



Floodplain Management Australia

Supporting Wise Planning and Development

www.floods.org.au ABN 67 007 279 179

President: Ian Dinham

26 April 2021

Ms Abbie Galvin
Government Architect NSW
4 Parramatta Square,
12 Darcy Street,
PARRAMATTA NSW 2150
Attention: Ms Melanie Schwecke

(Submitted on line)

Dear Abbie

Submission – Design and Place SEPP EIE

Thank you for the opportunity to provide input to your new Design and Place State Environmental Planning Policy (**SEPP**). We are also grateful for the opportunity to have been involved in the workshop facilitated by your office leading up to the preparation of the proposed SEPP.

We note that the Explanation of Intended Effect (**EIE**) discusses the proposed SEPP and additional supporting documents including a revised Apartment Design Guide (**ADG**), a new Urban Design Guide (**UDG**), and revisions to the Building Sustainability Index (**BASIX**) and new Design Review Guide. We are mostly interested in the proposed SEPP and UDG.

About Floodplain Management Australia

Floodplain Management Australia (**FMA**) was established to promote sound and responsible floodplain management, and to help reduce the risks of flooding to life and property.

FMA has continued to carry out these important roles for more than 50 years and is now the national voice for flood risk management, with a membership of around 170 Local Government Councils, catchment authorities, government agencies, businesses, insurers and professionals involved in all aspects of urban and rural flood risk management. Our members are at the front-line of flood risk assessment, flood management planning, decision making, emergency management and community engagement - see floods.org.au

FMA has strong partnerships with key State/Territory and Commonwealth Government agencies including NSW State Emergency Service, NSW Department of Planning, Industry and Environment, ACT State Emergency Service, Victorian Department of Environment, Land, Water and Planning, Queensland Reconstruction Authority and the Bureau of Meteorology. In addition, we have links to equivalent organisations in the United States, the United Kingdom and New Zealand. Our international network is invaluable in sharing flood management experience and expertise from other nations with our members for the benefit of their communities.

Natural disasters are costing Australia over \$560 million a year on average, and flooding from rivers and local catchments is the costliest, yet most manageable, of natural disasters. The most recent major flood event, the 2019 North Queensland Monsoon Trough, resulted in \$1,243 million

in insurance losses, while Deloitte Access Economics estimated that the social and economic cost was \$5,681 million (*The social and economic cost of the North and Far North Queensland Monsoon Trough (2019) for the Queensland Reconstruction Authority.*)

Our Comments

FMA commends the Government's aim to review and update policies that influence the design of buildings and places in NSW. In particular we applaud the evident commitment to ensure that the new policy takes into consideration a comprehensive range of factors that will ultimately determine the quality, functionality and safety of buildings and spaces, including flood risk management (**FRM**).

Our vision is for simple but fundamental improvements to the manner in which the planning system in NSW deals with flood risk that:

1. Provide an uncomplicated and internally consistent system that is efficient to implement
2. Allow for best practice risk based planning outcomes
3. Communicate flood risks clearly to the public.

We believe that the planning system is key to ensuring that the exposure of the community to flood risks is managed to avoid incremental increases associated with individual developments, and where possible the exposure is reduced. Constant improvements in the way the planning system addresses FRM will assist in achieving this objective. As the detailed drafting of the proposed SEPP is yet to occur, we encourage you to bear in mind the following aims when doing so:

- a) to minimise the flood risk to life and property associated with the use of land
- b) to ensure development is compatible with the land's flood hazard, taking into account projected changes as a result of climate change
- c) to avoid development that would change flood behaviour in a way that would have significant adverse impacts on the built and natural environment.

We would encourage you to embody the above FRM aims into the Draft SEPP and UDG.

These FRM aims align with the following principles of the proposed SEPP:

- PRINCIPLE 4: Design sustainable and greener places for the wellbeing of people and the environment
- PRINCIPLE 5: Design resilient and diverse places for enduring communities.

