

# Mansfield Shire flood risk assessment and priority rankings for stakeholder discussion (urban centres)

Community input is needed to prioritise where flood knowledge needs to be improved through flood studies and flood mapping in Mansfield Shire and to determine actions to reduce the risk of flooding.

This summary provides a list of studies for towns in Mansfield Shire and draft priorities for flood mitigation actions.

## How to read the table below

The column to the left ranks flood risks (1: low, and 5: high), taking into account the possible damage from different sized floods and how often they are expected to happen. The measure of the yearly average cost of floods is known as Annual Average Damage (AAD).

The two columns in the centre of the table show:

- Flood studies that have been (or soon will be) completed for towns in your local government area.
- Recommendations from these studies that have been implemented (or are under way) and other relevant comments or observations.

The columns to the right of the table show DRAFT priority rankings [Low (L), Medium (M), High (H) and No Action (-)] for actions that reduce risk of flooding such as:

- Mitigation works (e.g. levees, retardation basin, and floodways)
- Flood warning systems (e.g. flood watch, flood warning broadcasts and action plans)
- Land use planning (e.g. flood overlay control in planning schemes)
- Municipal flood emergency plans (developed by council, VICSES and other agencies with flood-management responsibilities)

Please review this summary and provide feedback by:

- attending one of the community sessions being held across the catchment during February; or
- completing the feedback form on the website [www.gbcma.vic.gov.au](http://www.gbcma.vic.gov.au)

## Terminology

**Annual Average Damage (AAD)**, expressed in dollar terms, is the average damage per year that would occur in a particular area from flooding over a very long period of time. This provides a basis for comparing the economic effectiveness of different projects. For more information on risk assessment methodology, please see the Regional Floodplain Management Strategy section of the website.

**Annual Exceedance Probability (AEP)** is the likelihood of occurrence of a flood of given size or larger occurring in any one year.

**FloodSafe** is a whole community program designed to prepare and empower the community with the skills and knowledge to appropriately prepare for, respond to, and recover from floods.

**Municipal Flood Emergency Plan (MFEP)** is a plan prepared and maintained by each municipal council, under the *Emergency Management Act 1986*, which identifies the municipal resources available, and how they are to be used, for flood prevention, response and recovery.

**Regional Floodplain Management Strategy (RFMS)** (under development) will replace the previous regional strategy (2002) and aims to help manage flood risk by seeking community input to prioritise where flood knowledge needs to be improved. The priorities will be detailed in a rolling three-year regional work plan that can be used by local communities to secure funding for various flood management activities.

