Hawkesbury City Council

disaster and emergency committee business paper

date of meeting: 14 April 2021
location: Council Chambers and by audio-visual link
time: 5:30 p.m.

DISASTER AND EMERGENCY COMMITTEE

Meeting Date: 14 April 2021

AGENDA

- **WELCOME**
- **APOLOGIES**
- **DECLARATION OF INTERESTS**
- **SECTION 1 - Reports for Determination**

DISASTER AND EMERGENCY COMMITTEE

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SECTION 1 - Reports for Determination

Item: 001 **DE - Emergency Planning and Response - (151940, 95495)**

Division: Infrastructure

PURPOSE OF THE REPORT:

The purpose of this report is to provide an update on flood and emergency management including response and impacts from the March/April flood event. Representatives of key agencies including Resilience NSW, NSW SES and NSW Police will be available to address the Committee and/or answer questions.

EXECUTIVE SUMMARY:

The Hawkesbury LGA suffered from extensive inundation in the recent flood event. This affected private properties, businesses, agriculture as well as Council managed public infrastructure and assets.

The cleanup and repair process is continuing and assessment of the full financial impact is not yet finalised.

At this stage, "After Action Reviews" have not been undertaken, however information has and will continue to be collated for those reviews.

Management of the flood impact has now moved largely into the recovery phase and a regional recovery committee has now been established. Council in conjunction with NSW Engineering Services (Public Works) is now directly managing the cleanup administration which is anticipated to continue for some months.

The review of Council's role and management of emergency response and recovery activities is continuing with a draft report currently being finalised by Anne Leadbeater, following workshops and Councillor interviews in late 2020.

RECOMMENDATION:

That:

1. The Committee consider the information in the report relating to Emergency Planning and Response

2. Receive the presentations from relevant agencies; and

3. Identify matters for further action or resolution by Council.

BACKGROUND

Council at its meeting of 30 March 2021 resolved in part for the Disaster and Emergency Committee to provide advice to Council by 4 May 2021 regarding:

- The key learnings from the 2021 Floods

- The scale of the damage to Council's assets and resources of recovery funding
- An updated on the progress of our review of Council's policies, plans and procedures for disaster and emergency responses, as resolved on 18 February 2020.

Accordingly this report outlines general information on aspects and status of the flood, response and current recovery works.

1. Key learnings from the 2021 floods

Whilst the current commitment of resourcing by Council and agencies is principally directed to ongoing cleanup and recovery, there will be a number of "After Action Reviews" undertaken (by agencies and Council) to collate the issues and identify any deficiencies or areas that can be improved on in future events.

The Committee may wish to identify any issues that can then be listed for consideration in those reviews.

At this stage it is considered too early to identify learnings, and further reports will be prepared for Council to consider.

2. Scale of Damage to Council's Assets and Sources of Recovery Funding

The following information on damage is provided (current at time of writing).

NSW SES have undertaken an area wide impact assessment (including private properties).

• Building Impact assessments	3,768
• Damaged	879
• Destroyed	61
• Not Habitable	224

Council managed assets have also suffered significant impacts and damage.

Whilst impact assessment continues the following outlines some of the key assets affected.

Council Buildings

- 43 Buildings were affected
- 19 Reopened
- 3 Partially opened

21 have suffered significant damage or have safety issues. These are estimated to be operational progressively over the next six weeks.

Insurance claims will be made for eligible works.

Significantly damaged buildings (including electrical boards and controls) include sports and amenity buildings at:

- Colbee Park (3 buildings)
- Deerubbin Park
- Bensons Lane (4 buildings)

In a number of cases floodlighting and irrigation systems have been impacted due to inundation and this is impacting on grounds use.

Significant damage has also occurred to the Power Boat Clubhouse (Governor Phillip Park), the Lower Portland "Ferry Masters Cottage" and Macquarie Park House.

Parks/Reserves

Damage has occurred to virtually all riverside parks. This includes sedimentation, playground damage and bank slump/erosion, in addition to amenity building damage. Key sites affected include:

- Howe Park - Bank slump
- Governor Phillip Park - Playground
- Macquarie Park - Playground
- Hawkesbury Park - Playground
- Hanna Park - Silts and trees
- Windsor Wharf - Pontoon, sediments and sewer pump

These facilities were closed for public use due to health and safety risks and lack of operational amenities. Works are underway to enable reopening.

Waste Management

No damage to Council's facility at South Windsor occurred and the facility is accepting flood damaged waste free of charge currently.

As at 9 April 2021, approximately 700 tonnes of flood waste has been brought to the facility.

Sewer Assets

A number of sewer pump stations and other infrastructure was damaged by inundation including electricals, access roads and fencing.

Of significance is the significant bank slumping adjacent to a pump station at Cornwallis Road/Greenway Crescent. This structure is at risk should further major rainfall occur, however geotechnical works are being expedited to secure the station.

Road and Civil Infrastructure

Significant/notable damage has occurred at:

- Freemans Reach Road (currently being repaired)
- Cornwallis Road flood structure
- Greens Road - two major slips - road closed due to risk
- Tizzana Road, Ebenezer - road slips
- Upper Colo bridge - damaged/destroyed
- Grose Vale Road - land slip (cleared currently)
- Footbridge Deerubin Park - handrailing
- Terrace Road, North Richmond - slip (now repaired)

Council staff are continuing to assess the road network with both Council staff and contractors undertaking repairs and inspections across the network.

Funding

Many of Council's assets including buildings are insured and claims will be made against policies in the first instance.

Under the Natural Disaster Funding arrangements Council is eligible to claim for urgent restoration an repair works to road and drainage infrastructure and documentation has been maintained to enable claims. Larger restoration projects will also be lodged for assessment and approval.

A number of other restorations particularly of parks are generally not eligible for disaster funding and these works will, where possible, be met from operational budgets. At this stage it is not possible to put a reliable figure on the damages sustained to public assets.

3. Update on Review of Policies, Plans and Procedures for disaster and emergency response

Council on 9 November 2020 received a briefing on Emergency Management from Anne Leadbeater The briefing included discussion on the following:

- Briefing on Emergency Management legislative requirements from State through to the local level
- Outlined the emergency management planning process; including local planning undertaken e.g. Local Emergency Management Plan, Hawkesbury-Nepean Valley Flood Emergency Plan, and committees such as Local Emergency Management Committee, Bush Fire Management Committee, Floodplain Management Committee
- Discussed the roles and responsibilities of relevant stakeholders involved in Emergency Management
- Discussed the variety of projects Council is currently undertaking to prepare for an emergency e.g. Disaster and Emergency Dashboard, advocating for improved telecommunications and electricity supply west of the river, improved infrastructure to support the community in the event of an evacuation, improved Fire Control facilities, improved access to information such as building impact assessments, recovery cleanup activities and traffic cameras.

Following on from this initial briefing Councillors were provided with an opportunity to discuss individual emergency management concerns with facilitator Anne Leadbeater.

Ms Leadbeater is in the process of finalising the draft report based on discussions to date which will guide the need for a further briefing with Councillors regarding emergency management resilience, planning, response and recovery processes at Council.

oooO END OF REPORT Oooo

Item: 002 **DE - Floodplain Management Matters - (151940, 95498)**

Division: City Planning

PURPOSE OF THE REPORT:

The purpose of this report is to respond to the referral from Council to the Disaster and Emergency Committee of various floodplain management matters.

