of the study was to identify locations where drainage was inhibited and provide recommendations on site specific solutions for each drainage channel.<br>The broader conclusion is that the condition of the drainage channels has deteriorated over time, resulting in poor drainage and giving rise to further damage to the area in flood events. The deterioration is partly due to failure by landowners or Council to maintain flood mitigation and drainage infrastructure, and partly due to farm works or practices which have changed the topography of the area.<br>The review identified a number of specific Actions for Council to improve drainage across the floodplain. These Actions include:<br>> Action 6: Investigate whether drainage improvements can be made upstream of Pughs Lagoon.<br>> Action 7: Keep pipes clear of debris at Pughs Lagoon<br>> Action 10: Repair or replace floodgates at Cooley Creek<br>> Action 14: Investigate whether drainage improvements can be made at Cooleys Creek and Bakers Lagoon<br>> Action 21: Replace floodgate and repair and stabilise levee at South Creek<br>Implementation of these actions will help restore the functionality of the drainage network, improving water flow efficiency and reducing prolonged inundation following flood events. By addressing blockages, maintaining flood mitigation infrastructure, and ensuring effective drainage, the risk of water stagnation and back-flooding will be minimized. Enhancing drainage across the floodplain will also provide significant benefits to downstream estuary health. Improved water movement will help reduce sediment accumulation, nutrient buildup, and the risk of hypoxic conditions that can lead to fish kills and other ecological imbalances | HCC | N/A | Medium (12) | Within 4-8 years | Works completed. |
| Strategy 4: Community & Stakeholder Engagement | Local Implementation Plan: Ku-ring-gai Council | S4.KRG.A | Lower Estuary | LGA Wide | Support Community Engagement undertaken as part of the Ku-ring-gai Council – Water Sensitive City Strategy | Action 2.2 of the Ku-ring-gai Council – Water Sensitive City Strategy (WSCS) includes the extension of community engagement programs to educate the community regarding how they participate in environmental protection, advocacy, clean up and celebration, and act on climate change, extreme events, resilient and water sensitive neighbourhoods. | KC | N/A | Medium (12) | Within 4-8 years | Program and materials created, and program implemented. |
| Strategy 5: Estuary & Waterway Health | Local Implementation Plan: Ku-ring-gai Council | S5.KRG.A | Lower Estuary | Cowan Creek | Prepare and implement a catchment study and management plan for the Cowan Creek catchment | Catchment runoff from urban areas is a key issue for estuarine water quality across Cowan Creek. Therefore, this option involves undertaking a review of the Council's stormwater assets that discharge into the estuary, in order to identify and prioritise upgrading and maintenance of stormwater assets and infrastructure to improve estuarine health.<br>The plan should analyse the local stormwater network, and identify strategic locations to minimise stormwater pollution using Water Sensitive Urban Design (WSUD) principles. The plan may also include the installation of stormwater infrastructure such as gross pollutant traps (GPTs) and detention basins.<br>This plan should aim to reduce the impacts of urban stormwater runoff on water quality, marine litter, and siltation on the downstream coastal zone waters within Cowan Creek. | KC | NPWS | High (27) | Within 1-4 years | Plan prepared. |
| Strategy 5: Estuary & Waterway Health | Local Implementation Plan: Ku-ring-gai Council | S5.KRG.B | Lower Estuary | Cowan Creek | Update the catchment studies for Ku-ring-gai Creek and Lovers Jump Creek | This would involve Council undertaking a review and update of the catchment studies for Ku-ring-gai Creek and Lovers Jump Creek . The purpose of these updates will be to incorporate current information regarding catchment land usage, water quality, and the Ku-ring-gai Council – Water Sensitive City Strategy.<br>The updated studies should identify management actions to reduce the impacts of urban stormwater runoff on water quality, marine litter, and siltation on the downstream coastal zone waters. | KC | N/A | High (24) | Within 1-4 years | Study completed. |



General Meeting 11 November 2026
Attachments Page 642
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 305
ATTACHMENT 1 - ITEM 7

| CMP Strategy | Implementation Plan | S4 ID | Functional Zone | Locality | Action Name | Action Description | Lead | Support | Priority (Score) | Timing | Performance Criteria |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Strategy 5: Estuary & Waterway Health | Local Implementation Plan: Northern Beaches Council | S5.NBC.C | Pittwater | Careel Bay | Investigate WSUD solutions within the Careel Creek Drainage catchment. | Undertake a planning investigation to identify opportunities to implement Water Sensitive Urban Design (WSUD) approaches within the Careel Creek drainage catchment. Identified WSUD opportunities can be used to help manage the quantity and quality of runoff, improve water quality in Pittwater, and enhance local ecological health around the waterway.<br>This investigation will include site assessments, analysis of current drainage infrastructure, and the identification of opportunities for implementing WSUD solutions. | NBC | DCCEEW-CPHR | High (27) | Within 1-4 years | Study completed. |



General Meeting 11 November 2026
Attachments Page 643
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 306
ATTACHMENT 1 - ITEM 7

## I-3 Business Plan and Implementation

The Catchment Companion Business Plan presents indicative implementation costs and funding responsibilities using the same approach applied to the certified CMP program. Table I-2 summarises costs by funding organisation, Implementation Plan, expenditure type and delivery period. Table I-3 provides the corresponding action-level breakdown, including capital, operational and maintenance costs and potential funding mechanisms.

Although the Catchment Companion actions are non-certifiable, presenting them in a consistent format supports transparent comparison with the CMP actions and provides Partner Councils, State agencies and other delivery organisations with a practical basis for future budgeting, funding applications and coordinated investment. All costs remain indicative and would be refined during action development and implementation.

Implementation of the Catchment Companion should be coordinated and integrated with delivery of the certified CMP actions. Lead and supporting organisations should align timing, funding, engagement, monitoring and reporting activities where actions address common issues or operate across connected parts of the river system.

Where practical, Catchment Companion actions should use the governance, collaboration and reporting arrangements established through the CMP. This will support information sharing, reduce duplication and maintain a coordinated approach to managing the interconnected catchment, estuarine and coastal processes affecting the HNRS. Delivery remains subject to the priorities, resources and approval requirements of the nominated organisations.

Table I-2 Cost breakdown for catchment companion implementation (non-certifiable)

| Catchment Companion | | Total 10-Year Funding Contributions | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Total Cost | NSW State Agencies | Central Coast Council | Northern Beaches Council | Ku-ring-gai Council | Hornsby Shire Council | The Hills Shire Council | Hawkesbury City Council |
| Manner of Implementation | Collaborative Implementation | $1,620,000 | $1,186,667 | $168,971 | $25,344 | $16,667 | $36,565 | $51,077 | $134,710 |
| | Local Implementation: Central Coast Council | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| | Local Implementation: Northern Beaches Council | $45,000 | $30,000 | $0 | $15,000 | $0 | $0 | $0 | $0 |
| | Local Implementation: Ku-ring-gai Council | $130,000 | $86,667 | $0 | $0 | $43,333 | $0 | $0 | $0 |
| | Local Implementation: Hornsby Shire Council | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| | Local Implementation: The Hills Shire Council | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| | Local Implementation: Hawkesbury City Council | $500,000 | $333,333 | $0 | $0 | $0 | $0 | $0 | $166,667 |
| ***Total 10 Year Financial Commitment*** | | **$2,295,000** | **$1,636,667** | **$168,971** | **$40,344** | **$60,000** | **$36,565** | **$51,077** | **$301,376** |
| Cost Breakdown by Type and Timing | Capital Costs | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| | Operational and Maintenance Costs | $2,295,000 | $1,636,667 | $168,971 | $40,344 | $60,000 | $36,565 | $51,077 | $301,376 |
| | | | | | | | | | |
| | Cost Total: Years 1 to 4 | $1,035,000 | $736,667 | $67,588 | $25,138 | $50,000 | $14,626 | $20,431 | $120,551 |
| | Cost Total: Years 5 to 8 | $840,000 | $600,000 | $67,588 | $10,138 | $6,667 | $14,626 | $20,431 | $120,551 |
| | Cost Total: Years 9 to 10 | $420,000 | $300,000 | $33,794 | $5,069 | $3,333 | $7,313 | $10,215 | $60,275 |



General Meeting 11 November 2026
Attachments Page 645
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 308
ATTACHMENT 1 - ITEM 7

Table I-3 Business plan for catchment companion implementation (non-certifiable)

| S4 ID | Locality | Action Name | Lead | Support | Total 10 Yr Cost | Capital Costs | Operational & Maintenance Costs | Costs Years 1 to 4 | Costs Years 5 to 8 | Costs Years 9-10 | Funding Mechanisms |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S2.CMP.D | Upper catchments | Implement a bank stability and condition monitoring program across the creeks and waterways of the catchment | CCC, NBC, HSC, KC, THSC, HCC | DCCEEW-CPHR, NPWS | $300,000 | $0 | $300,000 | $120,000 | $120,000 | $60,000 | 1,2 |
| S3.CMP.F | Ku-ring-gai Chase National Park | Support the proposal for the development of the Ku-ring-gai GeoRegion | KC, HSC, NBC | N/A | $0 | $0 | $0 | $0 | $0 | $0 | 1 |
| S4.CMP.C | Estuary-Wide | Develop and implement a Hawkesbury River school environmental education program focused on water quality, estuary health, and coastal hazards | NSW Department of Education | CCC, NBC, HSC, KC, THSC, HCC, First Nations Groups, GS LLS | $320,000 | $0 | $320,000 | $140,000 | $120,000 | $60,000 | 12 |
| S5.CMP.D | Estuary-Wide | Undertake a coordinated creek rehabilitation works program across the Partner Council's upper catchment waterways | CCC, NBC, HSC, KC, THSC, HCC | DPHI-Planning and Assessment, GS LLS | $1,000,000 | $0 | $1,000,000 | $400,000 | $400,000 | $200,000 | 1,2,3,7,10,11 |
| S5.HCC.C | Richmond | Implement the recommendations of the Hawkesbury Floodplain Drainage Review | HCC | N/A | $500,000 | $0 | $500,000 | $200,000 | $200,000 | $100,000 | 1,2,9 |
| S4.KRG.A | LGA Wide | Support Community Engagement undertaken as part of the Ku-ring-gai Council – Water Sensitive City Strategy | KC | N/A | $20,000 | $0 | $20,000 | $20,000 | $0 | $0 | 1,2,7 |
| S5.KRG.A | Cowan Creek | Prepare and implement a catchment study and management plan for the Cowan Creek catchment | KC | NPWS | $65,000 | $0 | $65,000 | $65,000 | $0 | $0 | 1,2 |
| S5.KRG.B | Cowan Creek | Update the catchment studies for Ku-ring-gai Creek and Lovers Jump Creek | KC | N/A | $45,000 | $0 | $45,000 | $45,000 | $0 | $0 | 1,2 |
| S5.NBC.C | Careel Bay | Investigate WSUD solutions within the Careel Creek Drainage catchment. | NBC | DCCEEW-CPHR | $45,000 | $0 | $45,000 | $45,000 | $0 | $0 | 1,2,11 |



General Meeting 11 November 2026
Attachments Page 646
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 309
ATTACHMENT 1 - ITEM 7

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# Coastal Zone Emergency Action Subplan – Broken Bay Beaches

## Hawkesbury-Nepean River System CMP

Central Coast Council

9 October 2026



Coastal Zone Emergency Action Subplan – Broken Bay Beaches

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# CONTENTS


GLOSSARY AND ABBREVIATIONS IV

1 INTRODUCTION 1
1.1 Background 1
1.2 Purpose and Objectives 1
1.3 Consultation 2
1.4 Study Area 2
1.5 Overview of this CZEAS 3

2 SCOPE OF THE CZEAS 5
2.1 What is an Emergency? 5
2.2 Coastal Hazards 5
2.3 Coastal Emergencies Covered by the CZEAS 7

3 TRIGGERS FOR EMERGENCY ACTION 11
3.1 Overview 11
3.2 BoM Coastal Hazard Warnings 11
3.3 Local Impact Triggers and Forecasts 12

4 AREAS AT RISK 15
4.1 Overview 15

5 ROLES AND RESPONSIBILITIES 18
5.1 Agencies and Personnel 18
5.2 Combat Agencies 22
5.3 Emergency Operation Centres 23

6 COMMUNICATION PROTOCOLS 24
6.1 Overview 24
6.2 Message Construction 24

7 EMERGENCY RESPONSE ACTION PLAN 29
7.1 Overview 29
7.2 Study Area Wide Actions 29
7.3 Emergency Coastal Protection Works 37
7.4 Recording Coastal Emergency Impacts and Emergency Response Actions 38

8 APPROVALS PATHWAYS 40

9 REFERENCES 42

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## APPENDICES

Appendix A Beaches – Local Area Plans

## LIST OF FIGURES


| | | |
|---|---|---|
| Figure 1-1 | CMP and CZEAS study area | 2 |
| Figure 1-2 | Quick reference overview of this CZEAS | 4 |
| Figure 2-1 | Stages of Emergency Planning | 5 |
| Figure 2-2 | Simplified legislative framework for emergency management in NSW and its relationship with coastal management legislation and coastal management programs | 8 |
| Figure 6-1 | Australian Warning System messaging model (top) and hazard icons (AIDR, 2021) | 26 |
| Figure 7-1 | Concept Sand Container Placement Method (DECCW, 2011) | 38 |
| Figure 8-1 | Coastal protection works: assessment pathway for public authorities (including councils). Source: DPE (2018). | 40 |


## LIST OF TABLES


| | | |
|---|---|---|
| Table 2-1 | Planning hierarchy for coastal hazards listed in the CM Act across the study area | 10 |
| Table 2-2 | Planning hierarchy for coastal hazards not listed in the CM Act across the study area | 10 |
| Table 3-1 | Available sources of data for coastal hazard parameters | 13 |
| Table 3-2 | LGA-wide and local triggers | 13 |
| Table 4-1 | Summary of risks of beach erosion and coastal inundation | 16 |
| Table 5-1 | Roles and Responsibilities | 18 |
| Table 5-2 | Combat agencies for coastal hazard events | 23 |
| Table 6-1 | Communication Protocols | 24 |
| Table 6-2 | Warning Levels from the Australian Warning System framework (AIDR, 2021) | 25 |
| Table 6-3 | Examples of Australian Warning System calls to action (AIDR, 2021) that may be used in a coastal emergency | 27 |
| Table 7-1 | Coastal Emergency Actions: Phase 1 – Prevention | 30 |
| Table 7-2 | Coastal Emergency Actions: Phase 2 – Preparedness | 31 |
| Table 7-3 | Coastal Emergency Actions: Phase 3 – Response | 32 |
| Table 7-4 | Coastal Emergency Actions: Phase 4 – Recovery | 34 |
| Table 7-5 | Nominated Emergency Coastal Protection Works | 38 |

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## GLOSSARY AND ABBREVIATIONS

| Term | Definition |
|---|---|
| AIDR | The Australian Institute for Disaster Resilience |
| Beach erosion | Landward movement of the shoreline and/or a reduction in beach volume, usually associated with storm events or a series of events, which occurs within the beach fluctuation zone. Beach erosion occurs due to one or more process drivers: wind, waves, tides, currents, ocean water level, and downslope movement of material due to gravity. |
| BoM | Bureau of Meteorology |
| Council | Central Coast Council |
| CM Act | *The Coastal Management Act 2016* |
| Coastal cliff and slope instability | Geotechnical instabilities on coastal cliffs and bluffs, including rock falls, slumps, and landslides. |
| Coastal emergency | An emergency due to actual or imminent coastal inundation, coastal erosion, or coastal cliff and slope instability which (a) threatens endangers, or threatens to endanger, the safety or health of persons; or (b) destroys or damages, or threatens to destroy or damage, any property or the natural environment. |
| Coastal inundation | Coastal inundation occurs when a combination of marine and atmospheric processes raises the water level at the coast above normal elevations, causing land that is usually 'dry' to become inundated by sea water. Alternatively, the elevated water level may result in wave run-up and overtopping of natural or built shoreline structures (e.g., dunes, seawalls). |
| Coastal lake or watercourse entrance instability | Refers to the variety of potential hazards and risks associated with the dynamic nature of both natural and trained entrances. Coastal lake and watercourse entrances are highly active environments with their shape constantly changing in response to processes such as alongshore sediment transport, tidal flows, storms and catchment flooding. |
| Coastal protection works | The CM Act defines coastal protection works as:<br>a) beach nourishment<br>b) activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters, including (but not limited to) seawalls, revetments, and groynes. |
| Combat Agency | The agency identified in this subplan as the agency primarily responsible for controlling the response to a particular emergency (SERM Act 1989). |
| CZEAS | Coastal Zone Emergency Action Subplan (this document) |
| DCCEEW | The NSW Department of Climate Change, Energy, the Environment and Water. Prior to 1 January 2024, the responsibilities of the department were carried out by the former NSW Department of Planning and Environment (DPE). |
| ECL | East Coast Low |
| EMPLAN | Emergency Management Plan |
| Essential infrastructure | Defined in the CM Act as infrastructure for the following purposes: electricity generation, transmission and distribution, telecommunications, rail, roads, gas, sewerage systems, water supply systems or stormwater management systems, airports, ports shipping and harbours. |
| Estuary | The CM Act defines an estuary as any part of a river, lake, lagoon, or coastal creek that is affected by coastal tides, up to the highest astronomical tide. |

| Term | Definition |
|---|---|
| FRNSW | Fire and Rescue NSW |
| Hs | Significant Wave Height - the average of the highest one third of waves during a specific period. |
| LEMC | Local Emergency Management Committee. The LEMC is constituted under the SERM Act for each local government area and is responsible for preparing plans for response and recovery from emergencies. |
| LEMO | Local Emergency Management Officer |
| Local Emergency Operations Controller (LEOCON) | A Police Officer appointed by the District Emergency Operations Controller as the Local Emergency Operations Controller for the Local Government Area. |
| LGA | Local Government Area |
| MHWS | Mean High Water Springs. The long-term mean of the heights of 2 successive high waters during those periods of 24 hours (approximately once a fortnight) when the range of tide is greatest, during full and new moon. |
| NABE | Nature Assisted Beach Enhancement - sometimes referred to as beach scraping. |
| NSW SES | NSW State Emergency Service |
| Regional Emergency Operations Controller (REOCON) | The NSW Police Southern Region Commander is appointed as the REOCON. This role is typically responsible for coordinating emergency management efforts within a specific region of NSW during crises or disasters. performs the role of REOCON. |
| RFS | NSW Rural Fire Service |
| State Emergency Operations Controller (SEOCON) | This SEOCON role is a member of the New South Wales Police Force Senior Executive Service responsible for overseeing emergency response operations at the state level during major emergencies or disasters. |
| SERM Act | *State Emergency and Rescue Management Act 1989* |
| Tsunami | Defined in the State tsunami Plan as “A series of ocean waves with very long wavelengths (typically hundreds of kilometres) caused by large-scale disturbances of the ocean, such as earthquakes, landslide, volcanic eruptions, explosions, or meteorites”. |
| Wave Run-up | The vertical distance above mean water level reached by the uprush of water from waves across a beach or up a structure. |

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# 1 INTRODUCTION

## 1.1 Background

This Coastal Zone Emergency Action Subplan (CZEAS) forms an integral part of the Hawkesbury-Nepean River System Coastal Management Program (HNRS CMP). It applies specifically to the beaches of Broken Bay within the Central Coast Council Local Government Area (LGA), which fall inside the legally defined study area for the HNRS CMP (Water Technology, 2025).

This CZEAS has been prepared in accordance with the requirements of:

- *The Coastal Management Act 2016* (the CM Act).
- The NSW Coastal Management Manual (OEH, 2018a).
- The NSW Guideline for preparing a coastal zone emergency action subplan (DPIE, 2019).

This document has been prepared to align with the CZEAS prepared for the Central Coast Council Open Coast Beaches CMP (OC CMP) (Worley Consulting, 2025) – which covers all other open coast beaches in the Central Coast LGA.

## 1.2 Purpose and Objectives

As specified in the CM Act, a CZEAS is a plan that outlines the roles and responsibilities of all public authorities (including the local council) in response to coastal emergency events immediately preceding or during periods of beach erosion, coastal inundation, or coastal cliff and slope instability, where those processes occur through storm activity or an extreme or irregular event.

Subsequently, this CZEAS details arrangements for the four phases of emergency events (prevention, preparation, response, and recovery) relating to coastal hazards for the Broken Bay beaches.

In accordance with the New South Wales (NSW) Guideline for preparing a coastal zone emergency action subplan (DPIE, 2019), the purpose of this CZEAS is to identify and facilitate the implementation of appropriate emergency response actions in order to:

- Protect human life and public safety.
- Minimise damage to property and assets.
- Minimise impacts on social environmental and economic values.
- Not create additional hazards or risk.

The objectives of this CZEAS are to:

- Set a clear definition for what constitutes a coastal emergency (Section 2), and associated triggers for emergency response actions (Section 3).
- Identify the locations that may be affected by beach erosion, coastal inundation, or coastal cliff and slope instability that would constitute a coastal emergency (Section 4).
- Outline the roles and responsibilities of all public authorities, including Central Coast Council (Council), and coordinate their response to emergencies immediately preceding or during periods of beach erosion, coastal inundation and coastal cliff and slope instability (Section 5).
- Outline the communications required in the four phases of emergency management (Section 6).
- Summarise key actions to be carried out in the four phases of emergency (Section 7).

- Identify approvals pathways for CZEAS actions as they relate to the NSW Coastal Management Framework (Section 8).

## 1.3 Consultation

Agencies other than Council involved in the implementation of this CZEAS, such as NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW), NSW State Emergency Service (NSW SES), and approval agencies have been provided a copy of the draft CZEAS for review and comment. The final CZEAS has addressed all feedback received from key stakeholders.

## 1.4 Study Area

There are 5 beaches (Figure 1-1) in the HNRS CMP Study Area in Broken Bay that are potentially at risk of coastal hazards:

- Ettalong Beach
- Ocean/Umina Beach
- Pearl Beach
- Patonga
- Little Patonga Beach

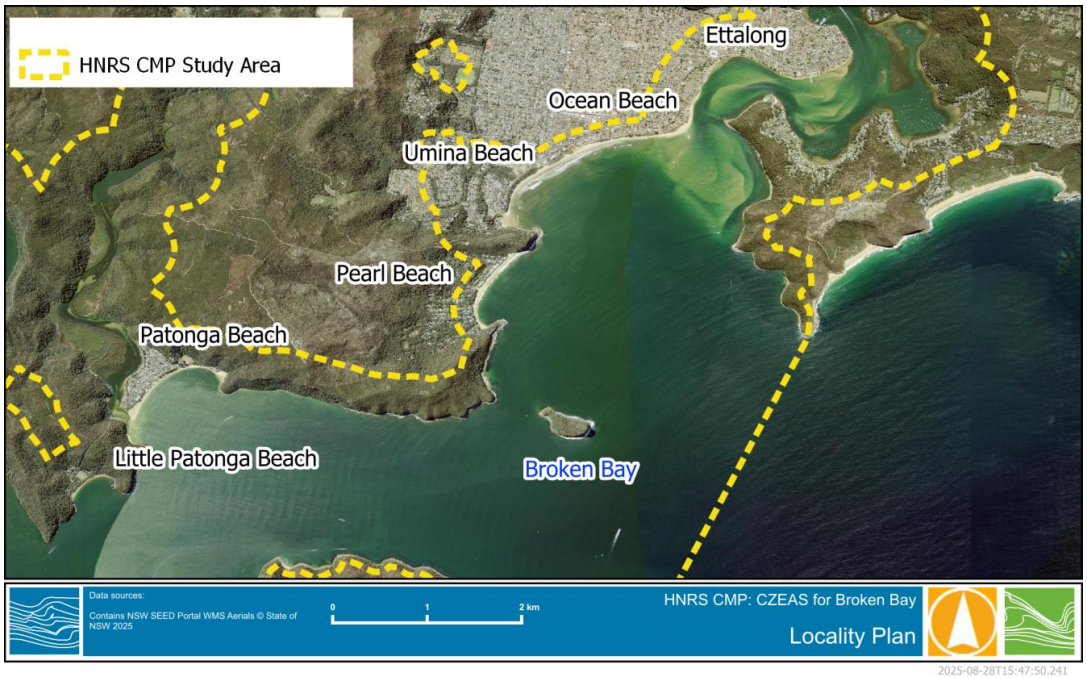



**Figure 1-1 CMP and CZEAS study area**

## 1.5 Overview of this CZEAS

A quick-reference overview of the contents of this CZEAS is provided in Figure 1-2, which contains references to the various sections of the CZEAS where more detail is provided. It is important to note that this procedural flow chart is a non-linear continuum and contains feedback loops based on continuous monitoring and assessment throughout a given emergency event.

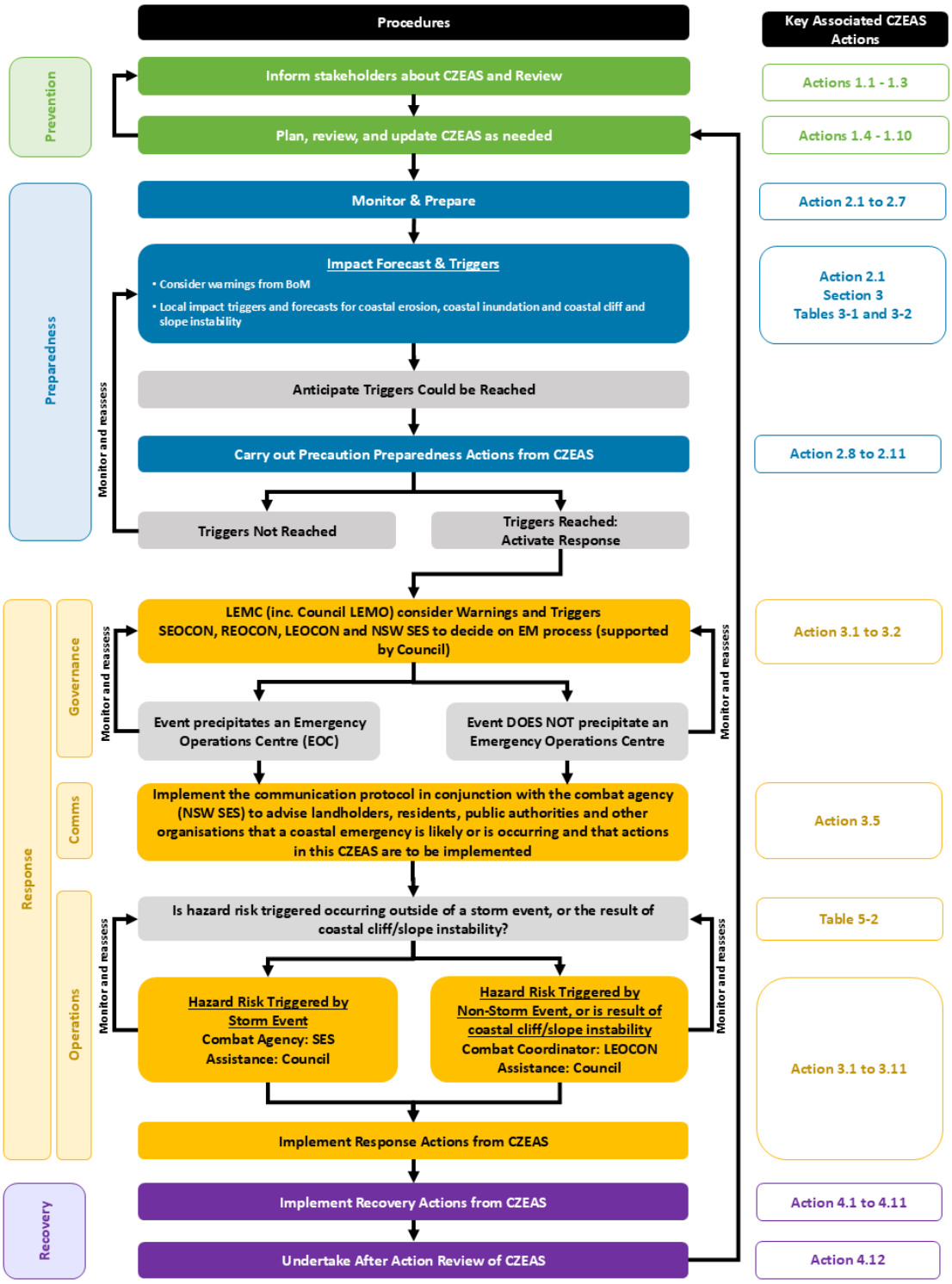



Figure 1-2 Quick reference overview of this CZEAS

# 2 SCOPE OF THE CZEAS

## 2.1 What is an Emergency?

### 2.1.1 Definition

An "emergency" is defined in the *State Emergency and Rescue Management Act 1989* (SERM Act) and the State Disaster Plan as:

> "*An emergency due to an actual or imminent occurrence (such as fire, flood, storm, earthquake, explosion, terrorist act, accident, epidemic or warlike action) which -*
>
> *a) endangers, or threatens to endanger, the safety or health of persons or animals in the State; or*
>
> *b) destroys or damages, or threatens to destroy or damage, any property in the State, or*
>
> *c) causes a failure of, or a significant disruption to, an essential service or infrastructure, being an emergency, which requires a significant and co-ordinated response.*
>
> *For the purposes of the definition of emergency, property in the State includes any part of the environment of the State. Accordingly, a reference in the Act to -*
>
> *a) threats or danger to property includes a reference to threats or danger to the environment, and*
>
> *b) the protection of property includes a reference to the protection of the environment."*

### 2.1.2 The Four Phases of an Emergency

Both the SERM Act and the NSW Coastal Management Manual (OEH, 2018a) identify four distinct stages of an emergency – prevention, preparation, response, and recovery (Figure 2-1).

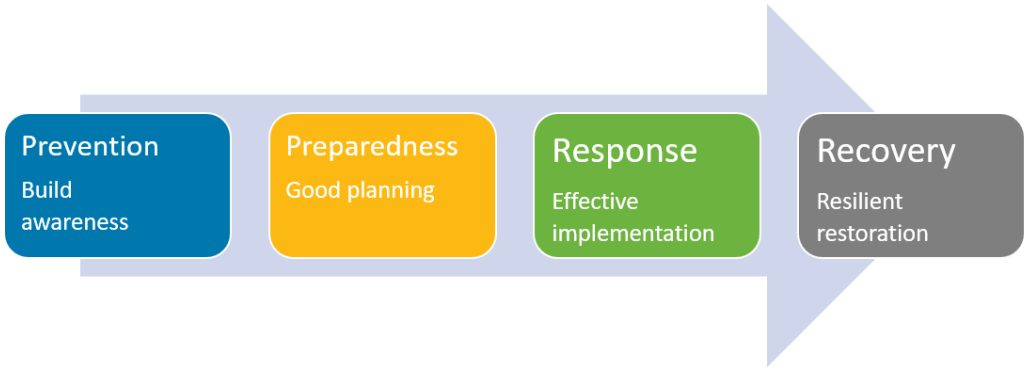



**Figure 2-1 Stages of Emergency Planning**

## 2.2 Coastal Hazards

### 2.2.1 Definitions of Coastal Hazards

The NSW 2017 State Level Risk Assessment (NSW Office of Emergency Management, 2017) classifies storm and coastal erosion as priority hazards that pose a significant risk to the state. The CM Act identifies three types of coastal hazards that should be considered when developing a CZEAS. These are defined in the guidelines (DPIE, 2019) as:

- **Beach erosion:** Not all beach erosion occurring during a storm event provokes a coastal emergency response. Therefore, a "beach erosion emergency" in the context of this CZEAS can be defined as an actual or imminent occurrence of a beach erosion event that occurs when wind, waves, and currents are removing the sediment that comprises the foreshore and/or frontal dune system, landward of the fully accreted condition. The consequence of such erosion can create risks to public safety, and public and private assets - which requires a coordinated emergency response.
- **Coastal inundation:** Coastal inundation occurs when marine and atmospheric forces combine and raise water levels at the coast (or inside estuaries) above normal elevations causing dry land to be inundated by seawater. Coastal inundation is often associated with storms and results in elevated still water levels (storm surge), wave set-up, wave runup and over-wash flows. Storm surges and powerful waves can also penetrate estuaries giving rise to strong currents or seiching. This may result in the inundation of roads and low-lying land adjacent to estuaries. For the open coast, it is associated with wave overtopping of beach dunes and the extent of wave runup onto the back-beach area.
- **Coastal cliff and slope instability:** This refers to a variety of geotechnical processes on coastal cliffs and bluffs, including rock fall, slumps, and landslides. These may be driven by coastal processes such as wave undercutting and overtopping, or by differential weathering of rock layers in cliffs and bluffs or by surface and groundwater flows generated by extreme rainfall. Instability may occur during or following a coastal storm event but may also occur at other times. There may be very little warning that a coastal cliff or slope instability incident is imminent. These hazards may endanger life and property at the site of the process (e.g., through collapse of a lookout platform or walking track, or undermining of dwellings), and at the toe of the cliff or bluff (rock platform or beach).

As stipulated in the *NSW Guideline for preparing a coastal zone emergency action subplan* (DPIE, 2019), the other coastal hazards identified in the CM Act are outside the scope of this CZEAS – including long term shoreline recession, coastal lake or watercourse entrance instability, tidal inundation, and erosion and inundation of estuary foreshores caused by tidal waters and the action of waves. These hazards either pertain to estuary environments outside the scope of this CZEAS or are not related to storm activity or an extreme or irregular event.

As outlined in Section 2.3, this CZEAS does not relate to other forms of inundation including flooding from land or tsunamis.

### 2.2.2 Recognising the Complexity of Coastal Hazard Events

#### *Storm Clustering*

From a coastal hazard perspective, it is important to note the impacts of storm clustering. An erosion storm cluster occurs when a beach is unable to adequately recover from a previous storm event before a subsequent one commences. The response of a beach to a storm and a storm cluster will depend largely on the physical characteristics of that particular beach, including sediment type, shoreline orientation and wave climate (Geoscience Australia, 2021).

In this way, a cluster of less severe storm events can generate a greater erosion response than an individual, high severity event (Gravois, Baldock, Callaghan, Daivies, & Nichol, 2018).

The implication for the CZEAS are:

- Even moderate swell events may cause significant levels of damage if they occur after a large event.
- Emergency teams must re-evaluate site conditions after each event to update risk profiles.
- Recovery and readiness plans must anticipate follow-up storms before full repairs or natural recovery occur.

- Previously stable areas (e.g., access points, cliffs, dunes) may become dangerous after cumulative impacts.

***Cascading and Compounding Emergencies***

The Broken Bay coastline is impacted by East Coast Lows (ECLs), and this phenomenon is one of the most significant contributing factors to the occurrence and intensity of coastal hazard emergencies along the NSW coast (AdaptNSW, 2023). ECLs are intense low-pressure systems that occur off the east coast of Australia. They bring damaging winds and surf, as well as heavy rainfall, which leads to erosion and flooding.

Consequently, coastal hazards emergencies do not always occur at a localised scale, nor with a single discrete hazard type. When facing events like an ECL, the consequences can be multifaceted. Coastal erosion and inundation may be occurring at numerous beaches concurrently, while the same event may also generate rainfall that leads to riverine or estuarine flooding, and potential coastal cliff and slope instability.

In this way, cascading and compounding natural hazard emergencies can place significant strain on the resources and capabilities of combat agencies during response efforts. These concurrent crises require a coordinated response from multiple agencies and authorities.

The implication for the CZEAS are:

- Multi-hazard environments: Agencies may face erosion, inundation, flooding, and cliff instability all at once, requiring broader coordination.
- Concurrent site demands: Multiple locations may need simultaneous interventions, creating critical decisions on priorities and triage.
- Communication pressure: Rapid, clear information-sharing across agencies and the public becomes critical to avoid confusion or duplication.
- Logistical complexity: Access routes, staging areas, and evacuation options can be compromised by overlapping hazards.

## 2.3 Coastal Emergencies Covered by the CZEAS

### 2.3.1 Legislative Requirements

The scope of this CZEAS is dictated by the requirements of the CM Act and the SERM Act.

***SERM Act 1989***

The SERM Act established the overarching framework for emergency management in NSW. The SERM Act outlines roles and responsibilities for all emergency management in the state, and specifies:

- That emergency management committees are established at the state, regional and local levels.
- That emergency management plans (EMPLANs) are prepared and reviewed at the state, regional and local level.
- Arrangements for controlling emergency operations.
- Responsibilities of emergency operations controllers.

The NSW State EMPLAN (NSW Office of Emergency Management, 2023) describes the NSW approach to emergency management, the governance and coordination arrangements, and roles and responsibilities of agencies. The plan is supported by hazard specific subplans and functional area supporting plans.

The NSW SES is the designated combat agency for management of floods, tsunami, and storms, including severe storms which cause coastal erosion. The NSW SES prepares the State Storm Plan, State Flood Plan and State Tsunami Plan, which are subplans to the NSW State EMPLAN.

### *CM Act 2016*

The CM Act identifies specific emergency management considerations associated with beach erosion, coastal inundation, and cliff instability. Section 15 (3) of the CM Act states that:

> *"A **coastal zone emergency action subplan** is a plan that outlines the roles and responsibilities of all public authorities (including the local council) in response to emergencies immediately preceding or during periods of **beach erosion**, **coastal inundation** or **cliff instability**, where the beach erosion, coastal inundation or cliff instability occurs through storm activity or an extreme or irregular event"*

Mandatory requirements for a CMP, including the preparation of a CZEAS where required, are identified in Part A of the NSW Coastal Management Manual (OEH, 2018a).

When preparing a CZEAS, it is crucial to consider the relationship between the coastal management framework established by the CM Act, and the broader NSW emergency management framework. This relationship is depicted in Figure 2-2. To this end, Section 15 (4) of the CM Act states that:

> *"A coastal management program **must not** include the following—*
>
> *(a) matters dealt with in any plan made under the State Emergency and Rescue Management Act 1989 in relation to the response to emergencies"*

The purpose of this clause is to ensure that is no duplication or ambiguity of emergency response planning, and to ensure that the CZEAS is consistent with the emergency management provisions addressed in the stage, regional and local EMPLANs, and state and local flood plans .

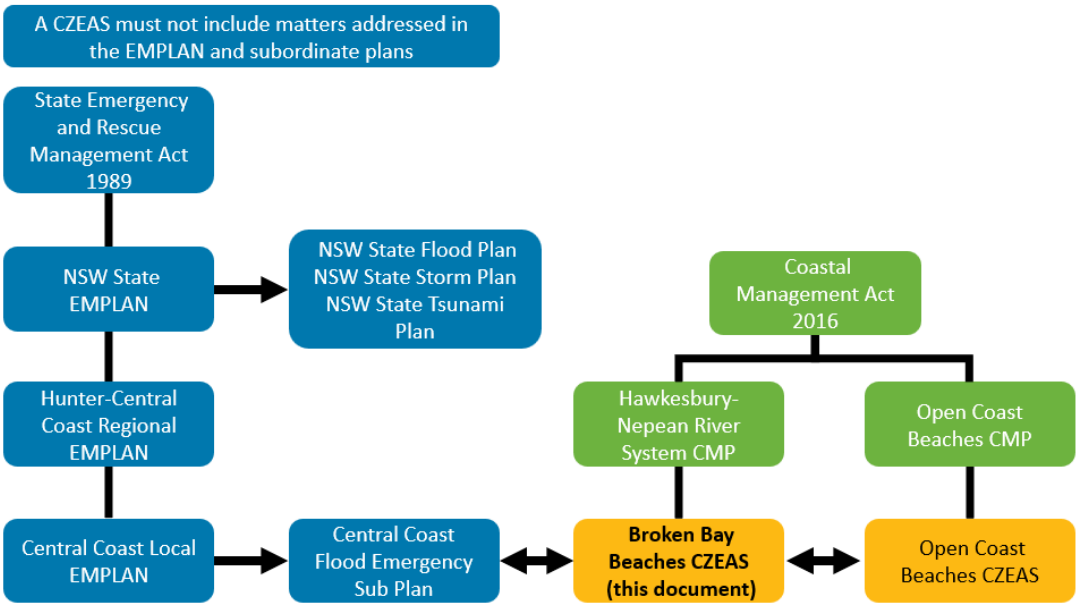



**Figure 2-2 Simplified legislative framework for emergency management in NSW and its relationship with coastal management legislation and coastal management programs**

### 2.3.2 Relationship of the CZEAS to other Emergency Plans

The requirements of the CM Act stipulate that this CZEAS must not cover emergencies that are already dealt with by another plan made under the SERM Act.

#### *NSW State Storm Plan*

The NSW State Storm Plan (NSW SES, 2023) is a sub plan to the NSW State EMPLAN (see Figure 2-2), and is a comprehensive strategy to effectively prepare for and respond to severe storms across NSW. Section 1.4.3 of the plan states that:

> *"Coastal erosion caused by storm activity is within the scope of this plan. Emergency management of coastal erosion that is not caused by storm activity will be controlled and coordinated by the Local Emergency Operations Controller (LEOCON)".*

Coastal erosion is therefore within the scope of the NSW State Storm Plan. However, in doing so, the Plan identifies the triggers and instances for when local councils need to activate their CZEAS at a local level. It is in this way that these two emergency planning documents dovetail, without overlapping.

Section 1.4.4 of the State Storm Plan (NSW SES, 2023) states that the arrangements for the emergency management of flooding are dealt with in the New South Wales State Flood Emergency Sub Plan (NSW SES, 2021) – described below.

#### *NSW State Flood Plan*

The NSW Flood Plan (NSW SES, 2021) is a sub plan to the NSW State EMPLAN (see Figure 2-2), and sets out the state level multi-agency arrangements for the emergency management of flooding in NSW. Section 1.4.2 of the NSW Flood Plan defines "flooding" as:

> "*a relatively high-water level which overtops the natural or artificial banks in any part of a stream, river,* ***estuary****, lake, or dam, and/or local overland flooding associated with drainage before entering a watercourse,* ***and/or coastal inundation resulting from super-elevated sea levels and/or waves (including tsunami) overtopping coastline defences***".

Subsequently, at a strategic level, the emergency management arrangements for prevention, preparation, response, and initial recovery for still water level coastal inundation is covered by the NSW Flood Plan. At a more regional, level this issue is addressed by the Central Coast Flood Emergency Sub Plan (NSW SES, 2021) – described below.

#### *NSW State Tsunami Plan*

The NSW Tsunami Emergency Sub Plan (NSW SES , 2023) is a sub-plan to the NSW State EMPLAN. The purpose of the plan is to set out the state-wide multi-agency arrangements for the emergency management of tsunamis in NSW – including the prevention, preparation, response, and initial recovery (including immediate relief) for tsunami activity at the strategic level. The plan accounts for all tsunami magnitudes and generation mechanisms.

The NSW SES is identified in the NSW State EMPLAN (NSW Office of Emergency Management, 2023) and the SES Act as the lead (combat) agency for preparation for and response to tsunami, and for leading the coordinated response to the impact of tsunami including the evacuation of affected communities and immediate relief if required.

#### *Central Coast Council Flood Emergency Sub Plan*

The Central Coast Council Flood Emergency Sub Plan (NSW SES, 2021) is a sub plan of the Central Coast EMPLAN 2021 (Central Coast Council , 2023) – see Figure 2-2, but specifically covers the local preparedness

measures, the conduct of response operations, and the coordination of immediate recovery measures from flooding within the entirety of the Central Coast LGA. The Plan therefore covers land-based flooding across open coast and in estuarine settings of the LGA. The additional arrangements required for wave run-up hazards are therefore covered as part of this CZEAS.

### *Central Coast Open Coast CMP and CZEAS*

A CZEAS was developed for the Central Coast Open Coast CMP (Worley Consulting, 2025). For consistency across all beaches within the Central Coast LGA, this CZEAS has been aligned with the Open Coast CMP CZEAS to the greatest extent practical.

### *Summary*

Table 2-1 and Table 2-2 below provide an overview of the planning hierarchy for coastal hazards across the study area.

**Table 2-1 Planning hierarchy for coastal hazards listed in the CM Act across the study area**

| Coastal Hazard | Strategic Arrangements | Local Operations |
|---|---|---|
| Coastal erosion | The NSW State Storm Plan (NSW SES, 2023) | This CZEAS |
| Coastal inundation – land-based flooding | The NSW State Flood Plan (NSW SES, 2021) | Central Coast Council Flood Emergency Sub Plan (NSW SES, 2021) |
| Coastal inundation –wave run-up | The NSW State Flood Plan (NSW SES, 2021) | This CZEAS |
| Coastal cliff and slope instability | The NSW State Storm Plan (NSW SES, 2023) | This CZEAS |

**Table 2-2 Planning hierarchy for coastal hazards not listed in the CM Act across the study area**

| Coastal Hazard | Strategic Arrangements | Local Operations |
|---|---|---|
| Tsunami | The NSW State Tsunami Plan | Central Coast Council Flood Emergency Sub Plan (Central Coast Council , 2023) |

# 3 TRIGGERS FOR EMERGENCY ACTION

## 3.1 Overview

For the purposes of this CZEAS, a coastal emergency event within Broken Bay beaches is occurring when one or more of the below triggers occurs:

- The following **official hazard forecasts** are issued:
  - When the Bureau of Meteorology (BoM) has issued the release of a **Coastal Hazard Warning** that applies to any of the locations at risk identified in Section 0. More detail regarding these warnings is provided in Section 3.2.
- The following **local impact forecasts** are made:
  - In addition to the BoM Coastal Hazard Warning, there are location-specific forecast and triggers for when coastal hazards will activate this CZEAS. These triggers are discussed in Section 3.3.

In identifying triggers for erosion protection works, a balance needed to be found between predicted storm erosion and inundation in large events, and avoiding the triggers being reached too often, resulting in “false alarms” and implementation of emergency coastal protection works unnecessarily often.

