

14 HORNSBY OVERLAND FLOW STUDY AND DRAFT FLOOD PLANNING MAPS - PROCESS FOR ADDRESSING SUBMISSIONS RECEIVED

EXECUTIVE SUMMARY

The Hornsby Overland Flow Study Report (OFS) and the accompanying Draft Hornsby Shire Flood Planning Maps (FPMs) presented in Appendix 1 of Executive Manager's Report No. WK63/10, and the Overland Flow Maps presented in Appendix 2 of Executive Manager's Report No. WK63/10, was endorsed by Council at its Meeting held on 20 October 2010 to be placed on public exhibition for a period of 28 days.

The letter to affected property owners and the FAQs leaflet attachment that was presented in Appendix 3 of Executive Manager's Report No. WK63/10 was also approved by Council at the same Meeting.

Letters to 4,535 affected property owners (excluding Council) were mailed on 19 November 2010 and the advertisement of the public exhibition for the OFS and draft FPMs were placed in local newspapers on 23, 24, 25, and 30 November and 1 and 2 December 2010. The relevant documents were available for inspection at Council's Administration Centre and public libraries as well as on Council's web site from 23 November 2010 to 28 February 2011. The initial closing date for the public exhibition was 24 January 2011. At the request of Councillors, the closing date was then extended to 28 February 2011 in late November 2010.

Council has also received further guidelines from the Department of Planning (DoP) with regard to the identification of Flood Control Lots as being of High and Low Hazard.

At the close of the Public Exhibition period, 596 submissions have been received. The breakdown of notifications, and submissions received as well as a percentage of notifications issued by Suburb is shown in Figure 1 in the body of this report.

In view of the further guidelines received from the DoP and to address the comments in the submissions, the proposed process for addressing the submissions received is presented for Council's consideration and endorsement so that officers have Council's direction to proceed with the consideration the submissions and the preparation of a further report to Council addressing the submissions received and recommending the adoption of the Hornsby OFS or re-advertising the revised FPMs if considered necessary.

PURPOSE/OBJECTIVE

This report presents the process for addressing the submissions received for the Hornsby Overland Flow Study (OFS) Report and the draft Hornsby Shire Flood Planning Maps (FPMs) for Council's consideration and endorsement.

A further report following the consideration of submissions received for the Public Exhibition of the OFS and FPMs will be presented to Council for its consideration and endorsement or re-advertising the revised FPMs if considered necessary.

The Council adopted FPMs following the public exhibition will be submitted to the Department of Planning as an amendment to the Hornsby Shire Comprehensive Local Environmental Plan (LEP) when gazetted. The FPMs will then be placed on public exhibition by Council as a procedural process prior to its inclusion in the Comprehensive LEP.

The Council adopted Hornsby Shire OFS Report and Overland Flow Maps, following the public exhibition will also be placed on Council's website to provide flood management information to the community.

BACKGROUND

Council, when considering this matter at its Ordinary Meeting held on 20 October 2010 resolved, inter alia, that

- “1. The Hornsby Overland Flow Study Report and the accompanying Draft Hornsby Shire Flood Planning Maps presented in Appendix 1 of Executive Manager's Report No. WK63/10, and the Overland Flow Maps presented in Appendix 2 of Executive Manager's Report No. WK63/10, be endorsed by Council and placed on public exhibition for a period of 28 days.
2. The Letter to Affected Property Owners and the FAQs leaflet attachment presented in Appendix 3 of Executive Manager's Report No. WK63/10 be approved by Council.”

Letters to 4,535 affected property owners (excluding Council) were mailed on 19 November 2010 and the advertisement of the public exhibition for the OFS and draft FPMs were placed in local newspapers on 23, 24, 25, and 30 November and 1 and 2 December 2010. The relevant documents were available for inspection at Council's Administration Centre and public libraries as well as on Council's web site from 23 November 2010 to 28 February 2011. The initial closing date for the public exhibition was 24 January 2011. At the request of Councillors in late November 2010, the closing date was then extended to 28 February 2011.

