HORNSBY SHIRE COUNCIL

ATTACHMENTS

GENERAL MEETING

Wednesday 12 August 2020
at 6:30PM

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REPORT NO. CS21/20

ITEM 3

1. SCHEDULE OF BORROWINGS AS AT 30 JUNE 2020 (PRE-AUDIT)

2. INVESTMENT SUMMARY REPORT JUNE 2020 (PRE-AUDIT)

HORNSBY SHIRE COUNCIL SCHEDULE OF BORROWINGS AS AT 30 JUN 2020 (Pre-audit)

1. LOANS			$'000	$'000	$'000	$'000	$'000	$'000
Lender	Date Drawn	Maturity Date	Amount Borrowed	01/07/2019 Opening Balance	New Loan	2019/20 YTD Repayments Principal	Closing Balance	Fixed Interest Rate %
National Australia(49)	22-Jun-10	23-Jun-20	2,000	276		276		7.77
National Australia(50)	27-Jun-11	28-Jun-21	1,000	265		127	138	7.68
Westpac(51)	26-Jun-13	25-Jun-23	2,000	942		215	727	5.89
*TOTAL			5,000	1483		619	864	6.17%

* Average weighted interest rate based on principal balances outstanding is 6.17%

2. OPERATING LEASES			$'000	$'000	$'000	$'000	$'000
Lessor	Date Executed	Expiry date	Total Lease Payments	01/07/2019 Opening Balance	New Leases	2019/20 YTD Repayments	Closing Balance
Macquarie Equipment Finance (101)	15-Nov-15	17-Aug-20	545	135		108	27
Macquarie Equipment Finance (102)	15-Feb-16	15-Aug-19	11	1		1	0
Macquarie Equipment Finance (103)	25-Aug-16	15-Aug-20	83	24		19	5
Macquarie Equipment Finance (104)	18-Aug-16	15-Aug-19	13	1		1	0
Macquarie Equipment Finance (105)	22-Sep-17	15-Aug-21	444	248		110	138
Macquarie Equipment Finance (106)	22-Sep-17	15-Aug-20	32	13		11	3
Macquarie Equipment Finance (107)	22-Sep-17	15-Aug-22	56	36		11	25
Macquarie Equipment Finance (108)	15-Aug-18	15-Aug-22	242	185		57	128
Macquarie Equipment Finance (109)	15-Aug-18	15-May-23	85	68		17	51
Macquarie Equipment Finance (110)	15-Nov-18	15-Aug-22	26	21		6	14
Macquarie Equipment Finance (111)	15-Nov-18	15-Aug-23	632	537		126	411
Macquarie Equipment Finance (112)	15-Feb-19	15-Nov-21	55	45		18	27
Macquarie Equipment Finance (113)	15-Feb-19	15-Aug-22	11	9		3	7
Macquarie Equipment Finance (114)	15-May-19	15-Aug-23	15	14		3	11
Macquarie Equipment Finance (115)	23-Aug-19	15-May-24			119	24	95
Macquarie Equipment Finance (116)	15-Feb-20	15-May-23			13	2	11
Canon Finance Australia Pty Ltd	15-Nov-17	01-Nov-22	109	75		22	53
TOTAL			2,357	1,414	131	540	1,005

3. DEBT SERVICE RATIO	Ratio %
Year ending Jun 20 (Draft)	0.55
Year ending Jun 19	0.78
Year ending Jun 18	1.08
Year ending Jun 17	1.73

Debt Service Ratio	=	Debt Service Cost
		Revenue from Continuing Operations excluding Capital Items & Specific Purpose Grants/Contributions

HORNSBY
SHIRE COUNCIL

Investment Summary Report
June 2020

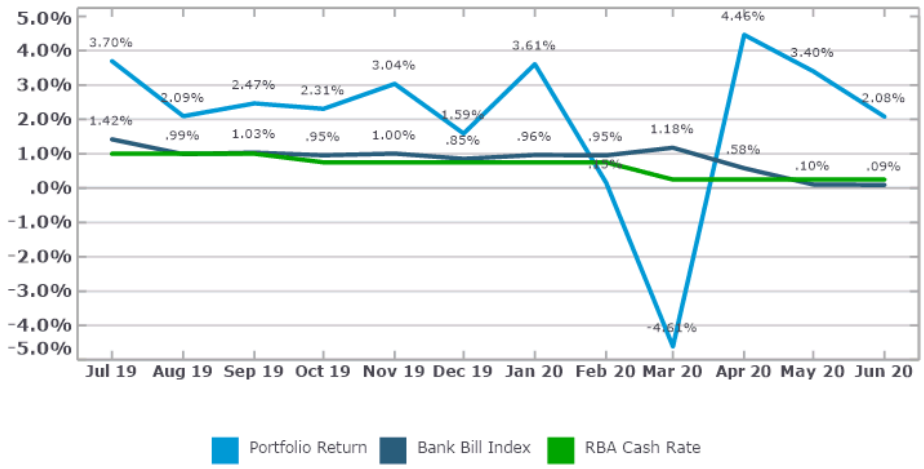
ATTACHMENT 2 - ITEM 3

Hornsby Shire Council
Executive Summary - June 2020

Investment Holdings

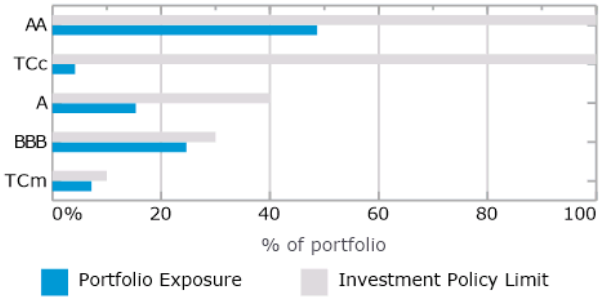
By Product	Face Value ($)	Current Value ($)	Current Yield (%)	FYTD Yield (%)
Cash	43,579,462.23	43,579,462.23	0.9111	1.3305
Floating Rate Note	31,200,000.00	31,424,011.27	1.1109	1.8131
Floating Rate Term Deposits	60,000,000.00	60,042,571.36	1.0909	1.8411
Managed Funds	20,671,443.36	20,671,443.36	4.8250	-0.2341
Term Deposit	131,641,313.00	132,894,784.34	2.1733	2.3658
	287,092,218.59	**288,612,272.56**	**2.0794**	**2.0027**

Investment Performance

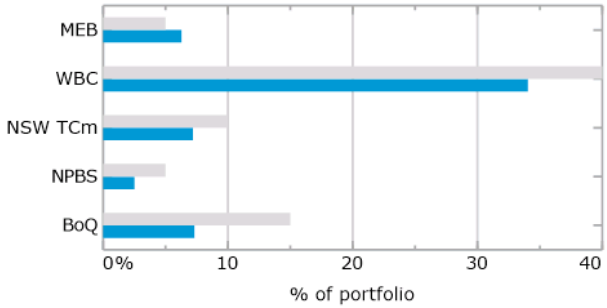


Investment Policy Compliance

Total Credit Exposure



Highest Individual Exposures vs Policy



Term to Maturities

	Face Value ($)		Policy Max
Between 0 and 90 days	82,579,462	29%	20%
Between 90 days and 1 year	47,641,313	17%	100%
Between 1 and 2 years	30,500,000	11%	70%
Between 2 and 5 years	126,371,443	44%	50%
	287,092,219		

PRUDENTIAL INVESTMENT SERVICES CORP

ATTACHMENT 2 - ITEM 3

Hornsby Shire Council
Investment Holdings Report - June 2020

Cash Accounts

	Face Value ($)	Current Yield	Institution	Credit Rating	Current Value ($)
	16,570,615.79	1.1000%	Westpac Group	AA-	16,570,615.79
	15,012,227.77	0.8500%	ME Bank	BBB	15,012,227.77
	11,996,618.67	0.7268%	NSW T-Corp (Cash)	TCc	11,996,618.67
	43,579,462.23	**0.9111%**			**43,579,462.23**

Managed Funds

	Face Value ($)	Current Yield	Institution	Credit Rating	Fund Name	Current Value ($)
	20,671,443.36	4.8250%	NSW T-Corp (MT)	TCm	Medium Term Growth	20,671,443.36
	20,671,443.36	**4.8250%**				**20,671,443.36**

Term Deposits

Purchase Date	Maturity Date	Term Days	Face Value ($)	Rate	Institution	Credit Rating	Book Value ($)	Current Value ($)
4-Dec-19	8-Jul-20	217	3,000,000.00	1.6000%	ME Bank	BBB	3,000,000.00	3,027,616.44
8-Jan-20	8-Jul-20	182	2,500,000.00	1.8000%	AMP Bank	BBB+	2,500,000.00	2,521,575.34
7-Aug-19	5-Aug-20	364	4,000,000.00	2.2000%	Westpac Group	AA-	4,000,000.00	4,079,320.55
15-Aug-19	5-Aug-20	356	2,000,000.00	2.0000%	Westpac Group	AA-	2,000,000.00	2,035,178.08
8-Aug-18	12-Aug-20	735	3,000,000.00	3.0000%	Bank of Queensland	BBB+	3,000,000.00	3,080,876.71
15-Aug-18	12-Aug-20	728	2,000,000.00	3.0000%	Bank of Queensland	BBB+	2,000,000.00	2,053,260.27
21-Aug-19	19-Aug-20	364	2,500,000.00	2.0000%	Westpac Group	AA-	2,500,000.00	2,543,150.68
28-Aug-19	26-Aug-20	364	5,000,000.00	2.0000%	Westpac Group	AA-	5,000,000.00	5,084,383.56
28-Aug-19	2-Sep-20	371	5,000,000.00	2.0000%	Westpac Group	AA-	5,000,000.00	5,084,383.56
10-Jun-20	9-Sep-20	91	3,000,000.00	0.9000%	National Australia Bank	AA-	3,000,000.00	3,001,553.42
12-Sep-19	12-Sep-20	366	7,000,000.00	1.7500%	Westpac Group	AA-	7,000,000.00	7,098,335.62
19-Oct-19	19-Oct-20	366	50,000.00	1.5500%	Westpac Group	AA-	50,000.00	50,539.32

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Hornsby Shire Council
Investment Holdings Report - June 2020

HORNSBY SHIRE COUNCIL

Term Deposits

Purchase Date	Maturity Date	Term Days	Face Value ($)	Rate	Institution	Credit Rating	Book Value ($)	Current Value ($)
9-Mar-20	1-Dec-20	267	5,000,000.00	1.6500%	Macquarie Bank	A+	5,000,000.00	5,025,767.12
3-Dec-19	2-Dec-20	365	5,000,000.00	1.6000%	ING Bank (Australia)	A	5,000,000.00	5,046,246.58
12-Mar-20	9-Dec-20	272	5,000,000.00	1.7000%	Macquarie Bank	A+	5,000,000.00	5,025,849.32
15-Jan-20	15-Dec-20	335	91,313.00	1.6400%	Westpac Group	AA-	91,313.00	92,002.28
30-Jan-19	3-Feb-21	735	3,000,000.00	2.9000%	Bank of Queensland	BBB+	3,000,000.00	3,036,468.49
28-Feb-19	17-Feb-21	720	4,000,000.00	2.8100%	Rural Bank	BBB+	4,000,000.00	4,038,185.21
27-Feb-19	24-Feb-21	728	2,000,000.00	3.0000%	Defence Bank	BBB	2,000,000.00	2,020,547.95
14-Oct-19	7-Apr-21	541	2,500,000.00	1.6000%	AMP Bank	BBB+	2,500,000.00	2,528,602.74
10-May-18	12-May-21	1098	3,000,000.00	3.2000%	Bank of Queensland	BBB+	3,000,000.00	3,013,413.70
19-Jun-19	12-May-21	693	5,000,000.00	2.3000%	Westpac Group	AA-	5,000,000.00	5,003,780.82
19-Jun-19	19-May-21	700	5,000,000.00	2.3000%	Westpac Group	AA-	5,000,000.00	5,003,780.82
3-Jun-19	2-Jun-21	730	5,000,000.00	2.2400%	Bank of Queensland	BBB+	5,000,000.00	5,008,591.78
12-Jun-19	16-Jun-21	735	3,000,000.00	2.2000%	Westpac Group	AA-	3,000,000.00	3,003,435.62
27-Nov-19	17-Nov-21	721	2,000,000.00	1.6000%	ING Bank (Australia)	A	2,000,000.00	2,019,024.66
18-May-20	21-Nov-21	552	2,500,000.00	1.4500%	AMP Bank	BBB+	2,500,000.00	2,504,369.86
27-Nov-19	23-Nov-21	727	2,000,000.00	1.6000%	ING Bank (Australia)	A	2,000,000.00	2,019,024.66
27-Nov-19	24-Nov-21	728	3,000,000.00	1.6000%	ING Bank (Australia)	A	3,000,000.00	3,028,536.99
5-Feb-20	9-Feb-22	735	3,000,000.00	1.6500%	ING Bank (Australia)	A	3,000,000.00	3,019,935.62
12-Feb-20	14-Feb-22	733	5,500,000.00	1.6000%	Westpac Group	AA-	5,500,000.00	5,533,753.42
22-Feb-19	22-Feb-22	1096	3,000,000.00	3.0500%	Newcastle Permanent Building Society	BBB	3,000,000.00	3,032,087.67
26-Sep-19	21-Sep-22	1091	5,000,000.00	1.8000%	Bank of Queensland	BBB+	5,000,000.00	5,068,794.52
19-Mar-19	6-Mar-24	1814	10,000,000.00	3.0000%	Rabobank Australia	A+	10,000,000.00	10,085,479.45
19-Mar-19	13-Mar-24	1821	9,000,000.00	3.0000%	Rabobank Australia	A+	9,000,000.00	9,076,931.51
			131,641,313.00	**2.1733%**			**131,641,313.00**	**132,894,784.34**

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Hornsby Shire Council
Investment Holdings Report - June 2020

Floating Rate Term Deposits

Purchase Date	Maturity Date	Term	Face Value ($)	Current Rate	Security Name	Credit Rating	Book Value ($)	Current Value ($)
3-Sep-18	3-Sep-23	1826	15,000,000.00	1.0800%	Westpac Group BBSW+0.98%	AA-	15,000,000.00	15,012,427.40
4-Sep-18	4-Sep-23	1826	15,000,000.00	1.1000%	ANZ Banking Group BBSW+1.00%	AA-	15,000,000.00	15,012,205.48
10-Sep-18	11-Sep-23	1827	15,000,000.00	1.0800%	Westpac Group BBSW+0.98%	AA-	15,000,000.00	15,009,320.55
12-Sep-18	12-Sep-23	1826	15,000,000.00	1.1037%	ANZ Banking Group BBSW+1.00%	AA-	15,000,000.00	15,008,617.93
			60,000,000.00	**1.0909%**			**60,000,000.00**	**60,042,571.36**

Floating Rate Notes

Purchase Date	Maturity Date	Term	Face Value ($)	Current Rate	Security Name	Credit Rating	Book Value ($)	Current Value ($)
10-Sep-18	10-Sep-21	1096	7,000,000.00	1.1800%	AMP Snr FRN (Sep21) BBSW+1.08%	BBB+	7,000,700.00	7,005,592.33
19-Oct-18	19-Jan-22	1188	2,500,000.00	1.1350%	BEN Snr FRN (Jan22) BBSW+1.01%	BBB+	2,513,600.00	2,517,947.26
26-Sep-18	26-Sep-23	1826	9,000,000.00	1.0300%	NAB Snr FRN (Sep23) BBSW+0.93%	AA-	9,050,760.00	9,122,229.86
16-Nov-18	16-Nov-23	1826	7,000,000.00	1.0478%	WBC Snr FRN (Nov23) BBSW+0.95%	AA-	7,044,590.00	7,109,291.71
24-Oct-19	24-Oct-24	1827	1,500,000.00	1.2350%	CUA Snr FRN (Oct24) BBSW+1.12%	BBB	1,500,000.00	1,494,061.23
4-Feb-20	4-Feb-25	1827	4,200,000.00	1.2153%	NPBS Snr FRN (Feb25) BBSW+1.12%	BBB	4,200,000.00	4,174,888.88
			31,200,000.00	**1.1109%**			**31,309,650.00**	**31,424,011.27**

Total Investments

Face Value ($)	Current Value ($)
287,092,218.59	**288,612,272.56**

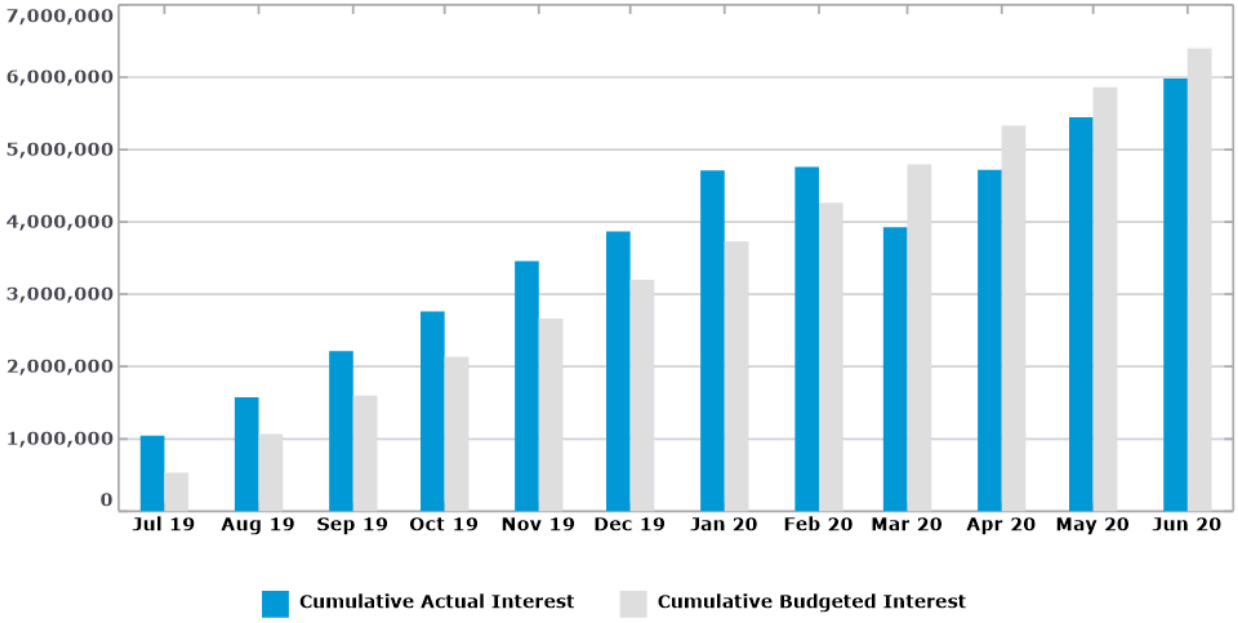
PRUDENTIAL INVESTMENT SERVICES CORP

ATTACHMENT 2 - ITEM 3

Hornsby Shire Council
Budget vs Actual Income Report - June 2020

Budgeted vs Actual Returns

	Cumulative Actual Income	Cumulative Budgeted Income
July 2019	1,045,328	533,084
August 2019	1,575,163	1,066,168
September 2019	2,212,243	1,599,252
October 2019	2,763,583	2,132,336
November 2019	3,459,457	2,665,420
December 2019	3,869,044	3,198,504
January 2020	4,710,999	3,731,588
February 2020	4,761,251	4,264,672
March 2020	3,927,209	4,797,755
April 2020	4,717,779	5,330,839
May 2020	5,447,367	5,863,923
June 2020	5,982,361	6,397,000
Budget Target		**6,397,000**



PRUDENTIAL INVESTMENT SERVICES CORP

ATTACHMENT 2 - ITEM 3

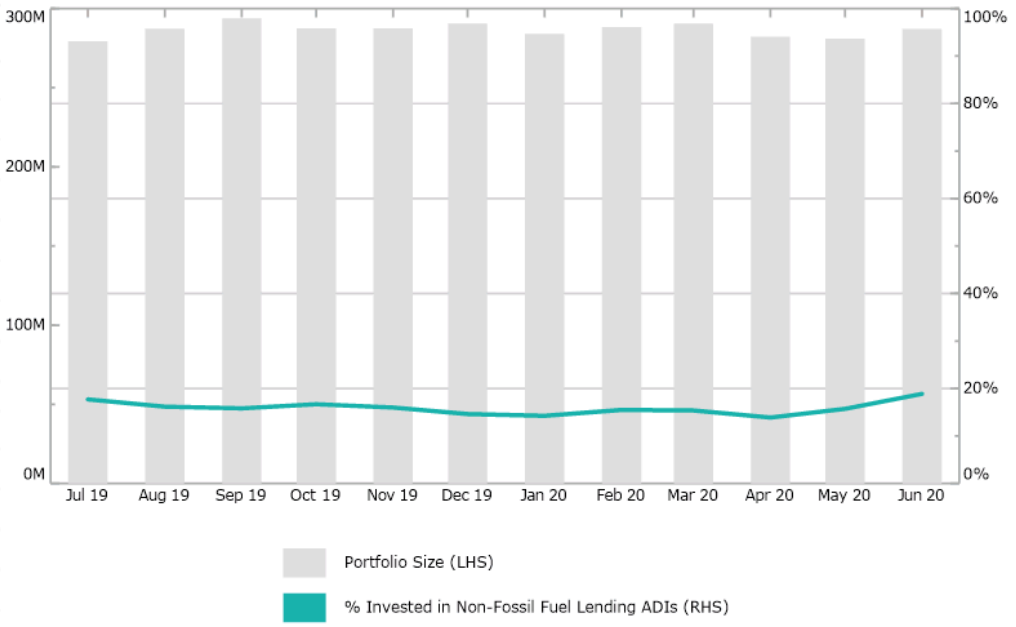
Hornsby Shire Council
Environmental Committments Report - June 2020

Current Breakdown

ADI Lending Status *	Current Month ($)	Previous Month ($)
Fossil Fuel Lending ADIs		
AMP Bank	14,500,000	14,500,000
ANZ Group	30,000,000	30,000,000
Bank of Queensland	21,000,000	21,000,000
ING Bank Australia	15,000,000	15,000,000
Macquarie Bank	10,000,000	10,000,000
National Australia Bank	12,000,000	9,000,000
Westpac Group	97,711,929	104,695,964
	200,211,929 70%	**204,195,964 73%**
Non Fossil Fuel Lending ADIs		
Bendigo and Adelaide Bank	6,500,000	6,500,000
Credit Union Australia	1,500,000	1,500,000
Defence Bank	2,000,000	2,000,000
Members Equity Bank	18,012,228	8,002,445
Newcastle Permanent Building Society	7,200,000	7,200,000
Rabobank Australia	19,000,000	19,000,000
	54,212,228 19%	**44,202,445 16%**
Other		
NSW T-Corp (Cash)	11,996,619	11,989,480
NSW T-Corp (Growth)	20,671,443	20,591,537
	32,668,062 11%	**32,581,017 12%**
	287,092,219	**280,979,426**

** source: http://www.marketforces.org.au*
Percentages may not add up to 100% due to rounding

Historical Portfolio Exposure to Non Fossil Fuel Lending ADIs



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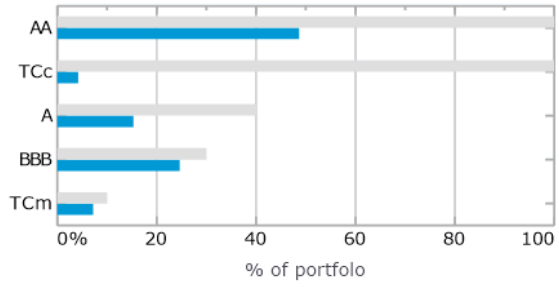
ATTACHMENT 2 - ITEM 3

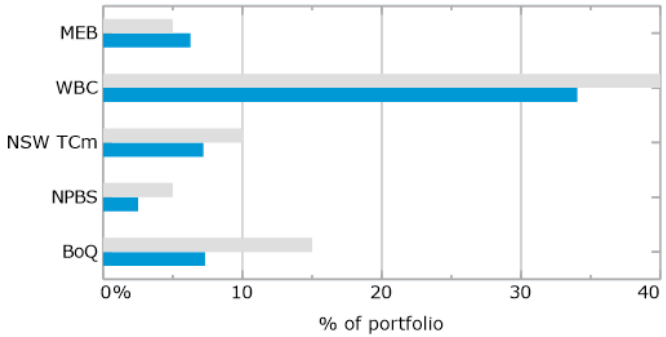
Hornsby Shire Council
Investment Policy Compliance Report - June 2020

HORNSBY SHIRE COUNCIL

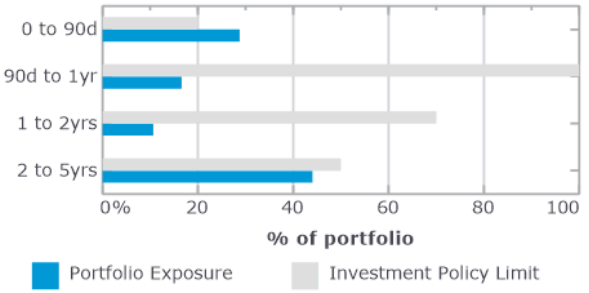
Total Credit Exposure



Individual Institutional Exposures



Term to Maturities



Credit Rating Group	Face Value ($)		Policy Max	
AA	139,711,929	49%	100%	✔
TCc	11,996,619	4%	100%	✔
A	44,000,000	15%	40%	✔
BBB	70,712,228	25%	30%	✔
TCm	20,671,443	7%	10%	✔
	287,092,219			
Specific Sub Limits				
BBB+	*42,000,000*	*15%*	*30%*	✔
BBB	*28,712,228*	*10%*	*10%*	✔

✔ = compliant
✘ = non-compliant

	Portfolio Exposure	Investment Policy Limit	
Members Equity Bank (BBB)	6%	5%	✘
Westpac Group (AA-)	34%	40%	✔
NSW T-Corp (TCm)	7%	10%	✔
Newcastle Permanent Building Society (BBB)	3%	5%	✔
Bank of Queensland (BBB+)	7%	15%	✔
AMP Bank (BBB+)	5%	15%	✔
ANZ Group (AA-)	10%	40%	✔
Rabobank Australia (A+)	7%	30%	✔
ING Bank Australia (A)	5%	30%	✔
Bendigo and Adelaide Bank (BBB+)	2%	15%	✔
Defence Bank (BBB)	1%	5%	✔
Macquarie Bank (A+)	3%	30%	✔
National Australia Bank (AA-)	4%	40%	✔
Credit Union Australia (BBB)	1%	5%	✔
NSW T-Corp (TCc)	4%	100%	✔

Detailed Maturity Profile	Face Value ($)	
00. Cash	43,579,462	15%
01. Less Than 30 Days	5,500,000	2%
02. Between 30 Days and 60 Days	18,500,000	6%
03. Between 60 Days and 90 Days	15,000,000	5%
04. Between 90 Days and 180 Days	15,141,313	5%
05. Between 180 Days and 365 Days	32,500,000	11%
06. Between 365 Days and 2 Years	30,500,000	11%
07. Between 2 Years and 5 Years	126,371,443	44%
	287,092,219	

PRUDENTIAL INVESTMENT SERVICES CORP

ATTACHMENT 2 - ITEM 3

ITEM 4

ATTACHMENT/S

REPORT NO. EH2/20

ITEM 4

1. DRAFT POLICY - SINGLE USE PLASTICS 2020

2. WASTE MANAGEMENT GUIDELINES FOR EVENT ORGANISERS 2020

HORNSBY SHIRE COUNCIL

POLICY REGISTER

POLICY TITLE: Single Use Plastics

FOLDER NUMBER:	
POLICY OWNER / DIVISION:	Community and Environment
POLICY OWNER / BRANCH:	Waste Branch
FUNCTION:	Waste Management and Avoidance
RELEVANT LEGISLATION:	LOCAL GOVERNMENT ACT, 1993 WASTE AVOIDANCE AND RESOURCE RECOVERY ACT, 2001 PROTECTION OF THE ENVIRONMENT OPERATIONS ACT, 1997
POLICY ADOPTION/AMENDMENT DATE:	**REPORT NUMBER**: GM08042020_4
REVIEW YEAR:	**2023**
RELATED POLICIES:	Sustainable Procurement Determination 2013

POLICY PURPOSE / OBJECTIVES:

To progressively transition towards the elimination of single-use plastics in council operations and events by 2022.