EXECUTIVE SUMMARY:

Council at its Ordinary Meeting on 9 February 2021 referred various floodplain management matters to the Disaster and Emergency Committee for consideration, including:

- Richmond Bridge Duplication Project
- Power Supply and Closure of Bridges
- Floodplain Risk Management Plan 2012 and Grant Applications
- Warragamba Dam Wall.

An update on the current status of these matters has been provided for discussion and consideration by the Disaster and Emergency Committee.

RECOMMENDATION:

That the Disaster and Emergency Committee:

1. Consider the Richmond Bridge Duplication Project further following the release of the Preferred Option Report by Transport for NSW.

2. Recommend that Council advocate with all relevant agencies and organisations for resilience planning of infrastructure networks during flood events.

3. Consider the matter of closure of bridges when further amendments are proposed to the Hawkesbury-Nepean Flood Emergency Sub Plan.

4. Recommend the formation of a working group to the Committee to act as an advisory group for Council's grant funded floodplain management projects in accordance with the NSW Floodplain Development Manual.

5. Consider the Warragamba Dam Wall matter further following the release of the Environmental Impact Statement by Water NSW.

BACKGROUND

Council has referred a number of floodplain management matters to the Disaster and Emergency Committee for consideration, including:

- Richmond Bridge Duplication Project
- Power Supply and Closure of Bridges
- Floodplain Risk Management Plan 2012 and Grant Applications
- Warragamba Dam Wall.

DISCUSSION

Richmond Bridge Duplication Project:

The Australian and NSW Governments have allocated $250 million to deliver traffic improvements including an additional bridge between Richmond and North Richmond. Investigations into the various corridor options to be considered as part of this project commenced in 2018.

In November 2019, Transport for NSW presented various options to the community that were under consideration as part of the investigations. A copy of the Transport for NSW Community update – route investigation from November 2019 is included as Attachment 1.

Transport for NSW are currently finalising the Preferred Option Report which had originally been planned to be released in early 2021. At this stage, a date for the release of the Preferred Option Report is unknown, but when it is released, Transport for NSW have indicated an intention to engage widely with the community on the preferred option at that time.

The most recent update on the Transport for NSW website with respect to the project is that they are currently undertaking surveys and ground investigations along Londonderry Road. As detailed on the Transport for NSW website these investigations will assist in designing potential safety improvements between The Driftway and Vines Street as part of the Richmond Bridge and traffic improvements project. The works include, ground surveying, surveying to locate above and below ground utilities and road surface investigations including drilling.

It is considered that when the Preferred Option Report is released for comment by Transport for NSW, that the Disaster and Emergency Committee consider this matter further.

Recommendation 1 – That the Disaster and Emergency Committee consider the Richmond Bridge Duplication Project further following the release of the Preferred Option Report by Transport for NSW.

Power Supply and Closure of Bridges:

Power Supply West of the River

Based on advice from the former Floodplain Risk Management Advisory Committee, Council had previously written to Endeavour Energy seeking clarification of the impacts to power supply during flood events, and in particular west of the Hawkesbury River.

Additionally, based on recommendations of the former Floodplain Risk Management Advisory Committee, Council had sought clarification regarding whether any areas of the Hawkesbury Local Government Area had access to power supply from the west of the Hawkesbury River (e.g. Mount Piper) and if so, which areas.

A presentation was provided by Endeavour Energy to the former Infrastructure Committee on 18 April 2018. A copy of that presentation - Electricity Infrastructure for the Hawkesbury, provided information of probable power supply impacts to certain suburbs in the Hawkesbury Local Government Area at various flood levels, as well as other information. A copy of that presentation is included as Attachment 2.

Council has recently adopted the Hawkesbury Net Zero Emissions and Water Efficiency Strategy which includes as one of the six key strategies:

1. A more resilient and renewable powered grid

Amongst other actions in this regard, the Strategy includes collaboration and forming a partnership with Endeavour Energy to look at network opportunities including grid scale storage for solar PV.

During the exhibition stage of the Strategy, a series of initial meetings were held with Endeavour Energy to start the process of exploring such partnership opportunities.

It should also be noted that based on advice from the former Floodplain Risk Management Advisory Committee that Council had applied for funding through the NSW State Governments Floodplain Management Grants Program for a series of grants, including:

Secondary flooding impacts and resilience planning in Hawkesbury Local Government Area.

The objectives of the proposed Project were to:

- Evaluate potential risks for interruption of services during flooding events
- Assess flooding exposure and risk at townships not directly affected by floodwater and develop heat maps
- Provide an integrated assessment of services continuity under flooding events and evaluate risk profiles due to service interruptions
- Undertake stakeholder consultation and engagement planning which includes service providers, the SES, Resilience NSW, DPIE and others
- Integrate with Council's Net Zero Emission Strategy in implementing service continuity through local resilience during flooding events
- Streamline the assessment of risk profiles and the performance of essential services, and optimising the resources and investments
- Identify opportunities for the maintenance of service continuity during flooding events under baseline conditions and projected scenarios
- Prioritise works for resilience planning based on risks and vulnerabilities, and communicating these to relevant service providers

Note – It was considered that Council is in a better position to evaluate risks and communicate the issues to service providers to improve service resilience. This would allow Council to undertake an integrated assessment of secondary risks and work with other service providers.

Council was advised that the application for grant funding was unsuccessful for the following reasons:

- Didn't align with the NSW Floodplain Management Program
- Core asset management responsibilities are for Council
- Core asset management responsibilities are for service providers (such as water, power etc.)
- Resilience NSW may be able to assist Council in addressing these issues.

Based on further discussion with the NSW Floodplain Management Grants team, it was decided not to pursue a further application for grant funding in this respect as part of the most recent round of funding given it was considered unlikely to be successful.

Recommendation 2 – That the Disaster and Emergency Committee recommend that Council advocate with all relevant agencies and organisations for resilience planning of infrastructure networks during flood events.

Closure of Bridges

The closure of bridges during flood events, and particularly timing/trigger points for these closures is a complicated issue, and depends on numerous variables and assessment of potential risks. It was a matter raised by the former Floodplain Risk Management Advisory Committee on a number of occasions, with the aim of obtaining a greater level of understanding in the community as to timing and trigger points for closures so that residents could prepare and act according to the timing of these closures.

The most recent report to the former Floodplain Risk Management Advisory Committee in this respect was in September 2020 where the recently updated Hawkesbury-Nepean Flood Emergency Sub Plan prepared by the State Emergency Service was discussed.

The Sub Plan sets out the multi-agency arrangements for the emergency management of flooding affecting the Hawkesbury-Nepean Valley, and contains a series of related documents, including:

- Hawkesbury-Nepean Flood Emergency Sub Plan
- Annex A – Hazard and Risk in the Hawkesbury-Nepean Valley
- Annex B – Flood Warning Gauges
- Annex C – Sectors, Sub Sectors and Strategy selection considerations
- Annex D – Evacuation Management Arrangements
- Annex E – Flood Rescue Arrangements
- Annex F – Resupply Arrangements
- Annex G – Dam Emergency Arrangements
- Annex H – Managing Transport Impacts

For the purpose of addressing the specific matter of bridge closures, Annex H of the Sub Plan has been included as Attachment 3.

During the September 2020 meeting of the Floodplain Risk Management Advisory Committee, it was noted that the Sub Plan was released in June 2020, and that the updated version has consolidated evacuation management to show the sequence and managing road networks.