## 3.2 BoM Coastal Hazard Warnings

The actions contained in this CZEAS are triggered by the release of a **Coastal Hazard Warning** from the BoM. The BoM issues Coastal Hazard Warnings for abnormally high tides or storm tides that:

- May be higher than the highest astronomical tide, and
- Could flood low lying coastal areas.

The BoM also issues **Severe Weather Warning for Damaging or Dangerous Surf** - when the waves are expected to be powerful enough to cause damage to property or significant erosion to beaches.

These warnings are issued whenever a coastal hazard is:

- Happening in an area, or
- Is expected to develop or move into an area.

A Coastal Hazard Warning includes:

- A list of all potential phenomena, coastal forecast districts and locations that may be affected.
- A description of the threat and the area likely to be affected (the threat area).
- The time the warning was issued and what time the next warning will be issued.
- A description of the weather pattern, including forecast developments of significant weather systems.
- A technical summary of all potential phenomena, their timing and likelihood.
- Confirmed observations and reports.
- Recommended actions.

The lead time depends on the weather situation. It can extend from an hour to 36 hours. While the threat remains, a Coastal Hazard Warning is updated routinely every 6 hours. More frequent warnings may be issued if required.

NSW weather warnings are issued by the BoM and can be found at the following link: http://www.bom.gov.au/nsw/warnings/. Alternatively, the BoM weather App can show only the weather warnings that apply to the area set by the user.

## 3.3 Local Impact Triggers and Forecasts

### *The Role of Local Triggers*

In addition to the official warnings from the Bureau of Meteorology, the NSW State Storm Plan stipulates that the response phase of the storm plan is triggered when information processes or intelligence indicates imminent or actual storm impacts to the community (NSW SES, 2023). For example, if there is no official warning from the Bureau of Meteorology, other evidence may be used to determine that there is a coastal hazard risk to the community that will trigger the actions in this CZEAS, including:

- Verbal advice from BoM forecasters
- Advice issued from the DCCEEW Coastal Expert.
- Real-time local monitoring and forecast systems

This is particularly important as there are a number of possible scenarios under which coastal erosion may occur without an official BoM Coastal Hazard Warning being issued. This may include a storm clustering event, where a local beach profile may be depleted from a recent event to the extent that even a relatively low or moderate swell coinciding with a high tide may erode the dune system resulting in landward recession of the erosion escarpment.

Given such complexities, *triggers alone* cannot replace expert engineering judgment. Response decisions must account for real-time conditions, local intelligence, and agency consultation.

### *Monitoring and Data Sources*

To strengthen early warnings and improve preparedness, it is necessary for Council to monitor additional sources of forecasting and intelligence information. Forecasts and real-time data regarding various coastal hazard parameters (such as wave conditions, tide level, and beach state) can provide information on coastal inundation and erosion along coastlines several days in advance of an impending hazard events, potentially providing a “window of opportunity” to implement a range of emergency responses (Matheen & Nashwan, 2022).

Forecasting coastal erosion and inundation is a complex and challenging task due to the fact that it is not solely governed by a single factor, rather an intricate interplay of several variables, including:

- The astronomical tide cycle, and potential magnitude and timing of storm surge.
- Offshore wave height and direction, and the complex nearshore wave transformation processes that will impacts on wave conditions in the nearshore.
- The beach state prior to the onset of the storm. Beaches undergo continuous cyclic evolution in the form of erosion and accretion, and the beach profile at any given instant has an effect on the impact of subsequent storms.

Subsequently, as part of an early warning process, Council should actively monitor forecasts and real-time information related to ocean waves and tides, using the available data sources provided in Table 3-1. Council can also actively monitor the state of their beaches using the tools and data sources provided in Table 3-1, noting that no forecasts are available for beach erosion, and these datasets are limited in their ability to provide real-time (or even near-real time) information.

Table 3-1 Available sources of data for coastal hazard parameters

| Parameter | Forecast Source | Forecast Window | Real-time Information |
|---|---|---|---|
| Wave Height | BoM Interactive Weather and Wave Forecast[1]. | 7 days | MHL NSW Ocean Wave Data Collection Program[2]. |
| | The NSW Nearshore Wave Tool[3] | 5 days | |
| Ocean Tide | MHL NSW Tide Charts[4] | 1 year | MHL NSW Ocean Tide Data Collection Program[5] |
| | BoM New South Wales Tide Tables[6] | 1 year | |
| **Parameter** | **Historical Data Availability** | | **Data Type** |
| Beach State | Central Coast Council Beach Monitoring and Inspections | | Photographs, Beach surveys |
| | CoastSnap (at available beaches) | | Photographs |
| | NSW Beach Profile Database | | Beach profiles |
| | CoastSat | | Shoreline position |

### *Proposed Trigger Conditions*

A proposed set of conditions for triggering the Preparedness, Response and Recovery phases of the CZEAS is presented in Table 3-2, in consistency with the Open Coast CZEAS (Worley Consulting, 2025).

Table 3-2 LGA-wide and local triggers

| Phase | Trigger |
|---|---|
| Prevention Phase | Prevention actions are to be undertaken as soon as practicable and are independent of the occurrence of a coastal inundation emergency |
| Preparedness Phase | **LGA-wide trigger**: Significant wave height at Sydney to exceed 5 m within next 5 days<br>**Site specific triggers**: Sydney Hs forecast to exceed 3m, direction S to ENE within next 5 days apply at the following locations, subject to advice/consultation with DCCEEW:<br>▪ Ettalong Beach<br>▪ Ocean Beach<br>▪ Umina Beach<br>▪ Peral Beach<br>▪ Patonga Beach<br>▪ Little Patonga Beach |
| Response Phase | **LGA-wide trigger:** Significant wave height at Sydney to exceed 5 m within next 12 hours<br>**Site specific triggers**: Sydney Hs forecast to exceed 3m, direction S to ENE within next 12 hours, OR coastal hazards are impacting critical public infrastructure. Site specific triggers apply at the locations listed above. |

[1] http://www.bom.gov.au/australia/charts/viewer/index.shtml
[2] https://mhl.nsw.gov.au/Data-Wave
[3] https://nearshore.waves.nsw.gov.au/home/forecast
[4] https://mhl.nsw.gov.au/TideCharts
[5] https://mhl.nsw.gov.au/Data-OceanTide
[6] http://www.bom.gov.au/oceanography/projects/ntc/tide_tables.shtml

| Phase | Trigger |
|---|---|
| Recovery Phase | Wave heights fall below trigger levels for 24 hours, BoM lifts warnings and confirmation that danger has passed received from DCCEEW |

In addition to the triggers outlined above - location-specific triggers for when coastal hazards will activate the Response Phase of this CZEAS include when:

- *Coastal erosion* is occurring or expected to occur at key locations at risk of beach erosion identified in Section 4, impacting or with potential to impact on public or private assets and/or affect safe access/egress.
- *Wave run-up* is occurring or expected to occur at the key locations at risk of coastal inundation identified in Section 4, affecting/with potential to affect safe access/egress or impacting/with potential to impact on public or private assets.
- A situation in which *instability of coastal cliffs and slopes* is imminent, occurring or has occurred, and the threat of landslide endangers, or threatens to endanger, the safety or health of people or destroys or damages, or threatens to destroy or damage any sites and assets, as identified in Section 4.

# 4 AREAS AT RISK

## 4.1 Overview

This CZEAS only applies to the known locations affected by beach erosion, coastal inundation or cliff and slope instability as noted in this section.

It is possible that beach erosion, coastal inundation or cliff and slope instability will affect additional locations not currently assessed or known to be risk locations anywhere in the Broken Bay beaches. In this event, Council should assess these locations and revise this CZEAS to include new locations at risk, as the need arises.

Mapping in Appendix A of this CZEAS depicts mapped coastal hazard extents, including:

- Beach Erosion: The Present Day 1% Annual Exceedance Probability Coastal Hazard Mapping (Bluecoast Consulting Engineers, 2024)
- Coastal Inundation of open coast beaches: The Present Day 2% Wave Run-up Line (Bluecoast Consulting Engineers, 2024)
- Coastal Inundation of estuarine foreshores (for Brisbane Water and Patonga Creek): The Hawkesbury River Coastal Inundation Study (Rhelm and Baird, 2023)
- Coastal Cliff and Slope Instability: The Present Day Coastal Cliff and Slope Instability Hazard Line (JK Geotechnics, 2023)

Based on analysis of the datasets listed above, Table 4-1 summarises the risks of beach erosion and coastal inundation at the 6 beaches. It should be noted that hazard information for Little Patonga Beach is unavailable; therefore, a more generalised risk assessment has been applied for this location to guide emergency response actions.

Table 4-1 Summary of risks of beach erosion and coastal inundation

| Beach | Beach Erosion | Coastal Inundation | Coastal Cliff/Slope Instability | Overall Risk |
|---|---|---|---|---|
| Ettalong Beach**<br>Figure A-1 | The main road along the beach (The Esplanade) is at risk of erosion across the reaches of foreshore that are not currently protected by permanent Coastal Protection Works (CPW). Towards the eastern end of Ettalong Beach, the foreshore in the vicinity of the Ettalong Wharf is also potentially exposed | The 1% AEP estuary inundation layer shows inundation of public roads (The Esplanade) and private properties along The Esplanade in between Kourung Street, and Ridge Street. | Not Mapped. | **High** – western parts of Ettalong beach due to both erosion and inundation. |
| Ocean/Umina Beach<br>Figure A-2 and Figure A-3 | In a 1% AEP event, the main road along the beach (The Esplanade) is at risk of erosion with potential impacts in adjacent properties particularly those near the intersection with Barrenjoey Road. Erosion from this event is close to compromising Ocean Beach Surf Life Saving Club (SLSC).<br>There is little impact of erosion in the central and western parts) of the beach except to beach access paths (e.g. in front of Umina Beach SLSC). Some of the foreshore recreation infrastructure in the NRMA Ocean Beach Holiday Resort could be impacted by erosion in a 1% AEP event. | In a 1% AEP event, the main road along the beach (The Esplanade) is at risk of inundation near the intersection with Barrenjoey Road. However, there are no properties at the eastern end of the beach that are at risk of inundation in this event.<br>There is little impact of inundation in the central and western parts of the beach except to beach access paths (e.g. in front of Umina Beach SLSC). There is a landward incursion of inundation at the Ettalong Creek entrance in a 1% AEP event. This may impact the adjacent infrastructure in the NRMA Ocean Beach Holiday Resort. | Not Mapped. | **High** – western part of Ocean/Umina Beach particularly due to the impacts of beach erosion.<br>**Low** - central and eastern parts of Ocean/Umina Beach due to little impacts of beach erosion and coastal inundation |



General Meeting 11 November 2026
Attachments Page 669
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 332
ATTACHMENT 2 - ITEM 7

| Beach | Beach Erosion | Coastal Inundation | Coastal Cliff/Slope Instability | Overall Risk |
|---|---|---|---|---|
| Pearl Beach | There are about 25 foreshore properties north of the entrance to Pearl Beach Lagoon that will be impacted by erosion in a 1% AEP event.<br>In the south of the beach there are 4 foreshore properties close to the entrance of Green Point Creek that will be impacted in a 1% AEP event.<br>Impacts are also expected to public roads such as Coral Cres and Pearl Parade. | Foreshore properties north of the entrance to Pearl Beach Lagoon will be slightly inundated in a 1% AEP event with no above floor flooding. In the south of the beach), there are 4 foreshore properties close to the entrance of Green Point Creek that will be impacted in a 1% AEP event, with the possibility of above floor inundation. | Coastal cliff/slope instability may present a risk to the Pearl Beach ocean pool and corresponding access point. | **High** - about 30 properties will be impacted by erosion in a 1% AEP event. A few properties in the south of the beach will be inundated a 1% AEP event. |
| Patonga | There are little risks of beach erosion impacts on private or public infrastructure other than a small section of Patonga Drive in front of The Boathouse Hotel, the Ferry Wharf, and the access road to the Boat Ramp. | There are significant risks associated with coastal inundation – with the primary mechanism being storm tide inundation from the Patonga Creek side (western side) of the township. Over 60 properties are identified as at risk, located along Patonga Drive, Bay Street, and Jacaranda Ave. | Not Mapped. | **High** – about 60 properties will be impacted by coastal inundation in a 1% AEP event. |
| Little Patonga | No erosion or inundation (wave run-up) mapping is available for Little Patonga Beach. Based on proximity to the foreshore it is likely that the walking trail and amenities building may be at risk from both hazards. | | Not Mapped. | **Medium** – walking trail and amenities building likely to be be at risk |



General Meeting 11 November 2026
Attachments Page 670
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 333
ATTACHMENT 2 - ITEM 7

# 5 ROLES AND RESPONSIBILITIES

## 5.1 Agencies and Personnel

The general responsibilities of emergency services organisations and support agencies are listed in the Local and State EMPLANs, such as the NSW State Storm Plan (NSW SES, 2023), NSW State Flood Plan (NSW SES, 2021), and the Central Coast Council Flood Emergency Sub Plan (NSW SES, 2021). Table 5-1 summarises the roles and responsibilities of these stakeholders that are specifically relevant to this CZEAS.

It should be noted that private landholders are responsible for private land. Private property owners have responsibilities to monitor, manage, prepare and repair their properties for risks associated with coastal erosion, inundation and cliff and slope instability. Any physical works on private property are subject to development controls and environmental planning instruments, including the Central Coast Development Control Plan (DCP). Private property owners should notify Council immediately of any concerns outside of their property; however, property owners should seek advice directly from suitably qualified geotechnical and/or coastal engineers with regards to instability concerns within their property boundaries. Council does not have a positive obligation to take particular action to protect private property. There is, however, a statutory obligation upon Council to consider any valid development application for coastal protection works which may be lodged by property owners.

**Table 5-1 Roles and Responsibilities**

| Organisation / Personnel | Responsibilities |
|---|---|
| Central Coast Council | ▪ Prepare, maintain, and update this CZEAS (NSW SES, 2023).<br>▪ Provide the NSW SES with a copy of this CZEAS (NSW SES, 2023).<br>▪ Assist the NSW SES with community awareness programs to ensure people in locations potentially threatened by coastal erosion, inundation, and cliff/slope instability understand the threat and its management (NSW SES, 2023).<br>▪ Prevention & Preparation: Implement the Prevention and Preparation Phase emergency actions prior to a coastal emergency event occurring.<br>▪ Response: In the event of a coastal emergency at a location at risk, activate this CZEAS and implement the Response Phase emergency actions for the duration of the coastal emergency event.<br>▪ Recovery: Implement the Recovery Phase emergency actions following a coastal emergency event.<br>▪ Under the CM Act, Council is the designated coastal authority with responsibility for care of public land within its care, control, and management. The carrying out (or authorising and coordinating) of coastal emergency protective works to protect public assets from coastal erosion, inundation, and cliff/slope instability is Council's role, if it chooses to undertake such measures.<br>▪ Assist, at their request, the Police, NSW SES, and Local Emergency Operations Controller (LEOCON) in dealing with a coastal emergency.<br>▪ Liaise with the NSW SES Incident Controller to provide advice regarding the need for response actions by the NSW SES such as evacuations. |
| Local Emergency Management Committee (LEMC) | ▪ The LEMC is constituted under the SERM Act for each local government area and is responsible for preparing plans for response and recovery from emergencies.<br>▪ The LEMC is chaired by the Chief Executive Officer or their nominated representative from Central Coast Council. Represented on the LEMC are combat agencies including: |

| Organisation / Personnel | Responsibilities |
|---|---|
| | – Police.<br>– Rural Fire Service.<br>– Fire and Rescue NSW.<br>– State Emergency Services.<br>– Surf Life Saving NSW.<br>– Marine Rescue.<br>▪ The LEMC will review the Central Coast Local EMPLAN every three (3) years, or following any:<br>– activation of the Plan in response to an emergency;<br>– legislative changes affecting the Plan;<br>– exercises conducted to test all or part of the Plan;<br>– In the event of that deficiencies are identified; or<br>– Change of roles and responsibilities. |
| Local Emergency Operations Controller (LEOCON) | ▪ Monitor coastal emergency event operations.<br>▪ Act as the combat/responsible agency in the event of:<br>– Coastal erosion that is not caused by direct storm activity, as per Section 1.4.3 of the NSW State Storm Plan (NSW SES, 2023); or<br>– Coastal cliff and slope instability<br>▪ Coordinate support to the NSW SES Local Incident Controller, if requested to do so. |
| Central Coast Council Local Emergency Management Officer (LEMO) | ▪ If requested by the NSW SES Incident Controller, advise appropriate agencies and officers of the start of response operations.<br>▪ Provide executive support to the LEMC and LEOCON in accordance with the Central Coast Local EMPLAN. |
| Regional Emergency Operations Controller (REOCON) | ▪ The REOCON is responsible for the overall control and coordination of emergency response operations at Region level for which the REOCON is the designated controller (NSW Office of Emergency Management, 2023).<br>▪ The REOCON is also the designated controller where there is no designated Combat Agency, or where it is necessary to coordinate two or more local level operations which are controlled by Emergency Operations Controllers, or when directed by the SEOCON.<br>▪ The REOCON is responsible, when requested by a combat agency, to co-ordinate the provision of resources support. |
| State Emergency Operations Controller (SEOCON) | ▪ Responsible for the control and coordination of emergency response operations at State level, for which the SEOCON is the designated Controller or where there is no designated Combat Agency (NSW Office of Emergency Management, 2023).<br>▪ Provide advice to the Minister regarding emergencies, including whether or not a declaration of a ‘State of Emergency’ may be necessary.<br>▪ Consider requests for State or Commonwealth assistance.<br>▪ Coordinate the establishment of a Major Evacuation Centre in accordance with Major Evacuation Centre Guidelines if required. |
| NSW State Emergency Service | ▪ Act as the combat/responsible agency for damage control and the coordination of community evacuation during the following coastal zone hazards as per the Central Coast Local EMPLAN (Central Coast Council , 2023): |

| Organisation / Personnel | Responsibilities |
|---|---|
| (NSW SES) Local Unit Members | – Flooding.<br>– Storms.<br>– Tsunami.<br>▪ Act as the combat/responsible agency in the event of coastal erosion that is caused by storm activity (NSW SES, 2023).<br>▪ NSW SES roles and responsibilities in relation to storms and coastal erosion are detailed within the NSW State Storm Plan (NSW SES, 2023), and where relevant the NSW State Flood Plan (NSW SES, 2021). Responsibilities may include:<br>– Assist in the collection of flood and coastal erosion/inundation information for the development of intelligence.<br>– Evacuation.<br>– Delivery of warnings.<br>– Assisting with road closures and traffic control operations.<br>▪ The NSW SES is not authorised to undertake emergency coastal protection works such as placement of rock armour or geotextile sand containers.<br>▪ Undertake preparedness education related to its legislated responsibilities of flood, storm, tsunami, and earthquake. |
| NSW SES Incident Controller | ▪ Deal with floods as per the Central Coast Flood Emergency Sub Plan (NSW SES, 2021)<br>▪ Identify and monitor people and/or communities at risk of flooding and coastal erosion.<br>▪ Provide an information service in relation to:<br>– Coastal erosion.<br>– Coastal inundation.<br>– Road conditions and closures (general information only).<br>– Warning products in line with the AWS.<br>▪ Direct the evacuation of people and/or communities.<br>▪ Ensure caravan parks are advised of flood/coastal inundation warnings.<br>▪ Coordinate the collection of flood and coastal erosion/inundation information for development of intelligence. |
| NSW Rural Fire Service (RFS) | Roles and responsibilities are outlined in NSW State Storm Plan (NSW SES, 2023) and NSW State Flood Plan (NSW SES, 2021) and include:<br>▪ Identify and notify the NSW SES of any locations at risk of fire or hazardous materials that pose a significant threat to surrounding populations due to the impact of a flood for incorporation into NSW SES flood intelligence and planning.<br>▪ Conduct HAZMAT operations including asbestos risks, arising from flood and storm emergencies in coordination with the SES Incident Controller.<br>▪ Assist the NSW SES with the:<br>– Delivery of warning products in line with the AWS, and the conduct of evacuations.<br>– Warning and/or evacuation of at-risk communities.<br>– Monitoring/reconnaissance of flood prone areas.<br>▪ Provide equipment for pumping flood water out of buildings and from low-lying areas.<br>▪ Assist with clean-up operations, including the hosing of flood affected properties. |



WATER TECHNOLOGY
WATER, COASTAL & ENVIRONMENTAL CONSULTANTS

| Organisation / Personnel | Responsibilities |
|---|---|
| Ambulance Service of NSW | ▪ The roles and responsibilities for NSW Ambulance are outlined in the Health Services (HEALTHPLAN) Supporting Plan and NSW State Flood Plan (NSW SES, 2021). Roles and responsibilities in addition those include:<br>– Participate in NSW SES briefings, training & exercises as required.<br>– Provide a Liaison Officer to the NSW SES State Command or Incident Control Centre/s as required.<br>– Provide Incident Management Personnel and Liaison Officers to the NSW SES where required. |
| Australian Government Bureau of Meteorology (BoM) | Roles and responsibilities are outlined in NSW State Storm Plan (NSW SES, 2023) and NSW State Flood Plan (NSW SES, 2021) and include:<br>▪ The BoM issue public weather and storm warning products before and during a storm (NSW SES, 2023). These may include:<br>– Coastal Hazard Warnings<br>– Severe Thunderstorm Warnings.<br>– Severe Weather Warnings.<br>– Tropical Cyclone Watches.<br>– Tropical Cyclone Warnings.<br>– Coastal Strong Wind, Gale Storm and Hurricane Force Warnings.<br>– Flood Watches and Flood Warnings.<br>▪ Provide weather and flood information directly to the NSW SES, LEMC and relevant agencies (NSW SES, 2021). |
| Marine Rescue NSW | Roles and responsibilities are outlined in NSW State Storm Plan (NSW SES, 2023) and NSW State Flood Plan (NSW SES, 2021) and include:<br>▪ When requested by NSW SES, assist in flood operations when training and equipment are available and suitable including assistance with:<br>– Warning and/or evacuation of at-risk communities.<br>– Providing communications personnel.<br>– Property protection tasks including sandbagging.<br>– Flood rescue operations |
| NSW Department of Climate Change, Energy, the Environment and Water | DCCEEW is the NSW government authority responsible for advising on coastal zone management.<br>Roles and responsibilities are outlined in NSW State Storm Plan (NSW SES, 2023) and NSW State Flood Plan (NSW SES, 2021) and include:<br>▪ Advise the NSW SES about conditions which may lead to coastal erosion;<br>▪ Provide storm damage response teams to assist the NSW SES and National Parks and Wildlife Service.<br>▪ Provide related advice on coastal hazards to Council and the NSW SES on request.<br>▪ Support recovery committees as required. |
| NSW National Parks and Wildlife Service | Roles and responsibilities are outlined in NSW State Storm Plan (NSW SES, 2023) and NSW State Flood Plan (NSW SES, 2021) and include:<br>▪ Assist the NSW SES with identification of road infrastructure in National Parks at risk from storms.<br>▪ Close and reopen NPWS managed roads when affected by storms and advise the NSW SES of its status. |

| Organisation / Personnel | Responsibilities |
|---|---|
| | ▪ Facilitate the safe reliable access by emergency resources on NPWS managed roads.<br>▪ Assist the NSW SES with the communication of warnings and information provision to the public through variable message signs and other appropriate means. |
| NSW Police Force | Roles and responsibilities are outlined in NSW State Storm Plan (NSW SES, 2023) and NSW State Flood Plan (NSW SES, 2021) and include:<br>▪ Provide Incident Management personnel and Liaison Officers to the NSW SES Operation Centre if required.<br>▪ When requested by LEOCON, act as the response agency for coastal cliff and slope instability<br>▪ When requested by NSW SES in storm operations:<br>– Restrict access to areas affected by storms.<br>– Assist with warning and/or evacuation of at-risk communities.<br>– Provide specialist storm damage response teams to assist the NSW SES if available.<br>– Assist with monitoring and reconnaissance of areas potentially damaged by storms.<br>▪ Coordinate search and rescue operations.<br>▪ Conduct road and traffic control operations in conjunction with NSW SES, Council and/or TfNSW.<br>▪ Coordinate security of supply lines for evacuated and damaged areas.<br>▪ Manage Disaster Victim Registration.<br>▪ Operate the Public Information and Inquiry Centre, if requested or otherwise needed during flood events. |
| Surf Life Saving NSW | ▪ Where local arrangements allow, provide support to NSW SES as per agreed arrangements (NSW SES, 2023). This includes providing assistance to close beach access during and after storm events. |
| Transport for NSW | Roles and responsibilities are outlined in NSW State Storm Plan (NSW SES, 2023) and NSW State Flood Plan (NSW SES, 2021) and include:<br>▪ TfNSW (Maritime), following the direction of the NSW Police Force will assist in the identification and recovery of vessels. |

## 5.2 Combat Agencies

It is important to note that the NSW State Storm Plan (NSW SES, 2023) and the Hunter and Central Coast Regional EMPLAN (Hunter-Central Coast Regional Emergency Management Committee, 2021) identify different combat agencies are responsible for different types of coastal hazard - and that this also varies depending on whether or not the emergency event is occurring within or outside of a storm event. This information is summarised in Table 5-2.

Table 5-2 Combat agencies for coastal hazard events

| Coastal hazard | Storm Event | Non-Storm Event | Reference |
|---|---|---|---|
| Coastal erosion and inundation | NSW SES | LEOCON | NSW State Storm Plan |
| Coastal cliff and slope instability | LEOCON | LEOCON | Hunter/Central Coast Regional EMPLAN |

## 5.3 Emergency Operation Centres

An Emergency Operations Centre (EOC) is a centre established at State, Region, or Local level as a centre of communication and as a centre for the coordination of operations and support during an emergency. In NSW, the activation of an EOC is triggered by various factors depending on the nature and severity of the emergency or incident. Emergencies that exceed the capabilities of individual agencies or require a coordinated multi-agency response may prompt the activation of the EOC to manage resources and coordination effectively.

As per the NSW State EMPLAN (NSW Office of Emergency Management, 2023):

- The SEOCON is responsible for establishing and controlling a State Emergency Operations Centre (SEOC)
- The REOCON is responsible for establishing and controlling a Regional Emergency Operations Centre (REOC)
- The LEOCON is responsible for establishing and controlling a Local Emergency Operations Centre (LEOC)

# 6 COMMUNICATION PROTOCOLS

## 6.1 Overview

Council will provide information about anticipated coastal emergency events to impacted communities through the following mechanisms provided in Table 6-1.

**Table 6-1 Communication Protocols**

| Communication | |
|---|---|
|  | ▪ Provide routine emergency management briefings to communicate the strategy outlined in this plan including coastal emergency triggers, areas at risk, roles and responsibilities and response action plan. |
|  | ▪ Provide emergency management information (in the form of signage and brochures) at local community centres and community information hubs.<br>▪ Inform the community of Council's intended erosion emergency responses under this CZEAS.<br>▪ Inform community members and businesses about the need to develop a household / business Emergency Management Plan (EMP) for coastal hazards. |
|  | ▪ In consultation with the NSW SES and BoM, provide public information about approaching coastal emergencies where possible through digital means including social media.<br>▪ Provide emergency management briefings to the public as needed, in particular affected landholders, to communicate the strategy outlined in this CZEAS, including coastal emergency event triggers, locations at risk, roles and responsibilities and the emergency response actions, including what actions a landholder may need to take and any assistance that may be available to them.<br>▪ Coordinate with the NSW SES to ensure residents are aware of urgent hazards during emergency events and provide assistance with door-to-door communication as necessary.<br>▪ See Section 6.2 for more information about message construction. |
|  | ▪ Place barriers and signage at Council-managed beach access tracks that are closed due to the impacts of coastal erosion, inundation and/or cliff/slope instability. |
| | ▪ Provide up to date information on Council's website regarding Council-managed beach access tracks closures and re-openings. |

## 6.2 Message Construction

### 6.2.1 The AWS Framework

As per Section 6.1, Council is to consult with the NSW SES and BoM, in order to help provide public information about approaching coastal emergencies.

The design of Council's external messaging during an emergency event should be aligned with the Australian Warning System framework (AIDR, 2021) – which is a new national approach to information and warnings during emergencies like bushfire, flood, storm, extreme heat, and severe weather. There are three warning levels, provided in Table 6-2, as per AIDR (2021).

Table 6-2 Warning Levels from the Australian Warning System framework (AIDR, 2021)

| Alert Level | Description |
|---|---|
| **Advice (Yellow)** | An incident has started. There is no immediate danger. Stay up to date in case the situation changes. |
| **Watch and Act (Orange)** | There is a heightened level of threat. Conditions are changing and you need to start taking action now to protect you and your family. |
| **Emergency Warning (Red)** | An Emergency Warning is the highest level of warning. You may be in danger and need to take action immediately. Any delay now puts your life at risk. |

The Australian Warning System utilises a system of triangular hazard icons with escalating tiers and associated colour palettes. Specific icons have been developed for bushfire, flood, storm, extreme heat, and severe weather, as per Figure 6-1 below. It is recommended that the following icons are used:

- "Storm" icon – for coastal erosion, coastal inundation, and coastal cliff and slope instability that are jointly occurring with storm events.
- "Coastal erosion" icon – **NSW SES will only issue a coastal erosion warning when there is observed coastal erosion *and* there is an identified risk that cannot be mitigated** (e.g. by barriers)
- "Other" icon – for coastal erosion and coastal cliff and slope instability that does not directly coincide with storm events (as these two hazards may also occur in the aftermath of a specific storm event).

The Australian Warning System utilises a nested model for communications that includes the warning level + hazard / location + action statements – as per Figure 6-1. Each warning level has a set of action statements to give the community clearer advice about what to do. Calls to action can be used flexibly across all three warning levels and contextualised for each hazard for a given location. Table 6-3 provides some examples of the Australian Warning System's "calls to action" input (AIDR, 2021) that may be useful in a coastal emergency.

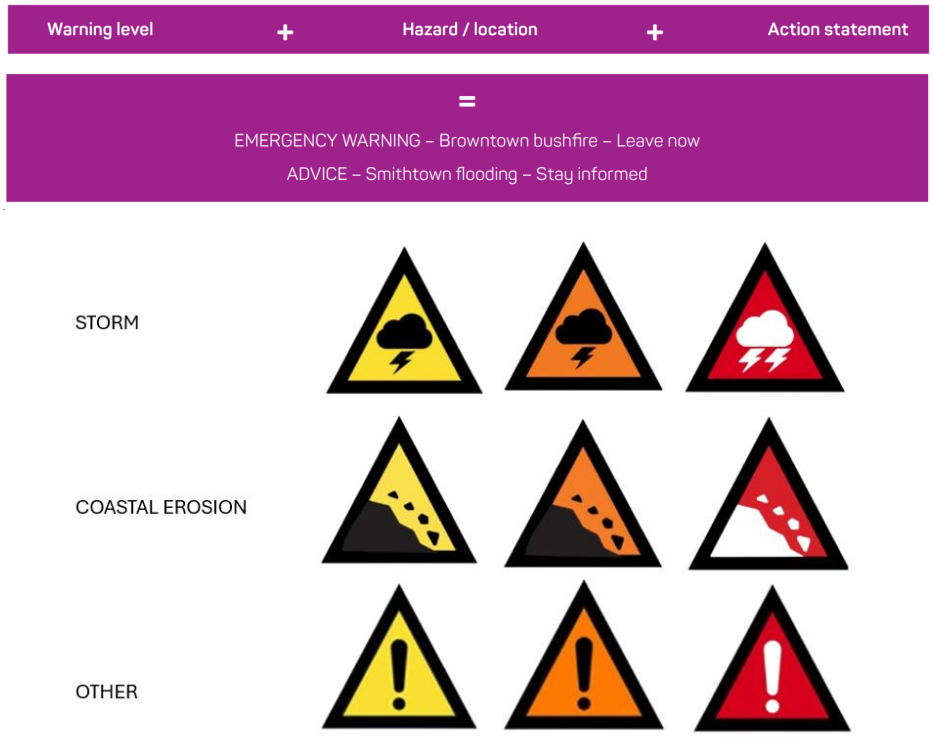



**Figure 6-1 Australian Warning System messaging model (top) and hazard icons (AIDR, 2021)**

Table 6-3 Examples of Australian Warning System calls to action (AIDR, 2021) that may be used in a coastal emergency

| Advice | Watch and Act | Emergency Warning |
|---|---|---|
| ▪ Prepare now<br>▪ Stay informed<br>▪ Monitor conditions<br>▪ Threat is reduced<br>▪ Avoid the area<br>▪ Return with caution | ▪ Prepare to leave/evacuate<br>▪ Leave/evacuate now (if you are not prepared)<br>▪ Prepare to take shelter<br>▪ Move/stay indoors<br>▪ Stay near shelter<br>▪ Walk two or more streets back<br>▪ Monitor conditions as they are changing<br>▪ Move to higher ground (away from creeks/rivers/coast)<br>▪ Limit time outside<br>▪ Avoid the area<br>▪ Stay away from damaged buildings and other hazards<br>▪ Prepare for isolation<br>▪ Do not enter flood water<br>▪ Not safe to return<br>▪ Prepare your property | ▪ Leave/evacuate (immediately, by am/pm/hazard timing)<br>▪ Seek/take shelter now<br>▪ Shelter indoors now<br>▪ Too late/dangerous to leave |

### 6.2.2 Message Communication

According to the Australian Disaster Resilience Handbook (AIDR, 2009):

*'the best predictions, the best interpretive material and the best warning messages are of little value if they have no impact on damages or safety. Failure is guaranteed if warning messages based on … predictions and interpretations … are not conveyed effectively to those expected to respond. In essence, a warning which is not communicated effectively is no warning at all if it is not heard or heeded'*.

The handbook identifies two different types of message communication based on target audience:

1. General warnings are disseminated ('broadcast') to whole communities or regions.
2. Specific warnings are intended for individuals or parts of communities and reflect the need for 'narrowcasting' to specific audiences who may have specific characteristics or be at different kinds of risk.

A combination of the following warning methods may be utilised:

- Emergency alerting systems e.g. AusAlert
- Internet – including authorised social media and the official Council website.
- Mobile and fixed public address systems
- Two-way radio
- Emergency Alert
- Telephone/fax

- Doorknocking
- Variable message signs
- Community notices in identified hubs
- Distribution through established community liaison networks/partnerships

Emergency Alert is a national telephony-based alert system used by emergency service agencies to send voice messages and short message service (SMS) to landline/mobile telephones in times of emergency. Where appropriate and usually in conjunction with other warning messages, Emergency Alert is used to send SMS/voice alerts to landline and mobile telephones in a specified geographic area. The emergency alert system should be used in conjunction with the three levels of emergency waring depicted in Figure 6-1.

# 7 EMERGENCY RESPONSE ACTION PLAN

## 7.1 Overview

This section outlines what actions are to be undertaken in the four phases of emergency management at each of the locations at risk that this CZEAS applies to.

- **LGA-wide Actions:** Section 7.2 summarises the coastal emergency actions through the four phases of emergency management (see Figure 2-1), which apply to the locations at risk along the entire study area.
- **Site-Specific Actions:** In addition to the LGA-wide actions specified in the table below that would apply generally to all areas impacted by a coastal emergency, site-specific emergency actions that would apply to particular locations are outlined in individual site plans in Appendix A.

Council's ability to undertake the actions identified in this subplan will be dependent on the availability of resources during emergency events. The actions prescribed must not conflict with or impede the actions of the NSW SES or the other agencies with roles and responsibilities listed in Section 5 of this document.

All actions must not put personnel, staff or volunteers in danger. Emergency management works must not be undertaken during extreme weather unless environmental conditions permit works to be undertaken safely. Implementation of the actions outlined in this document are to be undertaken in accordance with the provisions of Council's Work Health and Safety Management System. The safety of the personnel who might be working under the extreme adverse weather conditions that gave rise to the emergency is to be prioritised over the execution of any actions outlined in this document. The implementation of an applicable safety hazard risk assessment is required prior to the undertaking of any intervention or non-intervention management measures.

Actions in this CZEAS aim to reduce risk:

- In areas where Council has chosen not to implement other coastal protection works to reduce coastal hazard risks, which have been evaluated as tolerable or acceptable.
- Where coastal hazard risks persist because an agreed action in this CMP has not yet been implemented.
- In situations where coastal hazard risks persist even after the implementation of other actions, leading to what is termed as residual risk.
- When rare and large or unexpected events occur, outside the design criteria or capacity of agreed management actions in this CMP.

## 7.2 Study Area Wide Actions

The following tables set out the LGA-wide emergency actions to be undertaken across the four phases of emergency management: Prevention, Preparedness, Response, and Recovery. These actions provide a consistent framework for managing coastal hazard risks across all locations within the study area, ensuring clarity around responsibilities, timing, and operational priorities. Site-specific actions for individual locations are provided separately in Appendix A.

Table 7-1 Coastal Emergency Actions: Phase 1 – Prevention

| Action | Description | Responsibility | Timing |
|---|---|---|---|
| 1.1 | **Inform:** Make this CZEAS available to all relevant stakeholders identified in Section 5 of this CZEAS. | Council | Ongoing |
| 1.2 | **Inform:** Share information with NSW SES for incorporation into coastal hazard planning and intelligence for the study area | Council<br>NSW SES | Ongoing |
| 1.3(a) | **Inform:** Provide advice to the community, landholders, and the NSW SES about the potential for a coastal emergency from beach erosion, coastal inundation or cliff or slope instability – and the types of responses that are and are not permitted. | Council | Ongoing |
| 1.3(b) | **Inform:** Inform the community of Council's intended erosion emergency responses under this CZEAS. | Council | Ongoing |
| 1.4 | **Plan:** Apply development controls to developments in the coastal hazard areas in accordance with the LEP and DCP. | Council | Ongoing |
| 1.5 | **Plan:** Maintain a plant and equipment resource list for equipment necessary to enact the actions in this Subplan. | Council<br>NSW SES | Ongoing |
| 1.6 | **Plan:** Develop protocols between Council and NSW SES and LECON in relation to operational activities for situations where an Emergency Operations Centre (EOC) is not established. | Council | Ongoing |
| 1.7 | **Review:** Through the Local Emergency Management Committee (LEMC), consult with SES, DCCEEW, Local Police, LEOCON, FRNSW to ensure this CZEAS remains consistent the relevant local, regional, and state-based emergency management plans (see Figure 2-2). | Council | Within 6 months of EMPLAN updates |
| 1.8 | **Review:** Review and update this CZEAS in line with any future updates to the CVA Mapping or CMP implementation. | Council<br>NSW SES | Ongoing |
| 1.9 | **Plan:** Establish internal operational protocol and procedures for all coastal hazard scenarios for LEMO, Council's coastal officers and works crews, and communications staff. | Council | Ongoing |



General Meeting 11 November 2026
Attachments Page 683
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 346
ATTACHMENT 2 - ITEM 7

| Action | Description | Responsibility | Timing |
|---|---|---|---|
| 1.10 | **Monitor:** Monitoring of physical environmental conditions to assess potential for occurrence of coastal emergency and seeking appropriate advice when required | Council<br>NSW SES<br>DCCEEW | Ongoing |

Table 7-2 Coastal Emergency Actions: Phase 2 – Preparedness

| Action | Description | Responsibility | Timing |
|---|---|---|---|
| **"Sunny Day" Preparedness** | | | |
| 2.1 | **Monitor:** Undertake regular monitoring of coastal conditions, tide, wave height, rainfall, and weather condition forecasts for indication of approaching coastal hazards, as per Section 3. | Council | Ongoing |
| 2.2 | **Inform:** Inform community members and businesses about the need to develop a household / business Emergency Management Plan (EMP) for coastal hazards. | Council | Ongoing |
| 2.3 | **Inform:** Inform Council staff about the emergency responses within this plan and ensure relevant personnel have the copies of the plan. | Council | Ongoing |
| 2.4 | **Plan:** The LEMC will review the Local EMPLAN every three (3) years as per Table 5-1 to ensure interoperability preparedness. | LEMC | Ongoing |
| 2.5 | **Plan:** Prepare an up-to-date list of contact details for key Council staff involved in coordinating actions under the CZEAS (include responsibilities of staff who prepare for, manage and coordinate recovery from an erosion emergency event) and individuals from whom Council may need advice, such as DCCEEW staff, or with whom to integrate from other emergency sectors). | Council | Ongoing |
| 2.6 | **Plan:** Prioritise planning and response to maximise (to the greatest extent practical) continued functionality for essential infrastructure during an emergency event. | Council | Ongoing |
| 2.7 | **Plan:** Develop an operations procedure to guide Council's response to coastal emergency events (including resourcing, internal training, testing and periodic review). | Council | Ongoing |



General Meeting 11 November 2026
Attachments Page 684
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 347
ATTACHMENT 2 - ITEM 7

| Action | Description | Responsibility | Timing |
|---|---|---|---|
| **Precaution Preparedness - where of triggers for Response Phase are anticipated** | | | |
| 2.8 | **Plan:** Ensure signage to close Council-managed beach access tracks and other public areas, and signage warning pedestrians of coastal hazards risks are available for use during coastal emergencies. | Council | Ongoing |
| 2.9 | **Plan:** Ensure appropriate plant, equipment and experienced personnel are available for protection of assets at risk. Both internal and external personnel will be required based on specific scope of works. Place appropriate equipment on standby (back up radios, signs, and barricades etc.). | Council | Ongoing |
| 2.10 | **Monitor:** Undertake regular monitoring of hazard forecasts and local forecasts and triggers (see Section 3) that may activate the Response Phase. | Council<br>NSW SES | Ongoing |
| 2.11 | **Inform:** Initiate communications protocol described in this CZEAS to advise the community of the likelihood of an impending coastal inundation emergency that would initiate actions under the Subplan | Council | Within 24 hours after *Preparedness* Phase triggered |

**Table 7-3 Coastal Emergency Actions: Phase 3 – Response**

| Action | Description | Responsibility | Timing / Trigger |
|---|---|---|---|
| 3.1 | **Monitor:** Undertake regular monitoring of hazard forecasts and local forecasts and triggers (see Section 3) that may activate the Response Phase | Council<br>NSW SES | Ongoing |
| 3.2(a) | **Plan:** The LEMC (inc. Council LEMO) should consider Council advice regarding Warnings and Triggers, and advice provided by the NSW BoM. From here SEOCON, REOCON, LEOCON and NSW SES are to decide on the emergency management process (supported by Council). This may include the establishment of an Emergency Operations Centre (EOC). | SEOCON<br>REOCON<br>LEOCON<br>NSW SES | Response phase activated. |
| 3.2(b) | **Plan:** No actions undertaken should impede, conflict, or overlap with those of response agencies under the SERM Act unless there is prior agreement between the relevant parties. | Council | Response phase activated. |



General Meeting 11 November 2026
Attachments Page 685
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 348
ATTACHMENT 2 - ITEM 7

| Action | Description | Responsibility | Timing / Trigger |
|---|---|---|---|
| 3.3 | **Implement:** Initiate erection of safety barriers or safety signage across potentially dangerous access points on roads assessed within the CZEAS to be vulnerable to coastal hazards.<br>▪ Refer to the coastal hazard maps in Appendix A and specific locations listed in Section 4 of this CZEAS as a guide to assess locations where action such as road closures will be required. Sections of roadway that may be subject to inundation that pose a high public safety risk should be temporarily closed to public access. This can be done through erection of temporary barricades, cyclone fencing and/or signage<br>▪ Undertake inspection of these areas where it is safe to do so and inform the NSW SES of any intelligence on unforeseen impacts of coastal inundation gathered during the emergency. In a potential emergency event, the foreshore areas listed in Table 4-1 should be inspected daily, particularly at high tide, where resources permit. Work with NSW SES and NSW DCCEEW-CPHR to collect data during and after coastal inundation events (e.g. RTK survey of debris lines, photographs of inundated or eroded areas.<br>▪ Assist the NSW SES to enact closure of access points that the NSW SES Incident Controller has deemed to be unsafe and that may not have been identified as specific locations of coastal erosion or inundation risk within this CZEAS.<br>▪ Council will coordinate the closure and reopening of council managed roads once inspections have been carried out by the relevant authority. | Council | Response phase activated.<br>Ony if/when safe to do so. |
| 3.4 | **Implement:** Install temporary fencing and/or signage on council managed land (e.g. foreshore reserves) affected by coastal inundation or erosion resulting from major storm activity or an extreme or irregular event, where this has resulted in unsafe conditions | Council | Response phase activated.<br>Ony if/when safe to do so. |
| 3.5 | **Communicate:** Implement the communication protocol in conjunction with the combat agency (NSW SES) to advise landholders, residents, public authorities and other organisations that a coastal emergency is likely or is occurring and that actions in this CZEAS are to be implemented. When EOC not is in place, communications are to be directed through the communications business partner for the Coastal Management Unit. LEMO to be copied into all communications for oversight (see Figure 1-2).<br>Release media information as necessary to keep the community informed. Community information hubs and social media to be utilised, refer to Section 6. | Council<br>NSW SES | Response phase activated. |



General Meeting 11 November 2026
Attachments Page 686
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 349
ATTACHMENT 2 - ITEM 7

| Action | Description | Responsibility | Timing / Trigger |
|---|---|---|---|
| 3.6 | **Implement:** Provide support to NSW SES in accordance with the provisions in the Central Coast Local EMPLAN as required and where resources allow | Council | As requested by NSW SES. |
| 3.7 | **Implement:** Manage Essential Infrastructure under Council control (water supply and sewerage operations). Through consultation with utilities providers assess the requirement and options for utilities management where such infrastructure becomes or is likely to become affected by coastal hazards. | Council | Response phase activated.<br>Ony if/when safe to do so. |
| 3.8 | **Communicate:** Liaise with other agencies (e.g., Transport for NSW, NSW DPHI – Crown Lands, National Parks and Wildlife Service) if debris from coastal erosion or inundation creates a safety hazard in adjoining areas (or liaise with road owners to enable closure). | Council | As required. |
| 3.9 | **Respond:** Seek specialist coastal engineering advice where required. | Council<br>DCCEEW | As required. |
| 3.10 | **Respond:** Seek advice from DCCEEW staff as required. | Council<br>DCCEEW | As required. |
| 3.11 | **Respond:** Install emergency coastal protection works (ECPW) at the locations outlined in Section 7.3 and Appendix A of this CZEAS. This will comprise the placement of sand, or the placement of sandbags for a period of not more than 90 days. | Council | Response phase activated.<br>Ony if/when safe to do so. |