Flood Prone Land Policy and other guidelines

The recognition and management of flood risk is an essential requirement to enable the protection of existing and future occupants of flood prone land from the ramification of floods. The management of flood prone land is the responsibility of Local Government.

The NSW Government has developed a Flood Prone Land Policy (FPLP) to support this management role. It is aimed at providing management options to existing flood problems in developing areas and ensuring that new developments are compatible with the flood hazard and does not create additional flooding problems in other areas.

To assist in implementing this policy, the NSW Government in April 2005 prepared the Floodplain Development Manual (FDM) with the intention to **guide** councils in developing and implementing their Flood Risk Management Plans (FRMPs). These FRMPs are intended to address three key issues:

1. Safety of people.
2. Management of potential damage to property and infrastructure.
3. Management of the cumulative impacts of development.

Further guidance for preparing the plans was also provided by the Department of Planning (DOP) through the release of Guidelines on Development Controls on Low Flood Risk Areas in January 2007. In addition, Ministerial Direction No. 15 (under Section 117 of the Environmental Planning and Assessment Act) made in January 2007 requires that the plans be consistent with the FDM when preparing the LEP.

To balance the protection of existing and future inhabitants from flood hazard, the FDM advises that lands should be categorised to show where controls will and will not be required to be identified. This will allow development controls under the LEP to be developed. Exempt and Complying Development Codes (the "Codes SEPP") in an effort to streamline the development approval process can then be applied to non-flood planning areas and flood prone land assessed as low risks or hazard. Accordingly, development in flood planning areas based on the 100 year average recurrence interval (ARI) flood and assessed as high risks or hazard will need to be scrutinised through the Development Application (DA) process.

Methodology for Flood Study

To meet the main objective of identifying the urban properties affected by either overland flow or mainstream flooding, it was necessary to identify the areas to be modelled. Once these were defined, the appropriate type of modelling was then applied to each area:

1. Urban areas affected by overland flow/flooding.
2. Urban areas affected by mainstream flooding.

The modelling and analysis required for item 1 is a complex task in an urban environment such as Hornsby Shire. Council has engaged a consultant, Cardno Lawson Treloar Pty Ltd., to carry out this work. The technical details of the methodology used are given in the OFS report.

With recent advances in flood and overland flow modelling packages, it has been possible to create a model to define the overland flow behaviour across the entire urban area of the Shire. A two-dimensional computer model, TUFLOW, has been established to model the overland flows across the entire LGA using a fine 5 metre by 5 metre grid. This model, which was applied to eight modelling zones, has established preliminary overland flow extents across the urban areas.

The identification of properties that would be potentially affected was based on the following criteria:

- Criterion 1 - the property is shown to have a piped or open drainage line through any part of the property as shown in the 'pit and pipe GIS layer' provided by Council;
- Criterion 2 - the property (or part thereof) is inundated by overland flow to a depth greater than 150 mm during a 100 year average recurrence interval (ARI) design storm event;
- Criterion 3 - any part of the property lies within 5 metres of a piped or open drainage line identified under Criteria 1, provided the drainage line is not located in a road reserve.

In addition to overland flow, flood extent maps for mainstream flooding covering Criterion 2 above have been prepared for the Hawkesbury River. This mapping is based on flood level information provided by Council, from previous studies of the Hawkesbury River. This data was based on information that was previously provided by Gosford City Council, and

provides flood levels at cross sections moving along the River. This mapping was derived from a flood study that was undertaken in 1982 by NSW Public Works.

It is to be noted that an overland flow depth in excess of 150mm has been selected as the critical depth for the Hornsby study due to the relatively steep terrain of the Shire and taking cognisance that, in conjunction with the steep terrain, the velocity of the overland flow is relatively high as to cause storm damage and create a hazard for the community.

The selected study overland flow depth of 150mm is less than the 300mm depth given in the DoP guidelines for the preparation of Flood Planning Maps. The Floodplain Development Manual does however note that local drainage problems invariably involve shallow depths (less than 0.3m) with generally little danger to personal safety. As a result of the 150mm overland flow depth selected, the Study has identified more potentially flood prone properties that would not be able to benefit from the NSW Government's complying development provisions than if the 300mm flow depth were used.

