

*Planning and Environment Act 1987*

**Panel Report**

**Colac Otway Planning Scheme Amendment C90**

**Deans Creek and Barongarook Creek Flood controls**

**4 March 2020**

*Planning and Environment Act 1987*

Panel Report pursuant to section 25 of the Act

Colac Otway Planning Scheme Amendment C90

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4 March 2020

A handwritten signature in black ink, appearing to read 'Mandy Elliott', with a long horizontal flourish extending to the right.

Mandy Elliott

Chair

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## Glossary and abbreviations

Act	<i>Planning and Environment Act 1987</i>
ARI	Average Recurrence Interval
CCMA	Corangamite Catchment Management Authority
Council	Colac Otway Shire Council
DELWP	Department of Environment, Land, Water and Planning
FMA	Floodplain Management Australia
FME	Feature Manipulation Engine
FO	Floodway Overlay
LPPF	Local Planning Policy Framework
LSIO	Land Subject to Inundation Overlay
MSS	Municipal Strategic Statement
PPF	Planning Policy Framework
Study	<i>Deans Creek and Barongarook Creek Flood Study (2017)</i>
VPPs	Victoria Planning Provisions

## Overview

Amendment summary	
<b>The Amendment</b>	Colac Otway Planning Scheme Amendment C90
<b>Common name</b>	Deans Creek and Barongarook Creek Flood controls
<b>Brief description</b>	The Amendment proposes to implement the findings of the <i>Deans Creek and Barongarook Creek Flood Study (August 2017)</i> by introducing planning controls that seek to improve the performance of the Colac Otway Planning Scheme in responding to flood events in and around Colac.
<b>Subject land</b>	Land within Deans Creek and Barongarook Creek catchments in Colac that is affected by floodwater during a 1 in 100 year average recurrence interval (ARI) flood event.
<b>The Proponent</b>	Colac Otway Shire Council and Corangamite Catchment Management Authority
<b>Planning Authority</b>	Colac Otway Shire Council
<b>Authorisation</b>	1 November 2017
<b>Exhibition</b>	29 January – 9 March 2018
<b>Submissions</b>	Number of Submissions: 23 Opposed: 21
Panel process	
<b>The Panel</b>	Mandy Elliott
<b>Directions Hearing</b>	Colac, 14 November 2019
<b>Panel Hearing</b>	Colac, 30 January 2020
<b>Site inspections</b>	Unaccompanied, 30 January 2020
<b>Appearances</b>	Mr Sean O’Keefe, Strategic Planning Consultant representing Colac Otway Shire Council and Dr Geoff Taylor, Floodplain Statutory Manager, Corangamite Catchment Management Authority (CCMA) called the following expert evidence: <ul style="list-style-type: none"> <li>Mr D Lyons, BMT WBM regarding flood modelling</li> </ul> Mr Philip Lang
<b>Citation</b>	Colac Otway PSA C90 [2020] PPV
<b>Date of this Report</b>	4 March 2020

## Executive summary

Colac Otway Planning Scheme Amendment C90 (the Amendment) seeks to implement the findings of the *Deans Creek and Barongarook Creek Flood Study (August 2017)* by introducing planning controls that seek to improve the performance of the Colac Otway Planning Scheme in responding to flood events in and around Colac. The *Deans Creek and Barongarook Creek Flood Study* responds to strategic planning policy at both a State and local level. The Amendment seeks to update flood mapping with more updated and accurate data.

The Amendment has been jointly prepared with the Corangamite Catchment Management Authority (CCMA).

Key issues raised in submissions included:

- Accuracy of the flood mapping
- Impact on land values and insurance premiums
- Ability to develop or improve the land into the future
- Lack of maintenance and management of waterways and the drainage network; and
- Flood overlays only impact a very small portion of a submitters land.

Some of the issues raised in submissions were resolved by micro-siting of the overlay on individual land parcels; mostly removing 'slivers' of the Land Subject to Inundation Overlay (LSIO) and Floodway Overlay (FO) on a number of sites. These changes are considered by the CCMA and Council to not impact upon the integrity of the flood mapping, of which the Panel accepts and agrees. The post exhibition revised mapping was provided to the Panel as part of the Amendment documentation.

Those submissions not resolved were generally around land development concerns, ongoing drainage issues, and the lack of maintenance and management of Colac's waterways.

The exhibited LSIO Schedule has been amended post exhibition to reflect submissions regarding development restrictions on land. The post exhibition changes now exempt new buildings from the requirements of a planning permit if certain criteria are met.

The Panel notes that Council has worked closely with the CCMA to prepare the post exhibition changes to the LSIO Schedule and the CCMA submitted that they endorsed these changes. The Panel accepts that the changes to the post exhibited LSIO Schedule will decrease the planning permit burden on applicants and authorities, whilst delivering on strategic flood protection outcomes.

The proposed changes to the FO and LSIO mapping and the LSIO Schedule will contribute to the protection of life and property in areas at risk of flooding.

There were no submissions regarding the proposed changes to the LPPF and the Panel concludes that the changes as exhibited are appropriate.

### Recommendations

Based on the reasons set out in this Report, the Panel recommends:

- 1. Amendment C90 to the Colac Otway Planning Scheme be adopted as exhibited subject to the following changes:**

- a) Include the Panel agreed post exhibition changes to the Land Subject to Inundation Overlay Schedule as provided in Appendix C to this report.**
- b) Include the agreed post exhibition changes to the Land Subject to Inundation Overlay and Floodway Overlay mapping as provided in Appendix D to this report.**

# 1 Introduction

## 1.1 The Amendment

### (i) Amendment description

The proposed planning controls seek to improve the performance of the Colac Otway Planning Scheme in responding to flood events in and around Colac. The Amendment includes changes to the Land Subject to Inundation Overlay (LSIO) mapping and applying Floodway Overlay (FO) mapping, changes to the Schedules and the Local Planning Policy Framework (LPPF) and including a new reference document.