PRINCIPLE 4 will ultimately lead to a greater emphasis on the conservation of waterways and associated floodplain areas and their integration into the urban fabric. We agree that this is a desirable outcome but would seek to ensure that this is undertaken in full understanding of the flood risks associated with such areas. The initial design phase should involve a comprehensive, but fit for purpose, analysis of the flood behaviour to understand how the design outcome can avoid exposure to flood risks and, where residual risks unavoidably remain, that these are comprehensively managed.

PRINCIPLE 5 squarely correlates with the aims of FRM. As above, the satisfaction of this principle will necessitate gaining a comprehensive understanding of the flood behaviour of land within the floodplain during the initial design phase so that a risk management approach can be taken. This will ensure the built outcome and landuse are compatible with the flood hazard.

The above FRM outcomes when sought for the design process are relatively well understood. To

some extent current planning policies do not facilitate optimum FRM outcomes, this can largely be blamed on the lack of clear and consistent direction requiring and guiding FRM considerations. There is currently no SEPP that deals with FRM. We are consequently strongly supportive of the intention of the proposed SEPP to incorporate FRM guidance but encourage that this be achieved by incorporating clear principles, requirements for the design process and performance standards that relate to FRM. For example, precinct planning supporting documents as discussed at page 27 of the EIE, should include a requirement for a fit for purpose flood impact assessment whenever they include flood prone land.

The proposed SEPP and UDG are being prepared at the same time that the *Floodplain Development Manual* is being renewed, and is to be known as the "Flood Risk Management Manual". The Manual has been the keystone FRM policy in NSW since 1986. It would be desirable to link the principles sought by the new SEPP and more detailed controls in the Urban Design Guide with the principles and guidelines of the revised Manual. The Manual also provides a process for the preparation of Floodplain Risk Management Plans for individual floodplains, and the design process should ensure consistency with these plans where existing.

As alluded to above, the design process should mandate that a fit for purpose flood assessment be undertaken for all sites located on flood prone land. This should involve the upfront analysis of flood behaviour to inform the design process to avoid risks to life and property, an assessment of flood impacts to prevent unacceptable external impacts and, where necessary, a flood emergency response strategy to address unavoidable residual risks. We envisage that the standards required for flood assessments, design and emergency management would best be expressed as performance outcomes derived from the *Floodplain Development Manual* (or more relevantly its successor) and other widely accepted references such as *Managing the Floodplain Handbook* (published 2017 by the Australian Institute for Disaster Resilience) and its associated Guidelines.

The above comments are consistent with the FMA Land Use Planning Position Policy, and an updated version currently being considered by FMA members, copies of which are attached for your information.

We would be pleased to contribute further as the Department progresses with the important work of drafting the SEPP and finalising the proposed new and updated Guidelines. We would be happy to answer questions as they arise.

We thank you again for the opportunity to be involved.

Yours faithfully



PAUL GRECH
DIRECTOR, LAND USE PLANNING
FLOODPLAIN MANAGEMENT AUSTRALIA

Enclosures:

1. Adopted FMA Land Use Planning Position Policy
2. Advanced Draft Revised FMA Land Use Planning Position Policy

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Policy Position Statement Floodplain Risk Management in Land Use Planning (NSW)

Summary

FMA members are concerned that the NSW planning system hinders optimum floodplain risk management (**FRM**) outcomes. Flooding causes the most damage of all natural disasters but is also the most predictable. Planning can therefore be pivotal in managing flood risks associated with the development and redevelopment of urban and rural areas. This Policy sets out recommendations for the preparation of planning strategies and development controls, and in the dissemination of flood related information through the planning system. This Policy currently relates specifically to NSW but has generic principles that can be applied to similar policies for other states.

Introduction

The planning system should have regard to best FRM practice. Planning can have significant benefits in minimising and reducing flood risks to property and persons as part of the planning of new areas and the redevelopment of established. The total economic exposure of communities to flooding in Australia is in the order of \$100 billion (Australian Government Attorney-General's Department, 2014 Australian Emergency Handbook Series No.7, pg.13).

There is often uncertainty in the planning process about what FRM issues and outcomes are expected to be addressed, at what stage in the hierarchy of plan making to do this and who should do it.