The adopted Study flow depth in excess of 150mm has however been discussed and endorsed by the Hornsby Shire FRMC as being appropriate for the Shire.

The **draft FPMs placed on public exhibition are based on Criterion 2 only** as it was considered to be a more reasonable and balanced approach than with the draft Overland Flow Maps based on all three criteria.

Outcomes of Flood Study

The main objective of the Hornsby Study was to identify urban properties that may be affected by overland flow/flooding based on the three criteria given under the study methodology.

A total of 7,815 urban properties out of a total of 45,062 have been identified as properties that may experience flooding due to overland flow (i.e. 17.3% of properties). A summary of the number of properties identified under Criterion 2 and Criteria 1 & 3 is tabulated below. It is to be noted that there are a number of properties which have been identified under both Criteria 1 & 3 and Criterion 2.

Criterion	Number of Properties	Percent of Total Properties
Criteria 1 & 3	6,170	13.7%
Criterion 2	4,879	10.8%
Total	7,815	17.3%

The maps resulting from the assessment for **only Criterion 2** are proposed as the Flood Planning Maps for inclusion as an amendment to the new Hornsby Shire Comprehensive LEP when gazetted (i.e. the FPMs to be progressed as a separate Planning Proposal). The maps resulting from the assessment for all of the above three criteria are presented in the OFS as Overland Flow Maps to provide general stormwater management information to the community.

Flood Planning Maps

The Flood Study has been used to prepare Flood Planning Maps (FPMs), which after public exhibition and adoption by Council, will be included in the Hornsby Shire Comprehensive LEP to control development in the flood prone areas of the Shire.

Impacts on Properties identified in the FPMs

The properties identified in the FPMs will, following the public exhibition and adoption by Council, be designated as Flood Planning Areas with High Risk or Hazard in the Hornsby Shire Comprehensive LEP when gazetted. A DA will be required for any development in a Flood Planning Area, with a requirement to undertake a hydraulic study in conjunction with the development proposal. Where the extent of overland flow is significant, a more detailed hydraulic study will be required than if the extent of overland flow/flooding were minor and no development were proposed within the area of the lot affected by the overland flow.

FURTHER DoP GUIDELINES

There have been a number of recent changes to the Codes SEPP which have implications for the progression of Council's draft Flood Prone Land Study. Council's Manager, Town Planning Services has provided the following advice:

State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 (Codes SEPP) has been amended to further encourage the uptake of exempt and complying development across the State. The amendments include provisions to enable complying development on flood control lots.

As of 25 February 2011, low hazard flood control lots are no longer excluded from the *Codes SEPP*. Complying development will be allowed on low risk flood control lots where it meets predetermined development standards and is certified by a suitably qualified person or Council. However, complying development will not be allowed on high hazard or high risk flood control lots including flood ways, flood storage areas, a flow path or areas identified on local flood plans as high hazard or high risk.

A series of fact sheets providing an overview of the changes to the *Codes SEPP* have been released by the Department of Planning and can be viewed on the Department's website at <http://housingcode.planning.nsw.gov.au>. Fact Sheet 11 "Complying development on flood control lots" (copy attached) identifies what constitutes high hazard or high risk flood control lots and the process for assessing a complying development application on such lots. The Fact Sheet notes that Council mapping may categorise areas of hazard, such as low hazard (or low risk) and high hazard (or high risk). The mapping may be used by Council or a suitably qualified person to certify the category of risk of a property.

The amendments to the *Codes SEPP* have implications for the progression of Council's draft Flood Prone Land Study and associated mapping. Accordingly, Council's Flood Prone Land mapping should be reviewed to ensure certainty in categorising the risk of flooding for the purposes of interpreting the application of the *Codes SEPP*.