**Table 7-4 Coastal Emergency Actions: Phase 4 – Recovery**

| Action | Description | Responsibility | Timing / Trigger |
|---|---|---|---|
| 4.1(a) | **Monitor:** Initiate Recovery phase of CZEAS once waves and water levels have fallen below trigger levels.<br>▪ Continue to monitor waves and water levels throughout the event, and initiate the Recovery Phase of the CZEAS 24 hours after the cancellation of the Severe Weather Warning from the Bureau of Meteorology, AND real-time monitoring indicates that significant wave height at Sydney has fallen below 3 m AND water levels at high tide have fallen to below Mean High Water Springs.<br>▪ Monitor physical environmental conditions to assess whether the trigger conditions to initiate the recovery phase have been reached | Council | Once trigger for recovery phase is reached |



General Meeting 11 November 2026
Attachments Page 687
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 350
ATTACHMENT 2 - ITEM 7

| Action | Description | Responsibility | Timing / Trigger |
|---|---|---|---|
| 4.1(b) | **Monitor:** Conduct/organise detailed inspections of sites potentially affected by coastal hazards and assess damage to assets and the natural environment. Assess the structural integrity of any damaged infrastructure. Seek professional advice as required. | Council | Recovery phase activated. Following an emergency event. Once it is safe to do so. |
| 4.2 | **Restore:** Assess and where practical, remove any threats to public safety, such as debris deposited or exposed in public areas.<br>Where required, supporting agencies will assist with clean-up operations after coastal inundation events, where possible when resources and personnel permit. NSW SES will support the short-term transition to recovery as per the State Recovery Plan and NSW Flood Plan. | Council | Recovery phase activated. Following an emergency event. Once it is safe to do so. |
| 4.3 | **Restore:** Assess and reopen Council-managed roads and access points once inspections have been carried out by the relevant authority and deemed safe to do so. Maintain temporary safety fencing and associated warning signage, as necessary. Liaise with NSW-SES as required | Council | Recovery phase activated. Following an emergency event. Once it is safe to do so. |
| 4.4 | **Monitor:** Undertake post-storm reconnaissance of affected areas to gather intelligence including recording of maximum erosion or inundation levels, mapping of inundation extents, surveys of debris marks, post-event damage assessments. Use the intelligence gathered to improve future CZEAS operations and share resources/work with the NSW SES and NSW DCCEEW to assist in future decision-making. | Council | Initiate within 24 hours after Recovery Phase has been activated |
| 4.5 | **Restore:** Assess, repair and/or replace any essential Council-owned/managed structures that are damaged as a result of a coastal emergency.<br>Assess the structural integrity of unprotected assets affected by or damaged during the emergency event. Geotechnical, structural and/or coastal engineering investigations may be required to understand residual risk following an emergency event. Expert advice to be sought as required. | Council | Recovery phase activated. Following an emergency event. Once it is safe to do so. |
| 4.6 | **Restore:** Restore safe foreshore access in public spaces. This may require regrading of eroded steep embankments greater than 1 m in vertical height to 1V:4H at designated public access points to restore foreshore amenity | Council | Recovery phase activated. Following an emergency event. Once it is safe to do so. |
| 4.7 | **Restore:** Replenish any emergency materials and supplies for use in any future erosion events. | Council | Recovery phase activated. |



General Meeting 11 November 2026
Attachments Page 688
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 351
ATTACHMENT 2 - ITEM 7

| Action | Description | Responsibility | Timing / Trigger |
|---|---|---|---|
| 4.8 | **Restore:** Remove any temporary coastal protection works placed during the coastal emergency in accordance with the requirements of the CM Act. Obtain expert coastal engineering advice to assess the safety and condition of any temporary coastal protection works placed during the coastal emergency and remove these if required, or seek the appropriate development approval for these to remain in place, based on expert advice. | Council<br>NSW SES<br>DCCEEW | Initiate within 90 days after Recovery Phase has been activated. |
| 4.9 | **Monitor and Inform:** Investigate any unauthorised private coastal works and monitor as necessary. Liaise with property owners to ensure any private and/or public structures do not pose a risk to the public. Issue orders under the *Local Government Act 1993* and/or the *Environmental Planning and Assessment Act 1979* when properties are deemed structurally unsafe, or where erosion or inundation protection works have been constructed illegally or result in exposure of contamination/landfill, or where structures otherwise pose a risk to the public. Ensure premises are fit and safe for reoccupation and assess any need for demolition. | Council | Recovery phase activated. |
| 4.10 | **Inform:** Continue to maintain a communication strategy warning of the dangers of any persisting high, unstable, or near-vertical erosion escarpments drying out and collapsing without notice. | Council | Recovery phase activated. |
| 4.11 | **Record:** Record coastal emergency impacts and response actions. Take remedial action where necessary. Maintaining photographic and written records of events and decision-making processes. See Section 7.4. | Council | Recovery phase activated. |
| 4.12 | **Review:** Undertake an After Action Review (see section 7.5) review of this CZEAS and update as necessary to improve the future effectiveness of coastal emergency response actions. | Council<br>NSW SES<br>DCCEEW | Within 2 weeks of plan activation, or as necessary. |
| 4.13 | **Inform:** Erect permanent warning signs if necessary. | Council | Following an emergency event. |



General Meeting 11 November 2026
Attachments Page 689
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 352
ATTACHMENT 2 - ITEM 7

## 7.3 Emergency Coastal Protection Works

### 7.3.1 Definition

Emergency coastal protection works (ECPW) are defined in the State Environmental Planning Policy (Resilience and Hazards) 2021 as:

"*works comprising the placement of sand, or the placing of sandbags for a period of not more than 90 days, on a beach, or a sand dune adjacent to a beach, to mitigate the effects of coastal hazards on land*"

### 7.3.2 Specifications for Emergency Coastal Protection Works

***Types of ECPW Set out in the CZEAS***

Locations where ECPW may be carried out, the nature of the works, and accosted triggers are summarised in identified Table 7-5. The nominated ECPW would generally be comprised:

- **Geotextile sand containers (sandbags)**: The ECPW will be temporary and generally constructed as a single stack of sandbags along the erosion scarp to a maximum height of 1.5 – 2.0 m from the toe of the escarpment (DECCW, 2011), as shown in Figure 7-1. Approximately 25 containers are required for every 10m of structure length, with the total number required dependant on the length of shoreline requiring immediate protection and the number of containers that can be installed in the time available.
- **Beach scraping:** Beach scraping as a form of beach nourishment, could also be undertaken during the response phase if time, resource and event magnitude permit. Determination of local specifications for the scraping works would be dependant upon the beach state at the time, and would therefore involve consultation with relevant NSW government agencies as per the communication protocol. Such works would also be undertaken as per the protocols and methods set out in the Central Coast Develop Beach Maintenance Program, which is included as an action in both the HNRS CMP (Water Technology, 2025) and the OC CMP (Worley Consulting, 2025). Nominally the following parameters apply:
  - The 'borrow' area should be restricted to within the intertidal zone with no greater than 0.3 m depth removed from the beach profile between elevations of - 0.5mAHD and +1.0 mAHD.
  - The 'placement' area should be placed at the base of the asset at a slope of approximately 1 in 8. Placement volumes are likely to be approximately 10 - 20$m^3$/m width of beach. Ideally a small lip can be left to minimise sand blowing over the top of foreshore, and/or other considerations such as use of jute mesh and plantings on the landward margin of the nourishment if appropriate can increase stability.
  - There are numerous technical references which can assist in the delivery of beach scaping work for either Response or Recovery (Gordon, 2015; Carley, et al., 2010)

Importantly, during the emergency response phase, the window for physical works is extremely limited. Realistically, only the measures listed above are likely to be feasible. Any larger or more complex measures would need to be assessed case-by-case and are unlikely to proceed within the short timeframes associated with active emergency conditions (Worley Consulting, 2025).

The determination of which ECPW measure is most appropriate should be made in conjunction with technical coastal engineering advice, including engagement with DCCEEW (see Response Action 3.9 to 3.11). All emergency works must be undertaken in consultation with a suitably qualified coastal or geotechnical engineer to ensure structural integrity, safety, and compliance with environmental and planning requirements.

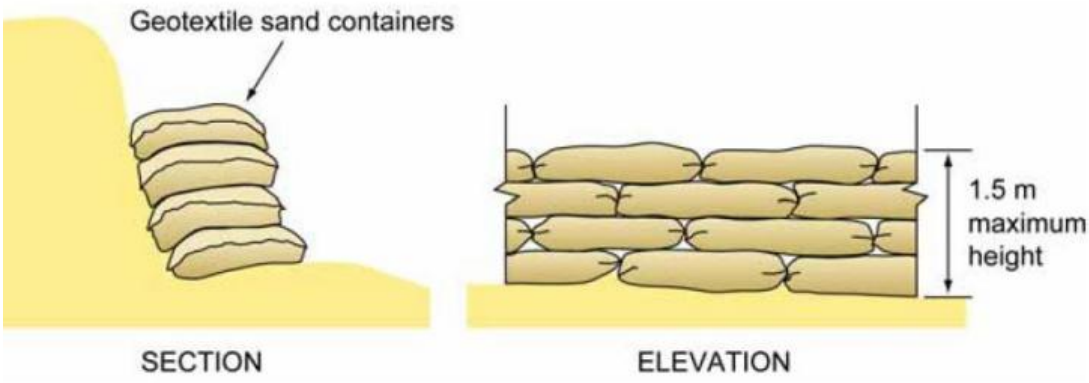



Figure 7-1 Concept Sand Container Placement Method (DECCW, 2011)

### *Nominated Locations for ECPW*

ECPW would prioritise sections of the shoreline most exposed at the time and remain within the area specified in the mapping in Appendix A. This sites have generally been identified for locations where major public assets and infrastructure are impacted by the available coastal hazard mapping (see Sectio 4).

Appendix A of this document provides a series of Local Area Sub-Plan for local beaches considered to be exposed to high levels of infrastructure or public safety risk due to coastal hazards. These plans provide local beach-level specificity to CZEAS actions, along with associated companion mapping.

Table 7-5 Nominated Emergency Coastal Protection Works

| Location | Response Phase | Recovery Phase |
|---|---|---|
| Ettalong | ▪ Sandbag ECPW | ▪ Placement of sand on an opportunistic basis from dredging activities in the Ettalong Channel |
| Umina / Ocean Beach | ▪ Sandbag ECPW<br>▪ Beach Scraping | ▪ Placement of sand on an opportunistic basis from dredging activities in the Ettalong Channel<br>▪ Beach Scraping |
| Pearl Beach | ▪ Sandbag ECPW<br>▪ Beach Scraping | ▪ Beach Scraping |
| Patonga Beach | ▪ Sandbag ECPW<br>▪ Beach Scraping | ▪ Beach Scraping |

## 7.4 Recording Coastal Emergency Impacts and Emergency Response Actions

After a coastal emergency event, Council is to issue a formal After Action Review in coordination with LEMC partners, in order to record the following details in a database, and to maintain effective emergency actions and understand any changes in coastal conditions over time (DPIE, 2019):

- Details of the emergency event – including any coastal erosion, coastal inundation (and wave run-up), and coastal cliff and slope instability. Details are to include the weather conditions and tide under which they were caused including photographs where possible.
- The location of any assets and infrastructure that were damaged and details of the extent of the damage.
- Details of any emergency coastal protection works undertaken (including NABE), including the cost and the installation date.
- Details of any planned future coastal protection works in the CMP that are not yet undertaken, including the cost and the expected implementation timeframe.
- Details of any survey of the beach levels and other features that may be considered required to provide a greater understanding of the hazard or the event.
- Where possible, community feedback regarding the emergency communication and response efforts.
- Review and update (if required) this CZEAS, in particular the Emergency Action Plan, in consultation with the NSW SES and any other relevant agencies (see Section 5 above).

# 8 APPROVALS PATHWAYS

Information on approval pathways for coastal protection works and emergency coastal protection works are set out in the NSW coastal protection works fact sheet (NSW DPE, 2018). A public authority may carry out coastal protection works without development consent if the works are:

- Identified in the relevant certified CMP.
- Beach nourishment.
- Placing sand bags for not more than 90 days.
- Routine maintenance works or repairs to existing coastal protection works.
- Explicitly identified in a certified CZEAS

The NSW coastal management framework requires all proposals for coastal protection works to be considered strategically through the development of a CMP. Public authorities can carry out emergency coastal protection works, as exempt development, where these works are in accordance with a CZEAS (such as this document) prepared by the relevant council and included in a certified CMP – see Figure 8-1.

Where works do not meet these criteria, assessment and approval by the relevant Regional or Local Planning Panel would be required before implementation.

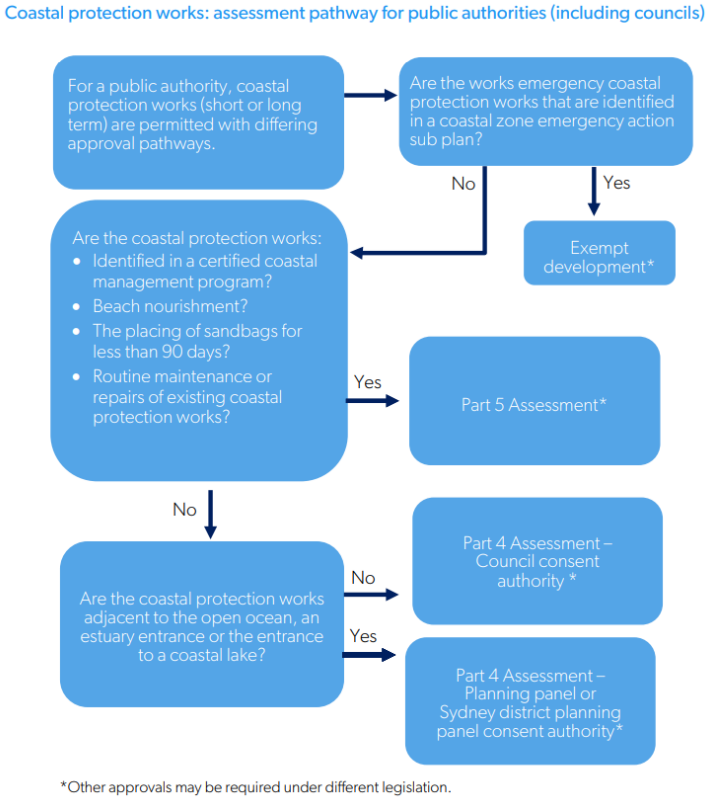



**Figure 8-1 Coastal protection works: assessment pathway for public authorities (including councils). Source: DPE (2018).**



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ATTACHMENT 2 - ITEM 7

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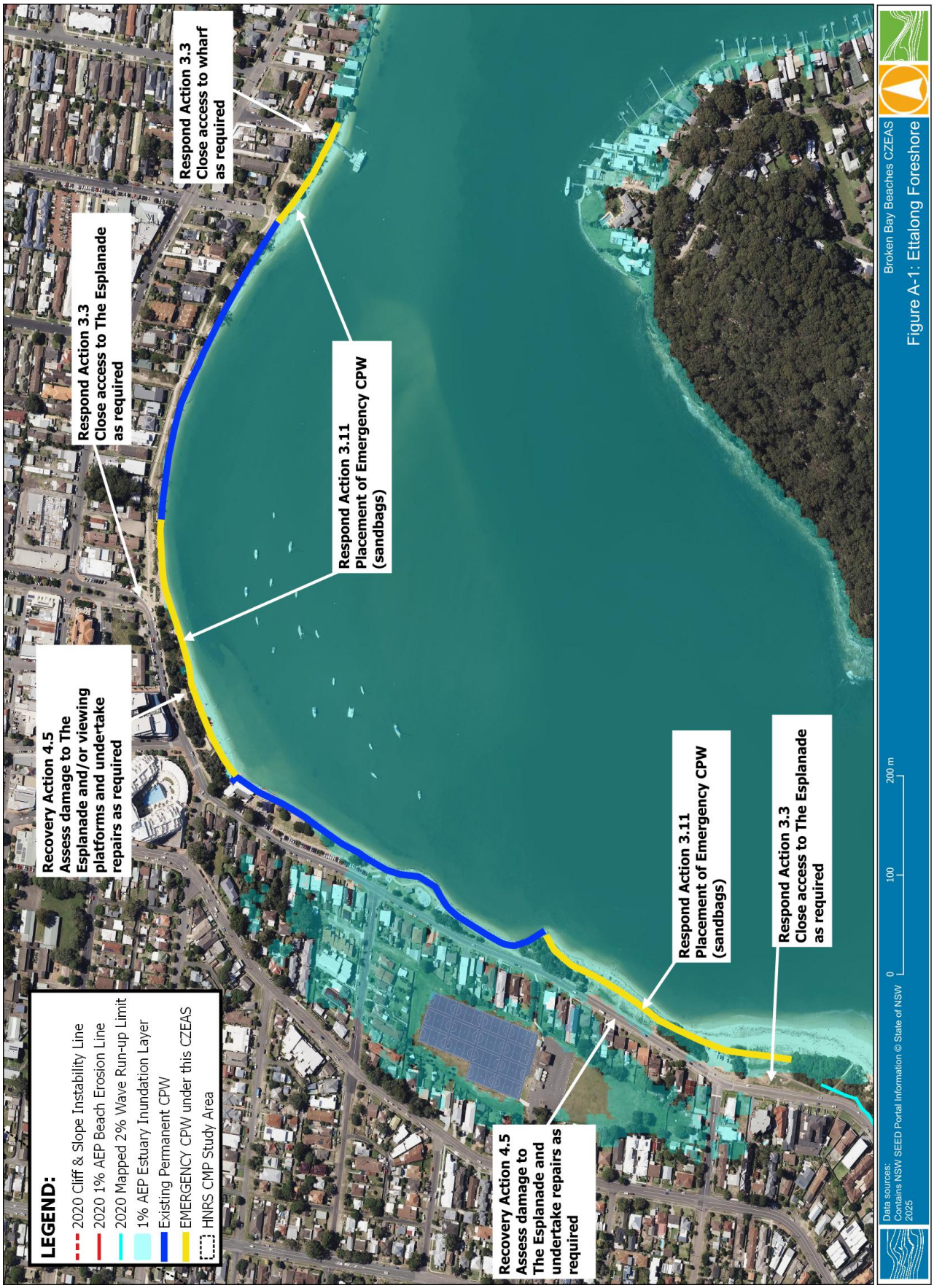
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# APPENDIX A
# BEACHES – LOCAL AREA PLANS



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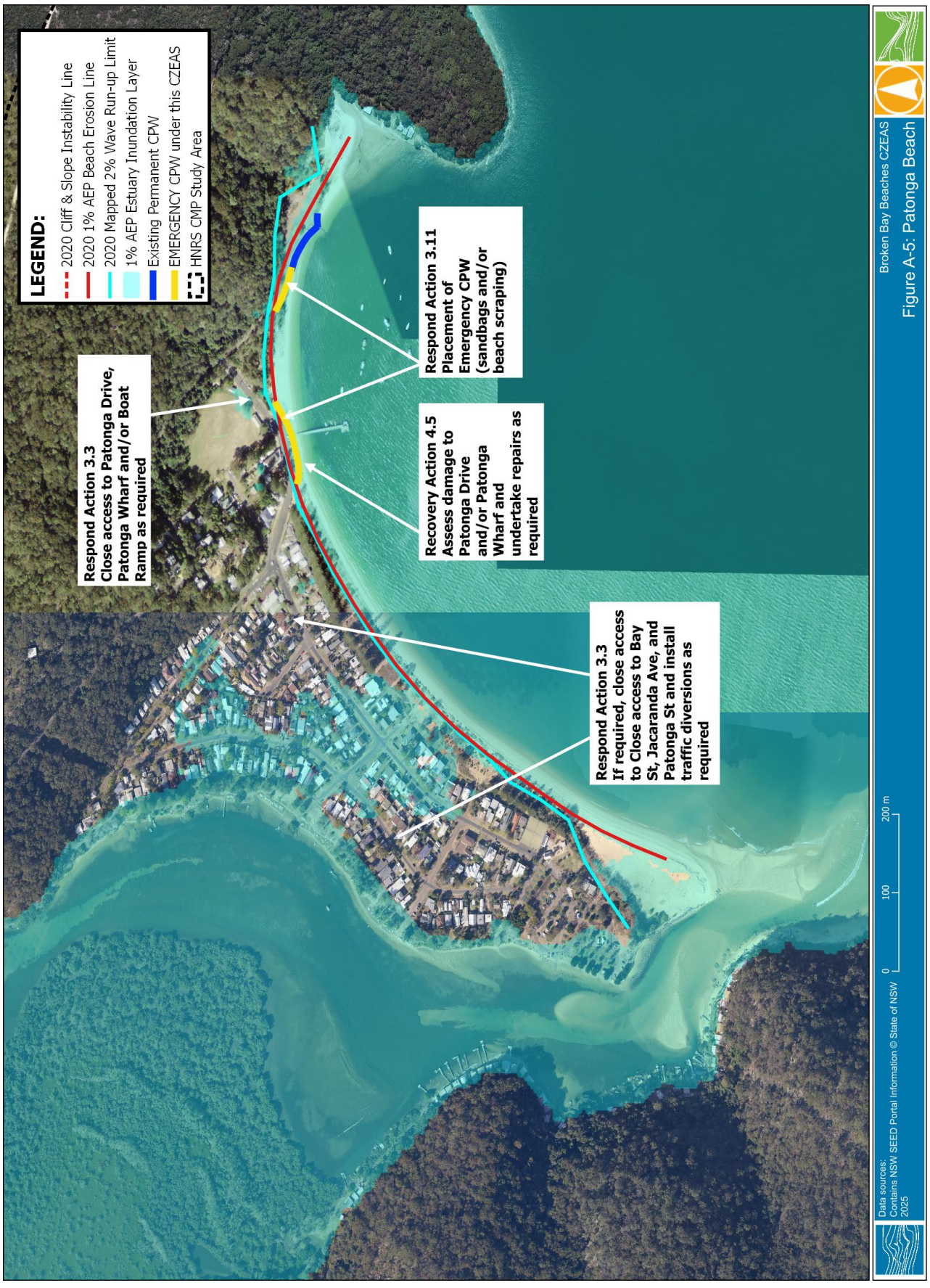
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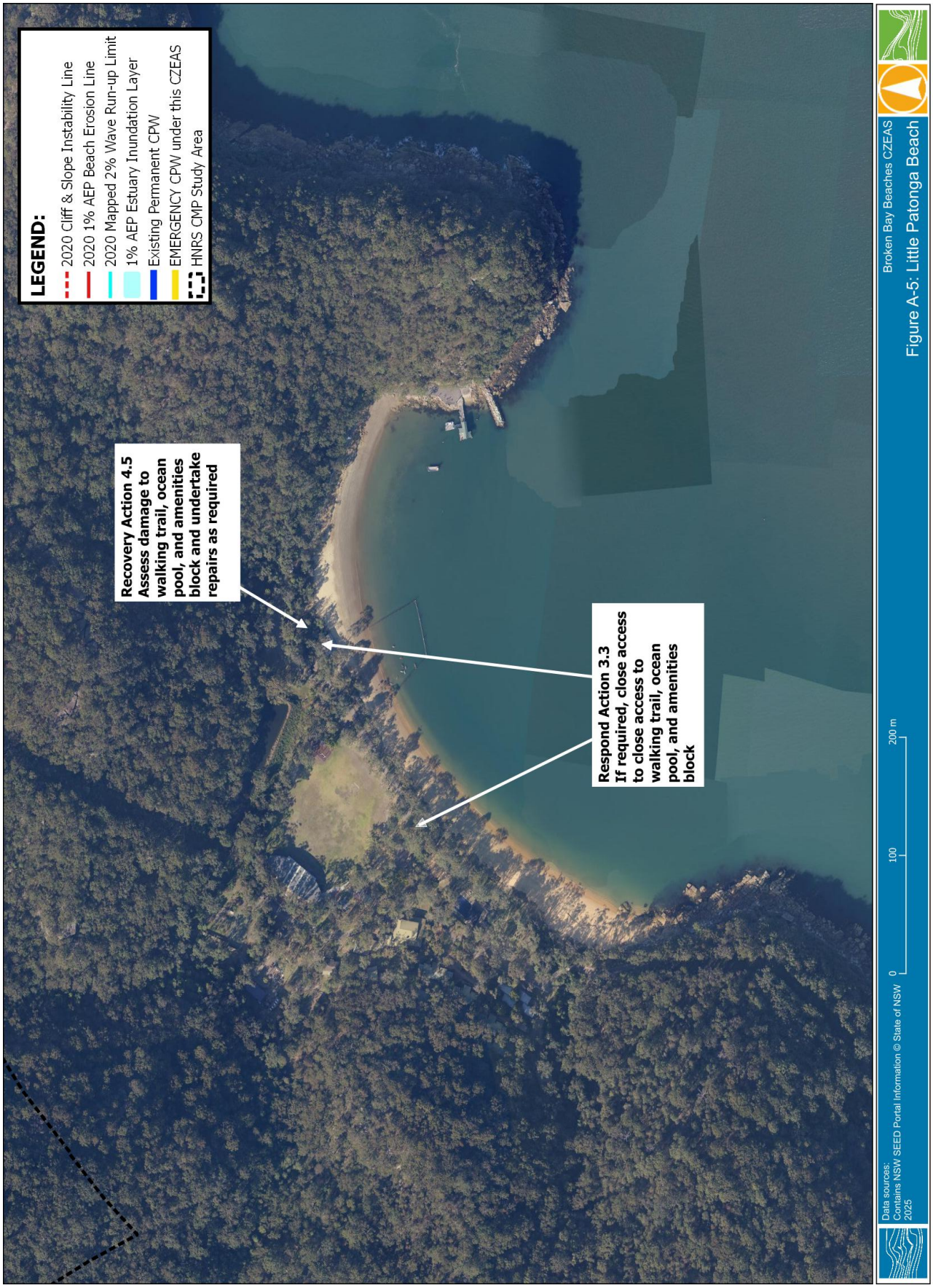
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# Coastal Zone Emergency Action Subplan: Pittwater Waterway

## Hawkesbury-Nepean River System CMP

Northern Beaches Council and NPWS

9 October 2026



Coastal Zone Emergency Action Subplan: Pittwater Waterway

Hawkesbury-Nepean River System CMP

Northern Beaches Council and NPWS

9 October 2026

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# CONTENTS


GLOSSARY AND ABBREVIATIONS IV

1 INTRODUCTION 1
1.1 Background 1
1.2 Purpose and Objectives 1
1.3 Consultation 2
1.4 Study Area 2
1.5 Overview of this CZEAS 2

2 SCOPE OF THE CZEAS 5
2.1 What is an Emergency? 5
2.2 Coastal Hazards 5
2.3 Coastal Emergencies Covered by the CZEAS 7

3 TRIGGERS FOR EMERGENCY ACTION 11
3.1 Overview 11
3.2 Hazard Forecasts 11
3.3 Local Impact Triggers and Forecasts 12
3.4 Summary 15

4 AREAS AT RISK 16
4.1 Overview 16
4.2 Local Hazard Exposure 16

5 ROLES AND RESPONSIBILITIES 20
5.1 Agencies and Personnel 20
5.2 Combat Agencies 24
5.3 Emergency Operation Centres 25

6 COMMUNICATION PROTOCOLS 26
6.1 Overview 26
6.2 Message Construction 26

7 EMERGENCY RESPONSE ACTION PLAN 31
7.1 Overview 31
7.2 Study Area Wide Actions 31
7.3 Emergency Coastal Protection Works 40
7.4 Recording Coastal Emergency Impacts and Emergency Response Actions 40

8 APPROVALS PATHWAYS 41

9 REFERENCES 42

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## APPENDICES

Appendix A Beaches – Local Area Plans
Appendix B Overview of NABE

## LIST OF FIGURES

Figure 1-1 CZEAS and CMP Study Area 3
Figure 1-2 Quick reference overview of this CZEAS 4
Figure 2-1 Stages of Emergency Planning 5
Figure 2-2 Simplified legislative framework for emergency management in NSW and its relationship with coastal management legislation and coastal management programs 8
Figure 6-1 Australian Warning System messaging model (top) and hazard icons (AIDR, 2021) 28
Figure 8-1 Coastal protection works: assessment pathway for public authorities (including councils). Source: DPE (2018). 41

## LIST OF TABLES

Table 2-1 Planning hierarchy for coastal hazards listed in the CM Act across the study area 10
Table 2-2 Planning hierarchy for coastal hazards not listed in the CM Act across the study area 10
Table 3-1 Available sources of data for coastal hazard parameters 13
Table 3-2 Early Warning Parameters for Coastal Erosion and Inundation Impacts 14
Table 3-3 Summary of triggers for the CZEAS 15
Table 4-1 Summary of risks of coast hazards 17
Table 5-1 Roles and Responsibilities 20
Table 5-2 Combat agencies for coastal hazard events 24
Table 6-1 Communication Protocols 26
Table 6-2 Warning Levels from the Australian Warning System framework (AIDR, 2021) 27
Table 6-3 Examples of Australian Warning System calls to action (AIDR, 2021) that may be used in a coastal emergency 29
Table 7-1 Coastal Emergency Actions: Phase 1 – Prevention 32
Table 7-2 Coastal Emergency Actions: Phase 2 – Preparedness 33
Table 7-3 Coastal Emergency Actions: Phase 3 – Response 34
Table 7-4 Coastal Emergency Actions: Phase 4 – Recovery 37

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## GLOSSARY AND ABBREVIATIONS

| Term | Definition |
|---|---|
| AIDR | The Australian Institute for Disaster Resilience |
| Beach erosion | Landward movement of the shoreline and/or a reduction in beach volume, usually associated with storm events or a series of events, which occurs within the beach fluctuation zone. Beach erosion occurs due to one or more process drivers: wind, waves, tides, currents, ocean water level, and downslope movement of material due to gravity. |
| BoM | Bureau of Meteorology |
| Council | Northern Beaches Council |
| CM Act | *The Coastal Management Act 2016* |
| Coastal cliff and slope instability | Geotechnical instabilities on coastal cliffs and bluffs, including rock falls, slumps, and landslides. |
| Coastal emergency | An emergency due to actual or imminent coastal inundation, coastal erosion, or coastal cliff and slope instability which (a) threatens endangers, or threatens to endanger, the safety or health of persons; or (b) destroys or damages, or threatens to destroy or damage, any property or the natural environment. |
| Coastal inundation | Coastal inundation occurs when a combination of marine and atmospheric processes raises the water level at the coast above normal elevations, causing land that is usually 'dry' to become inundated by sea water. Alternatively, the elevated water level may result in wave run-up and overtopping of natural or built shoreline structures (e.g., dunes, seawalls). |
| Coastal lake or watercourse entrance instability | Refers to the variety of potential hazards and risks associated with the dynamic nature of both natural and trained entrances. Coastal lake and watercourse entrances are highly active environments with their shape constantly changing in response to processes such as alongshore sediment transport, tidal flows, storms and catchment flooding. |
| Coastal protection works | The CM Act defines coastal protection works as:<br>a) beach nourishment<br>b) activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters, including (but not limited to) seawalls, revetments, and groynes. |
| Combat Agency | The agency identified in this subplan as the agency primarily responsible for controlling the response to a particular emergency (SERM Act 1989). |
| CZEAS | Coastal Zone Emergency Action Subplan (this document) |
| DCCEEW | The NSW Department of Climate Change, Energy, the Environment and Water. Prior to 1 January 2024, the responsibilities of the department were carried out by the former NSW Department of Planning and Environment (DPE). |
| DPE | The former NSW Department of Planning and Environment. On 1 January 2024, the DPE was be split into two new dedicated entities, the Department of Climate Change, Energy, the Environment and Water (DEECCW), and the Department of Planning, Housing and Infrastructure (DPHI). |
| ECL | East Coast Low |
| EMPLAN | Emergency Management Plan |

| Term | Definition |
|---|---|
| Essential infrastructure | Defined in the CM Act as infrastructure for the following purposes: electricity generation, transmission and distribution, telecommunications, rail, roads, gas, sewerage systems, water supply systems or stormwater management systems, airports, ports shipping and harbours. |
| Estuary | The CM Act defines an estuary as any part of a river, lake, lagoon, or coastal creek that is affected by coastal tides, up to the highest astronomical tide. |
| FRNSW | Fire and Rescue NSW |
| Hs | Significant Wave Height - the average of the highest one third of waves during a specific period. |
| LEMC | Local Emergency Management Committee. The LEMC is constituted under the SERM Act for each local government area and is responsible for preparing plans for response and recovery from emergencies. |
| LEMO | Local Emergency Management Officer |
| Local Emergency Operations Controller (LEOCON) | A Police Officer appointed by the District Emergency Operations Controller as the Local Emergency Operations Controller for the Local Government Area. |
| LGA | Local Government Area |
| MHWS | Mean High Water Springs. The long-term mean of the heights of 2 successive high waters during those periods of 24 hours (approximately once a fortnight) when the range of tide is greatest, during full and new moon. |
| NABE | Nature Assisted Beach Enhancement - sometimes referred to as beach scraping. |
| NSW SES | NSW State Emergency Service |
| Regional Emergency Operations Controller (REOCON) | The NSW Police Southern Region Commander is appointed as the REOCON. This role is typically responsible for coordinating emergency management efforts within a specific region of NSW during crises or disasters. performs the role of REOCON. |
| RFS | NSW Rural Fire Service |
| State Emergency Operations Controller (SEOCON) | This SEOCON role is a member of the New South Wales Police Force Senior Executive Service responsible for overseeing emergency response operations at the state level during major emergencies or disasters. |
| SERM Act | *State Emergency and Rescue Management Act 1989* |
| Tsunami | Defined in the State tsunami Plan as “A series of ocean waves with very long wavelengths (typically hundreds of kilometres) caused by large-scale disturbances of the ocean, such as earthquakes, landslide, volcanic eruptions, explosions, or meteorites”. |
| Wave Run-up | The vertical distance above mean water level reached by the uprush of water from waves across a beach or up a structure. |

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# 1 INTRODUCTION

## 1.1 Background

This Coastal Zone Emergency Action Subplan (CZEAS) forms an integral part of the Hawkesbury-Nepean River System Coastal Management Program (HNRS CMP). It applies to the beaches and foreshores of the Pittwater waterway, within the Norther Beaches Council Local Government Area (LGA). These beaches are part of the legally defined study area for the HNRS CMP (Water Technology, 2025). It has been prepared based on the requirements of:

- *The Coastal Management Act 2016* (the CM Act).
- The NSW Coastal Management Manual (OEH, 2018a).
- The NSW Guideline for preparing a coastal zone emergency action subplan (DPIE, 2019).

## 1.2 Purpose and Objectives

As specified in the CM Act, a CZEAS is a plan that outlines the roles and responsibilities of all public authorities (including the local council) in response to coastal emergency events immediately preceding or during periods of beach erosion, coastal inundation, or coastal cliff and slope instability, where those processes occur through storm activity or an extreme or irregular event.

Subsequently, this CZEAS details arrangements for the four phases of emergency events (prevention, preparation, response, and recovery) relating to coastal hazards for Pittwater.

In accordance with the New South Wales (NSW) Guideline for preparing a coastal zone emergency action subplan (DPIE, 2019), the purpose of this CZEAS is to identify and facilitate the implementation of appropriate emergency response actions in order to:

- Protect human life and public safety.
- Minimise damage to property and assets.
- Minimise impacts on social environmental and economic values.
- Not create additional hazards or risk.

The objectives of this CZEAS are to:

- Set a clear definition for what constitutes a coastal emergency (Section 2), and associated triggers for emergency response actions (Section 3).
- Identify the locations that may be affected by beach erosion, coastal inundation, or coastal cliff and slope instability that would constitute a coastal emergency (Section 4).
- Outline the roles and responsibilities of all public authorities, including Northern Beaches Council (Council) and the NSW National Parks and Wildlife Service (NPWS), and coordinate their response to emergencies immediately preceding or during periods of beach erosion, coastal inundation and coastal cliff and slope instability (Section 5).
- Outline the communications required in the four phases of emergency management (Section 6).
- Summarise key actions to be carried out in the four phases of emergency (Section 7).
- Identify approvals pathways for CZEAS actions as they relate to the NSW Coastal Management Framework (Section 8).

## 1.3 Consultation

Agencies other than Council involved in the implementation of this CZEAS, such as NPWS, the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW), the NSW State Emergency Service (NSW SES), and approval agencies have been provided a copy of the draft CZEAS for review and comment. The final CZEAS has addressed all feedback received from key stakeholders.

## 1.4 Study Area

This CZEAS applies to public foreshore areas managed by Northern Beaches Council and NPWS. Six key foreshore locations have been identified as particularly vulnerable to beach erosion and/or coastal inundation due to exposure to ocean swell wave energy and the presence of significant public assets (see Figure 1-1):

- Station Beach (Council foreshore and NPWS foreshore)
- Snapperman Beach (Council foreshore)
- Sandy Beach (Council foreshore)
- The Basin Campground (NPWS land tenure)
- Currawong Beach (Council foreshore)
- Great Mackerel Beach (Council foreshore)

A detailed local emergency plan is provided for each of these areas (appendix A).

It is acknowledged, however, that other foreshore areas across Pittwater may also be exposed to coastal hazards. Accordingly, this CZEAS includes a “Pittwater-wide” plan applicable to all public foreshore areas within the waterway.

## 1.5 Overview of this CZEAS

A quick-reference overview of the contents of this CZEAS is provided in Figure 1-2, which contains references to the various sections of the CZEAS where more detail is provided. It is important to note that procedural flow chart is a non-linear continuum and contains feedback loops based on continuous monitoring and assessment throughout a given emergency event.




**Figure 1-1 CZEAS and CMP Study Area**

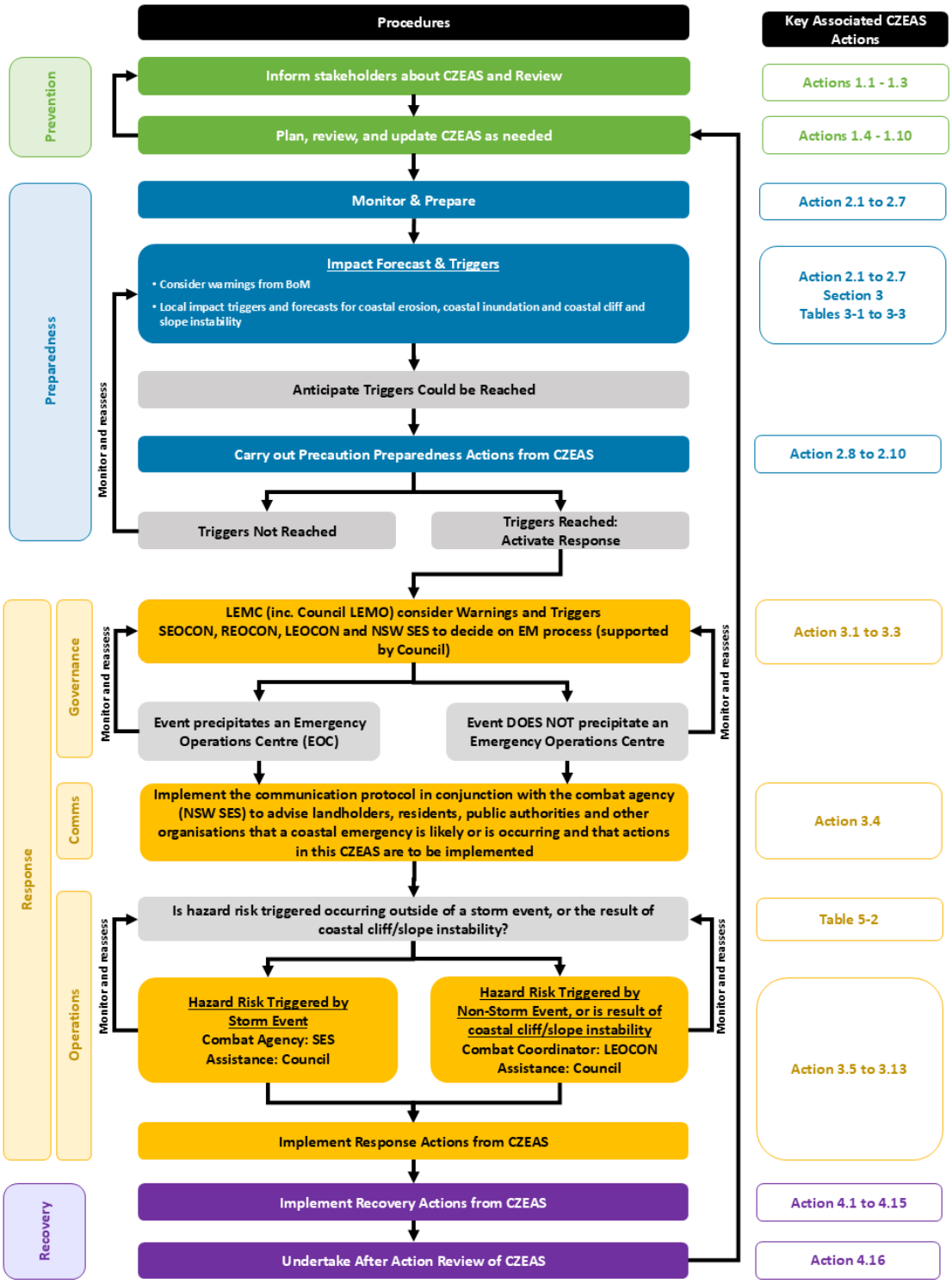



Figure 1-2 Quick reference overview of this CZEAS

# 2 SCOPE OF THE CZEAS

## 2.1 What is an Emergency?

### 2.1.1 Definition

An "emergency" is defined in the *State Emergency and Rescue Management Act 1989* (SERM Act) and the State Disaster Plan as:

> "*An emergency due to an actual or imminent occurrence (such as fire, flood, storm, earthquake, explosion, terrorist act, accident, epidemic or warlike action) which -*
>
> *a) endangers, or threatens to endanger, the safety or health of persons or animals in the State; or*
>
> *b) destroys or damages, or threatens to destroy or damage, any property in the State, or*
>
> *c) causes a failure of, or a significant disruption to, an essential service or infrastructure, being an emergency, which requires a significant and co-ordinated response.*
>
> *For the purposes of the definition of emergency, property in the State includes any part of the environment of the State. Accordingly, a reference in the Act to -*
>
> *a) threats or danger to property includes a reference to threats or danger to the environment, and*
>
> *b) the protection of property includes a reference to the protection of the environment."*

### 2.1.2 The Four Phases of an Emergency

Both the SERM Act and the NSW Coastal Management Manual (OEH, 2018a) identify four distinct stages of an emergency – prevention, preparation, response, and recovery (see Figure 2-1).

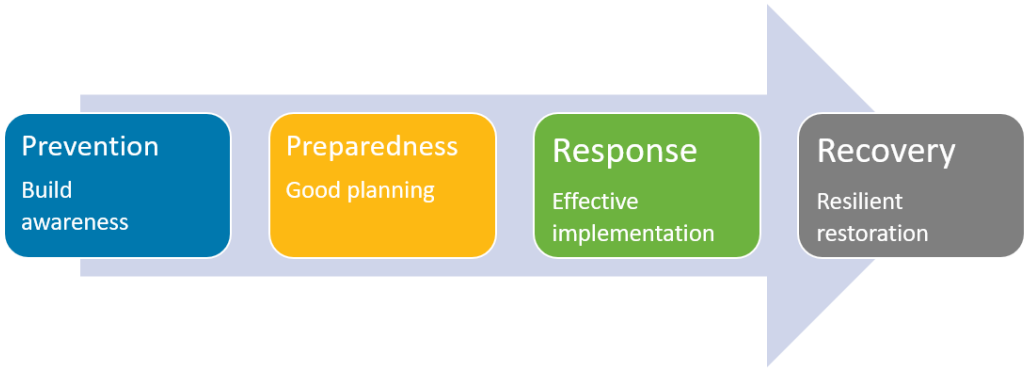



**Figure 2-1 Stages of Emergency Planning**

## 2.2 Coastal Hazards

### 2.2.1 Definitions of Coastal Hazards

The NSW 2017 State Level Risk Assessment (NSW Office of Emergency Management, 2017) classifies storm and coastal erosion as priority hazards that pose a significant risk to the state. The CM Act identifies three types of coastal hazards that should be considered when developing a CZEAS. These are defined in the guidelines (DPIE, 2019) as:

- **Beach erosion:** Not all beach erosion occurring during a storm event provokes a coastal emergency response. Therefore, a "beach erosion emergency" in the context of this CZEAS can be defined as an actual or imminent occurrence of a beach erosion event that occurs when wind, waves, and currents are removing the sediment that comprises the foreshore and/or frontal dune system, landward of the fully accreted condition. The consequence of such erosion can create risks to public safety, and public and private assets - which requires a coordinated emergency response.
- **Coastal inundation:** Coastal inundation occurs when marine and atmospheric forces combine and raise water levels at the coast (or inside estuaries) above normal elevations causing dry land to be inundated by seawater. Coastal inundation is often associated with storms and results in elevated still water levels (storm surge), wave set-up, wave runup and over-wash flows. Storm surges and powerful waves can also penetrate estuaries giving rise to strong currents or seiching. This may result in the inundation of roads and low-lying land adjacent to estuaries. For the open coast, it is associated with wave overtopping of beach dunes and the extent of wave runup onto the back-beach area.
- **Coastal cliff and slope instability:** This refers to a variety of geotechnical processes on coastal cliffs and bluffs, including rock fall, slumps, and landslides. These may be driven by coastal processes such as wave undercutting and overtopping, or by differential weathering of rock layers in cliffs and bluffs or by surface and groundwater flows generated by extreme rainfall. Instability may occur during or following a coastal storm event but may also occur at other times. There may be very little warning that a coastal cliff or slope instability incident is imminent. These hazards may endanger life and property at the site of the process (e.g., through collapse of a lookout platform or walking track, or undermining of dwellings), and at the toe of the cliff or bluff (rock platform or beach).

