

PORT PHILLIP AND WESTERNPORT REGION - FLOOD MANAGEMENT AND DRAINAGE STRATEGY (2007)

Submission by the City of Darebin

	Strategy Question	Discussion / Commentary	Position / Reasons
Issue 1: An agreed approach to managing existing regional flood problems			
1.1	Is it reasonable that we focus resources only to address intolerable flood risk?	<p>The definition of intolerable risk varies across municipalities and establishing a broad acceptable definition would assist greatly in clarifying the issue.</p> <p>Intolerable risk needs to better reflect flooding of habitable areas as well as other community values and expectations such as inconvenience, amenity, financial, different land use (business vs residential) and repeated flooding events.</p>	<p>Resources should be prioritised and focused firstly on intolerable flood risks. The definition of intolerable needs to be established through a consultative process with all stakeholders. This may lead to a range of intolerable categories to be applied to different land uses / circumstances.</p> <p>This needs to be coupled with better awareness and education campaigns.</p>
1.2	If so how should we address remaining tolerable risks?	<p>Tolerable events cause a nuisance and some money needs to be allocated. At Darebin we use provide some funding to deal with the minor problems which helps balance out the community needs.</p> <p>There needs to be a good public awareness around the issue so the community understands the intolerable vs tolerable and what the appropriate actions are. There also needs to be an understanding that flooding will occur and appropriate flood plans will be required.</p>	<p>There needs to be some minor funding provided to minor tolerable flood risks.</p> <p>In addition funding is required for public awareness campaigns to ensure the community understands why major funding is not being spent on nuisance flooding. In addition this can assist them to better manage flooding on their property through design and preparation.</p> <p>Funding for emergency flood response will also be required.</p>
1.3	Who should be involved in determining what is tolerable and intolerable risk?	As tolerable and intolerable risks may differ between communities and circumstances, all stakeholders including the community, Councils, Councillors, Water Authorities, DSE, etc should be engaged in defining the terms.	All stakeholders being involved in determining what is a 'tolerable' and 'intolerable' risk. Each definition category should also be consistent throughout the Region.
1.4	What is a reasonable time frame in which to remove intolerable risks?	The definition of intolerable risk needs to be clarified before this can be answered as the magnitude of the problem is unknown. It would be desirable to achieve this over the next two years so a prioritised list could be developed.	The current level of annual funding to reduce property flooding is inadequate. More funding is required to demonstrate to the community that all governments are taking the issue seriously. A 10 year timeframe should be adopted for resolving intolerable risks.

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1.5	Should we consider the acquisition of private properties that are considered to be at extreme or intolerable risk?	In developing options to resolve flooding, the acquisition of properties should be considered. In these circumstances the acquisition would need to be accepted politically and result in a nett benefit to the community.	General support for the acquisition of private property where no other alternative measures to reduce the risk are available or where other alternatives are cost prohibitive. After acquisition the land should be redeveloped to remove the flood risk and recover some costs of acquisition. Acquisition by negotiation would be preferred to compulsory acquisition.
Issue 2: Completing the knowledge base			
2.1 Understanding social impacts			
2.1.1	Is there a need for an ongoing flood impact research program?	There is currently very limited research on the impacts of flooding, so more research would be valuable. The research could consider increased development, climate change, social impacts and economic impacts. This should be done at a national level.	Yes there should be ongoing flood impact research.
2.1.2	What are the research priorities e.g. high risk areas, post event evaluation?	The research should focus on the high risk areas in flooding	Areas of research identified include: <ul style="list-style-type: none"> • Psychological impact of floods and anxiety caused; • Effectiveness of awareness campaigns, communication & education strategies; • Economic costs of flooding & impact on insurance premiums; • Health a safety impacts on residents; and • Long term impacts – both social and economic.
2.1.3	Who is best placed to co-ordinate such a program?	The research coordinating agency should be one that can incorporate research at the state and national level, can access sufficient funding and has the ability to pass the research results to all organisations involved in flood risk management.	Suggestions of the coordinating body are: Melbourne Water in partnership with DSE with support from MAV; Emergency Management Australia which has funds and has significant international links

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	2.2 Flood mapping to identify risks		
2.2.1	Where are the priority areas for additional flood mapping to be undertaken?	<p>Priority areas for flood mapping should be areas where there is a known high risk of flooding.</p> <p>Flood mapping priorities should have a systematic approach across the region with Melbourne Water, MAV and Councils having a role in the selection of priorities. Also there needs to be a consistent standard of survey information and mapping.</p> <p>Designated activity centres under M2030 should also have a priority.</p>	Priority areas should be areas where there is a known high risk of flooding. This will generally be in the Metropolitan areas (Melbourne and regional) that developed prior to the 1970s.
2.2.2	Who is best placed to manage and co-ordinate flood mapping projects?	<p>Some suggestions put forward:</p> <ul style="list-style-type: none"> • Melbourne Water as flood plain manager for the Region – but MW does not cover the whole state. • State Government through Land Vic to cover metropolitan and rural. 	The State Government is best placed to be the overall coordinator for the whole state with Melbourne Water taking a leadership role for the Port Philip and Westernport Region.
2.2.3	How could these projects be resourced and funded?	<p>Some funding sources considered:</p> <ul style="list-style-type: none"> • Melbourne Water and Councils as joint funding • State Government • Increase drainage levy or allocate all drainage levy income to drainage works • Natural Disaster Mitigation Program • Local Grants Scheme 	The issue is state and national wide so the funding should be sourced from state and federal government to fund the mapping projects.
2.2.4	What is the most appropriate forum to make this information publicly available and how should such communications be managed?	<p>It is important that the information is generally available and accessible by all interested parties.</p> <p>Need to connect source of information with any awareness programs, and instruct on how to interpret maps.</p>	The best forum to make this information available would be through the creation of a flooding website on the DSE planning site. This information should be available to the general public, Council, Water Authorities and all State agencies.