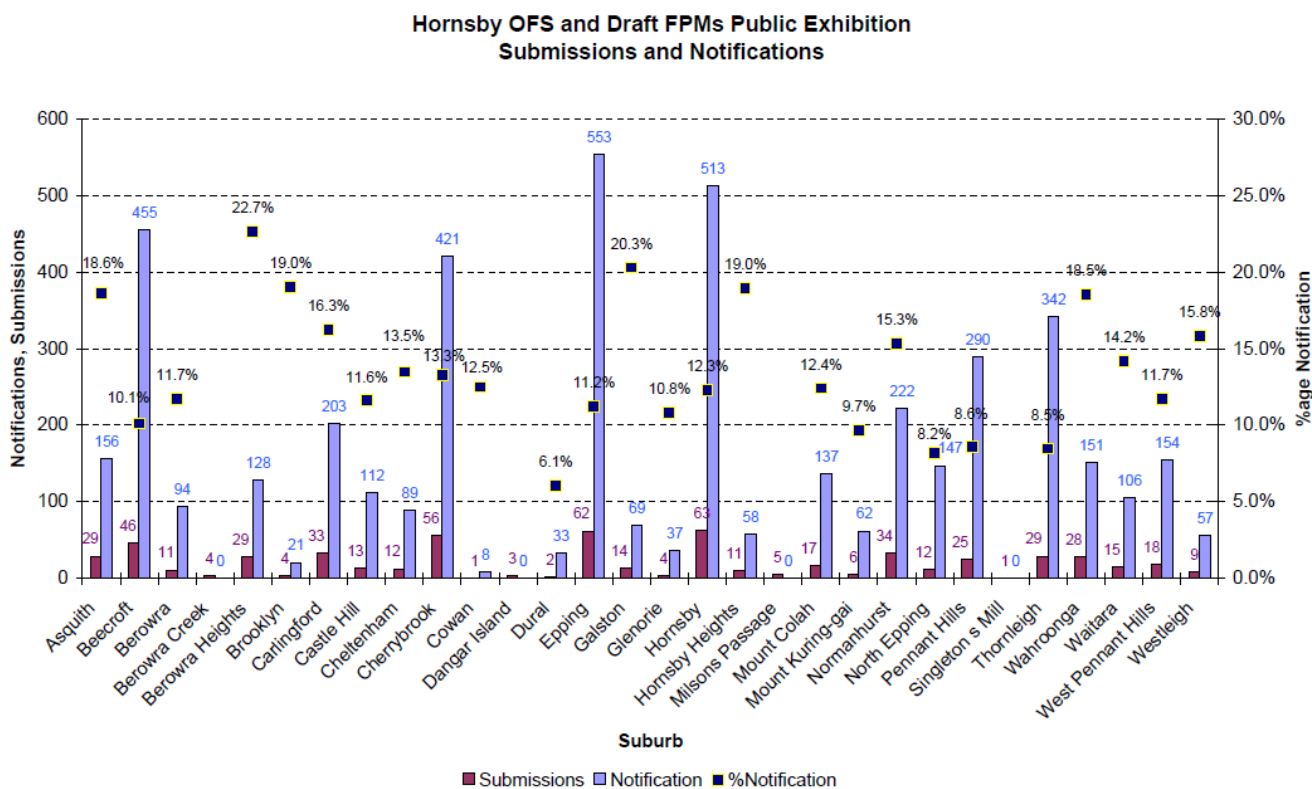
SUBMISSIONS ISSUED AND RECEIVED

Information relating to the number of notifications issued and submissions received for the public exhibition are as follows:

1. No. of Notifications issued: 4,535 (excluding Council-own properties)
2. No. of Submissions received: 596

The breakdown of notifications, and submissions received as well as a percentage of notifications issued by Suburb is given in Figure 1. It should be noted that figures relating to Brooklyn, Dangar Island, Milsons Passage and Singletons Mill come under properties affected by main stream flooding.

Figure 1 – Submissions Received by Suburb



PROPOSED PROCESS FOR CONSIDERING SUBMISSIONS

Proposed Process

The proposed process for considering submissions taking cognizance of changing DoP Guidelines and submissions received is:

1. Sensitivity analysis of some of the key assumptions of the modelling.
2. Revision of Mapping if considered necessary.
3. Identification of “high risk” overland flow affected properties, to reflect the current DoP guidelines.
4. Prepared report to Council addressing submissions received and recommending Council:
 - a. Adoption of the Hornsby OFS and FPMs, or
 - b. Re-advertise Revised FPMs, if considered necessary

Tasks for Proposed Process

The following tasks will be undertaken for the proposed process:

Process 1 – Sensitivity Analysis for Modelling Key Assumptions

There are four tasks for Process 1 as follows with Task 3 requiring a decision from Council:

Task 1 *Preparation of mapping options for one of the model zones from the study.* This will allow Council to determine the likely change in the number of properties identified across the LGA by looking at changes in only one of the model zones.

