

## Campaspe Shire flood risk assessment and draft 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 Campaspe Shire and to determine actions to reduce the risk of flooding.

This summary provides a list of studies for towns in Campaspe 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.

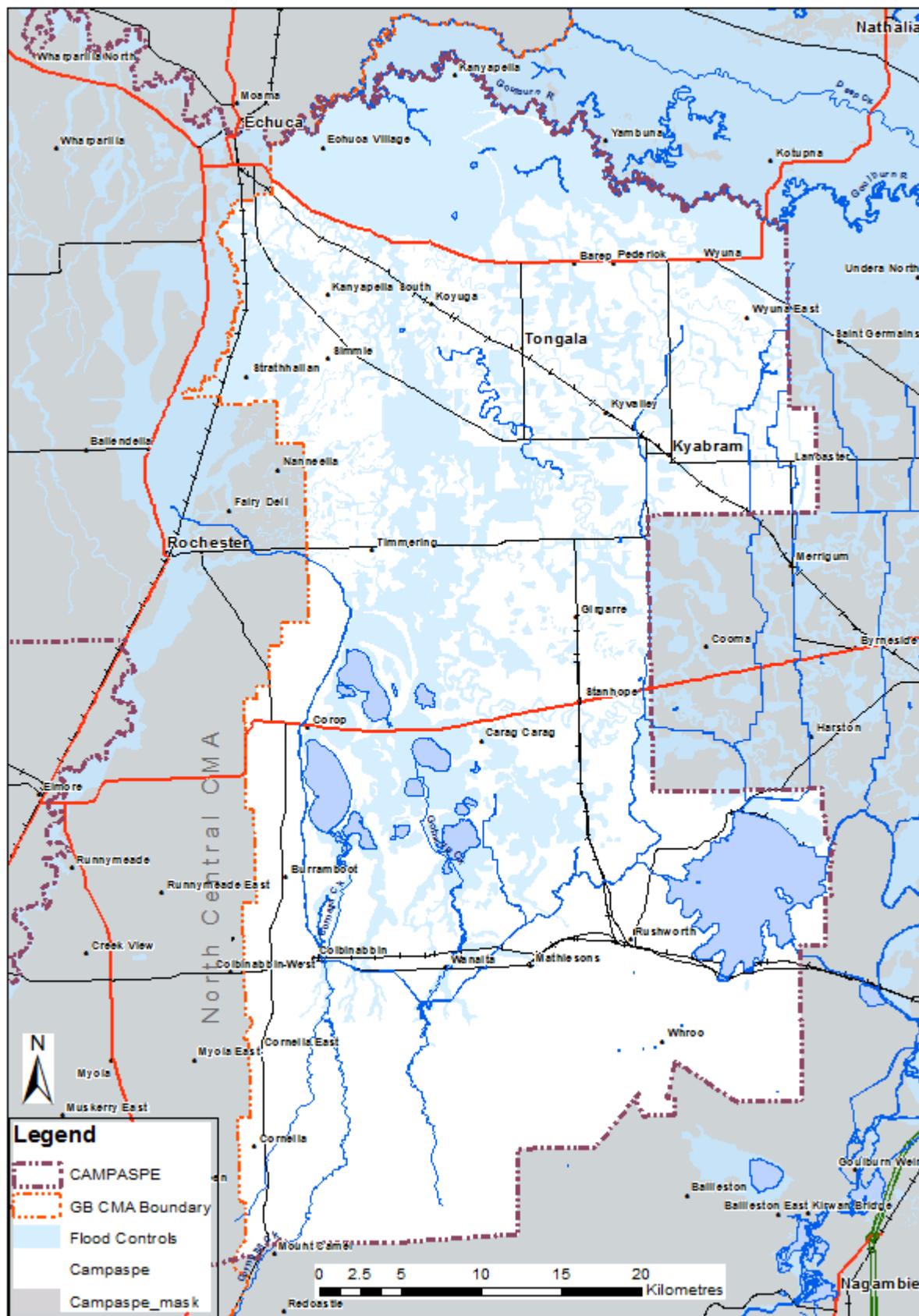


Figure 1. Campaspe Shire area showing towns and planning scheme flood overlay controls