It was also highlighted that Annex C (Sectors) and Annex D (Evacuation Management Arrangements) will be amended, with a fairly extensive revision to the sub-sectors expected. It was also outlined that as new information becomes available amendments will be made on a more regular basis rather than every five years as has previously been the case.

Discussion also took place regarding the timing of closure of bridges in the Hawkesbury during flood events, noting that Annex H (Managing Transport Impacts) provides further details in respect. A representative from the SES explained that the timing for closure of bridges is highly dependent on the conditions at the time, noting that each flood is different, and factoring in a number of considerations including debris in the river.

It was also noted that Annex H (Managing Transport Impacts) currently reflects the old Windsor Bridge, but will be updated given that the new Windsor Bridge is operational.

Recommendation 3 – That the Disaster and Emergency Committee consider the matter of closure of bridges when further amendments are proposed to the Hawkesbury-Nepean Flood Emergency Sub Plan.

Floodplain Risk Management Plan 2012 and Grant Applications:

As outlined in numerous Strategies and documents, the Hawkesbury-Nepean Valley has one of the most significant flood risk exposures within Australia. The risks to both property and people resulting from flooding in the Valley have been recognised for some time. Following the establishment of the Hawkesbury-Nepean Flood Management Advisory Committee in 1997, the Hawkesbury-Nepean Floodplain Management Strategy was prepared under the guidance of the State Government. The Strategy was developed to enable all levels of government and the wider community to recognise more fully, and respond more appropriately to the flood risks in the Valley.

An important outcome of the Hawkesbury-Nepean Floodplain Management Strategy was a Regional Floodplain Management Study which provided tools to assist each council in the Valley develop its own local floodplain risk management plans. This included preparation of a flood hazard definition tool and a set of best practice guidelines covering land use planning, subdivision and building on flood prone land.

The Hawkesbury Floodplain Risk Management Study and Plan 2012 built on the significant work undertaken at that stage at the regional level. Although the Council of the day in 2012 did not adopt the town planning section of the Hawkesbury Floodplain Risk Management Study and Plan 2012, the Plan was prepared to advance local floodplain management initiatives including the revision of local planning policies and the provision of advice to Hawkesbury City Council and the State Government concerning the

evacuation risk exposure of future development proposals. Council prepared and adopted the new Flood Policy 2020 based on these considerations.

Since the completion of the Hawkesbury Floodplain Risk Management Study and Plan 2012, Infrastructure NSW has developed and released the Hawkesbury-Nepean Regional Flood Study in 2019. The Infrastructure NSW Regional Flood Study represents the best available data and information with respect to flooding on a regional basis within the Hawkesbury-Nepean Valley. Infrastructure NSW is also currently undertaking further flood modelling work and is preparing a 2D Flood Model for the Hawkesbury-Nepean Valley.

Given these new flood studies and data, plus the fact that the Hawkesbury Floodplain Risk Management Study and Plan 2012 was approaching 10 years since its preparation, Council applied for and was successful in obtaining funding under the NSW Floodplain Management Grants Program to review the Hawkesbury Floodplain Risk Management Study and Plan 2012.

At the same time, Council also applied for and was also successful in obtaining funding to undertake a Flood Study and Flood Risk Management Study and Plan for the Macdonald and Colo Rivers, Greens and Webbs Creek.

NSW flood planning policy provides for best practice in terms of such studies and plans, and how they are undertaken as highlighted below:

Flood Prone Land Policy

The primary objective of the NSW Governments Flood Prone Land Policy is to reduce the impact of flooding and flood liability on individual owners and occupiers of flood prone land, and to reduce private and public losses resulting from floods.

The Flood Prone Land Policy identifies that management of flood prone land is primarily the responsibility of Council.

The Floodplain Development Manual was developed to provide the framework for the implementation of the NSW Government's Flood Prone Land Policy to achieve its primary objective.

Legislation and Liabilities

A council does not incur any liability under Section 733 of *the Local Government Act 1993* for advice furnished in good faith relating to the likelihood of any land being flooded or the nature or extent of any such flooding. This applies to a range of planning and development decisions including the preparation or making of an environmental planning instrument, including a planning proposal, or a development control plan, or the granting or refusal of consent to a development application, or the determination of an application for a complying certificate, and the imposition of any condition in relation to development applicaions. It also applies to advice furnished in planning certificates and any other thing done or omitted to be done in the exercise of a council's functions under the Local Government Act 1993 or any other Act. This indemnity applies to the council, councillors, and council staff.

Council is, unless the contrary is proved, taken to have acted in good faith for the purposes of Section 733 if the advice was furnished, or the thing was done or omitted to be done substantially in acordance with the principles contained in the Floodplain Development Manual (2005).

Floodplain Development Manual (2005)

In terms of the Floodplain Development Manual:

- The Floodplain Development Manual provides best practice guidance for the management of floodplains in NSW

- The Manual supports the NSW Government's Flood Prone Land Policy by providing for the development of sustainable strategies for managing human occupation and use of the floodplain considering best practice risk management principles

- State Agencies have a lead role in the development of regional strategies and plans under the EP&A Act. (DP&E, OEH, INSW, SES) e.g. the Hawkesbury-Nepean Flood Risk Management Strategy

- The most effective means of achieving sound flood risk management outcomes is to formulate and implement management plans

- The Manual provides a guideline for the preparation and implementation of floodplain risk management plans

- As part of the process of developing floodplain risk management plans, the Manual requires the formation of a Floodplain Risk Management Committee in accordance with Appendix D of the Manual attached as Attachment 4.

Floodplain Risk Management Committee

Given the complexity and range of issues to be addressed in the process of developing floodplain risk management plans, the Committee needs to be able to coordinate and disseminate the interests, advice and expertise available from State and Commonwealth Government agencies and the local community. The expertise necessary to address the diverse issues involved need to be drawn from a variety of sources, including:

- The local council itself (both elected representatives and council staff);
- The local community
- Key industry groups;
- Environmental interest groups;
- State and Commonwealth Government Agencies; and
- Specialist consultants, as engaged.

The Floodplain Development Manual identifies that local community representatives would include local flood affected landholders (residential and business), relevant industry bodies (eg the chamber of commerce), and environmental groups. Community representatives play an important role in:

- Linking the committee and the local community
- Providing historical advice on local problems and perceived solutions
- Considering the implications of matters that impact on the local community
- Facilitating formal representations to the committee on behalf of the public.

The local community, both flood prone and otherwise, has a key role to play in the development, implementation and success of a management plan. If it is to be accepted and successful, it is essential that clear and concise communications flow between the committee and the community so that affected individuals and community groups can 'have their say' and learn of their roles and responsibilities.

Summary

To minimise Councils liabilities relating to flooding, Flood Studies and Floodplain Risk Management Plans undertaken by Council, should be carried out in accordance with the Floodplain Development Manual. In this regard, the process required to be followed by the Manual includes the establishment of a Committee that includes representation from the local community and other public/government agencies.

Given the importance of floodplain risk management in the Hawkesbury, engagement with the community will contribute to the acceptance and success of any floodplain risk management plan. This may be better facilitated if the community is involved in the process including through representation on the Committee.

In order to ensure compliance with the NSW Floodplain Development Manual it is recommended that a working group be formed of the required members to act as an advisory group to Council's grant funded floodplain management projects.

Recommendation 4 – That the Disaster and Emergency Committee recommend the formation of a working group to the Committee to act as an advisory group for Council's grant funded floodplain management projects in accordance with the NSW Floodplain Development Manual.