IMPORTANT NOTE: This Policy and the accompanying Waste Management Guidelines were developed pre-COVID-19. During COVID-19, NSW Public Health Orders, COVID Safety Management Plans and safe work practices related to COVID-19 requirements take precedence.

POLICY PRINCIPLES:

The principles that guide this policy are based on significant evidence which indicates that:

1. Single-use plastics comprise a large component of litter in NSW[1]
2. Plastic pollution persists in the environment and has cumulative detrimental impacts on human and environmental health[2]
3. The production of plastics relies on the use of non-renewable resources that adversely impact on climate change and do not align with the principles of Ecologically Sustainable Development (ESD)[3]
4. Plastics, including single-use plastics, do not biodegrade and can break into smaller micro-plastics that have long-term environmental, social and economic impacts. These place an inequitable burden on future generations[4]

[1] 2015-16 National Litter Index Results for NSW
[2] Centre for International Environmental Law, *Plastic and Health – the Hidden Costs of a Plastic Planet*, 2019
[3] Ibid
[4] UNEP 2018. SINGLE USE PLASTICS: A Roadmap for Sustainability

5. The waste hierarchy should govern the use and disposal of resources: avoid, reduce, reuse, recycle and then dispose.

CONTEXT

In recent years numerous local government organisations around Australia have sought to minimise and prohibit the prevalence of single-use plastics in council operations and events.

Hornsby Shire Council Resolved to develop a draft Single Use Plastic Policy on 24 July 2019 (NOM8/19 – F2018/00082).

This policy will be guided, in part, by the findings of local research conducted by Sydney University during 2019.

SCOPE AND APPLICATION

This policy applies to Council operational activities, council employees and contractors' activities within, and impacting on, the Hornsby Shire local government area. Further detail on the size and types of events that fall within the jurisdiction of this policy can be found in the new Waste Management Guidelines for Events Organisers (Attachment A).

A list of alternative suppliers and products will be provided to all event organisers (Attachment A – Appendix A).

Milestone timings for the transition of council events and operations to phase out single-use plastics are detailed in Table 1 below.

POLICY STATEMENT:

This policy recognises that many plastics have become an integral component of modern global packaging and food safety systems. Therefore, a strategic, planned and incremental approach is required to deliver a durable and structural transition towards alternatives.

Council will:

- Support relevant National Packaging Targets and national product labelling schemes
- Provide in-house education and engagement activities on single-use plastics
- Demonstrate leadership in the community to reduce the use of single-use plastics, particularly plastic straws, water bottles and plastic bags
- Phase out and, where possible, eliminate single use plastic items within council operations and at all events held on council owned or managed land. This will include plastic water bottles, plastic drinking straws, single-use plastic bags, coffee cups (with plastic lining), ready-to-eat plastic serving containers / utensils and balloons
- Provide alternative water sources at events particularly where water in single-use plastic bottles is limited or not available
- Investigate opportunities to provide permanent water refill stations in appropriate high-use public spaces and the use of temporary mobile water refill stations at high-use public events
- Implement responsible procurement practices to influence supply chains and support market development of recycled content products
- Support local business and retail industry sectors to provide products and services that do not rely on single-use plastics

- Build awareness within the community on alternatives to single use plastics
- Ensure outcomes align with Council policies, such as the Sustainable Procurement Determination, and that guidelines include requirements directly leading towards the elimination of single-use plastic in Hornsby Shire LGA.

The intent of the policy will also be delivered through the following mechanisms:

- Facilitating an Internal Council Officer Reference Group to support the ongoing operational transition away from single-use plastics
- Developing Waste Management Guidelines and a preferred supplier list for events
- Online promotion of alternatives to single-use plastics to assist the business and retail community to provide products and services that do not rely on single use plastics
- Providing advice and support to organisations wishing to run waste wise community events
- Supporting community access to relevant information and resources
- Developing and promoting case studies of sustainable community events

DEFINITIONS:

Single-use Plastics, often also referred to as disposable plastics, are commonly used for plastic packaging and include items intended to be used only once before they are discarded. Single-use plastics include but are not limited to petroleum-based disposable plastic and polystyrene items such as coffee cups (with plastic lining) straws, balloons, bags, sachets, cutlery and food and drink packaging.

EXCLUSIONS:

Exclusions will apply to:

- Plastic items already being recycled within a circular economy model (standard recyclables).
- All beverage containers dispensed by vending machines

EXEMPTIONS:

Exemptions may apply when:

- Specific plastic products are required to meet health and safety requirements
- There is no practical alternative product or distribution method available
- Those with a physical disability require a particular product to engage in day-to-day activities
- Patrons and facility users who bring pre-purchased and packaged food and beverage consumables
- Subject to current relevant legislation where single-use plastics are required in some circumstances, such as the NSW Gaming and Liquor Administration Act 2007

TABLE 1: MILESTONE TIMINGS FOR THE TRANSITION OF COUNCIL EVENTS AND OPERATIONS

Year	Council operation	Council Event	Commercial Events	Approval Processes
2020/21	• Council meetings • Councillor briefings • Councillor and staff training • Council run tours and workshops • Meetings with internal and external stakeholders	• Mayor's Christmas Party • Citizenship Ceremonies • Australia Day • Sunset Sessions • Westside Vibe • Children's Voices for Reconciliation • Screen on the Green	• Weekly Thursday Organic Food Markets • Saturday Markets	• Nominated event approvals • Commercial terms and conditions
2021/22	• All Council facilities*	• All council run and supported events • All relevant community run events on council land**		• Modify existing hirer arrangements • Considered in all approvals processes

*Does not include vending machines
**As stipulated in the Waste Management Guidelines for Events. Will not be enforced for community run events with less than 300 people.

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Hornsby Shire Council

ABN 20 706 996 972

Contact details

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Phone: 9847 6666

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Customer service desks are open from 8.30am-5pm, Monday to Friday.

hornsby.nsw.gov.au

Council would like to recognise the traditional owners of the lands of Hornsby Shire, the Darug and Guringai Aboriginal people, and pay respect to their elders and their heritage.

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Westside Vibe 2019

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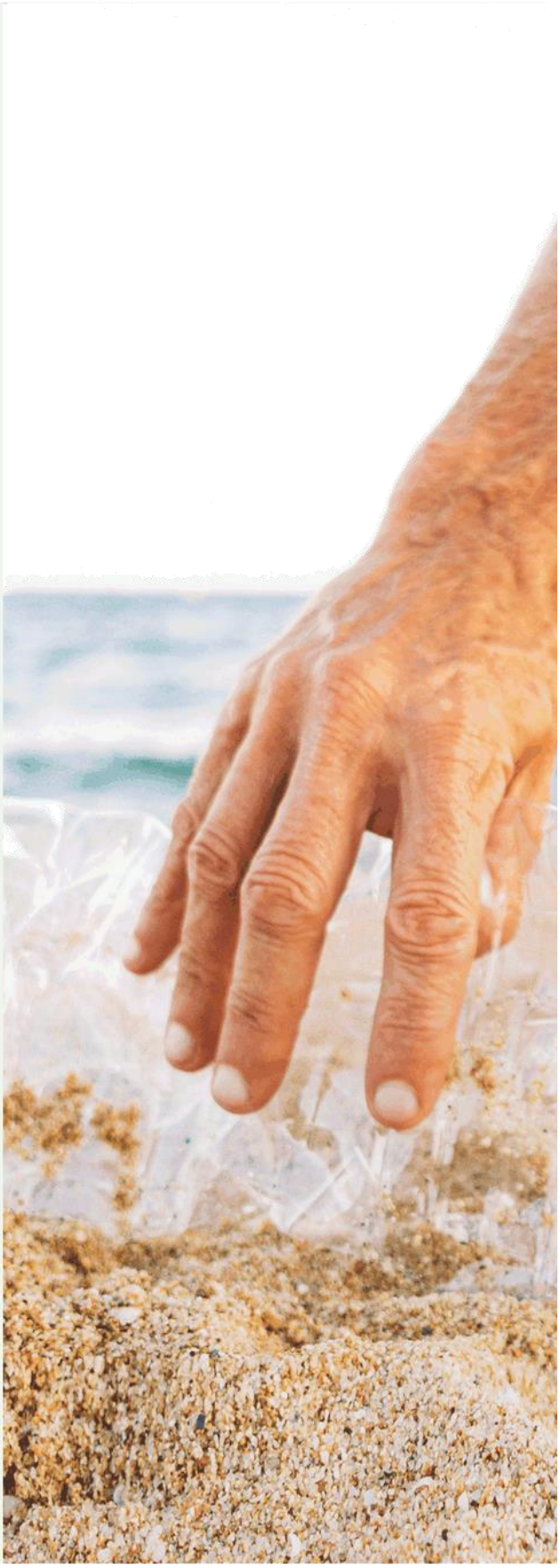
1.0 How to use this guide

Hornsby Shire Council is committed to delivering best practice in the areas of environmental protection and sustainability.

These Guidelines provide support for event organisers and stallholders to run sustainable Waste Management events, which do not distribute single-use plastics and deliver improved waste and environmental outcomes.

These Guidelines are designed to be used in conjunction with Council's broader events planning and approvals processes. Effective waste management requires up-front consideration in planning for the entire event.

- For small events with less than 300 attendees – Event Organisers are required to submit the **Section A. Event Waste Management Plan**, five (5) business days prior to the event date.
  - This includes your Bin Hire Request.
- For large events with over 300 attendees – Event Organisers **must comply** with Council's Single-Use Plastic Policy and Council's Waste Management Guidelines, and submit **Section B. Event Waste Management Plan**, five (5) business days prior to your event date.
  - This includes your Bin Hire Request.



2.0 Hornsby Shire Council's Single-Use Plastics Policy

Summary

In July 2019 Hornsby Shire Council resolved to develop a draft Single Use Plastic Policy. The Policy will involve the progressive phasing out of single-use plastic items by 2022 throughout its operations and community run events with more than 300 people attending.

Single-use plastic items comprise a large component of litter in NSW and include:

- plastic water bottles
- plastic drinking straws
- plastic bags
- coffee cups (with plastic lining)
- ready-to-eat plastic serving containers and utensils
- balloons

The Single Use Plastics Policy is based on various principles including the waste hierarchy, which governs the use and disposal of resources: avoid, reduce, reuse, recycle and then dispose.

A copy of the policy is included in these Guidelines as Appendix B.

3.0 Waste Management Guidelines

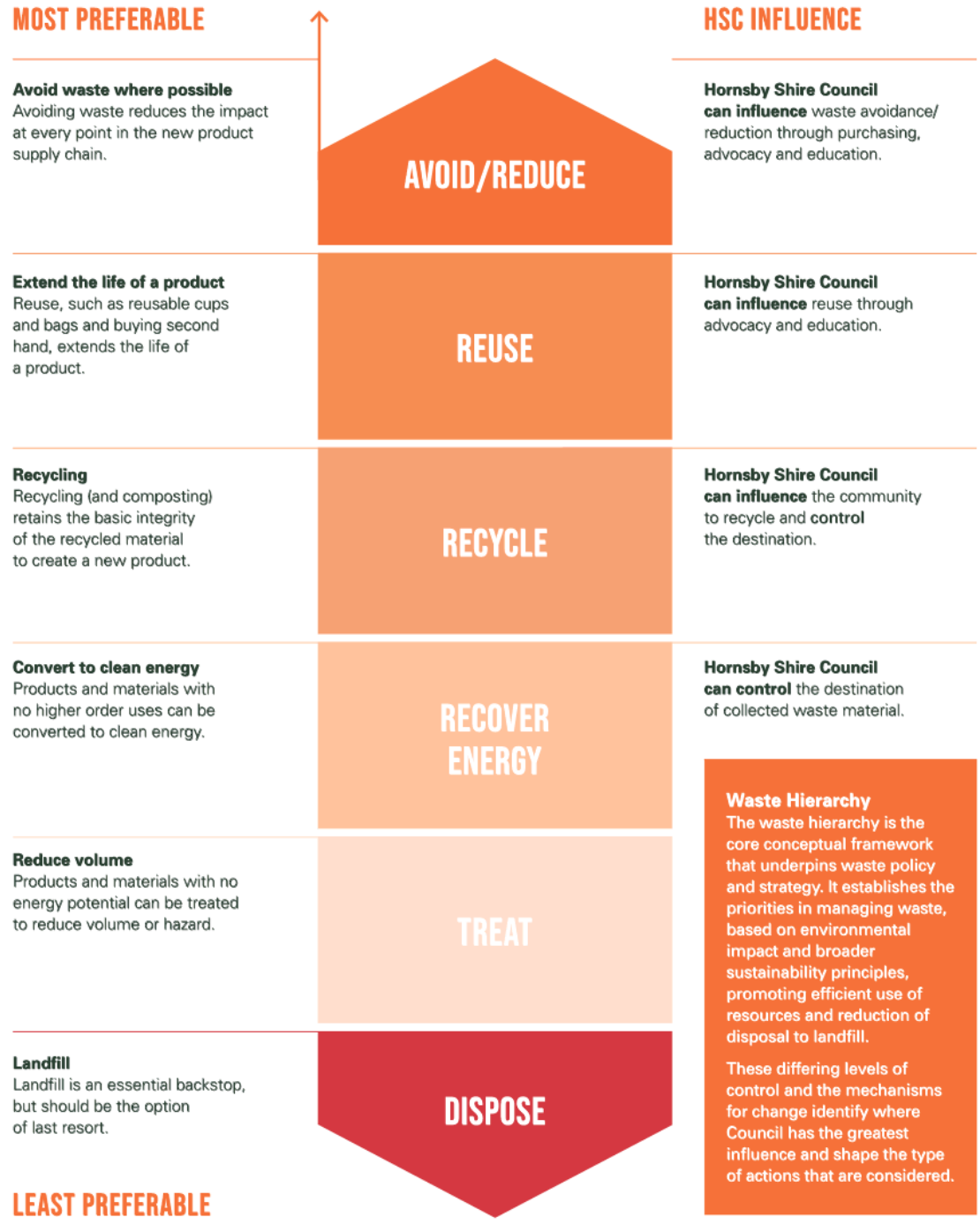
To ensure your event meets the intent of the Waste Management Guidelines for Event Organisers, consider the following issues and requirements in the planning phase:

Issue	Requirement
Single-Use Plastics	■ Plastic and polystyrene products and packaging, including drinking cups, food containers, drinking straws and stirrers, cutlery, plates etc. are NOT to be used or distributed at events ■ Balloons are NOT to be used, given away or released during events ■ Plastic water bottles are NOT to be sold or given away during an event; alternative water sources should be sought ■ Single-use sachets are NOT to be distributed at events e.g. tomato sauce, sugar sachets, salt and pepper sachets, sunscreen sachets or giveaways products such as shampoo sachets ■ Plastic bags are NOT to be used/given away during events ■ Any packaging materials sold or distributed must be reusable or comprised of biodegradable or recyclable material
Bin requirements	■ Existing Council bins in the public space cannot be relied upon to cater for waste or recycling material created by special events ■ Event organisers must arrange for additional waste and recycling bins to cope with the increased demands of the event
Promotion	■ All promotional materials such as flyers must be printed on recycled paper (80 – 100% postconsumer recycled content)
Costs	■ Event organisers are responsible for all costs incurred in relation to waste management associated with the event
Litter collection	■ Event organisers/event staff must conduct a litter patrol of the site area after the event and remove and correctly dispose of any discarded litter items within the event area

4.0 Promoting Sustainability

Waste Avoidance

Create as little waste as possible in your event. Follow the waste hierarchy to avoid, reduce, reuse, recycle and recover materials.



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Suitable Alternatives to Plastics

Recyclable material including glass bottles and jars, milk and juice cartons, aluminium cans, paper and cardboard and recyclable plastic bottles (excluding bottled water) are suitable at events.

The information below provides a list of other suitable alternatives to single-use items.

Not suitable	Alternatives
Individual sugar, salt, pepper and sauce sachets	▪ Provide bulk shakers or bulk sauce dispensers
Polystyrene and plastic plates, bowls and cutlery	▪ Reuse serving-ware such as crockery. ▪ Provide paper and cardboard products e.g. paper serviettes. ▪ Provide biodegradable products e.g. bamboo cutlery and sugarcane plates*
Plastic straws	▪ Provide paper straws
Plastic stirrers	▪ Provide paddle pop sticks or other wooden stirrers
Plastic bags	▪ Provide calico or paper bags
Sunscreen sachets	▪ Use bulk pump pack sunscreen
Bottled water	▪ Hire water stations with 100% recyclable paper cups OR encourage event attendees to bring their own reusable water bottle from home
Balloons	▪ Reusable bunting

*Be mindful when selecting alternatives to plastic. Certified biodegradable or compostable products are not recycled with standard recyclables, as they need to be composted. They can only be composted if they meet the appropriate composting standard and a dedicated collection and processing service is available.

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Leftover and Excess Food

If your event is likely to have leftover food, consider donating it? There are various charities which accept excess food. These organisations rescue and redistribute excess food to individuals and charities supporting the vulnerable. For more information visit www.hornsbyconnect.org.au, www.ozharvest.org.au and www.secondbite.org.

Water Stations

The sale and distribution of bottled water at events is not acceptable. Hornsby Shire Council provides water taps and bubbler stations in many public areas where events are held. If these are not sufficient for the size of your event, additional water stations can be hired.

Exceptions

In some exceptional circumstances single-use plastics are a requirement e.g. for disabled or mobility impaired residents. Consider including a small sign at your event acknowledging this. Example text: "We are committed to avoiding single-use plastics, like drinking straws. But we understand that for some people, plastic straws are the only way you can drink and are crucial to your independence. If you need one, please let us know. For those of you who don't need a plastic straw, please support us to reduce the impact on the environment by not asking for one. Thank you".

Ensure you have several single-use plastic straws on hand if you choose

5.0 Additional Resources

Please contact the Waste Hotline on 9847 4856 if you require further advice or information about your event.

The NSW EPA Waste Management Events Guide may be helpful in planning your event. The Guide is available at: https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/warrlocal/070056-waste-wise-events.pdf.

Appendix A - Alternative Supplier and Product List
Appendix B – Hornsby Shire Council Single Use Plastics Policy 2020

ATTACHMENT 2 - ITEM 4

SECTION A – Small Events - Less than 300 Attendees

This section must be completed by the Event Manager/Organiser and sent to Hornsby Shire Council five (5) business days prior to the event. Part 2 includes your Bin Hire Request. Please email the completed forms to waste@hornsby.nsw.gov.au

Part 1 – Event details and contact information

Name of Event			
Name of organisation delivering the event			
Event address			
Date of event		Time of event	
Anticipated crowd size			
Event activities			
Number of stalls			
Event Manager name		Contact number	
Event Manager Email			

Part 2 – Bin Hire Request – Front of House

Front of house waste and recycling bins collect material generated by event attendees during the event.

How do I calculate how many bins are required?

As a rule, calculate a minimum of one litre of waste and one litre of recycling per person per meal. However, the type of catering facilities, the supply of alcohol and the crowd profile can increase how much waste is generated. For example, at events such as food and wine festivals, the amount of waste generated per person is often higher.

At a small event with around 100 people the approximate waste generation would be:

- 100 people x 1 meal = 100 litres of estimated waste and 100 litres of recycling
- Waste Bins required: Divide 100 by 240 (a standard wheelie bin is 240 litres) = 1 bin
- Recycling Bins required: Divide 100 by 240 (a standard wheelie bin is 240 litres) = 1 bin
- You will need 1 waste bin and 1 recycling bin.

Request for waste and recycling bins from Council

Proposed number of bins to be provided by Council*:	
Number of 240 litre red lid garbage wheelie bins	
Number of 240 litre yellow lid wheelie recycling bins	
Bin delivery location:	
Bin delivery date	
Bin delivery location	
Bin pick up location:	
Bin pick up date	
Bin pick up location	
On Site Event Contact Details:	
Name	
Mobile	

*Bin numbers will be assessed by Council.

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Part 3 - Fees

Please note that depending on the number of bins required, a fee may be charged to the event organiser for the supply and servicing of waste and recycling bins. Council's waste and recycling service fee includes:

- Bin delivery and collection
- Bin cleaning
- Disposal of waste
- Disposal of commingled recycling

Additional Fee Condition

Additional costs may be incurred if:

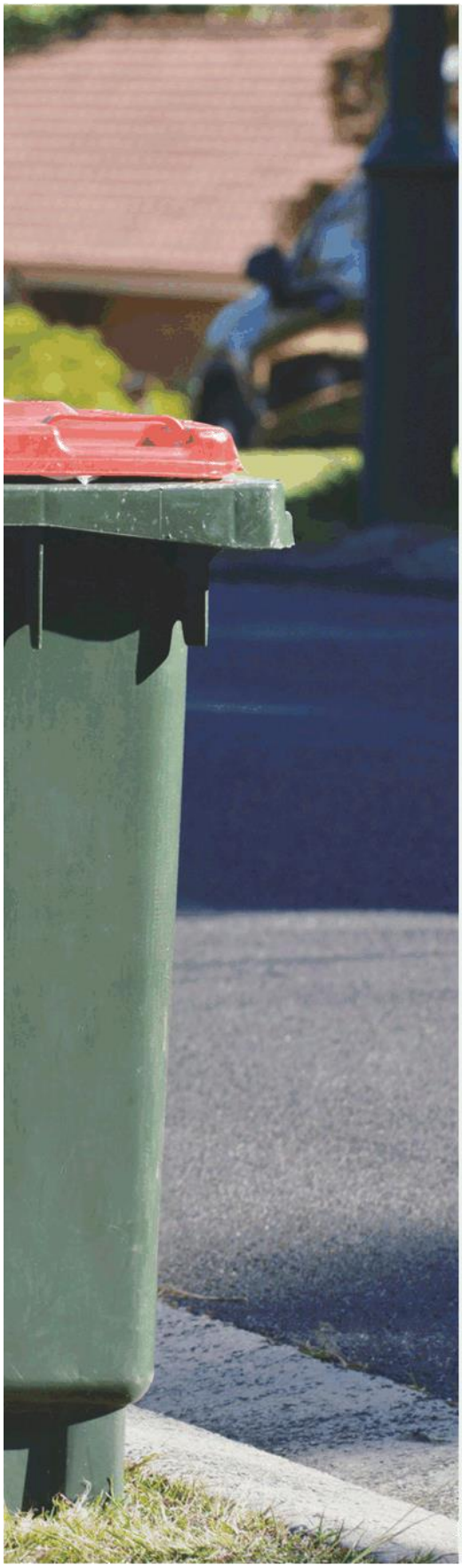
- Additional bins are required
- Post event site cleaning is required to be conducted by Council
- The event site is left in an unsatisfactory condition.

Part 4a – Planning for waste and recycling bins

Existing Council bins in public areas cannot be relied upon to cater for waste or recycling material created during events. Event organisers must arrange for additional waste and recycling bins to manage the increased demands of the event.

Effective Waste Management

- To maximise resource recovery a red lid garbage bin should always be paired next to a yellow lid recycling bin.
- Event organisers will be responsible for the placement of waste and recycling bins
- Event organisers are to ensure event bins are kept clear of walkways
- Event staff are to monitor bin usage and adjust bin positions as necessary during the event.



Part 4b – Site Map including Waste and Recycling bin locations

Bin placement

For optimal resource recovery bins should be located:

- At key entry/exit points to event and catering areas
- Close to where food and beverages are consumed
- Beside designated pedestrian pathways
- Near high-traffic areas; and
- At disposal points such as toilets, car parks and entry/exit points.

Please attach a site map to your Waste Management Plan submission that includes the following details:

- Location of Waste and Recycling bin delivery and collection points.

Part 5 – Checklist

Please check your Waste Management Plan includes the following:

- Event details and contact information
- Waste and recycling bin requirements
- A detailed site map

Part 6 - Approval Process

Council's Waste Services Branch will review the information provided in this form and may contact the nominated event contact person for additional information. The required number of waste and recycling bins and associated fees and charges will be detailed in the event approval.

✓ I have read and agree to the Single-Use Plastics Policy

✓ I have read and agree to the Waste Management Guidelines

Declaration

I hearby accept all conditions in this document and state the information provided is true and correct	
Signature:	
Date:	

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SECTION B – Large Events - More than 300 Attendees

This section is to be completed by the Event Manger/Organiser and sent to Hornsby Shire Council five (5) business days prior to the event. This includes your Bin Hire Request, please email to waste@hornsby.nsw.gov.au

Part 1 – Event details and contact information

Name of Event			
Name of organisation delivering the event			
Event address			
Date of event		Time of event	
Anticipated crowd size			
Event activities			
Number of stalls			
Event Manager name		Contact number	
Event Manager Email		Fax number	

Part 2 – Waste and Recycling Volumes

Please assess the types and volumes of waste and/or recyclables generated during the event for each stall holder. Please detail the stall(s) and the expected volumes of waste and recycling materials generated by each one. An example for both Back of House (stallholder waste) and Front of House (event attendee waste) have been provided.

Waste and Recycling Volumes – Front of House

Stall Name & Description	Waste and Recyclable Material Expected	Description of Material	Quantity Expected	Comments
Example: BBQ Stall	Soft Drink Cans	Aluminium Cans	500	▪ Comingled recycling bin required
Example: BBQ Stall	Sausage Sandwich	Paper Serviettes and food waste	1000	▪ Waste bins required ▪ Tomato sauce will be available in communal squeeze bottles

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Waste and Recycling Volumes – Back of House

Stall Name & Description	Waste and Recyclable Material Expected	Description of Material	Quantity Expected	Comments
Example: BBQ Stall	Cardboard Boxes	Boxes containing Sausages	20	▪ Recycling bin or skip required

Part 3 – Declaration of giveaways & promotional material at your event

Please declare any products/promotional items that will be given away or distributed at your event.

Waste and Recycling Volumes – Front of House

Giveaway	Description of use	Material type
Example: Paper flyers	Flyers advertising event promotion	100% recycled paper

Part 4 – Education at your event

To minimise waste going to landfill and maximise resource recovery, Council recommends the following waste initiatives be implemented at the event. Please indicate which of the following initiatives will be undertaken and provide details on how this will be undertaken.

☐ Ensure stallholders are aware of Council's Single-Use Policy guidelines, resource recovery and waste disposal systems and correct source separation prior to the event	
How will stallholders be made aware?	
☐ Include waste minimisation in advertising of event	
Text and where will it be advertised?	
☐ Use of public announcements to encourage responsible waste management practice	
Public announcement:	
☐ Event staff to engage with event attendees and inform them how to use the bin system in place. Event organisers can incur increased processing costs if recycling bins are contaminated. *All Council hired waste and recycling bins will be delivered with waste and recycling signage.	
How many staff will be available, when and where?	
☐ Other initiatives will be implemented	
Details:	

Part 5 – Planning for waste and recycling bins

Existing Council bins in public areas cannot be relied upon to cater for waste or recycling material created during events. Event organisers must arrange for additional waste and recycling bins to manage the increased demands of the event.

Effective Waste Management

- To maximise resource recovery a red lid garbage bin should always be paired next to a yellow lid recycling bin.
- Event organisers will be responsible for the placement of waste and recycling bins
- Event organisers are to ensure event bins are kept clear of walkways
- Event staff are to monitor bin usage and adjust bin positions as necessary during the event.

Bin placement

For optimal resource recovery bins should be located:

- at key entry/exit points to event and catering areas
- close to where food and beverages are consumed
- beside designated pedestrian pathways
- near high-traffic areas; and
- At disposal points such as toilets, car parks and entry/exit points.

Part 6 – Bin Hire Request – Front of House

Front of house waste and recycling bins collect material generated by event attendees during the event.

How do I calculate how many bins are required?

As a rule, calculate a minimum of one litre of waste and one litre of recycling per person per meal. However, the type of catering facilities, the supply of alcohol and the crowd profile can increase how much waste is generated. For example, at events such as food and wine festivals, the amount of waste generated per person is often higher.

At a large event with around 1000 people the approximate waste generation would be:

- 1,000 people x 1 meal = 1,000 litres of estimated waste and 1,000 litres of recycling
- Waste Bins required: Divide 1,000 by 240 (a standard wheelie bin is 240 litres) = 4 bins
- Recycling Bins required: Divide 1,000 by 240 (a standard wheelie bin is 240 litres) = 4 bins
- You will need 4 waste bins and 4 recycling bins.

Request for waste and recycling bins from Council

Proposed number of bins to be provided by Council*:	
Number of 240 litre red lid garbage wheelie bins	
Number of 240 litre yellow lid wheelie recycling bins	
Bin delivery location:	
Bin delivery date	
Bin delivery location	
Bin pick up location:	
Bin pick up date	
Bin pick up location	
On Site Event Contact Details:	
Name	
Mobile	

*in numbers will be assessed by Council. The above figures do not include back of house requirements.