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Issue 3: Potential long term future pressures on existing drainage systems			
3.1 Development in established areas			
3.1.1	How can we better understand the timing and location of dispersed infill development and plan for it?	Need a coordinated approach between Melbourne Water, DSE and Councils Councils can refine their Planning Model predictions	Once the location of the infill development sites are identified through Melbourne 2030 and Council plans, it is necessary to upgrade the drainage to cater for the development. This can be done through the development of a drainage redevelopment scheme and through State Government funding.
3.1.2	How do we determine where redevelopment will have a significant impact on levels of service?	There needs to be a consistent modelling approach across Melbourne to assess the impacts of development of flooding. Then it has to be established whether the flooding is intolerable and action taken. Melbourne Water should take lead role. Developer contributions schemes should also include normal building works in addition to works requiring planning permits.	Once the flood mapping is completed for all high risk areas it will be possible to carry out sensitivity analysis by assuming infill development in accordance with the planning scheme. Impact will then be determined by the definitions of tolerable and intolerable risks yet to be categorised. Melbourne Water should take the lead in this role in conjunction with DSE and Councils.
3.1.3	What should we do in areas where it is not possible, practical or affordable to undertake works to accommodate additional runoff?	<ul style="list-style-type: none"> • Restrict infill development through Planning controls and control the % of impervious areas; • Accept additional flooding and handle through flood response plans • Require on site detention • Make better use of open space and roads for flood control • Education and awareness programs 	Where it is not possible or affordable to undertake works to accommodate for additional runoff from infill development, the best alternative is to control the water at the development through water sensitive urban design such as on site stormwater detention, retarding basins etc. or by stormwater harvesting to reuse the resource elsewhere.
3.2 Climate change			
3.2.1	How do we plan in advance for the potential and uncertain impacts of climate change?	This could be done by using the current design criteria as base and undertake a risk/cost/benefit analysis of impacts of medium and high changes in rainfall intensity	Modelling current rainfall intensities as a base model, with overlays for medium and high increases in rainfall intensity due to potential climate change effects. Similarly, Flood Emergency Response Plans need to consider climate change scenarios.

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3.2.2	What are some of the possible responses to the impacts of climate change?	Do nothing, acceptance by community and rely on emergency response and recovery plans Undertake planning for the various scenarios.	Planning for various scenarios and identifying impact on planning controls, high risk areas and overall flood mapping.
3.2.3	When would it be appropriate to implement adaptation strategies?	This should be considered soon as the debate and understanding on climate change is improving and may lead to a reasonable approach.	The identification of flood risk through flood mapping and investigation of future planning controls over developments within the next 10-15 years.
3.2.4	Who should lead and sponsor ongoing research into future pressures on the urban drainage system represented by climate change?	Climate change impacts are an international and national issue. At the Regional level, Melbourne Water should take the lead role. Regular reviews of Australian Rainfall & Runoff tables to reflect climate change effects.	The lead role should be undertaken by the Melbourne Water and other Water Authorities and work with Research agencies such as CSIRO and Local Government to identify impacts of Climate Change on drainage systems and works or actions required to respond to threat.

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Issue 4: Enhanced community education, flood awareness and preparation			
4.1.1	Who is best placed to co-ordinate and manage an on-going community education and awareness program?	The Victorian SES is the key body responding to emergencies. Local Government has a role in the recovery phase of the emergency as does DHS.	The Victorian State Emergency Service (SES) should take the lead role and work collaboratively with Melbourne Water, Emergency Management Australia, Dept Health & Services, Vic Police, DSE, Local Government and any other parties with an interest in education and response to flooding.
4.1.2	What should be the role of other stakeholders in developing and implementing a community education and awareness framework?	Local Government to plan effectively by identifying vulnerable areas. Melbourne Water and Local Government could provide flood intelligence. Bureau of Meteorology provide flood warning information This information could be provided to all parties and the community on a web page	The State should take the responsibility for developing an awareness campaign working with all stakeholders and fund the delivery of the awareness campaign through a number of agencies ranging from the state to local communities.