**Table 2. Campaspe 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
Colbinabbin	1	<ul style="list-style-type: none"> <li>Corop Lakes Scoping Study (GHD, 2012)</li> </ul>	<ul style="list-style-type: none"> <li>Cornella Creek and its floodplain lies east of town</li> <li>The land upon which the primary school is located is subject to flooding. A house east of town is reported to have water under it. Recent Shire works have resolved flooding issues for other houses</li> <li>GMW has operational procedures for the Waranga Channel and a number of flood doors</li> <li>Improvement in communications about flood operations between GMW and communities is ongoing (a recommendation of scoping study)</li> <li>Parts of the town is known to be subject to overland flooding from the Camel Ranges that lie to the west. However, no knowledge of any above house floor flooding</li> </ul>	-	M	L	M
Girgarre	0	<ul style="list-style-type: none"> <li>Flooding of Tongala-Stanhope Irrigation District - March 1950 &amp; Recommendations for Improving the Surface Drainage (SR&amp;WSC, 1951)</li> </ul>	<ul style="list-style-type: none"> <li>No known flooding issues to date. Shire has no records of any above house floor flooding over the past 40 years.</li> <li>Shire has recently installed a retardation basin, which is designed to cater for a 1% AEP flood</li> </ul>	-	-	-	-
Kyabram	5	<ul style="list-style-type: none"> <li>Kyabram Drainage System – Design Basis Report on Kyabram Drainage Improvement Works (GHD, 1995)</li> <li>Kyabram Drainage System – Surface Drainage Strategy (GHD, 1996)</li> <li>Flood Contour Review (GBCMA, 2011) Shire is currently designing 1% AEP upgrade to McEwen Road east and west retardation basins</li> </ul>	<ul style="list-style-type: none"> <li>Low-lying areas are subject to overland flooding from localised intense rainfall</li> <li>Study recommendations implemented including pump station to remove excess floodwater to storage areas to the south of town</li> <li>Other recommendations from the 1994 report still remain outstanding, i.e. upgrade of McEwen Road sumps and construction of Waratah Street are still to be completed. Once completed there will still be a number of houses inundated by a 1% AEP flood.</li> <li>Require scoping study to review old study assumptions against new methods contained in Australian Rainfall and Runoff, and to identify any further work. For instance, the setting of floor levels could be based on pump failure (i.e. no pumps)</li> <li>Flood overlay controls need updating (partly completed by GB CMA)</li> </ul>	L	-	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
Rushworth	0	<ul style="list-style-type: none"> <li>Rushworth Overland Flood Study comprising the following: <ul style="list-style-type: none"> <li>Southern catchment design (Moore and Esmonde Streets)</li> <li>Western Catchment Design (Parker and Esmonde Streets)</li> <li>Norther Catchment Design (Moore and High Streets)</li> <li>CBD – High Street</li> <li>These studies and designs were all finalised in 2014</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Mitigation works implemented to reduce exposure from over floor flooding to some commercial buildings</li> <li>Need overlay flood controls for identified overland flow paths in planning scheme</li> <li>Rely on available BoM flood warning products such as Flood Watch</li> </ul>	-	-	M	M
Stanhope	1	<ul style="list-style-type: none"> <li>Stanhope Drainage Scheme 1973</li> <li>Flood Data Transfer – Flood Mapping (NRE, 1998)</li> </ul>	<ul style="list-style-type: none"> <li>Low-lying depression exists south of the town. However, there is no known history of flooding within the township boundary</li> <li>Further studies are not warranted at this time</li> </ul>	-	-	-	-
Tongala	1	<ul style="list-style-type: none"> <li>Tongala Drainage Scheme (Proposed Drainage Master Plan) (GHD, 1984)</li> </ul>	<ul style="list-style-type: none"> <li>The edge of the town (to the north) lies within a natural depression, which is shown in the flood overlay controls in the planning scheme</li> <li>Elsewhere, a significant number of recorded peak 1974 flood levels exist but without any flood overlay controls. However: <ul style="list-style-type: none"> <li>The Shire of Campaspe has advised (during the preparation of the 2002 RFMS) that the area is served by a drainage scheme incorporating Retardation Basins that caters for the 1% AEP storm</li> <li>Drainage works since that time has meant that areas outside the retardation basin do not flood. In 2012 water in the basin reached the boundaries of the 1% AEP storage</li> </ul> </li> <li>No further study is envisaged other than for the Shire to monitor the performance of the drainage system</li> </ul>	-	-	M-H	M
Wyuna	1	<ul style="list-style-type: none"> <li>Nil</li> </ul>	<ul style="list-style-type: none"> <li>Localised drainage path identified to the west of town</li> <li>No known flooding issues identified</li> </ul>	-	-	-	-