Recycling food waste and other biodegradable materials

It is possible to collect and recycle food waste at large public place events. However, to do this successfully can be quite complex. It requires careful consideration of the food and packaging materials used by stallholders, appropriate source separation of materials, colour coded bins, a separate dedicated collection service and the delivery of the food waste to a licenced facility that is set up to process food waste. Additional signage, education and on-ground support for stallholders and event attendees will help to ensure that the materials are not contaminated.

- If you plan to separate and collect food waste at your event you will need to employ a licenced private waste contractor which specialises in these services.
- For further advice contact the Waste Hotline on 9847 4856.

Part 7 – Bin Hire Request – Back of House

How do I calculate how many bins are required?

'Back of house' waste and recycling is the waste and recycling generated by stallholders.

Event organisers will need information from stallholders to make these calculations. The choice of bin/s will depend on how much is needed and how much space is available. Council can provide recycling bins, general waste bins and paper and cardboard bins.

Request for waste and recycling skip bins from Council

Proposed number of bins to be provided by Council*:	
Number of 1,100 litre recycling bin (max 4)	
Number of 1,100 litre waste bin (max 4)	
Number of 1,100 litre paper and cardboard bin (max 2)	
Bin delivery location:	
Bin delivery date	
Bin delivery location	
Bin pick up location:	
Bin pick up date	
Bin pick up location	
On Site Event Contact Details:	
Name	
Mobile	

*Bin numbers will be assessed by Council.

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Part 8 - Fees

Please note a fee will be charged to the event organiser for the supply and servicing of all waste and recycling bins. Council's waste and recycling service fee includes:

- Bin delivery and collection
- Bin cleaning
- Disposal of waste
- Disposal of commingled recycling
- Disposal of paper and cardboard recycling (if required)

Additional Fee Condition

Additional costs may be incurred if

- Additional bins are required
- A post event site sweep is required to be conducted by Council
- The event site is left in an unsatisfactory condition.

Part 9 – Site Map including Waste and Recycling bin locations

Please attach a site map to your Waste Management Plan submission that includes the following details:

- Location of Waste and Recycling bin delivery location and collection point
- Proposed location of all event waste/recycling stations
- Drink, Food and other stalls
- Back of house waste and recycling bin stations
- Eating areas, designated and non-designated
- Main landforms, buildings
- Stage, competition area or other attractions
- Toilets
- Public entrances and exits

Screen on the Green 2018

Part 10 – Checklist

Please check your Waste Management Plan includes the following:

- ☐ Event details and contact information
- ☐ Waste and recycling bin requirements
- ☐ A detailed site map
- ☐ Expected waste and recycling volumes
- ☐ Supplier details for suitable serving ware
- ☐ Declaration of giveaways and promotional material
- ☐ Details of education and communication at the event

Part 11 - Approval Process

Council's Waste Services Branch will review the information provided in this form and may contact the nominated event contact person for additional information. The required number of waste and recycling bins and associated fees and charges will be detailed in the event approval.

- ✓ I have read and agree to the Single-Use Plastics Policy
- ✓ I have read and agree to the Waste Management Guidelines

Declaration

I hearby accept all conditions in this document and state the information provided is true and correct	
Signature:	
Date:	

APPENDIX A – Alternative Supplier and Product List

Below are some examples of suppliers of more sustainable and reusable items and services. Please note this list is not exhaustive and further research is encouraged.

Supplier	Link	Bags	Containers	Cutlery	Cups	Bottles	Straws	Bioplastic
Biome	biome.com.au							
BioPak	biopakshopau.com							
Cheeky	cheeki.net.au							
Eco Party Box	ecopartybox.com.au							
Frank Green	frankgreen.com.au							
Going Green Solutions	goinggreensolutions.com.au							
Greenpack	greenpackshop.com.au							
Hello Green	hellogreen.com.au							
JoCo Cups	jococups.com							
KeepCup	au.keepcup.com							
Simply Cups	simplycups.com.au							
SoL Cups	solcups.com							
Upcycle Studio	upcyclestudio.com.au							

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Supplier	Link	Bags	Containers	Cutlery	Cups	Bottles	Straws	Bioplastic
Vegeware	vegware.com.au							
The Naked Straw Co	thenakedstraw.com.au							
Stroh	stroh.com.au							
The Next Sip	thenextsip.com.au							
Kent Paper	kentpaper.com.au							
Green Mark	greenmarkpack.com.au							
Environmental Enterprises	environmentalenterprises.com.au							
Alpha Food Packaging	alphafoodpackaging.com.au/products/bio-range/							
Returnr	returnr.co							
Huskee	huskee.co							
Pottery for the Planet	potteryfortheplanet.com							
Flora & Fauna	floraandfauna.com.au							
Detpak	detpak.com							
Greenworld Co Pty Ltd	biogreenworld.com.au/index.html							
Kleen Kanteen	kleankanteen.com.au							
Pak 360	pak360.com.au							
Tree Free	treefreeglobal.com							

ATTACHMENT 2 - ITEM 4

APPENDIX B – Hornsby Shire Council - Single Use Plastics Policy 2020

NB – A copy of the Single Use Plastics Policy 2020

Will be added upon its final endorsement.

ITEM 5

ATTACHMENT/S

REPORT NO. EH7/20

ITEM 5

1. BYLES CREEK LAND ACQUISITION STRATEGY REVIEW

2. BYLES CREEK ECOLOGICAL ASSESSMENT

ATTACHMENT 1 - ITEM 5

planning consultants

Byles Creek Land Acquisition Strategy Review

Prepared for: Hornsby Shire Council
July 2020

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www.dfpplanning.com.au

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Client: Hornsby Council
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Version	Prepared By	Reviewed By	Issued To	Date
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2. Land ownership plan

1 Introduction

1.1 Commission and Purpose of Review

DFP has been commissioned by Hornsby Shire Council (Council) to undertake a review of the Byles Creek corridor and, if necessary, prepare a revised acquisition strategy to facilitate the acquisition of additional land (to that which has already been identified as land to be acquired) if it is concluded that additional land is required.

The Strategy Review (Review) includes an assessment of the environmental and social values of the Byles Creek corridor and surrounding land. If required, the revised strategy will also investigate opportunities for the acquisition of additional land within the corridor if this is determined as being necessary to protect and enhance areas identified as having particular environmental and social value.

1.2 Objectives of the Review

The objectives of this review are:

- To understand the environmental and social values of the Byles Creek corridor.
- To consider the function of the Byles Creek corridor in the overall open space network and having regard to the environmental and social values of the corridor.
- To consider funding options for the acquisition of additional land within the corridor if it is determined that this is necessary in order to protect and enhance areas identified as having particular environmental and social value.

1.3 Area to which the Review relates

The area to which this Strategy Review relates comprises approximately 22 hectares of land zoned for open space purposes along Byles Creek as well as other land immediately adjoining the land zoned for open space purposes. This includes land zoned for residential purposes but which is also identified as having Terrestrial Biodiversity value.

1.4 Methodology

In undertaking this Review, DFP has:

- Reviewed relevant background material as provided by Council, including:
  - Byles Creek Catchment Environmental Study.
  - Documentation relating to Amendment No. 24 to Hornsby LEP 1994.
  - The Open Space Land Acquisition Review.
  - Byles Creek Development Control Plan.
  - Relevant development applications.
- Considered the context of the Byles Creek corridor.
- Reviewed relevant planning controls and legislation.

This Review has been prepared by DFP based on information referred to herein and/or appended to this report including an Ecological Assessment prepared by Cumberland Ecology (**Appendix 1**).

2 Background

2.1 Byles Creek Catchment Environmental Study

At a meeting on 5 October 1994, Council resolved to prepare a Local Environmental Study for the Byles Creek Catchment.

The Byles Creek Catchment Environmental Study was prepared in October 1995 by Nexus Environmental Planning Pty Ltd. The Byles Creek Catchment Environmental Study (the Study) related to an area comprising approximately 350 hectares of publicly and privately owned land in Beecroft.

It should be noted that the area investigated as part of the Byles Creek Environmental Study is much larger than the area to which this Strategy Review relates. The Byles Creek catchment included land zoned for residential and commercial purposes (as well as land zoned for open space purposes) and extended north and west to Pennant Hills Road, west to Beecroft Road and south to Lyne Road and Cobran Road.

Therefore, for the purposes of this Review, the findings of the Byles Creek Environmental Study are noted while acknowledging there are some limitations in its application 25 years after preparation. Notwithstanding, it is noted that the Study identified that the dominant vegetation community in the area the subject of this Strategy Review was the Blackbutt Smooth-barked Apple Tall Open Forest community.

In addition, the Study mapped the areas within the Catchment that contained vegetation of conservation significance. In relation to the area to which this Strategy Review relates, the area mapped as containing vegetation of conservation significance equated to that land zoned Open Space A under Hornsby LEP 1994 – refer **Figures 1 and 2**. The area to which this Strategy Review is the area generally circled in red on **Figures 1 and 2.**

As discussed later in this Review, those areas mapped as containing vegetation of conservation significance resulted in an amendment to Hornsby Shire LEP 1994 (Amendment No. 24) in relation to an amendment to the Bushland Protection mapping to include the land mapped as containing vegetation of conservation significance. Land mapped as Bushland Protection was subject to the provisions of clause 19 of Hornsby Shire LEP 1994.

In order to inform this Review, an updated Ecological Assessment of the area to which this Review relates has been undertaken. The findings of that assessment are discussed in **Section 5** of this report. The updated Ecological Assessment is included at **Appendix 1** to this Review.

The Study considered whether additional land should be rezoned (from Residential AS) to either Open Space A or Environmental Protection B and whether the Environmental Protection B zoning or the Open Space A zoning was appropriate for the land identified as being protected.

The Study identified that the Open Space A zoning[1] which applied to the corridor area should be retained due to the high environmental quality, aesthetic and heritage value to the local community and the Shire in general.

[1] The Open Space A zoning was a land use zone under Hornsby Shire LEP 1994, which was the relevant local environmental plan applying to the land to which this Review relates immediately prior to Hornsby Local Environmental Plan 2013 coming into force.

2 Background

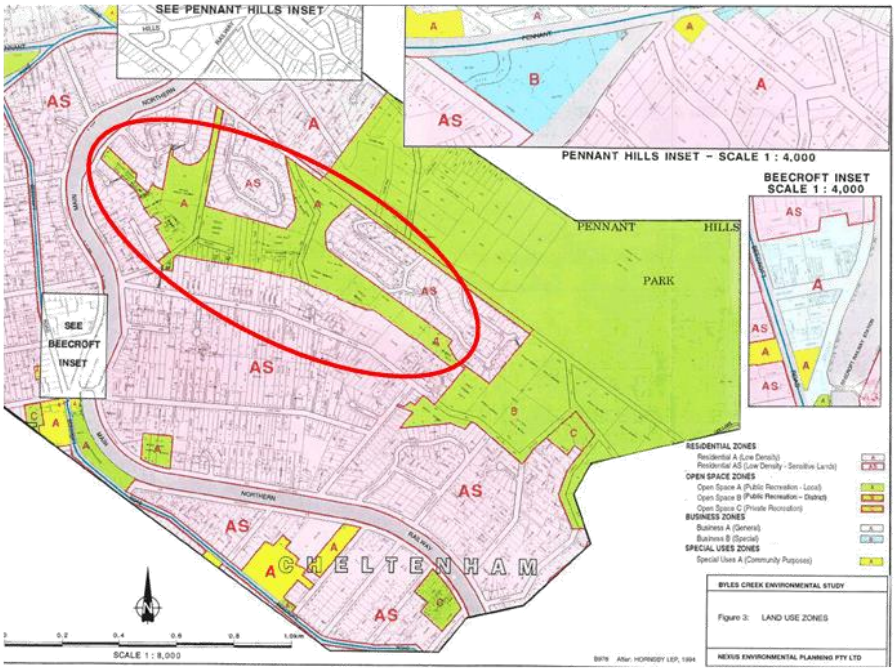

Figure 1 Extract from Byles Creek Catchment Environmental Study showing land use zonings under Hornsby Shire LEP 1994

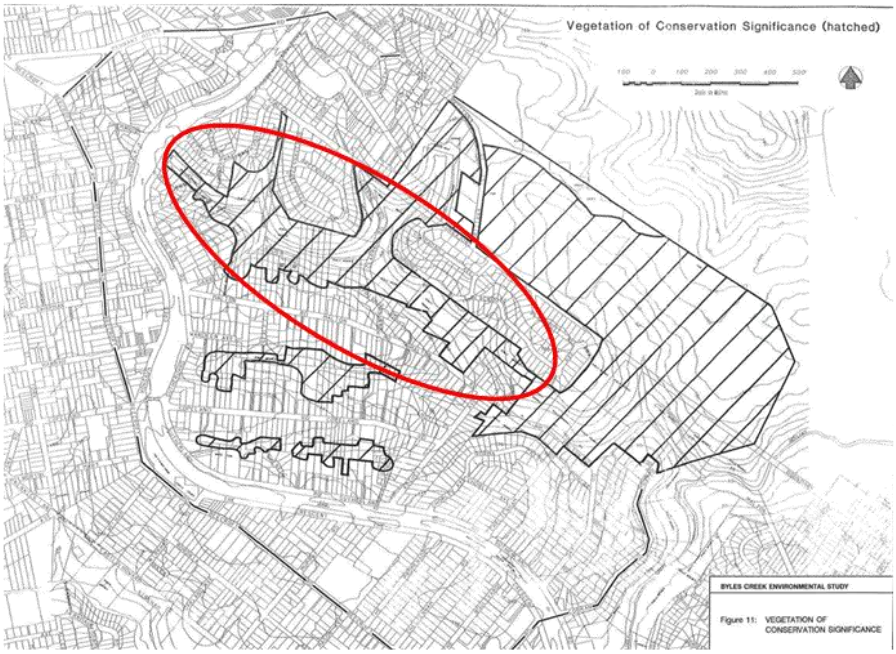

Figure 2 Extract from Byles Creek Catchment Environmental Study showing areas containing Vegetation of Conservation Significance

2 Background

The Study recommended the following:

- All existing zones as (currently) contained in Hornsby Shire Local Environmental Plan (LEP) 1994 be retained, i.e. land zoned Open Space A remain Open Space A and not be zoned Environmental Protection B.
- No additional land be rezoned to Open Space A.
- A draft LEP be prepared to amend Hornsby LEP 1994 to designate areas identified as having Vegetation Conservation Significance as "Bushland Protection" (and therefore being subject to the provisions of clause 19 of Hornsby Shire LEP 1994). The amendment to Hornsby LEP 1994 is discussed in **Section 2.2** below.
- A Plan of Management be prepared in relation to all land zoned Open Space within the catchment.[2]
- Establish a program for acquisition of privately owned land which is zoned Open Space A.
- Prepare detailed development guidelines for the catchment. In this regard, The Study led to the preparation of the Byles Creek development control plan (DCP) which came into force in May 1998 (refer **Section 2.4** of this Strategy Review and **Figure 3**).

The Byles Creek Environmental Study was considered by Council at a meeting held on 1 November 1995. At that meeting, Council also resolved to adopt the recommendations of the Study as set out above.

Following completion of the Sensitive Lands Study by Council, additional investigations in relation to the Byles Creek Environmental Study were undertaken. Those additional investigations concluded that the recommendations of Study were still relevant and did not need to be revised as a result of the Sensitive Lands Study.

Relevant to this Review, it is noted that the land use zonings that applied to the land to which this review relates under Hornsby Shire LEP 1994 were transferred to the current Hornsby LEP 2013.

2.2 Amendment No. 24 to Hornsby Shire LEP 1994

Pursuant to the recommendations of the Byles Creek Environmental Study, Council prepared a draft amendment to Hornsby Shire LEP 1994, Amendment No. 24.

The draft LEP proposed the application of clause 19 – Bushland Protection of Hornsby Shire LEP 1994 over land identified in the Byles Creek Environmental Study as containing Vegetation of Conservation Significance.

Clause 19 of Hornsby Shire LEP 1994, states the following:

> *19 Bushland protection*
>
> *Objective of Provision*
>
> *To protect significant flora and fauna habitats.*
>
> *Bushland protection*
>
> *(1) A person shall not carry out development on land designated "bushland protection" on the map without the consent of the Council.*
>
> *(2) For the purpose of removal of doubt, development on any such land includes:*
>
> *(a) the erection of a fence or any other structure at all on the land, and*
>
> *(b) the removal of soil or rock from the land, and*

[2] The Byles Creek corridor is managed under 4 separate reserves as part of the Generic Plan of Management for Community Land and Crown Reserves for Planning District Two.

2 Background

(c) the deposit of soil, rock or any other matter on the land, and

(d) the destruction or removal of any tree or other vegetation on the land.

At a meeting on 18 September 1996, Council resolved to prepare the draft LEP amendment to introduce Bushland Protection provisions to the identified land and refer the draft LEP to the (then) NSW Department of Urban Affairs and Planning for the necessary certification to place the draft LEP amendment on public exhibition.

The draft LEP amendment, including relevant mapping, was placed on public exhibition from 24 January 1997 until 21 March 1997. A number of submissions were received in response to the exhibition.

The outcomes of the public exhibition, including a summary of submissions, was reported to a Council meeting on 21 May 1997.

Relevant to this Review are the following comments in the report to the Council meeting (Report No. PLN147/97):

> *The rezoning of land from Residential to Open Space would provide improved protection of bushland areas by restricting development potential. However, this action would increase the area of land that would be subject to acquisition and not recognise that some residential lands within the Byles Creek catchment have development potential and may be developed consistent with the objectives of the bushland protection provision.*
>
> *The proposed strategy of providing a bushland protection overlay for lands containing vegetation of conservation significance would serve to maintain underlying development potential of lands while recognising the constraints to the development of land. The bushland protection overlay would also result in more rigorous assessment of development proposals…*

Also relevant to this Review, are the following comments made in the report in relation to 65D Malton Road, Beecroft:

> *In undertaking the ground truthing of properties in Malton Road, Council officers have identified land containing vegetation of conservation significance that was not recognised in the Byles Creek Environmental Study or by Land and Environment Planning in the 1994 study 'Fauna Corridors and Vegetation Links in Hornsby Shire'. The draft LEP identifies only a portion of 65D Malton Road, Beecroft as containing vegetation of conservation significance. Ground truthing of the site identifies the entire parcel as containing vegetation of conservation significance. Accordingly, the mapping should be amended to include all of 65D Malton Road as containing vegetation of conservation significance.*

As a consequence, the bushland protection overlay mapping was amended and the draft LEP amendment was re-exhibited.

On 1 October 1997, Council considered a report on the re-exhibition of the Byles Creek draft LEP and resolved to defer the matter so that clarification could be sought regarding the status of blue gum high forest vegetation and Gang Gang cockatoos in the Byles Creek catchment.

In response to Council's resolution, AES Environmental Consultancy was engaged to undertake further investigations in relation to the status of blue gum high forest vegetation and Gang Gang cockatoos in the Byles Creek catchment.

On 17 December 1997, Council considered a report (PLN438/97) regarding the re-exhibition of the draft LEP and the additional investigations in relation to the blue gum high forest vegetation and Gang Gang cockatoos. The findings of AES Environmental Consultancy are summarised in the report as follows:

2 Background

Blue Gum High Forest

Many large mature blue gums also remain on private land in the more elevated parts of the Byles Creek catchment. These stands of blue gums cannot be considered as part of the high forest community as the understorey has been removed and replaced by gardens. However, these trees do contribute to the viability of the community as they are a source of genetic material (pollen and fruit). The are also potential habitat for the threatened Swift Parrot (a winter migrant from Tasmania). Strict policing of Council's Tree Preservation Order is necessary to maintain these trees.

In this regard, the report noted that the draft Byles Creek DCP requires that where possible and practical significant trees should be retained and incorporated into landscape schemes. Where this is not possible, the draft DCP requires two advanced plans of the same species should be planted.

Gang Gang Cockatoo

Although it is not the only population in the Sydney Basin Region,.., the local population of this species is disjunct from other larger populations in the Blue Mountains and Southern Highlands. Furthermore, its habitat has been reduced and fragmented by a number of developments including the construction of the M2 Motorway.. Despite these factors, it appears that the local population of Gang Gang Cockatoo is not in imminent danger of extinction as the bulk of its habitat is conserved in Lane Cover National Park and Pennant Hills Park…

The report noted that the environmental protection element of the draft Byles Creek DCP requires that a detailed flora and fauna assessment be submitted with a development application on land zoned for open space or adjoining land zoned for open space purposes.

The investigations undertaken by AES were reviewed by P & J Smith Ecological Consultants and Land and Environmental Planning. Both consultants concurred with the findings of AES.

At the meeting on 17 December 1997, Council resolved to adopt the amended LEP which introduced Bushland Protection provisions over land identified as containing vegetation of conservation significance in the Byles Creek corridor.

Amendment No. 24 to Hornsby Shire LEP 1994 was subsequently published in the Government Gazette on 1 May 1998.

2.3 Open Space Land Acquisition Review 2006

A confidential review of open space zoned land in private ownership was prepared by Council in 2006. The purpose of that review was to evaluate all lands zoned Open Space A (and therefore reserved for acquisition) in private ownership to ensure that only land that will meet community needs for open space, or that preserves the environmental quality of the Hornsby area, was zoned for acquisition accordingly.

The review led to 29 parcels of land throughout the Shire being identified as no longer being required for public purposes due to zoning anomalies or constraints associated with access, isolation and size.

However, the Open Space zoning of all of the properties zoned Open Space A within Byles Creek was retained due to the high environmental quality, aesthetic and heritage values of the land to the local community and the Shire in general.

2.4 Byles Creek Development Control Plan

The Byles Creek DCP came into force on 19 May 1998. The DCP was informed by the Byles Creek Environmental Study and provided measures to protect the natural and built environment by providing guidelines for development in the Byles Creek Catchment.

2 Background

As previously noted, the boundary of the Byles Creek Catchment encompassed lands beyond the land zoned for open space purposes. **Figure 3** below is an extract of the Byles Creek DCP showing the boundary of the catchment. The area to which this Strategy Review generally relates is circled in red.

The Byles Creek DCP included development controls relating to setbacks, soil and water management based on the characteristics of the soil type, environmental protection, fencing, bushfire management, treatments relating to development on land with an interface with an urban watercourse and controls to ensure development was compatible with the land capability and sensitivity, particularly in relation to topography, drainage and soil dispersibility.

Hornsby Development Control Plan 2013 (Hornsby DCP 2013) was adopted by Council on 19 December 2012 and came into effect on 11 October 2013. Hornsby DCP 2013 applies to all land within the Hornsby Local Government Area, including land to which the Byles Creek DCP applied.

For the purposes of this Strategy Review it is understood that the Byles Creek DCP is no longer in force and Hornsby DCP 2013 is the relevant reference document in relation to development controls on land to which this Strategy Review relates.

The area identified as 'Bushland Protection' in **Figure 4** includes land beyond that zoned RE1 Public Recreation under Hornsby LEP 2013 (or land zoned Open Space A under the previous Hornsby Shire LEP 1994). The 'Bushland Protection" area does not exactly equate to the areas mapped as having Terrestrial Biodiversity Value under Hornsby LEP 2013 – refer **Figure 10**.

The differences between the two maps is due to the criteria used for each mapping exercise. **Bushland protection** included specific areas identified for the protection of flora and fauna whereas the **Terrestrial Biodiversity Map** was determined by vegetation community and their relative conservation significance which did not permit the inclusion of areas not listed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), the (now repealed) *Threatened Species Conservation Act, 1995* (TSC Act) or areas of regional significance.

2 Background

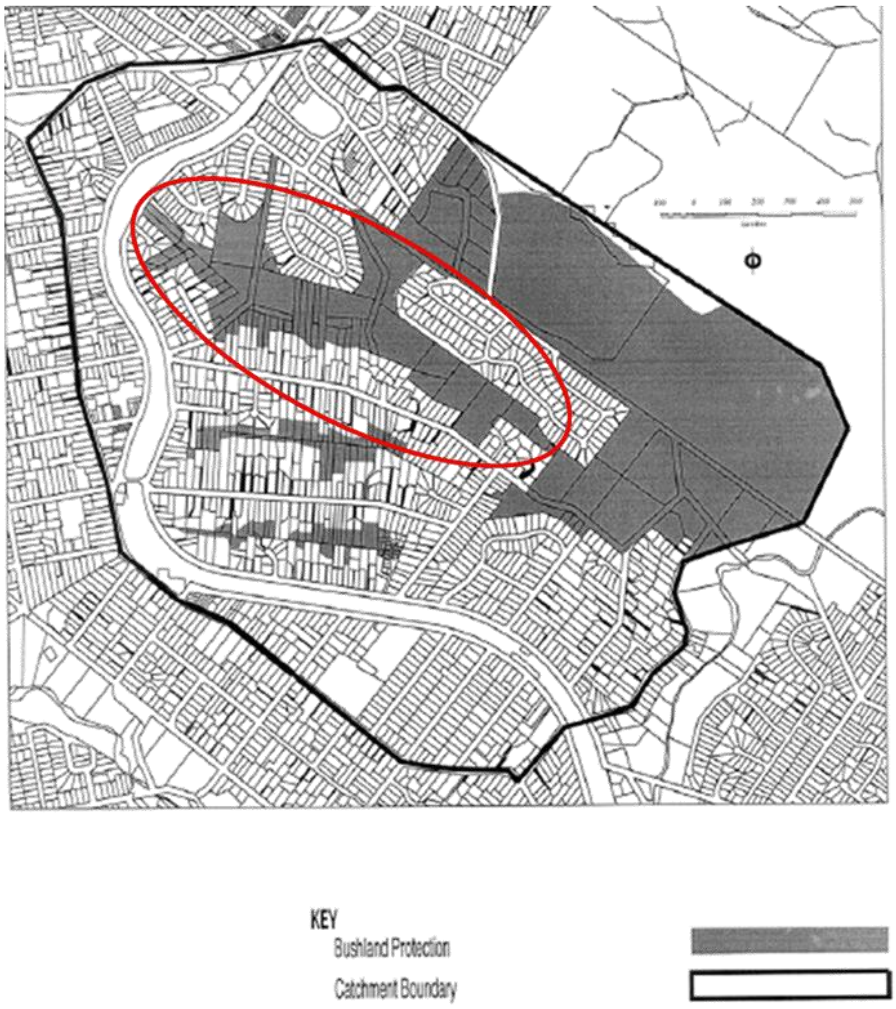

Figure 3 Extract from Byles Creek DCP showing boundary of Byles Creek catchment

2 Background

2.5 Resolution of Council – 10 October 2018

Council, at its Ordinary Meeting on 10th October 2018 considered Notice of Motion NOM28/18 Byles Creek Land Acquisition Strategy. At that meeting, Council resolved to prepare a report detailing the resources required to undertake a review of the Byles Creek Land Acquisition Strategy and, at a General Meeting on 12 June 2019, Council resolved to review the Byles Creek Catchment Land Acquisition Strategy as part of the broader review of Council's Local Environmental Plan.

This Strategy is an outcome of Council's resolution of 12 June 2019.

2.6 Relevant Development Applications

There have been a number of development applications on land immediately adjoining the RE1 zoned land within the Byles Creek corridor. A number of ecological assessments of DAs in areas immediately surrounding the study area were consulted, however, the assessments relating to the following DAs were considered of most relevance to this Review. These applications all raised issued relating to land acquisition and each DA was also accompanied by an ecological assessment.

- DA/1344/2017 for a new dwelling, driveway and swimming pool at 65D Malton Road, Beecroft. This DA was refused at a meeting of the Hornsby Local Planning Panel on 24 May 2018.
- DA/920/2015 for a dwelling at 77 Malton Road, Beecroft. The DA was approved by Council on 8 June 2016 and the dwelling has been constructed.
- DA/94/2013 for a 6 lot subdivision at 79-87 Malton Road, Beecroft.

  This DA was refused by Council but ultimately approved by NSW Land and Environment Court following a s34 conciliation conference.

  The consent issued by the Court was a deferred commencement consent. The deferred commencement conditions related to the preparation of an integrated vegetation and bushfire management plan and a fauna management plan. These conditions have been satisfied and works in accordance with the approved development are currently underway.

  The approved DA includes the dedication of land zoned RE1 (adjoining the creek corridor) as well as some land zoned R2 Low Density Residential to Council as a condition of consent. The condition also requires the provision of an access to the dedicated land from Malton Road.