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4.1.3	What are the key objectives and tools of a community education and awareness framework?	<p>Property owners need to be aware of the risks and plan for the consequences of flooding as is done very well in the case for bushfires. If aware, property owners can take some control of the situation by either planning for the event (eg. place valuable items above flood levels) or simply ensure they do not knowingly live in a flood prone area.</p> <p>It should be made clear that flooding is a natural event that cannot be controlled totally and people need to live with flooding</p>	<p>Key Objectives include:</p> <ul style="list-style-type: none"> • Developing an awareness of flood Risk • Community mindset changed to accept some responsibility • Reaching the whole community • Floods are a natural event and people need to be aware that you cannot control nature <p>Tools include:</p> <ul style="list-style-type: none"> • Media, flood information guidelines, brochures, school flood kits, household flood plans; • Section 32 – improved flood information • Flood Smart Plans at local level • Consistent information from insurance companies • Schools flood education • Better information from building surveyors and the Building Commission playing a lead role to assist • Warning systems where possible.
4.2 The role of planning controls in raising community awareness			
4.2.1	What are the main impediments to the inclusion of flood information in planning schemes?	<p>Needs to be complete and not isolated catchments to ensure a whole picture</p> <p>Time delays in getting amendments in place</p>	<p>Affected property owners may object to the planning scheme amendment due to loss of value of their property.</p> <p>Time to get community support for change Amendments to Planning Schemes are expensive and can take 1 to 2 years to complete.</p> <p>The cost burden to Council to undertake planning amendments is large.</p> <p>Developers frustrated with the time taken to complete amendments</p>

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			<p>Inconsistency across municipal boundaries – should be on a catchment basis.</p> <p>Accuracy of information to justify change to planning scheme</p> <p>Frustration of residents who object to applications on amenity grounds, which can not be taken into account with a planning application that is solely triggered by SBO. SBO related applications often result in objections being received by Council that have nothing to do with drainage of flooding issues. These objections result in extra administrative and financial burdens on the Planning process.</p>
4.2.2	How could these impediments be removed?	<p>Consistent regulation required</p> <p>Targeted educational material to the community.</p> <p>Need to increase exemptions through VPPs, not schedules. Need to consult with Councils on a yearly basis to check controls</p>	<p>Better information for all parties would assist however more work to explore these issues needs to be undertaken</p>
4.2.3	Who is the most appropriate agency to control developments outside existing flood prone areas that may have an adverse impact on flood levels or the environmental values of floodplains? How might this be achieved?	<p>Local Government as a responsible Authority and others as a referral authority for any developments.</p> <p>The Building Act allows Councils to designate flood levels and introduce designated overland flow paths. This process seems quite different to that required of Melbourne Water under other legislation.</p> <p>The building over easements needs to be reviewed so that future protection of valuable easements to alleviate flooding is retained.</p>	<p>Local Government, Department of Sustainability and Environment or Melbourne Water.</p>

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Issue 5: Agreed responsibilities and improved collaboration between agencies			
5.1	Is there a need for greater collaboration between flood management agencies?	Yes	This is required between all agencies.
5.2	What activities require greater collaboration?	<p>Activities identified include:</p> <ul style="list-style-type: none"> • Mapping • Planning Scheme Amendments (Regional or Catchment approach); • Legislative Framework – Who is Flood Management Authority and as of right developments; • Clarifying the 60 hectare issue between Melbourne Water and Council responsibility; • State approach and broader collaboration with Catchment Management Authorities; • Funding arrangements; • Investigation into establishing a State Drainage Authority; • Flood risk assessment and prioritisation; • To refine planning controls and remove some minor controls. • Capital works program coordination; • Community education. 	The best way to ensure ongoing collaboration between the various stakeholders is to form a working group lead by Melbourne Water to work through the activities identified and develop solutions.
5.3	What aspects need greater capacity building within agencies and which aspects should be centralized?	<p>Aspects that could be centralisation include:</p> <ul style="list-style-type: none"> • Flood Mapping and modelling; • Planning and Building Control; 	This could be further explored in the working group mentioned above.

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		<ul style="list-style-type: none"> • Improved knowledge base within Councils; • Community education and awareness programs; • Community responsibilities – how they can help themselves 	
5.4	Who should take the lead in establishing a collaborative framework/approach?	This needs to be achieved through a whole of government approach. This would include the SES, Melbourne Water, Bureau of Meteorology, Police, Councils and industry bodies such as MAV and the IPWEA.	Melbourne Water & State Government Agencies should take the lead role, but working closely with Local Government.
5.5	Would the development of Municipal Emergency Management Plans be an appropriate mechanism to co-ordinate activities? What would be needed to achieve this?	<ul style="list-style-type: none"> • Emergency Management Plans are generally response plans only; • Perhaps could be improved to include flash flooding and riverine flooding events; and • Not really suitable for education. 	A generic Municipal emergency management plan should be developed with Melbourne Water or other Water Authorities leading the development. This needs to be done in close liaison with Local Government and other agencies with an interest in flood activity.
5.6	Who should lead the co-ordination and development of flood management activities in the region?	Lead should be taken by: <ul style="list-style-type: none"> • Whole of government approach • SES, Melbourne Water, Bureau of Meteorology, Police, Councils and industry bodies such as MAV and the IPWEA. 	Melbourne Water should take the lead in the coordination and development of flood management activities in the region.