In particular, the Amendment proposes to implement the recommendations of the *Deans Creek and Barongarook Creek Flood Study (2017)* prepared by BMT WBM, by:

- Changes to the Local Planning Policy Framework:
  - Amending Clause 21.03 (Settlement) to ensure that development of land affected by flooding from the Deans Creek and Barongarook Creek catchments respond to the risks associated with flooding and inundation.
  - Amending Clause 21.04 (Environment) to ensure that the environmental risks associated with flooding and inundation are addressed.
  - Amending Clause 21.07 (Reference Documents) to insert the Deans Creek and Barongarook Creek Flood Study as a Reference Document in the Colac Otway Planning Scheme.
- Overlay changes:
  - Amending the Schedule to Clause 44.03 Floodway Overlay to improve its performance in responding to flooding and flood related land development and subdivision matters.
  - Amend the Schedule to Clause 44.04 Land Subject to Inundation Overlay to improve its performance in responding to flooding and flood related land development and subdivision matters.
- Changes to the LSIO and FO mapping:
  - Amend Planning Scheme Map Nos 5LSIO-FO, 9LSIO-FO, 11LSIO-FO, 15LSIO-FO and 16LSIO-FO.

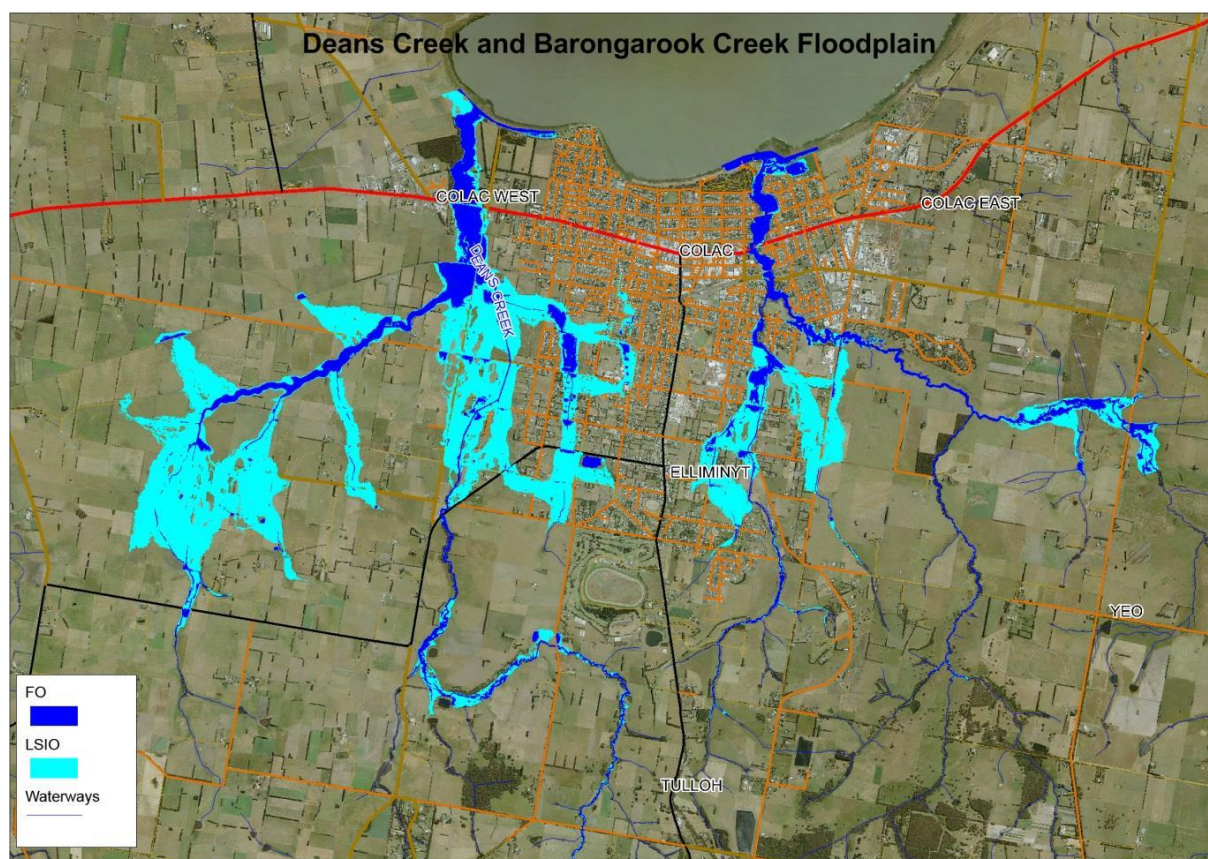
### (ii) The subject land

The Amendment applies to land in the Deans Creek and Barongarook Creek catchments in Colac that is affected by floodwater during a 1 in 100-year average recurrence interval (ARI) flood event, as identified in the *Deans Creek and Barongarook Creek Flood Study (2017)*. Specifically, it applies to land in the current LSIO in Colac and its immediate surrounds.

The Amendment applies to land shown in Figure 1.



**Figure 1: Deans Creek and Barongarook Creek Floodplain**



## 1.2 Background

The Amendment is the result of the combined work of the Colac Otway Shire (Council), the Corangamite Catchment Management Authority (CCMA) and the Department of Environment, Land, Water and Planning (DELWP).

The Amendment was initiated as a response to the 2010-2011 Victorian Floods, when the State Government undertook a series of reviews including:

- Victorian Floods Review (December 2011)
- Environment and Natural Resources Committee Inquiry into flood mitigation infrastructure (August 2012)
- Draft Victorian Flood Strategy (2014).

A key recommendation from these reviews was that:

- *“the State ... undertake a strategic review to identify areas at risk from flash or riverine flooding ...”*
- *“... maps should extend where appropriate to include Probable Maximum Flood over a range of Annual Exceedance Probability levels ...”*

DELWP commissioned flooding consultants BMT WBM to undertake a study to provide new flood mapping for the Deans Creek and Barongarook Creek drainage catchments in Colac in May 2015. DELWP selected the Deans Creek and Barongarook Creek catchments as there was an incomplete picture of flooding, a noted short response time during a flood events, ongoing development pressures within Colac and lack of available quality data. The purpose of the Study was to update the existing flood mapping in Colac so that it more accurately

reflects the geographical extent and depth of flood waters in Colac associated with riverine flooding and that it quantifies the risks associated with such flood events.

