

10. DRAFT FLOODPLAIN RISK MANAGEMENT PLAN

This section comprises the Draft Floodplain Risk Management Plan (the Plan) and forms a framework identifying aims, objectives, and a guide by which the plan will be implemented. Any recommendations in terms of policy should be reviewed and approved by Councils planners.

1.1. Aims and Objectives

The primary objective of the Draft Floodplain Management Plan is to recommend a range of property, response and flood modifications that address the existing and future flood problems, in accordance with the Floodplain Development Manual (Reference 2). The recommended works and measures presented in the Plan will:

- Reduce the flood hazard and risk to people and property in the existing community and to ensure future development is controlled in a manner consistent with the flood hazard and risk;
- Reduce private and public losses due to flooding;
- Protect and, where possible, enhance the river and floodplain environment;
- Be consistent with the objectives of relevant State policies, in particular, the Government's Flood Prone Lands and State Rivers and Estuaries Policies and satisfy the objectives and requirements of the Environmental Planning and Assessment Act, 1979;
- Ensure that the Floodplain Risk Management Plan is fully integrated with Council's existing corporate, business and strategic plans, existing and proposed planning proposals, meets Council's obligations under the Local Government Act, 1993 and has the support of the local community;
- Ensure actions arising out of the Plan are sustainable in social, environmental, ecological and economic terms;
- Ensure that the Floodplain Risk Management Plan is fully integrated with the local emergency management plan (Local Flood Plan) and other relevant catchment management plans; and
- Establish a program for implementation and a mechanism for the funding of the plan and should include priorities, staging, funding, responsibilities, constraints, and monitoring.

1.2. Identification of Actions Suitable for Implementation

A number of mitigation options have been investigated as part of this FRMS. Table 28 summarises the measure that have been assessed and are deemed worth to be either implemented immediately, or that warrant further investigation. These options have been included in the Draft Floodplain Risk Management Plan, shown in Table 29.

Table 28 Summary of recommended mitigation measures

Option ID	Description	Reference
LV02	Clearview Place Levee	9.2.1.2
MD01	Investigation into Manly Dam Airspace Availability	9.2.8.1
PM03	Flood Proofing	9.4.3
PM04	Land Use Zoning	9.4.4
PM05	Flood Planning Levels	9.4.5
PM06	Flood Planning Area	9.4.6
PM07	Changes to Planning Policy	9.4.7
PM08	S149 Certificates	9.4.8
RM01	Emergency Planning	9.3.1
RM02	Flood Warning	9.3.2
RM04	Road Closures, Early Notifications	9.3.4
RM05	Community Education and Awareness	9.3.5

Table 29 Draft Floodplain Risk Management Plan

Option ID	Option	Description	Benefits	Concerns	Responsibility	Funding	Cost	B/C Ratio	Priority
FLOOD MODIFICATION MEASURES									
LV02	Clearview Place Levee	New levee located upstream of Warringah Mall near Clearview Place to prevent mainstream flooding. Levee set to 22.3 mAHD	Reduced peak flood levels and extent through the waterway downstream (east) of the Princes Highway.	Blockage through the culvert beneath Clearview Place must be prevented as it now conveys a greater flow.	Council would be responsible for construction and maintenance.	OEH Funding available for feasibility, detailed design and construction	\$ 438,000	1.38	Low
MD01	Investigation into Manly Dam Airspace Availability	Further investigation into optimising the airspace in Manly Dam whilst satisfying all stakeholders is recommended.	Additional storage during storms, reduction in downstream flood levels.	Balancing the interests of dam users and stakeholders.	Council, in consultation with all dam users and stakeholders.	OEH Funding available for feasibility, detailed design and construction	Unknown	N/A	High
PROPERTY MODIFICATION MEASURES									
PM03	Flood Proofing	Future development of commercial properties within FPA should incorporate flood proofing up to the FPL	Reduction in damages during flood events for commercial properties	None	To be included in Council's DCP and applied to future commercial development controls.	Not required	Minimal - Council Work Hours	N/A	High
PM04	Land Use Zoning	Changes to land use zoning should consider flood compatibility using outcomes from this report.	Ensures future development is compatible with the flood risk	Any changes to land zoning require a Planning Proposal	Council - and to be clearly communicated to residents as required	No funding available	Minimal - Council Work Hours	N/A	High
PM05	Flood Planning Levels	Update FPL based on the 1% AEP + 0.5m as defined in this FRMS	Better clarification for setting required floor levels of proposed development within the Flood Planning Area	None - FPL is already set at 1% + 0.5 m	Council - and to be clearly communicated to residents as required	No funding available	Minimal - Council Work Hours	N/A	High
PM06	Flood Planning Area	As defined in this study	An updated FPA map will provide clarification for setting flood planning levels for proposed development	None - FPL is already set at 1% + 0.5 m	Council - and to be clearly communicated to residents as required	No funding available	Minimal - Council Work Hours	N/A	High
PM07	Changes to Planning Policy	DCP updated with FPL and FPA as discussed above	Better clarification for setting required floor levels of proposed development within the FPA	None	Council - and to be clearly communicated to residents	No funding available	Minimal - Council Work Hours	N/A	High
PM08	S149 Certificates	Provide folding info on Council's website, include up to date flooding info on future s149 (2) and (5) certificates requested	Additional details provided on 149(5) can improve flood risk awareness in the community.	None	Council - and to be clearly communicated to residents	No funding available	Minimal - Council Work Hours	N/A	High
RESPONSE MODIFICATION MEASURES									
RM01	Emergency Planning	Development of Local Flood Plan	The local flood plan gives catchment specific information to the SES for use during a flood event	None	SES and Council	OEH Funding Available under 'Projects to improve flood warning'	Minimal	N/A	High
RM02	Flood Warning	Add new stream gauges on each of the three creeks, continuation of Northern Beaches Flash Flooding Warning	Up to date weather and storm information for residents, provided by BoM and SES	None	SES and Council	OEH Funding Available under 'Projects to improve flood warning'	N/A	N/A	Low
RM04	Road Closures, Early Notifications	Add list of affected roads to Local Flood Plan, install depth indicators where noted.	Improved flood awareness for motorists and pedestrians.	Minimal ongoing maintenance of depth markers, flood posts and gates required	SES and Council	OEH Funding Available under 'Projects to improve flood warning'	Up to \$100,000	N/A	Medium
RM05	Community Education and Awareness	Community engagement to prepare an ongoing flood education program (and appropriate evaluation system)	Improved community awareness of flooding and greater appreciation of the flood risk for residents and business owners	Information may be ignored or forgotten by residents	SES and Council	OEH Funding Available under 'Projects to improve flood warning'	Minimal	N/A	Medium