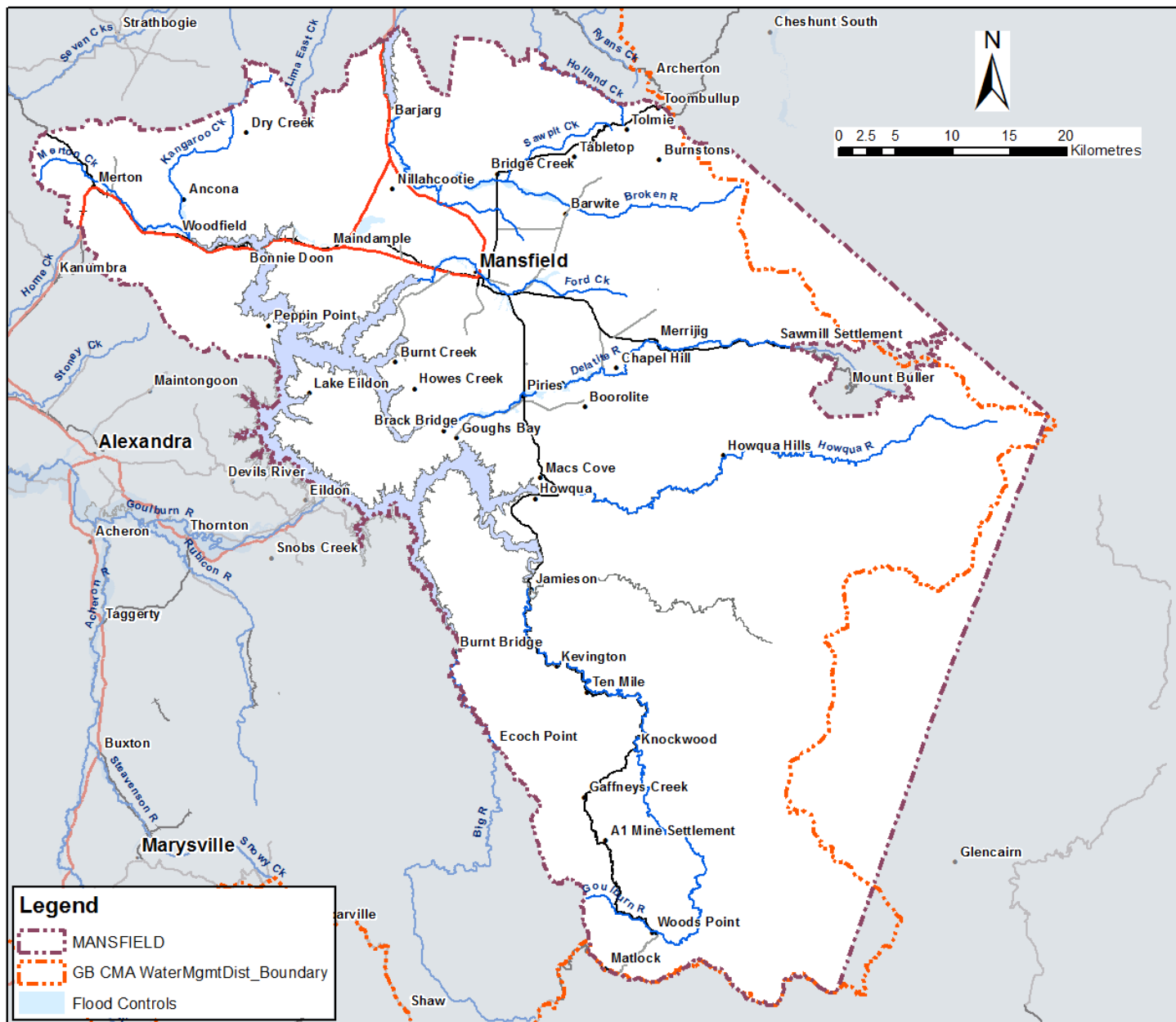


Figure 1. Mansfield Shire Council area showing towns and planning scheme flood overlay controls

**Table 1. Mansfield Shire risk assessment (ranking 1: low, and 5: high)**  
**Draft priority rankings for stakeholder discussion: Low (L), Medium (M), High (H) and No Action (-) (for urban centres)**