The proposed amendment seeks to update the LSIO mapping reflecting the latest data. It also identifies land within the LSIO that has a greater risk of flooding and/or the implications of flooding are more severe. This land has been included in the Floodway Overlay (FO) mapping.

Consultation was undertaken with the community as part of the preparation of the study, including a community drop-in session to provide the community and interested parties with the opportunity to share their detailed knowledge and history of flooding within the Colac region and provide comments on the draft flood mapping available.

The draft *Deans Creek and Barongarook Creek Flood Study* was completed in early 2016 and finalised in 2017 in response to a local flood event in Colac.

### **1.3 Summary of issues raised in submissions**

The key issues raised in submissions were:

- Accuracy of the flood mapping;
- Impact on land values and insurance premiums;
- Ability to develop or improve the land into the future;
- Lack of maintenance and management of waterways and the drainage network;
- Flood Overlays only impact a very small portion of a submitters land.

After close of submissions, it was resolved by Council at its Ordinary Council Meeting of 23 May 2018, to defer consideration of Amendment C90 until further work was undertaken by Council officers and the CCMA to avoid imposing further restrictions on land parcels. Council officers directly contacted submitters to discuss their concerns, including on site meetings with Council and CCMA drainage engineers. Following this process, two submissions (submissions 9 and 12) were formally withdrawn and seven submissions were resolved (submissions 1, 7, 8, 13, 14, 20 and 21). Some of the issues were resolved by micro-siting of the overlay on individual land parcels. Those submissions not resolved were generally around land development concerns, ongoing drainage issues, and the lack of maintenance and management of Colac's waterways.

The Panel has assessed the Amendment against the principles of net community benefit and sustainable development, as set out in Clause 71.02-3 (Integrated decision making) of the Planning Scheme.

The Panel considered all written submissions made in response to the exhibition of the Amendment, observations from site visits, and submissions, evidence and other material presented to it during the Hearing. All submissions and materials have been considered by the Panel in reaching its conclusions, regardless of whether they are specifically mentioned in the Report.

This Report deals with the issues under the following headings:

- Planning context
- Key issues.

## **1.4 Limitations**

The Panel has not considered issues such as potential impacts on land values or ongoing Council maintenance issues with drainage and waterway management. Land values are generally not considered a planning matter.

The Panel notes, through submissions from Council, that issues with existing drainage and waterway management in the Colac Otway Shire will be considered as part of the recently released *Colac Stormwater Development Strategy 2019*. Matters of existing drainage and waterway management will not be taken further as part of Amendment C90.

## 2 Planning context

### 2.1 Planning policy framework

Council submitted that the Amendment is supported by various clauses in the Planning Policy Framework, which are summarised below.

#### 2.1.1 Victorian planning objectives

The Amendment proposes to implement State policy objectives by:

- Section 6(2)(e) of the Act allows for a planning scheme to:
  - regulate or prohibit any use or development in hazardous areas or in areas which are likely to become hazardous areas.
- Section 12(2)(b) of the Act requires a planning authority in preparing a planning scheme or amendment to:
  - take into account any significant effects which it considers the scheme or amendment might have on the environment or which it considers the environment might have on any use or development envisaged in the scheme or amendment.

#### Clause 11 (Settlement)

The Amendment supports Clause 11 by:

- Support sustainable development of the regional centres of Ararat, Bacchus Marsh, Bairnsdale, Benalla, Castlemaine, Colac, Echuca, Gisborne, Hamilton, Kyneton, Leongatha, Maryborough, Portland, Sale, Swan Hill, Warragul/Drouin and Wonthaggi.

#### 12.03-1S - River corridors, waterways, lakes and wetlands

The Amendment supports Clause 12.03-1S by protecting and enhancing river corridors, waterways, lakes and wetlands. In particular:

- Strategies
  - Protect the environmental, cultural and landscape values of all water bodies and wetlands.
  - Ensure development responds to and respects the significant environmental, conservation, cultural, aesthetic, open space, recreation and tourism assets of water bodies and wetlands.
  - Ensure development does not compromise bank stability, increase erosion or impact on a water body or wetland's natural capacity to manage flood flow.

#### 13.01-1S – Natural hazards and climate change

The Amendment supports Clause 13.01-1S by minimising the impacts of natural hazards and adapting to the impacts of climate change through risk-based planning. In particular:

- Strategies
  - Consider the risks associated with climate change in planning and management decision making processes.
  - Identify at risk areas using the best available data and climate change science.
  - Integrate strategic land use planning with emergency management decision making.

- Direct population growth and development to low risk locations.
- Develop adaptation response strategies for existing settlements in risk areas to accommodate change over time.
- Ensure planning controls allow for risk mitigation or risk adaptation strategies to be implemented.
- Site and design development to minimise risk to life, property, the natural environment and community infrastructure from natural hazards.

### **13.03-1S – Natural hazards and climate change**

The Amendment supports Clause 13.03-1S by protecting life, property and community infrastructure from flood hazard. In particular:

- Strategies
  - Identify land affected by flooding, including land inundated by the 1 in 100 year flood event or as determined by the floodplain management authority in planning schemes.
  - Avoid intensifying the impact of flooding through inappropriately located use and development.
  - Locate emergency and community facilities (including hospitals, ambulance stations, police stations, fire stations, residential aged care facilities, communication facilities, transport facilities, community shelters and schools) outside the 1 in 100 year floodplain and, where possible, at levels above the height of the probable maximum flood.
  - Locate use and development that involve the storage or disposal of environmentally hazardous industrial and agricultural chemicals or wastes and other dangerous goods (including intensive animal industries and sewage treatment plants) outside floodplains unless site design and management is such that potential contact between such substances and floodwaters is prevented, without affecting the flood carrying and flood storage functions of the floodplain.