As stipulated in the *NSW Guideline for preparing a coastal zone emergency action subplan* (DPIE, 2019), the other coastal hazards identified in the CM Act are outside the scope of this CZEAS – including long term shoreline recession, coastal lake or watercourse entrance instability, tidal inundation, and erosion and inundation of estuary foreshores caused by tidal waters and the action of waves. These hazards either pertain to estuary environments outside the scope of this CMP or are not related to storm activity or an extreme or irregular event.

As outlined in Section 2.4, this CZEAS does not relate to other forms of inundation including flooding from land or tsunamis.

### 2.2.2 Recognising the Complexity of Coastal Hazard Events

#### *Storm Clustering*

From a coastal hazard perspective, it is important to note the impacts of storm clustering. An erosion storm cluster occurs when a beach is unable to adequately recover from a previous storm event before a subsequent one commences. The response of a beach to a storm and a storm cluster will depend largely on the physical characteristics of that particular beach, including sediment type, shoreline orientation and wave climate (Geoscience Australia, 2021).

In this way, a cluster of less severe storm events can generate a greater erosion response than an individual, high severity event (Gravois, Baldock, Callaghan, Daivies, & Nichol, 2018).

The implication for the CZEAS are:

- Even moderate swell events may cause significant levels of damage if they occur after a large event.
- Emergency teams must re-evaluate site conditions after each event to update risk profiles.
- Recovery and readiness plans must anticipate follow-up storms before full repairs or natural recovery occur.

- Previously stable areas (e.g., access points, cliffs, dunes) may become dangerous after cumulative impacts.

***Cascading and Compounding Emergencies***

The Pittwater coastline is impacted by East Coast Lows (ECLs), and this phenomenon is one of the most significant contributing factors to the occurrence and intensity of coastal hazard emergencies along the NSW coast (AdaptNSW, 2023). ECLs are intense low-pressure systems that occur off the east coast of Australia. They bring damaging winds and surf, as well as heavy rainfall, which leads to erosion and flooding.

Consequently, coastal hazards emergencies do not always occur at a localised scale, nor with a single discrete hazard type. When facing events like an ECL, the consequences can be multifaceted. Coastal erosion and inundation may be occurring at numerous beaches concurrently, while the same event may also generate rainfall that leads to riverine or estuarine flooding, and potential coastal cliff and slope instability.

In this way, cascading and compounding natural hazard emergencies can place significant strain on the resources and capabilities of combat agencies during response efforts. These concurrent crises require a coordinated response from multiple agencies and authorities.

The implication for the CZEAS are:

- Multi-hazard environments: Agencies may face erosion, inundation, flooding, and cliff instability all at once, requiring broader coordination.
- Concurrent site demands: Multiple locations may need simultaneous interventions, creating critical decisions on priorities and triage.
- Communication pressure: Rapid, clear information-sharing across agencies and the public becomes critical to avoid confusion or duplication.
- Logistical complexity: Access routes, staging areas, and evacuation options can be compromised by overlapping hazards.

## 2.3 Coastal Emergencies Covered by the CZEAS

### 2.3.1 Legislative Requirements

The scope of this CZEAS is dictated by the requirements of the CM Act and the SERM Act.

***SERM Act 1989***

The SERM Act established the overarching framework for emergency management in NSW. The SERM Act outlines roles and responsibilities for all emergency management in the state, and specifies:

- That emergency management committees are established at the state, regional and local levels.
- That emergency management plans (EMPLANs) are prepared and reviewed at the state, regional and local level.
- Arrangements for controlling emergency operations.
- Responsibilities of emergency operations controllers.

The NSW State EMPLAN 2023 (NSW Office of Emergency Management, 2023) describes the NSW approach to emergency management, the governance and coordination arrangements, and roles and responsibilities of agencies. The plan is supported by hazard specific subplans and functional area supporting plans.

The NSW SES is the designated combat agency for management of floods, tsunami, and storms, including severe storms which cause coastal erosion. The NSW SES prepares the State Storm Plan, State Flood Plan and State Tsunami Plan, which are subplans to the NSW State EMPLAN 2023.

### *CM Act 2016*

The CM Act identifies specific emergency management considerations associated with beach erosion, coastal inundation, and cliff instability. Section 15 (3) of the CM Act states that:

> *"A **coastal zone emergency action subplan** is a plan that outlines the roles and responsibilities of all public authorities (including the local council) in response to emergencies immediately preceding or during periods of **beach erosion**, **coastal inundation** or **cliff instability**, where the beach erosion, coastal inundation or cliff instability occurs through storm activity or an extreme or irregular event"*

Mandatory requirements for a CMP, including the preparation of a CZEAS where required, are identified in Part A of the NSW Coastal Management Manual (OEH, 2018a).

When preparing a CZEAS, it is crucial to consider the relationship between the coastal management framework established by the CM Act, and the broader NSW emergency management framework. This relationship is depicted in Figure 2-2. To this end, Section 15 (4) of the CM Act states that:

> *"A coastal management program **must not** include the following—*
>
> *(a) matters dealt with in any plan made under the State Emergency and Rescue Management Act 1989 in relation to the response to emergencies"*

The purpose of this clause is to ensure that is no duplication or ambiguity of emergency response planning, and to ensure that the CZEAS is consistent with the emergency management provisions addressed in the stage, regional and local EMPLANs, and state and local flood plans.

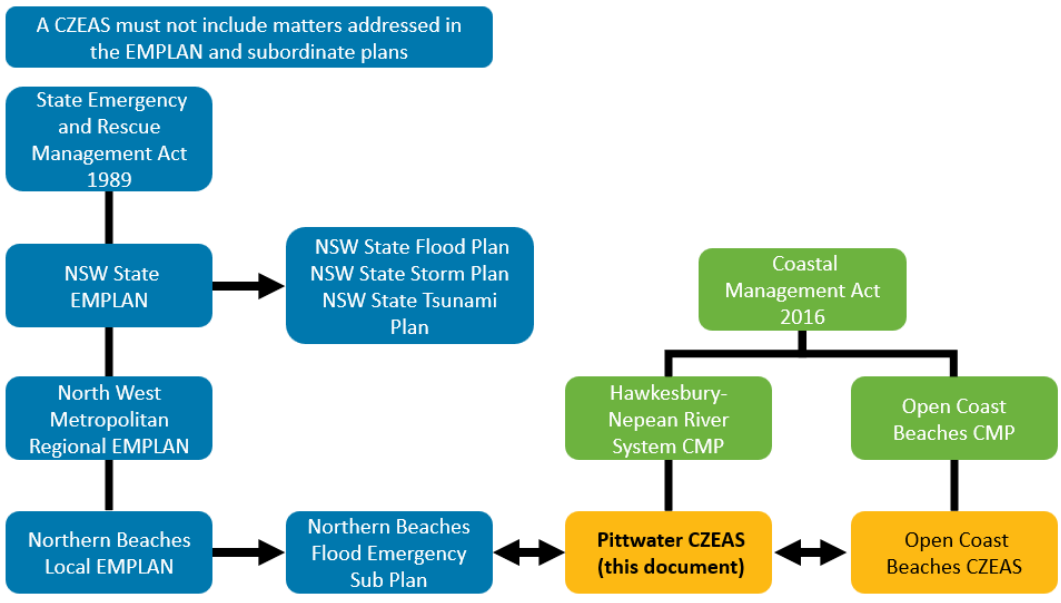



**Figure 2-2 Simplified legislative framework for emergency management in NSW and its relationship with coastal management legislation and coastal management programs**

### 2.3.2 Relationship of the CZEAS to other Emergency Plans

The requirements of the CM Act stipulate that this CZEAS must not cover emergencies that are already dealt with by another plan made under the SERM Act.

#### *NSW State Storm Plan*

The NSW State Storm Plan (NSW SES, 2023) is a sub plan to the NSW State EMPLAN, and is a comprehensive strategy to effectively prepare for and respond to severe storms across NSW. Section 1.4.3 of the plan states that:

> *"Coastal erosion caused by storm activity is within the scope of this plan. Emergency management of coastal erosion that is not caused by storm activity will be controlled and coordinated by the Local Emergency Operations Controller (LEOCON)".*

Coastal erosion is therefore within the scope of the NSW State Storm Plan. However, in doing so, the Plan identifies the triggers and instances for when local councils need to activate their CZEAS at a local level. It is in this way that these two emergency planning documents dovetail, without overlapping.

Section 1.4.4 of the State Storm Plan (NSW SES, 2023) states that the arrangements for the emergency management of flooding are dealt with in the New South Wales State Flood Emergency Sub Plan (NSW SES, 2021) – described below.

#### *NSW State Flood Plan*

The NSW Flood Plan (NSW SES, 2021) is a sub plan to the NSW State EMPLAN, and sets out the state level multi-agency arrangements for the emergency management of flooding in NSW. Section 1.4.2 of the NSW Flood Plan defines "flooding" as:

> "*a relatively high-water level which overtops the natural or artificial banks in any part of a stream, river,* ***estuary****, lake, or dam, and/or local overland flooding associated with drainage before entering a watercourse,* ***and/or coastal inundation resulting from super-elevated sea levels and/or waves (including tsunami) overtopping coastline defences***".

Subsequently, at a strategic level, the emergency management arrangements for prevention, preparation, response, and initial recovery for still water level coastal inundation is covered by the NSW Flood Plan. At a more regional, level this issue is addressed by the Northern Beaches Flood Emergency Sub Plan (NSW SES, 2021) – described below.

#### *NSW State Tsunami Plan*

The NSW Tsunami Emergency Sub Plan (NSW State Tsunami Plan) is a sub-plan to the NSW State EMPLAN. The purpose of the plan is to set out the state-wide multi-agency arrangements for the emergency management of tsunamis in NSW – including the prevention, preparation, response, and initial recovery (including immediate relief) for tsunami activity at the strategic level. The plan accounts for all tsunami magnitudes and generation mechanisms.

The NSW SES is identified in the NSW State EMPLAN and the SES Act as the lead (combat) agency for preparation for and response to tsunami, and for leading the coordinated response to the impact of tsunami including the evacuation of affected communities and immediate relief if required.

#### *Northern Beaches Flood Emergency Sub Plan*

The Northern Beaches Flood Emergency Sub Plan (NSW SES, 2021) is a sub plan of the Northern Beaches Local EMPLAN 2021 (Northern Beaches Council, 2021), but specifically covers the local preparedness measures, the conduct of response operations, and the coordination of immediate recovery measures from

flooding within the entirety of the Northern Beaches LGA. The Plan therefore covers land-based flooding across open coast and in estuarine settings of the LGA. The additional arrangements required for wave run-up hazards are therefore covered as part of this CZEAS.

### *Northern Beaches Open Coast CMP and CZEAS*

A CZEAS was developed for the Northern Beaches Open Coast CMP. Whilst this CZEAS is the first to be developed, it is recommended that the Open Coast Beaches CZEAS should be aligned with this CZEAS to the greatest extent practical.

### *Summary*

Table 2-1 and Table 2-2 below provide an overview of the planning hierarchy for coastal hazards across the study area.

**Table 2-1 Planning hierarchy for coastal hazards listed in the CM Act across the study area**

| Coastal Hazard | Strategic Arrangements | Local Operations |
|---|---|---|
| Coastal erosion | The NSW State Storm Plan (NSW SES, 2023) | This CZEAS |
| Coastal inundation – land-based flooding (riverine and overland flow) | The NSW State Flood Plan (NSW SES, 2021) | The Northern Beaches Flood Emergency Sub Plan (Northern Beaches Council, 2021) |
| Coastal inundation –wave run-up | The NSW State Flood Plan (NSW SES, 2021) | This CZEAS |
| Coastal cliff and slope instability | The NSW State Storm Plan (NSW SES, 2023) | This CZEAS |

**Table 2-2 Planning hierarchy for coastal hazards not listed in the CM Act across the study area**

| Coastal Hazard | Strategic Arrangements | Local Operations |
|---|---|---|
| Tsunami | The NSW State Tsunami Plan | The Northern Beaches Flood Emergency Sub Plan (Northern Beaches Council, 2021) |

# 3 TRIGGERS FOR EMERGENCY ACTION

## 3.1 Overview

For the purposes of this CZEAS, a coastal emergency event within Pittwater is occurring when one or more of the below triggers occurs:

- The following **official hazard forecasts** are issued:
  - When the Bureau of Meteorology (BoM) has issued the release of a Coastal Hazard Warning that applies to any of the locations at risk identified in Section 4. More detail regarding these warnings is provided in Section 3.2.
- The following **impact forecasts** and assessments are made:
  - In addition to the BoM Coastal Hazard Warning, there are location-specific triggers for when coastal hazards will activate the Response Phase of this CZEAS. These triggers are discussed in Section 3.3. A framework for impact forecast for coastal hazard risk is also provided in Section 3.3.2.

In identifying triggers for erosion protection works, a balance needs to be found between predicted storm erosion and inundation in large events, and avoiding the triggers being reached too often, resulting in "false alarms" and implementation of emergency coastal protection works unnecessarily often.

## 3.2 Hazard Forecasts

### 3.2.1 BoM Coastal Hazard Warnings

The actions contained in this CZEAS are triggered by the release of a **Coastal Hazard Warning** from the BoM. The BoM issues Coastal Hazard Warnings for abnormally high tides or storm tides that:

- May be higher than the highest astronomical tide, and
- Could flood low lying coastal areas.

The BoM also issues **Severe Weather Warning for Damaging or Dangerous Surf** - when the waves are expected to be powerful enough to cause damage to property or significant erosion to beaches.

These warnings are issued whenever a coastal hazard is:

- Happening in an area, or
- Is expected to develop or move into an area.

A Coastal Hazard Warning includes:

- A list of all potential phenomena, coastal forecast districts and locations that may be affected.
- A description of the threat and the area likely to be affected (the threat area).
- The time the warning was issued and what time the next warning will be issued.
- A description of the weather pattern, including forecast developments of significant weather systems.
- A technical summary of all potential phenomena, their timing and likelihood.
- Confirmed observations and reports.
- Recommended actions.

The lead time depends on the weather situation. It can extend from an hour to 36 hours. While the threat remains, a Coastal Hazard Warning is updated routinely every 6 hours. More frequent warnings may be issued if required.

NSW weather warnings are issued by the BoM and can be found at the following link: http://www.bom.gov.au/nsw/warnings/. Alternatively, the BoM weather App can show only the weather warnings that apply to the area set by the user.

## 3.3 Local Impact Triggers and Forecasts

### 3.3.1 Location Based Triggers

In addition to the official warnings from the Bureau of Meteorology, the NSW State Storm Plan stipulates that the response phase of the storm plan is triggered when information processes or intelligence indicates imminent or actual storm impacts to the community (NSW SES, 2023). For example, if there is no official warning from the Bureau of Meteorology, other evidence may be used to determine that there is a coastal hazard risk to the community that will trigger the actions in this CZEAS, including:

- Verbal advice from BoM forecasters
- Advice issued from the DCCEEW Coastal Expert.
- Real-time local monitoring and forecast systems

This is particularly important as there are a number of possible scenarios under which coastal erosion may occur without an official BoM Coastal Hazard Warning being issued. This may include a storm clustering event, where a local beach profile may be depleted from a recent event to the extent that even a relatively low or moderate swell coinciding with a high tide may erode the dune system resulting in landward recession of the erosion escarpment.

Given such complexities, *triggers alone* cannot replace expert engineering judgment. Response decisions must account for real-time conditions, local intelligence, and agency consultation. Therefore, in addition to the Coastal Hazard Warning, location-specific triggers for when coastal hazards will activate the Response Phase of this CZEAS include when:

- **Coastal erosion** is occurring or expected to occur at key locations at risk of beach erosion identified in Section 4, impacting or with potential to impact on public or private assets and/or affect safe access/egress.
- **Wave run-up** is occurring or expected to occur at the key locations at risk of coastal inundation identified in Section 4, affecting/with potential to affect safe access/egress or impacting/with potential to impact on public or private assets.
- A situation in which **instability of coastal cliffs and slopes** is imminent, occurring or has occurred, and the threat of landslide endangers, or threatens to endanger, the safety or health of people or destroys or damages, or threatens to destroy or damage any sites and assets, as identified in Section 4. With regards to coastal cliffs and slopes, an emergency situation is most likely to arise due to periods of heavy and/or prolonged rainfall. It should also be noted that in rare circumstances, coastal cliffs and slopes can experience instability events such as landslips that are triggered by seismic activity, including earthquakes.

In practice, expert engineering judgement would need to be applied at times of storms to assess when to initiate particular actions as required. This approach relies on regular monitoring of environmental conditions and cliff, slope, and beach behaviour – and seeking appropriate advice when required.

### 3.3.2 Impact Forecast of Coastal Hazard Risk

Whilst the actions contained in this CZEAS are triggered by BoM Coastal Hazard Warnings and location-based triggers, it is also important to monitor coastal environmental conditions at a local level - in order to supplement and inform decision making.

Therefore, it is necessary for Council to monitor additional sources of forecasting and intelligence information to assist in its preparedness for a coastal emergency event (this may also increase the early warning lead time window beyond the notice provided by BoM warnings). Forecasts and real-time data regarding various coastal hazard parameters (such as wave conditions, tide level, and beach state) can provide information on coastal inundation and erosion along coastlines several days in advance of an impending hazard events, potentially providing a "window of opportunity" to implement a range of emergency responses (Matheen & Nashwan, 2022).

Forecasting coastal erosion and inundation is a complex and challenging task due to the fact that it is not solely governed by a single factor, rather an intricate interplay of several variables, including:

- The astronomical tide cycle, and potential magnitude and timing of storm surge.
- Offshore wave height and direction, and the complex nearshore wave transformation processes that will impacts on wave conditions in the nearshore.
- The beach state prior to the onset of the storm. Beaches undergo continuous cyclic evolution in the form of erosion and accretion, and the beach profile at any given instant has an effect on the impact of subsequent storms.

Subsequently, as part of an early warning process, Council should actively monitor forecasts and real-time information related to ocean waves and tides, using the available data sources provided in Table 3-1. Council can also actively monitor the state of their beaches using the tools and data sources provided in Table 3-1, noting that no forecasts are available for beach erosion, and these datasets are limited in their ability to provide real-time (or even near-real time) information.

**Table 3-1 Available sources of data for coastal hazard parameters**

| Parameter | Forecast Source | Forecast Window | Real-time Information |
|---|---|---|---|
| Wave Height | BoM Interactive Weather and Wave Forecast[1]. | 7 days | MHL NSW Ocean Wave Data Collection Program[2]. |
| | The NSW Nearshore Wave Tool[3] | 5 days | |
| Ocean Tide | MHL NSW Tide Charts[4] | 1 year | MHL NSW Ocean Tide Data Collection Program[5] |
| | BoM New South Wales Tide Tables[6] | 1 year | |
| **Parameter** | **Historical Data Availability** | | **Data Type** |
| Beach State | Northern Beaches Council Beach Monitoring and Inspections | | Photographs, Beach surveys |
| | CoastSnap (at available beaches) | | Photographs |
| | NSW Beach Profile Database | | Beach profiles |

[1] http://www.bom.gov.au/australia/charts/viewer/index.shtml
[2] https://mhl.nsw.gov.au/Data-Wave
[3] https://nearshore.waves.nsw.gov.au/home/forecast
[4] https://mhl.nsw.gov.au/TideCharts
[5] https://mhl.nsw.gov.au/Data-OceanTide
[6] http://www.bom.gov.au/oceanography/projects/ntc/tide_tables.shtml

These data sources can provide a first-pass indication of when beaches may be at risk of coastal erosion and inundation. Using these sources of information, in particular tide and wave forecasts/predictions, a risk framework has been provided in Table 3-2, which indicates potential levels of coastal erosion and inundation risk. The framework adopts:

- Thresholds for offshore significant wave height (Hs) height based on historical wave statistics for the Long Reef Wave Rider Bouy (Shand, et al., 2011) equivalent to:
  - Extreme Wave Conditions: Hs exceeding a 1-year ARI condition of Hs = 5.0 m
  - Moderate Waves: Hs below a 1-year ARI condition of Hs = 5.0 m, but exceeding the 10% exceedance threshold of Hs = 2.5 m.
  - Modal Wave Conditions: Hs below the 10% exceedance threshold of Hs = 2.5 m
- A threshold for elevated water levels of mean high water springs (MHWS), based on the tidal planes at nearby tide gauge such as Patonga (OEH, 2012), which is approximately +0.7 m AHD.

It should be noted that wave buts provide an indication of wave conditions offshore, and that the full wave energy is unlikely to printer into the Pittwater waterway. However, it is likely that offshore waves arriving from the **East to North-East sectors** will generally provide the most energetic wave conditions inside the estuary.

**Table 3-2 Early Warning Parameters for Coastal Erosion and Inundation Impacts**

| Parameter | Forecast Hs from East to North East Sectors | | |
|---|---|---|---|
| | **Hs > 5.0 m** (> 1-yr ARI) | **Hs = 2.5 to 5.0m** (10% exceedance to 1-yr ARI) | **Hs < 2.5m** (<10% exceedance) |
| Predicted Tide > MHWS (+0.7 m AHD) | High Risk | Moderate Risk | Low Risk |
| Predicted Tide < MHWS (+0.7 m AHD) | High to Moderate Risk | Low Risk | Low Risk |

| **Risk Levels** | |
|---|---|
| High | ▪ Coastal erosion and inundation risk is high.<br>▪ Check forecast wave direction to help assess if any particular beaches (or specific beach locations within a beach compartment) may be more severely impacted. |
| Moderate | ▪ Coastal erosion and inundation risk is moderate.<br>▪ **However, the risk from storm clustering may be high if a beach (or part of a beach) is already in a moderately eroded condition.** Check pre-storm beach condition beach using data sources in Table 3-1.<br>▪ Check forecast wave direction to help assess if any particular beaches (or specific beach locations within a beach compartment) may be more severely impacted. |
| Low | ▪ Coastal erosion and inundation risk is lower.<br>▪ **However, the risk from storm clustering may be high to moderate if a beach (or part of a beach) is already in a severely eroded condition.** Check pre-storm beach condition beach using data sources in Table 3-1.<br>▪ Check forecast wave direction to help assess if any particular beaches (or specific beach locations within a beach compartment) may be more severely impacted. |

Once the risk of erosion is determined, the risk of damage to infrastructure across the study area should be assessed. Firstly, it should be determined what assets are at risk, as per Section 4. If assets are at risk, it would be necessary to:

- Evaluate the effectiveness of protective works located seaward, which would require knowledge of toe levels, crest levels, and size of the structural elements in the works (such as rock size where applicable).
- Have knowledge of the foundation conditions of the structure (in particular whether the development was founded on deep piles).
- Have undertaken geotechnical investigations in areas known to have a non-sandy subsurface.

## 3.4 Summary

A summary of each of the triggers for this CZEAS and corresponding sources of information are provided in Table 3-3.

**Table 3-3 Summary of triggers for the CZEAS**

| Hazard | Trigger | Monitoring Parameters | Information Sources |
|---|---|---|---|
| **ALL** | BoM Coastal Hazard Warning | Warning Issued | BoM Website<br>News Media |
| Coastal erosion and coastal inundation | Erosion and/or inundation occurring or expected to occur at key locations in Section 4, impacting or with potential to impact on public or private assets. | Beach State | ▪ Physical observations<br>▪ Northern Beaches Council Beach Monitoring and Inspections<br>▪ CoastSnap (at available beaches)<br>▪ NSW Beach Profile Database / CoastSat |
| | | Wave Height | ▪ BoM Interactive Weather and Wave Forecast and the NSW Nearshore Wave Forecast<br>▪ MHL NSW Ocean Wave Data Collection Program |
| | | Water Level | ▪ New South Wales Tide Tables<br>▪ MHL NSW Ocean Tide Data Collection Program |
| Coastal cliff/slope instability | Rainfall forecast (or recorded):<br>▪ 100 mm + over 24-hours<br>▪ 150 mm + over 72-hours | Rainfall forecasts<br>Rainfall records | ▪ BoM Forecasts<br>▪ BoM Rain gauge records |
| | Observed signs impending slope instability | Foreshore state | ▪ Physical observations |

# 4 AREAS AT RISK

## 4.1 Overview

This CZEAS only applies to the known locations affected by beach erosion, coastal inundation or cliff and slope instability as noted in this section.

It is possible that beach erosion, coastal inundation or cliff and slope instability will affect additional locations not currently assessed or known to be risk locations anywhere in Pittwater. In this event, Council should assess these locations and revise this CZEAS to include new locations at risk, as the need arises.

Mapping in Appendix A of this CZEAS depicts mapped coastal hazard extents, including:

- Beach Erosion: The Present Day 1% Annual Exceedance Probability Coastal Hazard Mapping (WRL, 2023)
- Coastal Inundation of estuarine foreshores: The Hawkesbury River Coastal Inundation Study (Rhelm and Baird, 2023)

## 4.2 Local Hazard Exposure

Based on analysis of the datasets listed above, Table 4-1 summarises the risks of beach erosion and coastal inundation at the 6 beaches. It should be noted that hazard information for The Basin Campground is unavailable; therefore, a more generalised risk assessment has been applied for this location to guide emergency response actions.

Similarly, hazard information for coastal cliff and slope instability across Pittwater is currently unavailable (Water Technology, 2020). As such, risks associated with these processes have not been quantified within this CZEAS.

Table 4-1 Summary of risks of coast hazards

| Beach | Beach Erosion | Coastal Inundation | Overall Risk |
|---|---|---|---|
| Station Beach<br>Figure A-2 to A-3 | There is little impact of beach erosion on public and private infrastructure along the beach due to protection from Barrenjoey Headland.<br>At northern station beach there is a NPWS shed and cottage that is at risk.<br>In central Station Beach there is the Station Beach carpark and beach access amenities, as well as Palm Beach Gold Club.<br>At southern Station Beach there are some private properties (Waratah Road) along the southern part of the beach that have protection from revetment works. | At northern station beach there is a NPWS shed and cottage that is at risk.<br>Most of the central and southern part of Station Beach includes Palm Beach Golf Club with no significant infrastructure that would be inundated other than the jetty and The Joey restaurant.<br>There are also 6 private properties (Waratah Road) that would be impacted by coastal inundation in a 1% AEP event. | **Medium** – little impact from beach erosion, with NPWs assets, The Joey restaurant and 6 private properties impacted by coastal inundation in a 1% AEP event |
| Snapperman Beach<br>Figure A-4 | The northern and southern parts of the beach have revetment works for protection. However, there are approximately 18 private properties adjacent to Barrenjoey Road and Iluka Road where extreme storm events (1% AEP) will incise into properties possibly causing scarping and building instability. | There are approximately 25 waterfront properties that would have some inundation impact in a 1% AEP event. These properties are either adjacent to Barrenjoey Road or Iluka Road. Also impacted would be public infrastructure including the Palm Beach Wharf (managed by Northern Beaches Council) and Pittwater Park & Playground | **High** – 18 properties at risk of beach erosion impact and inundation impacts to 25 private properties and public infrastructure. |



General Meeting 11 November 2026
Attachments Page 726
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 389
ATTACHMENT 3 - ITEM 7

| Beach | Beach Erosion | Coastal Inundation | Overall Risk |
|---|---|---|---|
| Sandy Beach<br>Figure A-5 | Most properties along Sandy Beach are built well back from the beach and the beach frontage verge acts as a buffer against beach erosion in events less than the 1% AEP. There are 9 properties on the northern section of the beach with buildings closer to beach that may need for emergency works (e.g. sandbagging) to protect these foreshores in extreme events. | All properties along Sandy Beach are built well back from the beach and the beach frontage verge acts as a buffer against direct inundation in a 1% AEP event. There are 5 properties on the northern section of the beach that may be slightly impacted by coastal inundation. | **Medium** – properties on northern part of the beach may require emergency erosion protection works in extreme events, whilst almost all properties will not be inundated in extreme events. |
| The Basin Campground<br>Figure A-6 | There is no erosion hazard mapping for The Basin; however, the foreshore campground infrastructure would be impacted by beach erosion in a 1% AEP event. There may be the need for sand nourishment along the beach after extreme events. | Almost all the campground infrastructure would be inundated in a 1% AEP event. | **Medium** - Coastal inundation may affect most campground infrastructure in a 1% AEP event, with beach erosion also possible. Confirm the risk rating and management implications with NPWS, including whether existing emergency, campground operations, asset management or adaptation plans address these hazards e.g. evacuation of campers. |
| Currawong<br>Figure A-7 | The foreshore infrastructure will be impacted in a 1% AEP event and the main cottage may need emergency works to protect it in extreme events. There also may be the need for sand nourishment along the beach after extreme events. | Whilst the grounds of the State Park and wharf are inundated in a 1% AEP event, the Cottages are not inundated in this event. | **Medium** - Foreshore infrastructure and the grounds may be affected in a 1% AEP event. The cottages are not mapped as inundated in this event, although the main cottage may need assessment or emergency works following extreme erosion. Confirm the risk rating with NPWS and review whether existing plans for Currawong State Park address emergency response, heritage assets and coastal hazards. |



General Meeting 11 November 2026
Attachments Page 727
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 390
ATTACHMENT 3 - ITEM 7

| Beach | Beach Erosion | Coastal Inundation | Overall Risk |
|---|---|---|---|
| Great Mackerel<br>Figure A-8 | All foreshore properties will be impacted by beach erosion both in 2% AEP and 1% AEP events. Of particular concern are 5 foreshore properties to the north of the beach where erosion related to extreme events could undermine buildings. | Approximately 20 properties are impacted by coastal inundation during a 1% AEP event. Half of these properties front the beach (Ross Smith Parade) with the remainder along a small creek (near Diggers Crescent) which is impacted by a breakout to the north of the beach flowing back up the creek. | **Very High** – this is an isolated community with possible loss of telecommunications during a storm event. The only access is via boat which could be impossible during an extreme event. Beach erosion and coastal inundation can be coupled with flooding from the land impacting at least 60 properties. |



General Meeting 11 November 2026
Attachments Page 728
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 391
ATTACHMENT 3 - ITEM 7

# 5 ROLES AND RESPONSIBILITIES

## 5.1 Agencies and Personnel

The general responsibilities of emergency services organisations and support agencies are listed in the Local and State EMPLANs, such as the NSW State Storm Plan (NSW SES, 2023), NSW State Flood Plan (NSW SES, 2021), and the Northern Beaches Flood Emergency Sub Plan (NSW SES, 2021). Table 5-1 summarises the roles and responsibilities of these stakeholders that are specifically relevant to this CZEAS.

It should be noted that private landholders are responsible for private land. Private property owners have responsibilities to monitor, manage, prepare and repair their properties for risks associated with coastal erosion, inundation and cliff and slope instability. Any physical works on private property are subject to development controls and environmental planning instruments, including the Northern Beaches Development Control Plan. Private property owners should notify Council immediately of any concerns outside of their property; however, property owners should seek advice directly from suitably qualified geotechnical and/or coastal engineers with regards to instability concerns within their property boundaries. *Council does not have a positive obligation to take particular action to protect private property*. There is, however, a statutory obligation upon Council to consider any valid development application for coastal protection works which may be lodged by property owners.

**Table 5-1 Roles and Responsibilities**

| Organisation / Personnel | Responsibilities |
|---|---|
| Northern Beaches Council | ▪ Prepare, maintain, and update this CZEAS (NSW SES, 2023).<br>▪ Provide the NSW SES with a copy of this CZEAS (NSW SES, 2023).<br>▪ Assist the NSW SES with community awareness programs to ensure people in locations potentially threatened by coastal erosion, inundation, and cliff/slope instability understand the threat and its management (NSW SES, 2023).<br>▪ Prevention & Preparation: Implement the Prevention and Preparation Phase emergency actions prior to a coastal emergency event occurring.<br>▪ Response: In the event of a coastal emergency at a location at risk, activate this CZEAS and implement the Response Phase emergency actions for the duration of the coastal emergency event.<br>▪ Recovery: Implement the Recovery Phase emergency actions following a coastal emergency event.<br>▪ Under the CM Act, Council is the designated coastal authority with responsibility for care of public land within its care, control, and management. The carrying out (or authorising and coordinating) of coastal emergency protective works to protect public assets from coastal erosion, inundation, and cliff/slope instability is Council's role, if it chooses to undertake such measures.<br>▪ Assist, at their request, NSW Police, NSW SES, and Local Emergency Operations Controller (LEOCON) in dealing with a coastal emergency.<br>▪ Liaise with the NSW SES Incident Controller to provide advice regarding the need for response actions by the NSW SES such as evacuations. |
| Local Emergency Management Committee (LEMC) | ▪ The LEMC is constituted under the SERM Act for each local government area and is responsible for preparing plans for response and recovery from emergencies.<br>▪ The LEMC is chaired by the Chief Executive Officer or their nominated representative from Northern Beaches Council. Represented on the LEMC are combat agencies including: |

| Organisation / Personnel | Responsibilities |
|---|---|
| | – Police.<br>– Rural Fire Service.<br>– Fire and Rescue NSW.<br>– State Emergency Services.<br>– Surf Life Saving NSW.<br>– Marine Rescue.<br>▪ The LEMC will review the Northern Beaches Local EMPLAN every three (3) years, or following any:<br>– activation of the Plan in response to an emergency;<br>– legislative changes affecting the Plan;<br>– exercises conducted to test all or part of the Plan;<br>– In the event of that deficiencies are identified; or<br>– Change of roles and responsibilities. |
| Local Emergency Operations Controller (LEOCON) | ▪ Monitor coastal emergency event operations.<br>▪ Act as the combat/responsible agency in the event of:<br>– Coastal erosion that is not caused by direct storm activity, as per Section 1.4.3 of the NSW State Storm Plan (NSW SES, 2023); or<br>– Coastal cliff and slope instability<br>▪ Coordinate support to the NSW SES Local Incident Controller, if requested to do so. |
| Northern Beaches Council Local Emergency Management Officer (LEMO) | ▪ If requested by the NSW SES Incident Controller, advise appropriate agencies and officers of the start of response operations.<br>▪ Provide executive support to the LEMC and LEOCON in accordance with the Northern Beaches Local EMPLAN. |
| Regional Emergency Operations Controller (REOCON) | ▪ The REOCON is responsible for the overall control and coordination of emergency response operations at Region level for which the REOCON is the designated controller.<br>▪ The REOCON is also the designated controller where there is no designated Combat Agency, or where it is necessary to coordinate two or more local level operations which are controlled by Emergency Operations Controllers, or when directed by the SEOCON.<br>▪ The REOCON is responsible, when requested by a combat agency, to co-ordinate the provision of resources support. |
| State Emergency Operations Controller (SEOCON) | ▪ Responsible for the control and coordination of emergency response operations at State level, for which the SEOCON is the designated Controller or where there is no designated Combat Agency.<br>▪ Provide advice to the Minister regarding emergencies, including whether or not a declaration of a ‘State of Emergency’ may be necessary.<br>▪ Consider requests for State or Commonwealth assistance.<br>▪ Coordinate the establishment of a Major Evacuation Centre in accordance with Major Evacuation Centre Guidelines if required. |
| NSW State Emergency Service (NSW SES) Local Unit Members | ▪ Act as the combat/responsible agency for damage control and the coordination of community evacuation during the following coastal zone hazards as per the Northern Beaches Local EMPLAN: |

| Organisation / Personnel | Responsibilities |
|---|---|
| | – Flooding.<br>– Storms.<br>– Tsunami.<br>▪ Act as the combat/responsible agency in the event of coastal erosion that is caused by storm activity (NSW SES, 2023).<br>▪ NSW SES roles and responsibilities in relation to storms and coastal erosion are detailed within the NSW State Storm Plan (NSW SES, 2023), and where relevant the NSW State Flood Plan (NSW SES, 2021). Responsibilities may include:<br>– Assist in the collection of flood and coastal erosion/inundation information for the development of intelligence.<br>– Evacuation.<br>– Delivery of warnings.<br>– Assisting with road closures and traffic control operations.<br>▪ The NSW SES is not authorised to undertake emergency coastal protection works such as placement of rock armour or geotextile sand containers.<br>▪ Undertake preparedness education related to its legislated responsibilities of flood, storm, tsunami, and earthquake. |
| NSW SES Incident Controller | ▪ Deal with floods as per the Northern Beaches Flood Emergency Sub Plan (NSW SES, 2021)<br>▪ Identify and monitor people and/or communities at risk of flooding and coastal erosion.<br>▪ Provide an information service in relation to:<br>– Coastal erosion.<br>– Coastal inundation.<br>– Road conditions and closures (general information only).<br>– Warning products in line with the AWS.<br>▪ Direct the evacuation of people and/or communities.<br>▪ Ensure caravan parks are advised of flood/coastal inundation warnings.<br>▪ Coordinate the collection of flood and coastal erosion/inundation information for development of intelligence. |
| NSW Rural Fire Service (RFS) | Roles and responsibilities are outlined in NSW State Storm Plan (NSW SES, 2023) and NSW State Flood Plan (NSW SES, 2021) and include:<br>▪ Identify and notify the NSW SES of any locations at risk of fire or hazardous materials that pose a significant threat to surrounding populations due to the impact of a flood for incorporation into NSW SES flood intelligence and planning.<br>▪ Conduct HAZMAT operations including asbestos risks, arising from flood and storm emergencies in coordination with the SES Incident Controller.<br>▪ Assist the NSW SES with the:<br>– Delivery of warning products in line with the AWS, and the conduct of evacuations.<br>– Warning and/or evacuation of at-risk communities.<br>– Monitoring/reconnaissance of flood prone areas.<br>▪ Provide equipment for pumping flood water out of buildings and from low-lying areas.<br>▪ Assist with clean-up operations, including the hosing of flood affected properties. |

| Organisation / Personnel | Responsibilities |
|---|---|
| Ambulance Service of NSW | ▪ The roles and responsibilities for NSW Ambulance are outlined in the Health Services (HEALTHPLAN) Supporting Plan and NSW State Flood Plan (NSW SES, 2021). Roles and responsibilities in addition those include:<br>– Participate in NSW SES briefings, training & exercises as required.<br>– Provide a Liaison Officer to the NSW SES State Command or Incident Control Centre/s as required.<br>– Provide Incident Management Personnel and Liaison Officers to the NSW SES where required. |
| Australian Government Bureau of Meteorology (BoM) | Roles and responsibilities are outlined in NSW State Storm Plan (NSW SES, 2023) and NSW State Flood Plan (NSW SES, 2021) and include:<br>▪ The BoM issue public weather and storm warning products before and during a storm (NSW SES, 2023). These may include:<br>– Coastal Hazard Warnings<br>– Severe Thunderstorm Warnings.<br>– Severe Weather Warnings.<br>– Tropical Cyclone Watches.<br>– Tropical Cyclone Warnings.<br>– Coastal Strong Wind, Gale Storm and Hurricane Force Warnings.<br>– Flood Watches and Flood Warnings.<br>▪ Provide weather and flood information directly to the NSW SES, LEMC and relevant agencies (NSW SES, 2021). |
| Marine Rescue NSW | Roles and responsibilities are outlined in NSW State Storm Plan (NSW SES, 2023) and NSW State Flood Plan (NSW SES, 2021) and include:<br>▪ When requested by NSW SES, assist in flood operations when training and equipment are available and suitable including assistance with:<br>– Warning and/or evacuation of at-risk communities.<br>– Providing communications personnel.<br>– Property protection tasks including sandbagging.<br>– Flood rescue operations |
| NSW Department of Climate Change, Energy, the Environment and Water | DCCEEW is the NSW government authority responsible for advising on coastal zone management.<br>Roles and responsibilities are outlined in NSW State Storm Plan (NSW SES, 2023) and NSW State Flood Plan (NSW SES, 2021) and include:<br>▪ Advise the NSW SES about conditions which may lead to coastal erosion;<br>▪ Provide storm damage response teams to assist the NSW SES and National Parks and Wildlife Service.<br>▪ Provide related advice on coastal hazards to the NSW SES on request. |
| NSW National Parks and Wildlife Service | Roles and responsibilities are outlined in NSW State Storm Plan (NSW SES, 2023) and NSW State Flood Plan (NSW SES, 2021) and include:<br>▪ Assist the NSW SES with identification of road infrastructure in National Parks at risk from storms.<br>▪ Close and reopen NPWS managed roads when affected by storms and advise the NSW SES of its status.<br>▪ Facilitate the safe reliable access by emergency resources on NPWS managed land and roads. |

| Organisation / Personnel | Responsibilities |
|---|---|
| | ▪ Assist the NSW SES with the communication of warnings and information provision to the public through variable message signs and other appropriate means. |
| NSW Police Force | Roles and responsibilities are outlined in NSW State Storm Plan (NSW SES, 2023) and NSW State Flood Plan (NSW SES, 2021) and include:<br>▪ Provide Incident Management personnel and Liaison Officers to the NSW SES Operation Centre if required.<br>▪ When requested by LEOCON, act as the response agency for coastal cliff and slope instability<br>▪ When requested by NSW SES in storm operations:<br>– Restrict access to areas affected by storms.<br>– Assist with warning and/or evacuation of at-risk communities.<br>– Provide specialist storm damage response teams to assist the NSW SES if available.<br>– Assist with monitoring and reconnaissance of areas potentially damaged by storms.<br>▪ Coordinate search and rescue operations.<br>▪ Conduct road and traffic control operations in conjunction with NSW SES, Council and/or TfNSW.<br>▪ Coordinate security of supply lines for evacuated and damaged areas.<br>▪ Manage Disaster Victim Registration.<br>▪ Operate the Public Information and Inquiry Centre, if requested or otherwise needed during flood events. |
| Transport for NSW | Roles and responsibilities are outlined in NSW State Storm Plan (NSW SES, 2023) and NSW State Flood Plan (NSW SES, 2021) and include:<br>▪ TfNSW (Maritime), following the direction of the NSW Police Force will assist in the identification and recovery of vessels. |

## 5.2 Combat Agencies

It is important to note that the NSW State Storm Plan (NSW SES, 2023) and the North West Metropolitan Regional EMPLAN (NSW SES, 2023) identify different combat agencies are responsible for different types of coastal hazard - and that this also varies depending on whether or not the emergency event is occurring within or outside of a storm event. This information is summarised in Table 5-2.

**Table 5-2 Combat agencies for coastal hazard events**

| Coastal hazard | Storm Event | Non-Storm Event | Reference |
|---|---|---|---|
| Coastal erosion and inundation | NSW SES | LEOCON | NSW State Storm Plan |
| Coastal cliff and slope instability | LEOCON | LEOCON | Noth West Metropolitan Regional EMPLAN |

## 5.3 Emergency Operation Centres

An Emergency Operations Centre (EOC) is a centre established at State, Region, or Local level as a centre of communication and as a centre for the coordination of operations and support during an emergency. In NSW, the activation of an EOC is triggered by various factors depending on the nature and severity of the emergency or incident. Emergencies that exceed the capabilities of individual agencies or require a coordinated multi-agency response may prompt the activation of the EOC to manage resources and coordination effectively.

As per the NSW State EMPLAN (NSW Office of Emergency Management, 2023):

- The SEOCON is responsible for establishing and controlling a State Emergency Operations Centre (SEOC)
- The REOCON is responsible for establishing and controlling a Regional Emergency Operations Centre (REOC)
- The LEOCON is responsible for establishing and controlling a Local Emergency Operations Centre (LEOC)

# 6 COMMUNICATION PROTOCOLS

## 6.1 Overview

Council will provide information about anticipated coastal emergency events to impacted communities through the following mechanisms provided in Table 6-1.

**Table 6-1 Communication Protocols**

| Communication | |
|---|---|
|  | ▪ Provide routine emergency management briefings to communicate the strategy outlined in this plan including coastal emergency triggers, areas at risk, roles and responsibilities and response action plan. |
|  | ▪ Provide emergency management information (in the form of signage and brochures) at local community centres and community information hubs.<br>▪ Inform the community of Council's intended erosion emergency responses under this CZEAS.<br>▪ Inform community members and businesses about the need to develop a household / business Emergency Management Plan (EMP) for coastal hazards. |
|  | ▪ In consultation with the NSW SES and BoM, provide public information about approaching coastal emergencies where possible through digital means including social media.<br>▪ Provide emergency management briefings to the public as needed, in particular affected landholders, to communicate the strategy outlined in this CZEAS, including coastal emergency event triggers, locations at risk, roles and responsibilities and the emergency response actions, including what actions a landholder may need to take and any assistance that may be available to them.<br>▪ Coordinate with the NSW SES to ensure residents are aware of urgent hazards during emergency events and provide assistance with door-to-door communication as necessary.<br>▪ See Section 6.2 for more information about message construction. |
|  | ▪ Place barriers and signage at Council-managed beach access tracks that are closed due to the impacts of coastal erosion, inundation and/or cliff/slope instability. |
| | ▪ Provide up to date information on Council's website regarding Council-managed beach access tracks closures and re-openings. |

## 6.2 Message Construction

### 6.2.1 The AWS Framework

As per Section 6.1, Council is to consult with the NSW SES and BoM, in order to help provide public information about approaching coastal emergencies.