While overall guidance on FRM is provided at a national level through the Australian Emergency Management Handbook 7: *Managing the Floodplain Best Practice in FRM in Australia* (**AEM Handbook**) and in NSW through the *NSW Floodplain Development Manual* (the **Manual**) better integration of FRM and planning processes is required.

Purpose of this Policy

To present a concise FMA endorsed position that can be used in advocating best practice about how land use planning should address FRM issues.

Scope of this Policy

This Policy:

- applies to all planning documents including studies, non-statutory planning strategies, and local, regional and state land use planning controls (**planning policies**);
- provides a position on what FRM issues should be addressed when undertaking planning studies and preparing planning strategies, the content of planning policies and the format of flood risk maps prepared for planning purposes;
- recognises that planning studies and policies inadvertently convey information to the public in regard to the nature and location of flood risks; and
- has been prepared specifically for the NSW context, but is general enough to be adapted to apply nationally.

As the NSW Planning system is under review, multiple terms are used to describe planning studies, strategies and policies to reflect those relevant to the current and possible future planning system.

Position Statement

FMA considers that the overall approach to addressing FRM in the NSW planning system should be reviewed. This must include the revocation of the Flood Planning Guideline issued by the then Department of Planning on 31 January 2007 (Circular PS 07-003) and a review of all statutes and policies dealing with FRM such as S117 Directions, the Environmental Planning and Assessment Regulation 2000 (regarding S149 Certificates), recommended provisions for standard instruments (principal local environmental plans) and the NSW Coastal Planning Guideline: Adapting to Sea Level Rise issued 8 September 2012. This review should be undertaken in partnership with local government.

The attached table outlines the FMA policy position.

FMA Action

FMA will:

- liaise with all levels of government to achieve the above policy outcomes;
- encourage its members to promote and make decisions consistent with the above policy outcomes;
- work with government and industry to refine the above policy position; and
- continue to develop training opportunities to assist in improving the FRM knowledge and skills of those professionals who are involved in town planning.

Policy Review

This Policy Statement is to be reviewed after 12 months and about every 2 years thereafter or where required to reflect changes in planning policies.

Policy Status

This Policy Statement was prepared by a working group of FMA members comprised of engineers and town planners from local councils and consultants based in NSW. The decision to prepare the Policy was initiated by a resolution adopted at the 2014 Annual General Meeting (AGM) of the FMA and endorsed at the following AGM meeting in 2015.

FMA members were invited to provide comments after 12 months from when the Policy was adopted. The Policy was reviewed in 2016 and the Policy was updated on 25 January, 2017.

| Current Planning Documents* | Comment on Existing and Possible Future Planning Studies, Strategies and Policies | FMA Policy Position |
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| State Level | | |
| S149 Planning Certificates | <p>Direction regarding the form and content of these certificates are provided within the Environmental Planning and Assessment Regulation 2000. There are 2 types of certificates that may be issued (S149(2) and S149(5) certificates). S149(2) certificates are limited to advice as to whether flood related planning controls apply. S149(5) certificates may also provide advice on known flood risks. Only S149(2) certificates are required to be attached to contracts for the sale of property.</p> <p>Planning policies inadvertently provide a source of information on flood risks. The public can wrongly rely on this information as reflective of all known flood risks.</p> <p>A review of overriding legislation, directions, guidelines and practices associated with how the planning system allows for the formulation of flood related development controls, is critical to the reform of these certificates. This dictates what can be included in the certificates.</p> | <ol style="list-style-type: none"> 1. The required form and content of these certificates should be reviewed to: <ul style="list-style-type: none"> • Avoid misleading the public who may believe there are no flood risks when the certificate is only advising if flood related planning controls apply. • Work towards the consolidation of S149(2) and S149(5) certificates to ensure that the same more complete information is communicated to all enquirers. • Ensure the public is fully informed of known flood risks or if there is insufficient information to know whether a flood risk exists. |
| Section 117 Directions | These relate to Directions from the Minister of Planning regarding the form and content of local environmental plans. | <ol style="list-style-type: none"> 2. These should be either superseded by, or amended to be consistent with the direction provided by the proposed NSW Planning Policy for Natural Hazards. |
| State Environmental Planning Policies - SEPPs (NSW Planning) | <p>At present there is no state environmental planning policy that deals with natural hazards, including flooding. The NSW Department of Planning and Environment (DPE) is currently in the process of developing such a policy.</p> <p>Other existing SEPPs such as the Infrastructure SEPP and</p> | <ol style="list-style-type: none"> 3. The proposed natural hazards SEPP is an important initiative. 4. The Minister for Planning & Environment should support the preparation, and ultimately adopt, a state environmental planning policy that: <ul style="list-style-type: none"> • incorporates direction consistent with that advocated by this FMA policy; • references the Manual and AEM Handbook as relevant to |