### **19.03-3S - Integrated water management**

The Amendment supports Clause 19.03-3S by sustainably managing water supply, water resources, wastewater, drainage and stormwater through an integrated water management approach. In particular:

- Strategies
  - Plan and coordinate integrated water management, bringing together stormwater, wastewater, drainage, water supply, water treatment and re-use, to:
    - Take into account the catchment context.
    - Protect downstream environments, waterways and bays.
    - Minimise flood risks
    - Provide urban environments that are more resilient to the effects of climate change.

## **2.2 Local Planning Policy Framework (LPPF)**

Amendment C90 gives effect to the Local Planning Policy Framework of the Colac Otway Planning Scheme, particularly Clause 21.03-1 Settlement, which notes the susceptibility of

Colac to flooding, and seeks to protect the floodway and new development from the impact of flood.

The Amendment also gives effect to Clause 21.04-1 Catchment Management, which identifies the importance of floodplains, Clause 21.04-2 Water, which seeks to protect water catchments and Clause 21.04-6 Flooding, which seeks to minimise environmental hazards. In particular:

### 21.03 - Settlement

#### Landscape Setting and Environment

- Recognise and protect ecological values and avoid development in areas at risk from the effects of flooding, wildfire, acid sulphate soil disturbance, erosion, landslip and salinity.

### 21.04-6 Flooding

#### Overview

- The Colac Otway Planning Scheme currently has a Land Subject to Inundation Overlay that reflects the floodways in the Shire.
- Flooding is a significant threat north of the Otway Ranges particularly associated with the Barwon River and the lakes system of the Volcanic Plains.

#### Objectives

- To minimise environmental hazards.

#### Strategies

- Promote floodplain management policies, which minimise loss and damage, maintain the function of the floodway to convey and store floodwater and protect areas of environmental significance.
- Encourage the use of "constructed wetlands" as a means of storing floodwater, improving water quality and adding to natural habitats.

## **2.3 Planning scheme provisions**

The VPPs includes a number of planning controls to ensure that risks associated with the development and subdivision of floodplain land are recognised and responded to appropriately via the planning permit application process.

The FO and LSIO are based on the degree of hazard identified in different parts of the floodplains. They consider factors such as flood depth, velocity, natural storage, flood duration and warning time during the 1% AEP design flood event.

The FO denotes floodway land. Floodway is the component of the floodplain required to provide adequate flood conveyance and storage and should remain free from obstruction during major flood events. Floodway land is generally the high hazard portion of the floodplain where deep and fast flowing floodwater can be expected. Placement of buildings and other structures on floodway land substantially increases risk to life and community wellbeing and should therefore be avoided.

The LSIO generally denotes the fringe of the floodplain where flooding is shallower than the FO and slower moving during a flood event. The level of hazard in this part of the floodplain is lower relative to the FO. Development (buildings and works) and subdivision on land

within the overlay can be considered provided a permit application meets the requirements of the Responsible Authority and the flood plain manager.

The use of Schedules to the flooding overlays allow a Planning Authority to modify permit triggers.

## **2.4 Ministerial Directions and Practice Notes**

### **Ministerial Directions**

The Explanatory Report discusses how the Amendment meets the relevant requirements of Ministerial Direction 11 (Strategic Assessment of Amendments) and *Planning Practice Note 46: Strategic Assessment Guidelines*, August 2018 (PPN46). That discussion is not repeated here.

### **Planning Practice Notes**

The proposed controls have been applied according to level of risk, consistent with *Planning Practice Note 12 'Applying the Flood Provisions in Planning Schemes – A Guide for Councils'*.

## **2.5 Discussion and conclusion**

The Panel agrees with Council that the Amendment will create a regulatory environment that will help to facilitate the free passage of floodwaters in active floodways. The new controls will assist in preventing inappropriate development in the floodways that could reduce the capacity of the floodplain to store and convey floodwater, or divert floodwater to other land not normally inundated by floodwater. In addition, the Amendment will facilitate the continued use of the floodways as stream habitats and wildlife corridors.

The proposed changes to the FO and LSIO mapping and the LSIO Schedule will contribute to the protection of life and property in areas at risk of flooding. The Amendment proposes to apply development controls in areas that are affected by flooding and to mitigate against risk to life and property.

No submissions raised concerns regarding the proposed changes to the Local Planning Policy Framework. The Panel supports the exhibited changes to Clauses 21.03, 21.04-6, and 21.06.

For the reasons set out in the following chapters, the Panel concludes that Amendment C90 is supported by, and implements, the relevant sections of the PPF, and is consistent with the relevant Ministerial Direction and Practice Notes. The Amendment is well founded and strategically justified, and should proceed.

## 3 Key issues

### 3.1 The issues

There are two key issues that remain unresolved in submissions:

- Accuracy of the flood mapping
- Ability to develop land subject to the LSIO.

Issues regarding the maintenance and management of waterways or drainage within the Colac region were raised in a number of submissions. Whilst it is acknowledged that this is causing some frustration within the community, these are not matters that this Amendment is addressing. The Panel acknowledges the recent *Colac Stormwater Development Strategy 2019* that seeks to address some of these drainage and waterway management issues.

#### 3.1.1 Accuracy of the flood mapping

##### (i) Evidence and submissions

Council submit that the Amendment is the result of a rigorous technical process that will provide the planning controls necessary to guide the future development of flood affected land in the Deans and Barongarook Creek catchments.

Council submitted that the Amendment:

- Is strategically justified having regard to the framework for addressing the issue of flooding in the Victorian planning system
- Is the result of a rigorous technical process, leading to a robust flood study
- The proposed planning controls will properly implement the findings of the study; and
- The proposed planning controls will achieve an appropriate balance between the purpose of protecting human safety, assets and property and the environment and the consequence of imposing planning controls on landowners and managers.