The ecological assessments accompanying each of these DAs have been reviewed by Cumberland Ecology as part of their updated ecological assessment of the Byles Creek corridor land.

In April 2019, a pre DA meeting was held in relation to the subdivision of 67 Malton Road (currently two allotments) into three allotments and the construction of an access way servicing 65D Malton Road. The pre DA notes prepared by Council require the DA to be accompanied by a biodiversity assessment and bushfire assessment as well as an arborist report and stormwater management plan which addresses the water quality targets as set out in Hornsby DCP 2013. No development approvals have been issued in relation to this land.

The ecological assessments undertaken as part of these DAs considered a range of factors including the ecological values of the corridor, the community interest in retaining the corridor, and appropriate planning controls that should be applied in relation to future development on the land to which the DAs related. These controls included setbacks, amenity considerations, and controls relating to bush fire protection, ecology, tree management, and stormwater management.

These ecological assessments have been considered in the preparation of this Strategy.

3 Byles Creek Corridor Context

3.1 Description of Corridor Land

Byles Creek extends from Sutherland Road (approximately midway between Narena Close and Tristania Way) west to its connection with Devlins Creek near the northern end of Cobram Road (at co-ordinates -33.7°S and 151.08°E). There are also two south flowing tributaries which commence generally in the location of Clement Close and Azalea Grove, Pennant Hills. These tributary watercourses connect into that section of Byles Creek to the north of Malton Road between Park Avenue and Timbertop Way.

The overall length of Byles Creek from its western extent (at Sutherland Road) to its confluence with Devlins Creek (excluding the northern tributary watercourses) is approximately 2.6km.

That part of Byles Creek the subject of this Strategy Review extends from Sutherland Road (in the west) to 103 Malton Road, Beecroft. **Figure 4** is a plan showing the general location of the Byles Creek corridor the subject of this Strategy Review – circled in red.

Figure 5 is an aerial photograph of the same area.

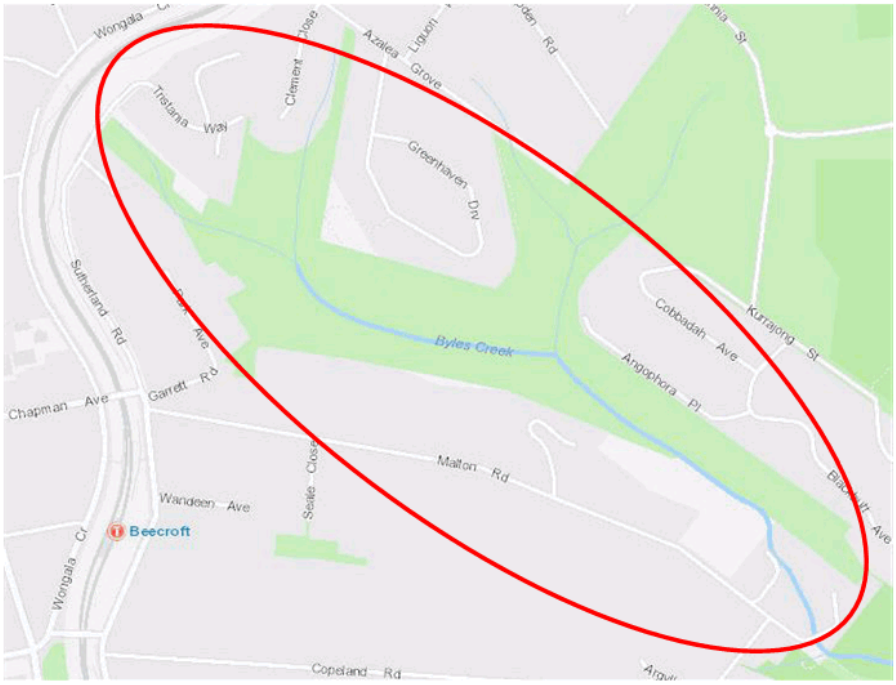

Figure 4 Site Location

3 Byles Creek Corridor Context

Figure 5 Aerial Photograph of land to which this Strategy Review relates. The alignment of Byles Creek is shown in blue

Land within the Byles Creek corridor the subject of this Strategy Review includes the RE1 zoned land, as well as residentially zoned land immediately adjacent to the RE1 zoned land.

The RE1 zoned land, is the land shaded in the two green tones in **Figure 6** and includes Council owned land, Crown land and some land still in private ownership. **Figure 6** is an extract of a land ownership map of the corridor. Land coloured light green is land that is owned by Council. Land coloured bright green is either Crown land or privately owned land.

This plan is also included at **Appendix 2** to this report.

Figure 6 Extract of land ownership map of Byles Creek corridor (Source: Hornsby Shire Council)[3]

The land that currently comprises the existing Byles Creek corridor (being that land zoned RE1 under Hornsby LEP 2013) includes those properties detailed in **Table 1**.

[3] The property outlined in red in Figure 6 is for map identification purposes only. It is of no relevance to this Strategy Review.

3 Byles Creek Corridor Context

The properties in red text are those which are either Crown land or privately owned properties. Where only part of the property is located within the corridor, this is denoted as (part) in **Table 1**.

Table 1 Details of Properties within the Byles Creek Corridor

Address	Lot/DP	Ownership
142 Sutherland Road, Beecroft	34/229831	Private (part)
142X Sutherland Road, Beecroft	33/229831	Council
140X Sutherland Road, Beecroft	15/237044	Council
130X Sutherland Road, Beecroft	204/806307	Council
140X Sutherland Road, Beecroft	3/530227	Council
140X Sutherland Road, Beecroft	14/562351	Council
140X Sutherland Road, Beecroft	6/229639	Council
10X Park Avenue, Beecroft	80/1150971	Council
8B Park Avenue, Beecroft	3/540850	Council Not all of Lot 3 is zoned RE1. The battle axe handle is zoned R2
6X Park Avenue, Beecroft	23/614741	Council
4 Park Avenue, Beecroft	3/17876	Private (part)
142 Sutherland Road, Beecroft	34/229831	Private (part)
2 Park Avenue, Beecroft	Y/421498	Private (part)
20 Tristania Way, Pennant Hills	25/261485	Council
Road Reserve (Garrett Road)	-	Crown
8 Garrett Road, Beecroft	40/596659	Council
11A Malton Road, Beecroft	5/4551	Private (part)
15 Malton Road, Beecroft	6/4551	Private (part)
17A Malton Road, Beecroft	7/4551	Private (part)
17A Malton Road, Beecroft	1/115475	Private
17A Malton Road, Beecroft	8/4551	Private (part)
17B Malton Road, Beecroft	9/4551	Private (part)
23 Malton Road, Beecroft	A/360633	Private (part)
1X Adder Street Beecroft	700/1124042	Council
1X Adder Street Beecroft	3/628007	Council
27A Malton Road, Beecroft	2/868018	Private (part)
31 Malton Road, Beecroft	112/1083093	Private (part)
14X Garrett Road, Beecroft	3/593755	Council
Road Reserve (Adder Street)	-	Private/Crown
14X Garrett Road, Beecroft	1/134742	Council
14X Garrett Road, Beecroft	702/1124042	Council
35B Malton Road, Beecroft	107/775899	Private (part)
37X Malton Road, Beecroft	704/1124042	Council
35D Malton Road, Beecroft	105/775899	Private (part)
41 Malton Road, Beecroft	1/171774	Private
41 Malton Road, Beecroft	5/7933	Private (part)
43B Malton Road, Beecroft	5/716031	Private (part)
43C Malton Road, Beecroft	601/793873	Private (part)
43X Malton Road, Beecroft	706/1124042	Council
43X Malton Road, Beecroft	3/705724	Council
43X Malton Road, Beecroft	708/1124042	Council

3 Byles Creek Corridor Context

Table 1 Details of Properties within the Byles Creek Corridor

Address	Lot/DP	Ownership
43X Malton Road, Beecroft	698/650162	Council
43X Malton Road, Beecroft	52/235561	Council Not all of Lot 52 is zoned RE1. The battle axe handle is zoned R2
Road Reserve (unnamed)	-	Crown
43X Malton Road, Beecroft	142/236067	Council
43X Malton Road, Beecroft	4/789069	Council
43X Malton Road, Beecroft	3/703067	Council
43X Malton Road, Beecroft	1/883724	Council
79-87 Malton Road, Beecroft	2/847605	Private (part)[NOTE 1]
89-97 Malton Road, Beecroft	27/735002	Council
99-105 Malton Road, Beecroft	4/601847	Council

Notes
1. The land zoned RE1 Public Recreation under Hornsby LEP 2013 together with some land zoned R2 Low Density Residential on this property is required to be dedicated to Council as part of DA/94/2013

Evident in **Table 1** and the plan at **Figure 6** and **Appendix 2** is that the majority of RE1 zoned land is in Council ownership.

3.2 Surrounding Development

Land immediately adjoining the open space corridor (being the land zoned RE1 Public Recreation under Hornsby LEP 2013) is developed primarily for the purposes of low density residential purposes. Development generally comprises single or two storey detached dwellings.

4 Statutory Planning Framework

4.1 Environmental Planning and Assessment Act 1979

The Environmental Planning and Assessment Act 1979 (EP&A Act) introduced provisions in relation to land acquisition for public purposes. Prior to the EP&A Act councils were not required by law to purchase reserved land.

The EP&A Act requires councils to include acquisition provisions within relevant environmental planning instruments, including local environmental plans. Specifically, section 3.15 of the EP&A Act states the following:

> *3.15 Owner-initiated acquisition of land reserved for public purposes*
>
> *(1) An environmental planning instrument that reserves land for use exclusively for a purpose referred to in section 3.14(1)(c) must specify an authority of the State that will be the relevant authority to acquire the land if the land is required to be acquired under Division 3 of Part 2 of the Land Acquisition (Just Terms Compensation) Act 1991.*

Section 3.14(c) of the EP&A Act includes land for used for the purposes of open space.

4.2 Land Acquisition (Just Terms Compensation) Act 1991

The *Land Acquisition (Just Terms Compensation) Act 1991* (the Land Acquisition Act) sets out the process for acquiring land in NSW.

The Land Acquisition Act directs acquiring authorities to negotiate with landowners for at least six months to acquire land by agreement. If agreement cannot be reached through negotiation, compulsory acquisition of the land to be acquired land can be approved. The NSW Valuer General will then determine the amount of compensation to be paid by the acquiring authority for the land.

If a landowner initiates the land acquisition, pursuant to section 23 of the Land Acquisition Act, the landowner is required to demonstrate that they will suffer hardship is there is a delay in the authority (in this case Council) acquiring the land.

4.3 State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017

State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017 (Vegetation SEPP) commenced 25 August 2017 and aims to protect the biodiversity and amenity values of trees within non-rural areas of the State.

Part 3 of the Vegetation SEPP states that a development control plan may make a declaration in any manner relating to species, size, location and presence of vegetation. Accordingly, Part 1B.6.1 of the Hornsby Development Control Plan 2013 (HDCP) prescribes works to trees that can be undertaken with or without consent.

4.4 State Environmental Planning Policy No. 19 – Bushland in Urban Areas

State Environmental Planning Policy No. 19 – Bushland in Urban Areas (SEPP 19) was introduced in 1986 to protect and preserve remnant urban bushland in Sydney in response to concerns about clearing and the increasing impacts from disturbance, recreational use and urban development. The SEPP provides a mechanism for the development of plans of management consistent with the SEPP's aims and objectives and regulating activities that could disturb relevant bushland.

SEPP 19 extends beyond the protection of environmental values of bushland. It identifies the need to protect the aesthetic and community values as well as the recreational, educational and scientific values of this resource. It focuses on the protection and management of bushland found on public open space and includes the minimisation of impacts as a result of development on land adjoining urban bushland.

4 Statutory Planning Framework

4.5 Draft State Environmental Planning Policy (Environment)

The draft Environment SEPP seeks to simplify the planning rules for a number of water catchments, waterways, urban bushland, and Willandra Lakes World Heritage Property, by consolidating the following seven existing SEPPs:

- State Environmental Planning Policy No. 19 – Bushland in Urban Areas
- State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011
- State Environmental Planning Policy No. 50 – Canal Estate Development
- Greater Metropolitan Regional Environmental Plan No. 2 – Georges River Catchment
- Sydney Regional Environmental Plan No. 20 – Hawkesbury-Nepean River (No.2-1997)
- Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005
- Willandra Lakes Regional Environmental Plan No. 1 – World Heritage Property.

The Explanation of Intended Effect for the draft Environment SEPP was exhibited for public comment from 31 October 2017 until the 31 January 2018.

The land to which this Strategy Review relates is identified as Urban Bushland in the mapping accompanying the draft Environment SEPP.

SEPP 19 currently states that *"a reference in this policy (i.e. SEPP 19) to bushland zoned or reserved for public open space purposes is a reference to bushland within an area or zone identified by an instrument as open space (other than for private recreation)"*.

SEPP 19 contains no other definition of 'land zoned or reserved for public open space'.

Prior to the introduction of the Standard Instrument, many local environmental plans contained a 'Public Open Space Zone'. Since the introduction of Standard Instrument – Principal Local Environmental Plan, this reference is no longer relevant and there is no alternative zone that adequately captures the same type of land.

The NSW Department of Planning, Industry and Environment received feedback from councils that land formerly captured by SEPP 19 as 'land zoned or reserved for public open space' is not consistent with terms in the Local Government Act 1993, such as 'community land.'

Therefore, the draft Environment SEPP proposes to introduce a new term, 'public bushland'[4] which will replace the reference to land zoned or reserved for public open space. The term will cover land that is:

1. Zoned under the Standard Instrument zones excluding RU1, RU2, RU3, RU4, and RU5 zoned land, and
2. Owned or managed by council or a public authority, or reserved for acquisition for open space or environmental conservation by council or a public authority, and
3. Has vegetation which meets the definition of bushland.

The Environment SEPP has been yet come into force and therefore SEPP 19 is still a relevant environmental planning instrument (EPI) to consider in relation to any development within and adjoining the Byles Creek corridor.

4.6 Hornsby Local Environmental Plan 2013

Hornsby LEP 2013 is the relevant local EPI to be considered in relation to the Byles Creek corridor land.

[4] It is proposed that this definition will also list other zones included in specific (non-Standard) environmental planning instruments that perform a similar role to the Standard Instrument zones captured by this definition.

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As illustrated in **Figure 7**, the majority of land along the existing Byles Creek corridor is zoned RE1 Public Recreation. Hornsby LEP 2013 adopted the same land use zone boundaries as Hornsby LEP 1994. Therefore, the RE1 zoned land is a direct 'transfer' of the Open Space A zoning under Hornsby LEP 1994.

The objectives of the RE1 zone are:

- *To enable land to be used for public open space or recreational purposes.*
- *To provide a range of recreational settings and activities and compatible land uses.*
- *To protect and enhance the natural environment for recreational purposes.*
- *To protect and maintain areas of bushland that have ecological value.*

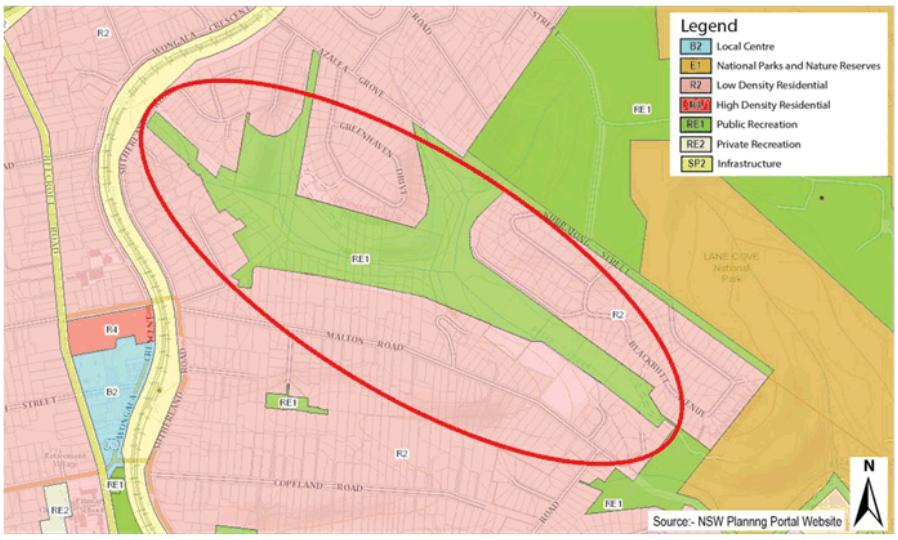

Figure 7 Extract from land use zoning map accompanying Hornsby LEP 2013

Only limited land uses are permitted with consent on land zoned RE1 under Hornsby LEP 2013. Permissible uses are limited to:

- Aquaculture;
- Building identification signs;
- Business identification signs;
- Camping grounds;
- Car parks;
- Caravan parks;
- Cemeteries;
- Centre-based child care facilities;
- Community facilities;
- Emergency services facilities;
- Environmental facilities;
- Flood mitigation works;
- Kiosks;

4 Statutory Planning Framework

- Public administration buildings;
- Recreation areas;
- Recreation facilities (indoor);
- Recreation facilities (major);
- Recreation facilities (outdoor);
- Respite day care centres;
- Roads; and
- Water reticulation systems

All other development (with the exception of Environmental Protection Works (which are permitted without consent on RE1 zoned land) is prohibited.

The area is predominantly surrounded by R2 Low Density Residential land, as well as other areas of RE1 Public Recreation. An extensive area of E1 National Parks and Nature Reserves, comprising Lane Cove National Park is located to the east of the corridor area.

The Byles Creek corridor and surrounding land is also located within the Beecroft-Cheltenham Heritage Conservation Area. **Clause 5.10** of Hornsby LEP 2013 relates to heritage conservation. **Figure 9** is an extract from the heritage map accompanying Hornsby LEP 2013. The red hatching is the heritage conservation area.

The objectives of the clause are:

(a) *to conserve the environmental heritage of Hornsby,*

(b) *to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views,*

(c) *to conserve archaeological sites,*

(d) *to conserve Aboriginal objects and Aboriginal places of heritage significance.*

An archaeological assessment has not been undertaken as part of this Strategy Review.

There are a number of heritage items located along Malton Road. These are notated in brown on the heritage map extract at **Figure 8**. These appear to reflect Non Indigenous heritage.

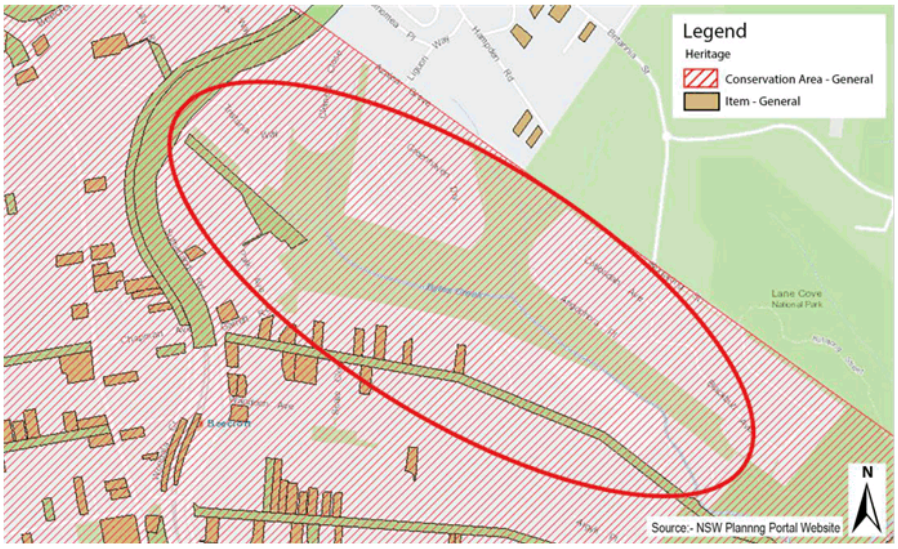

Figure 8 Extract from heritage map accompanying Hornsby LEP 2013

4 Statutory Planning Framework

Clause 5.1 of Hornsby LEP 2013 relates to acquisition of land reserved for public purposes and identifies the relevant acquisition authority.

In the case of land zoned RE1 Public Recreation and marked 'Local Open Space', the relevant acquisition authority is Council. Specifically, clause 5.1 states the following:

> *(1) The objective of this clause is to identify, for the purposes of section 27 of the Act, the authority of the State that will be the relevant authority to acquire land reserved for certain public purposes if the land is required to be acquired under Division 3 of Part 2 of the Land Acquisition (Just Terms Compensation) Act 1991 (the owner-initiated acquisition provisions).*
>
> *Note.*
>
> *If the landholder will suffer hardship if there is any delay in the land being acquired by the relevant authority, section 23 of the Land Acquisition (Just Terms Compensation) Act 1991 requires the authority to acquire the land.*
>
> *(2) The authority of the State that will be the relevant authority to acquire land, if the land is required to be acquired under the owner-initiated acquisition provisions, is the authority of the State specified below in relation to the land shown on the Land Reservation Acquisition Map (or, if an authority of the State is not specified in relation to land required to be so acquired, the authority designated or determined under those provisions).*

Type of land shown on Map	***Authority of the State***
Zone RE1 Public Recreation and marked "Local open space"	*Council*
Zone RE1 Public Recreation and marked "Regional open space"	*The corporation constituted under section 8 of the Act*

The Land Acquisition Reservation map indicates that the RE1 zoned land along the corridor that is not in Council ownership or not Crown land is 'Local open space'. In accordance with clause 5.1 the acquisition authority is Council.

Figure 9 is an extract from Hornsby LEP 2013 identifying the land within the Byles Creek corridor (in yellow), which is subject to acquisition by Council.

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Figure 9 Extract from Land Reservation Acquisition map accompanying Hornsby LEP 2013

Clause 6.4 of the LEP relates to areas identified as Terrestrial Biodiversity areas. The objectives of clause 6.4 of Hornsby LEP 2013 are:

(a) protecting native fauna and flora, and

(b) protecting the ecological processes necessary for their continued existence, and

(c) encouraging the conservation and recovery of native fauna and flora and their habitats.

Figure 10 is an extract from the terrestrial biodiversity map accompanying Hornsby LEP 2013.

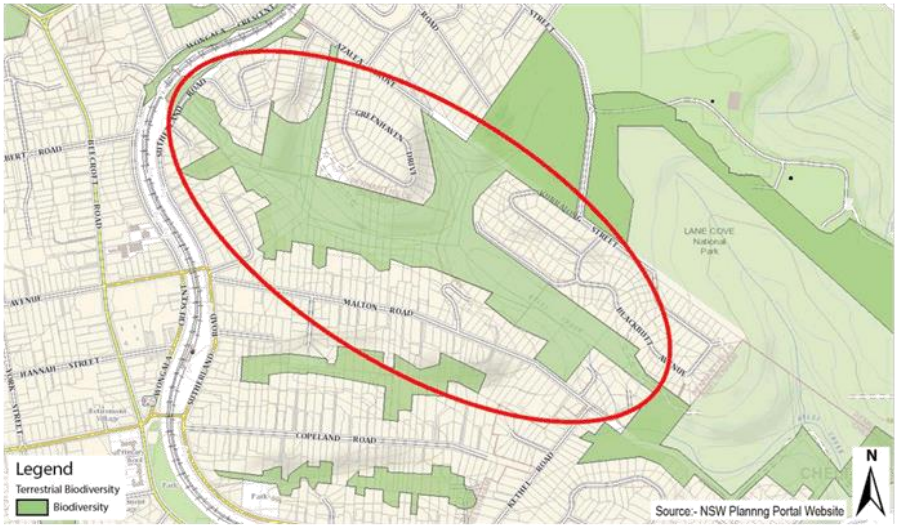

Figure 10 Extract from Terrestrial Biodiversity map accompanying Hornsby LEP 2013

4 Statutory Planning Framework

The area of the Byles Creek corridor zoned RE1 does not exactly correspond with the areas mapped as having terrestrial biodiversity value. As can be seen in **Figure 11**, there are areas mapped as having terrestrial biodiversity value which extend beyond the areas mapped as RE1 and subject to acquisition. The terrestrial biodiversity 'layer' also sits below the RE1 zoned land. The differences in the mapping layers have occurred because the Terrestrial Biodiversity Map has applied vegetation polygons. These polygons essentially relate to canopy cover. The Terrestrial Biodiversity map aligns with the Bushland Protection layer in (now repealed) Hornsby LEP 1994.

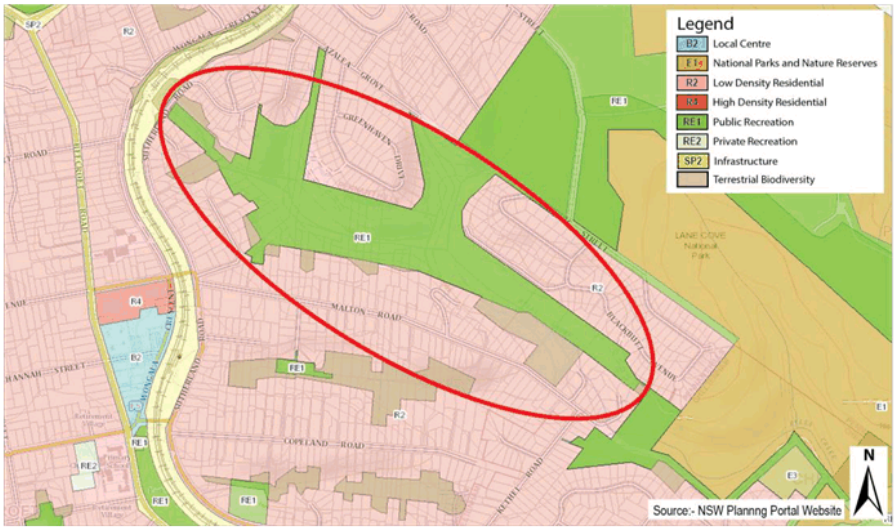

Figure 11 Overlay of zoning plan with terrestrial biodiversity map

4.7 Hornsby Development Control Plan

There are no specific controls in Hornsby DCP 2013 that relate to land zoned for open space purposes.

Part 1 – General of the DCP provides general controls for the protection of the environment and applies to all forms of development. Part 1C.1 relates to the Natural Environment.

Section 1C.1.1 of Part 1 relates to biodiversity. This section applies to land with biodiversity value, including land affected by the Hornsby LEP provisions. We have taken the reference to 'land affected by the Hornsby LEP provisions' to include land identified as having Terrestrial Biodiversity value on the Terrestrial Biodiversity map accompanying Hornsby LEP 2013 – refer **Figure 10**.

The DCP desired outcomes with respect to biodiversity are:

a. *Development that provides for the conservation of biodiversity including threatened species and populations, endangered ecological communities, remnant indigenous trees, regionally and locally significant terrestrial and aquatic vegetation.*

b. *Development that maintains habitat for native wildlife and wildlife corridors to provide for the movement of fauna species.*

The biodiversity values of the corridor land and surrounding land are discussed in **Section 5** of this Strategy Review.

4 Statutory Planning Framework

4.8 Hornsby Local Strategic Planning Statement

Council has prepared a Local Strategic Planning Statement (LSPS) (dated March 2020) for the Hornsby LGA.

The LSPS identifies that the Hornsby Shire contains "*a diverse array of landscapes with significant conservation values and hosts a range of endemic flora, fauna and invertebrates – many of which are threatened. The Shire has over 1,000 native plant species and 388 native animal species*."

The LSPS acknowledges that the protection of biodiversity has significant environmental, social and economic benefits.

Therefore, one of the outcomes of the LSPS will be a review of the current Biodiversity Conservation Management Plan. This will be updated to reflect any changes in vegetation cover, environmental policy and legislation. The aim of the updated Biodiversity Conservation Management Plan will be to have in place a long term plan that will provide clear strategic direction for future land use to achieve the following outcomes:

- Protect and conserve ecological values;
- Restore disturbed ecosystems; and
- Enhance ecological value and function.

4.9 Hornsby Shire Section 94 Development Contributions Plan 2014-2024

The Hornsby Shire Council Section 94 Development Contributions Plan 2014 - 2024 (Hornsby s94 Contributions Plan) enables Council or an accredited certifier to levy contributions[5] from development for the provision of community infrastructure that is required to meet the demands of that development. Local open space is community infrastructure for which contributions can be levied.