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| Policies) | Exempt and Complying Codes SEPP also embody planning controls that affect development in the floodplain. | <ul style="list-style-type: none"> plan making; requires other SEPPs and subordinate planning policies to adopt FRM terms defined in the Manual; specifies that matters identified in this policy statement be addressed prior to the preparation of plan that significantly changes development potential in the floodplain; ensures that planning in NSW addresses flood risks to private and public property, infrastructure and to life; requires consideration of measures to maximise the resilience of the community post flooding; and considers climate change related flood risks. <ol style="list-style-type: none"> That the DPE be responsible for preparing the policy in consultation with other relevant government agencies in particular the NSW Office of Environment & Heritage, the State Emergency Services, local government, utility authorities, the FMA and the Bureau of Meteorology. Due to the lack of a current state planning policy, this should be prepared as a priority. The current Exempt and Complying Development SEPP should also be revised to correlate the identification of areas of higher flood risk mapped for LEPs (see Policy 12) with areas where exempt and complying development is not allowed. |
| Regional Level | | |
| Regional Plans & Strategies applicable across all NSW regions | <p>Currently exists "A Plan for Growing Sydney" (prepared by the NSW Department of Planning & Environment) subject to a draft amendment entitled "Towards our Greater Sydney 2056" (prepared by the Greater Sydney Commission) or as Regional Plans for other parts of NSW (prepared by the NSW Department of Planning & Environment).</p> <p>Set out key policies, targets and structure of future development patterns to guide the making of lower order plans.</p> | <ol style="list-style-type: none"> These documents should: <ul style="list-style-type: none"> Identify the floodplains within the planning region and the key FRM considerations for development (eg evacuation and private and public damages due to significant flood depths). Include a Regional Flood Planning Map that shows the extent of the floodplain(s) defined by the Manual, and associated elements relevant to FRM. Identify regional stakeholders (eg. Councils, Department of Planning, OEH, SES, Insurance Co's, transport infrastructure owners, dam/irrigation authorities, etc). Consider regional evacuation including the location and capacity of evacuation routes and centres. Where flood modelling at the regional level is appropriate, determine suitable development areas having regard to cumulative flood impacts. The cumulative impact of land filling |