Warragamba Dam Wall:

Outcome 2 of the Hawkesbury-Nepean Valley Flood Risk Management Strategy (Resilient Valley Resilient Communities) prepared by Infrastructure NSW (Attachment 5) includes:

> *Reduced flood risk in the Valley by raising Warragamba Dam wall*

Final design will be completed and approvals obtained for the raising Warragamba Dam wall by 14 metres to significantly reduce and mitigate flood risk.

As outlined in the Resilient Valley, Resilient Communities Strategy, in developing the Flood Strategy, it was identified that raising the Warragamba Dam wall by 14 metres was a cost effective measure for reducing flood damages and risk to life. This measure will result in around 75% reduction in the damages expected from floods on average each year, and significantly reduce the risk to life from flood events.

As outlined in the Resilient Valley, Resilient Communities Strategy, actions to be undertaken in this regard include:

- Complete detailed design and costing for the raising of Warragamba Dam wall by 14 metres for flood mitigation (Water NSW)
- Prepare an Environmental Impact Statement — this will include community consultation and detailed assessment of the potential environmental impacts from construction and ongoing operation (Water NSW)
- Submit environmental and planning approvals — the environmental and planning approval for raising the dam wall will also be referred to the Australian Government under the Environment Protection and Biodiversity Conservation Act 1999 (Water NSW)
- Submit a final business case for raising the dam wall to the NSW Government (Infrastructure NSW).

As outlined by Water NSW, environmental assessment for the Warragamba Dam Raising project commenced in late 2017. The studies and survey underway will provide important data for the Environmental Impact Statement which will be made available for public review and comment.

The Environmental Impact Statement is being prepared in accordance with the Environmental Planning and Assessment Act 1979 and the NSW Department of Planning and Environment Secretary's Environmental Assessment Requirements.

Additionally, the project has been declared a Controlled Action under the Australian Government Environment Protection and Biodiversity Conservation Act 1999 due to the likely impact on matters of national environmental significance including:

- World Heritage properties (the Greater Blue Mountains World Heritage Area and National Heritage Place)
- National Heritage places
- Listed threatened species and communities.

It is expected that the Environmental Impact Statement will be completed and publicly exhibited towards mid 2021, although no set date has been confirmed at this stage.

Given the above, it is considered that when the Environmental Impact Statement is released for comment by Water NSW, that the Disaster and Emergency Committee consider this matter further.

Recommendation 5 – That the Disaster and Emergency Committee consider the Warragamba Dam Wall matter further following the release of the Environmental Impact Statement by Water NSW.

COMMUNITY ENGAGEMENT

A number of these matters discussed in this report relate to Strategies undertaken by other agencies/organisation, and as such they do not require community consultation under Council's Community Engagement Policy.

Matters such as the floodplain management projects that Council has secured grant funding for will require extensive community engagement.

CONFORMANCE TO THE HAWKESBURY COMMUNITY STRATEGIC PLAN 2017-2036

The proposal is consistent with the following Focus Area, Directions and Strategy within the Community Strategic Plan 2017-2036.

Our Community

2.1 Community safety is improved

- 2.1.1 Meet the needs of our community through effective flood, fire and other natural disaster management plans that promote the protection of life, property and infrastructure.
- 2.1.2 Make the Hawkesbury a friendly place where people feel safe.

2.4 Community wellbeing and local services

- 2.4.1 Work in partnership with government and community organisations to improve services and facilities for disadvantaged and vulnerable groups, and to build stronger and more cohesive communities.
- 2.4.2 Provide flexible services that can adapt to changing community needs and service demands.

FINANCIAL IMPACT

There are no financial implications applicable to this report.

FIT FOR THE FUTURE STRATEGY CONSIDERATIONS

Does not align with a Fit for The Future Strategy.

ATTACHMENTS:

AT – 1 Transport for NSW – Richmond Bridge Duplication Community Update Route Investigation November 2019.

AT - 2 Endeavour Energy Electricity Infrastructure Presentation 18 April 2018.

AT – 3 Annex H Managing Transport Impacts – Hawkesbury-Nepean Flood Emergency Sub Plan - *(Distributed under separate cover).*

AT – 4 Appendix D Floodplain Development Manual (2005).

AT – 5 Infrastructure NSW - Resilient Valley Resilient Communities Strategy 2017 - *(Distributed under separate cover).*

AT – 1 Transport for NSW – Richmond Bridge Duplication Community Update Route Investigation November 2019

Australian Government

BUILDING OUR FUTURE

NSW GOVERNMENT

Richmond Bridge duplication and traffic improvements

Community update – route investigation
November 2019

Aerial view of Richmond Bridge

The Australian and NSW Governments have allocated $250 million to deliver traffic improvements including an additional bridge between Richmond and North Richmond.

The bridge between Richmond and North Richmond provides a vital crossing of the Hawkesbury River, and carries an average of 31,000 vehicles per day with a single lane in each direction.

In 2013, Roads and Maritime Services prepared the *Richmond Bridge and approaches congestion study: preferred short-term and long-term options report.* The study identified the need for additional bridge capacity and three intersections upgrades to improve travel times and journey time reliability and provide for future growth.

So far we have:

- upgraded the intersection of Kurrajong Road and Old Kurrajong Road
- upgraded the intersection of Bells Line of Road and Grose Vale Road
- started pre-construction work to upgrade the intersection of March Street and Bosworth Street.

We are now investigating potential routes to duplicate Richmond Bridge to further improve traffic conditions in North Richmond and Richmond. We have been working with a community working group since early 2019 to investigate potential route options. We are now offering the wider community a chance to comment on the work carried out so far.

Better and more reliable trips for people, business and freight

Improving safety

Working with local communities

Richmond Bridge duplication and traffic improvements project – potential routes

Potential routes

Roads and Maritime is investigating a range of potential route options to reduce traffic congestion between Richmond and North Richmond. The options include bridge duplication and potential bypass routes of the townships to provide capacity for future traffic.

We are in the process of investigating the advantages and limitations of each option. We will consider costs, the overall benefits, potential impacts and your feedback before deciding on a preferred option to progress.

All options would involve keeping the existing bridge, intersection improvements and improvements to The Driftway. There is also the potential for sections of the route options to be combined to create hybrid route options. Improvements may be delivered in stages.

The Driftway upgrades

Improvements to sections of The Driftway will be investigated for all options. This could include intersection upgrades and safety improvements to the road surface and width.

Bells Line of Road and Yarramundi Lane route

- This route would bypass Richmond by upgrading Yarramundi Lane and Crowleys Lane to connect to The Driftway
- The existing Bells Line of Road through North Richmond would provide two lanes in each direction between Terrace Road and Old Kurrajong Road
- The existing bridge would be converted to two westbound lanes
- A new bridge would be built 20–60 metres downstream of the existing bridge with two eastbound lanes
- Reducing traffic in Richmond town centre and improving amenity.

Beaumont Avenue route

- A variation of Yarramundi Lane route with Beaumont Avenue upgraded with two eastbound lanes and one westbound lane reducing the need to widen Bells Line of Road through North Richmond town centre
- A new bridge would be built about 140 metres downstream of the existing bridge, with two new lane eastbound west of Old Kurrajong Road.

North Richmond northern bypass route

- Bypasses North Richmond to the north and Richmond to the south reducing traffic in both town centres and improving amenity
- New two way, two lane bridge 600m downstream of existing bridge
- Various route options are being considered within a wider corridor between Kurrajong Road and an improved Inalls Lane
- A new road parallel to Southee Road between Castlereagh Road and Londonderry Road to separate local and through traffic
- Provides a shorter connection between Kurrajong Road and the existing road network to improve travel times.