As discussed between the Consultants and Council officers, the Pennant Hills model zone (see Figure 2) has been selected for trial purposes based on the number of responses that have been received across the LGA. The mapping options to be undertaken are:

Task 1.1 Modelling of the 5 year ARI to simulate the effect of the pipes running at capacity, and mapping of the inundation for depths greater than 150mm.

Task 1.2 Mapping of properties with depths greater than 300mm or affected by high hazard for depths greater than 150mm, for both the 100 year ARI and the 5 year ARI

Task 2 *Sensitivity analyses on the key parameters*, such as rainfall and roughness has been undertaken in the original OFS. In the submissions received, there have been some questions on the effects of buildings and the stormwater drainage infrastructure on the overland flow extents, as well as the effect of the grid size. It is therefore proposed to undertake some sensitivity analysis to address this issue on a small pilot area. This will involve the modelling of just a few street blocks to understand the impact of these different features. The proposed location for the pilot model is in the Campbell Avenue area and is shown in Figure 2. The following tasks will be undertaken, for both the 5 year ARI and the 100 year ARI. The Pilot Model study area has been selected from within the Pennant Hills model zone identified in Task 1:

Task 2.1 Modelling of a smaller 2 metre grid size across the pilot model area to determine the impact that grid size has on the results of the OFS.

Task 2.2 Incorporation of pits and pipes into the model in Task 2.1 to determine the impacts that the stormwater infrastructure has on the results of the OFS.

A comparison will also be made with regard to the 5 year ARI extents without pipes to the 100 year ARI extents with pipes, as well as to determine if the assumption that the 5 year ARI is a good indicator of the 100 year ARI plus pipes.

Task 2.3 Incorporate buildings into the modelling as raised elements (or completely blocked to flow) to analyse the impacts of buildings on the overland flow extents.

Task 3 *Decide on the Criteria for tagging as Flood Control Lots with High Risk or Hazard.*

Tasks 1 and 2 have been undertaken for the model zone selected and the pilot Local Flood Model. The results are tabulated below:

Criteria for Tagging a Property	Number of Properties					
	2 m Grid Model				5 m Grid Model	
	100yr ARI without Pipes	5yr ARI without Pipes	100yr ARI with Pipes	100yr ARI with Pipes & Bldgs	100yr ARI without Pipes	5yr ARI without Pipes
Depth => 150mm	49	36	38	56	49	29
Depth =>300mm or Depth =>150mm & High Hazard	33	29	31	39	30	24

Based on the results obtained for the selected model zone for sensitivity analysis, Council should now decide on the criteria to be used for tagging the properties as Flood Control Lots with High Risk or Hazard (HR) as follows:

- a. 100yr ARI without Pipes + Depth (D) => 150mm (49 properties)
(Criterion used for draft FPMs placed on public exhibition)
- b. 100yr ARI with Pipes + D => 150mm (38 properties)
- c. 5yr ARI without Pipes + D => 150mm (36 properties)
(surrogate for b - 100yr ARI with Pipes + D =>150mm)
- d. 100yr ARI without Pipes + D => 300mm or 150mm and HR (33 properties)
- e. 100yr ARI with Pipes + D => 300mm or 150mm and HR (31 properties)
- f. 5yr ARI without Pipes + D => 300mm or 150mm and HR (29 properties)

It is recommended that Council adopts **Criterion c - 5yr ARI without Pipes + D => 150mm** above as it is considered to be a **reasonable surrogate for the 100yr ARI with Pipes and for an overland flow depth of 150mm** (i.e. during a 100yr ARI storm, pipes are functioning and conveys the 5yr ARI stormflow with the remaining stormflow as overland flow). The result for this criterion can also be considered as reasonably representing the result that is obtained for criterion d - 100yr ARI without Pipes + D => 300mm or flow depth of 150mm and High Risk.

