





Amendment C131 – Land Subject to Inundation Overlay and Floodway Overlay

Peer Review Report

Report Reference: R.M00450.002.01_C131_Review.docx
Date: 28 September 2023
Prepared for: Latrobe City Council

Document Control Sheet

Client	Latrobe City Council				
Client Contact	Tegan McKenzie				
Project Manager	Dr Mark Jempson				
Report Name	Amendment C131 – Land Subject to Inundation Overlay and Floodway Overlay – Peer Review Report				
Report Reference	R.M00450.002.00_C131_Review				
Author	Michael South, Mark Jempson				
Issued to	Version Number				
	0	1	2	3	4
Latrobe City Council	8/09/2023	28/09/2023			

	Name	Signature	Version Number	Date
Prepared by	Michael South		1	28/09/2023
Reviewed by	Mark Jempson			28/09/2023

Venant Solutions Pty Ltd

Level 1, Suite 101
 26-30 Rokeby Street
 Collingwood VIC 3066

PO Box 877
 Macleod VIC 3085

Ph: 03 9089 6700
ABN: 15 166 193 219
www.venantsolutions.com.au

Quality management system registered to ISO 9001
 Environmental management system registered to ISO 14001
 OH&S management system registered to ISO 45001



Contents

1	Introduction	1
2	Statutory and policy context	5
2.1	Climate change	5
3	Data Collection	7
4	Documentation and mapping review	8
4.1	Flood study documentation and methodologies	8
4.1.1	Undocumented amendments	14
4.1.2	Documentation status	15
4.1.3	Australian Rainfall and Runoff revision	15
4.1.4	Calibration and validation methodology	15
4.1.5	Peer review	16
4.2	Flood mapping	16
4.3	Climate change	16
4.4	Consideration of Special Building Overlays (SBO)	16
4.5	Related planning scheme amendments, Development Contributions Plans and other works	17
5	Exhibition submissions	19
6	Recommendations	20
7	References	23

List of Figures

Figure 1-1	Amendment C131 Extent (Moe and surrounds)	2
Figure 1-2	Amendment C131 Extent (Morwell, Churchill and surrounds)	3
Figure 1-3	Amendment C131 Extent (Traralgon, Glengarry and surrounds)	4
Figure 4-1	Amendment C131 Flood Studies (Moe and surrounds)	11
Figure 4-2	Amendment C131 Flood Studies (Morwell, Churchill and surrounds)	12
Figure 4-3	Amendment C131 Flood Studies (Traralgon, Glengarry and surrounds)	13
Figure 4-4	Example of flooding in urban area (Glengarry)	17

List of Tables

Table 4-1	Flood study review summary	9
Table 4-2	Undocumented amendments	14
Table 4-3	WGCMA overlay revisions	14
Table 5-1	Reasons for objection	19
Table 6-1	Peer review and recommendations summary	21

Executive summary

The Latrobe City Council (Council) engaged Venant Solutions to undertake a peer review of the mapping and background documents for the Planning Scheme Amendment C131 and to assist Council in establishing a path forward. Amendment C131 will update the Land Subject to Inundation Overlay (LSIO) and Floodway Overlay (FO). The Planning and Environment Act 1987 (Vic) (the Act) and the Victoria Planning Provisions (VPPs) place a clear onus on the planning authority (Council) to ensure that flooding information is clearly shown in planning schemes and taken into consideration as part of the planning application process. Amendment C131 assists in Council meeting these obligations.

The scope of the peer review included:

- Identify the FO and LSIO updates and the flood modelling work undertaken that underpins the updates
- Review the suitability of the modelling work for planning scheme amendments
- Review the overlay mapping to determine if it provides a good representation of the flood modelling outputs and floodplain topography
- Review how climate change considerations have been addressed
- Review the other related planning scheme amendments and development plans to determine if they impact on overlays
- Review the submissions and subsequent amendments following the exhibition of Amendment C131
- In consultation with Council, the West Gippsland Catchment Authority (WGCMA) and the Department of Transport & Planning (DTP) to establish whether or not to proceed with the amendment, and if proceeding recommend changes, if any, to the amendment.

Venant Solutions prepared an initial report which documented the review findings. This document informed a workshop held on the 28 July 2023 with representatives from Council, WGCMA, DTP and Venant Solutions. The outcome from this process is a recommendation that Amendment C131 proceed with the following key revisions:

- Exclude the areas where the revised or new overlays are not supported by documentation
- Document the reasoning and method for revisions made to the current overlays by WGCMA
- Update the draft versions of the flood study documents to final version
- Adopt the 20% increase rainfall intensity scenario mapping from the Latrobe Flood Study to include allowance for climate change along the Latrobe River floodplain
- For Morwell North-West Development Contribution Plan (DCP) area update the overlays to represent developed conditions
- Up the FO area to the north of Baldwin Rd within the General Residential Zone (Amendment C138) to be LSIO
- Remove the areas of urban stormwater flooding in Traralgon from the LSIO.

1 Introduction

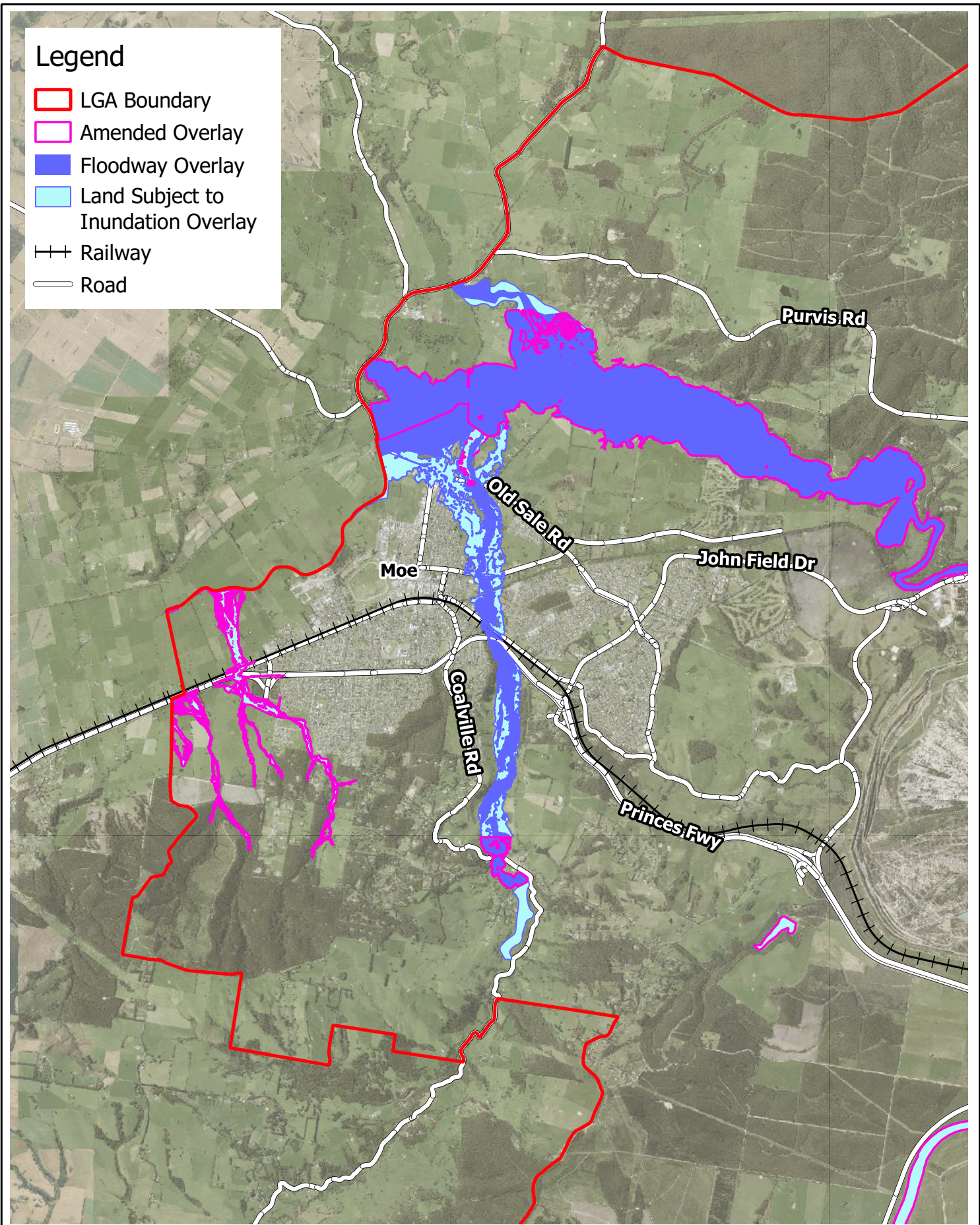
The Latrobe City Council (Council) has engaged Venant Solutions to undertake a peer review of the mapping and background documents for the Amendment C131. Amendment C131 will update the Land Subject to Inundation Overlay (LSIO) and Floodway Overlay (FO).

The purpose of this report is to summarise the findings of the review, the outcomes of the workshop with Council, West Gippsland Catchment Management Authority (WGCMA) and the Department of Transport and Planning (DTP) and present our recommendations on the required changes to the amendment before progressing:

The scope of the peer review included:

- Identify the FO and LSIO updates and the flood modelling work undertaken that underpins the updates
- Review of the suitability of the modelling work for planning scheme amendments
- Review the overlay mapping to determine if it provides a good representation of the flood modelling outputs and floodplain topography
- Review how climate change considerations have been addressed
- Review the other related planning scheme amendments and development plans to determine if they impact on overlays
- Review the submissions and subsequent amendments following the exhibition of Amendment C131

The extent of Amendment C131 is mapped in Figure 1-1, Figure 1-2 and Figure 1-3 where the magenta lines indicate the extent of the proposed new or amended overlays . Please note that the mapping presented in these figures represents that which was subject to this review and does not include any recommended updates.