North Richmond southern bypass route

- Bypasses Richmond and North Richmond to the south reducing traffic in both town centres and improving amenity
- A new two way, two lane bridge 2.4 kilometre upstream of the existing bridge.

2013 Option

- Identified as the preferred option in the Richmond Bridge and approaches congestion study: preferred short-term and long-term options report
- A new bridge 25–50 metres downstream of the existing bridge and capacity improvements along the existing Bells Line of Road and Kurrajong Road through Richmond and North Richmond between Terrace Road and East Market Street.

The final route option will aim to minimise impacts on properties. As we are in the early stages of investigating potential routes, we have not finalised the impact to property owners. However, Roads and Maritime will be in contact with affected property owners as the project progresses.

More information about the property acquisition process is available at www.propertyacquisition.nsw.gov.au

What are we trying to achieve?

The key objective of this project is to reduce congestion between Richmond and North Richmond and build for future growth. We also aim to:

- improve travel times and journey time reliability
- improve connectivity between Bells Line of Road and the main road network
- improve resilience during floods
- support economic development in the town centres of Richmond and North Richmond
- improve safety along the road corridor between Richmond and North Richmond
- improve public and active transport connections.

Where are we now?

We are working closely with Hawkesbury and Penrith City Councils, Infrastructure NSW, State Emergency Services and key community groups in developing the potential routes. These routes will form the basis of an options report to be released in 2020.

To help us ensure we better understand local issues and views, we have established a representative Community Working Group as our first step in engaging with the local community. Throughout 2019 we have worked closely with this group, who have assisted in identifying potential routes for further investigation, based on the community's needs. The valuable input and collaboration from this group, and our preliminary investigations will form part of the options report which will be released in 2020 and supported by widespread community consultation. The preliminary investigation work includes:

- modelling future traffic scenarios
- reviewing public transport services
- Aboriginal and non Aboriginal heritage
- flooding
- urban design
- socio-economics and property.

Has a decision been made on the preferred route?

We have identified a range of potential routes together with the Community Working Group. There has been no decision on the preferred route at this stage. We are currently investigating the merits and feasibility of the options and we want to hear your feedback.

You can contact us by email, phone or online. We will be holding community information sessions in December so you can speak with our project team in person.

How are we improving flood resilience?

This project takes into consideration the *Hawkesbury-Nepean Valley Flood Risk Management Strategy (2019)*, a long-term plan to reduce flood risk.

The existing Richmond Bridge is closed in relatively minor flood events. We are investigating the route options at a range of heights to improve access between east and west of the Hawkesbury River. We will consider the costs, benefits and impacts of each option as we develop the options report.

Traffic on Richmond Bridge

Community Working Group

In 2019 we formed a Community Working Group to play a key role in providing local knowledge to assist in developing a range of potential routes for the proposal.

This group has been identified from key stakeholders within the community, and is made up of local community, business, environmental, heritage and flood advisory groups.

What are the next steps?

We want to hear your feedback as we investigate potential routes. Please provide your feedback before **20 December 2019** to ensure it is considered in the options report.

We will have community information sessions during December 2019, so you can meet the project team in person to ask questions.

Together with our preliminary investigations, your feedback will assist us to propose a preferred route option.

The options report will be released in 2020 and you will have a further opportunity to provide feedback before the preferred option is confirmed.

We would then progress the preferred option to concept design and environmental assessment.

If you want to join our email list for project updates please email us at **richmondbridge@rms.nsw.gov.au**

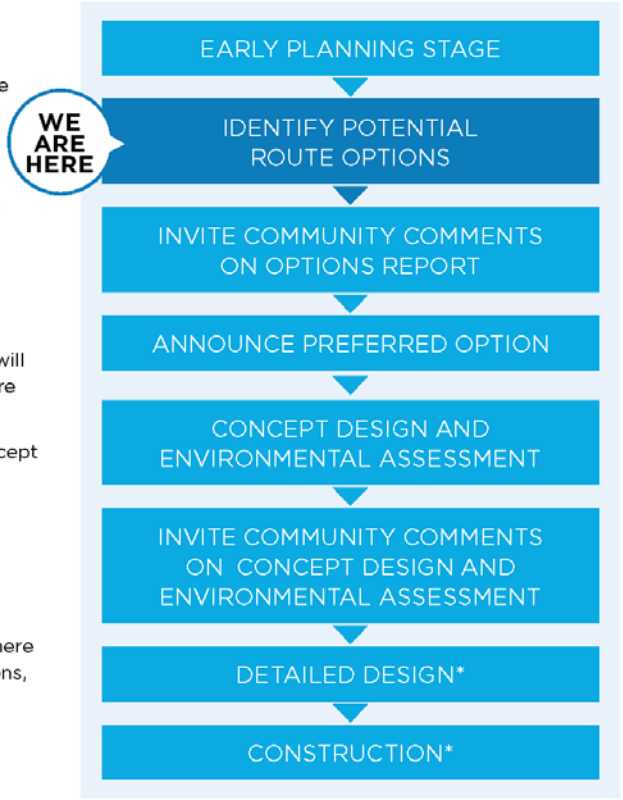
How can I get involved?

We will hold two community information sessions where the project team will be there to answer your questions, take feedback and discuss the route investigations.

Session 1
Location: North Richmond Community Centre
33 William Street, North Richmond
Time: Wednesday 4 December 5pm–7pm

Session 2
Richmond Community Services Inc.
20 West Market Street, Richmond
Time: Saturday 7 December 10am–12pm

If you miss us at the community information sessions you can still contact us with your feedback or make comments on our interactive map.



*subject to planning approval and funding release

Have your say online with our interactive map

Pin comments and feedback about the route options we are investigating on our interactive map at **rms.nsw.gov.au/richmond-bridge**.

This feedback will be considered as part of the options report.

Contact us

If you have any questions or would like to make a submission please contact the project team.

1800 370 778

richmondbridge@rms.nsw.gov.au

rms.nsw.gov.au/richmond-bridge

131 450

If you need help understanding this information, please contact the Translating and Interpreting Service on 131 450 and ask them to call us on **1800 370 778.**