The design of Council's external messaging during an emergency event should be aligned with the Australian Warning System framework (AIDR, 2021) – which is a new national approach to information and warnings during emergencies like bushfire, flood, storm, extreme heat, and severe weather. Up until now there have been different warning systems for different hazard types across Australia. The new Australian Warning

System aims to provide consistent warnings to Australian communities so that people know what to do when they see a warning level. There are three warning levels, provided in Table 6-2, as per AIDR (2021).

**Table 6-2 Warning Levels from the Australian Warning System framework (AIDR, 2021)**

| Alert Level | Description |
|---|---|
| **Advice (Yellow)** | An incident has started. There is no immediate danger. Stay up to date in case the situation changes. |
| **Watch and Act (Orange)** | There is a heightened level of threat. Conditions are changing and you need to start taking action now to protect you and your family. |
| **Emergency Warning (Red)** | An Emergency Warning is the highest level of warning. You may be in danger and need to take action immediately. Any delay now puts your life at risk. |

The Australian Warning System utilises a system of triangular hazard icons with escalating tiers and associated colour palettes. Specific icons have been developed for bushfire, flood, storm, extreme heat, and severe weather, as per Figure 6-1 below. It is recommended that the following icons are used:

- "Storm" icon – for coastal erosion, coastal inundation, and coastal cliff and slope instability that are jointly occurring with storm events.
- "Coastal erosion" icon – **NSW SES will only issue a coastal erosion warning when there is observed coastal erosion *and* there is an identified risk that cannot be mitigated** (e.g. by barriers)
- "Other" icon – for coastal erosion and coastal cliff and slope instability that does not directly coincide with storm events (as these two hazards may also occur in the aftermath of a specific storm event).

The Australian Warning System utilises a nested model for communications that includes the warning level + hazard / location + action statements – as per Figure 6-1. Each warning level has a set of action statements to give the community clearer advice about what to do. Calls to action can be used flexibly across all three warning levels and contextualised for each hazard for a given location. Table 6-3 provides some examples of the Australian Warning System's "calls to action" input (AIDR, 2021) that may be useful in a coastal emergency.

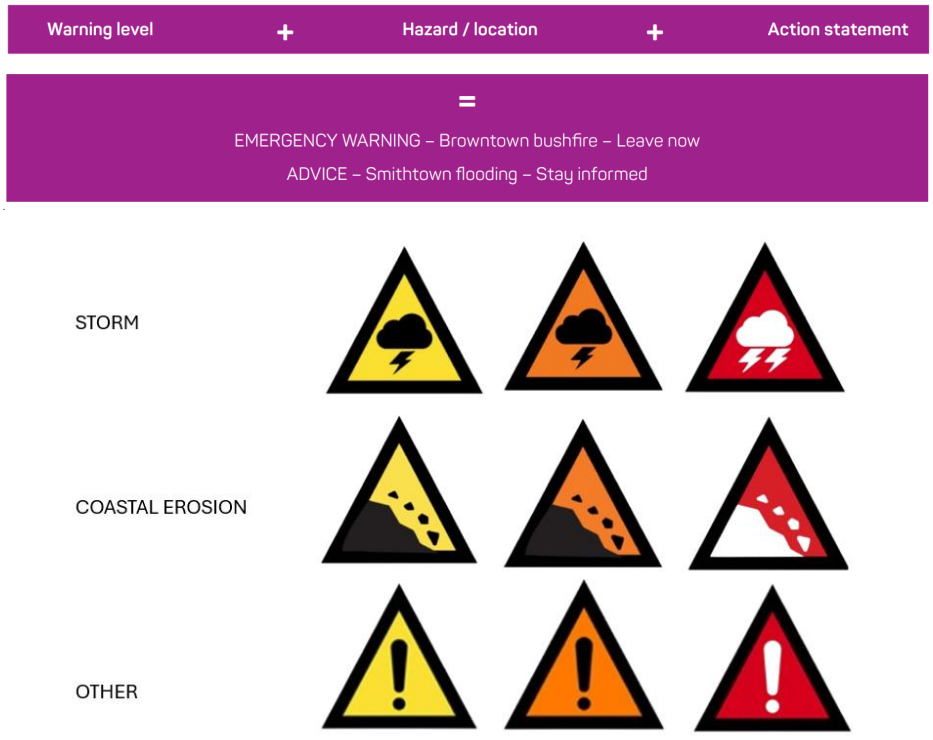



**Figure 6-1 Australian Warning System messaging model (top) and hazard icons (AIDR, 2021)**

Table 6-3 Examples of Australian Warning System calls to action (AIDR, 2021) that may be used in a coastal emergency

| Advice | Watch and Act | Emergency Warning |
|---|---|---|
| ▪ Prepare now<br>▪ Stay informed<br>▪ Monitor conditions<br>▪ Threat is reduced<br>▪ Avoid the area<br>▪ Return with caution | ▪ Prepare to leave/evacuate<br>▪ Leave/evacuate now (if you are not prepared)<br>▪ Prepare to take shelter<br>▪ Move/stay indoors<br>▪ Stay near shelter<br>▪ Walk two or more streets back<br>▪ Monitor conditions as they are changing<br>▪ Move to higher ground (away from creeks/rivers/coast)<br>▪ Limit time outside<br>▪ Avoid the area<br>▪ Stay away from damaged buildings and other hazards<br>▪ Prepare for isolation<br>▪ Do not enter flood water<br>▪ Not safe to return<br>▪ Prepare your property | ▪ Leave/evacuate (immediately, by am/pm/hazard timing)<br>▪ Seek/take shelter now<br>▪ Shelter indoors now<br>▪ Too late/dangerous to leave |

### 6.2.2 Message Communication

According to the Australian Disaster Resilience Handbook (AIDR, 2009):

*'the best predictions, the best interpretive material and the best warning messages are of little value if they have no impact on damages or safety. Failure is guaranteed if warning messages based on … predictions and interpretations … are not conveyed effectively to those expected to respond. In essence, a warning which is not communicated effectively is no warning at all if it is not heard or heeded'*.

The handbook identifies two different types of message communication based on target audience:

1. General warnings are disseminated ('broadcast') to whole communities or regions.
2. Specific warnings are intended for individuals or parts of communities and reflect the need for 'narrowcasting' to specific audiences who may have specific characteristics or be at different kinds of risk.

A combination of the following warning methods may be utilised:

- Emergency alerting systems e.g. AusAlert
- Internet – including authorised social media and the official Council website.
- Mobile and fixed public address systems
- Two-way radio
- Emergency Alert
- Telephone/fax

- Doorknocking
- Variable message signs
- Community notices in identified hubs
- Distribution through established community liaison networks/partnerships

Emergency Alert is a national telephony-based alert system used by emergency service agencies to send voice messages and short message service (SMS) to landline/mobile telephones in times of emergency. Where appropriate and usually in conjunction with other warning messages, Emergency Alert is used to send SMS/voice alerts to landline and mobile telephones in a specified geographic area. The emergency alert system should be used in conjunction with the three levels of emergency waring depicted in Figure 6-1.

# 7 EMERGENCY RESPONSE ACTION PLAN

## 7.1 Overview

This section outlines what actions are to be undertaken in the four phases of emergency management at each of the locations at risk that this CZEAS applies to.

- **LGA-wide Actions:** Section 7.2 summarises the coastal emergency actions through the four phases of emergency management, which apply to the locations at risk along the entire study area.
- **Site-Specific Actions:** In addition to the LGA-wide actions specified in the table below that would apply generally to all areas impacted by a coastal emergency, site-specific emergency actions that would apply to particular locations are outlined in individual site plans in Appendix A.

Council and NPWS ability to undertake the actions identified in this CZEAS will be dependent on the availability of resources during emergency events.

All actions must not put personnel, staff or volunteers in danger. Emergency management works must not be undertaken during extreme weather unless environmental conditions permit works to be undertaken safely. Implementation of the actions outlined in this document are to be undertaken in accordance with the provisions of Council and NPWS' respective Work Health and Safety Management System. The safety of the personnel who might be working under the extreme adverse weather conditions that gave rise to the emergency is to be prioritised over the execution of any actions outlined in this document. The implementation of an applicable safety hazard risk assessment is required prior to the undertaking of any intervention or non-intervention management measures.

Actions in this CZEAS aim to reduce risk:

- In areas where Council has chosen not to implement other coastal protection works to reduce coastal hazard risks, which have been evaluated as tolerable or acceptable.
- Where coastal hazard risks persist because an agreed action in this CMP has not yet been implemented.
- In situations where coastal hazard risks persist even after the implementation of other actions, leading to what is termed as residual risk.
- When rare and large or unexpected events occur, outside the design criteria or capacity of agreed management actions in this CMP.

## 7.2 Study Area Wide Actions

The following tables set out the LGA-wide emergency actions to be undertaken across the four phases of emergency management: Prevention, Preparedness, Response, and Recovery. These actions provide a consistent framework for managing coastal hazard risks across all locations within the study area, ensuring clarity around responsibilities, timing, and operational priorities. Site-specific actions for individual locations are provided separately in Appendix A.

Table 7-1 Coastal Emergency Actions: Phase 1 – Prevention

| Action | Description | Responsibility | Timing |
|---|---|---|---|
| 1.1 | **Inform:** Make this CZEAS available to all relevant stakeholders identified in Section 5. | Council, NPWS | Ongoing |
| 1.2 | **Inform:** Provide advice to the community, landholders, and the NSW SES about the potential for a coastal emergency from beach erosion, coastal inundation or cliff or slope instability – and the types of responses that are and are not permitted. | Council | Ongoing |
| 1.3 | **Inform:** Inform the community of Council's intended erosion emergency responses under this CZEAS. | Council | Ongoing |
| 1.4 | **Review:** Through the Local Emergency Management Committee (LEMC), consult with SES, DCCEEW, Local Police, LEOCON, FRNSW to ensure this CZEAS remains consistent the relevant local, regional, and state-based emergency management plans. | Council | Within 6 months of EMPLAN updates |
| 1.5 | **Review:** Review and update this CZEAS in line with any future updates to the CVA Mapping or CMP implementation. | Council, NPWS, NSW SES | Ongoing |
| 1.6 | **Review:** Assess threats to life and property arising from a coastal emergency through the CMP process. | Council, NPWS | During CMP preparation and review. |
| 1.7 | **Plan:** Apply development controls to developments in the coastal hazard areas in accordance with the Northern Beaches LEP and DCP. | Council | Ongoing |
| 1.8 | **Plan:** Obtain the necessary approvals to allow Nature Assisted Beach Enhancement (NABE) to be carried out in those areas where public infrastructure is at risk. An overview of NABE methods and approaches are provided in Appendix B. | Council, NPWS | Ongoing |
| 1.9 | **Plan:** Develop an early warning system for this CZEAS by formalising the processes set out in Section 3.4 and dovetailing them with Council's internal and external communications protocols and policies. | Council | Ongoing |
| 1.10 | **Plan:** Develop protocols between Council, NPWS, and NSW SES and LECON in relation to operational activities for situations where an Emergency Operations Centre (EOC) is not established. | Council, NPWS | Ongoing |



General Meeting 11 November 2026
Attachments Page 741
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 404
ATTACHMENT 3 - ITEM 7

| Action | Description | Responsibility | Timing |
|---|---|---|---|
| 1.11 | **Plan:** Establish internal operational protocol and procedures for all coastal hazard scenarios for LEMO, Council's coastal officers and works crews, and communications staff. | Council, NPWS | Ongoing |

Table 7-2 Coastal Emergency Actions: Phase 2 – Preparedness

| Action | Description | Responsibility | Timing |
|---|---|---|---|
| **"Sunny Day" Preparedness** | | | |
| 2.1 | **Inform:** Inform community members and businesses about the need to develop a household / business Emergency Management Plan (EMP) for coastal hazards. | Council | Ongoing |
| 2.2 | **Inform:** Inform Council and NPWS staff (respectively) about the emergency responses within this plan and ensure relevant personnel have the copies of the plan. | Council, NPWS | Ongoing |
| 2.3 | **Plan:** The LEMC will review the Northern Beaches Local EMPLAN every three (3) years as per Table 5-1 to ensure interoperability preparedness. | LEMC | Ongoing |
| 2.4 | **Plan:** Prepare an up-to-date list of contact details for key Council and NPWS staff involved in coordinating actions under the CZEAS (include responsibilities of staff who prepare for, manage and coordinate recovery from an erosion emergency event) and individuals from whom Council may need advice, such as DCCEEW staff, or with whom to integrate from other emergency sectors). | Council, NPWS | Ongoing |
| 2.5 | **Plan:** Prioritise planning and response to maximise (to the greatest extent practical) continued functionality for essential infrastructure during an emergency event. | Council, NPWS | Ongoing |
| 2.6 | **Plan:** Develop an operations procedure to guide Council and NPWS response to coastal emergency events (including resourcing, internal training, testing and periodic review). | Council, NPWS | Ongoing |
| 2.7 | **Monitor:** Undertake regular monitoring of coastal conditions, tide, wave height, rainfall, and weather condition forecasts for indication of approaching coastal hazards, as per Table 3-1 and Table 3-2. | Council, NPWS | Ongoing |



General Meeting 11 November 2026
Attachments Page 742
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 405
ATTACHMENT 3 - ITEM 7

| Action | Description | Responsibility | Timing |
|---|---|---|---|
| **Precaution Preparedness - where of triggers for Response Phase are anticipated** | | | |
| 2.8 | **Plan:** Ensure signage to close public foreshore access tracks and other public areas, and signage warning pedestrians of coastal hazards risks are available for use during coastal emergencies. | Council, NPWS | Ongoing |
| 2.9 | **Plan:** Ensure appropriate plant, equipment and experienced personnel are available for protection of assets at risk. Both internal and external personnel will be required based on specific scope of works. | Council, NPWS | Ongoing |
| 2.10 | **Monitor:** Undertake regular monitoring of hazard forecasts (see Section 3.2) and local forecasts and triggers (see Section 3.3) that may activate the Response Phase. | Council, NPWS<br>NSW SES | Ongoing |

Table 7-3 Coastal Emergency Actions: Phase 3 – Response

| Action | Description | Responsibility | Timing / Trigger |
|---|---|---|---|
| 3.1 | **Monitor:** Undertake regular monitoring of hazard forecasts (see Section 3.2) and local forecasts and triggers (see Section 3.3) that may activate the Response Phase | Council, NPWS<br>NSW SES | Ongoing |
| 3.2 | **Plan:** The LEMC (inc. Council LEMO) should consider Council advice regarding consider Warnings and Triggers, and advice provided by the NSW BoM. From here SEOCON, REOCON, LEOCON and NSW SES to are decide on the emergency management process (supported by Council). This may include the establishment of an Emergency Operations Centre (EOC). | SEOCON, REOCON, LEOCON, NSW SES | Response phase activated. |
| 3.3 | **Plan:** No actions undertaken should impede, conflict, or overlap with those of response agencies under the SERM Act unless there is prior agreement between the relevant parties. | Council, NPWS | Response phase activated. |
| 3.4 | **Communicate:** Implement the communication protocol in conjunction with the combat agency (NSW SES) to advise landholders, residents, public | Council, NPWS<br>NSW SES | Response phase activated. |



General Meeting 11 November 2026
Attachments Page 743
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 406
ATTACHMENT 3 - ITEM 7

| Action | Description | Responsibility | Timing / Trigger |
|---|---|---|---|
| | authorities and other organisations that a coastal emergency is likely or is occurring and that actions in this CZEAS are to be implemented. When EOC not is in place, communications are to be directed through the communications business partner for the Coastal Management Unit. LEMO to be copied into all communications for oversight (see Figure 1-2).<br>Release media information as necessary to keep the community informed. Community information hubs and social media to be utilised, refer to Section 6. | | |
| 3.5 | **Prepare:** Place appropriate equipment on standby (back up radios, signs, and barricades etc.). | Council, NPWS | Response phase activated. |
| 3.6 | **Monitor:** At locations that are impacted – or expected to be impacted - by coastal hazards, undertake monitoring of beach state and coastal hazard conditions on a daily basis (minimum), preferably during high tide. This includes monitoring:<br>▪ The need for barriers and safety signage to be erected at damaged and potentially dangerous beach access points, to minimise risk to public safety.<br>▪ The need to remove existing beach signage, bins, beach access infrastructure, and dune fencing where threatened by coastal erosion (and removing these assets where safe to do so to prevent damage or being washed away).<br>▪ The need to enact other response measures. | Council, NPWS | Response phase activated.<br>Ony if/when safe to do so. |
| 3.7 | **Monitor:** Undertake monitoring of identified coastal cliff and slope instability risk areas on public land. | Council, NPWS | Response phase activated.<br>Ony if/when safe to do so. |
| 3.8 | **Close Roads:** Initiate erection of safety barriers or safety signage across potentially dangerous access points on roads assessed within the CZEAS to be vulnerable to coastal hazards.<br>▪ Refer to the coastal hazard maps in Appendix A and specific locations listed in Section 4 of this CZEAS as a guide to assess locations where action such as road closures will be required. Sections of roadway that | Council, NPWS | Act if roads or vehicle access tracks are unsafe due to:<br>▪ Coastal erosion resulting in instability or undermining. |



General Meeting 11 November 2026
Attachments Page 744
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 407
ATTACHMENT 3 - ITEM 7

| Action | Description | Responsibility | Timing / Trigger |
|---|---|---|---|
| | may be subject to inundation that pose a high public safety risk should be temporarily closed to public access. This can be done through erection of temporary barricades, cyclone fencing and/or signage<br>Council will coordinate the closure and reopening of council managed roads once inspections have been carried out by the relevant authority. | | ▪ Coastal inundation, wave run-up and overtopping likely to cause or likely to cause inundation of areas. |
| 3.9 | **Close Foreshore Access:** Close access to public foreshore reserves, public lookouts, and other public areas. Erect barricades and signs, as necessary. Refer to Appendix A for locations of foreshore areas.<br>▪ Install temporary fencing and/or signage on council managed land (e.g. foreshore reserves) affected by coastal inundation or erosion resulting from major storm activity or an extreme or irregular event, where this has resulted in unsafe conditions<br>▪ Undertake inspection of these areas where it is safe to do so and inform the NSW SES of any intelligence on unforeseen impacts of coastal inundation gathered during the emergency. In a potential emergency event, the foreshore areas listed in Table 4-1 should be inspected daily, particularly at high tide, where resources permit. Work with NSW SES and NSW DCCEEW-CPHR to collect data during and after coastal inundation events (e.g. RTK survey of debris lines, photographs of inundated or eroded areas).<br>▪ Assist the NSW SES to enact closure of access points that the NSW SES Incident Controller has deemed to be unsafe and that may not have been identified as specific locations of coastal erosion or inundation risk within this CZEAS. | Council, NPWS | Act if public beach access track is unsafe due to:<br>▪ Damaged access track structure, steps, slats, platforms, posts etc.<br>▪ Where access terminates at a beach erosion scarp greater than 1 m in height.<br>▪ Dangerous waves or excessive wave run-up progressing into access tracks.<br>▪ Otherwise deemed unsafe. |
| 3.11 | **Manage Essential Infrastructure:** Through consultation with utilities providers assess the requirement and options for utilities management where such infrastructure becomes or is likely to become affected by coastal hazards. Erect barricades and signs, as necessary. | Council | As required. |
| 3.12 | **Respond:** Seek specialist coastal engineering advice where required. | Council, NPWS<br>DCCEEW | As required. |

| Action | Description | Responsibility | Timing / Trigger |
|---|---|---|---|
| 3.13 | **Respond:** Seek advice from DCCEEW staff as required. | Council, NPWS, DCCEEW | As required. |

Table 7-4 Coastal Emergency Actions: Phase 4 – Recovery

| Action | Description | Responsibility | Timing / Trigger |
|---|---|---|---|
| 4.1 | **Monitor:** Conduct/organise detailed inspections of sites potentially affected by coastal hazards and assess damage to assets and the natural environment. Assess the structural integrity of any damaged infrastructure. Seek professional advice as required. | Council, NPWS | Following an emergency event. Once it is safe to do so. |
| 4.2 | **Close Foreshore Access:** Access to remain closed until foreshore regrades naturally and foredune has recovered. Continue temporary safety fencing and associated warning signage as necessary. | Council, NPWS | Where the beach scarp is exceedingly high and impractical to collapse to 1V:4H. |
| 4.3 | **Restore:** Where beach erosion has generated a vertical erosion escarpment of greater than 1 m in height that presents a risk to assets or has created unsafe access, Council will take action to make the area safe.<br>This may include regrading the escarpment to slope of 1V:4H with machinery or other available means. Take care not to damage dune vegetation. | Council, NPWS | Following an emergency event. Once it is safe to do so.<br>Act if foreshore access is unsafe due to:<br>▪ A vertical erosion escarpment of greater than 1 m in height. |



General Meeting 11 November 2026
Attachments Page 746
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 409
ATTACHMENT 3 - ITEM 7

| Action | Description | Responsibility | Timing / Trigger |
|---|---|---|---|
| 4.4 | **Restore:** Arrange for the repair of public beach access tracks. If the access track cannot be restored safely, or where restoration is not viable considering the social, economic, and environmental impact - it should be permanently closed and removed from Councils asset register. | Council, NPWS | Following an emergency event. Once it is safe to do so<br>Act if public beach access track is unsafe due to:<br>▪ Damaged access track structure, steps, slats, platforms, posts etc.<br>▪ A vertical erosion escarpment of greater than 1 m in height.<br>▪ Dangerous waves or excessive wave run-up progressing into access tracks.<br>▪ Otherwise deemed unsafe. |
| 4.5 | **Restore:** Remove, replace, or repair minor infrastructure (e.g., picnic facilities, garbage bins etc.) that have been impacted on by storm events where required. | Council, NPWS | Following an emergency event. Once it is safe to do so. |
| 4.6 | **Restore:** Removal of beach/storm debris that poses high risk to public safety, and associated contemporary risk assessment on a site-by-site basis. | Council, NPWS | Following an emergency event. Once it is safe to do so. |
| 4.7 | **Restore:** Restore access to beaches and headlands. | Council, NPWS | Following an emergency event. Once it is safe to do so. |
| 4.8 | **Restore:** Undertake NABE and dune management to enhance post-storm recovery for specific beaches set out in Appendix A. An overview of NABE methods and approaches are provided in Appendix B. | Council, NPWS | Following an emergency event. Once it is safe to do so |
| 4.9 | **Monitor:** Investigate any unauthorised coastal works and monitor as necessary. | Council | Response phase activated. |
| 4.10 | **Inform:** Continue to maintain a communication strategy warning of the dangers of any persisting high, unstable, or near-vertical erosion escarpments drying out and collapsing without notice. | Council, NPWS | Following an emergency event. Once it is safe to do so. |



General Meeting 11 November 2026
Attachments Page 747
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 410
ATTACHMENT 3 - ITEM 7

| Action | Description | Responsibility | Timing / Trigger |
|---|---|---|---|
| 4.11 | **Inform:** Liaise with property owners to ensure any private and/or public structures do not pose a risk to the public. | Council | Following an emergency event. |
| 4.12 | **Inform:** If necessary, issue orders under the Local Government Act 1993 and/or the *Environmental Planning and Assessment Act 1979* when properties are deemed structurally unsafe or pose a risk to the public. | Council | As required. |
| 4.13 | **Record:** Record coastal emergency impacts and response actions. Take remedial action where necessary. Maintaining photographic and written records of events and decision-making processes. See Section 7.3. | Council, NPWS | Following an emergency event. Once it is safe to do so. |
| 4.14 | **Inform:** Erect permanent warning signs if necessary. | Council, NPWS | Following an emergency event. |
| 4.15 | **Restore:** Replenish any emergency materials and supplies for use in any future erosion events | Council, NPWS | Following an emergency event. |
| 4.16 | **Review:** Undertake an After Action Review (see section 7.5) review of this CZEAS and update as necessary to improve the future effectiveness of coastal emergency response actions. | Council, NPWS, NSW SES, DCCEEW | Within 2 weeks of plan activation, or as necessary. |



General Meeting 11 November 2026
Attachments Page 748
Hornsby Shire Council
Attachment to Report No. CE22/26 Page 411
ATTACHMENT 3 - ITEM 7

## 7.3 Emergency Coastal Protection Works

Emergency coastal protection works (ECPW) are defined in the State Environmental Planning Policy (Resilience and Hazards) 2021 as:

"*works comprising the placement of sand, or the placing of sandbags for a period of not more than 90 days, on a beach, or a sand dune adjacent to a beach, to mitigate the effects of coastal hazards on land*"

The nominated ECPW would generally be comprised of Nature Assisted Beach Enhancement (NABE) (also known as beach scraping) - undertaken as a form of beach nourishment - could also be undertaken during the response phase if time, resource and event magnitude permit. Determination of local specifications for the scraping works would be dependent upon the beach state at the time, and would therefore involve consultation with relevant NSW government agencies as per the communication protocol. Appendix B provides an overview of NABE processes.

Importantly, during the emergency response phase, the window for physical works is extremely limited. Realistically, only the measures listed above are likely to be feasible. Any larger or more complex measures would need to be assessed case-by-case and are unlikely to proceed within the short timeframes associated with active emergency conditions.

The determination of which ECPW measure is most appropriate should be made in conjunction with technical coastal engineering advice, including engagement with DCCEEW (see Response Action 3.12 to 3.13). All emergency works must be undertaken in consultation with a suitably qualified coastal or geotechnical engineer to ensure structural integrity, safety, and compliance with environmental and planning requirements

Appendix A of this document provides a series of Local Area Sub-Plan for local beaches considered to be exposed to high levels of infrastructure or public safety risk due to coastal hazards. These plans provide local beach-level specificity to CZEAS actions, along with associated companion mapping.

## 7.4 Recording Coastal Emergency Impacts and Emergency Response Actions

After a coastal emergency event, Council is to issue a formal After Action Review in coordination with LEMC partners, in order to record the following details in a database, and to maintain effective emergency actions and understand any changes in coastal conditions over time (DPIE, 2019):

- Details of the emergency event – including any coastal erosion, coastal inundation (and wave run-up), and coastal cliff and slope instability. Details are to include the weather conditions and tide under which they were caused including photographs where possible.
- The location of any assets and infrastructure that were damaged and details of the extent of the damage.
- Details of any emergency coastal protection works undertaken (including NABE), including the cost and the installation date.
- Details of any planned future coastal protection works in the CMP that are not yet undertaken, including the cost and the expected implementation timeframe.
- Details of any survey of the beach levels and other features that may be considered required to provide a greater understanding of the hazard or the event.
- Where possible, community feedback regarding the emergency communication and response efforts.
- Review and update (if required) this CZEAS, in particular the Emergency Action Plan, in consultation with the NSW SES and any other relevant agencies (see Section 5 above).

# 8 APPROVALS PATHWAYS

Information on approval pathways for coastal protection works and emergency coastal protection works are set out in the Coastal protection works fact sheet (NSW DPE, 2018). A public authority may carry out coastal protection works without development consent if the works are:

- Identified in the relevant certified CMP.
- Beach nourishment.
- Placing sand bags for not more than 90 days.
- Routine maintenance works or repairs to existing coastal protection works.
- Explicitly identified in a certified CZEAS

The NSW coastal management framework requires all proposals for coastal protection works to be considered strategically through the development of a CMP. Public authorities can carry out emergency coastal protection works, as exempt development, where these works are in accordance with a CZEAS (such as this document) prepared by the relevant council and included in a certified CMP – see Figure 8-1.

Where works do not meet these criteria, assessment and approval by the relevant Regional or Local Planning Panel would be required before implementation.

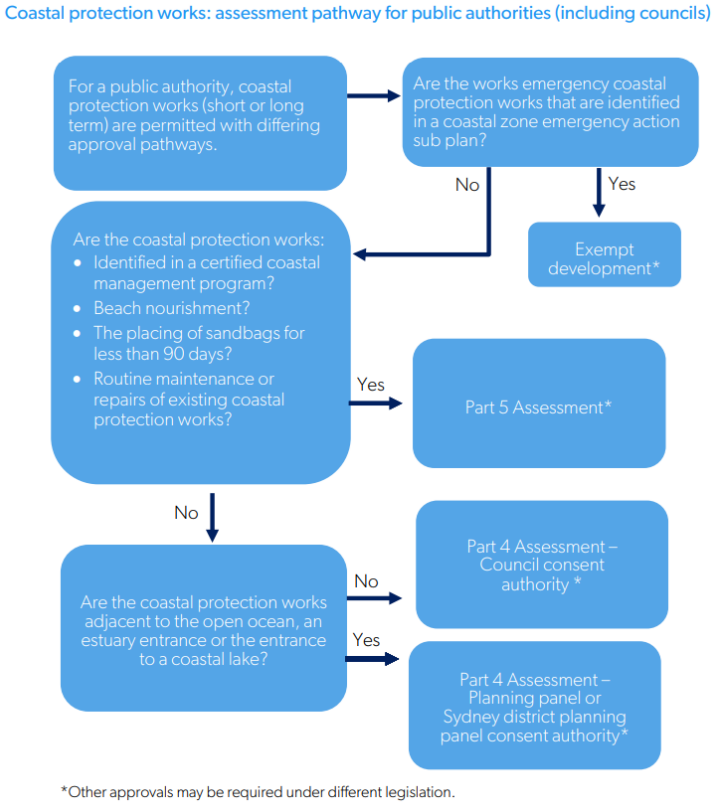



**Figure 8-1 Coastal protection works: assessment pathway for public authorities (including councils). Source: DPE (2018).**

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ATTACHMENT 3 - ITEM 7

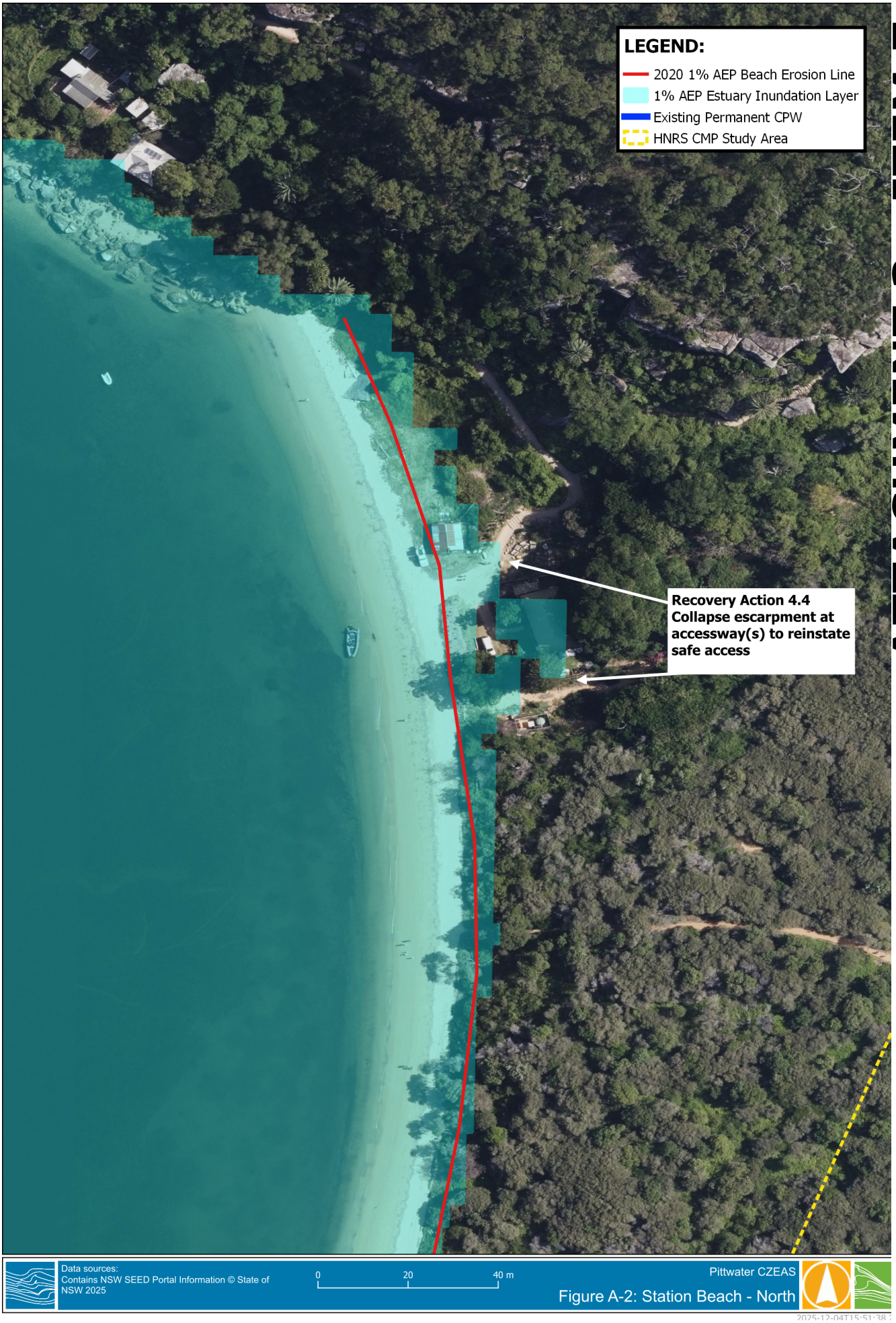
# APPENDIX A
# BEACHES – LOCAL AREA PLANS



ATTACHMENT 3 - ITEM 7



ATTACHMENT 3 - ITEM 7



ATTACHMENT 3 - ITEM 7






Figure A-4: Snapperman Beach

ATTACHMENT 3 - ITEM 7

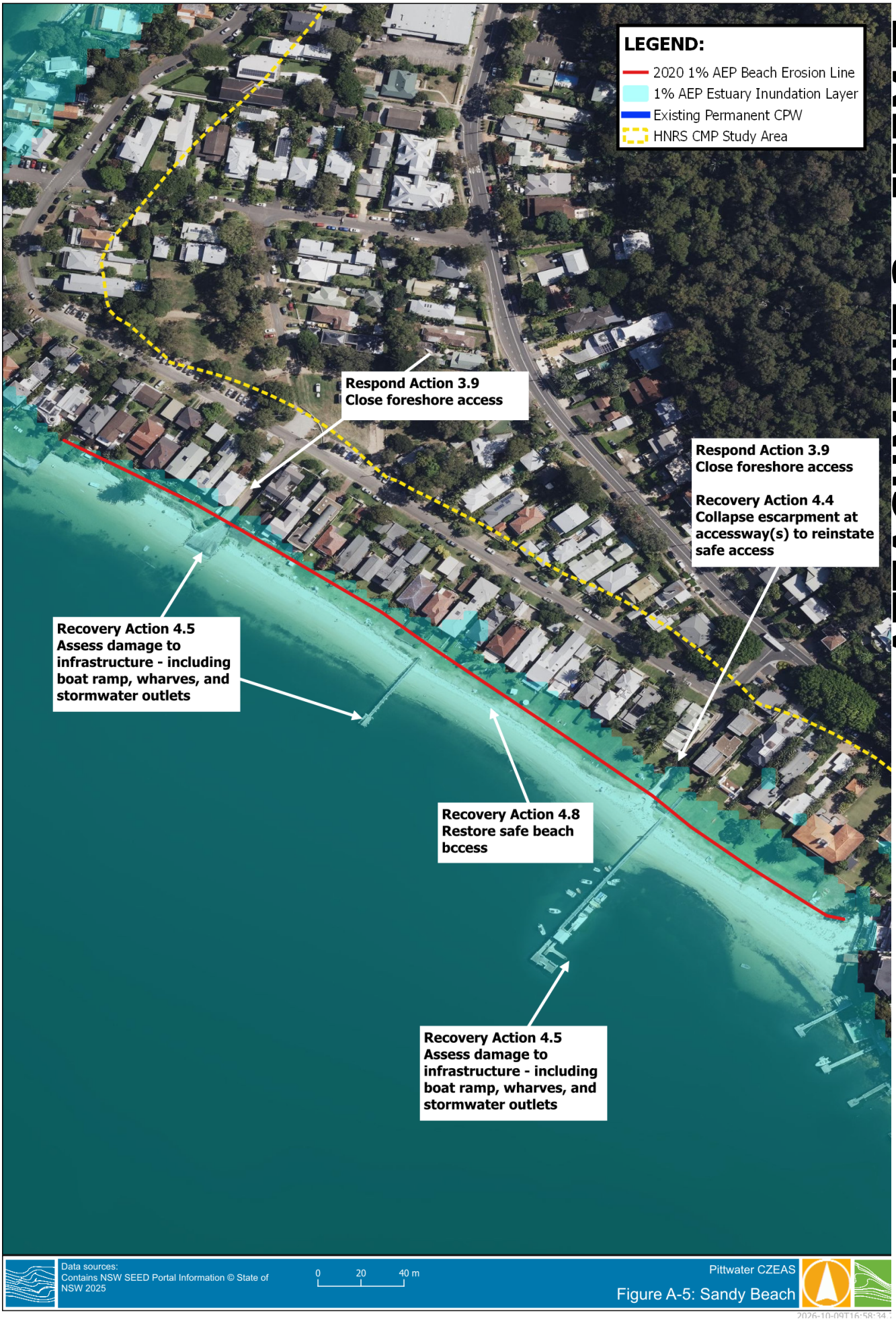
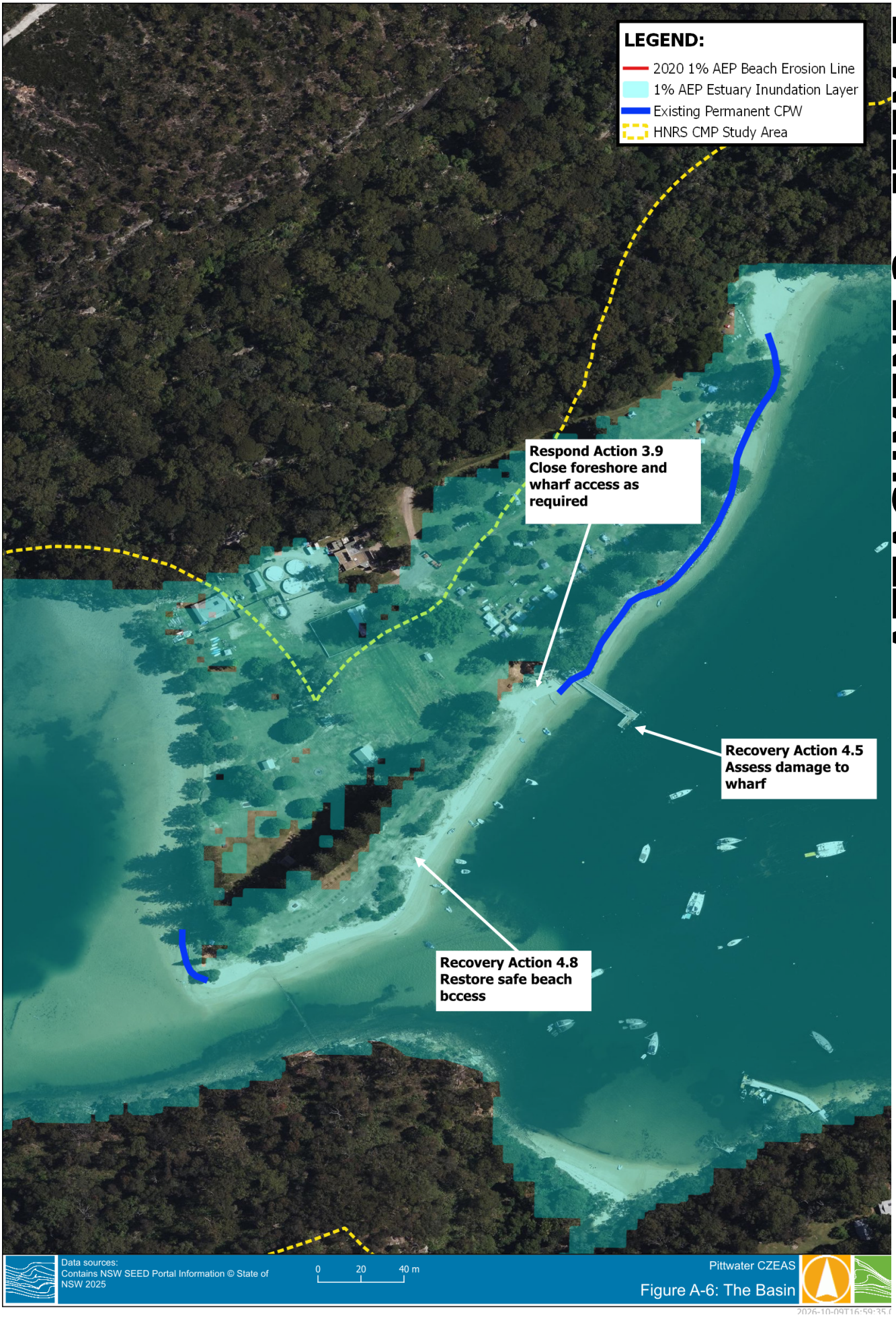
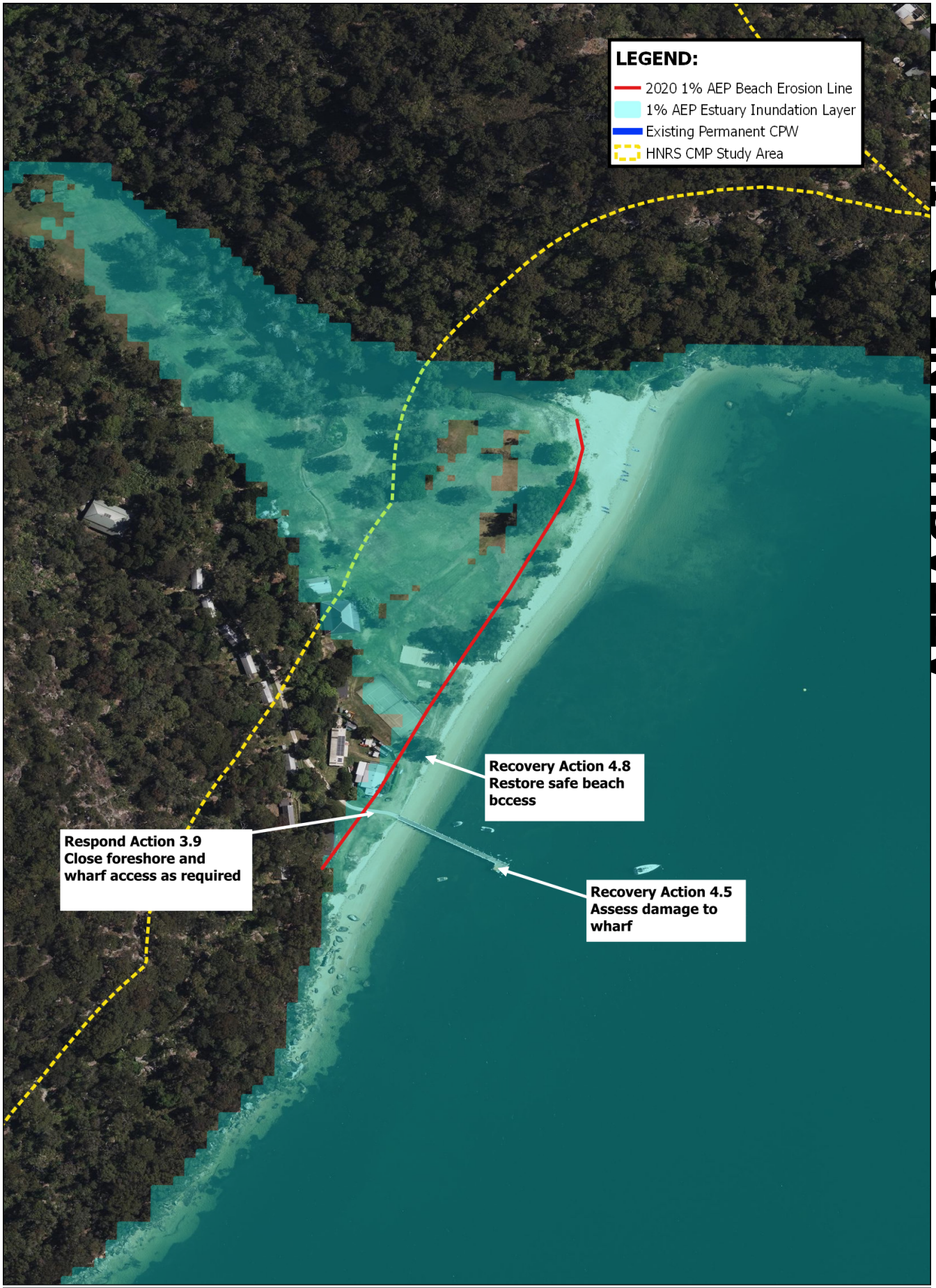
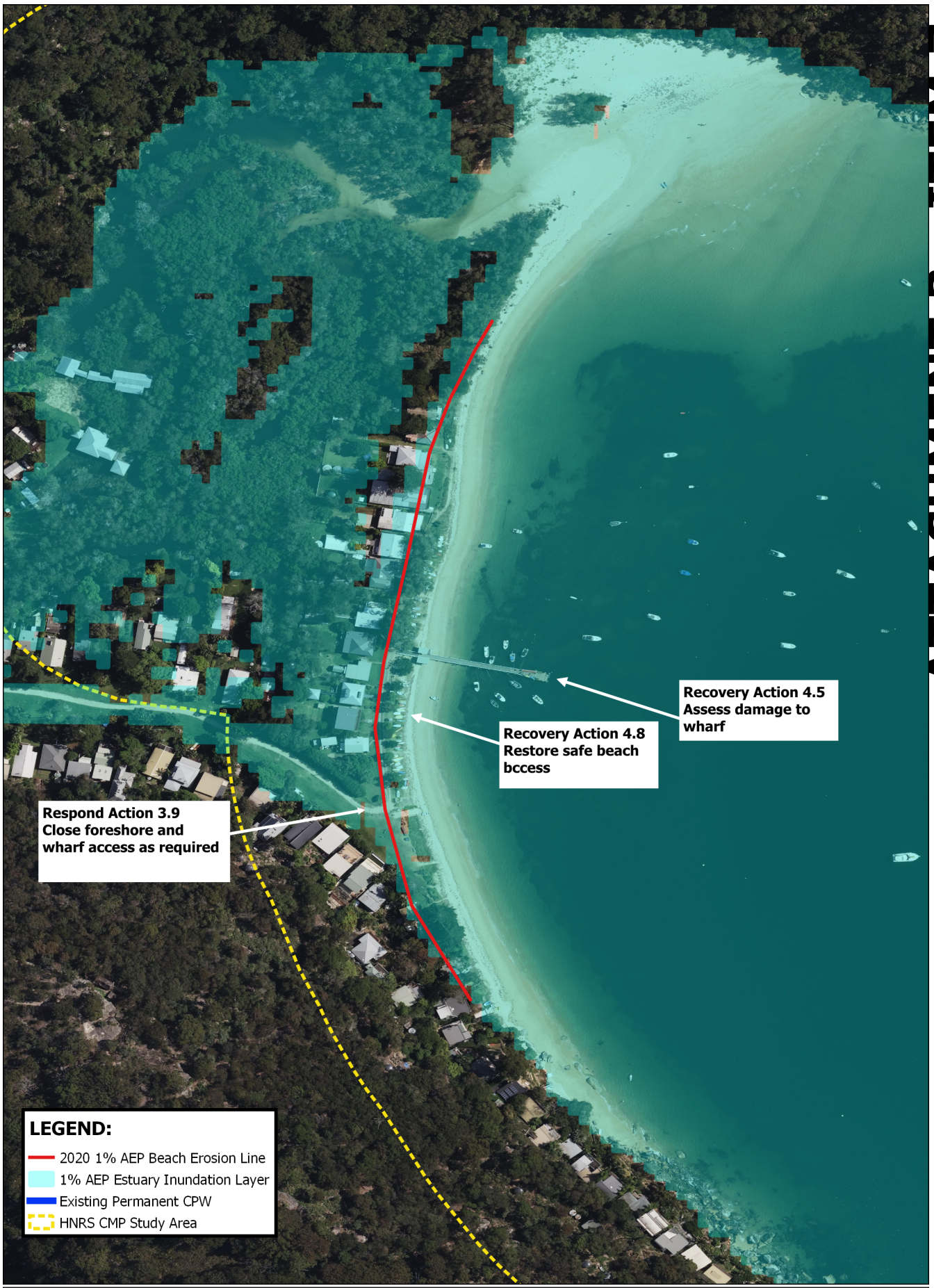



Figure A-5: Sandy Beach


LEGEND:
2020 1% AEP Beach Erosion Line
1% AEP Estuary Inundation Layer
Existing Permanent CPW
HNRS CMP Study Area
Respond Action 3.9
Close foreshore and wharf access as required
Recovery Action 4.5
Assess damage to wharf
Recovery Action 4.8
Restore safe beach bccess
Data sources:
Contains NSW SEED Portal Information © State of NSW 2025
0 20 40 m
Pittwater CZEAS
Figure A-6: The Basin

ATTACHMENT 3 - ITEM 7




Recovery Action 4.5
Assess damage to wharf
Recovery Action 4.8
Restore safe beach bccess
Respond Action 3.9
Close foreshore and wharf access as required
LEGEND:
2020 1% AEP Beach Erosion Line
1% AEP Estuary Inundation Layer
Existing Permanent CPW
HNRS CMP Study Area
Data sources:
Contains NSW SEED Portal Information © State of NSW 2025
0
25
50 m
Pittwater CZEAS
Figure A-8: Great Mackerel Beach
2025-12-04T16:25:09.447

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ATTACHMENT 3 - ITEM 7

# APPENDIX B
# OVERVIEW OF NABE



## B-1 Overview of Nature Assisted Beach Enhancement

Nature Assisted Beach Enhancement (NABE) – otherwise referred to as beach scraping, is a technique used for accelerating beach recovery following erosion by changing the slope of a beach, periodically, to allow the energy of the sea to bring additional sand onshore. This is achieved by transferring a small amount of sand from the beach berm at low tide and adding the sand to the dune system. This process serves to assist nature in beach enhancement by systematically accelerating up the natural cross-shore recovery process of the beach profile (Carley, et al., 2010). NABE can therefore be used as a measure to aid recovery where beach access has been damaged following a storm and can be combined with the restoration works for the key beach access tracks throughout the LGA.