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| | | <p>and development should not increase flood levels in existing urban areas.</p> <ul style="list-style-type: none"> Identify regional FRM mitigation measures that are required to ameliorate the impact of future development (eg augmented capacity to evacuation routes). |
| Subregional | | |
| Subregional Plans & Strategies (Subregional Delivery Plan or District Plans within the Sydney Metropolitan Region) | <p>Subregional planning links growth in population and housing to the infrastructure that supports communities, such as schools, health services, transport, and electricity and water projects. It also delivers planning outcomes across local council boundaries and set specific plan making actions (eg where a Council is to amend a Local Environmental Plan to achieve a regional planning outcome).</p> <p>Currently exists as draft District Plans for the six districts within the Sydney Metropolitan Region (prepared by the Greater Sydney Commission).</p> | <p>9. These documents should:</p> <ul style="list-style-type: none"> Address the FRM items required for a Regional Growth Plan where not undertaken as part of that plan. Consider FRM principles in the process of determining land use patterns (see 'Managing Flood Risk Through Planning Opportunities' prepared for the Hawkesbury-Nepean Floodplain Management Steering Committee, NSW Government, April 2007). Identify responsible authorities and funding sources for the delivery of regional FRM mitigation measures. |
| Local | | |
| Local Environmental Plan – LEP (Local Plan) | <p>The 'Standard Instrument—Principal Local Environmental Plan' which is a statutory instrument, does not contain a FRM clause. The Model Local (FRM) Provision, being a recommended but non-mandatory clause for LEPs, generally covers relevant considerations but relies on a definition of a floodplain that is inconsistent with the NSW Floodplain Development Manual (ie up to the PMF).</p> <p>Convention for the preparation of a FRM Map overlay for LEPs encourages the mapping 0.5m above the 100 year floodplain which more often covers an area less than, but sometimes more than the PMF.</p> <p>The adoption of the Manual definition of floodplain is important to ensure consistency between Government policies, to provide a model clause and map for LEPs that</p> | <p>10. The current Model Local (FRM) provision is supported subject to:</p> <ul style="list-style-type: none"> Its adoption of definitions consistent with the Manual in particular the definition of a floodplain. Its application to the whole of the floodplain. Inclusion of climate change considerations. <p>11. The permissibility of development should be determined by reference to the LEP land zoning maps having regard to all planning considerations including FRM.</p> <p>12. Where resources allow, a flood planning map should be incorporated into an LEP, with the following attributes:</p> <ul style="list-style-type: none"> An overlay to land zoning maps. Divide the floodplain into precincts of flood risk for planning purposes (preferably 3) that trigger appropriate planning controls. These maps may show, for example, areas: <ul style="list-style-type: none"> where most development is undesirable because of the existing hazard which is unlikely to be able to be mitigated due to cost or environmental impact. These |

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| | <p>allow for all potential FRM considerations to apply and to ensure that all known flood risks are consistently communicated to the public.</p> <p>The application of FRM provisions of an LEP to the whole floodplain can allow for special considerations for vulnerable land uses (eg. hospitals and aged care) and evacuation. However, the permissibility of development should be determined by reference to the LEP land zoning maps having regard to all planning considerations including FRM.</p> | <p>areas should coincide with those where exempt and complying development is not allowed.</p> <ul style="list-style-type: none"> • where most development would be acceptable subject to flood mitigation measures. • where controls apply to only especially vulnerable development except emergency management considerations that apply to all development. <p>13. Include both riverine and major overland flooding and tailor planning controls to the hazards associated with each.</p> <p>14. The above maps should be used to inform the preparation and review of the LEP land zoning maps.</p> <p>15. The zoning and development potential of land should be checked to ensure that it would not facilitate development that would be incompatible with the flood hazard or require environmentally unacceptable mitigation measures.</p> <p>16. The Local FRM provisions should be applied even if a flood planning map is not included in the LEP for the whole or part of the area to which it applies. In this situation guidance should be provided as to what criteria Council will apply to determine whether to apply the LEP clause, preferably as a part of a DCP.</p> <p>17. Include electronic links between flood related planning controls and mapping to more comprehensive FRM information sources where available.</p> |
| Development Control Plan – DCP (Development Guides) | <p>These provide detail controls that supplement higher order planning instruments (normally LEPs).</p> | <p>18. Model controls should be prepared to assist Councils in preparing FRM provisions for DCPs.</p> <p>19. These DCP controls should be expressed as performance criteria and acceptable solutions, and cover</p> <ul style="list-style-type: none"> • Floor Levels • Building material & methods • Structural soundness • Impact on others • Parking and access • Evacuation & refuge in place • Environmental management. <p>20. The DCP should specify situations where further flood investigations should be undertaken, or not, at the development application stage and the specification for those investigations.</p> |

* (Possible future terminology is shown in brackets)



Position Policy Floodplain Risk Management in Land Use Planning

Summary

FMA members are committed to ensuring that the planning system optimises floodplain risk management (**FRM**) outcomes. Flooding causes the most damage of all natural disasters but is also the most predictable. Planning can therefore be pivotal in managing flood risks associated with the development and redevelopment of urban and rural areas.

This Policy sets out recommendations for the preparation of planning strategies and development controls, and in the dissemination of flood related information through the planning system. This Policy was originally prepared for NSW based on generic principles, and has been updated to be nationally applicable.

Introduction

The planning system should have regard to best FRM practice. Planning can have significant benefits in minimising and reducing flood risks to property and persons as part of the planning of new areas and the redevelopment of established areas.