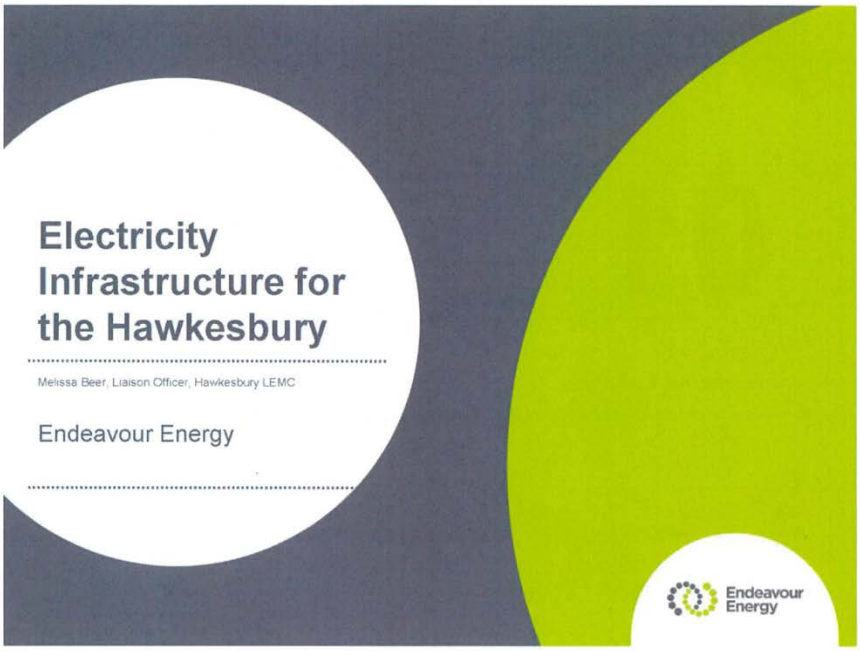
NSW GOVERNMENT

November 2019
RMS.19.1474

Privacy Roads and Maritime Services ("RMS") is subject to the Privacy and Personal Information Protection Act 1998 ("PPIP Act") which requires that we comply with the Information Privacy Principles set out in the PPIP Act. All information in correspondence is collected for the sole purpose of delivering this project. The information received, including names and addresses of respondents, may be published in subsequent documents unless a clear indication is given in the correspondence that all or part of that information is not to be published. Otherwise RMS will only disclose your personal information, without your consent, if authorised by the law. Your personal information will be held by RMS at 27 Argyle Street, Parramatta NSW 2124. You have the right to access and correct the information if you believe that it is incorrect.

AT - 2 Endeavour Energy Electricity Infrastructure Presentation 18 April 2018

AT - 1 Endeavour Energy Electricity Infrastructure Presentation 18 April 2018



01

Overview of
Endeavour Energy

Endeavour Energy's Locations

- Endeavour Energy's network franchise area spans 24,500 square kilometres and forms the organisation's platform into the National Electricity Market for energy and energy related products and services.
- The franchise includes some of Australia's fastest-growing residential and commercial areas, spread across Sydney's greater west, the Illawarra and Southern Highlands.
- KEY FACTS
  - Square Kms = 24,500
  - Employees = 2,760
  - Sales of electricity (GWh) = 17,440
  - Total Customer Connections = 853,358

Endeavour Energy

02

Electrical Infrastructure for the Hawkesbury

Endeavour Energy

Electricity Supply Arrangements to the Hawkesbury LGA

- Hawkesbury Transmission Substation (Located on the corner of Ham St and Fairey Rd, South Windsor) Supplies Hawkesbury LGA and parts of the Hills, Penrith and Blacktown LGAs.
- Hawkesbury TS is supplied by 2 x 132kV lines from Vineyard Transgrid Substation located on Bandon Rd, Vineyard which cross South Creek.

Endeavour Energy

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Electricity Supply Arrangements to the Hawkesbury LGA

- Hawkesbury TS then supplies the following Zone Substations:

1. North Richmond
2. East Richmond
3. Kurrajong
4. Glossodia
5. Riverstone
6. Cattai
7. Wisemans
8. Glenorie
9. Windsor
10. South Windsor

6 Endeavour Energy

Hawkesbury LGA – Customer Numbers

Zone Substation	Customer Numbers
North Richmond	3,500
East Richmond	5,300
Kurrajong	3,800
Glossodia	4,000
Riverstone	3,500
Cattai	2,900
Wisemans	1,200
Glenorie	1,300
Windsor	4,300
South Windsor	8,000

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Flood Response Plan

- In flood prone areas, High Voltage and Low Voltage isolations will vary according to accessibility to parts of the network and to river heights (including Colo and MacDonald Rivers)
- Upon confirmation of an imminent flood, work parties will be set up on both sides of the river, observing water levels and on standby ready to commence isolations as water levels dictate.
- Restoration will largely be dependent on the extent of damage to the network. Assessments will need to be carried out.
- In the meantime generators may be supplied to Evacuation Centres and other areas as determined in accordance with other Government agencies – e.g. Health

Endeavour Energy

Flood Response Facts

- In a major flood exceeding 14.5 metres AHD or Dam Failure, supply then could be lost for significant periods of time.
- Flexibility, with regards to Portable Substations (up to zone substation category) and availability of generators will minimise recovery times.
- A large proportion of the area to the west of the river will not be affected by flood but will be interrupted due to transmission network damaged.
- > 14.5m AHD - days to weeks in some areas (mainly dependent on transmission damage)
- >15.5 m AHD - major loss of transmission networks (weeks to months)
- The network infrastructure is designed for a 1 in 100 year flood level. The extent of damage, largely caused by trees in water ways are a major contributor to infrastructure damage. Soil erosion around poles is another.
- The 3 most recent major floods were in 1978, 1988 and 1990 (Hawkesbury area). These were around the 14 metre mark.

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HAWKESBURY RIVER – WATER LEVELS AT WINDSOR BRIDGE

Water Level (AHD)	Location	Impact	Zone Substation
3 – 4 Metres	Wilberforce, North Richmond, Windsor: Areas around Gorricks Lane, Freemans Reach Road, Wilberforce Road, Pitt Town Bottoms Road, Charles and Livingston Streets	Isolations commence on low lying river areas. Initially to irrigation pumps only	Windsor
4 – 6 Metres	Wilberforce, North Richmond, Windsor: Fairey Road, Mulgrave Road, Cuppitts Lane;	Irrigation pumps, some street lighting.	Windsor, South Windsor and Cattai
6 – 8 Metres	McGraths Hill, Maroota, Wisemans, Windsor, Agnes Banks, North Richmond, Wilberforce, Vineyard, Maraylya, Oakville, Sackville, Leets Vale, St Albans, South Windsor	Checking access to assets – road closures	Riverstone, Cattai, Wisemans, Windsor, North Richmond, South Windsor

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HAWKESBURY RIVER – WATER LEVELS AT WINDSOR BRIDGE

Water Level (AHD)	Location	Impact	Zone Substation
8 – 10 Metres	Windsor, Londonderry, Cornwallis, McGraths Hill, Maraylya, Pitt Town, South Windsor, Mulgrave, Sackville, Ebenezer, Wilberforce, Freemans Reach	• High and Low Voltage Distribution Isolations commence. • Continue checking road access to assets and • monitoring water levels	Windsor, South Windsor, East Richmond, Cattai, Glossodia
10 – 13 Metres	Various Locations around the Hawkesbury	• Preparations begin for transmission mains isolations	Potentially All out of Hawkesbury Transmission Substation
13 – 16 Metres	McGraths Hill, Maroota, Wisemans, Windsor, Agnes Banks, Clarendon, Londonderry, Berkshire Park, Richmond, Shanes Park, North Richmond, Wilberforce, Vineyard, Pitt Town, Maraylya, Oakville, Cattai, Sackville, Leets Vale, Wisemans Ferry, St Albans, South Windsor	• Load transferrals commence where possible • Transmission feeders are isolated • Continue checking road access to assets and • monitoring water levels	Kurrajong, North and East Richmond, Cattai and Wisemans. South Creek Rise terminates supply to all of Hawkesbury, Parts of Hills, Blacktown and Penrith LGAs