NABE is basically a mechanical intervention to speed up the natural processes of beach and foredune recovery after a storm event. It is a useful tool to achieve rapid re-establishment of a foredune and beach berm. It can not only be used to create a buffer against further back beach erosion during following storms but can also re-establish a dune crest level that will prevent a wash through from wave overtopping. While it is not a panacea for overcoming long-term coastal recession, it can reduce the rate of recession by mitigating the compounding impacts of multiple storm erosion events (Gordon, 2015).

It is recognised that the restoration works proposed would not, per se, form a permanent solution to an erosion problem and scraping may need to be done again at some future time. However, such soft engineering techniques are encouraged as they do not interfere significantly with the natural processes and they have minimal adverse impacts on the environment (Gordon, 2015). Beach scraping has higher uncertainty as a protection measure than other coastal management options, so should only be undertaken in conjunction with a comprehensive monitoring program (Carley, et al., 2010).

## B-2 Methods

Some general information and considerations are provided herein for the application of NABE across the Pittwater foreshores.

- As part of NABE activities material is bulldozed from the swash zone, starting at low tide, and pushed up onto the berm working up the swash zone as the tide rises – see Figure B-1. The sand harvested from the swash zone onto the berm can then be moved to the back of the beach during the higher phases of the tide to form the incipient dune (Gordon, 2015).
- It should be noted that working on a beach, and particularly in the swash zone, is a harsh environment for any mechanical equipment and it is often impractical to use anything other than track tread vehicles such as bulldozers and track tread front-end loaders for swash zone work.
- From a practical viewpoint it is often prudent to ensure projects are undertaken using at least two machines. Not only does this speed up production, but it also ensures that there is back up for retrieval if one of the machines becomes bogged. The risk of equipment bog down is significant in the swash zone.
- Carley et al (2010) provide data on the realistic yield of bulldozers indicating that a D6 can move 94 $m^3$/hr, a D7, 175 $m^3$/hr and a D9 around 188 $m^3$/hr.
- In relatively calm wave conditions following storm erosion, it has historically been found that the rate of natural resupply from the offshore region to the swash zone is initially rapid so that typically, a 0.3 m skimming of the swash zone on one tide can result in near reinstatement of the previous swash zone by the next tide (Gordon, 2015).
- Experience dictates that there is no need to fully re-build eroded dunes using NABE. Rather, NABE should be used to commence “kick-start” the natural process and provide early opportunities for re-planting and re-colonisation by remnant vegetation so that the natural sand trapping can take over the dune building process (Gordon, 2015).

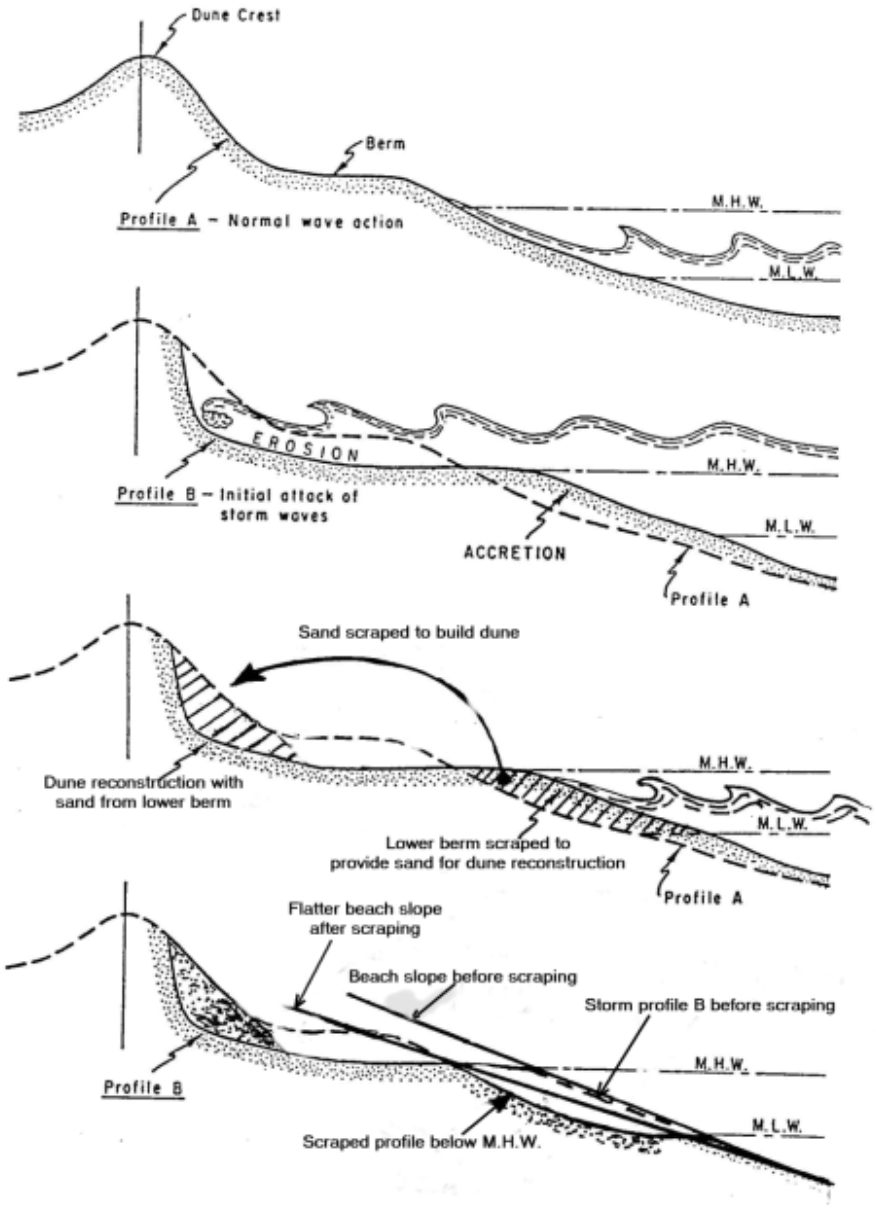



Figure B-1 Schematic diagram illustrating the application of beach scraping (Carley, et al., 2010)

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# Coastal Zone Emergency Action Subplan – Lower Hawkesbury

## Hawkesbury-Nepean River System CMP

Partner Councils

9 October 2026



Coastal Zone Emergency Action Subplan – Lower Hawkesbury

Hawkesbury-Nepean River System CMP

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9 October 2026

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# CONTENTS


GLOSSARY AND ABBREVIATIONS IV

1 INTRODUCTION 6
1.1 Background 6
1.2 Purpose and Objectives 6
1.3 Consultation 7
1.4 Study Area 7

2 SCOPE OF THE CZEAS 9
2.1 Coastal Hazards 9
2.2 What is an Emergency? 10
2.3 Coastal Emergencies Covered by the CZEAS 11

3 TRIGGERS FOR EMERGENCY ACTION 16
3.1 Overview 16
3.2 Hazard Forecasts 16
3.3 Local Impact Triggers and Forecasts 16

4 AREAS AT RISK 18
4.1 Overview 18
4.2 Local Hazard Exposure 18
4.3 Risk Summary 20

5 ROLES AND RESPONSIBILITIES 24
5.1 Agencies and Personnel 24
5.2 Combat Agencies 28
5.3 Emergency Operation Centres 28

6 COMMUNICATION PROTOCOLS 30
6.1 Overview 30
6.2 Message Construction 30

7 EMERGENCY RESPONSE ACTION PLAN 35
7.1 Overview 35
7.2 Study Area Wide Actions 35
7.3 Recording Coastal Emergency Impacts and Emergency Response Actions 40

8 REFERENCES 41


# APPENDICES


Appendix A Local Area Plans


# LIST OF FIGURES


Figure 1-1 Study Area covered by this CZEAS 8
Figure 2-15 Stages of Emergency Planning 11

Figure 2-16 Simplified legislative framework for emergency management in NSW and its relationship with coastal management legislation and coastal management programs 12
Figure 2-1 Area Covered by the Hawkesbury-Nepean Flood Emergency Sub Plan (Wallacia to Spencer) (NSW SES, 2021) 15
Figure 6-1 Australian Warning System messaging model (top) and hazard icons (AIDR, 2021) 32

## LIST OF TABLES

Table 2-1 Planning hierarchy for coastal hazards listed in the CM Act across the study area 14
Table 2-2 Planning hierarchy for coastal hazards not listed in the CM Act across the study area 14
Table 3-1 Available sources of data for coastal hazard parameters 17
Table 4-1 Riverside Settlements known to be at risk of coastal inundation 18
Table 4-2 Risk Summary 21
Table 5-1 Roles and Responsibilities 24
Table 5-2 Combat agencies for coastal hazard events 28
Table 6-1 Communication Protocols 30
Table 6-2 Warning Levels from the Australian Warning System framework (AIDR, 2021) 31
Table 6-3 Examples of Australian Warning System calls to action (AIDR, 2021) that may be used in a coastal emergency 33
Table 7-1 Coastal Emergency Actions: Phase 1 – Prevention 35
Table 7-2 Coastal Emergency Actions: Phase 2 – Preparedness 36
Table 7-3 Coastal Emergency Actions: Phase 3 – Response 37
Table 7-4 Coastal Emergency Actions: Phase 4 – Recovery 39

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## GLOSSARY AND ABBREVIATIONS

| Term | Definition |
|---|---|
| AIDR | The Australian Institute for Disaster Resilience |
| Beach erosion | Landward movement of the shoreline and/or a reduction in beach volume, usually associated with storm events or a series of events, which occurs within the beach fluctuation zone. Beach erosion occurs due to one or more process drivers: wind, waves, tides, currents, ocean water level, and downslope movement of material due to gravity. |
| BoM | Bureau of Meteorology |
| CCC | Central Coast Council |
| CM Act | *The Coastal Management Act 2016* |
| Coastal cliff and slope instability | Geotechnical instabilities on coastal cliffs and bluffs, including rock falls, slumps, and landslides. |
| Coastal emergency | An emergency due to actual or imminent coastal inundation, coastal erosion, or coastal cliff and slope instability which (a) threatens endangers, or threatens to endanger, the safety or health of persons; or (b) destroys or damages, or threatens to destroy or damage, any property or the natural environment. |
| Coastal inundation | Coastal inundation occurs when a combination of marine and atmospheric processes raises the water level at the coast above normal elevations, causing land that is usually 'dry' to become inundated by sea water. Alternatively, the elevated water level may result in wave run-up and overtopping of natural or built shoreline structures (e.g., dunes, seawalls). |
| Coastal protection works | The CM Act defines coastal protection works as:<br>a) beach nourishment<br>b) activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters, including (but not limited to) seawalls, revetments, and groynes. |
| Combat Agency | The agency identified in this subplan as the agency primarily responsible for controlling the response to a particular emergency (SERM Act 1989). |
| CZEAS | Coastal Zone Emergency Action Subplan (this document) |
| DCCEEW | The NSW Department of Climate Change, Energy, the Environment and Water. Prior to 1 January 2024, the responsibilities of the department were carried out by the former NSW Department of Planning and Environment (DPE). |
| DPE | The former NSW Department of Planning and Environment. On 1 January 2024, the DPE was be split into two new dedicated entities, the Department of Climate Change, Energy, the Environment and Water (DEECCW), and the Department of Planning, Housing and Infrastructure (DPHI). |
| ECL | East Coast Low |
| EMPLAN | Emergency Management Plan |
| Essential infrastructure | Defined in the CM Act as infrastructure for the following purposes: electricity generation, transmission and distribution, telecommunications, rail, roads, gas, sewerage systems, water supply systems or stormwater management systems, airports, ports shipping and harbours. |
| Estuary | The CM Act defines an estuary as any part of a river, lake, lagoon, or coastal creek that is affected by coastal tides, up to the highest astronomical tide. |

| Term | Definition |
|---|---|
| FRNSW | Fire and Rescue NSW |
| Hs | Significant Wave Height - the average of the highest one third of waves during a specific period. |
| HSC | Hornsby Shire Council |
| LEMC | Local Emergency Management Committee. The LEMC is constituted under the SERM Act for each local government area and is responsible for preparing plans for response and recovery from emergencies. |
| LEMO | Local Emergency Management Officer |
| Local Emergency Operations Controller (LEOCON) | A Police Officer appointed by the District Emergency Operations Controller as the Local Emergency Operations Controller for the Local Government Area. |
| LGA | Local Government Area |
| MHWS | Mean High Water Springs. The long-term mean of the heights of 2 successive high waters during those periods of 24 hours (approximately once a fortnight) when the range of tide is greatest, during full and new moon. |
| NBC | Northern Beaches Council |
| NPWS | National Parks and Wildlife Service |
| NSW SES | NSW State Emergency Service |
| Regional Emergency Operations Controller (REOCON) | The NSW Police Southern Region Commander is appointed as the REOCON. This role is typically responsible for coordinating emergency management efforts within a specific region of NSW during crises or disasters. performs the role of REOCON. |
| RFS | NSW Rural Fire Service |
| State Emergency Operations Controller (SEOCON) | This SEOCON role is a member of the New South Wales Police Force Senior Executive Service responsible for overseeing emergency response operations at the state level during major emergencies or disasters. |
| SERM Act | *State Emergency and Rescue Management Act 1989* |
| Tsunami | Defined in the State tsunami Plan as “A series of ocean waves with very long wavelengths (typically hundreds of kilometres) caused by large-scale disturbances of the ocean, such as earthquakes, landslide, volcanic eruptions, explosions, or meteorites”. |
| Wave Run-up | The vertical distance above mean water level reached by the uprush of water from waves across a beach or up a structure. |



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# 1 INTRODUCTION

## 1.1 Background

This Coastal Zone Emergency Action Subplan (CZEAS) forms part of the Hawkesbury-Nepean River System (HNRS) Coastal Management Program (CMP). It addresses emergencies associated with **Coastal Inundation**, as defined in the *Coastal Management Act 2016* (the CM Act), and applies to the foreshore communities within the Lower Hawkesbury River estuary – extending from (but excluding) Little Patonga to Spencer.

This CZEAS **does not cover**:

- Coastal hazard emergencies along the foreshores of **Pittwater** or **Broken Bay**, which are subject to separate CZEAS documents under the CMP framework.
- **Riverine flooding** across the broader Hawkesbury–Nepean Valley, which is managed under the Hawkesbury–Nepean Valley Flood Emergency Plan.

This CZEAS has been prepared based on the requirements of:

- *The Coastal Management Act 2016* (the CM Act).
- The NSW Coastal Management Manual (OEH, 2018a).
- The NSW Guideline for preparing a coastal zone emergency action subplan (DPIE, 2019).

The document has been prepared for the primary land managers with jurisdiction over the areas covered by this Subplan:

- **Central Coast Council (CCC)** – responsible for the northern foreshores of the Lower Hawkesbury.
- **Hornsby Shire Council (HSC)** – responsible for southern foreshores of the Lower Hawkesbury.
- **Northern Beaches Council (NBC)** – responsible for southern foreshores of the Lower Hawkesbury.
- **NSW National Parks and Wildlife Service (NPWS)** – responsible for key foreshore land tenures throughout the Lower Hawkesbury.

It is acknowledged that a small portion of the Lower Hawkesbury foreshore falls within the Ku-ring-gai Council Local Government Area (LGA). However, there are limited riverside settlements or assets at risk within that portion of the LGA. As such, the primary focus of this CZEAS is on the key management authorities listed above. Notwithstanding, where relevant, the principles and response actions outlined in this Subplan may also be applied or adapted by Ku-ring-gai Council should future risk assessments or local conditions warrant inclusion.

## 1.2 Purpose and Objectives

As specified in the CM Act, a CZEAS is a plan that outlines the roles and responsibilities of all public authorities (including the local council) in response to coastal emergency events immediately preceding or during periods of beach erosion, coastal inundation, or coastal cliff and slope instability, where those processes occur through storm activity or an extreme or irregular event.

Subsequently, this CZEAS details arrangements for the four phases of emergency events (prevention, preparation, response, and recovery) relating to coastal hazards for settlements in the Lower Hawkesbury River.

In accordance with the New South Wales (NSW) Guideline for preparing a coastal zone emergency action subplan (DPIE, 2019), the purpose of this CZEAS is to identify and facilitate the implementation of appropriate emergency response actions in order to:

- Protect human life and public safety.
- Minimise damage to property and assets.
- Minimise impacts on social environmental and economic values.
- Not create additional hazards or risk.

The objectives of this CZEAS are to:

- Set a clear definition for what constitutes a coastal emergency (Section 2), and associated triggers for emergency response actions (Section 3).
- Identify the locations that may be affected by beach erosion, coastal inundation, or coastal cliff and slope instability that would constitute a coastal emergency (Section 4).
- Outline the roles and responsibilities of all public authorities, including the relevant Councils and coordinate their response to emergencies immediately preceding or during periods of beach erosion, coastal inundation and coastal cliff and slope instability (Section 5).
- Outline the communications required in the four phases of emergency management (Section 6).
- Summarise key actions to be carried out in the four phases of emergency (Section 7).
- Identify approvals pathways for CZEAS actions as they relate to the NSW Coastal Management Framework (Section 8).

## 1.3 Consultation

Agencies other than the Partner Councils involved in the implementation of this CZEAS, such as NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW), NSW State Emergency Service (NSW SES), have been provided a copy of the draft CZEAS for review and comment. The final CZEAS has addressed all feedback received from key stakeholders.

## 1.4 Study Area

The study area covered by this CZEAS is provided in Figure 1-1. The CZEAS covers the areas of the HNRS in between Little Patonga and Spencer (exclusive) – including tributaries such as Cowan Creek, Berowra Creek, and Mooney Mooney Creek. An overview of local riverside settlements covered in this CZEAS is provided in more detail in Section 4.

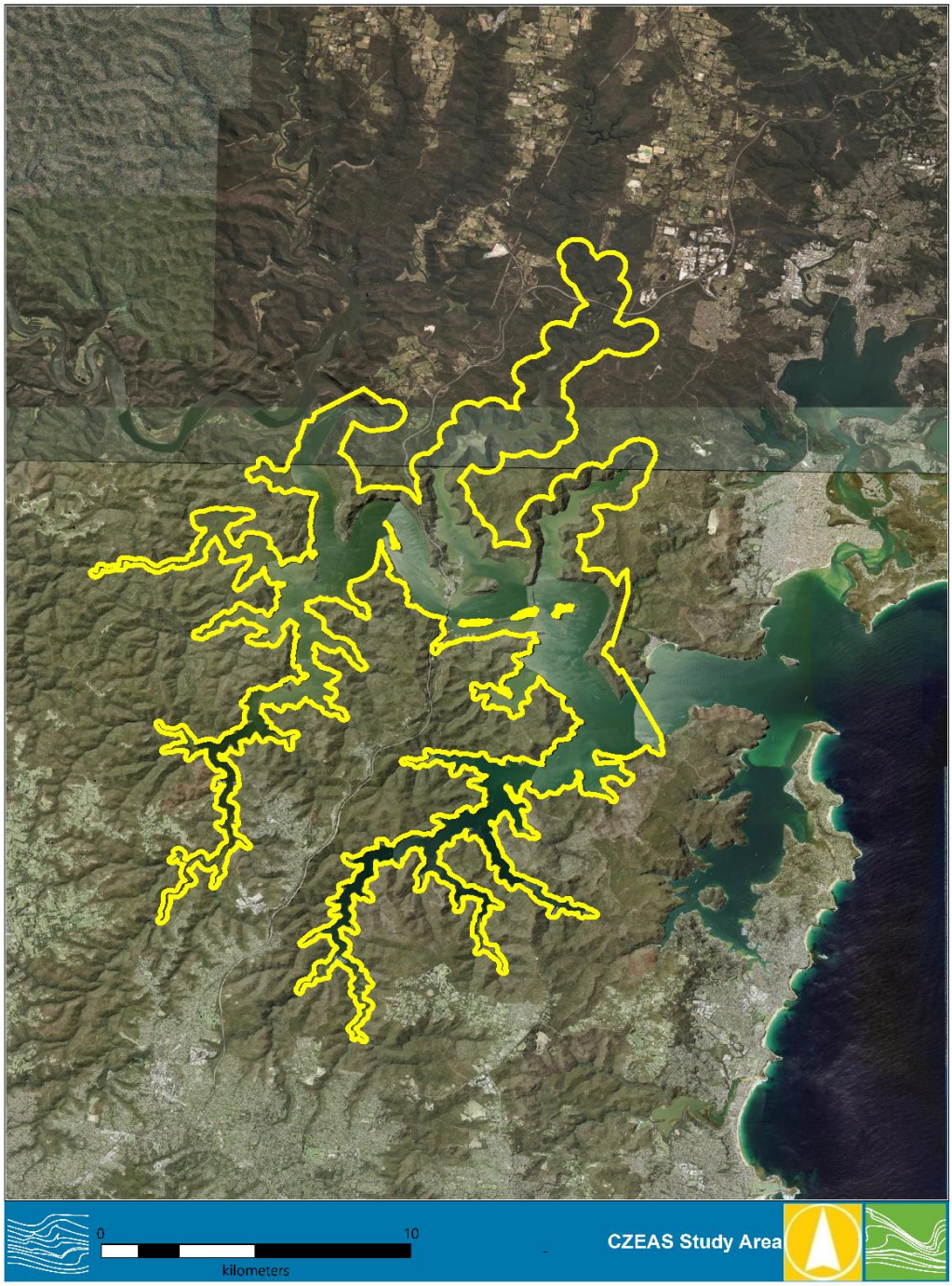



Figure 1-1 Study Area covered by this CZEAS



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# 2 SCOPE OF THE CZEAS

## 2.1 Coastal Hazards

### 2.1.1 Definitions of Coastal Hazards

The NSW 2017 State Level Risk Assessment (NSW Office of Emergency Management, 2017) classifies storm and coastal erosion as priority hazards that pose a significant risk to the state. The CM Act identifies three types of coastal hazards that should be considered when developing a CZEAS. These are defined in the guidelines (DPIE, 2019) as:

*1. Beach erosion*: Not all beach erosion occurring during a storm event provokes a coastal emergency response. Therefore, a "beach erosion emergency" in the context of this CZEAS can be defined as an actual or imminent occurrence of a beach erosion event that occurs when wind, waves, and currents are removing the sediment that comprises the foreshore and/or frontal dune system, landward of the fully accreted condition. The consequence of such erosion can create risks to public safety, and public and private assets - which requires a coordinated emergency response. It should also be noted that this hazard does not apply to the areas covered by this CZEAS – and consequently this hazard is *not included in the scope of this CZEAS*.

*2. Coastal inundation*: Coastal inundation occurs when marine and atmospheric forces combine and raise water levels at the coast (or inside estuaries) above normal elevations causing dry land to be inundated by seawater. Coastal inundation is often associated with storms and results in elevated still water levels (storm surge), wave set-up, wave runup and over-wash flows. Storm surges and powerful waves can also penetrate estuaries giving rise to strong currents or seiching. This may result in the inundation of roads and low-lying land adjacent to estuaries.

*3. Coastal cliff and slope instability*: This refers to a variety of geotechnical processes on coastal cliffs and bluffs, including rock fall, slumps, and landslides. These may be driven by coastal processes such as wave undercutting and overtopping, or by differential weathering of rock layers in cliffs and bluffs or by surface and groundwater flows generated by extreme rainfall. Instability may occur during or following a coastal storm event but may also occur at other times. There may be very little warning that a coastal cliff or slope instability incident is imminent. These hazards may endanger life and property at the site of the process (e.g., through collapse of a lookout platform or walking track, or undermining of dwellings), and at the toe of the cliff or bluff (rock platform or beach). It should also be noted that there is no formal study area hazard mapping available related to coastal cliff and/or slope instability – and consequently this hazard is *not included in the scope of this CZEAS*.

As stipulated in the *NSW Guideline for preparing a coastal zone emergency action subplan* (DPIE, 2019), the other coastal hazards identified in the CM Act are outside the scope of this CZEAS – including long term shoreline recession, coastal lake or watercourse entrance instability, tidal inundation, and erosion and inundation of estuary foreshores caused by tidal waters and the action of waves. These hazards either pertain to estuary environments outside the scope of this CMP or are not related to storm activity or an extreme or irregular event.

As outlined in Section 2.4, this CZEAS does not relate to other forms of inundation including flooding from land or tsunamis.

### 2.1.2 Storm Clustering

From a coastal hazard perspective, it is important to note the impacts of storm clustering. An erosion storm cluster occurs when a beach is unable to adequately recover from a previous storm event before a subsequent one commences. The response of a beach to a storm and a storm cluster will depend largely on the physical

characteristics of that particular beach, including sediment type, shoreline orientation and wave climate (Geoscience Australia, 2021).

In this way, a cluster of less severe storm events can generate a greater erosion response than an individual, high severity event (Gravois, Baldock, Callaghan, Daivies, & Nichol, 2018).

### 2.1.3 Cascading and Compounding Emergencies

The study area coastline is impacted by East Coast Lows (ECLs), and this phenomenon is one of the most significant contributing factors to the occurrence and intensity of coastal hazard emergencies along the NSW coast. ECLs are intense low-pressure systems that occur off the east coast of Australia. They bring damaging winds and surf, as well as heavy rainfall, which leads to erosion and flooding (AdaptNSW, 2023).

Consequently, coastal hazards emergencies do not always occur at a localised scale, nor with a single discrete hazard type. When facing events like an ECL, the consequences can be multifaceted. Coastal erosion and inundation may be occurring at numerous beaches concurrently, while the same event may also generate rainfall that leads to riverine or estuarine flooding, and potential coastal cliff and slope instability.

In this way, cascading and compounding natural hazard emergencies can place significant strain on the resources and capabilities of combat agencies during response efforts. These concurrent crises require a coordinated response from multiple agencies and authorities.

## 2.2 What is an Emergency?

### 2.2.1 Definition

An “emergency” is defined in the *State Emergency and Rescue Management Act 1989* (SERM Act) and the State Disaster Plan as:

> “*An emergency due to an actual or imminent occurrence (such as fire, flood, storm, earthquake, explosion, terrorist act, accident, epidemic or warlike action) which -*
>
> *a) endangers, or threatens to endanger, the safety or health of persons or animals in the State; or*
>
> *b) destroys or damages, or threatens to destroy or damage, any property in the State, or*
>
> *c) causes a failure of, or a significant disruption to, an essential service or infrastructure, being an emergency, which requires a significant and co-ordinated response.*
>
> *For the purposes of the definition of emergency, property in the State includes any part of the environment of the State. Accordingly, a reference in the Act to -*
>
> *a) threats or danger to property includes a reference to threats or danger to the environment, and*
>
> *b) the protection of property includes a reference to the protection of the environment.”*

### 2.2.2 The Four Phases of an Emergency

Both the SERM Act and the NSW Coastal Management Manual (OEH, 2018a) identify four distinct stages of an emergency – prevention, preparation, response, and recovery (Figure 2-).

Council’s ability to undertake the actions identified in this subplan will be dependent on the availability of resources during emergency events. The actions prescribed must not conflict with or impede the actions of the NSW SES or the other agencies with roles and responsibilities listed in Section 5 of this document. All actions must not put personnel, staff or volunteers in danger. Emergency management works must not be undertaken during extreme weather unless environmental conditions permit works to be undertaken safely.

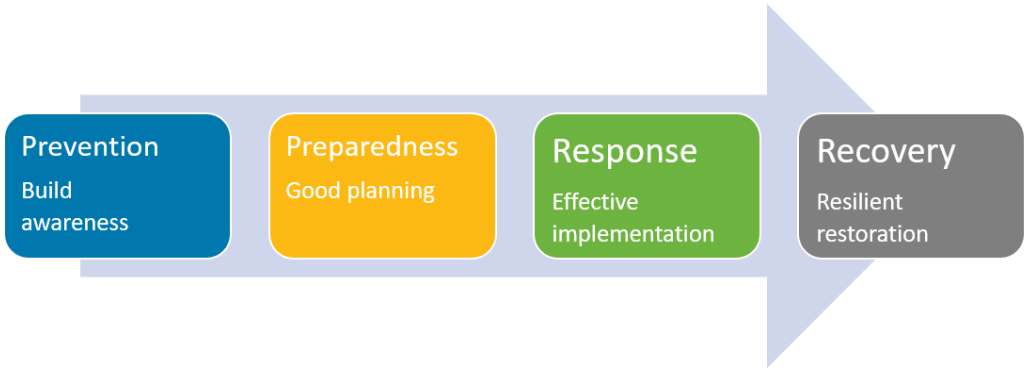



**Figure 2-15 Stages of Emergency Planning**

## 2.3 Coastal Emergencies Covered by the CZEAS

### 2.3.1 Legislative Requirements

The scope of this CZEAS is dictated by the requirements of the CM Act and the SERM Act.

***SERM Act 1989***

The SERM Act established the overarching framework for emergency management in NSW. The SERM Act outlines roles and responsibilities for all emergency management in the state, and specifies:

- That emergency management committees are established at the state, regional and local levels.
- That emergency management plans (EMPLANs) are prepared and reviewed at the state, regional and local level.
- Arrangements for controlling emergency operations.
- Responsibilities of emergency operations controllers.

The NSW State EMPLAN 2023 (NSW Office of Emergency Management, 2023) describes the NSW approach to emergency management, the governance and coordination arrangements, and roles and responsibilities of agencies. The plan is supported by hazard specific subplans and functional area supporting plans.

The NSW SES is the designated combat agency for management of floods, tsunami, and storms, including severe storms which cause coastal erosion. The NSW SES prepares the State Storm Plan, State Flood Plan and State Tsunami Plan, which are subplans to the NSW State EMPLAN 2023.

***CM Act 2016***

The CM Act identifies specific emergency management considerations associated with beach erosion, coastal inundation, and cliff instability. Section 15 (3) of the CM Act states that:

> *"A **coastal zone emergency action subplan** is a plan that outlines the roles and responsibilities of all public authorities (including the local council) in response to emergencies immediately preceding or during periods of **beach erosion**, **coastal inundation** or **cliff instability**, where the beach erosion, coastal inundation or cliff instability occurs through storm activity or an extreme or irregular event"*

Mandatory requirements for a CMP, including the preparation of a CZEAS where required, are identified in Part A of the NSW Coastal Management Manual (OEH, 2018a).

When preparing a CZEAS, it is crucial to consider the relationship between the coastal management framework established by the CM Act, and the broader NSW emergency management framework. This relationship is depicted in Figure 2-. To this end, Section 15 (4) of the CM Act states that:

> *"A coastal management program **must not** include the following—*
>
> *(a) matters dealt with in any plan made under the State Emergency and Rescue Management Act 1989 in relation to the response to emergencies"*

The purpose of this clause is to ensure that is no duplication or ambiguity of emergency response planning, and to ensure that the CZEAS is consistent with the emergency management provisions addressed in the stage, regional and local EMPLANs, and state and local flood plans (Figure 2-).

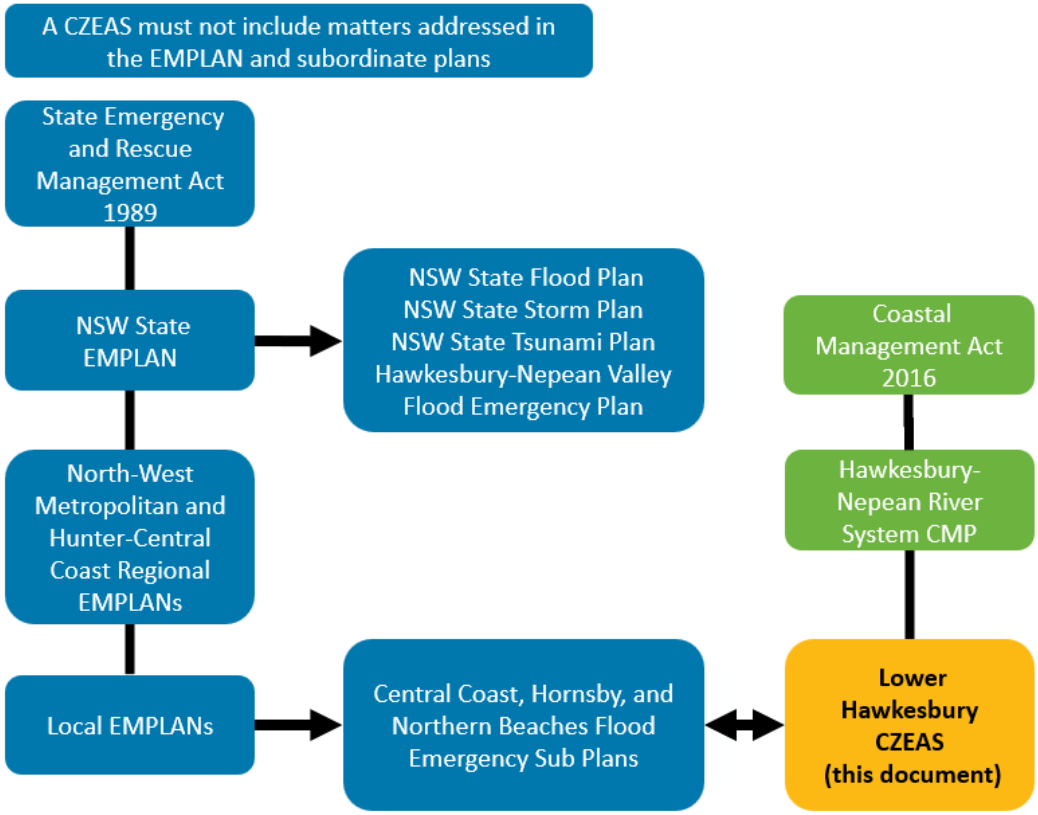



**Figure 2-16 Simplified legislative framework for emergency management in NSW and its relationship with coastal management legislation and coastal management programs**

### 2.3.2 Relationship of the CZEAS to other Emergency Plans

As noted in Figure 2-, the requirements of the CM Act stipulate that this CZEAS must not cover emergencies that are already dealt with by another plan made under the SERM Act.

### *NSW State Storm Plan*

The NSW State Storm Plan (NSW SES, 2023) is a sub plan to the NSW State EMPLAN (see Figure 2-), and is a comprehensive strategy to effectively prepare for and respond to severe storms across NSW. Section 1.4.3 of the plan states that:

> *"Coastal erosion caused by storm activity is within the scope of this plan. Emergency management of coastal erosion that is not caused by storm activity will be controlled and coordinated by the Local Emergency Operations Controller (LEOCON)".*

Coastal erosion is therefore within the scope of the NSW State Storm Plan. However, in doing so, the Plan identifies the triggers and instances for when local councils need to activate their CZEAS at a local level. It is in this way that these two emergency planning documents dovetail, without overlapping.

Section 1.4.4 of the State Storm Plan (NSW SES, 2023) states that the arrangements for the emergency management of flooding are dealt with in the New South Wales State Flood Emergency Sub Plan (NSW SES, 2021) – described below.

### *NSW State Flood Plan*

The NSW Flood Plan (NSW SES, 2021) is a sub plan to the NSW State EMPLAN (see Figure 2-), and sets out the state level multi-agency arrangements for the emergency management of flooding in NSW. Section 1.4.2 of the NSW Flood Plan defines "flooding" as:

> "*a relatively high-water level which overtops the natural or artificial banks in any part of a stream, river,* ***estuary****, lake, or dam, and/or local overland flooding associated with drainage before entering a watercourse,* ***and/or coastal inundation resulting from super-elevated sea levels and/or waves (including tsunami) overtopping coastline defences***".

Subsequently, at a strategic level, the emergency management arrangements for prevention, preparation, response, and initial recovery for still water level coastal inundation is covered by the NSW Flood Plan. At a more regional, level this issue is addressed by the respective local Flood Emergency Sub Plans described below.

### *NSW State Tsunami Plan*

The NSW Tsunami Emergency Sub Plan (NSW State Tsunami Plan) is a sub-plan to the NSW State EMPLAN. The purpose of the plan is to set out the state-wide multi-agency arrangements for the emergency management of tsunamis in NSW – including the prevention, preparation, response, and initial recovery (including immediate relief) for tsunami activity at the strategic level. The plan accounts for all tsunami magnitudes and generation mechanisms.

The NSW SES is identified in the NSW State EMPLAN and the SES Act as the lead (combat) agency for preparation for and response to tsunami, and for leading the coordinated response to the impact of tsunami including the evacuation of affected communities and immediate relief if required.

### *Local Flood Emergency Sub Plans*

Hawkesbury-Nepean Valley Flood Emergency Plan (NSW SES, 2020) is the primary emergency plan that sets out the multi-agency arrangements for the emergency management of riverine flooding affecting the Hawkesbury-Nepean Valley in New South Wales. That plan covers the reaches of the river from Wallacia to Spencer (inclusive) – see Figure 2-1. Subsequently, the area that is covered by that plan is excluded from the scope of this CZEAS.

Furthermore, each of the respective councils (Northern Beaches, Hornsby, and Central Coast) has a local Flood Emergency Sub Plan, which is a sub plan of their Local EMPLAN – see Figure 2-. Those plans specifically cover the local preparedness measures, the conduct of response operations, and the coordination of immediate recovery measures from flooding within the entirety of each LGA. Those local Flood Emergency Sub Plan therefore covers land-based and riverine flooding across open coast and in estuarine settings of the LGA. The additional arrangements required for coastal inundation and wave run-up hazards are therefore covered as part of this CZEAS.

***Summary***

Table 2-1 and Table 2-2 below provide an overview of the planning hierarchy for coastal hazards across the study area.

**Table 2-1 Planning hierarchy for coastal hazards listed in the CM Act across the study area**

| Coastal Hazard | Strategic Arrangements | Local Operations |
|---|---|---|
| Coastal inundation - including wave run-up | The NSW State Storm Plan (NSW SES, 2023) | This CZEAS |
| Riverine inundation – catchment based blooding and overland flow | The NSW State Flood Plan (NSW SES, 2021) | Flood Emergency Sub Plan |

**Table 2-2 Planning hierarchy for coastal hazards not listed in the CM Act across the study area**

| Coastal Hazard | Strategic Arrangements | Local Operations |
|---|---|---|
| Tsunami | The NSW State Tsunami Plan | Flood Emergency Sub Plan |

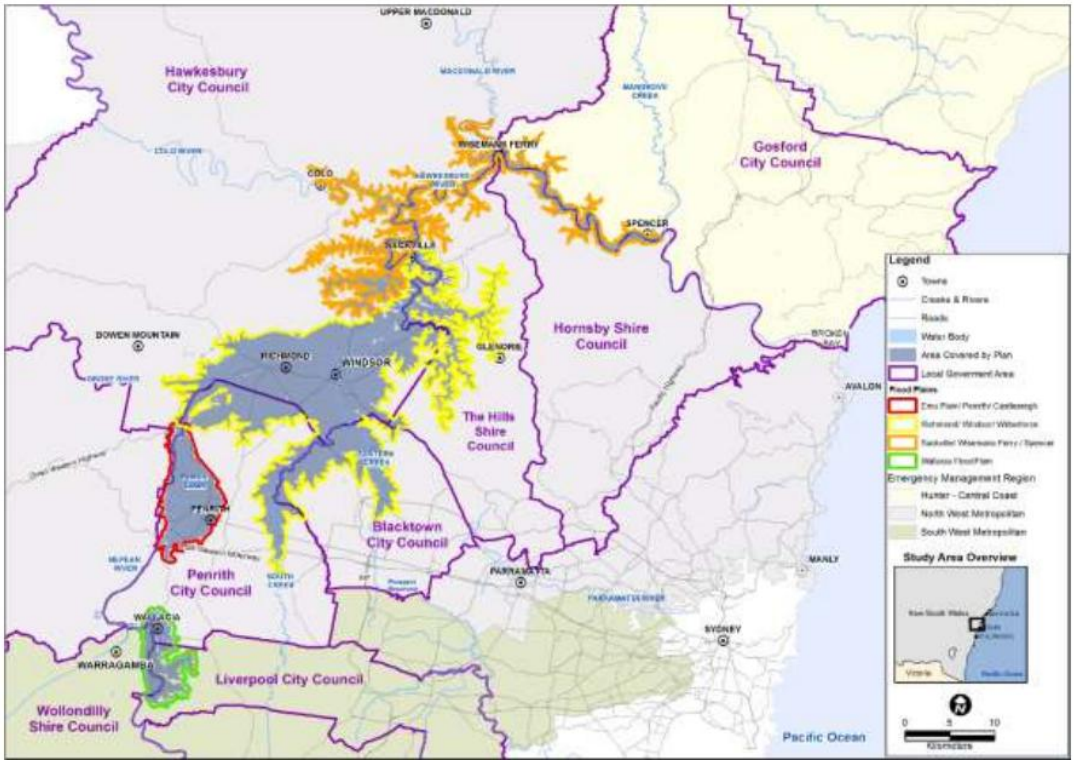



**Figure 2-1 Area Covered by the Hawkesbury-Nepean Flood Emergency Sub Plan (Wallacia to Spencer) (NSW SES, 2021)**

# 3 TRIGGERS FOR EMERGENCY ACTION

## 3.1 Overview

For the purposes of this CZEAS, a coastal emergency event within the study area is occurring when one or more of the below triggers occurs:

- The following hazard forecasts are issued:
  - When the Bureau of Meteorology (BoM) has issued the release of a Coastal Hazard Warning that impacts the Hawkesbury River.
- The following Impact forecasts and assessment are made:
  - In addition to the BoM Coastal Hazard Warning, there are location-specific triggers for when coastal inundation will activate the Response Phase. These triggers are discussed in Section 3.3.