Flooding is Australia's costliest natural hazard-related cause of disasters when both tangible and intangible losses are taken into account¹. Australia's total economic exposure to flooding is estimated to be around \$100 billion. Approximately 7% of households have flood risk, with 2.8% being located in high risk areas; that is, up to 170,000 buildings are in locations exposed to floods with a 1 in 20 chance of occurring annually².

There is often uncertainty in the planning process about what FRM issues and outcomes are expected to be addressed, at what stage in the hierarchy of plan making to do this, and who should do it. While overall guidance on FRM is provided at a national level through the Australian Emergency Management Handbook 7: *Managing the Floodplain Best Practice in FRM in Australia* (**AEM Handbook**) better integration of FRM and planning processes is required.

Purpose of this Policy

To present a concise FMA endorsed position that can be used in advocating best practice about how land use planning should address FRM issues.

Scope of this Policy

This Policy:

- applies to all planning documents including studies, non-statutory planning strategies, and local, regional and state land use planning controls (**planning policies**)

¹ Deloitte Access Economics, Building resilience to natural disasters in our States and Territories, 2017.

² AXCO, Insurance Market Report. Australia: Non-Life (P&C) 2018, as cited in Flood Risk Management in Australia, 2020, Neil Duffy, Andrew Dyer and Maryam Golnaraghi, Geneva Association, pg.24.

- provides a position on what FRM issues should be addressed when undertaking planning studies and preparing planning strategies, the content of planning policies and the format of flood risk maps prepared for planning purposes
- recognises that planning studies and policies inadvertently convey information to the public in regard to the nature and location of flood risks
- has been prepared to apply nationally.

As planning systems vary from state to state, generic terms are used where possible to describe planning studies, strategies and policies to reflect those relevant to the current and possible future planning systems. FRM planning terms as defined in the AEM Handbook are relied upon when needed.

Position Statement

FMA considers that the overall approach to addressing FRM in the planning system should be based on a risk based approach tailored to meet the social, economic and environmental context of individual floodplains and the communities within them. This must include recognition that climate change is changing the nature and frequency of flooding.

This application of FRM within the planning system should be undertaken as a partnership between all levels of government. State and local governments have a primary role in land use planning while the federal government should contribute by directing financial resources to maximise mitigation, aiding in recovery, and providing nationally consistent policy direction.

The attached table outlines the FMA policy position.

FMA Action

The FMA will:

- liaise with all levels of government to achieve the above policy outcomes
- encourage its members to promote and make decisions consistent with the above policy outcomes
- work with government and industry to refine the above policy position
- continue to develop training opportunities to assist in improving the FRM knowledge and skills of those professionals who are involved in town planning.

Policy Review

This Policy Statement is to be reviewed every 2 years or where required to reflect changes in planning policies.

Policy Status

This Policy Statement was initially prepared by a working group of FMA members comprised of engineers and town planners from local councils and consultants based in NSW. The decision to prepare the Policy was originally initiated by a resolution adopted at the 2014 Annual General Meeting (AGM) of FMA and endorsed at the following AGM meeting in 2015.

FMA members were invited to provide comments after 12 months from when the Policy was adopted. The Policy was subsequently reviewed in 2016 and updated on 25 January 2017.

The Policy was more substantially reviewed for the FMA Quarterly Meeting at the National Conference in May 2021, to provide a nationally applicable approach.