In deciding on the criterion to progress the FPMs, Council needs to be cognizant of the risk of not having the flood development controls in place sooner rather than later. This is due to the possibility of more complying developments being approved within flood prone land without any merit based DA assessments.

Task 4 *Run remaining 7 model zones for the criteria selected.*

Following Council's decision on the criterion to be used for the tagging of properties, it is then necessary to run the model with the criterion selected for the seven (7) remaining model zones in order to carry out Process 2 – Revision of Mapping and Process 3 - Identification of Flood Control Lots with High Risk or Hazard.

Process 2 – Revision of Mapping

On completion of the running of the model for all eight modelling zones, the draft FPMs that were placed on public exhibition will need to be revised should Council decide on any of the criteria given in Task 3 with the exception of Criterion a on which the exhibited maps were based on.

Process 3 – Identification of Flood Control Lots with High Risk of Hazard

There are three tasks in Process 3 as follows:

Task 1 Desk top review of doubtful lots.

The desk top review will focus on doubtful lots where only a small extent of the property is affected by the 100yr ARI overland flow path and will consider:

- a. Extent of lot affected by the overland flow.
- b. *Codes SEPP* setback requirements.

Task 2 Site Inspection to confirm whether the lot should be a Flood Control Lot.

The site inspection will focus on whether the flood affected portion of the property is likely to be built on in the event that the property is redeveloped.

Task 3 Finalise identification.

Upon completion of the desk top study and site inspection, where considered necessary, the FPMs will be finalised.

Process 4 – Prepare report to Council addressing submissions and recommendation

There are four tasks in Process 4 as follows:

Task 1 Group submissions.

The submissions received will be grouped under various heads of consideration.

Task 2 Address submission comments.

The various heads of consideration from the submissions will be addressed for reporting to Council. Individual responses will not be provided as commonly practised for public exhibition.

Task 3 Prepare report to Council addressing submissions.

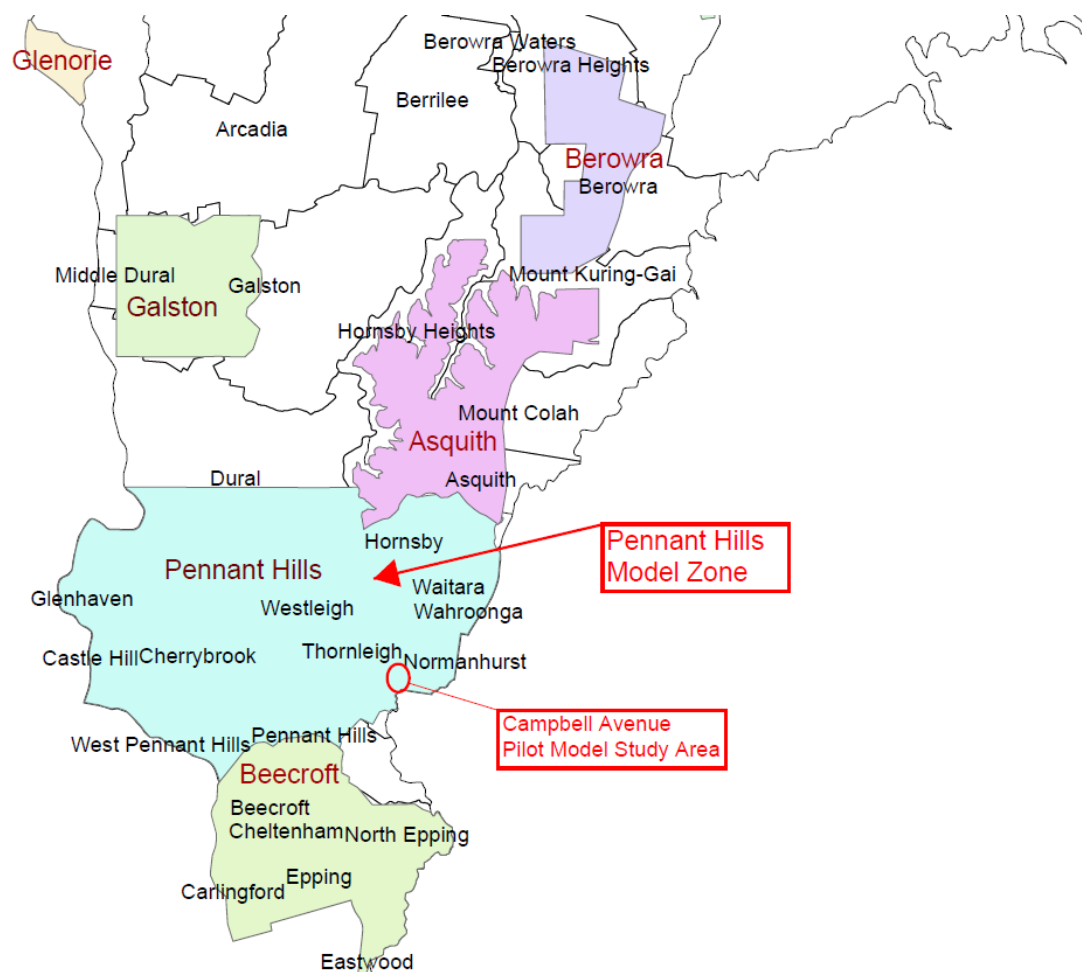
This report to Council will include a summary of the submissions received, grouping under the various heads of consideration and Council's response, the Hornsby OFS and FPMs (with revisions if required), and recommendation.