## 3.2 Hazard Forecasts

### 3.2.1 BoM Coastal Hazard Warnings

The actions contained in this CZEAS are triggered by the release of a **Coastal Hazard Warning** from the BoM. The BoM issues Coastal Hazard Warnings for abnormally high tides or storm tides that:

- May be higher than the highest astronomical tide, and
- Could flood low lying coastal areas.

A Coastal Hazard Warning includes:

- A list of all potential phenomena, coastal forecast districts and locations that may be affected.
- A description of the threat and the area likely to be affected (the threat area).
- The time the warning was issued and what time the next warning will be issued.
- A description of the weather pattern, including forecast developments of significant weather systems.
- A technical summary of all potential phenomena, their timing and likelihood.
- Confirmed observations and reports.
- Recommended actions.

The lead time depends on the weather situation. It can extend from an hour to 36 hours. While the threat remains, a Coastal Hazard Warning is updated routinely every 6 hours. More frequent warnings may be issued if required.

NSW weather warnings are issued by the BoM and can be found at the following link: http://www.bom.gov.au/nsw/warnings/. Alternatively, the BoM weather App can show only the weather warnings that apply to the area set by the user.

## 3.3 Local Impact Triggers and Forecasts

### 3.3.1 Location Based Triggers

In addition to the Coastal Hazard Warning, there are location-specific triggers that will activate the Response Phase of this CZEAS – and these include when coastal inundation is occurring or expected to occur at the key locations at risk identified in Section 4 - affecting/with potential to affect safe access/egress or impacting/with potential to impact on public or private assets.

In practice, expert engineering judgement would need to be applied at times of storms to assess when to initiate particular actions as required. This approach relies on regular monitoring of environmental conditions and cliff, slope, and beach behaviour – and seeking appropriate advice when required.

### 3.3.2 Impact Forecast of Coastal Hazard Risk

Whilst the actions contained in this CZEAS are triggered by BoM Coastal Hazard Warnings and location-based triggers, it is also important to monitor coastal environmental conditions at a local level - in order to supplement and inform decision making.

Forecasting coastal inundation is a complex and challenging task due to the fact that it is not solely governed by a single factor, rather an intricate interplay of several variables, including:

- The astronomical tide cycle, and potential magnitude and timing of storm surge.
- Offshore wave height and direction, and the complex nearshore wave transformation processes that will impacts on wave conditions in the nearshore.

Subsequently, as part of an early warning process, Council should actively monitor forecasts and real-time information related to ocean waves and tides, using the available data sources provided in Table 3-1.

**Table 3-1 Available sources of data for coastal hazard parameters**

| Parameter | Forecast Source | Forecast Window | Real-time Information |
|---|---|---|---|
| Wave Height | BoM Interactive Weather and Wave Forecast[1]. | 7 days | MHL NSW Ocean Wave Data Collection Program[2]. |
| | The NSW Nearshore Wave Forecast[3] | 5 days | |
| Estuary Tide | MHL NSW Tide Charts[4] | 1 year | MHL NSW Ocean Tide Data Collection Program[5] |
| | BoM New South Wales Tide Tables[6] | 1 year | |

These data sources can provide a first-pass indication of when beaches may be at risk of coastal inundation.

[1] http://www.bom.gov.au/australia/charts/viewer/index.shtml
[2] https://mhl.nsw.gov.au/Data-Wave
[3] https://forecast.waves.nsw.gov.au/
[4] https://mhl.nsw.gov.au/TideCharts
[5] https://mhl.nsw.gov.au/Data-OceanTide
[6] http://www.bom.gov.au/oceanography/projects/ntc/tide_tables.shtml

# 4 AREAS AT RISK

## 4.1 Overview

This CZEAS only applies to the known locations affected by coastal inundation as noted in this section. Beach erosion and cliff & slope instability have not been assessed but would constitute a low risk in comparison to other locations across the HNRS such as in Broken Bay and Pittwater.

It is possible that coastal inundation will affect additional locations not currently assessed or known to be risk locations anywhere in the study area. In this event, the respective council should assess these locations and revise this CZEAS to include new locations at risk, as the need arises.

## 4.2 Local Hazard Exposure

### 4.2.1 Potential at-risk sites

The study area for this CZEAS covers the area downstream from Spencer (Figure 2-1) and upstream of Broken Bay (see Figure 1-1). Table 4-1 summaries the main riverside settlements in the study area are identified as being potentially at risk of coastal inundation.

**Table 4-1 Riverside Settlements known to be at risk of coastal inundation**

| Settlement | Land Management Responsibility LGA |
|---|---|
| **Cowan Creek** | |
| Cottage Point | Northern Beaches / NPWS |
| Illawong Bay | Northern Beaches / NPWS |
| Akuna Bay | Northern Beaches / NPWS |
| Bobbin Head | Hornsby, Ku-ring-gai / NPWS |
| Apple Tree Bay | Hornsby / NPWS |
| **Berowra Creek** | |
| Marramarra Creek | Hornsby / NPWS |
| Coba Point | Hornsby / NPWS |
| Neverfail Bay | Hornsby / NPWS |
| Collingridge Point | Hornsby / NPWS |
| Calabash Point | Hornsby / NPWS |
| Silverwater Reach | Hornsby / NPWS |
| Woolwash | Hornsby / NPWS |
| **Lower Hawkesbury (Main Branch)** | |
| Little Wobby | Central Coast |
| Mooney Mooney (Central Coast LGA) | Central Coast |
| Cheero Point (Central Coast LGA) | Central Coast |
| Bar Point (Central Coast LGA) | Central Coast / NPWS |
| Marlow (Central Coast LGA) | Central Coast |

| Settlement | Land Management Responsibility LGA |
|---|---|
| Dangar Island (Hornsby LGA) | Hornsby |
| Brooklyn (Hornsby LGA) | Hornsby |
| Milsons Passage (Hornsby LGA) | Hornsby / NPWS |

### 4.2.2 Exposure Summary

An extensive coastal inundation study (Rhelm and Baird, 2023) was conducted as part of Stage 2 of the Hawkesbury-Nepean River System CMP. Appendix A depicts maps of the 1% Annual Exceedance Probability (AEP) coastal inundation extent in present day conditions (i.e. no future sea level rise).

Based on these maps, the following observations are made for emergency management at the locations:

- Cottage Point. Cottage Point is an isolated community located in the Northern Beaches LGA. As shown in Figure 2-2, it is primarily a rocky, steep shore with most properties not impacted by coastal inundation in a 1% AEP event. However, there are several properties close to the water that could be impacted including the Cottage Point Inn (restaurant), The Deckhouse (accommodation), Marine Rescue and Cottage Point Kiosk & Boat Hire and Cowan Waters Luxury Home Rental. There are also some private homes set close to the water that could be impacted. It is unknown if any of these properties would receive above flood inundation in the 1% AEP event. There are numerous jetties and wharves that could be overtopped in this event.
- Illawong Bay. Illawong Bay is located in the Northern Beaches LGA. It comprises a picnic area managed by NPWS as part of Ku-ring-gai Chase National Park. It is in the confined Coal and Candle Creek and as shown in Figure 2-3 has little impact from a 1% AEP coastal storm event. There would only be minor inundation in the foreshore of the picnic area, some water across General San Martin Drive and at the Illawong Point car park.
- Akuna Bay. Akuna Bay is located in the Northern Beaches LGA. It comprises a picnic area managed by NPWS as part of Ku-ring-gai Chase National Park and some private infrastructure including the San Martin Akuna Bay (wedding venue) and the d'Albora Marina Akuna Bay. Although Akuna Bay is in the confined Coal and Candle Creek, as shown in Figure 2-4, the San Martin Akuna Bay and the d'Albora Marina Akuna Bay properties including the café and general store would be inundated in a 1% AEP coastal event. It is unknown if any of these properties would receive above flood inundation in the 1% AEP event. Also, there could be some minor inundation in the foreshore of the picnic area and water across General San Martin Drive.
- Bobbin Head. Bobbin Head is located at the confluence of Cowan Creek and Cockle Creek. It straddles two LGAs – western side of Cockle Creek is in Hornsby LGA whilst the eastern side is in Ku-ring-gai LGA. The popular Bobbin Head picnic area is located on the western side of Cockle Creek. The Empire Marina Bobbin Head and the Bobbin Head Waterside Bistro and Café are the main private properties on the eastern side of Cockle Creek. As shown in Figure 2-5, a large part of the picnic area is inundated in a 1% AEP coastal event. The Empire Marina Bobbin Head and the Bobbin Head Waterside Bistro and Café properties are also inundated; however, it is unknown if any of these properties would receive above flood inundation. Also, there could be some water across Ku-ring-gai Chase Road and Bobbin Head Road and the bridge across Cockle Creek.
- Apple Tree Bay. Apple Tree Bay is in Hornsby LGA at the confluence of Apple Tree Creek and Cowan Creek. It comprises a picnic area managed by NPWS, jetty and boat ramp. As shown in Figure 2-6, much of the picnic area, carpark and all the jetty and boat ramp would be inundated in a 1% AEP coastal event.

- Little Wobby. Little Wobby is located in the Central Coast LGA. It consists of about 40 properties on a steep, rocky shore. Most of the properties are holiday houses and there is only a permanent resident population of about 60 persons. As shown in Figure 2-7, most of these properties have some inundation in a 1% AEP coastal event, although due to the steep foreshore, it is doubtful that there would be above flood inundation in the buildings. However, all the jetties and the Little Wobby Wharf would be inundated in this event.
- Mooney Mooney. Mooney Mooney is located in the Central Coast LGA and has about 350 people living in 150 residences. All the residences are built away from the Mooney Mooney Creek and, as shown in Figure 2-8, there is no risk of above flood inundation in a 1% AEP coastal event. However, the private jetties in the area would be inundated, as would the oyster industry properties (e.g. Broken Bay Pearl Farm, Mooney Oysters) to the south of the township and part of the Deerubbun Reserve (managed by Central Coast Council) adjoining the M1 motorway (e.g. picnic area, boat ramp, wharf).
- Cheero Point. Cheero Point is located in the Central Coast LGA and fronts Mooney Mooney Creek. As show in Figure 2-9, all buildings will not be inundated in a 1% AEP coastal event. However, there will be some water in the foreshore of these properties and all jetties will be inundated in this event.
- Bar Point. Bar Point is located in the Central Coast LGA and is bounded by the Hawkesbury River to the west and south. It mainly comprises holiday houses and has a permanent resident population of about 60 people. Almost all buildings are located away from the water on a slope; however, as shown in Figure 2-10, Figure 2-11 and Figure 2-12, in the 1% AEP coastal event there are about 6 buildings on flatter ground in the western and the eastern part of the township that may be at risk of above floor flooding in this event. All jetties will be inundated in this event.
- Marlow. Marlow is located on a reach of the Hawkesbury River about 1 km downstream from Spencer. It is in the Central Coast LGA and comprises the Greenmans on the Hawkesbury caravan park - https://www.greenmans.com.au/. The caravan park consists of holiday vans, powered and unpowered sites. As shown in Figure 2-13, in the 1% AEP coastal event, about half of the caravan park is inundated. It is unknown if any of the vans would receive above flood inundation in the 1% AEP event.
- Dangar Island. Dangar Island is in Hornsby LGA and is a rocky island in the middle of the Hawkesbury River. The island has a resident population of about 300 people with numerous holiday houses. As shown in Figure 2-14, in the 1% AEP coastal event, there are 6 buildings in the north of the island (near the Dangar Island Wharf) that could be at risk of above flood inundation. There are also a few properties in the south-east (Bradley's Beach) that may experience inundation in this event. The Dangar Island Wharf and the many jetties surrounding the island would all be inundated in the 1% AEP coastal event.
- Brooklyn. Brooklyn is in Hornsby LGA and stretches along the southern shore of the Hawkesbury River for about 3 kms. Brooklyn has a population of about 2,000 people and has several marinas and jetties. As shown in Figure 2-15, Figure 2-16 and Figure 2-17, in the 1% AEP coastal event, there are about 30 buildings along the foreshore that could be at risk of above flood inundation. The Brooklyn Wharf and the many jetties along the shore would all be inundated in the 1% AEP coastal event. Brooklyn Road could have water across it in a few places in this event.
- Milsons Passage. Milsons Passage is a small, isolated settlement of about 30 properties in Hornsby LGA on the Hawkesbury River. As shown in Figure 2-18, only 4 properties at the northern end of the settlement could be at risk of above flood inundation in the 1% AEP coastal event. All jetties and the Milsons Passage Wharf would be inundated in this event.

## 4.3 Risk Summary

Table 4-1 summarises the risks of coastal inundation at the localities listed in Section 2.2.1.





Table 4-2 Risk Summary

| Location | Overall Risk | Emergency actions |
|---|---|---|
| Cottage Point (Northern Beaches | Medium – jetties and wharves inundated. Some private properties inundated although probably not above floor for buildings. | Council advise NSW SES of possible issues. NSW SES to advise residents of possible issue.<br><br>Properties should be advised of the risk and people can evacuate upslope if required. They can take actions to protect their properties e.g. sandbagging, raising valuable stock.<br><br>Jetties and wharves should be not used if inundated. |
| Illawong Bay (Northern Beaches) | Low – parts of the picnic area and road could be inundated. | Council advise NPWS of possible issues.<br><br>NPWS close picnic area.<br><br>Council close General San Martin Drive and the Illawong Point car park if inundated. |
| Akuna Bay (Northern Beaches) | Medium - Some private properties inundated possibly above floor for buildings.<br><br>Parts of the picnic area and road could be inundated. | Council advise NSW SES and NPWS of possible issues. NSW SES to advise residents of possible issue.<br><br>Properties should be advised of the risk (public education) and people can evacuate upslope if required. They can take actions to protect their properties e.g. sandbagging, raising valuable stock.<br><br>NPWS close picnic area.<br><br>Council close General San Martin Drive if inundated. |
| Bobbin Head (Hornsby, Ku-ring-gai) | Medium – marina and a large part of the picnic area is inundated. Also possible inundation of Bobbin Head Waterside Bistro and Café, plus roads in the area. | Council advise NSW SES and NPWS of possible issues. NSW SES to advise residents of possible issue.<br><br>Properties should be advised of the risk and can people evacuate upslope if required. They can take actions to protect their properties e.g. sandbagging, raising valuable stock.<br><br>NPWS close picnic area.<br><br>Hornsby Shire Council close Ku-ring-gai Chase Road and Ku-ring-gai Council close Bobbin Head Road if inundated. |
| Apple Tree Bay (Hornsby) | Low – water across picnic area, jetties and boat ramp | Council advise NPWS of possible issues.<br><br>NPWS close picnic area.<br><br>Jetties, wharves and boat ramps should be not used if inundated. |



WATER TECHNOLOGY
WATER, COASTAL & ENVIRONMENTAL CONSULTANTS

| Location | Overall Risk | Emergency actions |
|---|---|---|
| Little Wobby (Central Coast | Medium – multiple properties inundated although probably no above floor inundation of buildings. Jetties and wharf inundated. | Council advise NSW SES of possible issues. NSW SES to advise residents of possible issue.<br><br>Properties should be advised of the risk and can people evacuate upslope if required. They can take actions to protect their properties e.g. sandbagging, raising valuable stock.<br><br>Jetties, wharves and boat ramps should be not used if inundated. |
| Mooney Mooney (Central Coast) | Low – no residences at risk of inundation. Probable inundation of oyster businesses and Deerubbun Reserve | Council advise NSW SES of possible issues. NSW SES to advise residents of possible issue.<br><br>Oyster businesses should be advised of the risk and can people evacuate upslope if required. They can take actions to protect their properties e.g. sandbagging, raising valuable stock.<br><br>Jetties, wharves and boat ramps should be not used if inundated.<br><br>Council to close Deerubbun Reserve. |
| Cheero Point (Central Coast) | Low – no above floor flooding of buildings | Council to provide general advice to this community including jetties, wharves and boat ramps should be not used if inundated. |
| Bar Point (Central Coast) | Medium – about 6 properties could be at risk of above floor inundation, all jetties will be inundated | Council advise NSW SES of possible issues. NSW SES to advise residents of possible issue.<br><br>Properties should be advised of the risk and can people evacuate upslope if required. They can take actions to protect their properties e.g. sandbagging, raising valuable stock.<br><br>Jetties, wharves and boat ramps should be not used if inundated. |
| Marlow (Central Coast) | Medium – possible campers and people in vans | Caravan park should have an Emergency Management Plan (EMP) including an evacuation plan for all types of floods including coastal inundation.<br><br>Council advises caravan park of possible issues.<br><br>Caravan park enacts EMP and closes park until water subsides. |



WATER TECHNOLOGY
WATER, COASTAL & ENVIRONMENTAL CONSULTANTS

| Location | Overall Risk | Emergency actions |
|---|---|---|
| Dangar Island (Hornsby) | Medium – Several properties at risk of above floor inundation, Wharf and jetties will be inundated | Council advise NSW SES of possible issues. NSW SES to advise residents of possible issue.<br><br>Properties should be advised of the risk and can people evacuate upslope if required. They can take actions to protect their properties e.g. sandbagging, raising valuable stock.<br><br>Jetties, wharves and boat ramps should be not used if inundated. |
| Brooklyn (Hornsby) | Medium – over 30 buildings at risk of above floor flooding, Wharf and jetties inundated | Council advise NSW SES of possible issues. NSW SES to advise residents of possible issue.<br><br>Properties should be advised of the risk and can people evacuate upslope if required. They can take actions to protect their properties e.g. sandbagging, raising valuable stock.<br><br>Jetties, wharves and boat ramps should be not used if inundated.<br><br>Council to close Brooklyn Road if inundated. |
| Milsons Passage (Hornsby) | Medium – 4 buildings at risk of above floor flooding, Wharf and jetties inundated | Council advise NSW SES of possible issues. NSW SES to advise residents of possible issue.<br><br>Properties should be advised of the risk and can people evacuate upslope if required. They can take actions to protect their properties e.g. sandbagging, raising valuable stock.<br><br>Jetties, wharves and boat ramps should be not used if inundated. |

# 5 ROLES AND RESPONSIBILITIES

## 5.1 Agencies and Personnel

The general responsibilities of emergency services organisations and support agencies are listed in the Local and State EMPLANs, such as the NSW State Storm Plan (NSW SES, 2023), NSW State Flood Plan (NSW SES, 2021), and the relevant local Flood Emergency Sub Plans. Table 5-1 summarises the roles and responsibilities of these stakeholders that are specifically relevant to this CZEAS.

It should be noted that private landholders are responsible for private land. Private property owners have responsibilities to monitor, manage, prepare and repair their properties for risks associated with coastal erosion, inundation and cliff and slope instability. Any physical works on private property are subject to development controls and environmental planning instruments, including the relevant local Development Control Plans (DCPs). Private property owners should notify the relevant Council immediately of any concerns outside of their property; however, property owners should seek advice directly from suitably qualified geotechnical and/or coastal engineers with regards to instability concerns within their property boundaries. Council does not have a positive obligation to take particular action to protect private property. There is, however, a statutory obligation upon Council to consider any valid development application for coastal protection works which may be lodged by property owners.

**Table 5-1 Roles and Responsibilities**

| Organisation / Personnel | Responsibilities |
|---|---|
| Northern Beaches, Central Coast, and Hornsby Shire Councils | ▪ Prepare, maintain, and update this CZEAS (NSW SES, 2023).<br>▪ Provide the NSW SES with a copy of this CZEAS (NSW SES, 2023).<br>▪ Assist the NSW SES with community awareness programs to ensure people in locations potentially threatened by coastal erosion, inundation, and cliff/slope instability understand the threat and its management (NSW SES, 2023).<br>▪ Prevention & Preparation: Implement the Prevention and Preparation Phase emergency actions prior to a coastal emergency event occurring.<br>▪ Response: In the event of a coastal emergency at a location at risk, activate this CZEAS and implement the Response Phase emergency actions for the duration of the coastal emergency event.<br>▪ Recovery: Implement the Recovery Phase emergency actions following a coastal emergency event.<br>▪ Under the CM Act, Council is the designated coastal authority with responsibility for care of public land within its care, control, and management. The carrying out (or authorising and coordinating) of coastal emergency protective works to protect public assets from coastal erosion, inundation, and cliff/slope instability is Council's role, if it chooses to undertake such measures.<br>▪ Assist, at their request, NSW Police, NSW SES, and Local Emergency Operations Controller (LEOCON) in dealing with a coastal emergency.<br>▪ Liaise with the NSW SES Incident Controller to provide advice regarding the need for response actions by the NSW SES such as evacuations. |
| NSW National Parks and Wildlife Service | Roles and responsibilities are outlined in NSW State Storm Plan (NSW SES, 2023) and NSW State Flood Plan (NSW SES, 2021) and include:<br>▪ Assist the NSW SES with identification of road infrastructure in National Parks at risk from storms.<br>▪ Close and reopen NPWS managed roads when affected by storms and advise the NSW SES of its status. |

| Organisation / Personnel | Responsibilities |
|---|---|
| | ▪ Facilitate the safe reliable access by emergency resources on NPWS managed roads.<br>▪ Assist the NSW SES with the communication of warnings and information provision to the public through variable message signs and other appropriate means. |
| Local Emergency Management Committee (LEMC) | ▪ The LEMC is constituted under the SERM Act for each local government area and is responsible for preparing plans for response and recovery from emergencies.<br>▪ The LEMC is chaired by the Chief Executive Officer or their nominated representative from Council. Represented on the LEMC are combat agencies including:<br>– Police.<br>– Rural Fire Service.<br>– Fire and Rescue NSW.<br>– State Emergency Services.<br>– Surf Life Saving NSW.<br>– Marine Rescue.<br>▪ The LEMC will review the Local EMPLAN every three (3) years, or following any:<br>– activation of the Plan in response to an emergency;<br>– legislative changes affecting the Plan;<br>– exercises conducted to test all or part of the Plan;<br>– In the event of that deficiencies are identified; or<br>– Change of roles and responsibilities. |
| Local Emergency Operations Controller (LEOCON) | ▪ Monitor coastal emergency event operations.<br>▪ Act as the combat/responsible agency in the event of:<br>– Coastal erosion that is not caused by direct storm activity, as per Section 1.4.3 of the NSW State Storm Plan (NSW SES, 2023); or<br>– Coastal cliff and slope instability<br>– Even though coastal erosion and/or slope instability are not covered as part of this CZEAS, the above point are worth noting due to the possibility of cascading and compounding emergencies (see Section 2.1).<br>▪ Coordinate support to the NSW SES Local Incident Controller, if requested to do so. |
| Council Local Emergency Management Officer (LEMO) | ▪ If requested by the NSW SES Incident Controller, advise appropriate agencies and officers of the start of response operations.<br>▪ Provide executive support to the LEMC and LEOCON in accordance with the Local EMPLAN. |
| Regional Emergency Operations Controller (REOCON) | ▪ The REOCON is responsible for the overall control and coordination of emergency response operations at Region level for which the REOCON is the designated controller.<br>▪ The REOCON is also the designated controller where there is no designated Combat Agency, or where it is necessary to coordinate two or more local level operations which are controlled by Emergency Operations Controllers, or when directed by the SEOCON.<br>▪ The REOCON is responsible, when requested by a combat agency, to co-ordinate the provision of resources support. |



WATER TECHNOLOGY
WATER, COASTAL & ENVIRONMENTAL CONSULTANTS

| Organisation / Personnel | Responsibilities |
|---|---|
| State Emergency Operations Controller (SEOCON) | ▪ Responsible for the control and coordination of emergency response operations at State level, for which the SEOCON is the designated Controller or where there is no designated Combat Agency.<br>▪ Provide advice to the Minister regarding emergencies, including whether or not a declaration of a 'State of Emergency' may be necessary.<br>▪ Consider requests for State or Commonwealth assistance.<br>▪ Coordinate the establishment of a Major Evacuation Centre in accordance with Major Evacuation Centre Guidelines if required. |
| NSW State Emergency Service (NSW SES) Local Unit Members | ▪ Act as the combat/responsible agency for damage control and the coordination of community evacuation during the following coastal zone hazards as per the Local EMPLAN:<br>– Flooding.<br>– Storms.<br>– Tsunami.<br>▪ Act as the combat/responsible agency in the event of coastal erosion that is caused by storm activity (NSW SES, 2023).<br>▪ NSW SES roles and responsibilities in relation to storms and coastal erosion are detailed within the NSW State Storm Plan (NSW SES, 2023), and where relevant the NSW State Flood Plan (NSW SES, 2021). Responsibilities may include:<br>– Assist in the collection of flood and coastal erosion/inundation information for the development of intelligence.<br>– Evacuation.<br>– Delivery of warnings.<br>– Assisting with road closures and traffic control operations.<br>▪ The NSW SES is not authorised to undertake emergency coastal protection works such as placement of rock armour or geotextile sand containers.<br>▪ Undertake preparedness education related to its legislated responsibilities of flood, storm, tsunami, and earthquake. |
| NSW SES Incident Controller | ▪ Deal with floods as per the Flood Emergency Sub Plan<br>▪ Identify and monitor people and/or communities at risk of flooding and coastal erosion.<br>▪ Provide an information service in relation to:<br>– Coastal erosion.<br>– Coastal inundation.<br>– Road conditions and closures (general information only).<br>– Warning products in line with the AWS.<br>▪ Direct the evacuation of people and/or communities.<br>▪ Ensure caravan parks are advised of flood/coastal inundation warnings.<br>▪ Coordinate the collection of flood and coastal erosion/inundation information for development of intelligence. |
| NSW Rural Fire Service (RFS) | Roles and responsibilities are outlined in NSW State Storm Plan (NSW SES, 2023) and NSW State Flood Plan (NSW SES, 2021) and include:<br>▪ Identify and notify the NSW SES of any locations at risk of fire or hazardous materials that pose a significant threat to surrounding populations due to the impact of a flood for incorporation into NSW SES flood intelligence and planning. |





| Organisation / Personnel | Responsibilities |
|---|---|
| | ▪ Conduct HAZMAT operations including asbestos risks, arising from flood and storm emergencies in coordination with the SES Incident Controller.<br>▪ Assist the NSW SES with the:<br>– Delivery of warning products in line with the AWS, and the conduct of evacuations.<br>– Warning and/or evacuation of at-risk communities.<br>– Monitoring/reconnaissance of flood prone areas.<br>▪ Provide equipment for pumping flood water out of buildings and from low-lying areas.<br>▪ Assist with clean-up operations, including the hosing of flood affected properties. |
| Ambulance Service of NSW | ▪ The roles and responsibilities for NSW Ambulance are outlined in the Health Services (HEALTHPLAN) Supporting Plan and NSW State Flood Plan (NSW SES, 2021). Roles and responsibilities in addition those include:<br>– Participate in NSW SES briefings, training & exercises as required.<br>– Provide a Liaison Officer to the NSW SES State Command or Incident Control Centre/s as required.<br>– Provide Incident Management Personnel and Liaison Officers to the NSW SES where required. |
| Australian Government Bureau of Meteorology (BoM) | Roles and responsibilities are outlined in NSW State Storm Plan (NSW SES, 2023) and NSW State Flood Plan (NSW SES, 2021) and include:<br>▪ The BoM issue public weather and storm warning products before and during a storm (NSW SES, 2023). These may include:<br>– Coastal Hazard Warnings<br>– Severe Thunderstorm Warnings.<br>– Severe Weather Warnings.<br>– Tropical Cyclone Watches.<br>– Tropical Cyclone Warnings.<br>– Coastal Strong Wind, Gale Storm and Hurricane Force Warnings.<br>– Flood Watches and Flood Warnings.<br>▪ Provide weather and flood information directly to the NSW SES, LEMC and relevant agencies (NSW SES, 2021). |
| Marine Rescue NSW | Roles and responsibilities are outlined in NSW State Storm Plan (NSW SES, 2023) and NSW State Flood Plan (NSW SES, 2021) and include:<br>▪ When requested by NSW SES, assist in flood operations when training and equipment are available and suitable including assistance with:<br>– Warning and/or evacuation of at-risk communities.<br>– Providing communications personnel.<br>– Property protection tasks including sandbagging.<br>– Flood rescue operations |
| NSW Department of Climate Change, Energy, the Environment and Water | Roles and responsibilities are outlined in NSW State Storm Plan (NSW SES, 2023) and NSW State Flood Plan (NSW SES, 2021) and include:<br>▪ Advise the NSW SES about conditions which may lead to coastal erosion;<br>▪ Provide storm damage response teams to assist the NSW SES and NPWS.<br>▪ Provide related advice on coastal hazards to the NSW SES on request. |

| Organisation / Personnel | Responsibilities |
|---|---|
| NSW Police Force | Roles and responsibilities are outlined in NSW State Storm Plan (NSW SES, 2023) and NSW State Flood Plan (NSW SES, 2021) and include:<br>▪ Provide Incident Management personnel and Liaison Officers to the NSW SES Operation Centre if required.<br>▪ When requested by LEOCON, act as the response agency for coastal cliff and slope instability<br>▪ When requested by NSW SES in storm operations:<br>– Restrict access to areas affected by storms.<br>– Assist with warning and/or evacuation of at-risk communities.<br>– Provide specialist storm damage response teams to assist the NSW SES if available.<br>– Assist with monitoring and reconnaissance of areas potentially damaged by storms.<br>▪ Coordinate search and rescue operations.<br>▪ Conduct road and traffic control operations in conjunction with NSW SES, Council and/or TfNSW.<br>▪ Coordinate security of supply lines for evacuated and damaged areas.<br>▪ Manage Disaster Victim Registration.<br>▪ Operate the Public Information and Inquiry Centre, if requested or otherwise needed during flood events. |
| Transport for NSW | Roles and responsibilities are outlined in NSW State Storm Plan (NSW SES, 2023) and NSW State Flood Plan (NSW SES, 2021) and include:<br>▪ TfNSW (Maritime), following the direction of the NSW Police Force will assist in the identification and recovery of vessels. |

## 5.2 Combat Agencies

It is important to note that the NSW State Storm Plan (NSW SES, 2023) and the North West Metropolitan Regional EMPLAN identify different combat agencies are responsible for different types of coastal hazard - and that this also varies depending on whether or not the emergency event is occurring within or outside of a storm event. This information is summarised in Table 5-2.

**Table 5-2 Combat agencies for coastal hazard events**

| Coastal hazard | Storm Event | Non-Storm Event | Reference |
|---|---|---|---|
| Coastal erosion and inundation | NSW SES | LEOCON | NSW State Storm Plan |
| Coastal cliff and slope instability | LEOCON | LEOCON | Noth West Metropolitan, and Hunter-Central Coast Regional EMPLANs |

## 5.3 Emergency Operation Centres

An Emergency Operations Centre (EOC) is a centre established at State, Region, or Local level as a centre of communication and as a centre for the coordination of operations and support during an emergency. In

NSW, the activation of an EOC is triggered by various factors depending on the nature and severity of the emergency or incident. Emergencies that exceed the capabilities of individual agencies or require a coordinated multi-agency response may prompt the activation of the EOC to manage resources and coordination effectively.

As per the NSW State EMPLAN (NSW Office of Emergency Management, 2023):

- The SEOCON is responsible for establishing and controlling a State Emergency Operations Centre (SEOC)
- The REOCON is responsible for establishing and controlling a Regional Emergency Operations Centre (REOC)
- The LEOCON is responsible for establishing and controlling a Local Emergency Operations Centre (LEOC)

# 6 COMMUNICATION PROTOCOLS

## 6.1 Overview

Hornsby Shire, Central Coast, and Northern Beaches Councils will provide information about anticipated coastal emergency events to impacted communities through the following mechanisms provided in Table 6-1.

**Table 6-1 Communication Protocols**

| Communication | |
|---|---|
|  | ▪ Provide routine emergency management briefings to communicate the strategy outlined in this plan including coastal emergency triggers, areas at risk, roles and responsibilities and response action plan. |
|  | ▪ Provide emergency management information (in the form of signage and brochures) at local community centres and community information hubs.<br>▪ Inform the community of Council's intended erosion emergency responses under this CZEAS.<br>▪ Inform community members and businesses about the need to develop a household / business Emergency Management Plan (EMP) for coastal hazards. |
|  | ▪ In consultation with the NSW SES and BoM, provide public information about approaching coastal emergencies where possible through digital means including social media.<br>▪ Provide emergency management briefings to the public as needed, in particular affected landholders, to communicate the strategy outlined in this CZEAS, including coastal emergency event triggers, locations at risk, roles and responsibilities and the emergency response actions, including what actions a landholder may need to take and any assistance that may be available to them.<br>▪ Coordinate with the NSW SES to ensure residents are aware of urgent hazards during emergency events and provide assistance with door-to-door communication as necessary.<br>▪ See Section 6.2 for more information about message construction. |
|  | ▪ Place barriers and signage at Council-managed roads that are closed due to the impacts of coastal inundation.<br>▪ Provide up to date information on Council's website regarding Council-managed road closures and re-openings. |

## 6.2 Message Construction

### 6.2.1 The AWS Framework

As per Section 6.1, Council is to consult with the NSW SES and BoM, in order to help provide public information about approaching coastal emergencies.

The design of Council's external messaging during an emergency event should be aligned with the Australian Warning System framework (AIDR, 2021) – which is a new national approach to information and warnings during emergencies like bushfire, flood, storm, extreme heat, and severe weather. Up until now there have been different warning systems for different hazard types across Australia. The new Australian Warning

System aims to provide consistent warnings to Australian communities so that people know what to do when they see a warning level. There are three warning levels, provided in Table 6-2, as per AIDR (2021).

**Table 6-2 Warning Levels from the Australian Warning System framework (AIDR, 2021)**

| Alert Level | Description |
|---|---|
| **Advice (Yellow)** | An incident has started. There is no immediate danger. Stay up to date in case the situation changes. |
| **Watch and Act (Orange)** | There is a heightened level of threat. Conditions are changing and you need to start taking action now to protect you and your family. |
| **Emergency Warning (Red)** | An Emergency Warning is the highest level of warning. You may be in danger and need to take action immediately. Any delay now puts your life at risk. |

The Australian Warning System utilises a system of triangular hazard icons with escalating tiers and associated colour palettes. Specific icons have been developed for bushfire, flood, storm, extreme heat, and severe weather, as per Figure 6-1 below. It is recommended that the following icons are used:

- "Storm" icon – for coastal erosion, coastal inundation, and coastal cliff and slope instability that are jointly occurring with storm events.
- "Other" icon – for coastal erosion and coastal cliff and slope instability that does not directly coincide with storm events (as these two hazards may also occur in the aftermath of a specific storm event).

The Australian Warning System utilises a nested model for communications that includes the warning level + hazard / location + action statements – as per Figure 6-1. Each warning level has a set of action statements to give the community clearer advice about what to do. Calls to action can be used flexibly across all three warning levels and contextualised for each hazard for a given location. Table 6-3 provides some examples of the Australian Warning System's "calls to action" input (AIDR, 2021) that may be useful in a coastal emergency.

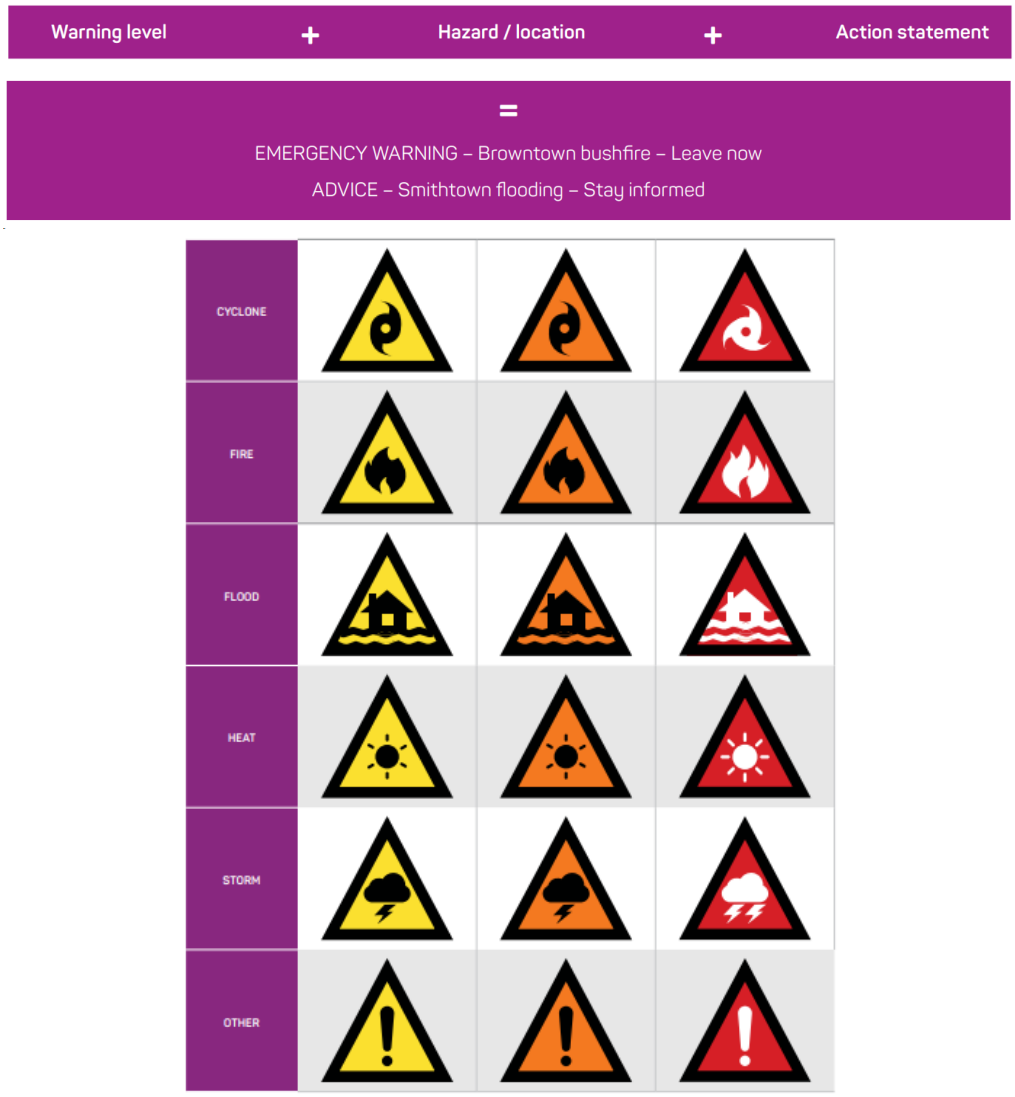



**Figure 6-1 Australian Warning System messaging model (top) and hazard icons (AIDR, 2021)**

Table 6-3 Examples of Australian Warning System calls to action (AIDR, 2021) that may be used in a coastal emergency

| Advice | Watch and Act | Emergency Warning |
|---|---|---|
| ▪ Prepare now<br>▪ Stay informed<br>▪ Monitor conditions<br>▪ Threat is reduced<br>▪ Avoid the area<br>▪ Return with caution | ▪ Prepare to leave/evacuate<br>▪ Leave/evacuate now (if you are not prepared)<br>▪ Prepare to take shelter<br>▪ Move/stay indoors<br>▪ Stay near shelter<br>▪ Walk two or more streets back<br>▪ Monitor conditions as they are changing<br>▪ Move to higher ground (away from creeks/rivers/coast)<br>▪ Limit time outside<br>▪ Avoid the area<br>▪ Stay away from damaged buildings and other hazards<br>▪ Prepare for isolation<br>▪ Do not enter flood water<br>▪ Not safe to return<br>▪ Prepare your property | ▪ Leave/evacuate (immediately, by am/pm/hazard timing)<br>▪ Seek/take shelter now<br>▪ Shelter indoors now<br>▪ Too late/dangerous to leave |

### 6.2.2 Message Communication

According to the Australian Disaster Resilience Handbook (AIDR, 2009):

*'the best predictions, the best interpretive material and the best warning messages are of little value if they have no impact on damages or safety. Failure is guaranteed if warning messages based on … predictions and interpretations … are not conveyed effectively to those expected to respond. In essence, a warning which is not communicated effectively is no warning at all if it is not heard or heeded'*.

The handbook identifies two different types of message communication based on target audience:

1. General warnings are disseminated ('broadcast') to whole communities or regions.
2. Specific warnings are intended for individuals or parts of communities and reflect the need for 'narrowcasting' to specific audiences who may have specific characteristics or be at different kinds of risk.

A combination of the following warning methods may be utilised:

- Emergency alerting systems e.g. AusAlert
- Internet – including authorised social media and the official Council website.
- Mobile and fixed public address systems
- Two-way radio
- Emergency Alert
- Telephone/fax

- Doorknocking
- Variable message signs
- Community notices in identified hubs
- Distribution through established community liaison networks/partnerships

Emergency Alert is a national telephony-based alert system used by emergency service agencies to send voice messages and short message service (SMS) to landline/mobile telephones in times of emergency. Where appropriate and usually in conjunction with other warning messages, Emergency Alert is used to send SMS/voice alerts to landline and mobile telephones in a specified geographic area. The emergency alert system should be used in conjunction with the three levels of emergency waring depicted in Figure 6-1.

# 7 EMERGENCY RESPONSE ACTION PLAN

## 7.1 Overview

This section outlines what actions are to be undertaken in the four phases of emergency management at each of the locations at risk that this CZEAS applies to.

- Section 7.2 summarises the coastal emergency actions through the four phases of emergency management (see Figure 2-), which apply to the locations at risk along the entire study area.
- Appendix A provides details regarding the location-specific actions to address coastal inundation for high-risk coastal settlements, along with associated mapping.

Hornsby Shire (HSC), Central Coast (CCC), and Northern Beaches (NBC) Council's ability to undertake the actions identified in this CZEAS will be dependent on the availability of resources during emergency events.

Implementation of the actions outlined in this document are to be undertaken in accordance with the provisions of Council's Work Health and Safety Management System. The safety of the personnel who might be working under the extreme adverse weather conditions that gave rise to the emergency is to be prioritised over the execution of any actions outlined in this document. The implementation of an applicable safety hazard risk assessment is required prior to the undertaking of any intervention or non-intervention management measures.

Emergency protection works must not be undertaken during extreme weather unless tidal variations permit works to be undertaken safely. In addition, actions must not conflict with or impede NSW SES or DCCEEW works.

Actions in this CZEAS aim to reduce risk:

- In areas where Council has chosen not to implement other coastal protection works to reduce coastal hazard risks, which have been evaluated as tolerable or acceptable.
- Where coastal hazard risks persist because an agreed action in this CMP has not yet been implemented.
- In situations where coastal hazard risks persist even after the implementation of other actions, leading to what is termed as residual risk.
- When rare and large or unexpected events occur, outside the design criteria or capacity of agreed management actions in this CMP.