Legend

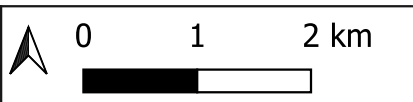
- ▭ LGA Boundary
- ▭ Amended Overlay
- ▭ Floodway Overlay
- ▭ Land Subject to Inundation Overlay
- Railway
- Road

Title: **Amendment C131 Extent (Moe and surrounds)**



Figure: **1-1**

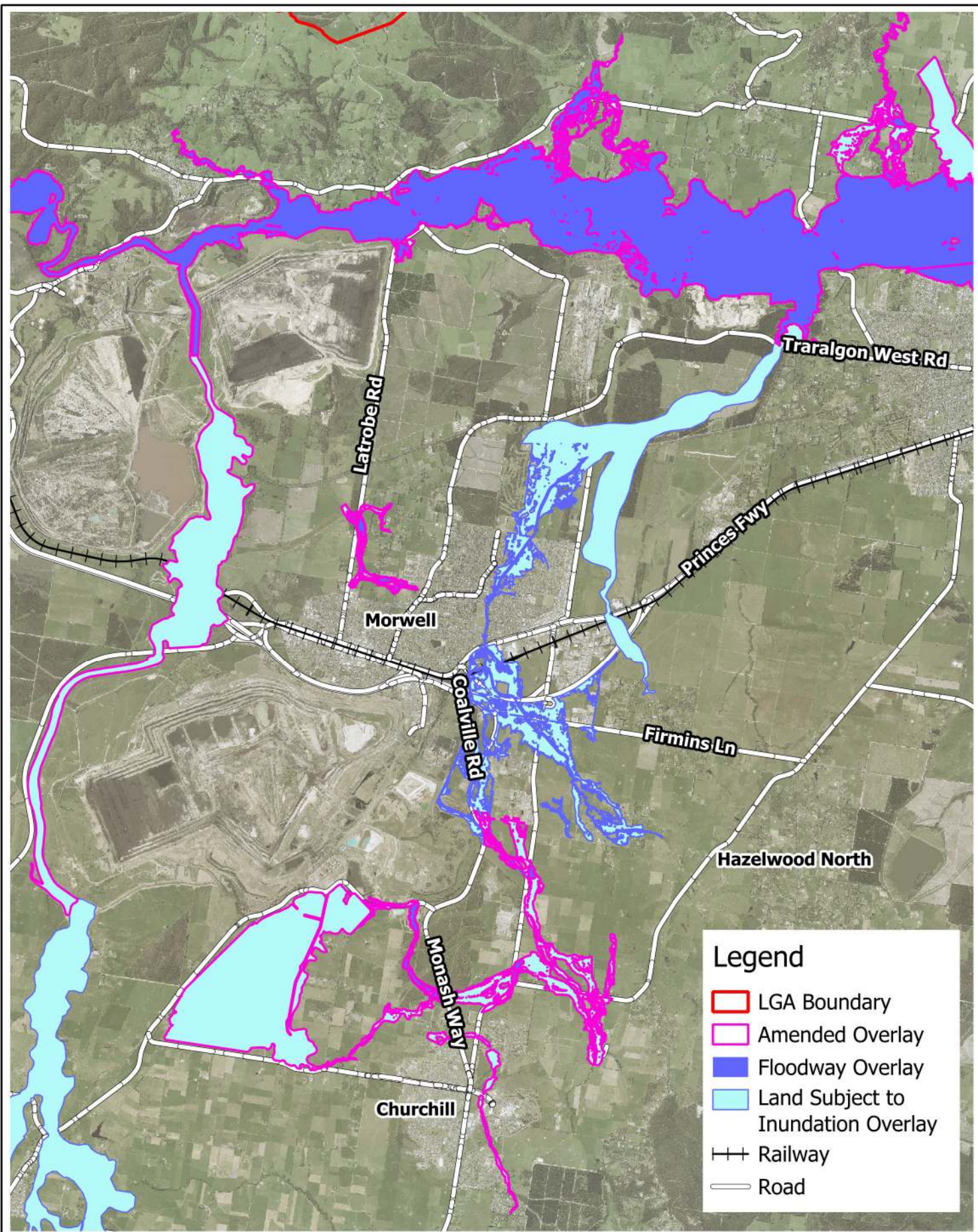
Rev: **A**



This mapping product is based on techniques and data in accordance with the study scope. Users should consider the mapping in the context of the report. No two floods are the same and care should be taken in the use and interpretation of the results presented.

By: MS
Date: Sep 2023

Level 1, Suite 101
26-30 Rokeby St Collingwood VIC 3066
T. (03) 9089 6700
www.VenantSolutions.com.au

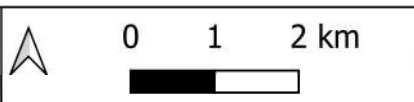


Title: **Amendment C131 Extent (Morwell, Churchill and surrounds)**



Figure: **1-2**

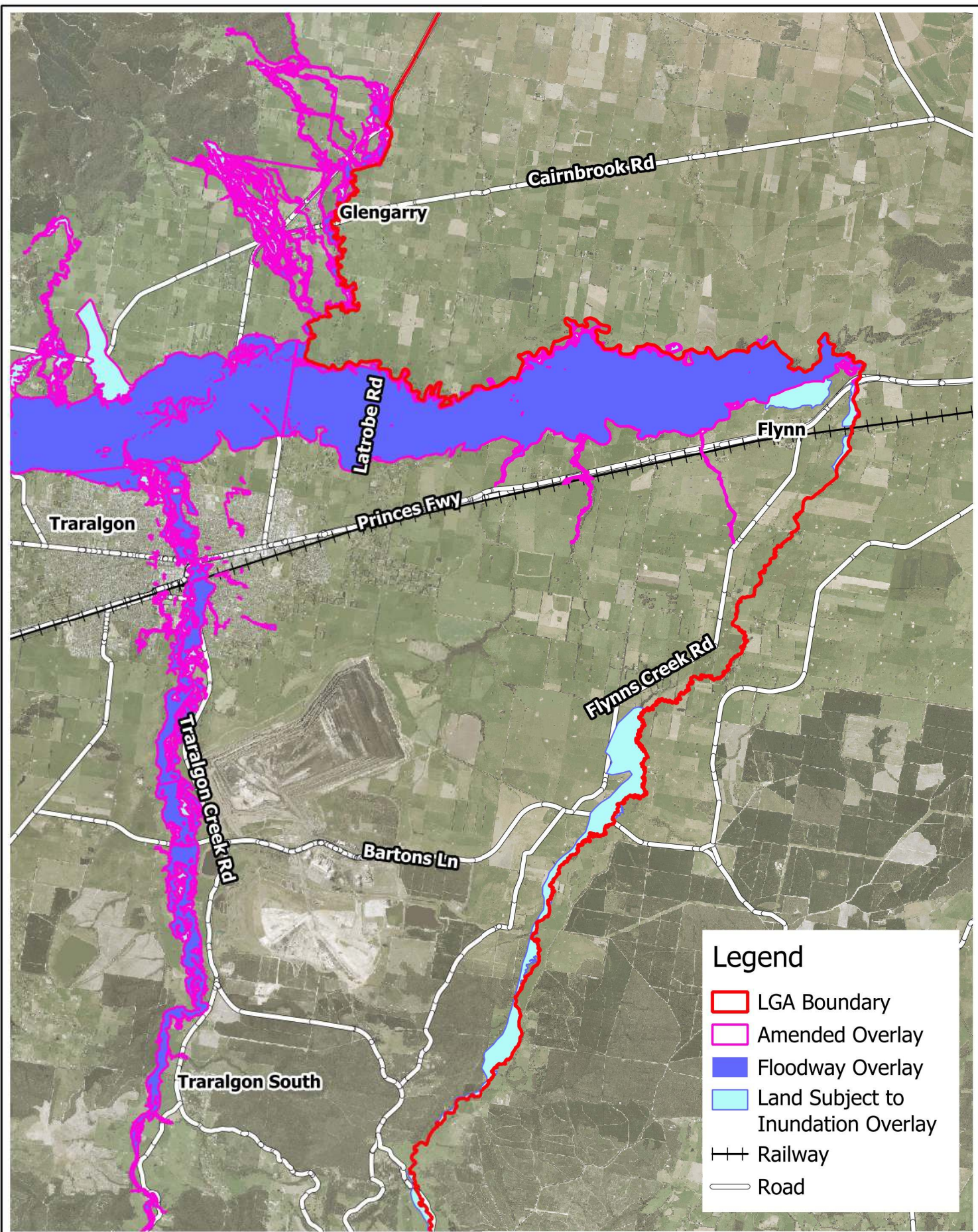
Rev: **B**



This mapping product is based on techniques and data in accordance with the study scope. Users should consider the mapping in the context of the report. No two floods are the same and care should be taken in the use and interpretation of the results presented.

By: MS
Date: Sep 2023

Level 1, Suite 101
26-30 Rokeby St Collingwood VIC 3066
T. (03) 9089 6700
www.VenantSolutions.com.au



Legend

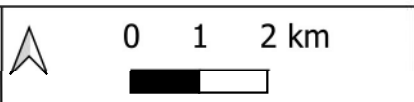
- LGA Boundary
- Amended Overlay
- Floodway Overlay
- Land Subject to Inundation Overlay
- Railway
- Road

Title: **Amendment C131 Extent (Traralgon, Glengarry and surrounds)**



Figure: **1-3**

Rev: **B**



This mapping product is based on techniques and data in accordance with the study scope. Users should consider the mapping in the context of the report. No two floods are the same and care should be taken in the use and interpretation of the results presented.

By: MS
Date: Sep 2023

Level 1, Suite 101
26-30 Rokeby St Collingwood VIC 3066
T. (03) 9089 6700
www.VenantSolutions.com.au

2 Statutory and policy context

The Planning and Environment Act 1987 (Vic) (the Act) and the Victoria Planning Provisions (VPPs) place a clear onus on the planning authority (Council) to ensure that flooding information is clearly shown in planning schemes and taken into consideration as part of the planning application process.

As set out in Section 4 of the Act the objectives of planning in Victoria include:

- a) to provide for the fair, orderly, economic and sustainable use and development of land;
- b) to provide for the protection of natural and man-made resources and the maintenance of ecological processes and genetic diversity;
- c) to secure a pleasant, efficient and safe working, living and recreational environment for all Victorians and visitors to Victoria
- e) to protect public utilities and other assets and enable the orderly provision and coordination of public utilities and other facilities for the benefit of the community;
- f) to facilitate development in accordance with the objectives set out in paragraphs a), b), c), d) and e);
- g) to balance the present and future interests of all Victorians.'

The inclusion of the best available flood information in the planning scheme supports these objectives.

Section 6 of the Act requires planning schemes to 'further the objectives of planning in Victoria' and Section 6(2)(e) enables planning schemes to '*regulate* or prohibit any use or development in hazardous areas, or in areas which are likely to become hazardous'.