The works schedule to the 2014 – 2024 s94 Contributions Plan identified that bush walking tracks in Byles Creek corridor would be extended and upgraded by 2020. This work has been completed. There are no works relating the Byles Creek corridor in the current version of the s7.11 or s7.12 Contributions Plans which were considered by Council at a meeting on 8 July 2020.

[5] As a result of recent amendments to the EP&A Act, contributions are now levied pursuant to section 7.11 of the Act (previously s94 of the Act).

5 Ecological Assessment

5.1 Introduction

Cumberland Ecology was engaged to provide an assessment of the ecological characteristics and values of the study area to inform the Strategy Review. A copy of the Cumberland Ecology ecological assessment is included at **Appendix 1**. The land that is subject to the ecological assessment is shown in **Figure 7** and **Appendix 2** to this report. The ecological assessment refers to this area as the 'study area'. The land shown in bright green in **Figure 7** is collectively referred to in the ecological assessment as the 'subject 'land' in the Cumberland Ecology ecological assessment.

Specifically, the Cumberland Ecology ecological assessment:

- Describes the methods used in the assessment;
- Summarises the findings of a desktop assessment and site inspection;
- Provides discussion on:
  - Whether the extent of the current corridor as reflected by the existing RE1 zoning is appropriate; and
  - Whether the ecological values and characteristics of the corridor have conservation significance; and
  - Whether there are opportunities for restoration of the corridor and the scope of work that might be entailed to increase the ecological value of land along the corridor, if warranted.

As part of the ecological assessment, Cumberland Ecology undertook a review of ecological literature relevant to the corridor including:

- Vegetation mapping reports and data:
- Smith and Smith (2008): native Vegetation Communities of Hornsby Shire – 2008 Update;
- OEH (2016): The Native Vegetation of the Sydney Metropolitan Area;
- Eco Logical Australia (2017): Hornsby Vegetation Map Update 2017.
- Ecological assessments associated with relevant development applications (DAs):
  - ACS Environmental (2017): Biodiversity Impact Assessment for Proposed Development of Lot 2 in DP 703067 at No. 65D Malton Road, Beecroft;
  - GIS Environmental Consultants (2018): Flora & Fauna Assessment Report for a Section 8.2 Review of DA Determination for a New Dwelling at 65D Malton Road, Beecroft;
  - ACS Environmental (2015): Biodiversity Impact Assessment for Proposed Development of Lot 2 (DP 883724) No. 77 Malton Road, Beecroft;
  - Smith (2016): Ecological Assessment of Proposed Residential Development at 77 Malton Road, Beecroft;
  - Smith (2015): Ecological Assessment of Proposed Subdivision at 79-87 Malton Road, Beecroft; and

Cumberland Ecology also undertook a diurnal site inspection to verify existing vegetation mapping and assess habitats within the corridor. Cumberland Ecology notes that there were a number of limitations in relation to the site inspection, including, terrain constraints and presence of private properties. As a result, not all areas of the study area were subject to the site inspection. Observations where therefore made from adjoining land at some locations.

5 Ecological Assessment

5.2 Vegetation Communities

Cumberland Ecology found that the majority of the study area comprises intact native forest vegetation. There was evidence of weed invasions generally adjacent to residential dwellings, informal access tracks and drainage lines and sewerage infrastructure was observed at a number of locations on the southern side of Byles Creek, along with a small section of wall along the creek. In addition, a powerline easement traverses the northern boundary of the corridor.

Four main vegetation communities were observed in the Byles Creek corridor area. Details of these communities, together with an estimate of the area of the corridor occupied by these communities, are included in **Table 2**.

Table 2 Vegetation Communities within Byles Creek corridor

Vegetation Community	BC Act Status	EPBC Act Status	Study Area (ha)	Approximate area in private ownership
Coastal Enriched Sandstone Moist Forest	-	-	20.45	6.31
Coastal Enriched Sandstone Dry Forest	-	-	0.20	-
Blue Gum High Forest	CEEC	CEEC	0.79	-
Urban Exotic/Native	-	-	0.07	0.06
Total			**21.52**	**6.37**

Source: Table 2 in Cumberland Ecology Ecological Assessment, January 2020
CEEC – Critically Endangered Ecological Community

Coastal Enriched Sandstone Moist Forest is the most represented vegetation community within the corridor. This community is associated with Blackbutt Gully Forest and is a locally significant community within the Hornsby LGA.

The Coastal Enriched Sandstone Dry Forest occurs at the eastern extent of the study area. There is none of this community located on privately owned land within the corridor.

The Blue Gum High Forest is a critically endangered ecological community (CEEC). This community occurs at the western extent of the study area, with none occurring within the privately owned land.

Urban Exotic Native vegetation typically comprises a suite of planted native and exotic species which are not consistent with any naturally occurring native vegetation community. A small area of this community occurs in the south west of the corridor, with none occurring within the privately owned land.

5.3 Flora Species

Cumberland Ecology found that the flora species recorded within the Byles Creek area were predominantly native. Native flora species recorded within the area are highly indicative of the native vegetation communities occurring within the study area.

Some threatened flora species were recorded in the locality of the study area, however, according to BioNet Atlas (EES 2019) there are no records of threatened flora species within the study area.

A small number of exotic species were recorded within the study area during the Cumberland Ecology site inspection. These species typically occurred at the periphery of the study area, adjacent to residential dwellings, along informal access tracks and along the drainage lines.

5 Ecological Assessment

5.4 Fauna Species

Cumberland Ecology noted that the study area contains extensive areas of intact forest vegetation. As a result, the habitat features are numerous and provide potential foraging, shelter and breeding opportunities for a suite of fauna species. Cumberland Ecology identified the following key habitat features within the study area:

- Riparian environments suitable for fauna species dependent on these habitats such as amphibians and reptiles;
- Terrestrial habitat features such as ground and shrub layer vegetation, leaf litter, coarse woody debris and rocky outcrops suitable as shelter for small terrestrial fauna species;
- Hollow-bearing trees and stags suitable as shelter and breeding habitat for a range of hollow-dependent fauna; and
- Blossom-producing trees and shrubs suitable as forage for a range of nectarivores.

A number of threatened fauna species have been recorded within the locality of the study area including the Red-crowned toadlet, Gang gang cockatoos and powerful owls. A number of other threatened fauna species have been recorded in the habitats immediately adjacent to the study area, including Square-tailed Kite and Large Bent-winged Bat.

In addition, there was evidence of a number of exotic fauna species including the common black rat, European red fox and feral cats.

5.5 Ecological Assessment

Cumberland Ecology observed that wildlife corridors are generally areas of habitat that connect reserves or blocks of disjunct habitat. They allow wildlife to disperse and provide for gene flow between populations or subpopulations.

Cumberland Ecology notes that the forest vegetation within the study area is directly connected to Lane Cove National Park, which covers an extensive area of land to the east. Whilst the study area is not directly connected to a reserve system to the west, there are links to scattered habitat within Pennant Hills that provide 'stepping stone' habitat between Cumberland State Forest to the west and Berowra Valley National Park to the north west. On a local-scale, Cumberland Ecology found that the corridor area provides a movement corridor along a drainage line, Byles Creek. The contiguous vegetation along Byles Creek also facilitates seed dispersal and pollination.

In this regard, Cumberland Ecology concluded that acquisition of the remaining privately-owned land by Council will further strengthen the value of the corridor. Acquisition of these remaining lands will ensure ongoing protection and management of the biodiversity values provided by the corridor and assist in protecting a local bushland reserve that has connectivity to the regionally significant conservation land within Lane Cove National Park.

In terms of biodiversity values, Cumberland Ecology identified the following key features of the corridor:

- *"Presence of a small area of Blue Gum High Forest. This vegetation community is listed as a CEEC under both the BC Act and EPBC Act.*
- *Presence of threatened fauna species and associated habitat. Four threatened fauna species have been recorded within the study area, including the Red-crowned Toadlet, Gang-gang Cockatoo, Powerful Owl and Grey-headed Flying-fox. The habitats within the study area also provide suitable habitat for a range of species known to occur within the locality of the study area, including the Square-tailed Kite and Large Bentwing-bat.*
- *Connectivity to the national park reserve system. The study area connects to Lane Cove National Park via other intact native vegetation to the east. In addition to this*

5 Ecological Assessment

connection, the vegetation and associated habitat connects to stepping stone habitat which in turn provides movement corridors to Cumberland State Forest in the west and Berowra Valley National Park to the north west."

In addition to these key biodiversity values, Cumberland Ecology also noted that the corridor also contains the following values:

- *Intact native vegetation, the majority of which has been identified as being locally significant within the Hornsby LGA.*
- *Presence of a range of fauna habitat features, including riparian environments, rocky outcropping, fallen logs, hollow-bearing trees and blossom-producing trees and shrubs.*
- *Presence of land within riparian corridor widths recommended in the* Guidelines for riparian corridors on waterfront land (DPI 2012), *which specifies 10 m, 20 m and 30 m vegetated riparian zones either side of first, second and third order streams, respectively. The creek line appears to generally be in good condition with undegraded banks and only limited pollution. Temporary pools of water appear to persist along the corridor.*

5.6 Ecological Recommendations

Notwithstanding these key biodiversity values, Cumberland Ecology concluded that the current extent of land zoned RE1 Public Recreation within the corridor is appropriate due to the biodiversity values present and current integrity and functionality of the corridor.

However, Cumberland Ecology also identified opportunities to restore the corridor, including the creek and adjoining riparian land. These restoration opportunities include:

- Weed management, particularly adjacent to dwellings, and along access tracks and drainage lines.
- Feral animal management undertaken in consultation with the Greater Sydney Local Land Service to ensure a coordinated approach.
- Rubbish removal including the installation of stormwater pollutant traps.
- Signage. Community awareness of biodiversity values can be increased through the installation of signage at access points within the study area. This can include signage relating to the presence of a restoration area, signage relating to the habitat of particular threatened species (e.g. the Powerful Owl), or signage to outline fines relating to illegal rubbish dumping.
- Installation of nest boxes. Although a number of hollow-bearing trees occur throughout the study area, installation of nest boxes would create additional nesting habitat for a range of native fauna.
- Fire management. A long term strategy for management of native vegetation within the study area could include the use of fire management. Given the location of the corridor within an urban environment, there may be a need to undertake hazard reduction burning, which could be undertaken in a manner to also provide an ecological benefit.

Cumberland Ecology also noted that the corridor is currently being informally used for recreational activity, as evidenced by the presence of an informal access track and that continuation of such activity could be assisted by the implementation of management actions.

6 Strategy Review

6.1 Assessment of Environmental and Social Values

That part of the Byles Creek corridor the subject of this Strategy Review has environmental and social attributes which have intrinsic values to the whole of the Hornsby Shire.

6.1.1 Environmental Values

From an environmental perspective, the corridor has a direct connection with the Lane Cove National Park to the east and, whilst not directly connected to the open space to the west, there is 'stepping stone' scattered habitat that provides links to the Cumberland State Forest (to the west) and Berowra Valley National Park (to the north west).

Therefore, the land along Byles Creek plays an important role as a wildlife corridor and the contiguous vegetation within the corridor facilitates seek dispersal and pollination.

Retaining the corridor and the extent of the RE1 zone and adjoining mapped terrestrial biodiversity land will aid in protecting and enhancing this important local bushland reserve which has connectivity to the regionally significant conservation area within Lane Cove National Park. This is also consistent with Council's Biodiversity Conservation Strategy, 2006.

In addition to its function as a wildlife corridor, other key environmental and ecological attributes of the Byles Creek corridor are:

- It provides habitat for a small area of Blue Gum High Forest, a critically endangered ecological community;
- It provides habitat for threatened fauna species;
- It contains intact, locally significant native vegetation;
- It includes a range of fauna habitat features; and
- The creek line is generally in good condition with only limited pollution.

Maintenance of the existing RE1 zoned land is consistent with Council's vision in relation to biodiversity as detailed in the LSPS and will achieve the outcomes envisaged by the Biodiversity Conservation Management Plan review.

6.1.2 Social Values

For a social value perspective, there is evidence of recreation activity along the corridor, including informal walking trails. Relevantly, in relation to walking trails near Malton Road, Council is developing a masterplan for walking trails within the Shire, including the Byles Creek area.

In relation to DA/94/2013, being the DA for the subdivision of 79-87 Malton Road, Beecroft into 6 allotments, a condition of consent requires the rear allotment (Lot 6) to dedicated to Council. There is a walking trail is located within the land required to be dedicated to Council.

There is also an existing informal walking track along Byles Creek which traverses private property at No. 77 Malton Road, options for formalising public access across this property. 77 Malton Road appears to be the only 'missing' link in the provision of a contiguous walking track along Byles Creek. Use of this land by the public currently constitutes trespassing. Whilst the opportunity to formalise access was previously rejected by the then owner of this property, there is the potential to renegotiate with the current owner if/when plans for a formal walking track along Byles Creek are formulated. The option of locating a walking track on the opposite side of the creek could also be considered. This will be explored as an option as part of any walking trail strategy for the corridor.

We are not aware of any current proposals to provide a formal walking track along Byles Creek, however, as recommended in the Cumberland Ecology Ecological Assessment, opportunities to develop a walking trail master plan for the corridor should be explored.

6 Strategy Review

6.1.3 Heritage Values

The Byles Creek corridor is located within the Beecroft Cheltenham Heritage Conservation Area.

In 2004, Godden Mackay Logan (GML) prepared the Beecroft/Cheltenham Heritage Conservation Area Review for Hornsby Council.

That review identified that the Byles Creek corridor is located within the Beecroft East Precinct which was part of a wider precinct known as the Field of Mars Common. The Beecroft East Precinct was subdivided in June 1891 – refer **Figure 12**. The location of the Byles Creek corridor within the Beecroft East Precinct is circled in red in **Figure 12**.

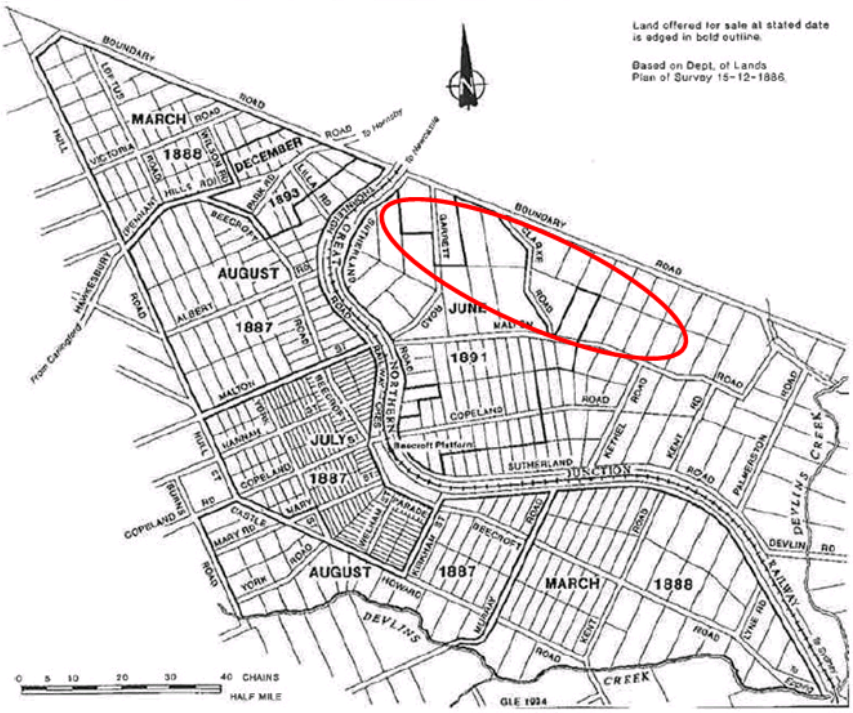

Figure 2.4 Plan showing the date of the first government sales of the Field of Mars Common and the boundaries that each land release covered.

Figure 12 Extract from GML Beecroft/Cheltenham Heritage Conservation Area Review report, January 2004

With respect to Byles Creek, GML notes that:

> *Between Malton, Copeland and Sutherland Roads steep gullies of Byles Creek catchment area contain vegetation communities of conservation significance. Remnants of the same communities occur along Devlins Creek.*
>
> ...
>
> *Since the 1970s the re-subdivision of the long back sections of allotments, particularly along the gully lands towards Devlins Creek and Byles Creek, have absorbed much of the increasing residential densities, so that the earlier layers of residual development remain in the most obvious locations, along the street frontages.*

In view of this, and having regard to the ecological values of the corridor, it is recommended that the vegetation within the corridor be retained to further enhance the landscape qualities of the conservation area.

6 Strategy Review

6.2 Extent of Corridor

Based on advice provided by Cumberland Ecology, and having regard to previous investigations undertaken by others in relation to the ecological and biodiversity values of the land zoned for open space purposes within the Byles Creek corridor, no reduction in the amount of land currently zoned RE1 Public Recreation is recommended. The current extent of the RE1 zone is considered appropriate due to the biodiversity values present and current integrity and functionality of the corridor.

Although there are areas mapped as having terrestrial biodiversity value beyond the RE1 zoned land – refer **Figure 12** – extension of the RE1 zone over these areas is not considered necessary for the following reasons:

- The purpose of the RE1 zone is to facilitate public access to the land and to enhance and maintain the natural environment. The current RE1 zoned land is appropriate for the purpose of achieving the level of public access and recreational activity that the corridor can manage (without adverse impacts on the ecological values of the corridor). The ecological values of the land adjoining the RE1 zoned land that is mapped as having terrestrial biodiversity values (and zoned R2) does not need to be zoned RE1 in order to maintain these values and there is no requirement to increase the extent of publicly accessible land along the corridor.
- Many of the properties mapped as having terrestrial biodiversity value have already been developed or have valid approvals for development including subdivision and new dwellings.
- There are several legislative layers providing a robust framework of legal provisions which will ensure the ecological values of the mapped land are maintained. These include:
    - The objectives and provisions of clause 6.4 of Hornsby LEP 2013 in relation to terrestrial biodiversity values.
    - The provisions of the *Biodiversity Conservation Act 2016*.
    - *State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017* (Vegetation SEPP).
    - Draft *State Environmental Planning Policy (Environment)*.

  all of which need to be considered in relation to any new development proposals on land having terrestrial biodiversity values.

  Furthermore, the development controls in Section 1.1 of Part 1 - Biodiversity of Hornsby DCP supplement the provisions of clause 6.4.
- The southern boundary of the RE1 zoned land is generally uniform and defines the publicly accessible land within corridor. Public access to the corridor is available from the west, north and east. Upon registration of the subdivision over 79-87 Malton Rad, public access to the open space zoned land will also be available from the south (i.e. Malton Road), approximately halfway along the length of that part of the corridor to which this Strategy Review relates.

7 Conclusion

The purpose of this Strategy Review is threefold:

1. To understand the function of the corridor and its relationship with adjoining land.
2. To assess whether the current extent of the Byles Creek corridor is appropriate having regard to the environmental and social values of the land.
3. To provide strategies for funding options if it is concluded that the current extent of the corridor which is zoned RE1 is assessed as being inadequate and additional land is required to be included as part of the publicly accessible corridor land.

This Strategy Review has considered the environmental, social and heritage values of land within the Byles Creek corridor having regard to background reports, previous studies and investigations undertaken by others and relevant planning controls and legislation. These investigations have been supplemented by an updated ecological assessment which has been undertaken by Cumberland Ecology. The Cumberland Ecology assessment focussed on the land zoned RE1 but has also had regard to surrounding land.

As part of their assessment, Cumberland Ecology also reviewed ecological literature relevant to the corridor and surrounding land and undertook as site inspection.

Cumberland Ecology identified a suite of biodiversity values within the corridor, including:

- Predominantly intact native vegetation, including the presence of a small area of a CEEC listed under the NSW *Biodiversity Conservation Act* and Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*;
- A range of habitat features suitable for use by native flora and fauna species;
- The presence of threatened fauna species; and
- Connectivity to conservation reserves, either directly via intact vegetation or via 'stepping stone' habitat.

Based on the ecological values of the corridor, Cumberland Ecology concluded that *the current extent of the RE1 zoning is considered appropriate due to the biodiversity values present and current integrity and functionality of the corridor*.

The objectives of the RE1 zone are:

- *To enable land to be used for public open space or recreational purposes.*
- *To provide a range of recreational settings and activities and compatible land uses.*
- *To protect and enhance the natural environment for recreational purposes.*
- *To protect and maintain areas of bushland that have ecological value.*

The RE1 zoning is appropriate for the land within the corridor and will ensure the ecological values of the corridor are protected and enhanced, whilst still allowing for limited passive recreational activities. The RE1 zoning, in conjunction with the other provisions of Hornsby LEP 2013 relating to terrestrial biodiversity and the controls within Hornsby DCP 2013, is considered sufficiently robust with respect to achieving the integrity and functionality of the corridor and preserving the biodiversity values of the Byles Creek corridor.

It is concluded that no additional land is required to be acquired by Council in order to ensure the ecological values of the Byles Creek corridor are maintained. Therefore, this Strategy Review does not address any options with respect to funding.

Maintenance of the existing RE1 zoned land is consistent with Council's vision in relation to biodiversity as detailed in the LSPS and will achieve the outcomes envisaged by the Biodiversity Conservation Management Plan review.

7 Conclusion

Although there is land mapped as having terrestrial biodiversity values adjoining the corridor which is not zoned RE1, extension of the RE1 zone over this land is not considered necessary for the following reasons:

- The majority of the properties mapped as having terrestrial biodiversity value have already been developed or have valid approvals for development including subdivision and new dwellings.
- The objectives and provisions of clause 6.4 of Hornsby LEP 2013 will continue to operate in relation to land mapped as having terrestrial biodiversity values. The provisions of clause 6.4 are ably supported by other relevant legislation and planning policies that would need to be considered in relation to any new development proposals on land having terrestrial biodiversity values.
- The purpose of the RE1 zone is to enhance and maintain the natural environment and facilitate public access to the land. The current RE1 zoned land is appropriate for the purpose of achieving these objectives. No additional is required to be zoned RE1 in order to maintain and preserve the ecological values of the corridor.

  The ecological values of the land adjoining the RE1 zoned land that is mapped as having terrestrial biodiversity values (and zoned R2) does not need to be zoned RE1 in order to maintain these values and there is no requirement to increase the extent of publicly accessible land along the corridor.
- The southern boundary of the RE1 zoned land is generally uniform and defines the publicly accessible land within corridor. Public access to the corridor is available from the west, north and east. Additional land for the purposes of public recreation is not considered necessary.

7.1 Recommendations with respect to the Byles Creek Corridor

There is evidence of informal use of the corridor as a walking trail. There is currently no formal walking track along the corridor and, due to the presence of some privately owned land within the corridor, it is not currently possible to provide a contiguous walking track.

Notwithstanding, it is recommended that priority be given to the preparation of a walking trail master plan for the corridor.

Once this is prepared, the current owners of 77 Malton Road can be approached with a view to providing a linked walking track along the length of the corridor. Options for locating the walking track on the northern side of Byles Creek should also be explored in the event that access across the privately owned land cannot be secured.

It is also recommended that the suggestions proffered by Cumberland Ecology in Section 4.3 of their report be implemented. These include:

- Weed management, particularly adjacent to dwellings, and along access tracks and drainage lines.
- Feral animal management undertaken in consultation with the Greater Sydney Local Land Service to ensure a coordinated approach.
- Rubbish removal including the installation of stormwater pollutant traps.
- Signage. Community awareness of biodiversity values can be increased through the installation of signage at access points within the study area. This can include signage relating to the presence of a restoration area, signage relating to the habitat of particular threatened species (e.g. the Powerful Owl), or signage to outline fines relating to illegal rubbish dumping.

7 Conclusion

- Installation of nest boxes. Although a number of hollow-bearing trees occur throughout the study area, installation of nest boxes would create additional nesting habitat for a range of native fauna.
- Fire management. A long term strategy for management of native vegetation within the study area could include the use of fire management. Given the location of the corridor within an urban environment, there may be a need to undertake hazard reduction burning, which could be undertaken in a manner to also provide an ecological benefit.

Based on the above conclusions there is no need to consider funding options to acquire additional land (beyond that already zoned RE1), however, it is recommended that a financial strategy be prepared in relation to zoned RE1 land within the corridor which is yet to be purchased by Council.

ATTACHMENT 2 - ITEM 5

Byles Creek Acquisition Strategy

Ecological Assessment

DFP Planning

23 July 2020

Final

cumberland ecology

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Report No. 19227RP1

The preparation of this report has been in accordance with the brief provided by the Client and has relied upon the data and results collected at or under the times and conditions specified in the report. All findings, conclusions or commendations contained within the report are based only on the aforementioned circumstances. The report has been prepared for use by the Client and no responsibility for its use by other parties is accepted by Cumberland Ecology.

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Glossary

Term / Abbreviation	Definition
BC Act	NSW *Biodiversity Conservation Act 2016*
Biosecurity Act	NSW *Biosecurity Act 2015*
CEEC	Critically Endangered Ecological Community
DA	Development Application
EPBC Act	Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*
GIS	Geographic Information System
HLEP 2013	*Hornsby Local Environmental Plan 2013*
LGA	Local Government Area
NSW	New South Wales
PCT	Plant Community Type
RE1 zoned land not currently owned by Council	The parcels of land within the study area that that are zoned RE1 but are not currently owned by Council, as shown in **Figure 1**
Study area	The RE1 zoned land that is subject to the ecological assessment, as shown in **Figure 1**

1. Introduction

Cumberland Ecology has been commissioned by DFP Planning on behalf of Hornsby Shire Council to provide an ecological assessment of land located within the Byles Creek Corridor, located within Pennant Hills and Beecroft, New South Wales (NSW). DFP Planning have been engaged to prepare an acquisition strategy for part of the Byles Creek Corridor.

1.1. Purpose

The purpose of this document is to provide an assessment of the ecological characteristics and values of the study area to inform the acquisition strategy being prepared by DFP Planning. **Figure 1** shows the broader context of the corridor location. The detailed ecological assessment has been undertaken within a portion of this corridor, within an area referred to as the 'study area'. The study area, which is also shown in **Figure 1**, comprises all RE1 zoned land, including land currently owned by Council and land yet to be owned by Council. The parcels of this RE1 zoned land that are not currently owned by Council are referred to collectively as the 'RE1 zoned land not currently owned by Council'.

Specifically, this report will:

- Describe the methods used in the assessment;
- Summarise the findings of a desktop assessment and site inspection;
- Provide discussion on:
  - Whether the extent of the current corridor as reflected by the existing RE1 zoning is appropriate;
  - Whether there is merit in expanding the corridor beyond current RE1 zoned land;
  - Whether the ecological values and characteristics of the corridor have conservation significance; and
  - Whether there are opportunities for restoration of the corridor and the scope of work that might be entailed to increase the ecological value of land along the corridor, if warranted.

1.2. Background

1.2.1. Location

The study area is located within Beecroft and Pennant Hills, in the Hornsby Local Government Area (LGA). The study area extends east from the main northern railway line and terminates at the eastern extent of the made section of Malton Road, Beecroft. This is a length of approximately 1.5 km. Byles Creek continues east of the study area and connects with Devlins Creek in the vicinity of Malton Road, North Epping. **Table 1** lists the properties located within the study area and their ownership. Lots marked by an asterix (*) indicate that only part of the lot is included within the study area. The extent of the private/Crown-owned land, being the RE1 zoned land not currently owned by Council , and the Council-owned land within the study area is shown in **Figure 1**.