| Planning Documents | Comment on Existing and Possible Future Planning Studies, Strategies and Policies | FMA Policy Position |
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| State Level | | |
| Planning Information | <p>Planning policies inadvertently provide a source of information on flood risks. Some jurisdictions also provide written certification of planning controls and constraints that affect the development potential of a property. However, this information is commonly limited to the flood related development controls that apply to the property and not necessarily to flood risk that a property may be exposed to. The public can wrongly rely on this information as reflective of all known flood risks.</p> <p>All legislation, directions, guidelines and practices associated with how the planning system allows for the presentation of flood related development controls, is important to how the community is informed about flood risks. The community should be fully informed about flood risks to allow an opportunity for individuals to decide what are acceptable risks (particularly where planning policies retain some residual risks) and to provide awareness that aids emergency management and recovery.</p> | <ol style="list-style-type: none"> 1. The form and content of planning policies and certification should be reviewed to: <ul style="list-style-type: none"> • avoid misleading the public who may believe there are no flood risks when only advising if flood related planning controls apply • ensure that the same and more complete information is communicated to all enquirers • ensure the public is fully informed of known flood risks or if there is insufficient information to know whether a flood risk exists. |
| Directions for deciding on land use zones and planning controls | Government policies may explicitly or implicitly direct the form and content of statutory planning schemes (local environmental plans in NSW) and supplementary planning controls (such as development control plans and codes). | <ol style="list-style-type: none"> 2. These should be either superseded by, or amended to be consistent with the direction provided by the AEM Handbook. 3. Directions for deciding on land use zones and planning controls should be based on a risk based approach as opposed to relying on a singular defined flood event. |

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| <p>State level planning policies -</p> | <p>State level planning policies in some states exist that provide high level direction as to how to manage the development of land affected by natural hazards, including flooding.</p> <p>In some cases state level policies embody detail planning controls for development in the floodplain such as specifying development that may be permitted without development consent or through a private certification system.</p> | <ol style="list-style-type: none"> 4. Each state should have a state policy to provide direction for the management of natural hazards, including flooding, that: <ul style="list-style-type: none"> • incorporates direction consistent with that advocated by this FMA policy; • references AEM Handbook, and relevant state level FRM guidelines³ as relevant to plan making; • requires other state policies and subordinate planning policies to adopt FRM terms defined in the AEM Handbook; • specifies that matters identified in this policy statement be addressed prior to the preparation of a plan that significantly changes development potential in floodplains; • ensures that planning addresses flood risks to private and public property, infrastructure and to life; • requires FRM planning to be based on a holistic risk based approach and not reliance on a single defined flood. • requires consideration of measures to maximise the resilience of the community post flooding; and • considers climate change related flood risks. 5. That the relevant state planning authority be responsible for preparing the policy in consultation with other relevant government agencies in particular those involved with the management of the natural environment, emergency services, local government, utility authorities, FMA and the Bureau of Meteorology. 6. In states where no state level FRM planning policy currently exists, this should be prepared as a priority. 7. Related state policies, should also be revised to provide consistency⁴. |
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³ Such as the Floodplain Development Manual and NSW Flood Prone Land Policy in NSW.

⁴ For example in NSW, State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 contains provisions that rely on the definition of areas of high flood risk to determine where development can be approved through private certification or is permitted without development approval.

| Regional Level | | |
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| Regional Plans & Strategies applicable across all NSW regions | Typically each state produces a hierarchy of plans that seek to satisfy government goals and policies. At the top of this hierarchy are regional and metropolitan plans that set out key policies, targets and the structure of future development patterns to guide the making of lower order plans. | <p>8. These documents should:</p> <ul style="list-style-type: none"> Identify the floodplains within the planning region and the key FRM considerations for development (eg evacuation and private and public damages due to significant flood depths). Include a Regional Flood Planning Map that shows the extent of the floodplain(s) defined by the AEM Handbook, and associated elements relevant to FRM. Identify regional stakeholders (eg. local councils, state planning agencies, emergency services, insurance companies, transport infrastructure owners, dam/irrigation authorities, etc). Consider regional evacuation including the location and capacity of evacuation routes and centres. Where flood modelling at the regional level is appropriate, determine suitable development areas having regard to cumulative flood impacts. The cumulative impact of land filling and development should not increase flood levels in existing urban areas. Identify regional FRM mitigation measures that are required to ameliorate the impact of future development (eg augmented capacity to evacuation routes). |