The VPPs as implemented through the Latrobe Planning Scheme, address flood risk in Clause 13.03 (Floodplains) with the objective to assist the protection of:

- 'Life, property and community infrastructure from flood hazard, including coastal inundation, riverine and overland flows.
- The natural flood carrying capacity of rivers, streams and floodways.
- The flood storage function of floodplains and waterways.
- Floodplain areas of environmental significance or of importance to river, wetland or coastal health.'

The strategy to achieve these objectives includes 'identify land affected by flooding, including land inundated by the 1 in 100 year flood event (1 per cent Annual Exceedance Probability [AEP]) or as determined by the floodplain management authority in planning schemes'.

It is the inclusion of new and revised 1% AEP flood mapping in the form of Land Subject to Inundation (LSIO) and Floodway (FO) Overlays that forms the basis of Amendment C131.

2.1 Climate change

Under the Local Government Act 2020 under 9(2)(c) Councils have an overarching governance principle to promote 'the economic, social and environmental sustainability of the municipal district, including mitigation and planning for climate change *risk*'. This places an onus on Council to incorporate consideration of climate change into processes like strategic planning. Further, incorporating an allowance for climate change in Amendment C131 would also be consistent with Latrobe City Council Position on Climate Change and its impacts in acknowledging that '**Climate Change is real and impacts our community**'.

Clause 13.03 (Floodplains), specifically Clause 13.03-1S (Floodplain management) does not specify including an allowance for climate change when identifying land affected by flooding in the 1% AEP event. Managing the potential increased flooding risk associated with climate change is also not addressed in the purpose of

Clause 44.03 (Floodway Overlay) and Clause 44.04 (Land Subject to Inundation Overlay). An allowance for climate change is also not specified in Planning Practice Note 12 - Applying the Flood Provisions in Planning Schemes (DELWP 2015) when stating that the DFE for land use planning and building purposes in Victoria is the 1% AEP event.

However, Clause 13.01-1S (Natural hazards and climate change) of the Latrobe Planning Scheme has the objective to 'minimise the impacts of natural hazards and adapt to the impacts of climate change through risk-based planning' by:

- 'Considering the risks associated with climate change in planning and management decision making processes
- Identifying at risk areas using the best available data and climate change science
- Ensure planning controls allow for risk mitigation or risk adaptation strategies to be implemented'

Victorian Floodplain Management Strategy (DELWP 2016) also does not explicitly state a policy to include climate change in planning decisions. However, in relation to climate change it does state in the introduction that 'decision-making must be responsive to the latest scientific information, and this information should be consistently and transparently applied through planning schemes'.

In other recent similar planning scheme amendments to flood overlays such as [Melbourne Planning Scheme Amendment C384](#) and [Wangaratta Planning Scheme Amendment C81](#) the Planning Panels have interpreted the above as a requirement to include an allowance for climate change mapping in the definition of the overlays. The Panel Report for the Wangaratta Planning Scheme Amendment C81 states that 'State policy clearly requires Council to identify at risk areas using the best available data and climate change science'.

3 Data Collection

Council and WGCMA provided the following datasets for review:

- Latrobe Planning Scheme Amendment C131 Explanatory Report and other supporting documents from exhibition
- Post-exhibition GIS layers of the FO and LSIO and list of amendments
- Flood study reports
 - Latrobe Flood Study (Cardno 2015)
 - Floodplain mapping for Rintouls Creek (WGCMA 2015)
 - Floodplain mapping for Tyers River (WGCMA 2015)
 - Traralgon Flood Study (WaterTech 2016)
 - Morwell North-West DCP Drainage Report (WaterTech 2016)
 - Morwell North-West DCP Drainage - WR04 (WaterTech 2017)
 - Floodplain mapping for Unnamed Reach South of Contour Drain (WGCMA 2020)
 - Floodplain mapping for Unnamed Reach South-East of Contour Drain (WGCMA 2020)
 - Floodplain mapping for Upper Traralgon Creek (WGCMA 2021)
 - Floodplain mapping for Glengarry/Eaglehawk Creek (WGCMA 2021)
- Victorian Flood Database format flood study mapping outputs and flood model grid outputs
- Sixty-seven submissions from the exhibition of Amendment C131
- Meeting minutes and reports from Council Meetings held on 1 August 2022, 5 September 2022, 7 November 2022
- Latrobe Planning Scheme Amendment C138 rezoning mapping and associated reports
- Morwell North Development Contributions Plan flood modelling and drainage design documentation
- Email dated 5 April 2023 indicating that flood mitigation works are being assessed by Council that could impact on the mapped overlays in Glengarry

Additional data such as the current FO and LSIO, and aerial photography were sourced from publicly available sources.

4 Documentation and mapping review

The proposed LSIO and FO GIS layers and associated reports and other supporting information were reviewed to understand:

- The location and nature of the changes from the current overlays
- Whether the changes were supported by a flood study
- If the changes were supported by a flood study, the technical veracity of the work and the consistency in approaches between the flood studies
- If the overlay extents match the 1% AEP grid outputs from the flood models and the underlying topography and land use
- Whether an allowance for climate changes was available in the mapping products
- If the proposed overlay type is appropriate
 - specifically should a Special Building Overlay (SBO) be used rather than a LSIO or FO in urban areas noting that an SBO is used for urban stormwater flooding and LSIO and FO are used for flooding from creeks and rivers
- Whether the proposed overlays would be impacted by related planning scheme amendments, Development Contribution Plans or other works

Review of the flood models were not part of the scope of this peer review so the findings of this review rely on the information presented in the reports.

The findings of the initial review were presented in Venant Solutions (2023) for discussion and resolutions in the workshop held on 28 July 2023 with representatives from Council, WGCMA and the DTP.

The outcomes of the review are summarised in Section 6.

4.1 Flood study documentation and methodologies

The flood study documents were reviewed to understand:

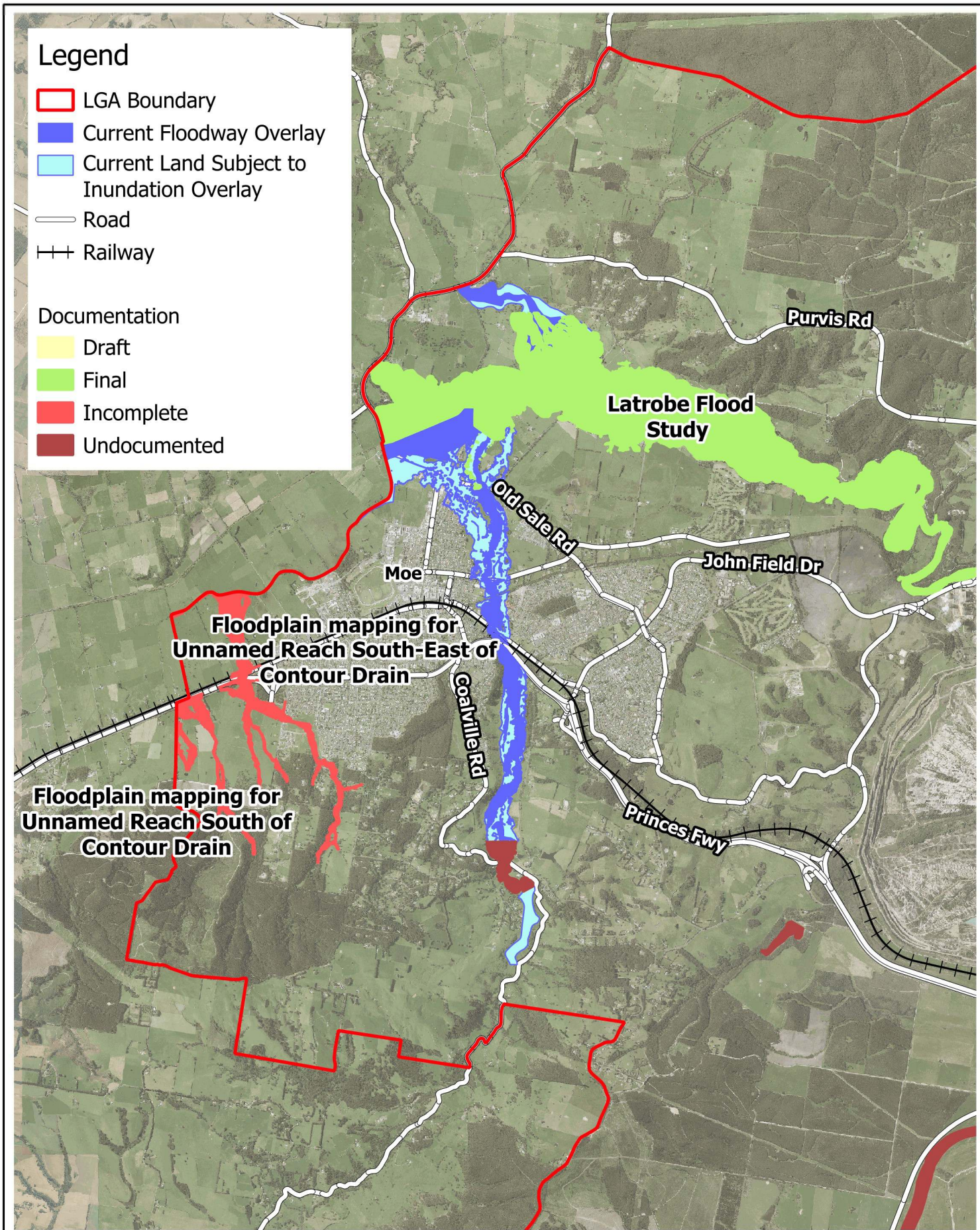
- Whether the changes were supported by a flood study and the status of the flood study
- The revision of the Australian Rainfall and Runoff guidelines used
- The calibration and validation methodology
- Whether the studies were peer reviewed

Table 4-1 presents a summary of the flood study documentation and methodologies reviewed while Figure 4-1, Figure 4-2 and Figure 4-3 map the areas of Amendment C131 to which each flood study applies. The figures map the extents of the proposed amendments using different colours to represent the status of the documentation as listed in Table 4-1. Current flood overlays for which there is no proposed amendment are also shown.