Table 1 Properties within the study area

Address	Lot/DP	Ownership
142 Sutherland Road, Beecroft	34/229831*	Private
142X Sutherland Road, Beecroft	33/229831	Council
140X Sutherland Road, Beecroft	15/237044	Council
130X Sutherland Road, Beecroft	204/806307	Council
140X Sutherland Road, Beecroft	3/530227	Council
140X Sutherland Road, Beecroft	14/562351	Council
140X Sutherland Road, Beecroft	6/229639	Council
10X Park Avenue, Beecroft	80/1150971	Council
8B Park Avenue, Beecroft	3/540850	Council Not all of Lot 3 is zoned RE1. The battle axe handle is zoned R2.
6X Park Avenue, Beecroft	23/614741	Council
4 Park Avenue, Beecroft	3/17876*	Private
142 Sutherland Road, Beecroft	34/229831*	Private
2 Park Avenue, Beecroft	Y/421498*	Private
20 Tristania Way, Pennant Hills	25/261485	Council
Road Reserve (Garrett Road)	-	Private/Crown
8 Garrett Road, Beecroft	40/596659	Council
11A Malton Road, Beecroft	5/4551*	Private
15 Malton Road, Beecroft	6/4551*	Private
17A Malton Road, Beecroft	7/4551*	Private
17A Malton Road, Beecroft	1/115475	Private
17A Malton Road, Beecroft	8/4551*	Private
17B Malton Road, Beecroft	9/4551*	Private
23 Malton Road, Beecroft	A/360633*	Private
1X Adder Street Beecroft	700/1124042	Council
1X Adder Street Beecroft	3/628007	Council
27A Malton Road, Beecroft	2/868018*	Private
31 Malton Road, Beecroft	112/1083093*	Private
14X Garrett Road, Beecroft	3/593755	Council
Road Reserve (Adder Street)	-	Private/Crown
14X Garrett Road, Beecroft	1/134742	Council
14X Garrett Road, Beecroft	702/1124042	Council
35B Malton Road, Beecroft	107/775899*	Private

Address	Lot/DP	Ownership
37X Malton Road, Beecroft	704/1124042	Council
35D Malton Road, Beecroft	105/775899*	Private
41 Malton Road, Beecroft	1/171774	Private
41 Malton Road, Beecroft	5/7933*	Private
43B Malton Road, Beecroft	5/716031*	Private
43C Malton Road, Beecroft	601/793873*	Private
43X Malton Road, Beecroft	706/1124042	Council
43X Malton Road, Beecroft	3/705724	Council
43X Malton Road, Beecroft	708/1124042	Council
43X Malton Road, Beecroft	698/650162	Council
43X Malton Road, Beecroft	52/235561	Council Not all of Lot 52 is zoned RE1. The battle axe handle is zoned R2.
Road Reserve (unnamed)	-	Private/Crown
43X Malton Road, Beecroft	142/236067	Council
43X Malton Road, Beecroft	4/789069	Council
43X Malton Road, Beecroft	3/703067	Council
43X Malton Road, Beecroft	1/883724	Council
79-87 Malton Road, Beecroft	2/847605*	Private
89-97 Malton Road, Beecroft	27/735002	Council
99-105 Malton Road, Beecroft	4/601847	Council

** Only part of the lot is located within the study area*

1.2.2. Zoning

The study area has been focused on land zoned as RE1 Public Recreation under the *Hornsby Local Environmental Plan 2013* (HLEP 2013). The objectives of the RE1 zone are to:

- Enable land to be used for public open space or recreational purposes.
- Provide a range of recreational settings and activities and compatible land uses.
- Protect and enhance the natural environment for recreational purposes.
- Protect and maintain areas of bushland that have ecological value.

The study area is predominantly surrounded by R2 Low Density Residential land, as well as other areas of RE1 Public Recreation. An extensive area of E1 National Parks and Nature Reserves, comprising Lane Cove National Park is located to the east of the study area.

The entirety of the study area is mapped as 'terrestrial biodiversity' under the HLEP 2013, which extends into some of the adjacent R2 Low Density Residential zoned lands. Clause 6.4 of the HLEP 2013 applies to land on the Terrestrial Biodiversity Map. The objective of this clause is to maintain terrestrial biodiversity by:

- Protecting native fauna and flora;
- Protecting the ecological processes necessary for their continued existence; and
- Encouraging the conservation and recovery of native fauna and flora species and their habitats.

2. Methodology

2.1. Literature Review

A review of ecological literature relevant to the study area was undertaken as part of this ecological assessment to evaluate the flora and fauna values associated with the study area. Key documents reviewed for this ecological assessment include:

- Vegetation mapping reports and data:
  - Smith and Smith (2008): native Vegetation Communities of Hornsby Shire – 2008 Update;
  - OEH (2016): The Native Vegetation of the Sydney Metropolitan Area; and
  - Eco Logical Australia (2017) : Hornsby Vegetation Map Update 2017.
- Ecological assessments associated with relevant development applications (DAs):
  - ACS Environmental (2017): Biodiversity Impact Assessment for Proposed Development of Lot 2 in DP 703067 at No. 65D Malton Road, Beecroft;
  - GIS Environmental Consultants (2018): Flora & Fauna Assessment Report for a Section 8.2 Review of DA Determination for a New Dwelling at 65D Malton Road, Beecroft;
  - ACS Environmental (2015): Biodiversity Impact Assessment for Proposed Development of Lot 2 (DP 883724) No. 77 Malton Road, Beecroft;
  - Smith (2016): Ecological Assessment of Proposed Residential Development at 77 Malton Road, Beecroft;
  - Smith (2015): Ecological Assessment of Proposed Subdivision at 79-87 Malton Road, Beecroft.

Additional documentation associated with relevant DAs was also reviewed and is considered within this assessment. A number of ecological assessments of DAs in areas immediately surrounding the study area were also consulted.

The information collected during the literature review guided the site inspection undertaken for this ecological assessment, and provided additional information on vegetation communities and the potential occurrence of threatened species.

2.2. Database Analysis

Database analysis was conducted for the locality of the study area using the BioNet Atlas (EES 2019) and the EPBC Protected Matters Search Tool (DoEE 2019). The locality is defined as the area within a 5 km buffer from the centre of the study area. The BioNet Atlas search facility was used to generate records of threatened flora and fauna species and populations listed under the NSW *Biodiversity Conservation Act 2016* (BC Act) and/or Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) within the locality of the study area. The abundance, distribution and age of records generated within the search areas provided supplementary information for the assessment of occurrence of those threatened species within the study area.

The Protected Matters Search Tool generated a list of potentially occurring EPBC Act listed entities within the locality of the study area.

2.3. Site Inspection

A site inspection was carried out on 28 November 2019 by three ecologists from Cumberland Ecology. The site inspection included vegetation mapping inspection and habitat assessment. Further details of these survey methods are detailed below.

2.3.1. Vegetation Mapping Inspection

Several vegetation mapping studies have been undertaken across the study area and surrounds, including broad scale mapping of the Sydney Metropolitan area by OEH (2016), and broad scale mapping of the Hornsby LGA by Smith and Smith (2008), which was subsequently updated by Eco Logical Australia (2017). Inspection of vegetation mapping of plant communities within the study area was undertaken by random meander searches. The vegetation communities occurring within the study area were considered to most closely-align with the OEH (2016) mapping. Where vegetation community boundaries were found to differ from this mapping, records to changes to boundaries were made using a hand-held Global Positioning System and/or mark-up of aerial photographs. The resultant information was synthesised using Geographical Information Systems (GIS) to create a spatial database that was used to produce a vegetation map of the study area.

2.3.2. Habitat Assessment

The nature and extent of fauna habitats in the study area were assessed. This included consideration of important indicators of habitat condition and complexity including the occurrence of microhabitats such as tree hollows, fallen logs, bush rock and wetland areas such as creeks and soaks. An assessment of the structural complexity of vegetation, the age structure of the vegetation and the nature and extent of human disturbance within the study area was also undertaken and considered. Tree hollows were used as a general indication of habitat quality for arboreal fauna and hollow-dwelling birds and bats. During the habitat assessment opportunistic sightings of diurnal fauna were also recorded.

2.4. Limitations

The site inspection survey was conducted during one site visit in November 2019. As the site inspection was limited to vegetation mapping inspection and assessing habitats within the study area, there are a number of limitations to the site inspection, as detailed below.

Inspection of vegetation mapping did not include detailed ground-truthing, which was outside the scope of this assessment. Therefore this assessment relied on review of previous vegetation mapping studies undertaken by OEH (2016), Smith and Smith (2008) and Eco Logical Australia (2017) in conjunction with observations made during the site inspection.

Growing conditions in the vicinity of the study area had been suitable to enable adequate production of features to enable identification to be made of most plants to species level at the time of the survey. However, it is unlikely that all species present have been recorded.

Limited fauna surveys were undertaken for this assessment, which mainly relied on database analysis of species recorded within a 5 km radius of the centre of the study area, and fauna habitat assessment. The data produced by the database analysis and fauna habitat assessment is intended to be indicative of the types of species that could occur within the study area.

Due to terrain constraints and presence of private properties, not all areas of the study area were subject to the site inspection. Observations where therefore made from adjoining land at some locations.

Vascular flora and vertebrate fauna of the locality are well known based upon a sizeable database of past records and various published reports. Therefore, it is considered that the data obtained from database assessment and surveys of the RE1 zoned land not currently owned by Council furnished an appropriate level of information to support this assessment.

3. Results

3.1. Introduction

The majority of the study area comprises intact native forest vegetation. Weed invasions typically occur adjacent to residential dwellings, informal access tracks and drainage lines. Sewerage infrastructure was observed at a number of locations on the southern side of Byles Creek, along with a small section of wall along the creek. A powerline easement runs along the northern boundary of the study area.

3.2. Vegetation Communities

Previous mapping of the study area by OEH (2016) identified a number of vegetation communities, including Coastal Enriched Sandstone Moist Forest, Coastal Enriched Sandstone Dry Rainforest, Coastal Warm Temperate Rainforest, Blue Gum High Forest and Urban Exotic/Native. The first four of these communities listed above are naturally occurring vegetation communities, while the Urban Exotic/Native community is a descriptive name for vegetation which consists predominately of urban plantings (with both exotic and native species) and cannot be assigned to any naturally occurring vegetation communities known to occur in the locality.

Broad-scale mapping schemes rely heavily on interpretation of aerial photography and accuracy varies. Within the GIS layer for the OEH (2016) mapping all polygons comprising native vegetation within the study area are noted as not having been ground-truthed. Most areas of native vegetation are noted has having a medium to high confidence of accuracy; however both areas of Coastal Enriched Sandstone Dry Rainforest are noted as having a low confidence with unexplained aerial photograph patterns.

Although detailed vegetation mapping was not undertaken, it was noted during the site inspection that the mapped areas of Coastal Warm Temperate Rainforest have greater affinities with Coastal Enriched Sandstone Moist Forest. As such, the amended vegetation mapping removes the polygons of Coastal Warm Temperate Rainforest mapped by OEH (2016). The amended vegetation mapping of the study area is provided in **Figure 2**, and the extent of these communities within the study area and RE1 zoned land not currently owned by Council is summarised in **Table 2**. Only one vegetation community conforms to a threatened ecological community, being Blue Gum High Forest, which is listed as a Critically Endangered Ecological Community (CEEC) under both the BC Act and EPBC Act. Details of the vegetation communities recorded within the study area are provided below, including identification of Plant Community Types (PCTs).

Table 2 Vegetation communities within the study area

Vegetation Community	Smith and Smith (2008) / Eco Logical Australia (2017) Equivalent Community	BC Act Status	EPBC Act Status	Study Area (ha)	RE1 zoned land not currently owned by Council (ha)
Coastal Enriched Sandstone Moist Forest	Blackbutt Gully Forest	-	-	20.45	6.31
Coastal Enriched Sandstone Dry Forest	Peppermint-Angophora Forest	-	-	0.20	-
Blue Gum High Forest	Blue Gum Shale Forest	CEEC	CEEC	0.79	-
Urban Exotic/Native	-	-	-	0.07	0.06
Total				21.52	6.37

3.2.1. Coastal Enriched Sandstone Moist Forest

BC Act Status: Not listed

EPBC Act Status: Not listed

PCT: 1841 - Smooth-barked Apple - Turpentine - Blackbutt tall open forest on enriched sandstone slopes and gullies of the Sydney region

OEH (2016) describes this vegetation community as follows:

> *Coastal Enriched Sandstone Moist Forest is a tall open eucalypt forest with a distinctive mesic shrub and small tree layer. The canopy may be dominated by various combinations of eucalypts although smooth-barked apple (Angophora costata) is invariably present. On the north shore and inner harbours turpentine (Syncarpia glomulifera), blackbutt (Eucalyptus pilularis) and Sydney blue gum (Eucalyptus saligna) are dominant trees while on the Warringah and Pittwater escarpments bangalay (Eucalyptus botryoides) and mahoganies (Eucalyptus umbra/scias) are more prevalent. Elsewhere, Sydney peppermint (Eucalyptus piperita) may dominate. A tall stand of forest oak (Allocasuarina torulosa) is often present below the eucalypt canopy. Tall small trees tend to be rainforest plants such as coachwood (Ceratopetalum apetalum), blueberry ash (Elaeocarpus reticulatus) and occasionally cabbage tree palms (Livistona australis). The forest floor is covered by a sparse to dense cover of ferns and twiners.*

This community occurs extensively within the study area and RE1 zoned land not currently owned by Council . The dominant canopy species include *Eucalyptus pilularis* (Blackbutt), *Syncarpia glomulifera* (Turpentine) and *Angophora costata* (Smooth-barked Apple). A small tree layer is common throughout and includes *Ceratopetalum gummiferum* (Christmas Bush), *Pittosporum undulatum* (Sweet Pittosporum), *Elaeocarpus reticulatus* (Blueberry Ash) and *Callicoma serratifolia* (Black Wattle). Shrubs include *Breynia oblongifolia* (Coffee Bush), *Zieria pilosa* (Pilose-leafed Zieria), *Persoonia pinifolia* (Pine-leaved Geebung), *Notelaea longifolia* (Large Mock-olive), *Epacris pulchella* (Wallum Heath), *Acmena smithii* (Lilly Pilly) and *Polyscias sambucifolia* (Elderberry Panax). The ground layer included dense areas of *Pteridium esculentum* (Bracken) and *Calochlaena dubia* (Rainbow Fern), with other ground layer species sparsely distributed throughout, including *Lomandra longifolia* (Spiny-headed Mat-rush), *Lomandra obliqua*, *Oplismenus aemulus*, *Entolasia stricta* (Wiry Panic) and *Viola hederacea* (Ivy-leaved Violet). A suite of vines were recorded including *Clematis aristata* (Old Man's Beard), *Cissus hypoglauca* (Giant Water Vine), *Smilax glyciphylla* (Sweet Sarsparilla) and *Pandorea pandorana* (Wonga Vine). A number of weed species were observed within this community, typically at the interface to residential dwellings or along the creek line.

An example of this community within the study area is shown in **Photograph 1**.

This community is associated with Blackbutt Gully Forest (Community L) as described by Smith and Smith (2008) and Blackbutt Gully Forest (Community L1/L1r) as identified by Eco Logical Australia (2017). This community has been identified as a locally significant community within the Hornsby LGA. Smith and Smith (2008) indicate that this is common community in Hornsby LGA, however, it is uncommon and poorly conserved outside the LGA.

Photograph 1 Coastal Enriched Sandstone Moist Forest

3.2.2. Coastal Enriched Sandstone Dry Forest

BC Act Status: Not listed

EPBC Act Status: Not listed

PCT: 1776 - Smooth-barked Apple - Red Bloodwood open forest on enriched sandstone slopes around Sydney and the Central Coast

OEH (2016) describes this vegetation community as follows:

> *Coastal Enriched Sandstone Dry Forest is commonly encountered on the upper slopes and dry gullies of Sydney urban areas. It is a tall open eucalypt forest with an understorey of dry sclerophyll shrubs with ferns and forbs amongst the ground cover. The commonly recorded eucalypts are smooth-barked apple (Angophora costata), red bloodwood (Corymbia gummifera) and Sydney peppermint (Eucalyptus piperita). Blackbutt (Eucalyptus pilularis) is common on gully slopes of the north shore and Hacking River valley while broad-leaved white mahogany (Eucalyptus umbra) replaces this species along the Warringah and Pittwater escarpments. A sparse layer of small trees such as Allocasuarina littoralis and old-man banksia (Banksia serrata) is common above a variety of wattles, tea-trees, gee bungs and grass trees. In long unburnt areas sweet pittosporum (Pittosporum undulatum) may be prevalent. It is widespread on the Hornsby plateau in areas that receive greater than 1000 millimetres of mean annual rainfall and are at elevations less than 200 metres above sea level. It extends north of the Sydney area into the hinterland of the Central Coast.*

This community occurs at the eastern extent of the study area, with none occurring within the RE1 zoned land not currently owned by Council. The dominant canopy species include *Angophora costata* (Smooth-barked Apple), *Eucalyptus piperita* (Sydney Peppermint) and *Eucalyptus pilularis* (Blackbutt). The small tree layer includes *Allocasuarina torulosa* (Forest Oak) and *Ceratopetalum gummiferum* (Christmas Bush). Shrubs are common and include *Leptospermum trinervium* (Slender Tea-tree), *Persoonia pinifolia* (Pine-leaved Geebung), *Banksia serrata* (Old-man Banksia), *Persoonia levis* (Broad-leaved Geebung), *Epacris pulchella* (Wallum Heath), *Grevillea sericea* (Pink Spider Flower) and *Leucopogon juniperinus* (Prickly Beard-heath). Ground layers species recorded within this community include *Oplismenus aemulus*, *Lomandra longifolia* (Spiny-headed Mat-rush), *Opercularia aspera* (Coarse Stinkweed) and *Lepidosperma laterale* (Variable Sword-sedge). Vines occurring in this community include *Smilax glyciphylla* (Sweet Sarsparilla) and *Cassytha pubescens* (Downy Dodder-laurel).

An example of this community located immediately east of the study area is shown in **Photograph 2**.

This community is associated with Peppermint-Angophora Forest (Community A) as described by Smith and Smith (2008) and Peppermint-Angophora Forest (Community A/Ar) as identified by Eco Logical Australia (2017). Smith and Smith (2008) indicate that this is the most common community in Hornsby LGA and is well represented in local conservation reserves.

Photograph 2 Coastal Enriched Sandstone Dry Forest

3.2.3. Blue Gum High Forest

BC Act Status: CEEC

EPBC Act Status: CEEC

PCT: 1237 - Sydney Blue Gum - Blackbutt - Smooth-barked Apple moist shrubby open forest on shale ridges of the Hornsby Plateau, Sydney Basin Bioregion

OEH (2016) describes this vegetation community as follows:

> *Blue Gum High Forest is a tall wet sclerophyll forest found on fertile shale soils in the high rainfall districts of Sydney's north shore. It is dominated by Sydney blue gum (Eucalyptus saligna), blackbutt (Eucalyptus pilularis) and turpentine (Syncarpia glomulifera) with a number of other eucalypts occurring patchily. A sparse to open cover of small trees is found at most sites and includes a variety of sclerophyllous and mesophyllous species. The ground layer is variable in both composition and cover. It may be ferny, grassy or herbaceous depending on topographic situation and disturbance history. At some sites vines and climbers are prolific.*

This community occurs at the western extent of the study area, with none occurring within the RE1 zoned land not currently owned by Council. No surveys were undertaken within this vegetation community within the study area. Both areas of this community within the study area are noted by OEH (2016) as having a high confidence of accuracy.

This community is associated with Blue Gum Shale Forest (Community BG1) as described by Smith and Smith (2008) and Blue Gum Shale Forest (Community BG1/BG1r) as identified by Eco Logical Australia (2017). Smith and Smith (2008) indicate that the remnants of this community are fragmented, surrounded by urban development and badly degraded by weed invasion with very little of the community represented in conservation reserves.

3.2.4. Urban Exotic Native

BC Act Status: Not listed

EPBC Act Status: Not listed

PCT: N/A

OEH (2016) does not provide a description for this vegetation community. This community is typically comprised of a suite of planted native and exotic species which are not consistent with any naturally occurring native vegetation community. The community generally occurs as garden plantings of trees and shrubs, often above a cleared or lawn understorey. A small area of this community occurs in the south west of the study area, with none occurring within the RE1 zoned land not currently owned by Council . No surveys were undertaken within this vegetation community within the study area.

3.2.5. Threatened Ecological Communities

One vegetation community within the study area, Blue Gum High Forest, is listed as a CEEC under both the BC Act and EPBC Act. Blue Gum High Forest occupies approximately 0.79 ha of the study area, all of which occurs on land currently owned by Council. The extent of Blue Gum High Forest is shown in **Figure 2**.

Blue Gum High Forest is dominated by a tall canopy of eucalypts that may exceed 30 m in height. Its understorey is typically multi-layered with a midstorey of mesophyllous shrubs and small trees and a diverse ground layer of herbs, ferns and some grasses (NSW Scientific Committee 2016). Blue Gum High Forest has a very highly restricted geographic distribution and its current extent amounts to less than 5% of the original distribution (NSW Scientific Committee 2016). The current distribution of Blue Gum High Forest comprises a series of small remnant patches, the largest of which is less than 20 ha (NSW Scientific Committee 2016).

3.3. Flora

3.3.1. General Species

Flora species recorded within the study area were predominantly native. Native flora species recorded within the study area are highly indicative of the native vegetation communities mapped within the study area. A list of flora species recorded within the study area is provided in **Appendix A**. This is not an exhaustive list of native species, and therefore a suite of other flora species are expected to occur within the study area.

3.3.2. Threatened Species

A number of threatened flora species have been recorded within the locality of the study area, as detailed within **Table 3**. The location of these species are shown in **Figure 3**. The BioNet Atlas (EES 2019) does not hold any records of threatened flora species within the study area.

Smith (2016) identified the presence of *Leptospermum deanei* x *Leptospermum trinervium* hybrid plants at 77 Malton Road, Beecroft. *Leptospermum deanei* is listed as Vulnerable under both the BC Act and EPBC Act. Smith (2016) concluded that the hybrids did not conform to the listed species, however they contain genetic material from the threatened species and may be important reservoirs of that material. The individuals of the *Leptospermum deanei* x *Leptospermum trinervium* hybrid plants are located within Council-owned land, that was dedicated to Council as part of a DA.

Table 3 Threatened flora recorded within the locality of the study area

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Locality Count	Recorded in Study Area?
Acacia clunies-rossiae	Kanangra Wattle	V	-	1	No
Acacia pubescens	Downy Wattle	V	V	3	No
Callistemon linearifolius	Netted Bottle Brush	V	-	1	No
Darwinia biflora		V	V	141	No
Darwinia peduncularis		V	-	1	No

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Locality Count	Recorded in Study Area?
Dillwynia tenuifolia		V	-	1	No
Dillwynia tenuifolia	*Dillwynia tenuifolia* Sieber ex D.C. in the Baulkham Hills local government area	EP	-	1	No
Epacris purpurascens var. *purpurascens*		V	-	51	No
Eucalyptus nicholii	Narrow-leaved Black Peppermint	V	V	3	No
Eucalyptus scoparia	Wallangarra White Gum	E	V	1	No
Galium australe	Tangled Bedstraw	E	-	4	No
Grammitis stenophylla	Narrow-leaf Finger Fern	E	-	2	No
Hibbertia spanantha	Julian's Hibbertia	CE	CE	1	No
Hibbertia superans		E	-	2	No
Lasiopetalum joyceae		V	V	2	No
Leptospermum deanei		V	V	9	No*
Melaleuca deanei	Deane's Paperbark	V	V	14	No
Pimelea curviflora var. *curviflora*		V	V	5	No
Rhodamnia rubescens	Scrub Turpentine	CE	-	6	No
Syzygium paniculatum	Magenta Lilly Pilly	E	V	9	No
Tetratheca glandulosa		V	-	73	No

BC Act Status / EPBC Act Status: V = Vulnerable; E = Endangered, CE = Critically Endangered, EP = Endangered Population

** Leptospermum deanei x Leptospermum trinervium hybrid plants recorded by Smith (2016)*

3.3.3. Exotic Species

A small number of exotic species were recorded within the study area during the site inspection. These species typically occurred at the periphery of the study area, adjacent to residential dwellings, along informal access tracks and along the drainage lines.

Of the exotic species recorded during the site inspection, two are listed as State Priority Weeds under the NSW *Biosecurity Act 2015* (Biosecurity Act) and Weed of National Significance (WoNS), as detailed within **Table 4**. State Priority Weeds are required to be managed as detailed in the Greater Sydney Regional Strategic Weed Management Plan to comply with the General Biosecurity Duty that all land owners/managers and persons who deal with weeds are required to fulfil under the Biosecurity Act. The Greater Sydney Regional Strategic Weed Management Plan 2017 – 2022 (LLS: Greater Sydney 2019) also lists other Weeds of Regional Concern. Six Weeds of Regional Concern were recorded during the site inspection, and are also detailed within **Table 4**.

The Biosecurity Act provides powers to Local Control Authorities to take action in relation to these weeds in particular circumstances, for example where a weed threatens a high value asset and prevention, elimination or reduction of the risk is feasible and reasonable (LLS: Greater Sydney 2019).

Table 4 Priority Weeds, Weeds of Regional Concern and WoNS

Scientific Name	Common Name	Biosecurity Act Status	WoNS?
Ageratina riparia	Mistflower	Other Weeds of Regional Concern	-
Asparagus aethiopicus	Asparagus Fern	State Priority Weed (Asset Protection)	Yes
Eragrostis curvula	African Lovegrass	Other Weeds of Regional Concern	-
Hedychium gardneranum	Ginger Lily	Other Weeds of Regional Concern	-
Lantana camara	Lantana	State Priority Weed (Asset Protection)	Yes
Ligustrum lucidum	Large-leaved Privet	Other Weeds of Regional Concern	-
Ligustrum sinense	Small-leaved Privet	Other Weeds of Regional Concern	-
Ochna serrulata	Mickey Mouse Plant	Other Weeds of Regional Concern	-

3.4. Fauna

3.4.1. Fauna Habitat

The study area contains extensive areas of intact forest vegetation. The habitat features are numerous and provide potential foraging, shelter and breeding opportunities for a suite of fauna species. Key habitat features within the study area include:

- Riparian environments suitable for fauna species dependent on these habitats such as amphibians and reptiles;
- Terrestrial habitat features such as ground and shrub layer vegetation, leaf litter, coarse woody debris and rocky outcrops suitable as shelter for small terrestrial fauna species;
- Hollow-bearing trees and stags suitable as shelter and breeding habitat for a range of hollow-dependent fauna; and
- Blossom-producing trees and shrubs suitable as forage for a range of nectarivores.

3.4.1.1. Riparian Environments

The surface drainage system of Byles Creek and its tributaries is located within the study area. These form first, second and third order streams. These drainage lines do not have permanent flowing water, however a number of temporary pools were observed within the study area (see **Photograph 3**). The drainage lines within the study area provide suitable foraging and breeding habitat for a number of fauna species, including amphibians, birds, mammals and reptiles. Temporary pools of water would provide a valuable drinking water source in hot and dry periods.

Photograph 3 Riparian environment within the study area

3.4.1.2. Terrestrial Habitat Features

Features such as rocky outcrops of sandstone (see **Photograph 4**), fallen logs (see **Photograph 5**), debris and leaf litter provide shelter for many of the small to medium sized terrestrial fauna species known from the locality of the study area. The structural integrity of forest habitats including the presence of rocky outcrops and coarse woody debris is a key factor in determining habitat suitability for a range of forest-dependent fauna. In addition to providing habitat for terrestrial fauna, fallen logs and shrub vegetation provide foraging perches and calling locations for small woodland birds. Rocky sandstone outcrops within the study area provide shelter and breeding habitat for many reptiles and ground-dwelling mammals.

Photograph 4 Rocky outcropping within the study area

Photograph 5 Fallen logs within the study area

3.4.1.3. Hollow-bearing Trees and Stags

Tree hollows are an essential resource for a number of fauna species that rely on them for refuge and nesting (Newton 1994, Gibbons and Lindenmayer 2002, Heinsohn et al. 2003, Cockle et al. 2010) and they have been shown to be a key limiting resource for hollow-dependent fauna (Brawn and Balda 1988, Lindenmayer et al. 1990, Newton 1994, Gibbons and Lindenmayer 2002, Gibbons et al. 2002, Heinsohn et al. 2003, Cameron 2006). The mature living trees and stags within the study area provide a number of small to large-sized hollows for fauna species dependant on this resource. Many large-sized hollows were observed within living *Angophora costata* (Smooth-barked Apple) trees. The tree hollows and stags within the study area provide shelter, roosting and nesting habitat for a number of arboreal fauna species, including microchiropteran bats (microbats), gliders, diurnal birds, owls and some reptiles. An example of a hollow-bearing tree within the study area is shown in **Photograph 6**.

Photograph 6 Hollow-bearing tree within the study area

3.4.1.4. Blossom-producing Trees and Shrubs

The vegetation across the study area would provide suitable foraging habitat for a range of nectivorous birds and arboreal mammals during blossom periods. It is expected that a number of nectar-dependent species would be attracted to the study area and wider locality during the blossoming period of dominant trees and shrubs. In addition to providing direct resources to birds and arboreal mammals, the blossom-producing trees

and shrubs would also attract insects. Microbats known from the locality are insectivorous and would feed on moths, beetles and other insects.