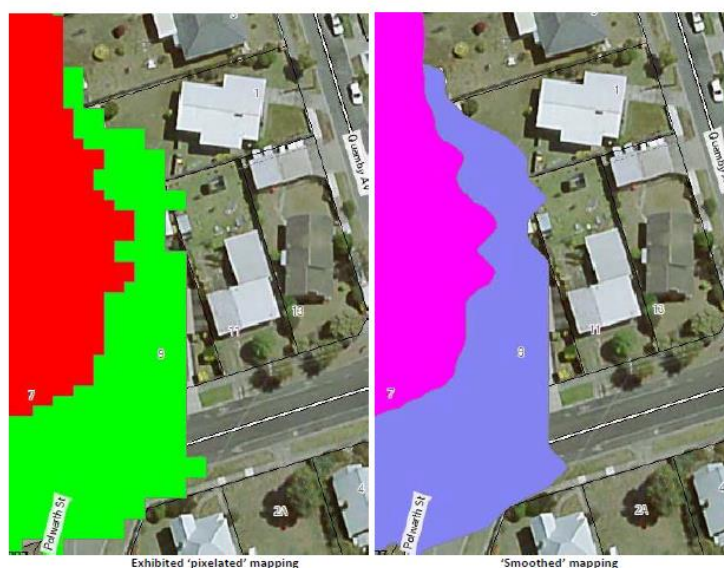
Submissions from landowners raised concerns including the mapping being in only small sections of their land and whether this could be removed; accuracy of the mapping and whether recent flood events have been considered; and whether the control could be changed from FO to LSIO on their property.

In regard to the issues raised in submissions about the accuracy of the LSIO and FO mapping, Council and the CCMA closely examined the mapping supplied in the *Deans Creek and Barongarook Creek Flood Study (August 2017)* by BMT WBM at an individual lot level. Council submitted that this process discovered that the mapping boundaries were of a pixelated nature that were somewhat cumbersome and artificial and not reflective of natural flood boundaries. The Council stated:

Following exhibition, FME (Feature Manipulation Engine) computer software was used to smooth the flood extents as per Melbourne Water Technical Specifications. This process made the mapping more realistic, legible and workable, and resulted in very minor changes to the mapping. No new properties were included in the amendment as a result of this process.

An example of this process is shown below in Figure 2.



**Figure 2: Pixelated mapping and post exhibition Smoothed Mapping**

As part of this process, the Council and the CCMA established a process where small areas, or slivers, of a site could be removed without impacting the integrity of the flood mapping. These include where the LSIO encroached into less than 20 square metres of a property and was located on the periphery of a property and, if it was located on a front boundary, did not require access into a roadway that was abutting a FO (to ensure safe escape routes and emergency response access). These mapping changes resulted in some submissions being resolved and withdrawn.

**Figure 3: Removing slivers post exhibition from mapping**

The CCMA submitted that there is a long history of flooding in the Colac region and particularly along the lower reaches of Deans Creek. The CCMA reviewed the *Deans Creek*

*and Barongarook Creek Flood Study* and its mapping outputs and submitted that the proposed LSIO and FO mapping is as accurate as possible.

An expert witness on flood modelling for Council and the CCMA, Mr Lyons, stated in his expert witness statement report that a principal outcome of the flood study is the understanding of flood behaviours in the catchment and in particular design flood information to be used to set appropriate flood planning controls for the study area. A hydrologic model was developed to simulate the rate of storm water runoff from the catchment. The model predicts the amount of runoff from rainfall and the attenuation of the flood wave as it travels down the catchment. Mr Lyons explained to the Panel that the design flood results are based on having a probability of occurrence specified as Annual Exceedance Probability (AEP) expressed as a percentage, or flood planning often uses a 1:100 year hypothetical flood event.

Mr Lyons explained how the hydrological and hydraulic models were developed for the study, including the calibration of the model. The model calibration and validation included a check against a flood event which occurred in Colac in September 2016 in order to determine the effectiveness of the calibration parameters that had already been selected. He informed the Panel that *'overall, the model performed quite well'*.

Mr Lang submitted that he was concerned about the ongoing drainage and maintenance issues regarding Cants Road and that if these were resolved, the flood mapping could be altered. He submitted that Cants Road is *'effectively a dam wall'*. Council suggested that the matters raised by Mr Lang may be addressed through the recently released *Colac Stormwater Development Strategy 2019* and both Council and CCMA officers offered to meet with Mr Lang onsite to discuss his drainage concerns.

Mr Lang asked Mr Lyons about the relative magnitude of the 2016 Colac flood event compared to the current mapping for 1:100 flood event. Mr Lyons' response via email on 3 February 2020 was that he estimated the 2016 Colac flood to be approximately a 1 in 50 year return period. Through questioning from the Panel, Mr Lyons explained that there is often a misunderstanding of the community of the comparison between a 1:100 year event (or 1% probability) and a flood event (for example the Colac 2016 flood).

Mr Lyons stated the benefits of putting flood mapping into the planning scheme are that they can guide and control future development in such areas; risks can be identified; and emergency planning can be better undertaken.

When asked by the Panel whether the Amendment maps reflect the outcome of the flood modelling, Mr Lyons replied that the mapping in the Amendment is a *'correct representation'*.

## **(ii) Discussion and Conclusions**

There is a demonstrated comprehensive background of work by both Council and the CCMA leading to the flood mapping proposed as part of the planning controls of Amendment C90, which also included consultation with the community.

The Panel notes the undertaking by both Council and the CCMA to resolve submissions, in particular those of landowners that had small slivers, or islands, of land that were proposed to be subject to the FO and LSIO. This has resulted in revised FO and LSIO mapping, some

submissions being resolved and two withdrawn and the agencies should be acknowledged for this.

The Panel agrees with the CCMA that the proposed planning controls represent best practice and have identified areas that are subject to riverine flooding which will enable safer developments to occur within Colac.

The Panel accepts the submission from the CCMA that the flood modelling and subsequent flood mapping that underpins the Amendment (particularly the proposed LSIO and FO mapping) is accurate for planning scheme use.

### **3.1.2 Ability to develop land subject to the LSIO**

#### **(i) Evidence and submissions**

Some submitters expressed concern that the proposed flood controls, in particular the Schedule to the LSIO, constrains their ability to develop the land in the future. This issue is mostly related to building houses, extensions and sheds on their property.