Task 4 Report Recommendation.

The report to Council will include a recommendation to:

- a. Adopt the Hornsby OFS and FPMs (with revisions if required), and/ or
- b. Re-advertise the FPMs (with revisions if required).

Figure 2 – Model Zones for Hornsby Overland Flow Study

**Timing for Proposed Process**

Process 1 - Sensitivity analysis of some of the key assumptions of the modelling, Tasks 1 and 2 have been completed and reviewed by the Hornsby FRMC on 5 May 2011. The FRMC was in agreement with Criterion c (Task 3) being selected for identifying Flood Control Lots with High Risk or Hazard.

Council should now decide on the criterion to be selected under Task 3 to provide directions to officers to address the submissions received. Depending on the criterion selected by Council, Task 4 – Running of remaining 7 modelling zones is expected to take 4 weeks for running on the existing 5m grid size model and 14 weeks on a new 2m grid size model. It should be noted that a new 2m grid size model will take much longer to run, is more costly and most likely to include more properties based on the Campbell Avenue local area flood model that was undertaken.

Process 2 - Revision of Mapping if considered necessary and ***Process 3 - Identification of “high risk” overland flow affected properties*** is expected to take 4-6 weeks for both the 5m and 2m grid size models. This process will also be dependant on the number of requests received for site inspections and is currently unknown. A minimum of 6 weeks should be allowed.

Process 4 - Prepared report to Council addressing submissions received and recommendation is expected to take 3-4 weeks.

The timing for the submission of the report to Council would hence be a minimum of 17 weeks with the report expected to be submitted to Council for its 19 October 2011 Ordinary Meeting. This timing is subject to Criterion c being selected for the 5m grid size model and the potential site inspections that may be requested taking 6 weeks to complete.

RECOMMENDED ACTIONS

Decide on Criteria for Tagging as Flood Control Lot

Council should now decide on the criterion to be selected from those presented in Process 1, Task 3 so that officers can proceed with the consideration of the submissions received and prepare the report to Council addressing the submission comments and presenting the Hornsby OFS and FPMs (with revision if required) for Councils adoption and re-advertisement if required.

As discussed in Process 1- Task 3, it is recommended that Council adopts **Criterion c - 5yr ARI without Pipes + D => 150mm** for the 5m grid size model as a **reasonable surrogate for the 100yr ARI** (required by the DoP) **with Pipes and for an overland flow depth of 150mm** (as used for the public exhibition).