3.4.2. General Species

Numerous vertebrate fauna species are known to occur within the locality. A list of fauna species opportunistically recorded within the study area is provided in **Appendix B**. Whilst the study area is located adjacent to residential dwellings which can give rise to urban-aggressive native species, it is likely that a wider range of fauna species would utilise the habitat due to the connectivity to Lane Cove National Park.

3.4.3. Threatened Species

A number of threatened fauna species have been recorded within the locality of the study area, as detailed within **Table 5**. The location of these species are shown in **Figure 4**. The BioNet Atlas (EES 2019) holds records for the Red-crowned Toadlet (*Pseudophryne australis*), Gang-gang Cockatoo (*Callocephalon fimbriatum*), Powerful Owl (*Ninnox strenua*) and Grey-headed Flying-fox (*Pteropus poliocephalus*) within the study area. A number of other threatened fauna species have been recorded in the habitats immediately adjacent to the study area, including Square-tailed Kite (*Lophoictinia isura*) and Large Bent-winged Bat (*Miniopterus orianae oceanensis*). A number of these species have been recorded as part of flora and fauna assessments supporting DAs in the vicinity of the study area. The habitat within the study area is suitable for a number of threatened fauna species known from the locality.

Table 5 Threatened flora recorded within the locality of the study area

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Locality Count	Recorded in Study Area?
Amphibians					
Heleioporus australiacus	Giant Burrowing Frog	V	V	2	
Litoria aurea	Green and Golden Bell Frog	E	V	6	
Pseudophryne australis	Red-crowned Toadlet	V	-	17	Yes
Birds					
Apus pacificus	Fork-tailed Swift	-	M	5	
Artamus cyanopterus	Dusky Woodswallow	V	-	8	
Callocephalon fimbriatum	Gang-gang Cockatoo	V	-	61	Yes
	Gang-gang Cockatoo population in the Hornsby and Ku-ring-gai Local Government Areas	EP	-	57	Yes
Calyptorhynchus lathami	Glossy Black-Cockatoo	V	-	3	
Daphoenositta chrysoptera	Varied Sittella	V	-	3	
Glossopsitta pusilla	Little Lorikeet	V	-	11	

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Locality Count	Recorded in Study Area?
Haliaeetus leucogaster	White-bellied Sea-Eagle	V	M	2	
Hieraaetus morphnoides	Little Eagle	V	-	6	
Hirundapus caudacutus	White-throated Needletail	-	M	31	
Lathamus discolor	Swift Parrot	E	CE	5	
Lophoictinia isura	Square-tailed Kite	V	-	3	
Ninox connivens	Barking Owl	V	-	5	
Ninox strenua	Powerful Owl	V	-	257	Yes
Petroica boodang	Scarlet Robin	V	-	4	
Petroica phoenicea	Flame Robin	V	-	1	
Ptilinopus superbus	Superb Fruit-Dove	V	-	3	
Gastropods					
Pommerhelix duralensis	Dural Land Snail	E	E	9	
Mammals					
Chalinolobus dwyeri	Large-eared Pied Bat	V	V	2	
Dasyurus maculatus	Spotted-tailed Quoll	V	E	2	
Falsistrellus tasmaniensis	Eastern False Pipistrelle	V	-	4	
Micronomus norfolkensis	Eastern Coastal Free-tailed Bat	V	-	13	
Miniopterus australis	Little Bent-winged Bat	V	-	10	
Miniopterus orianae oceanensis	Large Bent-winged Bat	V	-	80	
Myotis macropus	Southern Myotis	V	-	3	
Petauroides volans	Greater Glider	-	V	1	
Petaurus norfolcensis	Squirrel Glider	V	-	1	
Phascolarctos cinereus	Koala	V	V	8	
Pteropus poliocephalus	Grey-headed Flying-fox	V	V	151	Yes
Saccolaimus flaviventris	Yellow-bellied Sheathtail-bat	V	-	10	
Scoteanax rueppellii	Greater Broad-nosed Bat	V	-	8	

BC Act Status / EPBC Act Status: V = Vulnerable; E = Endangered, CE = Critically Endangered, EP = Endangered Population, M = Migratory

3.4.4. Exotic Species

Flora and fauna assessments undertaken by ACS Environmental (2015, 2017) and GIS Environmental Consultants (2018) within properties in the immediate vicinity of the study area have identified a number of exotic fauna species being present, including:

- Black Rat (*Rattus rattus*);
- European Red Fox (*Vulpes vulpes*); and
- Feral Cat (*Felis catus*).

4. Discussion

4.1. Current Corridor Extent

Wildlife corridors are generally areas of habitat that connect reserves or blocks of disjunct habitat. Wildlife corridors allow wildlife to disperse and provide for gene flow between populations or subpopulations (Primack 1993). Wildlife corridors are of varying relevance to fauna, and are of greatest relevance to ground dwelling species that are less mobile than aerial species. Highly mobile birds and microbats can fly between patches of habitat, over human developments and clearings.

The forest vegetation within the study area is directly connected to Lane Cove National Park, which covers an extensive area of land to the east of the study area. Whilst not directly connected to a reserve system to the west, the study area links to scattered habitat within Pennant Hills that provides stepping-stone habitat between Cumberland State Forest to the west and Berowra Valley National Park to the north west. On a local-scale, the study area provides a movement corridor along a drainage line, Byles Creek. The contiguous vegetation along the study area also facilitates seed dispersal and pollination. Acquisition of the RE1 zoned land not currently owned by Council, would provide additional protection of a local bushland reserve that has connectivity to the regionally significant conservation land within Lane Cove National Park.

The entirety of the study area is zoned as RE1 Public Recreation. The objectives of this zone are to enable land to be used for public open space or recreational purposes, to provide a range of recreational settings and activities and compatible land uses, to protect and enhance the natural environment for recreational purposes, and to protect and maintain areas of bushland that have ecological value. The current extent of this RE1 zoning is considered appropriate due to the biodiversity values present and current integrity and functionality of the corridor.

Fifteen of the lots are identified within the study area are identified on the 'Land Reservation Acquisition Map' of the HLEP 2013 as "Local Open Space'. These lots are therefore subject to the provisions of Clause 5.1 and 5.1A of HLEP 2013.

The majority of the corridor, including RE1 zoned land yet to be acquired by Council, is also identified as 'Biodiversity' on the Terrestrial Biodiversity Map of the HLEP 2013, which provides an additional level of consideration for proposed development within these areas. These areas are subject to Clause 6.4 of the HLEP 2013 the objectives of which are maintain terrestrial biodiversity be protecting native fauna and flora, protecting the ecological processes necessary for their continues existence, and encouraging the conservation and recovery of native fauna and flora and their habitats.

It is considered that the extent of the corridor which is zoned RE1 is sufficient in terms of satisfying the objectives of the HLEP 2013 provisions relating to terrestrial biodiversity.

The corridor is currently being informally used recreationally, as evidenced by the presence of an informal access track, and biodiversity values continue to persist throughout. Continuation of such activity could be assisted by the implementation of management actions.

4.2. Merit for Corridor Expansion

The currently zoned RE1 land within the study area is representative of the intact vegetation remaining along the creek line. To the south east of the study area there are two additional lots (Lot 91 DP 235018 and Lot 48 DP 29471) which form part of Lane Cove National Park and are separated by a road reserve. These lots and the road reserve are currently zoned RE1 and are therefore afforded some level of protection through the HLEP 2013 and Hornsby Development Control Plan 2013. To the north east of the study area, there is also an area of vegetated land that provides connectivity between the study area and Lane Cove National Park. This vegetated land is referred to as Pennant Hills Park and comprises Crown Land under Council Care/Control or Trustee and is also currently zoned RE1.

Expansion of the corridor beyond the currently proposed extent is limited by the existing land uses surrounding the corridor. The majority of lots surrounding the study area include residential dwellings and therefore there is limited opportunity to extend the corridor into these lots. Furthermore, given that the land associated with these dwellings has been highly modified, the biodiversity value of the land is somewhat diminished. The current extent of the corridor is therefore considered to appropriately capture the areas of highest biodiversity value and function of the corridor.

4.3. Conservation Significance of Biodiversity Values

The key biodiversity values within the study area include the following:

- Presence of a small area of Blue Gum High Forest. This vegetation community is listed as a CEEC under both the BC Act and EPBC Act.
- Presence of threatened fauna species and associated habitat. Four threatened fauna species have been recorded within the study area, including the Red-crowned Toadlet, Gang-gang Cockatoo, Powerful Owl and Grey-headed Flying-fox. The habitats within the study area also provide suitable habitat for a range of species known to occur within the locality of the study area, including the Square-tailed Kite and Large Bentwing-bat.
- Connectivity to the national park reserve system. The study area connects directly to Lane Cove National Park to the east and via other intact native vegetation to the north. In addition to these connections, the vegetation and associated habitat connects to stepping-stone habitat which in turn provides movement corridors to Cumberland State Forest in the west and Berowra Valley National Park to the north west.

In addition to these key biodiversity values, the study area also contains the following values:

- Intact native vegetation, the majority of which has been identified as being locally significant within the Hornsby LGA.
- Presence of a range of fauna habitat features, including riparian environments, rocky outcropping, fallen logs, hollow-bearing trees and blossom-producing trees and shrubs.
- Presence of land within riparian corridor widths recommended in the *Guidelines for riparian corridors on waterfront land* (DPI 2012), which specifies 10 m, 20 m and 30 m vegetated riparian zones either side of

first, second and third order streams, respectively. The creek line appears to generally be in good condition with undegraded banks and only limited pollution. Temporary pools of water appear to persist along the corridor.

4.4. Opportunities for Restoration

Whilst the study area predominantly comprises native forest vegetation, there are a number of opportunities for ecological restoration to be undertaken. This could include:

- Weed management. Weed species were typically occur adjacent to residential dwellings, informal access tracks and drainage lines. Ongoing weed management would be required to control problematic weeds, as weed incursions in these areas are likely to persist. Weed management should target species listed as Priority Weeds under the Biosecurity Act and WoNS, followed by weeds of regional concern under the *Greater Sydney Regional Strategic Weed Management Plan 2017 – 2022* (LLS: Greater Sydney 2019) and other environmental weeds and garden escapes.
- Feral animal management. Studies undertaken on land immediately adjacent to the study area have identified a number exotic fauna species, which would utilise the habitats within the study area. Control methods could be applied to one these species, the European Red Fox (*Vulpes vulpes*). Control of this species is typically undertaken via the use of 1080 poisons. To increase the effectiveness of control measures it is recommended that control is undertaken in consultation with the Greater Sydney Local Land Services to facilitate a coordinated approach across the landscape.
- Rubbish removal. Due to proximity to residential dwellings, and the presence of an informal access track, there is some low level rubbish incursion within the study area. Installation of stormwater pollutant traps will also contribute to the management of rubbish within the study area.
- Signage. Community awareness of biodiversity values can be increased through the installation of signage at access points within the study area. This can include signage relating to the presence of a restoration area, signage relating to the habitat of particular threatened species (e.g. the Powerful Owl), or signage to outline fines relating to illegal rubbish dumping.
- Installation of nest boxes. Although a number of hollow-bearing trees occur throughout the study area, installation of nest boxes would create additional nesting habitat for a range of native fauna. It is recommended that nest boxes of varying sizes are used to target difference species (e.g. bats and possums).
- Fire management. A long term strategy for management of native vegetation within the study area could include the use of fire management. Given the location of the corridor within an urban environment, there may be a need to undertake hazard reduction burning, which could be undertaken in a manner to also provide an ecological benefit. The *Best Practice Guidelines for Blue Gum High Forest* (DECC (NSW) 2008) include fire management, to manage weeds and promote native flora species regeneration.
- Compliance checks and remedial actions: Compliance checks to be undertaken to determine the requirement for restoration of areas affected by encroachment and illegal clearing.

Should a hiking track be formalised within the study area, there would be an increase need for the implementation of the above management measures due to ongoing pressure from such a land use.

5. Conclusion

This ecological assessment considered the biodiversity values within a tract of land within Pennant Hills and Beecroft that is zoned as RE1 Public Recreation under the Hornby LEP. Council owns approximately 70% of the land within the study area. The purpose of this study is to inform an updated acquisition strategy for the remaining RE1 land within the study area to facilitate the conservation of the Byles Creek corridor, and to determine whether the extent of the current corridor is appropriate, having regard to the ecological values of the study area.

Specifically this assessment considered the following:

1. Whether the extent of the current corridor as reflected by the existing RE1 zoning is appropriate;
2. Whether there is merit in expanding the corridor beyond current RE1 zoned land;
3. Whether the ecological values and characteristics of the corridor have conservation significance; and
4. Whether there are opportunities for restoration of the corridor and the scope of work that might be entailed to increase the ecological value of land along the corridor, if warranted.

The loss of vegetation, habitat and connectivity within the corridor would reduce the integrity and functionality of the corridor. Given the presence of a number of biodiversity values and that Council currently owns 70% of the study area, it is recommended to maintain the extent of the corridor within the study area. Some level protection is currently afforded to the biodiversity corridors through the HLEP 2013 and Hornsby Development Control Plan 2013. The current extent of the corridor is therefore considered to appropriately capture the areas of highest biodiversity value and function of the corridor.

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ATTACHMENT 2 - ITEM 5

APPENDIX A :
Flora Species List

*	Scientific Name	Common Name
	Acacia linifolia	White Wattle
	Acmena smithii	Lilly Pilly
*	*Ageratina riparia*	Mistflower
	Allocasuarina littoralis	Black She-Oak
	Allocasuarina torulosa	Forest Oak
	Allocasuarina torulosa	Forest Oak
	Angophora costata	Sydney Red Gum
*	*Asparagus aethiopicus*	Asparagus Fern
	Banksia serrata	Old-man Banksia
	Banksia serrata	Old-man Banksia
	Banksia spinulosa	Hairpin Banksia
	Billardiera scandens	Hairy Apple Berry
	Blechnum indicum	Swamp Water Fern
	Brachychiton acerifolius	Illawarra Flame Tree
	Breynia oblongifolia	Coffee Bush
	Callicoma serratifolia	Black Wattle
	Calochlaena dubia	Rainbow Fern
	Cassytha pubescens	Downy Dodder-laurel
	Ceratopetalum gummiferum	Christmas Bush
	Cissus antarctica	Water Vine
	Cissus hypoglauca	Giant Water Vine
	Clematis aristata	Old Man's Beard
	Dianella caerulea var. *producta*	
	Elaeocarpus reticulatus	Blueberry Ash
	Entolasia marginata	Bordered Panic
	Entolasia stricta	Wiry Panic
	Epacris pulchella	Wallum Heath
*	*Eragrostis curvula*	African Lovegrass
	Eucalyptus pilularis	Blackbutt
	Eucalyptus piperita	Sydney Peppermint
	Gahnia spp.	
	Glochidion ferdinandi	Cheese Tree
	Grevillea sericea	Pink Spider Flower
	Hardenbergia violacea	False Sarsaparilla
*	*Hedychium gardneranum*	Ginger Lily

*	Scientific Name	Common Name
	Homalanthus populifolius	
	Kennedia rubicunda	Dusky Coral Pea
	Kunzea ambigua	Tick Bush
*	*Lantana camara*	Lantana
	Lepidosperma laterale	Variable Sword-sedge
	Leptospermum trinervium	Slender Tea-tree
	Leucopogon juniperinus	Prickly Beard-heath
*	*Ligustrum lucidum*	Large-leaved Privet
*	*Ligustrum sinense*	Small-leaved Privet
	Lindsaea microphylla	Lacy Wedge Fern
	Lomandra longifolia	Spiny-headed Mat-rush
	Lomandra multiflora subsp. *multiflora*	Many-flowered Mat-rush
	Lomandra obliqua	
	Lomatia silaifolia	Crinkle Bush
	Notelaea longifolia	Large Mock-olive
*	*Ochna serrulata*	Mickey Mouse Plant
	Opercularia aspera	Coarse Stinkweed
	Oplismenus aemulus	
	Pandorea pandorana	Wonga Vine
	Parsonsia straminea	Common Silkpod
	Persoonia levis	Broad-leaved Geebung
	Persoonia pinifolia	Pine-leaved Geebung
	Pittosporum undulatum	Sweet Pittosporum
	Polyscias sambucifolia	Elderberry Panax
	Pteridium esculentum	Bracken
	Smilax glyciphylla	Sweet Sarsparilla
	Sticherus flabellatus	Umbrella Fern
	Stylidium spp.	
	Syncarpia glomulifera	Turpentine
	Viola hederacea	Ivy-leaved Violet
	Xanthorrhoea arborea	
	Xanthosia pilosa	Woolly Xanthosia
	Zieria pilosa	Pilose-leafed Zieria

** Denotes exotic species*

ATTACHMENT 2 - ITEM 5

APPENDIX B :
Fauna Species List

Scientific Name	Common Name
Amphibians	
Crinia signifera	Common Eastern Froglet
Birds	
Acanthiza pusilla	Brown Thornbill
Alectura lathami	Australian Brush-turkey
Anthochaera carunculata	Red Wattlebird
Cacatua galerita	Sulphur-crested Cockatoo
Corvus coronoides	Australian Raven
Cracticus torquatus	Grey Butcherbird
Dacelo novaeguineae	Laughing Kookaburra
Eopsaltria australis	Eastern Yellow Robin
Gerygone olivacea	White-throated Gerygone
Manorina melanocephala	Noisy Miner
Pachycephala rufiventris	Rufous Whistler
Pardalotus punctatus	Spotted Pardalote
Platycercus elegans	Crimson Rosella
Psophodes olivaceus	Eastern Whipbird
Sericornis frontalis	White-browed Scrubwren
Strepera graculina	Pied Currawong
Trichoglossus haematodus	Rainbow Lorikeet
Zosterops lateralis	Silvereye
Reptiles	
Eulamprus quoyii	Eastern Water-skink
Intellagama lesueurii	Eastern Water Dragon
Lampropholis delicata	Dark-flecked Garden Sunskink

ATTACHMENT 2 - ITEM 5

FIGURES

ATTACHMENT 2 - ITEM 5

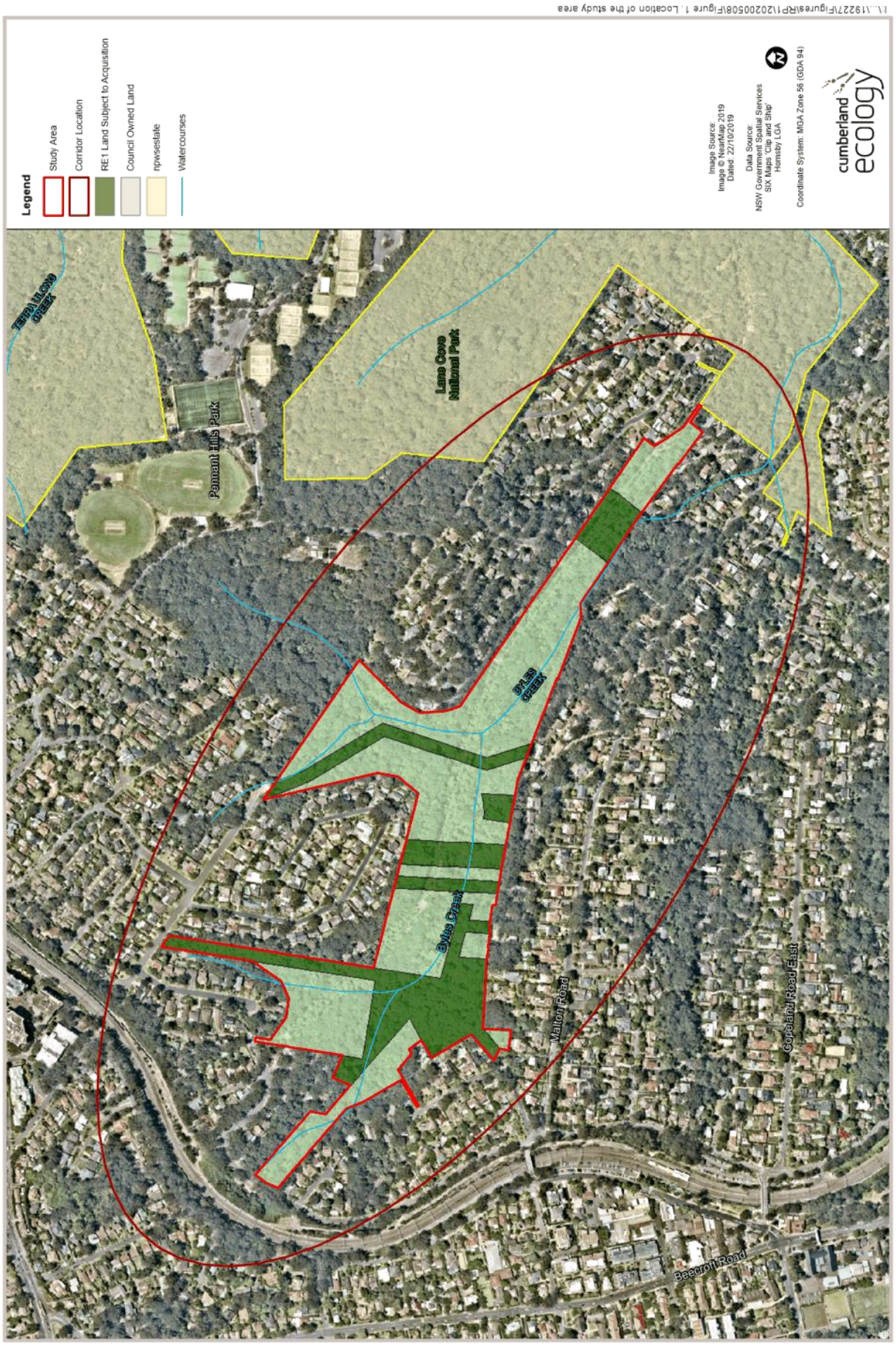


Figure 1. Location of the study area

ATTACHMENT 2 - ITEM 5

Figure 2. Vegetation mapping of the study area

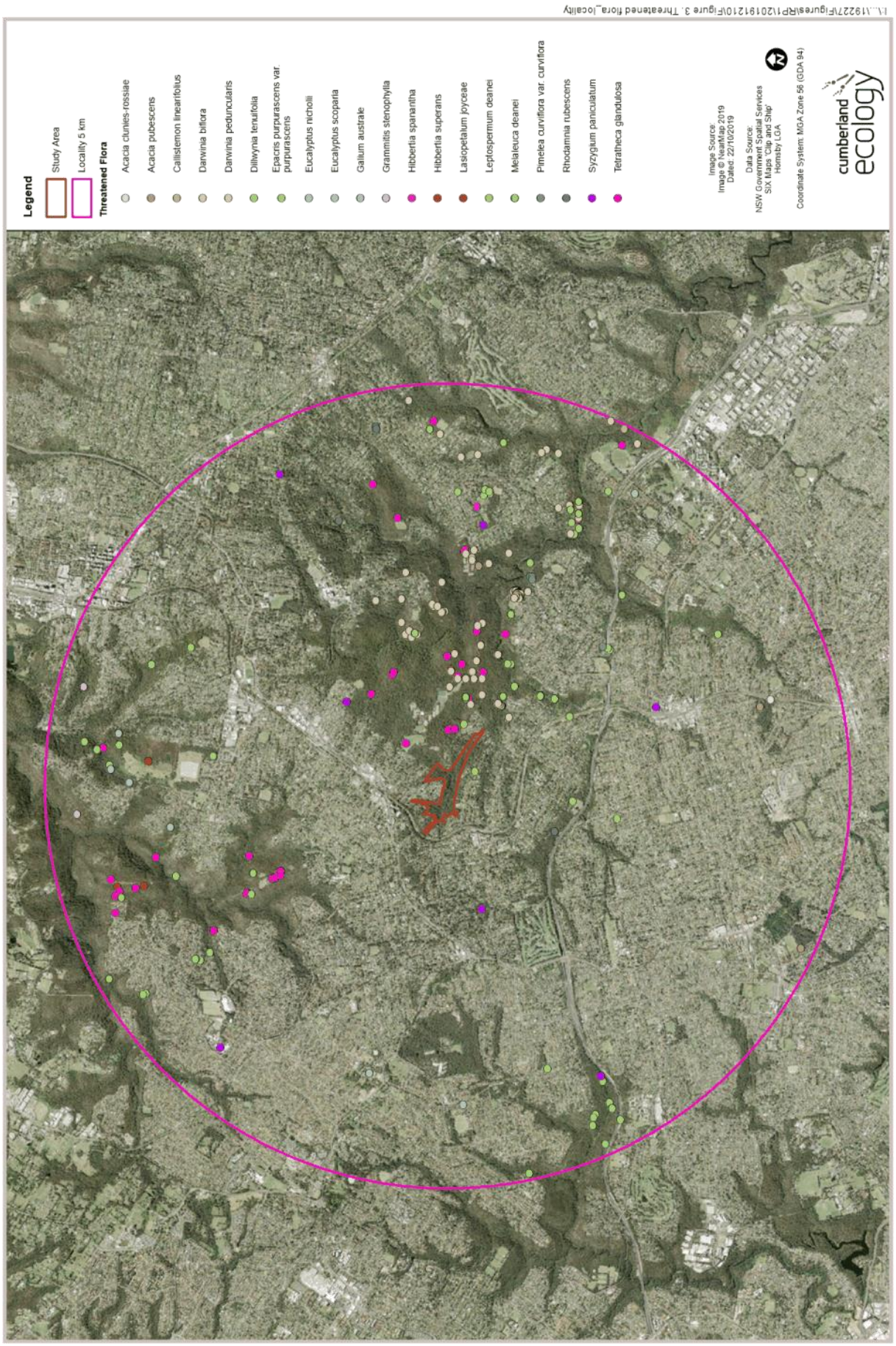


Figure 3. Threatened flora species within the locality

ATTACHMENT 2 - ITEM 5

ATTACHMENT 2 - ITEM 5

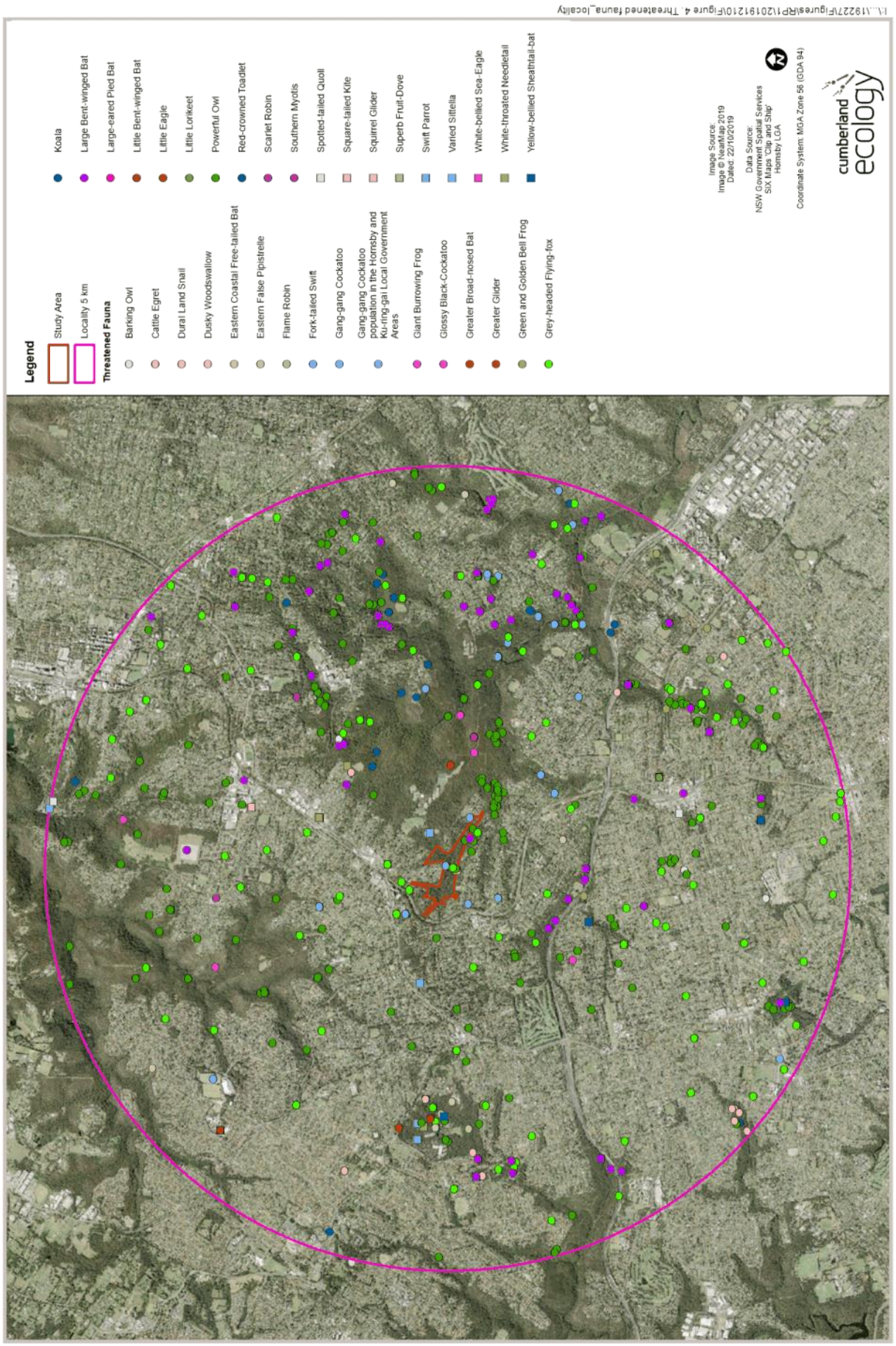


Figure 4. Threatened fauna species within the locality

ITEM 7

ATTACHMENT/S

REPORT NO. IR3/20

ITEM 7

1. ATTACHMENT 1 - HORNSBY SHIRE PUBLIC DOMAIN SIGNAGE TYPOLOGY

HORNSBY SHIRE PUBLIC DOMAIN SIGNAGE

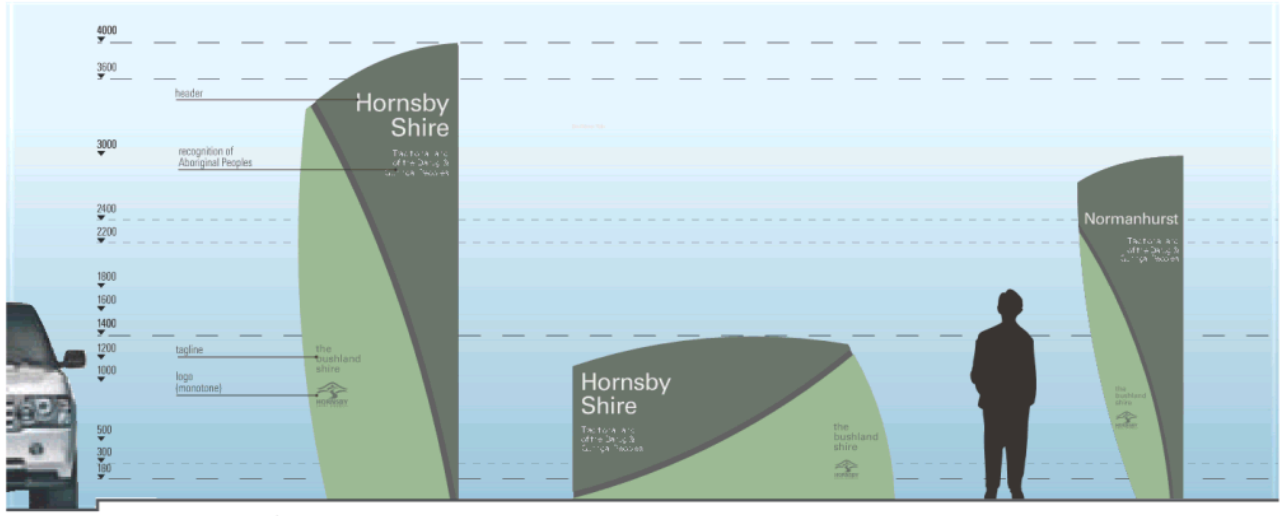
PROJECT NAME: **SIGN TYPOLOGY**
PROJECT STAGE: **DESIGN PART 2**
DISCIPLINE: **WAYFINDING & SIGNAGE**