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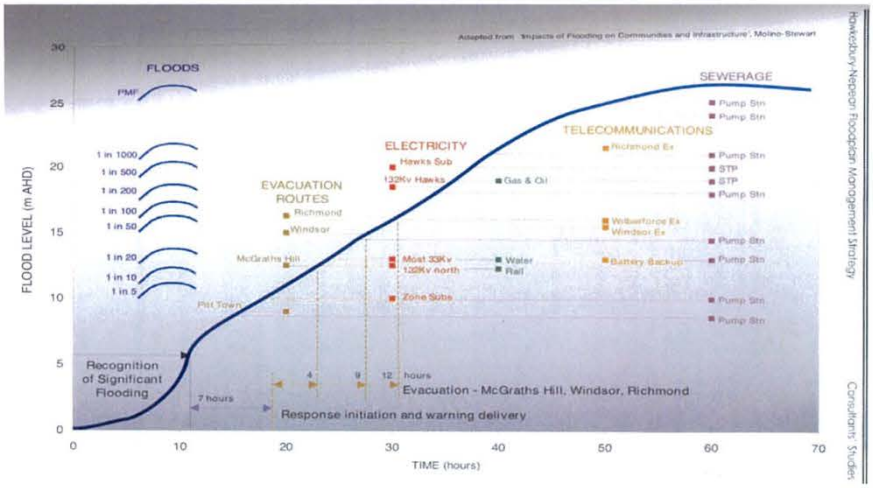
Flood Level Impact on Services in the Hawkesbury



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End of Presentation
Impacts – Ebenezer, 1990

14

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Impacts – Windsor 1990

15

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Document Set ID: 7340597
Version: 2, Version Date: 28/10/2020

AT – 4 Appendix D Floodplain Development Manual (2005)

APPENDIX D FLOODPLAIN RISK MANAGEMENT COMMITTEE

FLOODPLAIN RISK MANAGEMENT PROCESS Appendix C									
Floodplain Risk Management Committee	→	Data Collection	→	Flood Study Preparation	→	Floodplain Risk Management Study Preparation	→	Floodplain Risk Management Plan Preparation	→	Floodplain Risk Management Plan Implementation
Appendix D		Appendix E		Appendix F		Appendix G		Appendix H		Appendix I

TECHNICAL SUPPORT APPENDICES (Those directly supporting this Appendix are highlighted)								
Floodplain Risk Management Measures		Flood Planning Levels		Hydraulic & Hazard Categorisation		Flood Damages		Emergency Response Planning for Floods
Appendix J		Appendix K		Appendix L		Appendix M		Appendix N

D1 Introduction

The establishment of a floodplain risk management committee by council is the first formal step in the floodplain risk management process. It may be formulated as a new committee or its role may be incorporated within an existing council committee. Council will need to decide on the appropriate approach to ensure the committee is effective for its area.

The management committee acts as both a focus and forum for the discussion of technical, social, economic, environmental and cultural issues and for the distillation of possibly differing viewpoints on these issues into a management plan. It achieves this by ensuring that all stakeholders (often with competing desires) are equally represented. As such, the composition and roles of committee members are matters of key importance.

D2 Need for a Committee

The development of a management plan, for either urban or rural areas must, take into consideration a number of diverse issues which include:

- the risk, danger to personal safety and property damage, imposed on existing land uses (the existing risk);
- the cumulative impact of flooding on potential future land uses and occupants and of development on flooding (the future risk);
- the management of the continuing flood risk remaining in both existing and future development areas after works and controls are implemented;
- the environmental impact of existing and potential future developments and floodplain risk management measures;
- the broad scale catchment issues such as water quality, riverine and floodplain enhancement and land management;
- cumulative impacts as a result of changes in hydrology, floodplain geometry, or other factors;
- the potential economic cost and benefits to both the private and public sectors of floodplain occupation;
- the potential economic benefits of proposed risk management measures;
- potential intangible flood costs, including physical and psychological effects of flooding;
- social factors, including the needs and aspirations of the local community, both existing and in the future;
- planning options and restrictions, including special zonings and planning controls, opportunities; and

- the protection of Aboriginal sites and places and European heritage.

The expertise necessary to address these issues needs to be drawn from a variety of sources, including:

- the local council itself (both elected representatives and council staff);
- the local community;
- key industry groups;
- environmental interest groups;
- State and Commonwealth Government agencies; and
- specialist consultants, as engaged.

The development and implementation of a floodplain risk management plan is solely a local council responsibility in urban situations. The local government role is discussed in Section 3.1. The role of DIPNR in the rural areas in western New South Wales designated under Part VIII of the Water Act is outlined in Section 3.2.

Given the complexity and range of issues to be addressed in the process as outlined above, the committee needs to be able to coordinate and disseminate the interests, advice and expertise available from State and Commonwealth Government agencies and the local community. The committee should also consider the establishment of a specialist technical sub-committee (discussed in Section D6) to deal with complex technical issues, if required.

In certain circumstances it may be necessary to establish a single committee involving adjoining council(s) to effect coordinated planning. This may be appropriate where the floodplain under investigation embraces more than one local government area and where structural, land use or flood response measures in one council area are likely to influence the effectiveness of management measures or flood behaviour in other council areas. Consideration should also be given to the relationship with adjoining councils, and if necessary, the establishment of an overall committee to address the flooding problems on a catchment wide basis.

D3 *Role of the Committee*

The management committee does not have any formal powers. Rather, it has an advisory role, but an important one. The principal objective of the committee is to assist the council in the development and implementation of a management plan for the area(s) under its jurisdiction. However, the committee also assists in:

- formulating objectives (in accordance with ESD principles), strategies and outcomes sought from the process (see Section C3);
- providing a link between the local community and council;
- identifying the flood problem to be assessed and the study area (see Section F2);
- considering and making recommendations to council on appropriate development controls for use until the management plan is completed, approved and implemented (see Section C9);
- supervising the collection of necessary data (Appendix E) and supervising and monitoring the progress and findings of studies being undertaken in the various stages of the management plan;
- providing input into known flood behaviour as part of the flood study;
- identifying management options and providing input into their consideration as part of the management study;
- identifying implementation strategies for the management plan;
- monitoring and assessing the effectiveness of the management plan during and after its implementation;
- coordinating and monitoring the public education programs essential to the long term viability of the management plan; and
- coordination with catchment management boards, emergency management planning and other advisory bodies.

Once the committee has completed the prime task of developing a management plan and associated implementation strategy, and the council has adopted these, it is suggested that a limited group remain to oversee implementation.

D4 Membership of the Committee

The membership of the committee needs to be a balanced representation of stakeholders such as agencies, groups and/or individuals effecting, affected by or coordinating floodplain risk management. Membership should be flexible to ensure the right mix of interests are represented. Typically, membership would include:

- elected members of council;
- council staff from engineering, planning and environmental disciplines;
- an appropriate number of representatives of the local community (for example, local flood affected landholders (residential and business), relevant industry bodies (eg the chamber of commerce), and environmental groups);
- representatives of relevant industry bodies;
- officers from the DIPNR; and
- representative(s) from the SES.

Officers from other relevant government agencies or departments or catchment management authorities may be co-opted to the committee as and when required.

Because the responsibility for planning matters lies with council, the committee should report either to council or to its appropriate standing committee, which has the final decision making power.

As discussed in Section D2, a single committee on a floodplain shared by a number of council areas may be desirable or necessary.

D5 Role of Committee Members

The primary role and responsibility of the various members on the management committee are described below. This outline does not aim to limit the contributions made by members, but rather attempts to ensure that all important aspects are given due consideration. It should be noted that the committee is tasked with seeking solutions to the existing, future and continuing flood risk issues, not solely on addressing the past.

It is also important to note that State Government agency representatives do not have committee voting rights but provide advice in relation to their departmental functions and their area of expertise.