Table 4-1 Flood study review summary

Location	Study	Status	ARR Revision	Calibration / Validation Methodology	Peer Reviewed	Comments
Latrobe River across LGA, and downstream reaches of Tanjil River, Morwell River, Anderson Creek, Wades Creek, Boyds Creek, Sheepwash Creek and Flyyns Creek	Latrobe Flood Study	Final	1987	Hydrology calibrated to historic events for each catchment and hydraulic model calibrated to gauged levels, flood marks and flood extents for 1978 and 1993 events. Design event flows validated to Flood Frequency Analysis.	Yes	20% Increase in Rainfall Intensity climate change scenario was assessed.
Rintouls Creek and unnamed tributary from Fitzgibbons Road to Latrobe River	Floodplain mapping for Rintouls Creek	Final	1987	Hydrology validated to Rational Method and regional Kc routing parameter equations.	No	
Tyers River from upstream of Brown Coalmine Road to Latrobe River	Floodplain mapping for Tyers River	Final	1987	Believed hydrology calibrated to 2005 flood event at the Morgans Hill and Browns stream gauges with standard loss parameters adopted and critical event selection via comparison to Flood Frequency Analysis results at Browns stream gauge.	Yes	
Traralgon Creek from downstream of Mattingley Hill Road to Latrobe River.	Traralgon Flood Study	Final	1987	Calibrated to 1993, 2012 and 2013 events with hydrology calibrated to the Koornalla, Traralgon South and Traralgon stream gauges and hydraulics to Traralgon stream gauge, flood marks and event photography. Design event parameters validated to Flood Frequency Analysis at Traralgon stream gauge.	Yes	Developments around Bread Street/Badman Boulevard that would not have been included in 2008/10 LiDAR have been included in model or mapping altered.
Morwell North-West DCP area	Morwell North-West DCP Drainage Report	Final	1987	Hydrology validated to rational method	No	LSIO and FO represent pre-developed conditions. As of January 2023 (Google Earth) development not commenced.
Morwell North-West DCP Drainage - WR04 area	Morwell North-West DCP Drainage - WR04	Final	1987	Hydrology validated to rational method	No	LSIO and FO represent pre-developed conditions. As of January 2023 (Google Earth) development not commenced.

Unnamed watercourse west of Moe to Princes Highway	Floodplain mapping for Unnamed Reach South of Contour Drain	Incomplete	2019			The report is not completed to a stage that review is possible.
Unnamed watercourse west of Moe to Princes Highway	Floodplain mapping for Unnamed Reach South-East of Contour Drain	Incomplete	2019	Documentation incomplete but it appears that hydrology has been validated to regional Kc equations with design losses achieved by validating Regional Flood Frequency Estimated flows to Monte Carlo simulation results by applying the initial loss factor.	No	Review and update report to represent final version. <Draft> still included on Document details page as well as Version in <>. Page headers include the study name <Waterway>. No reviewers listed. Table of contents references Upper Traralgon Ck figures. Review hydrology section as references Flike (FFA) which isn't used for this assessment. Section C Hydraulics appears to be from the Floodplain mapping for Upper Taralgon Creek (WGCMA 2021).
Traralgon Creek from upstream of Koornalla to downstream of Mattingley Hill Road	Floodplain mapping for Upper Traralgon Creek	Draft	2019	Hydrology calibrated to the June 2012 event at the Koornalla gauge and WaterTech (2012) hydrograph at outlet. Losses validated using Monte Carlo simulation to Flood Frequency Analysis at Koornalla gauge.	Yes	Update report to represent final version. <Draft> still included on Document details page as well as Version and Reviewers in <>.
Eaglehawk Creek and unnamed watercourses from hills north of Glengarry to Latrobe River	Floodplain mapping for Glengarry/Eaglehawk Creek	Draft	2019	Hydrology validated to Pearse et al. regional Kc routing parameter adopted based on Stephens (2019) with Regional Losses without Pre-burst. Design events defined using Monte Carlo simulation.	Yes	Review and update report to represent final version. <Draft> still included on Document details page as well as Version in <>. Page headers include the study name <Waterway>. Reviewers listed in <>.



Legend

- LGA Boundary
- Current Floodway Overlay
- Current Land Subject to Inundation Overlay
- Road
- Railway

Documentation

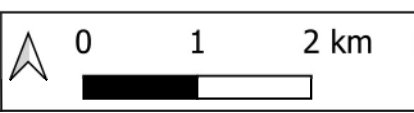
- Draft
- Final
- Incomplete
- Undocumented

Title: **Amendment C131 Flood Studies (Moe and surrounds)**



Figure: **4-1**

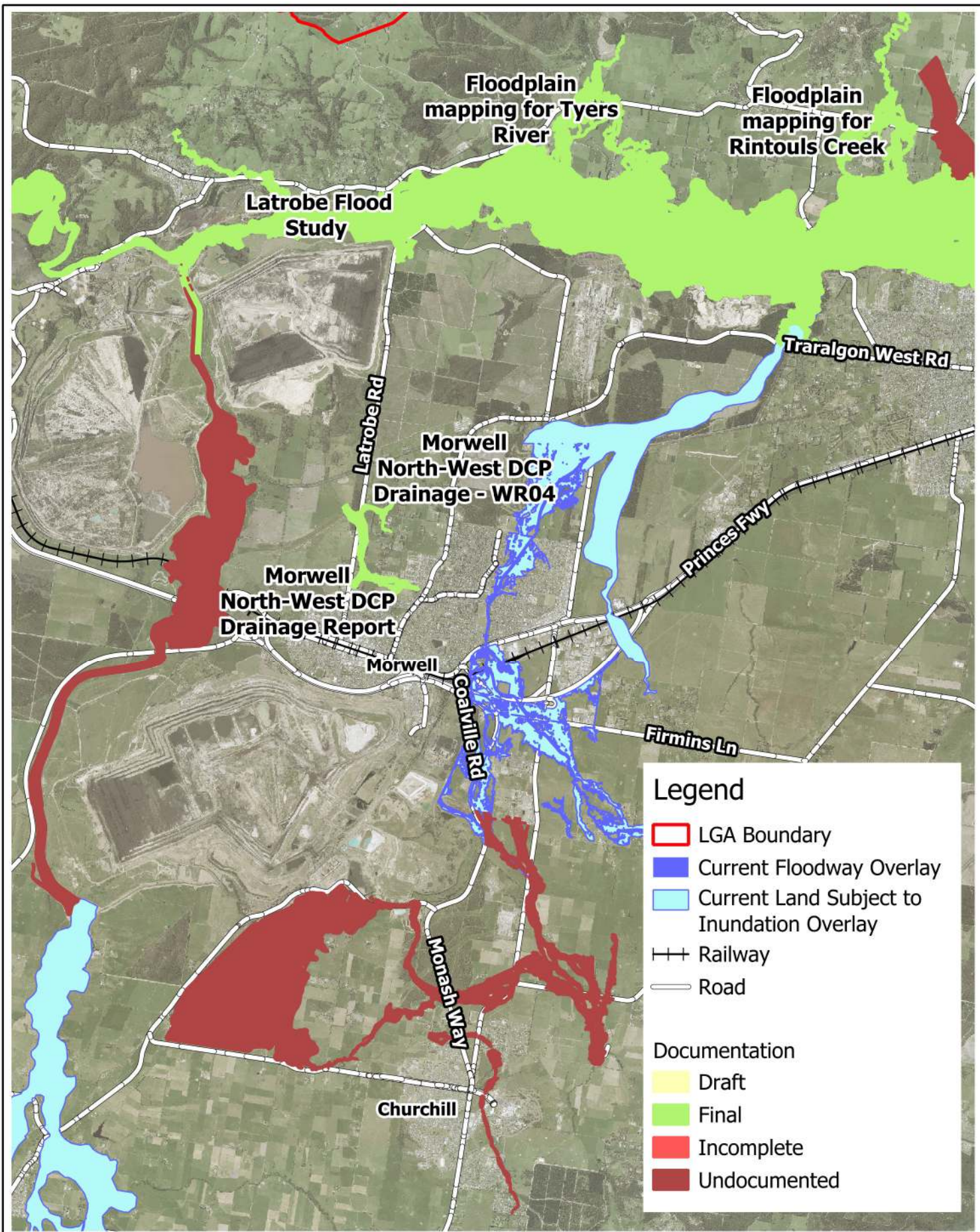
Rev: **B**



This mapping product is based on techniques and data in accordance with the study scope. Users should consider the mapping in the context of the report. No two floods are the same and care should be taken in the use and interpretation of the results presented.

By: MS
Date: Sep 2023

Level 1, Suite 101
26-30 Rokeby St Collingwood VIC 3066
T. (03) 9089 6700
www.VenantSolutions.com.au



Legend

- LGA Boundary
- Current Floodway Overlay
- Current Land Subject to Inundation Overlay
- Railway
- Road

Documentation

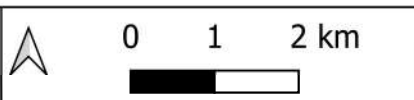
- Draft
- Final
- Incomplete
- Undocumented