The CCMA submitted that the *'flood controls determine whether an area is within 'safe' or 'unsafe' flood limits, enabling the Corangamite CMA to make informed assessments on the suitability of developments within those areas'*.

Following concerns raised in some land owner submissions, Council and the CCMA agreed to a revised LSIO Schedule which states that a planning permit would not be required for the development of a dwelling in the LSIO, providing the finished floor level is built 300 millimetres above the applicable flood level, the building is constructed on stumps or piers and that cladding to the subfloor has openings to allow for the passage of flood waters.

Council submitted the following post exhibition changes to the LSIO Schedule which have been agreed with the CCMA:

- If the floor level of the building is finished at least 300 mm above the 100 year ARI flood level and meets the safety hazard of FMA, and
- If the new building is constructed on stumps (or piers) and bearers, and
- Cladding to the subfloor structure of the extension has openings or is of an open style (such as spaced timber boards) to allow automatic entry and exit of flood water for all floods up to the 1 per cent AEP event, and
- Any earthworks including any driveways, paths or services that do not alter the natural ground level.

Council submitted that the proposed changes to the LSIO Schedule further refine and encourage appropriate development in the LSIO and that any future application to develop land within the LSIO would be considered on its merits. They stated that the changes seek to decrease the planning permit burden on applicants, whilst delivering on strategic flood protection outcomes.

There were no changes to the FO Schedule post-exhibition.

#### **(ii) Discussion and conclusions**

The submissions of both Council and the CCMA describe a thorough post exhibition process that they have been involved in to reduce the planning permit burden of the LSIO Schedule on not only land owners but also on themselves as regulators.

The Panel agrees with Council and the CCMA that the post exhibition LSIO Schedule, which identifies permit exemptions, will reduce the burden of planning permit applications whilst enabling orderly planning outcomes in regard to flood protection.

The Panel concludes that the introduction of the FO, LSIO and the post exhibition LSIO Schedule will provide certainty and greater clarity to permit applicants at the outset of the land development process and ensures that new developments respond appropriately to flood issues. The post exhibition changes to the Amendment (LSIO and FO mapping and LSIO Schedule) are appropriate.

### **3.2 Recommendations**

The Panel recommends:

**Adopt Amendment C90 as per the Panel agreed post exhibition changes to the LSIO Schedule as shown in Appendix C to this report.**

**Adopt Amendment C90 as per the agreed post exhibition changes to the LSIO and FO mapping as provided in Appendix D to this report.**

## Appendix A Submitters to the Amendment

No.	Submitter
1	Mr Houghton
2	Mr Crook
3	Mr Paatsch and Ms Spokes
4	Mr and Ms Boyd
5	Mr and Ms Prascevic
6	Mr Thwaites
7	Ms Marriner
8	Mr and Ms McAdam
9	Mr Ware
10	Mr and Ms Tomkins
11	Mr Connor
12	Mr and Ms Simmons
13	Ms Ivens
14	Ms Foster and Ms De Vercelli
15	Mr Rooney
16	Mr and Ms Learey
17	Mr Walsh
18	Department of Environment, Land, Water and Planning
19	Ms Tomkinson
20	Mr Kelly
21	Mr Lawson
22	Mr Lang
23	Mr Riordan MP – Member for Polwarth

## Appendix B Document list

No.	Date	Description	Provided by
1	30/01/2020	Council submission	Mr S O'Keeffe, Council advocate
2A	30/01/2020	Proposed FO and LSIO areas	Mr O'Keeffe
2B	30/01/2020	Location of submitters map	Mr O'Keeffe
2C	30/01/2020	Location of unresolved submitters map	Mr O'Keeffe
3	23/01/2020	Mr Lyons expert witness statement	Mr O'Keeffe
4	30/01/2020	Corangamite Catchment Management Authority submission	Dr G Taylor, Floodplain Statutory Manager, CCMA
5	03/02/2020	Email from Mr Lyons regarding flood question raised by submitter	Mr S Clarke Coordinator Strategic Planning, Colac Otway Shire

## **Appendix C Panel agreed post exhibition changes to LSIO Schedule**

## COLAC OTWAY PLANNING SCHEME

-1-20-  
Proposed C90**SCHEDULE TO CLAUSE 44.04 LAND SUBJECT TO FLOOD INUNDATION OVERLAY**Shown on the planning scheme map as **LSIO**.**1.0 Permit requirement**-1-20-  
Proposed C90

A permit is not required for the following:

**~~Replacement Buildings~~**

- ~~▪ If the footprint of the replacement building(s) is the same or less than the original building(s), and~~
- ~~▪ If the floor level of the building is finished at least 300 mm above the 100 year ARI flood level, and~~
- ~~▪ If the replacement building is constructed on stumps (or piers) and bearers, and~~
- ~~▪ Cladding to the subfloor structure of the extension has openings or is of an open style (such as spaced timber boards) to allow automatic entry and exit of flood water for all floods up to the 1 per cent AEP event.~~

**New buildings, including extensions**

- If the floor level of the building is finished at least 300 mm above the 100 year ARI flood level and meets the safety hazard of FMA, and
- If the new building is constructed on stumps (or piers) and bearers, and
- Cladding to the subfloor structure of the extension has openings or is of an open style (such as spaced timber boards) to allow automatic entry and exit of flood water for all floods up to the 1 per cent AEP event, and
- Earthworks including any driveways, paths or services that do not alter the natural ground level.

**External alterations to existing buildings**

- If the original building footprint remains the same.

**~~Ground level extensions to existing buildings~~**

- ~~▪ If the floor level of the extension is at least 300mm above the applicable 100 year ARI flood level, and~~
- ~~▪ The extension of the building is constructed on stumps (or piers) and bearers, and~~
- ~~▪ Cladding to the subfloor structure of the extension has openings or is of an open style (such as spaced timber boards) to allow automatic entry and exit of flood water for all floods up to the 1 per cent AEP event.~~
- ~~▪ If the floor level of the extension is not lower than the existing floor level and the combined ground floor area of extensions since 31 December 2018 is no greater than 20sqm.~~

**~~Upper level extensions to existing buildings~~**

- ~~▪ If there is no increase in the ground floor building footprint other than the floor area exempted above and except for any additions or alterations to the footings to support the extensions to the upper level.~~

**Repairs and routine maintenance of existing fences**

- If the fence design and material remains the same

**New or replacement fence**

- A post and wire fence with:
  - Post spacing no less than three metres apart
  - Single wires spaced no more than one horizontal strand per 200mm.