D5.1 Elected Members of Council

Elected members of council are the leaders of this process and should assess the community, political and policy implications of any actions contemplated with the objective of producing an equitable result for the local government area served.

D5.2 Council Staff

Council staff must include a mix of engineering, strategic and development assessment planning, and environment representatives. They should provide local specialist advice and coordinate:

- input from council, the local community and other committee members;
- the production and presentation of agendas and reports;
- the management of consultants (including preparation of study briefs);
- the management of financial assistance for the project; and
- formulation of draft recommendations to the committee.

The recommended final management plan requires significant input from staff before submission to council.

D5.3 Local Community Representatives

Community representatives play an important role in the success of the committee and every attempt should be made to have representatives who can make the necessary commitment as indicated in Section D8. Local community representatives should:

- form a link between the committee and the local population in the flood prone area. They therefore need to be able to effectively inform the affected community of the deliberations of the committee and so foster a wider understanding of the process;
- provide historical advice on local problems and perceived solutions;
- consider in detail implications of matters which may impact on the local community; and
- facilitate formal representations to the committee on behalf of the public.

D5.4 Local Environmental Group Representatives

Local environmental group representatives should provide a link between environmental groups and the committee and enable adequate local environmental input into committee deliberations.

D5.5 Local Industry Body Representatives

Local industry body representatives should provide a link between the industry body and the committee, where necessary. These may be drawn from the chamber of commerce or other relevant local bodies.

D5.6 The DIPNR Representative

DIPNR provides representation from both a floodplain risk management and land use planning perspective.

From the floodplain risk management perspective DIPNR's representative should provide technical expertise and steering advice to ensure that the management plan is prepared in accordance with the principles of the NSW Government's Flood Prone Land Policy. The representative should also monitor the progress of the studies and plan, particularly as they relate to current and future government funding programs. A key role of the representative is to provide technical advice, to both council staff and the committee, throughout the process.

From a land use planning perspective DIPNR's representative should ensure that the planning approaches considered and adopted in the management plan are consistent with other areas within the region and State. In addition, DIPNR should provide technical advice to the committee on planning issues throughout the process, on the implications of State or regional planning policies and the provisions of the EP&A Act.

DIPNR also provides advice on other natural resources policies, such as the State Rivers and Estuaries Policy and Wetlands Policy, that link with the Flood Prone Land Policy and the Water Management Act.

D5.7 The SES Representative

The SES representative (or controller) should consider the implications of any actions contemplated in regard to risk assessment, flood warning and response plans for the management and evacuation of flood-prone areas, and with regard to the State Emergency Service Act 1989. The SES representative should also provide input from the emergency management viewpoint and ensure that the management plan is developed parallel to and complementary to the local flood plan (prepared under the guidance of the SES).

The SES representative must not be requested to:

- approve private or site specific flood plans or flood emergency response plans prepared for proposed developments (see Section N7); or
- approve incorporation of private or site specific flood plans prepared for proposed developments into the local flood plan.

Private or site specific flood plans or flood emergency response plans (Section N7), written for specific developments and separate from the local flood plan, are ineffectual and should not form the basis of development consent.

Inclusion of specific development proposals in the local flood plan is limited to those assessed and incorporated in the adopted floodplain risk management plan.

D5.8 The Bureau of Meteorology

The Bureau of Meteorology should provide advice with respect to flood forecasting and warning, as appropriate.

D5.9 Representative of Welfare Services

Representatives of welfare services (for example, the Department of Community Services) should provide advice regarding the plans in place to deal with flooding, their consistency with the proposed management plan and in the development of contingency plans for post-flood recovery.

D6 Technical Sub-Committee

The role of this sub-committee of the floodplain risk management committee should be to provide technical assistance to enable the committee to fulfil its advisory role to council efficiently, confident that studies and option

assessments are technically adequate and the options proposed are practical and feasible. The roles of the technical sub-committee may include:

- preliminary development of process and individual study objectives, as outlined in Appendices C through H for further consideration by the full committee;
- collection of background data for studies available to council, DIPNR and SES, as outlined in Appendix E;
- preparation of technical project briefs in consultation with the committee;
- review of proposals from consultants in consultation with the committee;
- review of modelling, management options, reports and presentations for technical adequacy prior to presentation and review by the full committee; and
- advice on any other technical matters upon request by the committee.

The technical sub-committee should have membership from council staff (both engineering and strategic planning) and DIPNR. A representative of SES may also be included when the sub-committee is considering emergency management issues.

D7 Community Consultation

The local community, both flood prone and otherwise, has a key role to play in the development, implementation and success of a management plan. If it is to be accepted and successful, it is essential that clear and concise communications flow between the committee and the community so that affected individuals and community groups can 'have their say' and learn of their roles and responsibilities.

The following format is suggested to establish and maintain communication between the council, committee and the local community.

Council should arrange to:

- involve and inform the community (through media releases, newsletters and public meetings) on a range of issues.

  These include the role and responsibilities of the committee, its intention to instigate a study/studies for preparation of a management plan, the work council is undertaking for the flood study, and progress on the studies and plan.

  Affected residents should also be informed of the length of time until finalisation of the management plan and implementation of management measures, and of the nature of development controls pending management plan completion;
- call for representatives of the general community and action groups to self nominate for the committee, clearly stating the expected role of members at this time;
- use established local community groups, where they exist, and encourage their representation on the committee;
- make one or two contact people known to the community, usually staff members of council, who can be contacted regarding questions relating to floodplain risk management, during the development and implementation of the management plan;
- define clear goals for each study and estimate the time to complete each investigation and when direct community consultation and feedback is proposed;
- release information to the community and members of the committee at regular intervals, rather than waiting until the completion of one of the formal stages of the management plan, or associated formal meetings of the committee;
- consider appropriate development controls for use until the management plan is completed (see Section C9) considering recommendations of the management committee;
- ensure that simple, clear messages are used to explain the situation in uncomplicated language and relate any implications to property owners and potential development applicants when disseminating information;
- formally adopt the management plan at the completion of the preparation and consideration process; and
- consider changes to the local flood risk management policy and council's strategic planning instruments and associated development controls

during the implementation phase, where strategies result in altered flood behaviour.

D8 Commitment of Committee Members

The floodplain risk management process is neither short nor simple, nor is it the singular responsibility of council officers, consultants or government officers to have input to the process.

The management committee must comprise members who are committed to and actively involved in the preparation and implementation of the management plan. It may take 3 to 5 years to develop the plan and the implementation of all recommendations may take much longer.

In view of the length of time involved the turnover of committee members, including both council staff and elected representatives, can be a problem. Whilst little can be done with respect to the potential turnover of council and government officers, the structure of the committee should be decided with consideration of its long term viability and relationship with other committees in operation in the local area. Attempts should be made to co-opt local community members who are enthusiastic, energetic and likely to 'see the distance' to complete the management plan.

D9 Tradeoffs

By necessity, the adopted management plan will be a compromise involving trade-offs. Certain individuals may be disadvantaged, others advantaged, but the community as a whole will be better off.

An important role of the management committee will be to assist in the presentation and resolution of conflicting desires and requirements on the part of various community groups and individuals. Public meetings, often spirited, are an important part of this process.

oooO END OF REPORT Oooo

disaster and emergency committee

end of business paper

This business paper has been produced electronically to reduce costs, improve efficiency and reduce the use of paper. Internal control systems ensure it is an accurate reproduction of Council's official copy of the business paper.