

FLOODPLAIN MANAGEMENT IN COLAC OTWAY SHIRE

DRAFT Corangamite Regional Floodplain Management Strategy

The Corangamite Catchment Management Authority has been working with local communities, Traditional Owners, Local Government Authorities, the Victorian State Emergency Service (VICSES) and other regional agencies to prepare the Corangamite Regional Floodplain Management Strategy. The draft strategy responds to outcomes of the 2016 Victorian Floodplain Management Strategy, with the aim to:

- **Build flood resilience** – by sharing information about flood behaviour;
- **Reduce flood risks** – through emergency management, flood mitigation infrastructure works and activities, and risk management;
- **Avoid future flood risks** – through land use planning and building controls;
- **Manage residual flood risks** – through flood insurance, sharing flood risk information, integrated flood emergency management and incident control.
- **Protect floodplains for their ecological and cultural values** – by integrating the management of flood risks with protecting the environmental and cultural values of natural floodplains.

This brochure summarises the information in the Corangamite Regional Floodplain Management Strategy relevant to Colac Otway Shire, and is consistent with the Shire's intent and capacity to address flooding issues across its municipality.

The largest waterway within the Shire is the Barwon River, which begins in the Otway Ranges and traverses the Shire to the east before passing through Surf Coast Shire, Golden Plains Shire and then through the City of Greater Geelong before discharging into Bass Strait.

Other significant waterways include the Aire River, the Gellibrand River and the Barham River, which all rise in the Otways and discharge into the ocean (Bass Strait) at various points along the Corangamite coastline. For example, the Barham River rises in the Otways before entering a broad floodplain before discharging into Bass Strait on the edge of the Apollo Bay.

There are many other smaller, shorter and hydraulically steep waterways within the Otway Ranges that may be susceptible to flash or short duration floods, such as Wye River, Kennett River and Skenes Creek. This has implications for the management of these systems, particularly in the downstream environment, such as the caravan parks on the lower estuarine floodplains.

Colac also has two smaller but significant waterways that pass through town; Deans Creek and Barongarook Creek, which both flow into Lake Colac. Parts of Deans Creek and Barongarook Creek are poorly defined, which allows floodwaters to spread out resulting in local overland flows/sheet flows across large areas of Colac.

Development of the strategy:



Colac Otway Shire Flood Risks

Four management units within Colac Otway Shire were identified as priority risk areas in the regional risk assessment. These are Colac, Birregurra, Apollo Bay and Elliminyt.

Colac, Elliminyt and Birregurra have creeks that flow directly through town and can affect property, livelihoods and assets. Apollo Bay has riverine flood risks associated with the Barham River to the west of town as well as several other minor waterways within the residential parts of town.

Addressing Flood Risk

Actions that do the most to reduce risk have been prioritised. All suggested actions are subject to feasibility, which may require further detailed investigation, and the availability of funding. The suggested actions have been priorities over a regional scale, and may not address some specific localised issues including stormwater flooding, which are more appropriately dealt with through other channels.

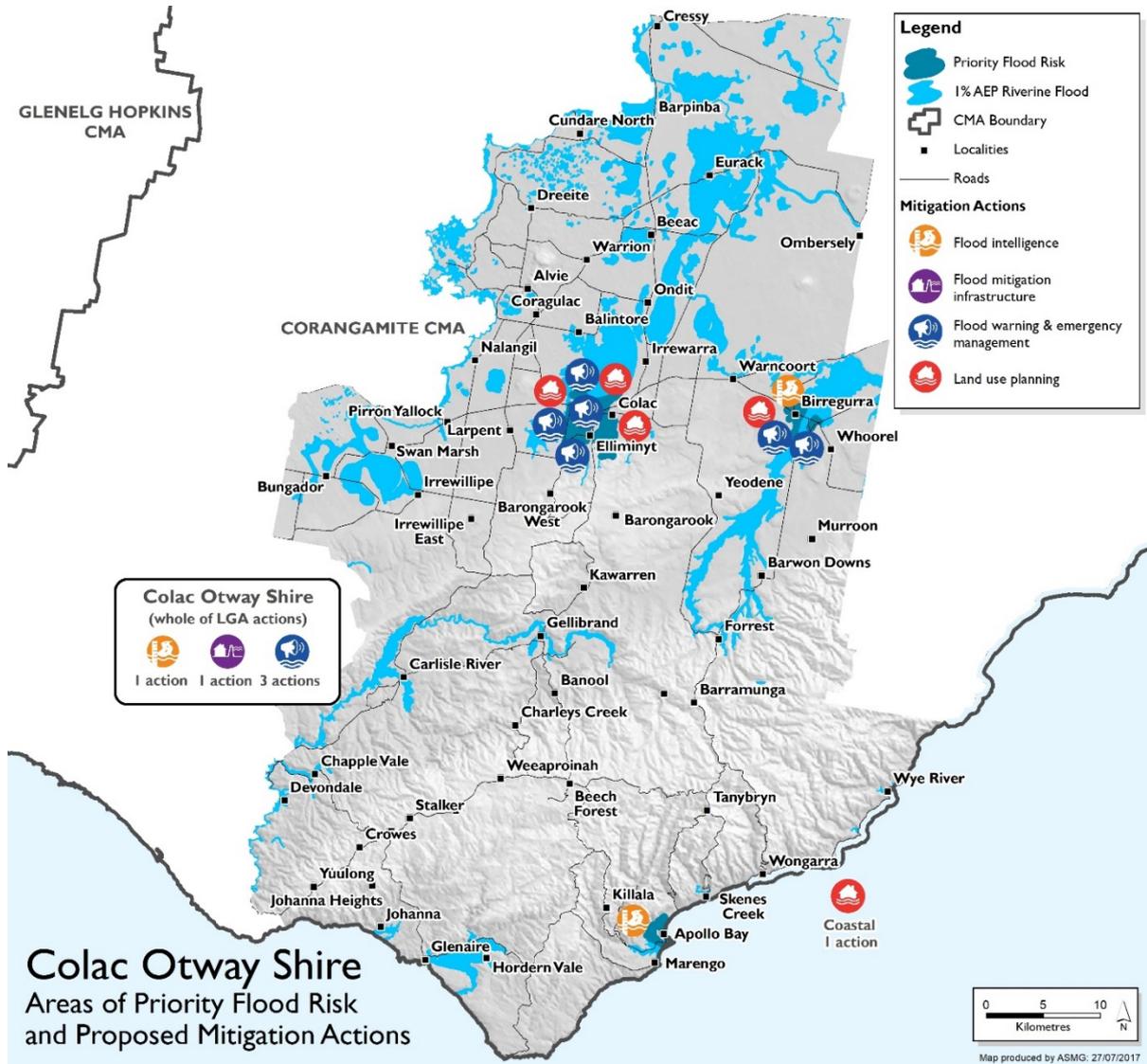
The flood mitigation actions proposed can be grouped into four categories:

Flood mitigation infrastructure involves the construction and management of physical works designed to reduce the impacts of flooding, such as levees, floodways and retarding basins. Example actions include managing waterways, developing retarding basins and developing or managing levees.

Flood warning and emergency management involves community education and awareness in support of flood preparedness to reduce existing flood risks. Example actions include the installation of flood warning systems on roads prone to regular flooding, and developing and sharing detailed flood maps. It also includes emergency management planning to manage residual risks such as updating Flood Emergency Management Plans.

Flood intelligence involves acquiring information about flood behaviour in order to understand the flood risk in more detail. An example action is the development of a flood study for a river reach.

Land use planning relates to tools such as Planning Schemes and building regulations, which manage development in flood-prone areas to reduce risk to life and property associated with new development. An example action is updating Planning Schemes to reflect current flood mapping.



Possible Flood Mitigation Actions

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|  | <p>Flood Mitigation Infrastructure</p> <ul style="list-style-type: none"> • Seek funding to review the priority retarding basins in Colac, e.g. investigate the benefits of current retarding basins, and whether their flood storage function is adequate and could be upgraded/removed/ maintained. |
|  | <p>Flood Warning and emergency management</p> <ul style="list-style-type: none"> • Identify the above floor flooded properties from the Deans Creek and Barongarook Creek Floodplain Mapping Project (DELWP 2016). • Undertake community flood education engagement activities and develop flood awareness products for Colac that may include pre-recorded flood education videos, local flood guides, community response plans, community signs and gauge boards if VICSES funding application for \$40,000 is successful. • Work with the Barongarook Nursing Home (on Murray Street, Colac) to develop a Flood Response Plan. • Investigate the feasibility of an appropriate flood warning system for Colac. Example: Investigate methods to turn flood study outputs into tools to assist with flood warning, preparedness and response. • Investigate the feasibility of a flood warning system for Birregurra, particularly for the smaller creeks through town. • Investigate the feasibility of a road inundation assessment (e.g. depth of road overtop, impassable vs. passable) to assist council and SES plan for road closures during and after floods and better plan for potential road damages. |
|  | <p>Flood Intelligence</p> <ul style="list-style-type: none"> • Seek funding support to undertake a flood study for Birregurra, with the potential to develop an integrated flood and drainage strategy for the town. Ensure this flood study includes above-floor flooded property data. • Seek funding support to undertake a flood study for Apollo Bay, including the landslip potential. Flood study area would be from Wild Dog Road to West of Marengo Lookout. • Seek funding to investigate the berm dynamics for the lower Aire and Barham River estuaries. This action needs to link in with any Coastal Hazard Assessment and could include recommendations for planning controls in estuarine areas. • Continue to support the Coastal Hazard Assessment Project (SA border to Breamelea) and ensure it meets the needs of the Corangamite CMA and Council. Seek funding support to implement the next stage, which will involve more detailed hazard assessments for high risk areas. |



Land Use Planning

- Complete the Colac Drainage Strategy, identify relevant floodplain management actions and prepare a detailed prioritised implementation plan.
- Complete the process for Planning Scheme Amendment C90.
- Colac 2050 Growth Plan to consider flood risks and provide strategic directions to address the issues for potential future growth areas.
- Following the completion of a Birregurra flood study, amend the Planning Scheme to update it with the new flood maps and requirements.