## COLAC OTWAY PLANNING SCHEME

- A post and rail fence with:
  - Post spacing no less than three metres apart
  - Rails no more than 150mm wide
  - Rails spaced no less than 200mm apart
  - Bottom rail no less than 150mm off the ground.
- Tubular steel/pool fencing

**Other buildings and works**

- A building which is open on all sides including a pergola, carport, domestic shed, animal enclosure outbuildings, stockyard or agricultural sheds with unenclosed foundations.
- A ramp, verandah or decking and similar structures with a floor raised on stumps or piers and with unenclosed foundations
- Road works or works including footpath/shared paths, bicycle path, car parks, access ways, [pathways](#) or driveways (public or private) that do not change the natural ground level.
- A mast, antenna, satellite dish, power pole, light pole, or telecommunication tower
- An outdoor advertising sign/structure provided it does not alter flood flows or floodplain storage capacity
- Repairs and routine maintenance that do not affect the height, length, width or location of a levee or embankment
- A rainwater tank with a capacity of not more than 5000 litres
- A shed of 20sqm or less gross floor area
- An in-ground domestic swimming pool or spa, and associated mechanical and safety equipment, providing that:
  - The excavated spoil is removed from within the 100 year ARI floodplain; and
  - The perimeter edging of the pool is finished at natural ground level; and
  - Security pool fencing is of an open style.
- A sportsground, racecourse or recreation area, pathways and trails constructed at general natural surface elevation, playground, open picnic shelter, picnic table, drinking tap, rubbish bin, barbecue and or similar works associated with a park, recreation area and or public places.

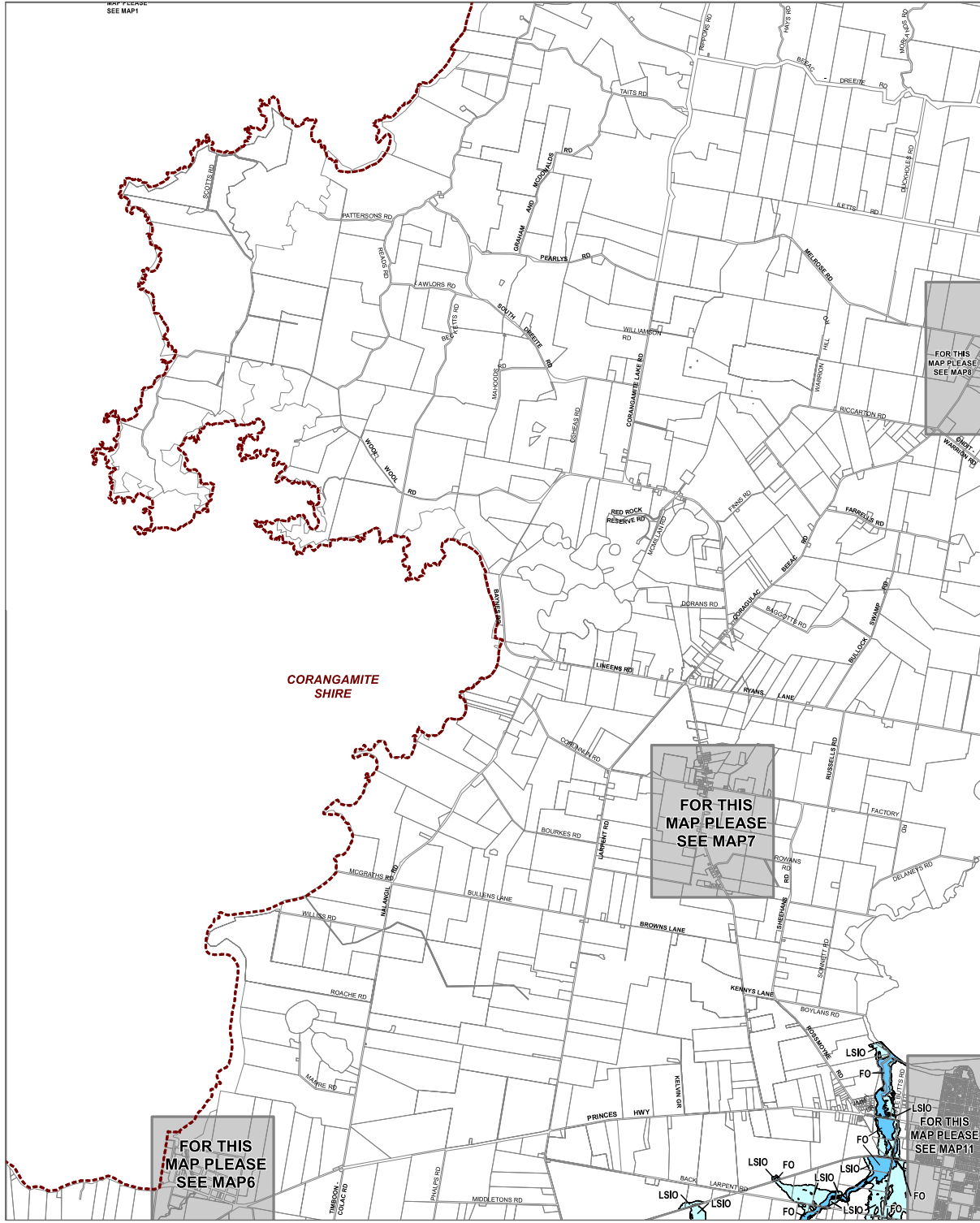
## Referral of applications

An application does not have to be referred to the relevant flood plain management authority under section 55 of the Act providing it is:

- Accompanied by the relevant floodplain management authority's written approval. The written approval must:
  - Be granted not more than three months prior to lodging with the Responsible Authority
  - Quote the reference number, revision number and date of the approved plans
  - State the applicable flood level and required floor levels
  - Include any conditions to be included in any planning permit.