Title: **Amendment C131 Flood Studies (Morwell, Churchill and surrounds)**



Figure: **4-2**

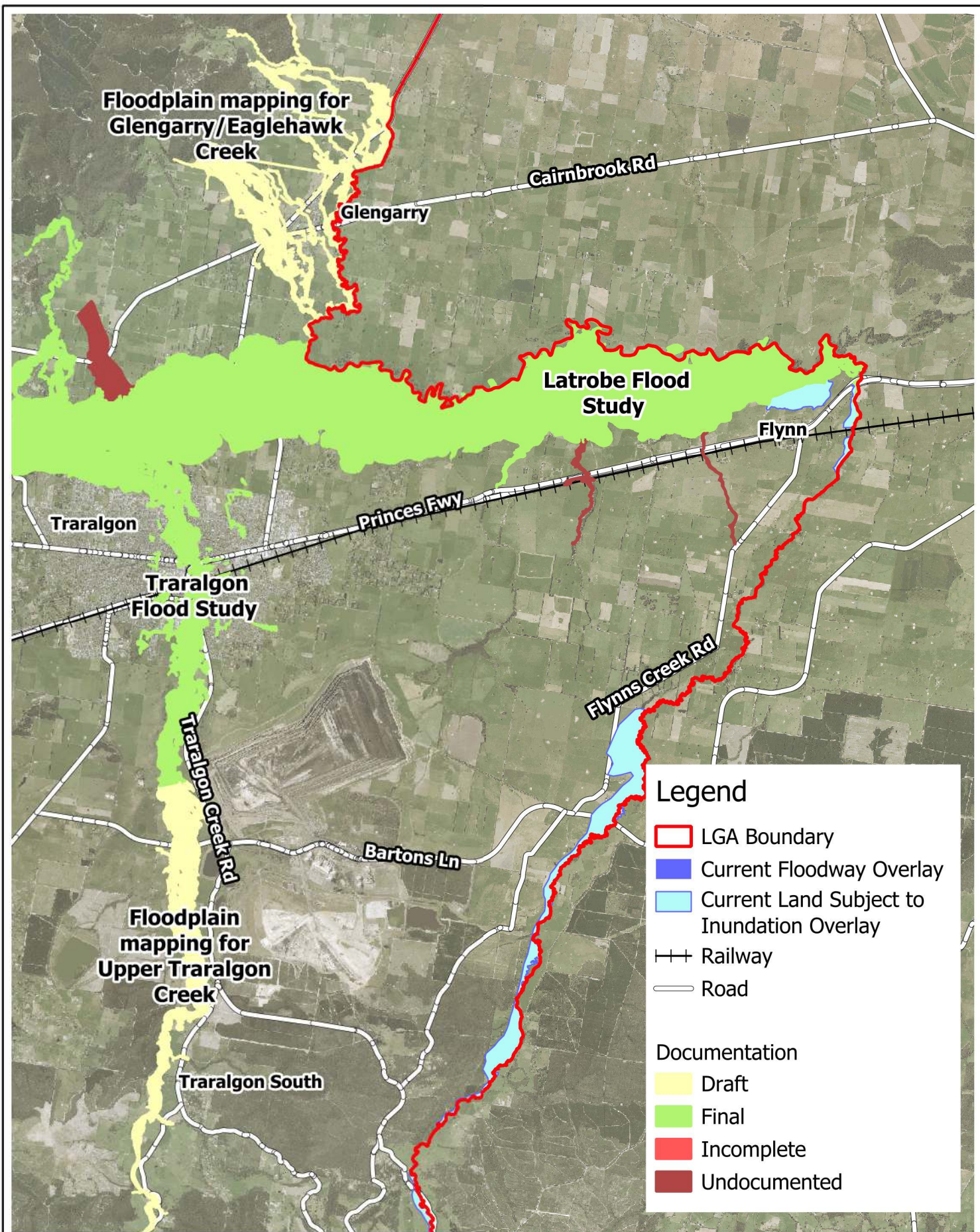
Rev: **B**



This mapping product is based on techniques and data in accordance with the study scope. Users should consider the mapping in the context of the report. No two floods are the same and care should be taken in the use and interpretation of the results presented.

By: MS
Date: Sep 2023

Level 1, Suite 101
26-30 Rokeby St Collingwood VIC 3066
T. (03) 9089 6700
www.VenantSolutions.com.au

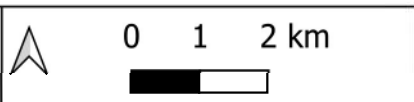


Title: **Amendment C131 Flood Studies (Traralgon, Glengarry and surrounds)**



Figure: **4-3**

Rev: **B**



This mapping product is based on techniques and data in accordance with the study scope. Users should consider the mapping in the context of the report. No two floods are the same and care should be taken in the use and interpretation of the results presented.

By: MS
Date: Sep 2023

Level 1, Suite 101
26-30 Rokeby St Collingwood VIC 3066
T. (03) 9089 6700
www.VenantSolutions.com.au

4.1.1 Undocumented amendments

As listed in Table 4-2 and Table 4-3 and mapped in Figure 4-1, Figure 4-2 and Figure 4-3 there are several areas of Amendment C131 that are undocumented. These fall into two categories:

- Amendments based on flood modelling studies that the documentation is not available for as they were undertaken for 3rd parties and the documentation not made available to Council or the WGCMA
- Revisions made to the current overlays by WGCMA

While the technical veracity of the flood modelling studies might be suitable for a planning scheme amendment and the mapping presents the best available flood risk information for that area, without documentation this cannot be confirmed. Our experience in providing expert witness services for these types of amendments is that the panel requires assurance as to the technical veracity of the modelling work informing the amendment. As such it was agreed during the workshop to not proceed with amendments not supported by documentation.

For the revisions made to the current overlays by WGCMA it was agreed during the workshop that reasoning and method behind these revisions would be documented in either a standalone technical report or the Amendment C131 Explanatory Report.

Table 4-2 Undocumented amendments

Flood study documentation not available
Narracan Creek at Coalville Road (Flood modelling and mapping undertaken to support a development assessment)
Bennetts Creek from Mackeys Road to Monash Way and Eel Hole Creek to Hazelwood Cooling Pond (Flood modelling and mapping undertaken for Hazelwood Dam Break & Consequence Assessment with documentation unable to be provided for privacy reasons)
Two unnamed watercourses crossing Princes Highway west of Flynn (Flood modelling and mapping undertaken to support Princes Fwy upgrade)
Tributary of Eel Hole Creek between Monash Way and Silocks Road (source undetermined)

Table 4-3 WGCMA overlay revisions

WGCMA overlay revision
Glengarry West (Minor revisions to extent of current LSIO)
Hazelwood Cooling Pond (Revised current FO to LSIO)
Morwell River from Strzelecki Highway to Yallourn Mine channel diversion (LSIO revised to represent Morwell River diversion around Hazelwood Mine)
Lake Haywood (Revised current FO to LSIO)
Witts Gully Reservoir (Revised current FO to LSIO)

4.1.2 Documentation status

As listed in Table 4-1 several of the flood study documents were still at draft version or were incomplete. These include:

- Floodplain mapping for Unnamed Reach South of Contour Drain
- Floodplain mapping for Unnamed Reach South-East of Contour Drain
- Floodplain mapping for Upper Traralgon Creek
- Floodplain mapping for Glengarry/Eaglehawk Creek

Following the workshop it was agreed that the WGCMA would review and update these documents to final version.

Due to the flood modeller who undertook the modelling for Floodplain mapping for Unnamed Reach South of Contour Drain (WGCMA 2020) being unavailable, WGCMA do not believe it will be possible to finalise this study. As such it was agreed during the workshop to not proceed with this overlay for this area.

4.1.3 Australian Rainfall and Runoff revision

Australian Rainfall and Runoff (ARR) is a national guideline document, data and software suite that can be used for the estimation of design flood characteristics in Australia. In 2019 these guidelines were updated from the previous revision which occurred in 1987. The revision of ARR adopted for each flood study is listed in Table 4-1.

During the period between 1987 and 2019 industry practice, data and flood modelling software used in flood studies evolved. The methodologies and flood modelling software adopted in the Amendment C131 flood studies which were all completed from 2015 onwards are completed mostly in line with ARR 2019 except for the design rainfall inputs based on 1987 Intensity-Frequency-Design (IFDs) and 1987 temporal patterns.

For the flood studies that were validated to at-Site Flood Frequency Analysis (FFA) or regional flow estimate estimation techniques other than the Rational Method, the adoption of 1987 design rainfall inputs will not significantly influence the estimation of the 1% AEP event and represent the best available information. To update these flood studies would come at a significant cost, result in years of delay and unlikely to result in significant changes to the overlay extents. Therefore it is recommended and was agreed during the workshop that flood studies completed in accordance with ARR 1987 be used for Amendment C131.

4.1.4 Calibration and validation methodology

The calibration and validation method adopted for each flood study is summarised in Table 4-1. There is no industry standard for the calibration and validation methodology required for flood studies and the methodology adopted is made on study-by-study basis based on the characteristics of the study catchment, the available stream and rainfall data available and the objectives of the flood study.

For Amendment C131, the flood studies undertaken on the larger river/creek systems such as the Latrobe River and Traralgon Creek were calibrated to historic flood events and validated to at-Site FFAs as appropriate. On the smaller waterways the flood models were validated to regional parameters or peak flow estimation techniques. This is considered industry best practice.

The Floodplain mapping for Rintouls Creek, Morwell North-West DCP Drainage Report and Morwell North-West DCP Drainage - WR04 were validated to the Rational Method which is no longer recommended in ARR 2019. However, as noted above it is recommended and was agreed during the workshop that flood studies completed in accordance with ARR 1987 be used for Amendment C131.

4.1.5 Peer review

As presented in Table 4-1 several flood studies have not been independently peer reviewed. There is no formal requirement or industry standard for flood studies to be independently peer reviewed and the decision to have a flood study peer reviewed is made on a study-by-study basis, generally based on the complexity of the study. Internal quality assurance and reviews should ensure the quality of flood studies that are not independently peer reviewed. It was agreed at the workshop that independent peer review is not required for the flood studies underpinning Amendment C131 as they represent the best available information.

4.2 Flood mapping

The older flood studies: Floodplain mapping for Rintouls Creek and Floodplain mapping for Tyers Creek produced lower resolution flood mapping outputs than more recent flood studies. Following discussion at the workshop it was concluded that this mapping represented the best available information and to update the models to provide higher resolution mapping would be time and cost prohibitive, and unnecessarily delay the implementation of Amendment C131.

4.3 Climate change

As described in Section 2.1 there is no documented specific requirement for climate change to be allowed for in planning controls for non-coastal areas. However, including an allowance for climate change in the proposed overlays would be consistent with the broader planning context, with other similar recent planning scheme amendments, and with requirements in other acts as discussed in Section 2.1.

The only study that has a climate change scenario available in the flood mapping outputs is the Latrobe Flood Study (Cardno 2015) which included a 1% AEP with 20% increases in rainfall intensity scenario. Whilst a required/recommended climate change scenario for increased rainfall intensity is not documented in Victoria, the most commonly adopted is the Representative Concentration Pathways (RCP) 8.5 Scenario to 2100 which equates to an 18.4% increase in rainfall intensity in the Latrobe region which is comparable to the 20% allowed for in the Latrobe Flood Study. Therefore, it is recommended that the 20% increases in rainfall intensity scenario mapping be used to define the LSIO and FO in the Latrobe River.

As concluded by the planning panel in the Panel Report for the Wangaratta Planning Scheme Amendment C81, for all the other areas of the amendment where an allowance for climate change was not available in the mapping outputs, these outputs still represent the best currently available information about the risks of flooding and is sufficient to inform the LSIO and FO amendments which are a trigger for further consideration through the planning permit process where the expected impacts of climate change can then be addressed. As such it is recommended that the amendment, with the exception of the Latrobe River proceed without an allowance for climate change in the LSIO and FO.

4.4 Consideration of Special Building Overlays (SBO)

The Planning Practice Note 12 - Applying the Flood Provisions in Planning Schemes (DELWP 2019) specifies that Special Building Overlays SBOs can be applied in urban land that is inundated if the capacity of the drainage system is exceeded during heavy rainfall. It is currently used in Melbourne but can be applied in regional towns.