Name	AAD	Summary of past and existing studies	Summary of implemented study recommendations (Other comments)	Mitigation Works	Total Flood Warning System	Land Use Planning	Municipal Flood Emergency Plans
Bonnie Doon	1	<ul style="list-style-type: none"> <li>Nil</li> </ul>	<ul style="list-style-type: none"> <li>LiDAR ground level information indicates that the land is well above both the Full Supply Level of Lake Eildon and the 1% AEP flood level.</li> <li>No further action.</li> </ul>	-	-	-	-
Castle Point (A1 Mine Settlement)	0	<ul style="list-style-type: none"> <li>Design Flood Hydrographs for the Goulburn and Broken River Catchments (Jacobs, ongoing)</li> </ul>	<ul style="list-style-type: none"> <li>Three buildings have been identified (from 2015 aerial photography) for the area.</li> <li>The Raspberry Creek flows to the east of the development and has a catchment of some twelve square kilometres</li> <li>No detailed ground level information exists. However, from past site visits, the buildings appear elevated above the floodplain level</li> <li>No further action</li> </ul>	-	-	-	-
Howqua	1	<ul style="list-style-type: none"> <li>Design Flood Hydrographs for the Goulburn and Broken River Catchments (Jacobs, ongoing)</li> </ul>	<ul style="list-style-type: none"> <li>The site essentially includes buildings and works associated with a school camp</li> <li>LiDAR ground level information indicates that the site of the buildings are well above Howqua Valley floodplain.</li> <li>Need to confirm that the above judgement by undertaking a regional floodplain hydraulic modelling assessment with input from the hydrologic study (flow estimates) findings</li> </ul>	-	L	L	L
Jamieson	2	<ul style="list-style-type: none"> <li>Jamieson Flood Scoping Study (SKM, 2002)</li> <li>Design Flood Hydrographs for the Goulburn and Broken River Catchments (Jacobs, ongoing)</li> </ul>	<ul style="list-style-type: none"> <li>This town is possibly the most at risk community in the Mansfield Shire</li> <li>Flood overlay controls now incorporated into planning scheme; however, the mapping methodology is somewhat arbitrary</li> <li>Several homes have been identified as potentially at risk of over floor flooding, including significant flood risk at the caravan park</li> <li>At the very least the town needs a further hydraulic modelling assessment based on new LiDAR capture and river surveys (to determine flood extents etc.) with input from the hydrologic study (flow estimates) findings</li> <li>Scoping study into possible flood warning improvement is required – the BoM flood warning products such as Flood Watch is currently the only tool available</li> </ul>	-	H	H	H

Name	AAD	Summary of past and existing studies	Summary of implemented study recommendations (Other comments)	Mitigation Works	Total Flood Warning System	Land Use Planning	Municipal Flood Emergency Plans
Maindample	1	<ul style="list-style-type: none"> <li>Nil</li> </ul>	<ul style="list-style-type: none"> <li>Field reconnaissance carried out by GB CMA staff mapped the floodplain extents for the newly adopted flood overlay controls. This assessment suggests a small proportion of buildings maybe exposed to flood risk.</li> </ul>	-	-	L	L
Mansfield	3	<ul style="list-style-type: none"> <li>Mansfield Flood Study – Final Report (Earth Tech, 2005)</li> <li>Mansfield Flood Study Extension – Supplementary Report (Earth Tech, 2006)</li> <li>Mansfield Flood Intelligence and Mapping (GB CMA, 2014)</li> <li>Design Flood Hydrographs for the Goulburn and Broken River Catchments (Jacobs, ongoing)</li> </ul>	<ul style="list-style-type: none"> <li>Flood zone and overlay controls have been updated to reflect latest mapping.</li> <li>There are approx. three dwellings at risk of over floor flooding and a further 50 properties subject to flood inundation for a 1% AEP type flood</li> <li>Suggest a review of possible flood warning needs</li> <li>Carry out floor level survey to determine appropriate property listing in the MFEP</li> </ul>	-	M	-	M
Merrijig	1	<ul style="list-style-type: none"> <li>Design Flood Hydrographs for the Goulburn and Broken River Catchments (Jacobs, ongoing)</li> </ul>	<ul style="list-style-type: none"> <li>Approx. 75 buildings exist in Merrijig which are elevated above the Delatite River floodplain</li> <li>No further Action</li> </ul>	-	-	-	-
Merton	0	<ul style="list-style-type: none"> <li>Nil</li> </ul>	<ul style="list-style-type: none"> <li>Approx. 30 buildings exist in the town and located well above the floodplain areas.</li> <li>No further action</li> </ul>	-	-	-	-
Woods Point	0	<ul style="list-style-type: none"> <li>Design Flood Hydrographs for the Goulburn and Broken River Catchments (Jacobs, ongoing)</li> </ul>	<ul style="list-style-type: none"> <li>Field reconnaissance carried out by GB CMA staff mapped flood extents for newly adopted flood overlay controls in the Mansfield Planning Scheme. Mapping suggests that a small proportion buildings maybe exposed to flood risk.</li> <li>LiDAR ground level information is consistent with the above findings.</li> <li>This town should be included as part of the regional study area for upper Goulburn</li> </ul>	-	-	L	L