ISSUE: **H**
ISSUED FOR: **REVIEW**
DATE: **01.07.2020**

PROJECT NUMBER: **S3334**

ATTACHMENT 1 - ITEM 7

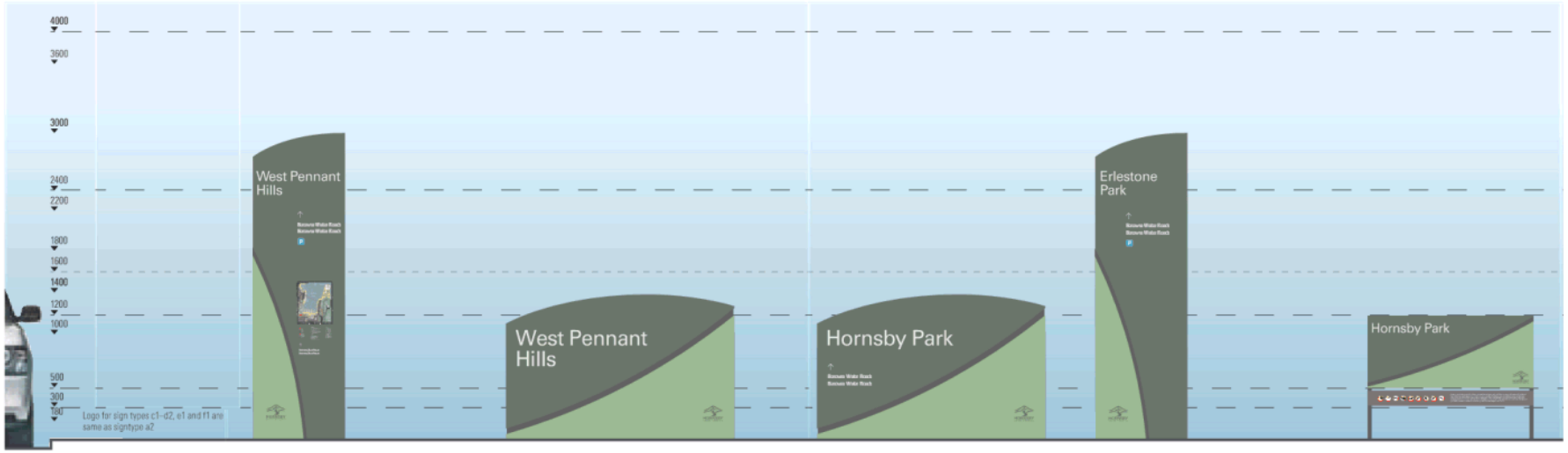
GATE & SUBURB MARKERS 2



	a1 vertical 1400mm W	a2 horizontal 2770mm W	b1 vertical 900mm W
SIGN TYPE	a) LGA Markers		b) Suburb Marker
PURPOSE	- Identification of LGA. - Bold and clear for vehicular traffic. - Located at main entry points to the Shire.		- Identification of suburb. - Bold and clear for vehicular traffic. - Located at entry to the suburb.
CONSTRUCTION	- Concrete footing. - Galvanised mild steel structural frame. - Aluminium secondary frame. - Aluminium cladding. - Paint finish to all visible surfaces.		

ATTACHMENT 1 - ITEM 7

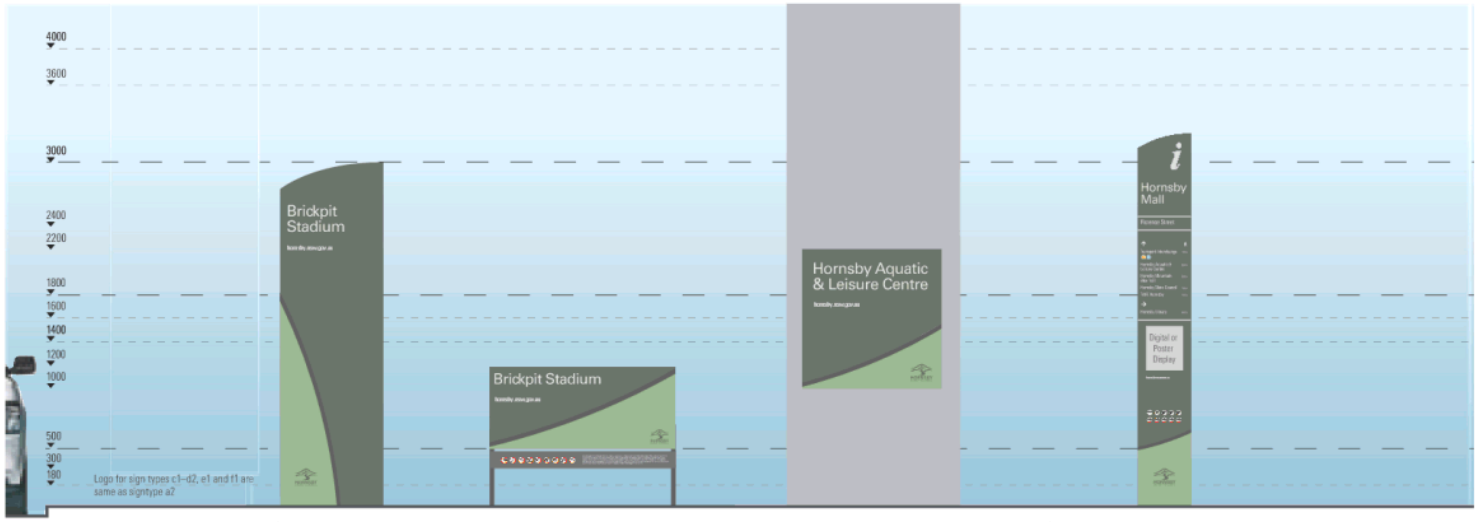
TOWN CENTRE, PARKS & RESERVE MARKERS 3



	c1 vertical pylon 900mm W	c2 large horizontal 2200mm W	d1 large park horizontal and directional 2200mm W	d2 medium park and directional 900mm W	d3 small park and regulations 1600mm W, 1200mm H
SIGN TYPE	c) • Town Centre *Directional Cap Height 40mm* *Map approx/max A3* • Village • Small Village • Neighbourhood Markers		d) Park & Reserve Markers *Directional Cap Height 40mm*		
PURPOSE	- Identification of town centre. - Horizontal sign to be used at entry to rural town centres where adequate space is available. - For vehicular and pedestrian traffic. - Located at main entry point to centre. - The marker can feature directions and a map subject to site-specific requirements.		- Name of large park/reserve. - For vehicular and pedestrian traffic. - Located at main entry points of medium sized parks. - Directional content will be determined subject to site conditions.	- Name of medium park/reserve. - For vehicular and pedestrian traffic. - Located at main entry points of medium sized parks. - Located at secondary entries to large parks and reserves. - Directional content will be determined subject to site conditions.	- Name of small park/reserve. - For vehicular and pedestrian traffic. - Located at main entry point. - Located as secondary marker to d1 and d2.
CONSTRUCTION	- Concrete footing. - Galvanised mild steel structural frame. - Aluminium secondary frame. - Aluminium cladding. - Paint finish to all visible surfaces.				

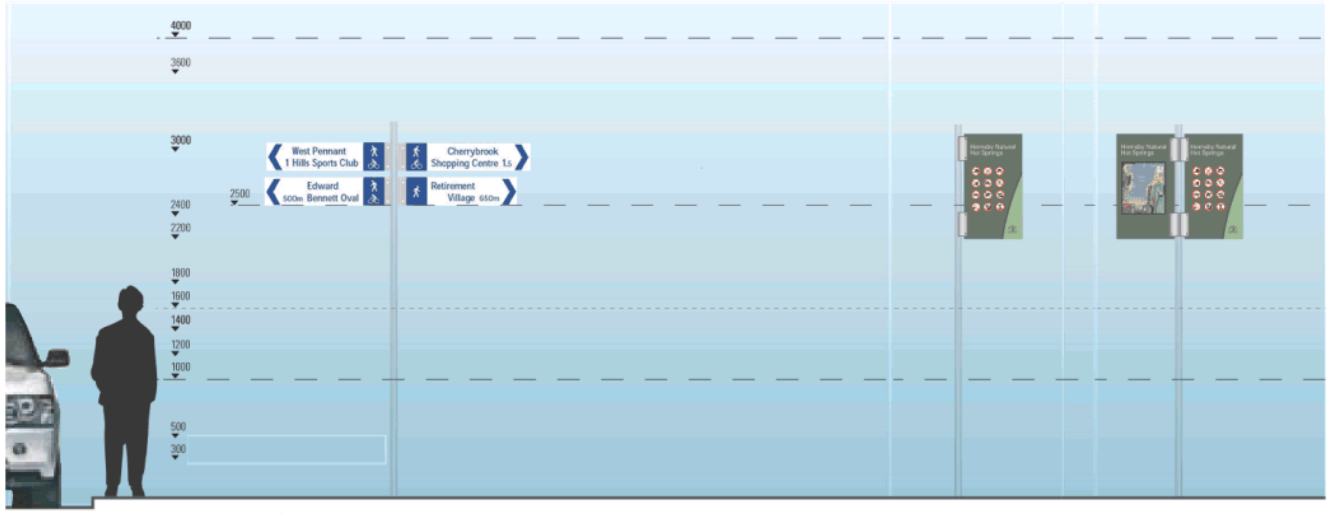
ATTACHMENT 1 - ITEM 7

FACILITIES & INFORMATION MARKERS 4



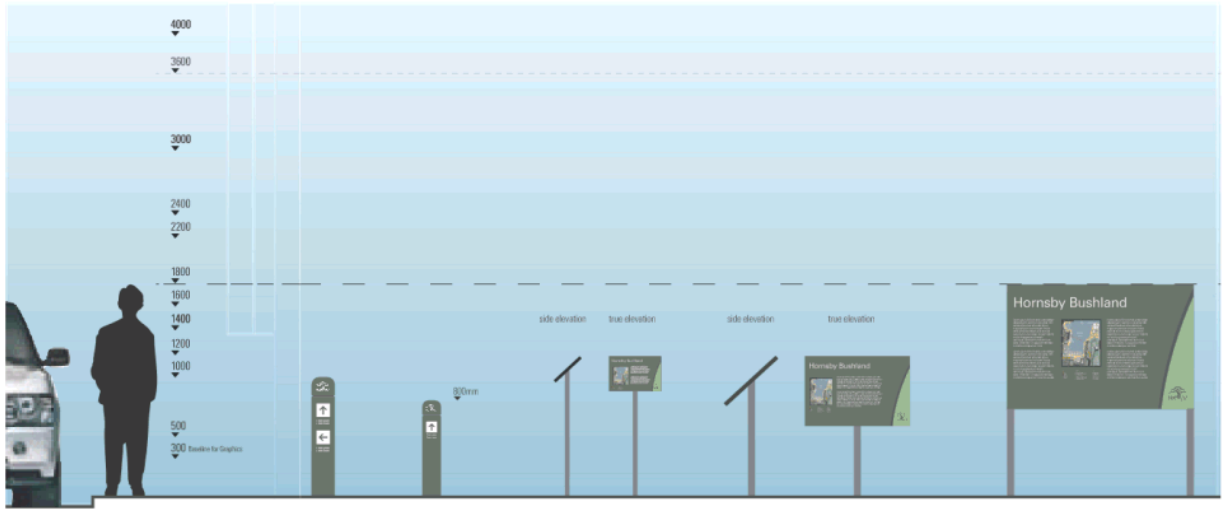
	e1 vertical pylon 900mm W	e2 horizontal sign 1500mm W, 1200mm H	e3 wall mounted sign 1200mm W, 1200mm H	f1 vertical pylon digital or poster 450mm W
SIGN TYPE	e) Facilities	*Website Cap Height 40mm*	*Optional backlighting*	f) Information Marker *Directions text size: 30mm Location text size: 40mm Walking time text size: 20mm Digital display approx. A3 size.*
PURPOSE	- Libraries, Recreation Centres. - Identification of community facility. - For vehicular and pedestrian traffic. - Located at main entry points of facilities. - Website is included to access information about events and bookings.			- Identification of the neighbourhood. - Information about direction and travel time to neighbourhood facilities and attractions. - For pedestrian traffic. - Located at urban centres. - Digital display or poster display for promoting civic events subject to site-specific requirements.
CONSTRUCTION	- Concrete footing. - Galvanised mild steel structural frame. - Aluminium secondary frame. - Aluminium cladding. - Paint finish to all visible surfaces.	- Galvanised mild steel frame. - Aluminium cladding. - Paint finish to all visible surfaces.		- Concrete footing. - Galvanised mild steel structural frame. - Aluminium cladding. - Paint finish to all visible surfaces.

ATTACHMENT 1 - ITEM 7



	g1	h1 regulatory flag 500mm W, 900mm H	h2 regulatory flag + secondary park entries 500mm W, 900mm H x2
SIGN TYPE	**g) Wayfinding Fingersigns** *Directional Cap Height 65mm* *Design, fabrication & installation to seperate contract*	**g) Regulations Flag Signs** *Name Cap Height 40mm*	
PURPOSE	- Wayfinding information to specific destinations. - For pedestrian and cycle traffic. - Includes pictograms. - Signs to comply with RMS Guidelines. - Signs to comply with the following: • Bicycle Wayfinding Research Report Austroads– AP-R492-15 • Guide to Traffic Management – Part 10 Traffic Control and Communication Devices Austroads • Manual of uniform traffic control devices Part 9 – Bicycle facilities Australian Standards AS-1742.9:2018 • Road signs specifications Australian Standards AS-1743.9:2018	- Regulatory information at minor and secondary parks or facility entries.	- To be used at minor entries to parks or facilities with larger signs at main entries - Map may include park layout for large parks or diagrammatic information for facilities such as small dog parks. To be determined on a site-specific basis.
CONSTRUCTION	- Concrete footing. - Anti-twisting bar. - Galvanised pole. - Aluminium blade and bracket. - Retro-reflllective class 2 vinyl graphics.	- Concrete footing. - Anti-twisting bar. - Galvanised pole. - Aluminium blade and bracket. - Digitally printed graphics.	

ATTACHMENT 1 - ITEM 7



NOTE:
Dimensions for Interpretive markers are for the interpretive panels only, not for the entire structure.

	i1 vertical primary approx 1000mm H	i2 vertical secondary 800mm H	j1 small 450mm W, 300mm H	j2 medium 900mm W, 600mm H	j3 large 1600mm W, 1050mm H
SIGN TYPE	h) Pedestrian Trail Markers		i) Interpretive Markers		
PURPOSE	- Information about trails/walks.		- Interpretive text and visuals. - The graphic design of interpretive signs is to be site specific. - Design to be completed and approved prior to installation.		
CONSTRUCTION	- Recycled plastic markers by Replas or similar.		- Concrete footing. - Anti-twisting bar. - Galvanised pole. - Galvanised bracket. - Aluminium panel. - All visible parts painted.	Graphic panel with graphics options: - Digitally printed graphics. - Direct print. - Photo anodising. Alternative - Steel panel with baked enamel graphics.	

Contrast:

- White text on 'dark green' background: approx. 84.7 LRV (light reflectancy value)
- 'Dark green' graphics on 'light green' background: approx. 70.45 LRV (light reflectancy value)
- These values are in the acceptable range where (for comparison):
  - Black on white is approx. 91
  - White on red is approx. 84
  - White on orange is approx. 60

Legibility:

Table according to Australian Standards: **AS 1428.2—1992**

27

TABLE 2

HEIGHT OF LETTERS FOR VARYING VIEWING DISTANCES

Required viewing distance m	Minimum height of letters* mm
2	6
4	12
6	20
8	25
12	40
15	50
25	80
35	100
40	130
50	150

* For further information on the heights of letters for different situations, reference should be made to AS 1744.

NOTE: Helvetica Medium typeface is preferred.

Design Principles according to LGNSW - Wayfinding and Signage:

- Street signage should have large lettering, colour contrast, plain fonts and non-reflective surfaces.
  This project complies with these principles.
- Signage should be clear, concise and easy to interpret
  This project complies with these principles.
- Street (and business) signs should be easily read by both pedestrians and drivers.
  This project complies with these principles in that signs are designed for vehicular traffic or pedestrian traffic or both.
- Signage should be well placed so that it is visible from all directions.
  This project complies with these principles in that signage is oriented towards primary oncoming traffic and location of signs provide optimal sightlines from various directions subject to final site-specific location and orientation.
- Signage should be continuously placed if leading from a distance, for example, leading to toilets, lifts, separate accessible entries, or landmarks.
  Subject to selection of proposed sign types and selection of sign locations, the project will comply with these principles.
- Transport stops should be well designed.
  The proposed signage system has been designed to complement standard transport signs in order to provide links from transport hubs and stops to the network of signs along the routes.
- Orientation features such as landmarks and architectural cues should be included on signs.
  The suite of signs is designed to guide different modes of traffic and user groups to destinations, with directional signs, identification and interpretive signs. Interpretive signs have the capacity to illustrate and describe natural and man-made features.
- Information on location of facilities should be included on signs.
  Facilities such as publicly accessible toilets are refenced on wayfinding finger signs and the facilities will be clearly identified with larger identification signs or graphics and Braille/tactile signs at the entries.
- International symbols should be used.
  Complying symbols will be used that are Australian Standards for regulations, NSW standards for transport network/mode symbols and international standards for cyclist, pedestrian and Parking symbol.

Avoid:

- Heritage-style fonts and colours.
  This project complies with these principles.
- Placing wayfinding signs where there is a lot of visual 'noise' that is alongside many other signs and hoardings.
  Subject to selection of sign types and locations, council is aware of the principles of reducing visual clutter and removing redundant signs in the process of installing new signs.
- Only labelling doors, such as toilet doors, without including signage indicating where the door is located. For toilet blocks, the blocks will be identified and where required sub identifications will guide users to Male/ Female, Parents room, Change room etc. The same will apply to larger blocks in parks that provide services for clubs, sports teams and individuals.

Asset Management

The asset life depends on method of graphic application, method of construction, materials and maintenance.

Maintenance is periodic maintenance such as cleaning and checking of signs where necessary or replacing or fixing due to structural or surface damage.

The warranty on vinyl is up to 10 years, subject to application and orientation of sign.

The construction of the signs exceeds this period and a lifespan of 10-20 years or longer can be expected.

The council may engage internal and/or external resources for the repair and maintenance of signs.

Signs may be inspected yearly or half yearly and the scope of work may include:

- Inspection of signage
- Wash down and clean of specified signs
- Report on Frame, sign panels, fixing and illumination
- Photo report with recommendations.

ITEM 9

ATTACHMENT/S

REPORT NO. NOM13/20

ITEM 9

1. LANDCOM CHERRYBROOK STATION FACTSHEET

ATTACHMENT 1 - ITEM 9

LANDCOM

SYDNEY METRO NORTHWEST PLACES

PLANNING FOR A LEAFY NEW LOCAL CENTRE AROUND CHERRYBROOK STATION

Landcom is consulting with the community to help shape the future of the new Cherrybrook Station Government Land State Significant Precinct

Indicative artist impression, subject to change and subject to approvals.

Landcom is working on behalf of Sydney Metro to plan new places for communities to live, work, shop and play, close to the new Sydney Metro Northwest stations.

Known as the Sydney Metro Northwest Places Program, the work aims to deliver vibrant precincts around the stations to facilitate more and diverse housing, new employment opportunities and new public and community facilities. The government land within the Cherrybrook Station State Significant Precinct (Cherrybrook SSP) is part of this Program.

Landcom is seeking to change the Cherrybrook SSP site zoning to enable lively mixed-use development around the new Cherrybrook Station. The vacant land adjacent to the station will be the focus of new development.

Under the proposed rezoning, development could include:

- a mix of uses including retail, residential, services and community spaces
- about 600 new homes in buildings of around eight storeys in height to meet the needs of people with changing lifestyles and different income levels
- high quality open space and recreation areas
- a landscape character which reflects the surrounding area
- new pedestrian and cycle paths.

Landcom will lodge a rezoning application with the Department of Planning, Industry and Environment in late 2020.

Planning framework guiding new development plans

Now that the Metro North West Line is operating we can plan future development next to the station to create a new hub of activity with shops, services, homes and community spaces to take advantage of the city shaping transport infrastructure.

Planning for development around Cherrybrook Station has been ongoing since 2013. Initial proposals were outlined in the North West Rail Link Corridor Strategy and the associated Cherrybrook Station Structure Plan, which can be accessed on the Department of Planning, Industry and Environment's website. Community consultation was undertaken to inform these early proposals which show potential for new higher density mixed use development around the station.

Landcom has commissioned the technical investigations and reports required by the Study Requirements issued by the Department of Planning, Industry and Environment. When complete, these studies will provide information to support planning for the Cherrybrook SSP.

What is being planned for the Cherrybrook SSP?

Two separate but related planning processes are underway in Cherrybrook.

- **Cherrybrook Station Precinct** covers the broader area around Cherrybrook Station, as outlined in the 2013 Cherrybrook Station Structure Plan. The Department of Planning, Industry and Environment is preparing a 'Precinct Vision and Implementation Plan' for the precinct. This plan will provide further detail to guide the planning, infrastructure needs and implementation of the 2013 Cherrybrook Structure Plan.

  The Department of Planning, Industry and Environment is leading the planning process for the Cherrybrook Station Precinct in collaboration with local councils.

- **Cherrybrook Station Government Land State Significant Precinct**, is located on the northern side of Castle Hill Road in Hornsby Shire LGA. Landcom is preparing a rezoning proposal on behalf of the landowner Sydney Metro through the State Significant Precinct process for this land.

Landcom's vision for a leafy mixed use centre in the Cherrybrook SSP

An inviting, welcoming place that provides a range of housing choices, open spaces for community activity, spaces for businesses and community facilities, and easy access to new metro services.

We have responded to feedback from Hornsby Shire Council and the community about building heights in the precinct, and are planning for development of around eight storeys.

Planning process for Cherrybrook SSP

The rezoning application will propose high level planning controls to amend the Hornsby Local Environmental Plan (LEP) 2013 and Hornsby Development Control Plan (DCP) 2013, including heights, open space provision and setbacks. The application will include an indicative concept plan that shows development possibilities under the proposed rezoning.

After our rezoning application is lodged, the Department of Planning, Industry and Environment will place it on public exhibition for further comment. The Department will then review the submissions it receives, before the Minister for Planning and Public Spaces makes a final decision.

Landcom will put the site(s) to market to select a suitable development partner who is committed to showcasing design excellence, sustainability and community outcomes in Cherrybrook. Should the rezoning be approved, the successful developer will prepare and lodge detailed development application/s that are to be consistent with the adopted planning controls for the site. This process will also provide the community further opportunity to comment on specific proposals.

Planning process for broader Cherrybrook precinct

The Department of Planning, Industry and Environment is preparing a 'Precinct Vision and Implementation Plan' for the broader Cherrybrook Station Precinct. This plan will provide further detail to guide the planning, infrastructure needs and implementation of the 2013 Cherrybrook Station Structure Plan. The precinct plan will then inform future rezoning proposals for privately owned land in the broader precinct.

Information about the Cherrybrook Station Precinct planning concurrently underway by the Department of Planning, Industry and Environment is available on the Department's website HERE.

ATTACHMENT 1 - ITEM 9

Have your say on plans for Cherrybrook SSP

Engaging with the community is an important part of the planning process for the Cherrybrook SSP.

Landcom is consulting with the local community to help us understand community views and ideas.

Community engagement is being carried out between late July and September 2020. We are meeting with local community groups, doing a telephone survey and running a facilitated online workshop with a representative group of local stakeholders, and inviting you to give us your feedback directly.

There are different ways you can have your say on the future of the Cherrybrook SSP. Visit us at https://smnwplaces.com.au/cherrybrook to:

- complete an online survey to give feedback on the characteristics you value most about Cherrybrook and the opportunities you see for change
- send us your thoughts using an online feedback form

We will report back on how we use community feedback to help shape the concept plan. Any feedback that relates to the wider area will be provided to the Department of Planning, Industry and Environment to guide their planning for the broader Cherrybrook area.

Who is Landcom?

Landcom is the NSW Government's land and property development organisation. We are a State Owned Corporation working with government and the private and not-for-profit sectors to deliver exemplary housing projects that provide social and economic benefits to the people of NSW.

Landcom helps the NSW Government achieve its urban management objectives by taking a lead role in improving the supply, diversity and affordability of new housing.

Our mission is to create more affordable and sustainable communities.

For more information visit our website:
landcom.com.au

SYDNEY METRO NORTHWEST PLACES

Contact the team

If you need help to access the survey or Coffee Table Conversation booklet, or you want to speak to a team member about the project:
Call us: 1800 712 292
Email us: sydneymetronorthwest@landcom.nsw.gov.au

We speak your language.

If you need an interpreter, call the Translating and Interpreting Service on **13 14 50** and ask them to call Landcom on **02 9841 8600**.