The Traralgon Flood Study is the only study included in Amendment C131 that represents overland flow originating from the capacity of the urban underground drainage network being exceeded and hence being appropriate to represent as SBO. As this area is currently subject to an urban flood mapping study it is recommended that these areas of flooding be removed from Amendment C131 and be incorporated in a future amendment as SBO (or LSIO) once the urban flood study is complete.

Other urban areas included in the overlays are from flood studies representing flooding originating from rivers, creeks, small watercourses and other overland flowpaths as opposed to the capacity of underground (pipe and pit) drainage systems being exceeded resulting in overland flow. As an example, while it is possible that undersized or blocked bridges, culverts and other drainage structures are contributing to the inundation in Glengarry (Figure 4-4), the flood model does not apply flow to the urban drainage network, rather all flow is applied to the watercourses and floodplain upstream of the township. Therefore while the mapped LSIO extends into the developed area the mechanism of this inundation is consistent with LSIO as opposed to SBO.

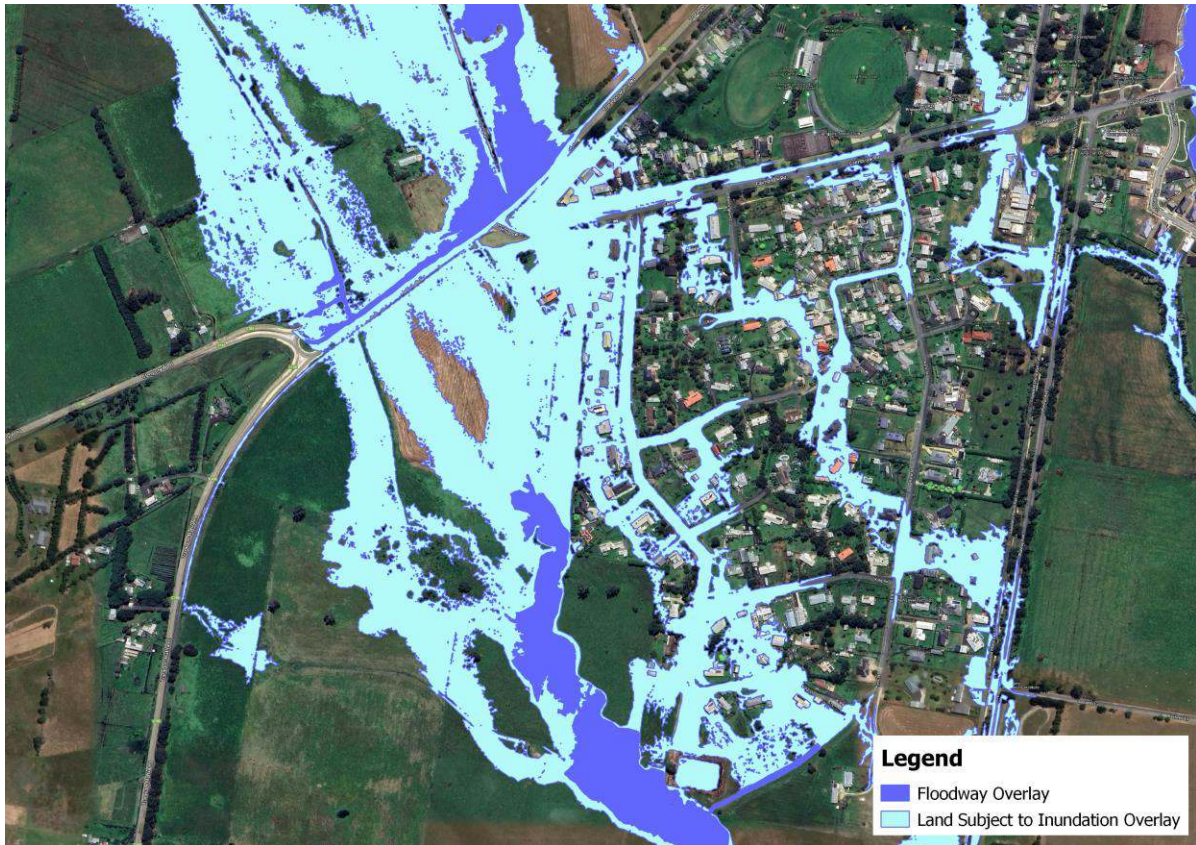


Figure 4-4 Example of flooding in urban area (Glengarry)

4.5 Related planning scheme amendments, Development Contributions Plans and other works

The influence of the following related planning scheme amendments, Development Contribution Plans (DCP) and other works were reviewed:

- **Morwell North-West Development Contribution Plan** – The existing conditions flood mapping was used to define the overlays. It was confirmed in the workshop that the major drainage design detailed in the DCP will be implemented. As such it was resolved that the overlays will represent developed conditions concept design as per Figure 7-3 of WaterTech (2016^a).
- If the concept designs presented have made it to detailed design and approval then consideration can be given to amend the overlays to match as part of Amendment C131.
- **Morwell North-West Development Contribution Plan WR04** – The proposed LSIO is downstream of the DCP area with the major drainage works mitigating changes to the flood extent. As such no change to the LSIO extent is required.
- **Planning Scheme Amendment C138** – The proposed FO covering the Latrobe River floodplain extends slightly into the area to be rezoned to General Residential as part of Planning Scheme Amendment C138. Based on the development layout presented in the Stormwater Management Strategy Report – Baldwin

Road Traralgon 3844 (Miller | Merrigan 2022) it does not appear that the sub-division will result in any parcels being located entirely within the FO. The report states that there is only a road in the LSIO. Further, the WGCMA provided a letter of support on 23 February 2023 for the rezoning that agrees there is only a small encroachment onto the floodplain. Therefore it is considered that Amendment C131 would not impact on Amendment C138 regarding flood related planning controls. However, there could be other issues such as perceptions around land value, insurance, etc.

In a follow up meeting between Council and WGCMA on 15 August 2023 it was agreed that the area of flooding in the General Residential Zoned section to the north of Baldwin Road will remain as Land Subject to Inundation instead of Floodway Overlay

- **Traralgon – Maffra Road Flood Mitigation Works** - In an email dated 5 April 2023, Council indicates that flood modelling has been commissioned to investigate constructing a swale along the northern side of Brooks Lane and the northern side of Glengarry – Maffra Road (Traralgon – Maffra Road) in Glengarry. If these mitigation works are constructed in the future the overlays can be revised as appropriate but with regards to Amendment C131 it appears they are in the early stages of development and there is no guarantee that these works will be constructed and if they are the overlays can be amended to suit at a later date.

5 Exhibition submissions

Sixty-seven submissions were received of which eight supported and fifty-nine objected to the Amendment. Of the fifty-nine objections sixteen were subsequently withdrawn following consultation with Council and the WGCMA. In most cases where the objection was withdrawn there was an agreement to adjust the overlay. The reasons given by objectors were quite varied but generally consistent with this type of amendment. Table 5-1 summarises the reasons for objections and the number of objectors who gave that reason. Some objectors gave multiple reasons. Withdrawn objections are not included in these statistics.

The most common reason given was the flooding on the lot was a result of stormwater inundation rather than flooding from a watercourse and in eight of these cases the objector thought this was because of poor maintenance. In some cases there was an understanding that an LSIO or FO should not be applied to stormwater flooding and hence these overlays should not be used. As noted in Section 4.4 the areas in Traralgon which are subject to urban stormwater flooding and would normally be subject to an SBO will be removed from Amendment C131. Therefore it is expected that a number of objectors from Traralgon would withdraw.

A Planning Panel would not contemplate removal of an overlay for the majority of the reasons given. Probable exceptions would be local topography effects, inconsistencies with neighbouring properties, requests for minor modifications and removal of overlay from lots where the encroachment is minor. As noted above Council and the WGCMA engaged with numerous objectors on similar issues resulting in changes to the overlay and the withdrawal of the objection. The WGCMA advised at the workshop that they believed this process had been exhausted. However, it is recommended that the objectors in Traralgon whose property will no longer be subject to the overlay as noted above be contacted to discuss withdrawing their objection.

Table 5-1 Reasons for objection

Reasons for objection	Number
Stormwater not watercourse flooding	14
Lot has never flooded	11
Maintenance of stormwater systems	8
Mitigate rather than implement overlay	7
Insurance will increase	6
Local topography would not allow flooding	6
Property value	5
Inconsistent with neighbouring properties	4
Reason was not clear	3
Will create difficulties for future development	3
Support introduction of overlay but wants change	2
Has experienced flooding but still objecting	1
Minor encroachment	1
No consultation	1
Other developments impacting flooding at lot	1

6 Recommendations

Following peer review of the mapping and background documents for the Amendment C131 and as agreed in the workshop as detailed in Table 6-1 it is recommended that Amendment C131 proceed with the following key revisions:

- Exclude the areas where the revised or new overlays are not supported by documentation
- Document the reasoning and method for revisions made to the current overlays by WGCMA
- Update the draft versions of the flood study documents to final version
- Adopt the 20% increase rainfall intensity scenario mapping from the Latrobe Flood Study to include allowance for climate change along the Latrobe River floodplain
- For Morwell North-West DCP area update the overlays to represent developed conditions
- Up the FO area to the north of Baldwin Rd within the General Residential Zone (Amendment C138) to be LSIO
- Remove the areas of stormwater flooding in Traralgon from the LSIO