The adopted FPMs will then be submitted to the DOP as an amendment to the Hornsby Shire Comprehensive LEP when gazetted.

Endorsement of Proposed Processes for Considering Submissions

It is now recommended that Council endorse the proposed process for addressing submissions received as presented in this report so that Council officers have Council's directions when undertaking this activity.

BUDGET

The estimated cost for undertaking the various tasks in the proposed process is approximately \$22,000 to \$27,000 depending on the final extend of study review based on the results of the initial tasks carried out.

The additional costs associated with this review/refinement of the flood study are anticipated to be covered by relevant grants from the State Government and the Works Division's budget.

POLICY

There are no policy implications resulting from this report.

There will however, be policy implications resulting from the task to be undertaken as the properties identified in the draft FPMs will be required to submit DAs when undertaking development whereas there is currently no legal requirement for them to do so.

In conjunction with the submission of DAs, there will also be a requirement for hydraulic studies to accompany such DAs to ascertain the impact of potential flooding on the development.

CONSULTATION

The preparation of the proposed process for considering submissions has been carried out in consultation with the relevant officers from the Environment, Planning and Works Divisions as well as the Consultants and DECCW (now known as the Department of Environment and Heritage).

The proposed process has been considered by the Hornsby Shire FRMC at its Meeting No. 3 held on 5 May 2011. Five Councillors, including the two councillors that are members of this Committee, were present at this meeting.

TRIPLE BOTTOM LINE SUMMARY

Triple Bottom Line (TBL) attempts to improve Council's decisions by being more accountable and transparent on social, environmental and economic factors. It does this by reporting upon Council's Strategic Theme.

The TBL assessment summary for considering the submissions received for the public exhibition of the Hornsby Overland Flowpath Study and Draft Flood Planning Maps is as follows:

1. Working with our community.

This report is readily available to the community. Social equity will be considered as part of the process for the setting of flood planning controls.

2. Conserving our natural environment.

The Flood Planning Maps will lead to measures that minimise the impacts of stormwater on the natural environment. It is anticipated that the flood planning process will explore various measures, including storage and treatment of stormwater as well as better management of any impacts on bushland and environmentally sensitive areas.

3. Contributing to community development through sustainable facilities and services.

Community consultation is part of the flood planning process and the resulting increased public awareness of flooding issues will contribute to community development. Safety in the public environment will be improved through the

identification of flood prone areas and their community participation required. Council will cater for the physical access needs of the community as required.

4. Fulfilling our community's vision in planning for the future of the shire.

The existing built and natural environment and their associated heritage values will be considered as part of the flood planning process. Improved flood management will promote the well-being of the community.

5. Supporting our diverse economy.

Better management of flooding will lead to reduced impacts and financial losses. Any restrictive development controls arising are in the public interest in the long term, although they may have some impacts on locally affected owners. There will be a neutral effect on local employment.

6. Maintaining sound corporate and financial management.

There is a budget allocation in 2010/2011 for the Flood Risk Management Plan process. The implementation of Flood Risk Management Plans over time will involve costs to Council, however, it will provide a substantial benefit to the community.

7. Other Sustainable Considerations.

There are no known negative impacts from this proposal at this stage.

RESPONSIBLE OFFICER

This report has been prepared by the Manager Assets, Mr Chon-Sin Chua in consultation with the Asset Engineer, Mr Alan Boyd, who can be contacted on telephone number 9847 6672 as Mr Chua will be on annual leave.

RECOMMENDATION

THAT Council:

1. Endorse the process for addressing submissions received for the Public Exhibition of the Hornsby Overland Flow Study and the Draft Hornsby Shire Flood Planning Maps as presented in Executive Manager's Report No. WK23/11.
2. Adopt Criterion c - 5yr ARI without Pipes + Depth => 150mm for the 5m grid size model as a surrogate for the 100yr ARI with Pipes and for an overland flow depth of 150mm to identify Flood Control Lots with High Risk or Hazard when finalising the Flood Planning Maps.

MAXWELL WOODWARD
Executive Manager
Works Division

Attachments:

1. DoP Fact Sheet 11 - Complying development on Flood Control Lots

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