## 7.2 Study Area Wide Actions

**Table 7-1 Coastal Emergency Actions: Phase 1 – Prevention**

| Action | Description | Responsibility | Timing |
|---|---|---|---|
| 1.1 | **Inform:** Make this CZEAS available to all relevant stakeholders identified in Section 5. | NBC, CCC, HSC, NPWS | Ongoing |
| 1.2 | **Inform:** Provide advice to the community, landholders, and the NSW SES about the potential for a coastal emergency from beach erosion, coastal inundation or cliff or slope instability – and the types of responses that are and are not permitted. | NBC, CCC, HSC | Ongoing |
| 1.4 | **Review:** Through the Local Emergency Management Committee (LEMC), consult with SES, DCCEEW, Local Police, LEOCON, FRNSW to ensure this CZEAS remains consistent the relevant local, regional, and state-based emergency management plans (see Figure 2-). | NBC, CCC, HSC, NPWS | Within 6 months of EMPLAN updates |



WATER TECHNOLOGY
WATER, COASTAL & ENVIRONMENTAL CONSULTANTS

| Action | Description | Responsibility | Timing |
|---|---|---|---|
| 1.5 | **Review:** Review and update this CZEAS in line with any future updates to the CVA Mapping or CMP implementation. | NBC, CCC, HSC, NPWS | Ongoing |
| 1.6 | **Review:** Assess threats to life and property arising from a coastal emergency through the CMP process. | NBC, CCC, HSC, NPWS | During CMP preparation and review. |
| 1.7 | **Plan:** Apply development controls to developments in the coastal hazard areas in accordance with the council LEP and DCP. | NBC, CCC, HSC | Ongoing |
| 1.8 | **Plan:** Develop an early warning system for this CZEAS by formalising the processes set out in Section 3.4 and dovetailing them with Council's internal and external communications protocols and policies. | NBC, CCC, HSC, NPWS | Ongoing |
| 1.9 | **Plan:** Develop protocols between Council, NPWS and NSW SES and LEOCON in relation to operational activities for situations where an Emergency Operations Centre (EOC) is not established. | NBC, CCC, HSC, NPWS | Ongoing |
| 1.10 | **Plan:** Establish internal operational protocol and procedures for all coastal hazard scenarios for LEMO, Council's coastal officers and works crews, and communications staff. | NBC, CCC, HSC | Ongoing |

Table 7-2 Coastal Emergency Actions: Phase 2 – Preparedness

| Action | Description | Responsibility | Timing |
|---|---|---|---|
| **"Sunny Day" Preparedness** | | | |
| 2.1 | **Inform:** Inform community members and businesses about the need to develop a household / business Emergency Management Plan (EMP) for coastal hazards. | NBC, CCC, HSC | Ongoing |
| 2.2 | **Inform:** Inform Council/NPWS staff about the emergency responses within this plan and ensure relevant personnel have the copies of the plan. | NBC, CCC, HSC, NPWS | Ongoing |
| 2.3 | **Plan:** The LEMC will review the Local EMPLAN every three (3) years as per Table 5-1 to ensure interoperability preparedness. | LEMC | Ongoing |
| 2.4 | **Plan:** Prepare an up-to-date list of contact details for key Council staff involved in coordinating actions under the CZEAS (include responsibilities of staff who prepare for, manage and coordinate recovery from an inundation emergency event) and individuals from whom Council may need advice, such as DCCEEW staff, or with whom to integrate from other emergency sectors). | NBC, CCC, HSC, NPWS | Ongoing |
| 2.5 | **Plan:** Prioritise planning and response to maximise (to the greatest extent practical) continued functionality for essential infrastructure during an emergency event. | NBC, CCC, HSC, NPWS | Ongoing |





| Action | Description | Responsibility | Timing |
|---|---|---|---|
| 2.6 | **Plan:** Develop an operations procedure to guide Council and NPWS response to coastal emergency events (including resourcing, internal training, testing and periodic review). | NBC, CCC, HSC, NPWS | Ongoing |
| 2.7 | **Monitor:** Undertake regular monitoring of coastal conditions, tide, wave height, rainfall, and weather condition forecasts for indication of approaching coastal hazards, as per Table 3-1. | NBC, CCC, HSC, NPWS | Ongoing |
| **Precaution Preparedness - where of triggers for Response Phase are anticipated** | | | |
| 2.8 | **Plan:** Ensure signage to close Council-managed roads (and NPWS managed roads) and other public areas, and signage warning pedestrians of coastal hazards risks are available for use during coastal emergencies. | NBC, CCC, HSC, NPWS | Ongoing |
| 2.9 | **Plan:** Ensure appropriate plant, equipment and experienced personnel are available for protection of assets at risk. Both internal and external personnel will be required based on specific scope of works. | NBC, CCC, HSC, NPWS | Ongoing |
| 2.10 | **Monitor:** Undertake regular monitoring of hazard forecasts (see Section 3.2) and local forecasts and triggers (see Section 3.3) that may activate the Response Phase.. | NBC, CCC, HSC, NPWS, NSW SES | Ongoing |

Table 7-3 Coastal Emergency Actions: Phase 3 – Response

| Action | Description | Responsibility | Timing / Trigger |
|---|---|---|---|
| 3.1 | **Monitor:** Undertake regular monitoring of hazard forecasts (see Section 3.2) and local forecasts and triggers (see Section 3.3) that may activate the Response Phase | NBC, CCC, HSC, NPWS, NSW SES | Ongoing |
| 3.2 | **Plan:** The LEMC (inc. Council LEMO) should consider Council advice regarding consider Warnings and Triggers, and advice provided by the NSW BoM. From here SEOCON, REOCON, LEOCON and NSW SES to are decide on the emergency management process (supported by Council). This may include the establishment of an Emergency Operations Centre (EOC). | SEOCON REOCON LEOCON NSW SES | Response phase activated. |
| 3.3 | **Plan:** No actions undertaken should impede, conflict, or overlap with those of response agencies under the SERM Act unless there is prior agreement between the relevant parties. | NBC, CCC, HSC, NPWS | Response phase activated. |
| 3.4 | **Communicate:** Implement the communication protocol in conjunction with the combat agency (NSW SES) to advise landholders, residents, public authorities and other organisations that a coastal emergency is likely or is occurring and that actions in this CZEAS are to be implemented. When EOC | NBC, CCC, HSC, NPWS, NSW SES | Response phase activated. |

| Action | Description | Responsibility | Timing / Trigger |
|---|---|---|---|
| | not is in place, communications are to be directed through the communications business partner for the Coastal Management Unit. LEMO to be copied into all communications for oversight.<br>Release media information as necessary to keep the community informed. Community information hubs and social media to be utilised, refer to Section 6. | | |
| 3.5 | **Prepare:** Place appropriate equipment on standby (back up radios, signs, and barricades etc.). | NBC, CCC, HSC, NPWS | Response phase activated. |
| 3.6 | **Monitor:** At locations that are impacted – or expected to be impacted - by coastal hazards, undertake monitoring of foreshore conditions as appropriate. This includes monitoring:<br>▪ The need for barriers and safety signage to be erected at damaged and potentially dangerous roads, to minimise risk to public safety.<br>▪ The need to enact other response measures. | NBC, CCC, HSC, NPWS | Response phase activated.<br>Ony if/when safe to do so. |
| 3.7 | **Close Foreshore Access:** Close access to public foreshore reserves, public lookouts, and other public areas. Erect barricades and signs, as necessary.<br>Refer to Appendix A for locations of foreshore areas. | NBC, CCC, HSC, NPWS | Act if public foreshore reserves areas are unsafe due to coastal inundation, wave run-up and overtopping likely to cause or likely to cause inundation of areas with public access. |
| 3.8 | **Close Roads:** Close affected Council and NPWS managed roads or liaise with road owners to enable closure.<br>Erect barricades and signs as necessary. | NBC, CCC, HSC, NPWS | Act if roads or vehicle access tracks are unsafe due to:<br>▪ Coastal erosion resulting in instability or undermining.<br>▪ Coastal inundation, wave run-up and overtopping likely to cause or likely to cause inundation of areas. |
| 3.9 | **Manage Essential Infrastructure:** Through consultation with utilities providers assess the requirement and options for utilities management where such infrastructure becomes or is likely to become affected by coastal hazards. Erect barricades and signs, as necessary. | NBC, CCC, HSC, NPWS | As required. |
| 3.10 | **Respond:** Seek specialist coastal engineering advice where required. | NBC, CCC, HSC, NPWS, DCCEEW | As required. |





| Action | Description | Responsibility | Timing / Trigger |
|---|---|---|---|
| 3.11 | **Respond:** Seek advice from DCCEEW staff as required. | NBC, CCC, HSC, NPWS, DCCEEW | As required. |

Table 7-4 Coastal Emergency Actions: Phase 4 – Recovery

| Action | Description | Responsibility | Timing / Trigger |
|---|---|---|---|
| 4.1 | **Monitor:** Conduct/organise detailed inspections of sites potentially affected by coastal hazards and assess damage to assets and the natural environment. Assess the structural integrity of any damaged infrastructure. Seek professional advice as required. | NBC, CCC, HSC, NPWS | Following an emergency event. Once it is safe to do so. |
| 4.2 | **Restore:** Remove, replace, or repair minor infrastructure (e.g., picnic facilities, garbage bins etc.) that have been impacted on by storm events where required. | NBC, CCC, HSC, NPWS | Following an emergency event. Once it is safe to do so. |
| 4.3 | **Restore:** Removal of foreshore debris that poses high risk to public safety, and associated contemporary risk assessment on a site-by-site basis. | NBC, CCC, HSC, NPWS | Following an emergency event. Once it is safe to do so. |
| 4.4 | **Inform:** Liaise with property owners to ensure any private and/or public structures do not pose a risk to the public. | NBC, CCC, HSC | Following an emergency event. |
| 4.5 | **Inform:** If necessary, issue orders under the Local Government Act 1993 and/or the Environmental Planning and Assessment Act 1979 when properties are deemed structurally unsafe or pose a risk to the public. | NBC, CCC, HSC | As required. |
| 4.6 | **Record:** Record coastal emergency impacts and response actions. Take remedial action where necessary. Maintaining photographic and written records of events and decision-making processes. See Section 7.3. | NBC, CCC, HSC, NPWS | Following an emergency event. Once it is safe to do so. |
| 4.7 | **Inform:** Erect permanent warning signs if necessary. | NBC, CCC, HSC, NPWS | Following an emergency event. |
| 4.8 | **Review:** Undertake an After Action Review (see section 7.5) review of this CZEAS and update as necessary to improve the future effectiveness of coastal emergency response actions. | NBC, CCC, HSC, NPWS, NSW SES, DCCEEW | Within 2 weeks of plan activation, or as necessary. |

### 7.3 Recording Coastal Emergency Impacts and Emergency Response Actions

After a coastal emergency event, Council is to issue a formal After Action Review in coordination with LEMC partners, in order to record the following details in a database, and to maintain effective emergency actions and understand any changes in coastal conditions over time (DPIE, 2019):

- Details of the emergency event – including any coastal inundation (and wave run-up). Details are to include the weather conditions and tide under which they were caused including photographs where possible.
- The location of any assets and infrastructure that were damaged and details of the extent of the damage.
- Details of any planned future coastal protection works in the CMP that are not yet undertaken, including the cost and the expected implementation timeframe.
- Details of any survey of the foreshore levels and other features that may be considered required to provide a greater understanding of the hazard or the event.
- Where possible, community feedback regarding the emergency communication and response efforts.
- Review and update (if required) this CZEAS, in particular the Emergency Action Plan, in consultation with the NSW SES and any other relevant agencies (see Section 5 above).

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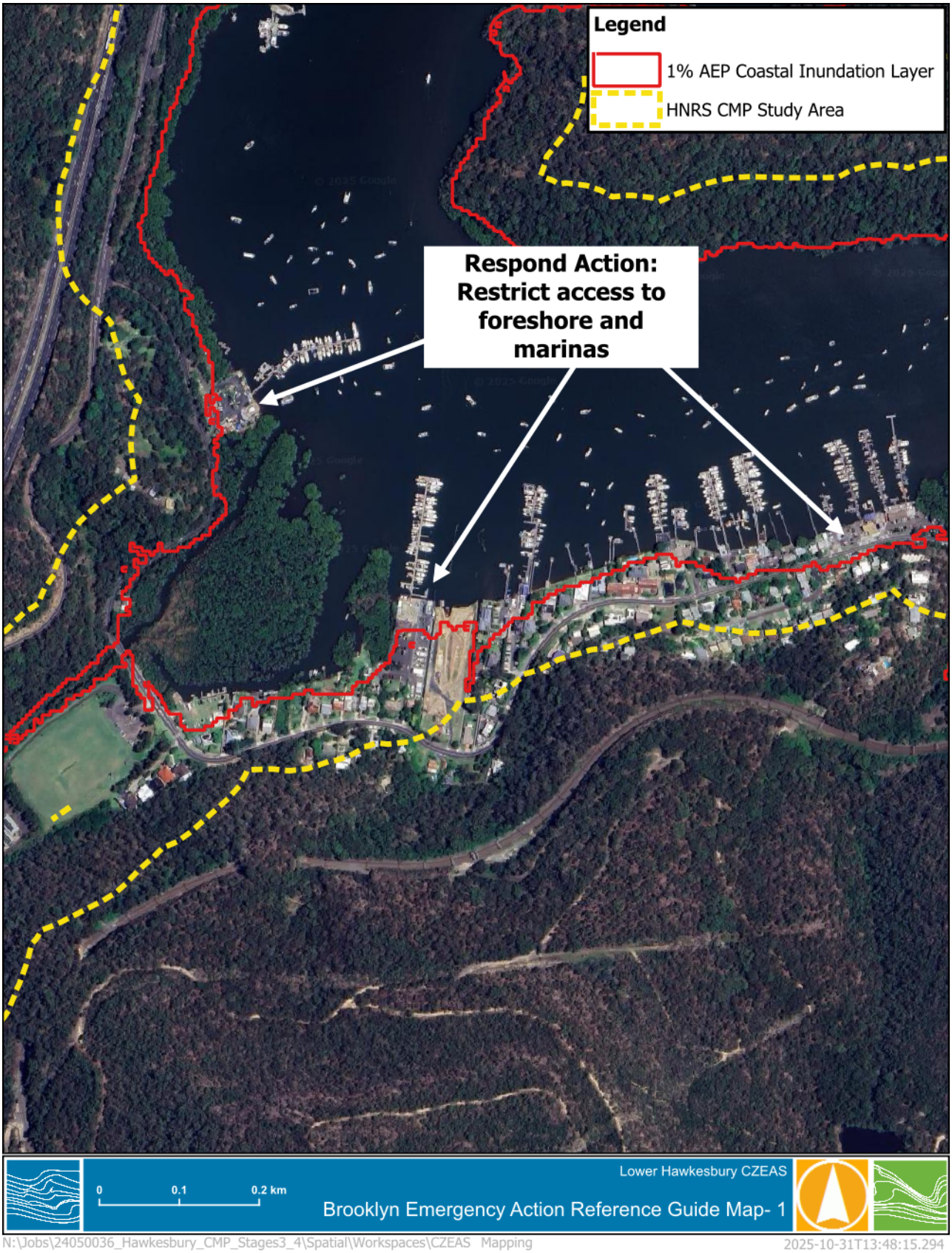
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# APPENDIX A
# LOCAL AREA PLANS



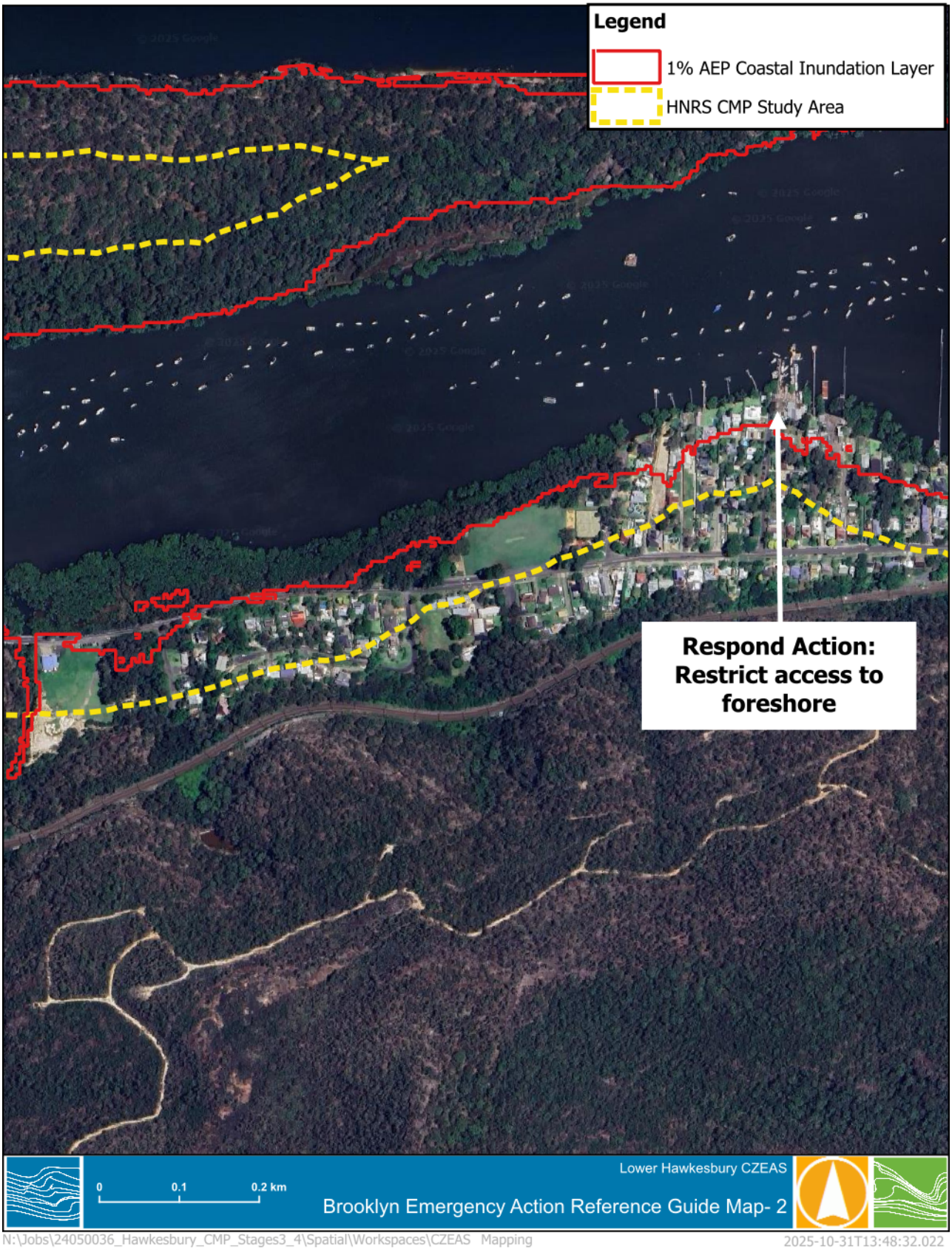
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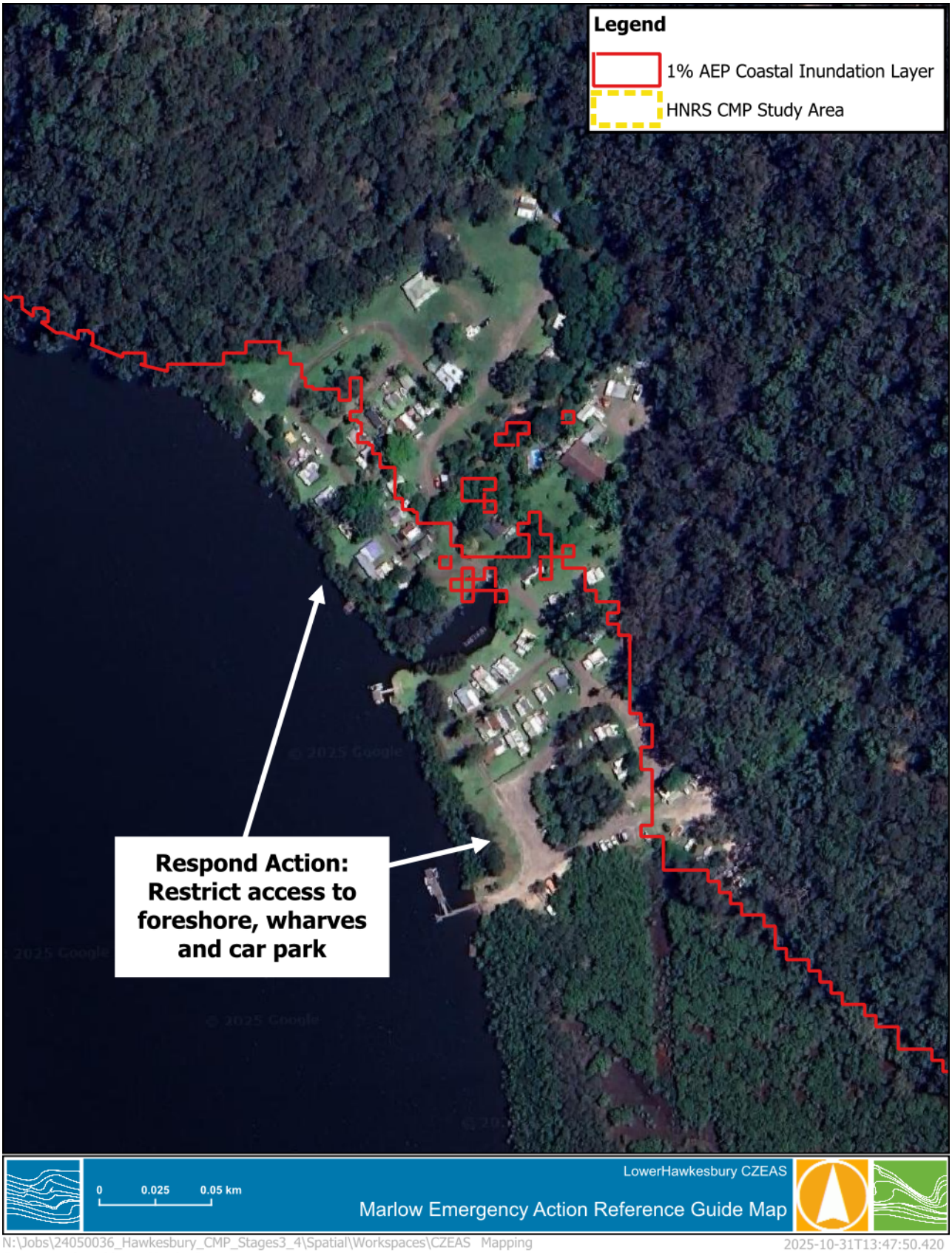
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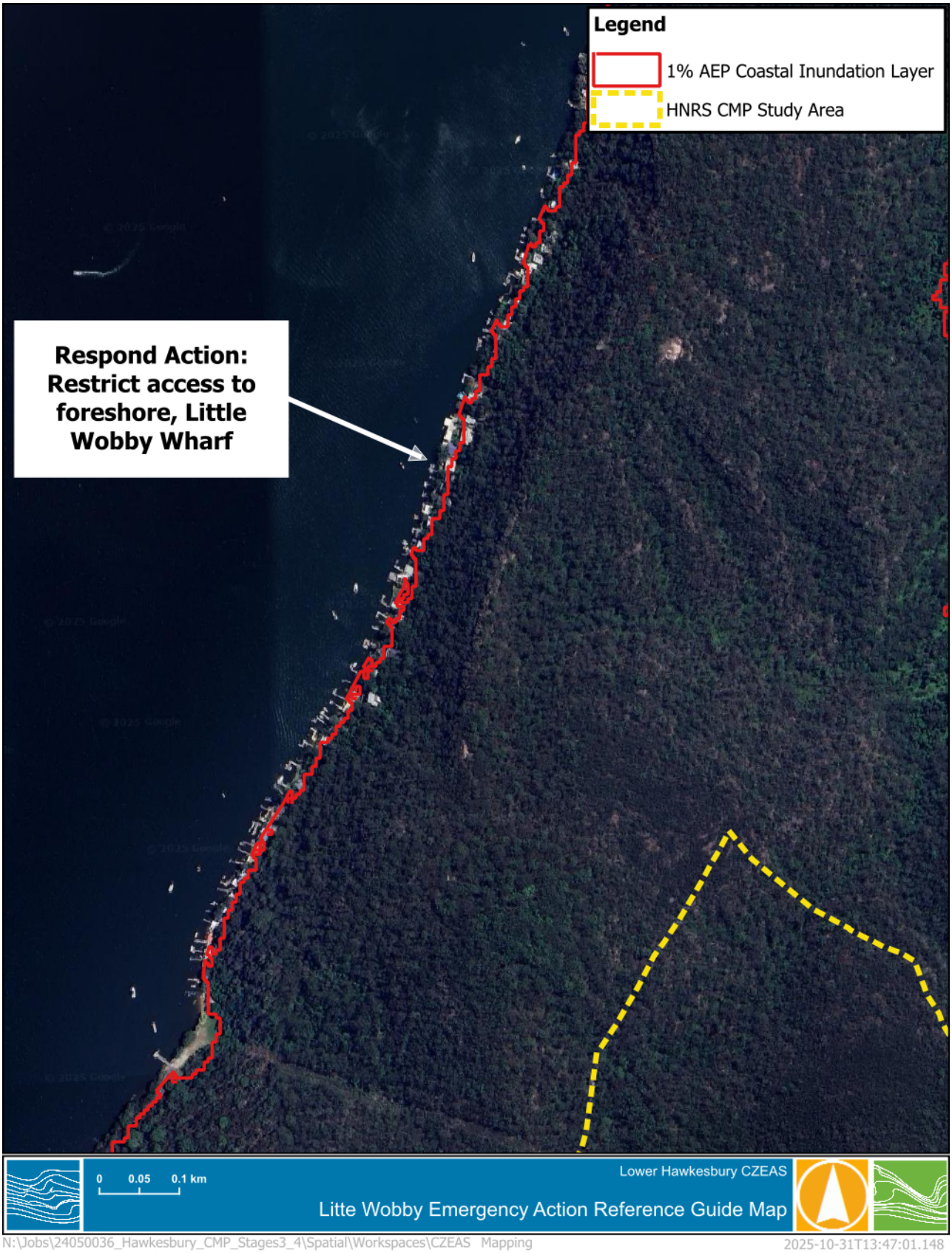
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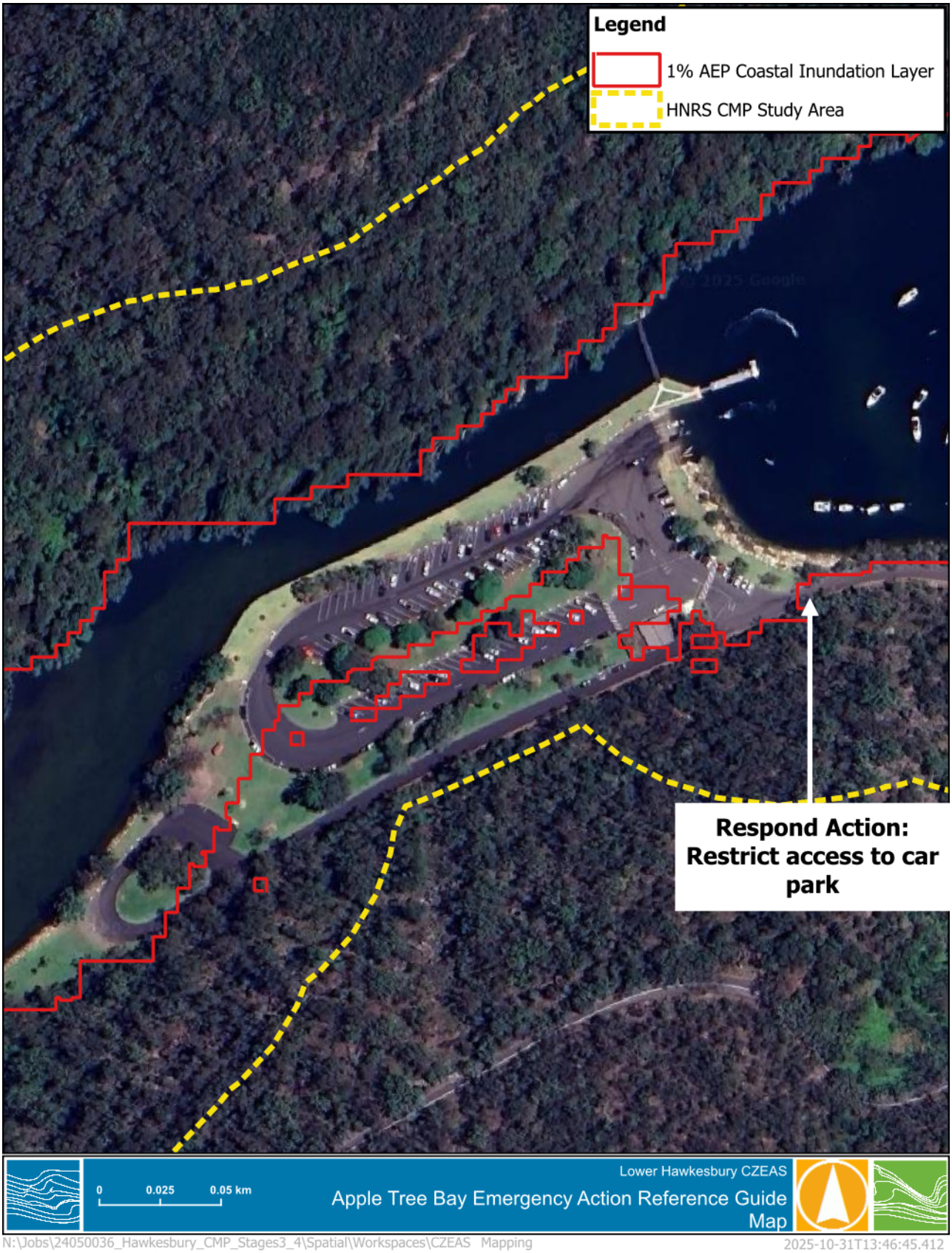



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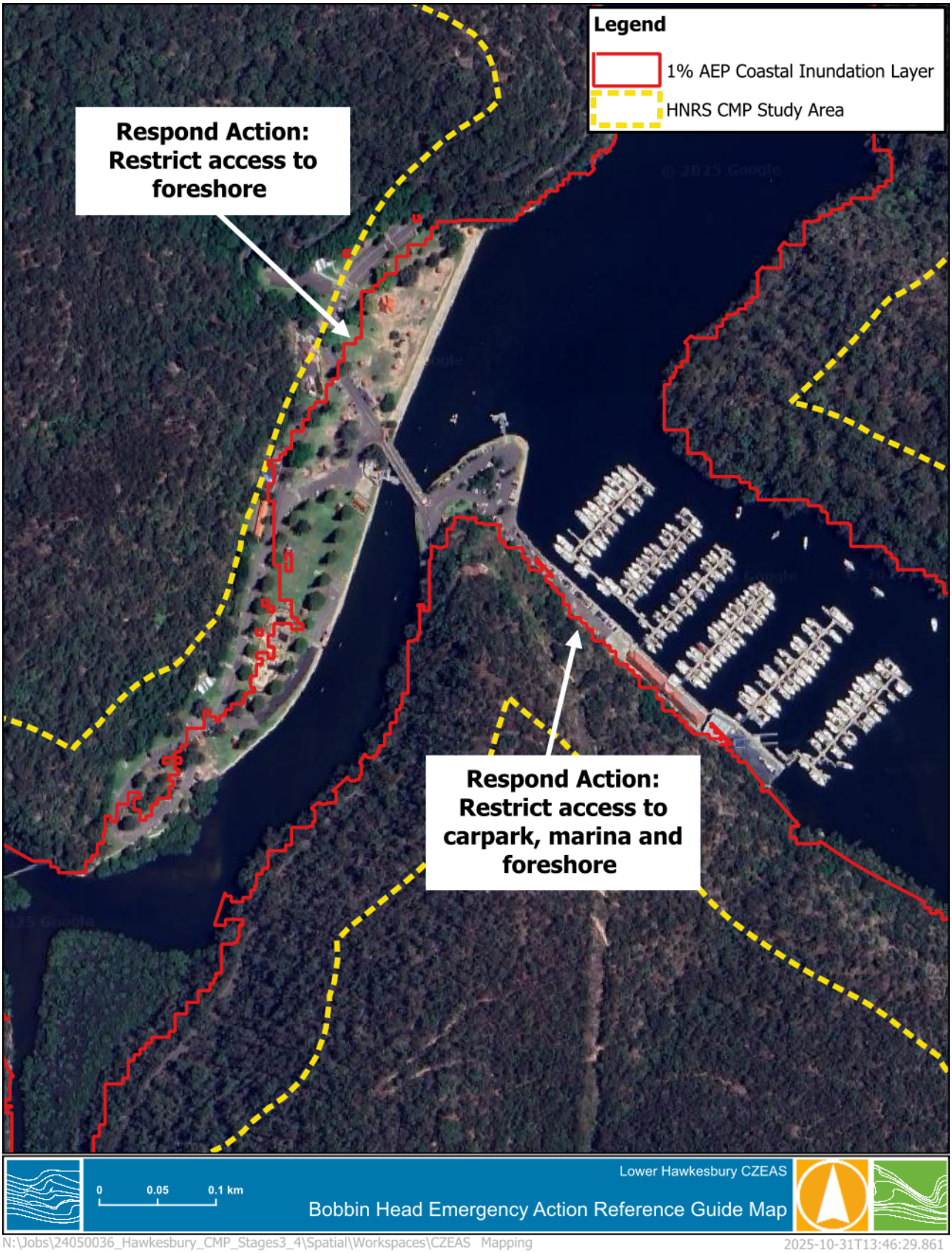
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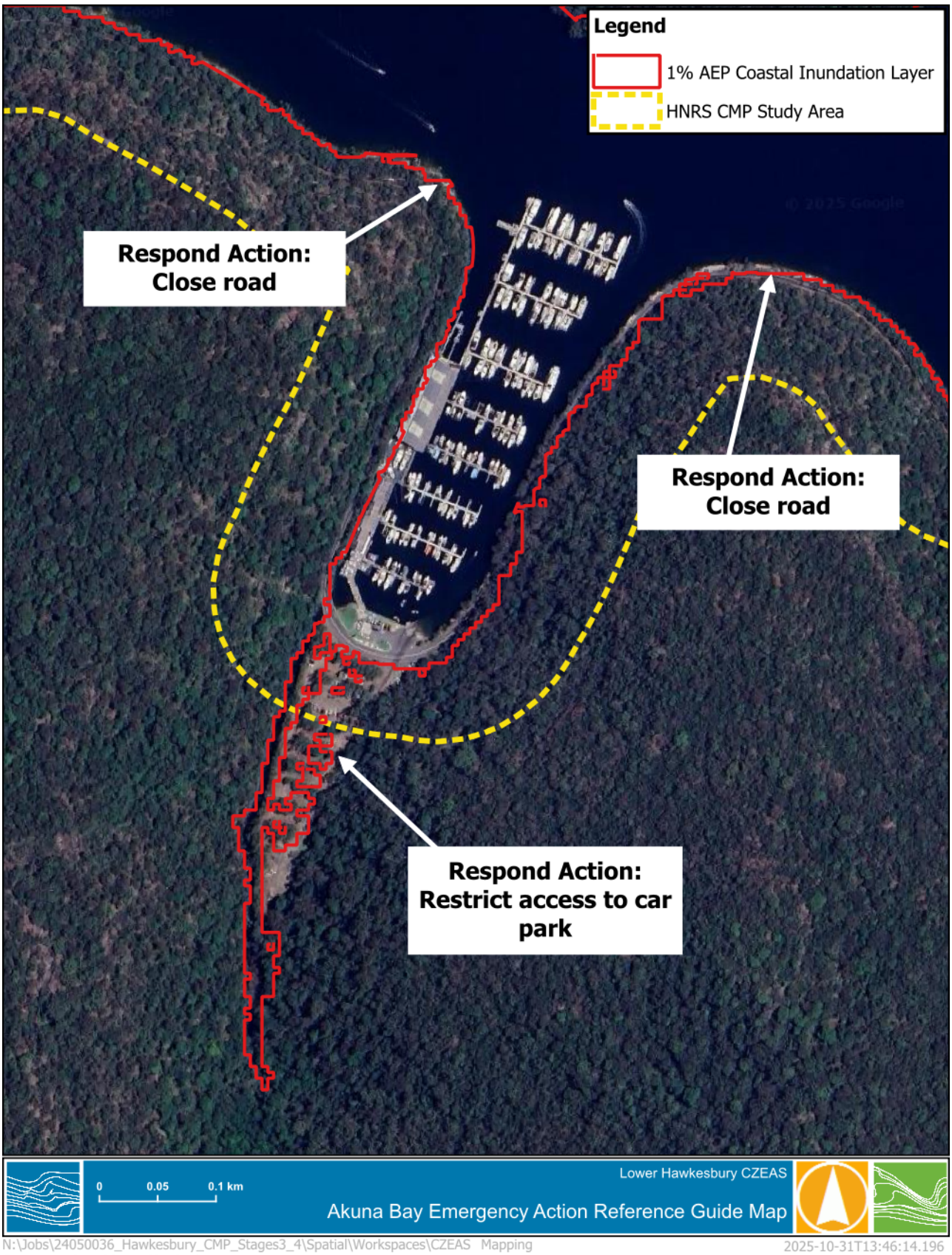
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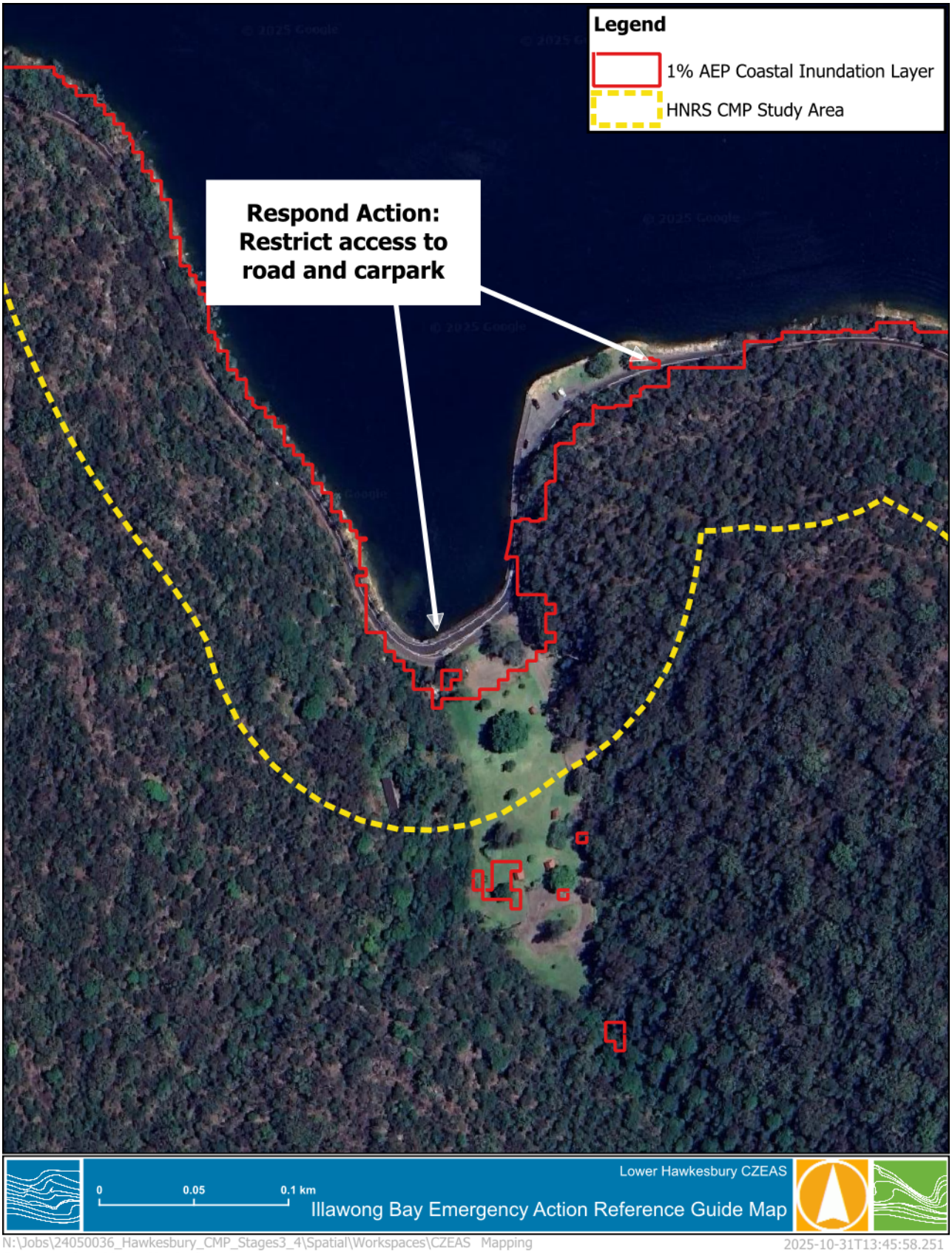

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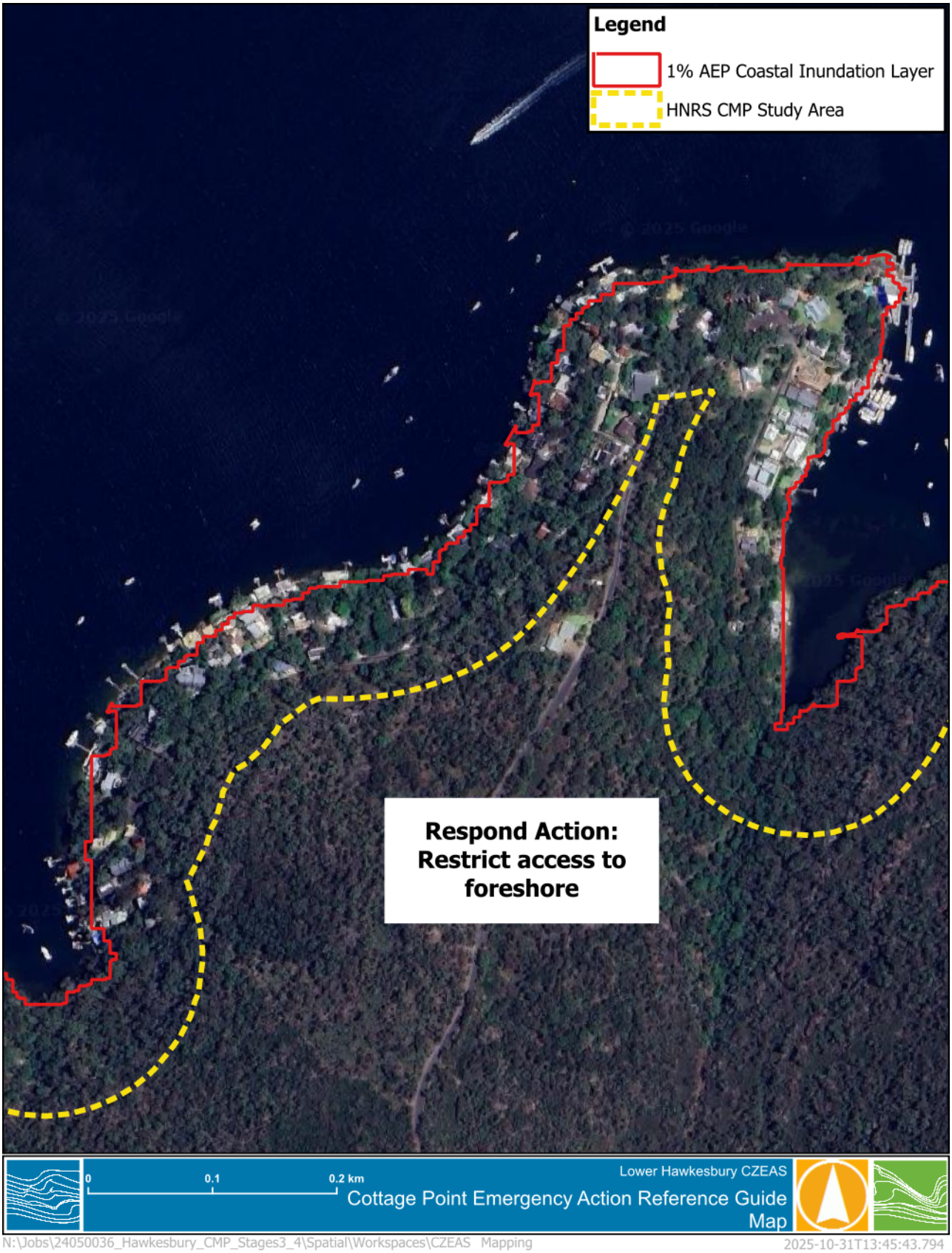



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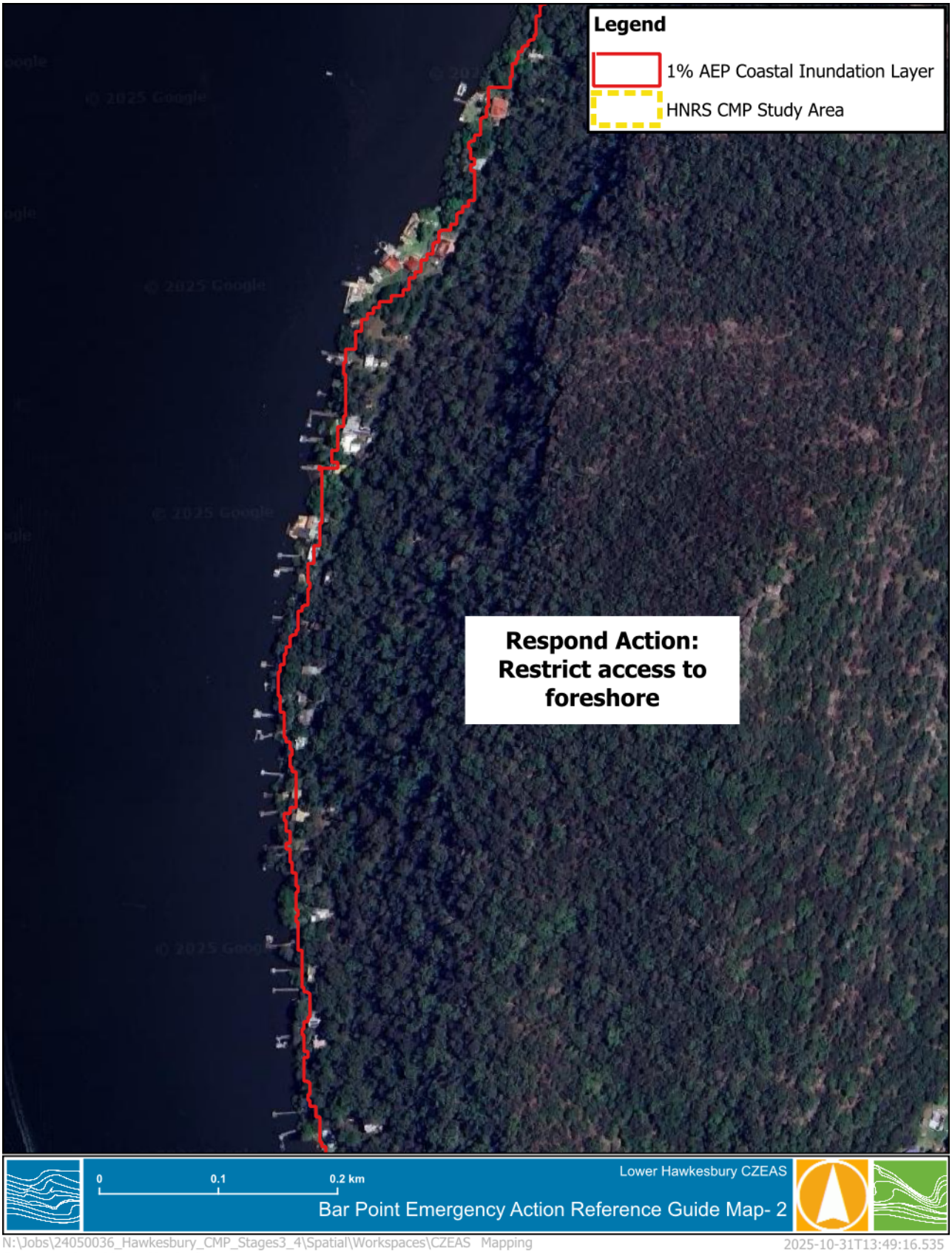



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