Table 6-1 Peer review and recommendations summary

Location	Update	Assessment Documentation	Incomplete, Draft or Final	Climate Change	ARR Revision	Existing Overlay	Potentially Affected by PSA/DCP	Proceed?	Amendments
Traralgon Creek from upstream of Koornalla to downstream of Mattingley Hill Road	LSIO and FO	Floodplain mapping for Upper Traralgon Creek	Draft	No	2019	Yes		Yes, with amendments	Update report to represent final version.
Narracan Creek at Coalville Road	LSIO and FO	No				Yes		No	No
Morwell North-West DCP area	LSIO and FO	Morwell North-West DCP Drainage Report	Final	No	1987	No	Yes	Yes, with amendments	Mapping inline with Figure 7-3 of Morwell North-West DCP Drainage Report (WaterTech 2016).
Morwell North-West DCP Drainage - WR04 area	LSIO	Morwell North-West DCP Drainage - WR04	Final	No	1987	No	Yes	Yes	
Bennetts Creek from Mackeys Road to Monash Way and Eel Hole Creek to Hazelwood Cooling Pond	FO	No			1987	No		No	
Two unnamed watercourses crossing Princes Highway west of Flynn	LSIO and FO	No			1987	No		No	
Latrobe River across LGA, and downstream reaches of Tanjil River, Morwell River, Anderson Creek, Wades Creek, Boyds Creek, Sheepwash Creek and Flyns Creek	FO	Latrobe Flood Study	Final	Yes	1987	Yes	Yes (Amendment C138)	Yes, with amendments	Update overlays to represent 20% Increases in Rainfall Intensity scenario. Area to the north of Baldwin Rd within the General Residential Zone (Amendment C138) to be LSIO.
Rintouls Creek and unnamed tributary from Fitzgibbons Road to Latrobe River	LSIO and FO	Floodplain mapping for Rintouls Creek	Final	No	1987	Yes		Yes	
Eaglehawk Creek and unnamed watercourses from hills north of Glengarry to Latrobe River	LSIO and FO	Floodplain mapping for Glengarry/Eaglehawk Creek	Draft	No	2019	Yes (Partially)		Yes, with amendments	Update report to represent final version.
Tyers River from upstream of Brown Coalmine Road to Latrobe River	LSIO and FO	Floodplain mapping for Tyers River	Final	No	1987	No (Outside of Latrobe River floodplain)		Yes	

Unnamed watercourse west of Moe to Princes Highway	LSIO and FO	Floodplain mapping for Unnamed Reach South of Contour Drain	Incomplete			No		No	
Unnamed watercourse west of Moe to Princes Highway	LSIO and FO	Floodplain mapping for Unnamed Reach South-East of Contour Drain	Incomplete	No	2019	No		Yes, with amendments	Update report to represent final version.
Traralgon Creek from downstream of Mattingley Hill Road to Latrobe River.	FO	Traralgon Flood Study	Final	No	1987	Yes		Yes, with amendments	Remove areas of stormwater flooding from overlays
Glengarry West	LSIO	No				Yes		Yes, with amendments	WGCMA to document amendment method.
Hazelwood Cooling Pond	LSIO and FO	No				Yes		Yes, with amendments	WGCMA to document amendment reasoning.
Morwell River from Strzelecki Highway to Yallourn Mine channel diversion	LSIO	No				Yes		Yes, with amendments	WGCMA to document amendment reasoning.
Lake Haywood	LSIO	No				Yes		Yes, with amendments	WGCMA to document amendment reasoning.
Tributary of Eel Hole Creek between Monash Way and Silocks Road.	LSIO	No				Yes		No	
Witts Gully Reservoir	LSIO	No				Yes		Yes, with amendments	WGCMA to document amendment reasoning.

7 References

Cardno (2015), Latrobe Flood Study, Cardno.

(DELWP) Department of Environment, Land, Water and Planning (2016), The Planning Practice Note 12 - Applying the Flood Provisions in Planning Schemes, The State of Victoria Department of Environment, Land, Water and Planning.

(DELWP) Department of Environment, Land, Water and Planning (2016), Victorian Floodplain Management Strategy, The State of Victoria Department of Environment, Land, Water and Planning.

Miller | Merrigan (2022), Stormwater Management Strategy Report – Baldwin Road Traralgon 3844, Miller | Merrigan.

Venant Solutions (2023), Amendment C131 – Land Subject to Inundation Overlay and Floodway Overlay – Peer Review: Initial Review Summary, Venant Solutions.

(WaterTech) Water Technology (2016), Traralgon Flood Study, Water Technology.

(WaterTech) Water Technology (2016^a), Morwell North-West DCP Drainage Report – Final Study Report, Water Technology.

(WaterTech) Water Technology (2017), Morwell North-West DCP Drainage - WR04, Water Technology.

(WGCMA) West Gippsland Catchment Management Authority (2015), Floodplain mapping for Rintouls Creek, West Gippsland Catchment Management Authority.

(WGCMA) West Gippsland Catchment Management Authority (2015), Floodplain mapping for Tyers River, West Gippsland Catchment Management Authority.

(WGCMA) West Gippsland Catchment Management Authority (2020), Floodplain mapping for Unnamed Reach South-East of Contour Drain, West Gippsland Catchment Management Authority.

(WGCMA) West Gippsland Catchment Management Authority (2020), Floodplain mapping for Unnamed Reach South of Contour Drain, West Gippsland Catchment Management Authority.

(WGCMA) West Gippsland Catchment Management Authority (2021), Floodplain mapping for Upper Traralgon Creek, West Gippsland Catchment Management Authority.

(WGCMA) West Gippsland Catchment Management Authority (2021), Floodplain mapping for Glengarry/Eaglehawk Creek, West Gippsland Catchment Management Authority.

Latrobe Planning Scheme

Amendment C131latr

Explanatory Report

Overview

This amendment updates the flood overlays in the municipality by implementing the following reports:

- Glengarry Eaglehawk Floodplain Mapping (September 2021)
- Morwell North West Drainage Report (April 2016)
- Morwell North West DCP drainage WR04 (2017)
- Rintouls Creek Study (December 2015)
- Tyers River (December 2015)
- Upper Traralgon Creek (June 2021)
- Traralgon Flood Study (June 2016)
- Latrobe River Flood Study (March 2015)

It does this by amending the Floodway Overlay and Land Subject to Inundation Overlay. It deletes the Floodway Overlay from 25 properties, deletes the Land Subject to Inundation Overlay from 296 properties. In addition, it introduces the Floodway Overlay to 652 properties and Land Subject to Inundation Overlay to 879 properties, several properties have also had boundaries of the two overlays amended. In total, approximately 800 properties are affected in total.

The Amendment was exhibited from 3 February 2022 to 7 March 2022 with a total of 67 submissions received. In considering the submissions it was found that 17 background documents were not provided for exhibition to match the identified changes to the mapping. In response to the submissions, it was then determined that the best approach was to have the background documents and mapping data peer reviewed.

The peer review considered whether the Special Building Overlay (SBO) should be applied to areas within the township instead of the exhibited Land Subject to Inundation Overlay. It was determined that these areas will be removed from the Amendment as an urban flood study is currently being undertaken by Latrobe City Council for Moe-Newborough, Morwell, and Traralgon townships. In addition, it reviewed the appropriateness of the background studies and whether the related flood mapping should be included in the amendment. The recommendations from the Peer Review are that only six additional flood studies be re-exhibited. Areas that were

undocumented or where background documents were not finalised were removed from the amendment.

The Peer Review also recommended the inclusion of the climate change scenario for the Latrobe River as this was the 'best available information'.

Where you may inspect this amendment

The amendment can be inspected free of charge at Latrobe City Council's website at www.latrobe.vic.gov.au/C131

and/or

The amendment is available for public inspection, free of charge, during office hours at the following places:

- 141 Commercial Road, Morwell Vic 3840
- 34-38 Kay Street, Traralgon Vic 3844
- 9-11 Philip Parade, Churchill Vic 3842 and
- 1-29 George Street, Moe Vic 3825

The amendment can also be inspected free of charge at the Department of Transport and Planning website at <http://www.planning.vic.gov.au/public-inspection> or by contacting the office on 1800 789 386 to arrange a time to view the amendment documentation.

Details of the amendment

Who is the planning authority?

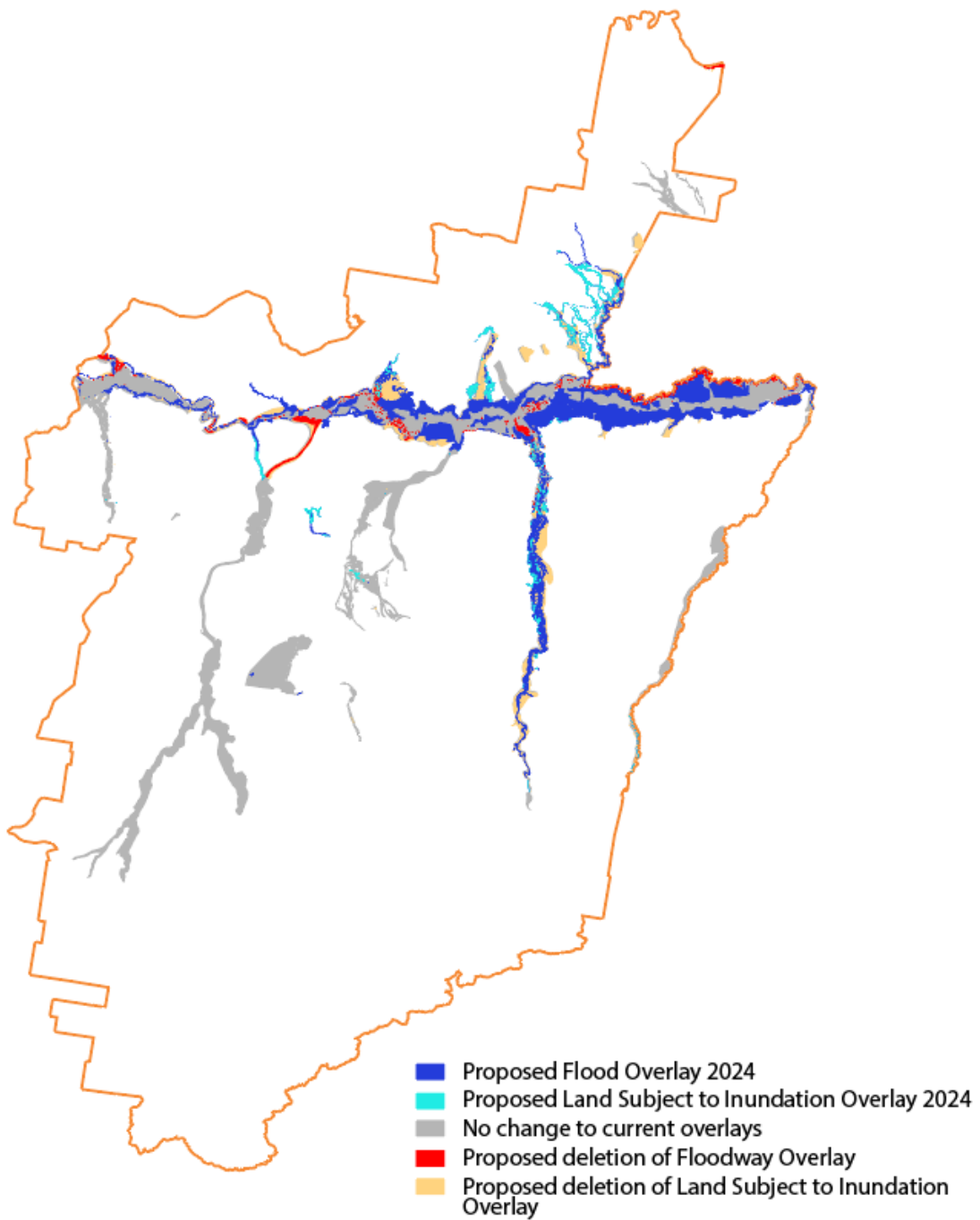
This amendment has been prepared by the Latrobe City Council, which is the planning authority for this amendment.