| Subregional | | |
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| Subregional Plans & Strategies (Subregional Delivery Plan or District Plans within the Sydney Metropolitan Region) | Subregional planning links growth in population and housing to the infrastructure that supports communities, such as schools, health services, transport, and electricity and water projects. It also delivers planning outcomes across local council boundaries and sets specific plan making actions such as for the making of local planning schemes to achieve a regional planning outcome. | <p>9. These documents should:</p> <ul style="list-style-type: none"> • Address the FRM items required for a regional growth plan where not undertaken as part of that plan. • Consider FRM principles in the process of determining land use patterns⁵. • Identify responsible authorities and funding sources for the delivery of regional FRM mitigation measures. |
| Local | | |
| Local Plans (such as Local Planning Schemes or Local Environmental Plans) | <p>Local plans are typically statutory planning instruments that should have a line of sight back to higher order plans and reflect local strategic planning objectives. Local plans provide the basis upon which the majority of development is approved.</p> <p>A local plan might contain the following provisions that contribute to the way flood risks are considered in the assessment of a development proposal:</p> <ul style="list-style-type: none"> • The zoning of land, and key associated planning controls such as minimum lot size, can reflect the acceptability and appropriate density of development in locations subject to unmanageable flood risk. • Definitions of terms, such as floodplain, or identification of the extent of flood affected land on a flood overlay map land guide the way that flood | <p>10. The provisions of a local plan should:</p> <ul style="list-style-type: none"> • provide for the management of flood risks to life, property and public infrastructure • apply a risk based approach that reflects a graded level of control dependent on the vulnerability of different land uses and the degree of hazard identified for different floodplains and different parts of a floodplain • adoption definitions consistent with the AEM Handbook, in particular the definition of a floodplain • apply to the whole of the floodplain • include climate change considerations. <p>11. The permissibility of development should be determined by the land use zoning applied to property having regard to all planning considerations including FRM.</p> <p>12. Where resources allow, a flood planning map should be incorporated into an LEP, with the following attributes:</p> |

⁵ See principles outlined in the AEM Handbook and other publications such as 'Managing Flood Risk Through Planning Opportunities' prepared for the Hawkesbury-Nepean Floodplain Management Steering Committee, NSW Government, April 2007.

risk management considerations apply. Local plans identify either the whole (ie up the extent of the probable maximum flood) or part of floodplain (ie a flood planning level based on defined flood event lower than the probable maximum flood) as subject to flood related development controls.

- Flood overlay maps can identify areas subject to flood risk and trigger matters to be considered in the assessment of a development proposal.
- Clauses that outline matters that need to be taken into consideration when assessing the acceptability of development identified as within the area requiring consideration of flood risks.

- An overlay to land zoning maps.
- Divide the floodplain into precincts of flood risk for planning purposes (preferably 3) that trigger appropriate planning controls. These maps may show, for example, areas:
 - where most development is undesirable because of the existing hazard which is unlikely to be able to be mitigated due to cost or environmental impact. These areas should coincide with those where exemptions from development consent or private certification of development is not allowed.
 - where most development would be acceptable subject to flood mitigation measures.
 - where controls apply to only especially vulnerable development except emergency management considerations that apply to all development.

13. Include both riverine and major overland flooding and tailor planning controls to the hazards associated with each.
14. The above maps should be used to inform the preparation and review of the LEP land zoning maps.
15. The zoning and development potential of land should be checked to ensure that it would not facilitate development that would be incompatible with the flood hazard or require environmentally unacceptable mitigation measures.
16. The local FRM provisions should be applied even if a flood planning map is not included in the LEP for the whole or part of the area to which it applies. In this situation guidance should be provided as to what criteria Council will apply to determine whether to apply the LEP clause, preferably as a part of more detailed development codes or control plans.
17. Include electronic links between flood related planning controls and mapping to more comprehensive FRM information sources where available.

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| Development Codes, Guidelines or Control Plans | <p>These provide detail controls that supplement higher order planning instruments (normally planning schemes or local environmental planning schemes).</p> | <p>18. Model controls should be prepared by state agencies to assist Councils in preparing FRM provisions for development codes/plans.</p> <p>19. These controls should be expressed as performance criteria and acceptable solutions, and cover:</p> <ul style="list-style-type: none"> • Floor Levels • Building material & methods • Structural soundness • Impact on others • Parking and access • Evacuation & refuge in place • Environmental management. <p>20. The development codes/plans should specify situations where further flood investigations should be undertaken, or not, at the development application stage and the specification for those investigations.</p> |
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