## **Appendix D Agreed post exhibition changes to LSIO and FO mapping**


COLAC OTWAY PLANNING SCHEME - LOCAL PROVISION  
**AMENDMENT C90cola**

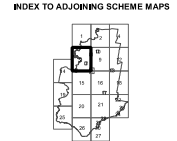


**LEGEND**  
 FO - Floodway Overlay  
 LSIO - Land Subject to Inundation Overlay

Municipal Boundary

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**LAND SUBJECT TO INUNDATION OVERLAY/FLOODWAY OVERLAY**

**MAP No 5LSIO-FO**

COLAC OTWAY PLANNING SCHEME - LOCAL PROVISION  
**AMENDMENT C90cola**



**LEGEND**  
 FO - Floodway Overlay  
 LSIO - Land Subject to Inundation Overlay

Municipal Boundary

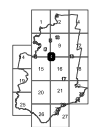
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INDEX TO ADJOINING SCHEME MAPS

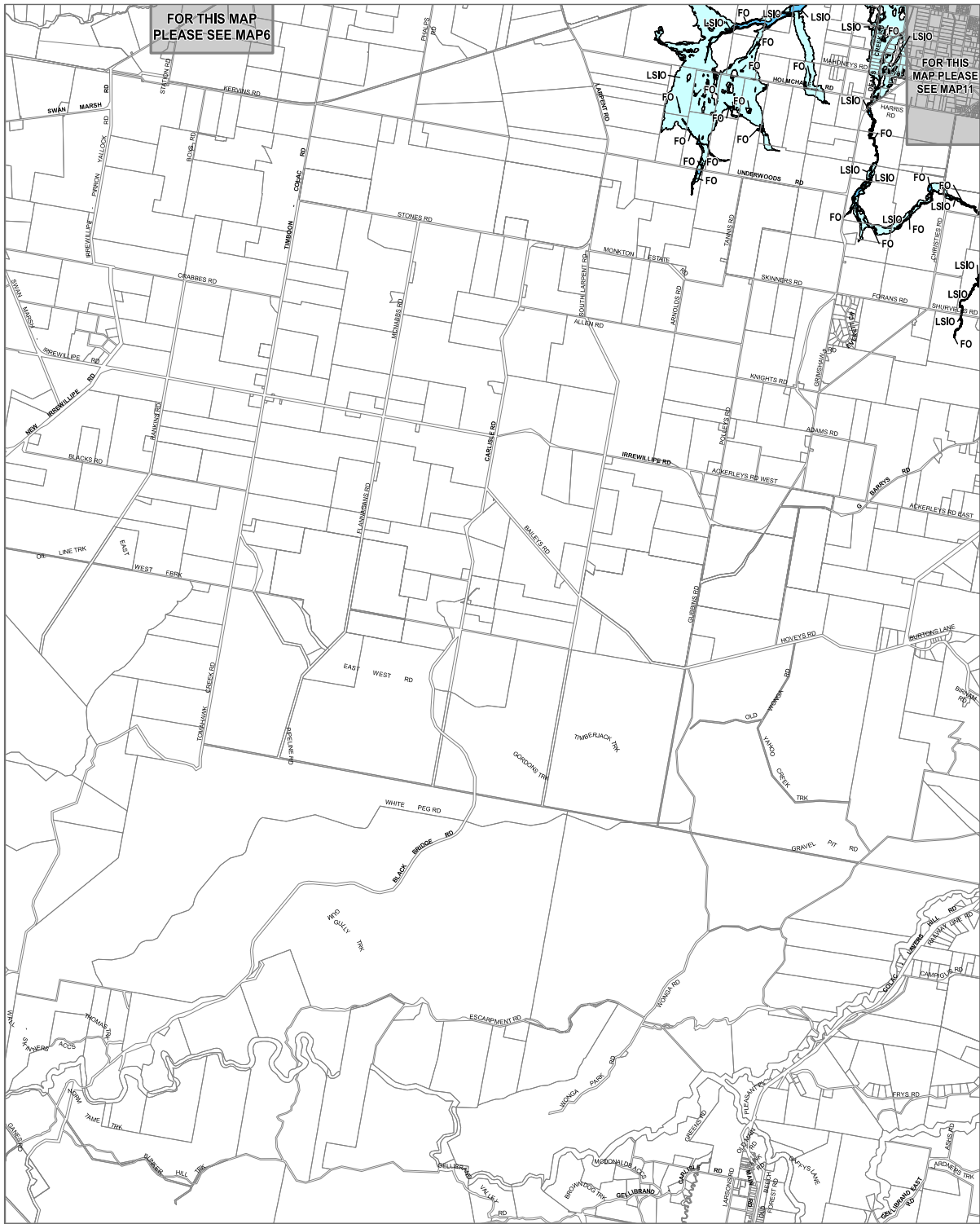


**LAND SUBJECT TO INUNDATION OVERLAY/FLOODWAY OVERLAY**

**MAP No 11LSIO-FO**



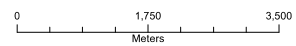
COLAC OTWAY PLANNING SCHEME - LOCAL PROVISION  
**AMENDMENT C90cola**



**LEGEND**  
 FO - Floodway Overlay  
 LSIO - Land Subject to Inundation Overlay

Municipal Boundary

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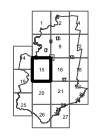


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**LAND SUBJECT TO INUNDATION OVERLAY/FLOODWAY OVERLAY**

**MAP No 15LSIO-FO**

**COLAC OTWAY PLANNING SCHEME - LOCAL PROVISION  
AMENDMENT C90cola**



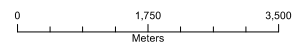
**LEGEND**

- FO - Floodway Overlay
- LSIO - Land Subject to Inundation Overlay



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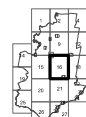


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**LAND SUBJECT TO INUNDATION OVERLAY/FLOODWAY OVERLAY**

**MAP No 16LSIO-FO**