The amendment has been made at the request of West Gippsland Catchment Management Authority (WGCMA).

Land affected by the amendment

The amendment applies to land across the municipality, particularly around the Latrobe River, Traralgon Creek, Eaglehawk Creek, Rintouls Creek, Tyers River and Morwell North West Development Plan Area.

A mapping reference table is attached at Attachment 1 to this Explanatory Report.



What the amendment does

The amendment amends flood controls based on modelling from:

- Glengarry Eaglehawk Floodplain Mapping (September 2021)
- Morwell North West Drainage Report (April 2016)
- Morwell North West DCP drainage WR04 (2017)
- Rintouls Creek Study (December 2015)

- Tyers River (December 2015)
- Upper Traralgon Creek (June 2021)
- Traralgon Flood Study (June 2016)
- Latrobe River Flood Study (March 2015)

The amendment affects approximately 4998.87ha (Vic Map data) of land within the Latrobe municipality which is within proximity of the Latrobe River, Traralgon Creek, Tyers River, Rintouls Creek, Eaglehawk Creek, and an unnamed tributary around Morwell North West that is considered to be at risk of flooding. These properties will either have existing flood overlays deleted or amended, or new flooding overlays applied.

In addition, subsequent changes are made to the Strategic Framework Plan and the Glengarry Town Structure Plan to reflect the updated mapping extent.

The Land Subject to Inundation Overlay schedule is also being amended to fix an administrative error.

The amendment:

The Planning Scheme Maps are amended by a total of 82 attached maps sheets.

1. Amend Planning Scheme Map Nos 5LSIO-FO, 11LSIO-FO, 14LSIO-FO, 15LSIO-FO, 16LSIO-FO, 17LSIO-FO, 18LSIO-FO, 19LSIO-FO, 20LSIO-FO, 21LSIO-FO, 23LSIO-FO, 24LSIO-FO, 25LSIO-FO, 37LSIO-FO, 38LSIO-FO, 41LSIO-FO, 42LSIO-FO, 43LSIO-FO, 44LSIO-FO, 47LSIO-FO, 48LSIO-FO, 49LSIO-FO, 50LSIO-FO, 56LSIO-FO, 60LSIO-FO, 61LSIO-FO, 63LSIO-FO, 64LSIO-FO, 65LSIO-FO, 66LSIO-FO, 69LSIO-FO, 70LSIO-FO, 82LSIO-FO, 83LSIO-FO, 86LSIO-FO, 91LSIO-FO, 92LSIO-FO, 101LSIO-FO, 102LSIO-FO, 114LSIO-FO.
2. Insert new Planning Scheme Map Nos 4LSIO-FO, 40LSIO-FO, 71LSIO-FO, and 76LSIO-FO.
3. Delete Planning Scheme Map Nos 26LSIO-FO, and 52LSIO-FO.

The Planning Scheme Ordinance is amended as follows:

4. In **Purpose and Vision** – replace Clause 02.04 with a new Clause 02.04 in the form of the attached document.
5. In **Planning Policy Framework**- replace Clause 11.01-1 L with a new Clause 11.01-1 L in the form of the attached document.
6. In **Overlays** – Clause 44.04, replace Schedule 1 with a new Schedule 1 in the form of the attached document.
7. In **Operational Provisions** – Clause 72.03, replace the Schedule with a new Schedule in the form of the attached document.

Strategic assessment of the amendment

Why is the amendment required?

Eight flood studies were undertaken between 2015 and 2021 (with two being finalised in 2023) with each recommending that the Latrobe Planning Scheme be amended to introduce updated mapping of the Floodway Overlay (FO) and Land Subject to Inundation Overlay (LSIO) to reflect the modelling undertaken.

The West Gippsland Catchment Management Authority (WGCMA), in collaboration with the Latrobe City Council and the Baw Baw and Wellington Shire Councils, commissioned a flood study for the floodplains of the Latrobe River from Moe to Lake Wellington and for the Moe River (a major tributary of the Latrobe) from Yarragon to Moe. The *Latrobe River Flood Study* was completed in 2015 by Cardno consultants.

The West Gippsland Catchment Management Authority (WGCMA) Commissioned Water Technology consultants to undertake the *Traralgon Flood Study* which was completed in 2016. The study included detailed hydrological and hydraulic modelling of Traralgon Creek and the Latrobe River, flood mapping of Traralgon, recommendations for flood mitigation works, and a review of planning controls. The study prepared a revised draft Floodway Overlay (FO) and draft Land Subject to Inundation Overlay (LSIO) to reflect the updated flood modelling and mapping produced during the study.

In addition, Glengarry Eaglehawk Floodplain Mapping (September 2021), Rintouls Creek Study (December 2015), Tyers River (December 2015), Upper Traralgon Creek (June 2021) were undertaken by WGCMA.

The Glengarry Eaglehawk Floodplain Mapping was commissioned from the hills north of Glengarry to the Latrobe River, Rintouls Creek and unnamed tributary study was from Fitzgibbons Road to Latrobe River, the Tyers River Study was from upstream of Brown Coalmine Road to the Latrobe River and the Upper Traralgon Creek study was undertaken from upstream of Koornalla to downstream of Mattingley Hill Road.

A further two reports were from development applications including the Morwell North West Drainage Report (April 2016), and Morwell North West DCP drainage WR04 (2017). The Morwell Northwest reports covered the areas generally bounded by Scarborough Crescent and Maryvale recreation Reserve, English Street, Gordon Street, Latrobe Road and Leonard Street in Morwell.

The West Gippsland Floodplain Management Strategy (2018-2027), prepared by the West Gippsland Catchment Management Authority (WGCMA), recommended that the Latrobe Planning Scheme be updated to reflect the best available flood mapping.

The provision of updated flooding information within the planning scheme will have a net community benefit by ensuring that the risk of flooding is properly considered in future planning and that risks from flooding may be managed and minimised. The updated mapping will equip Council to plan for future growth in low-risk locations to

minimise the impact of natural hazards on the community, development, and infrastructure.

The revisions to the Strategic Framework Plan at Clause 02.04, and the Glengarry Town Structure Plan at Clause 11.01-1L, are to reflect the updated flood mapping contained in the Planning Scheme Maps.

The Schedule to the Land Subject to Inundation Overlay at Clause 44.04 is being amended to correct an anomaly where the wrong parent clause is referenced.

How does the amendment implement the objectives of planning in Victoria?

The Amendment meets the following objectives of Planning in Victoria as set out in section 4(1) of the *Planning and Environment Act 1987*:

(a) to provide for the fair, orderly, economic and sustainable use, and development of land;

(b) to provide for the protection of natural and man-made resources and the maintenance of ecological processes and genetic diversity;

(c) to secure a pleasant, efficient and safe working, living and recreational environment for all Victorians and visitors to Victoria; and

(f) to facilitate development in accordance with the objectives set out in paragraphs (a), (b), (c), (d) and (e).

The amendment will positively implement the objectives of planning in Victoria by providing for accurately applied planning overlay controls that ensure that water management issues are considered during the development process.

How does the amendment address any environmental, social and economic effects?

Environmental Effects

The amendment has considered environmental effects, provides for sustainable land use and development outcomes, and will allow Council to plan to minimise risk to life, property, the environment, and infrastructure from flood hazards. Implementation of revised flood mapping will ensure that forward planning will direct new development to low-risk locations and natural hazards and environmental risks avoided. The amendment will ensure that new development in flood affected areas requires a planning permit to ensure that flooding risks are properly considered as part of the planning process which will include seeking the comments of the floodplain management authority on development applications.

Social Effects

The amendment provides updated flood data and planning provisions to ensure ongoing protection of life, property, and community infrastructure in areas at risk of flooding. The amendment ensures that planning decisions will be made having regard to the most current and accurate flood information in considering development applications and in planning for new urban development.

Economic Effects

Flooding can have significant economic impacts on municipalities and the community because of loss of life, damage to public and private assets, and property and agricultural losses. The amendment will ensure that new development is protected from the effects of flooding and that the flood plain is not adversely affected by inappropriate development. The amendment will discourage inappropriate new development that would be impacted by flooding or that may have adverse impacts on flood behaviour.

Does the amendment address relevant bushfire risk?

The Amendment meets bushfire policy in Clause 13.02 of the Planning Scheme because the amendment will not create additional bushfire risk as it is proposing to apply land management overlays (LSIO and FO) which are to address flooding risks, and no rezoning is proposed to occur.

Views from the relevant fire authority

The views of the CFA were sought and obtained on this amendment and considered during the exhibition stage. The CFA has raised concerns about waterway management and the affect that the relevant setback distances will have on development.

Further consultation was held with the CFA on 29 January 2024 and they have said that they have no objection to the Amendment.

Does the amendment comply with the requirements of any other Minister's Direction applicable to the amendment?

The amendment complies with:

- *Minister Direction No. 11 (Strategic Assessment of Amendments)* under section 12 of the *Planning and Environment Act 1987*. The amendment is consistent with this direction which ensures a comprehensive strategic evaluation of a planning scheme amendment and the outcomes it produces.
- *The Ministerial Direction (The Form and Content of Planning Schemes)* as required under section 7(5) of the *Planning and Environment Act 1987*. The amendment has been written in plain English.
- Ministerial Direction No. 15 - The Planning Scheme Amendment Process.

How does the amendment support or implement the Planning Policy Framework and any adopted State policy?

The amendment directly supports the following Clauses of the Planning Policy Framework:

Clause 11.02-1S (Supply of Urban Land)

- This clause has the objective to ensure sufficient land is available for residential, commercial, retail, industrial, recreational, institutional and other community uses.
- The relevant strategies of this clause identify that planning for urban growth should consider the limits of land capability, natural hazards, and environmental quality.
- The amendment proposes to revise flood mapping to ensure natural hazards can be considered in forward planning based on the most current information.

Clause 13.01-1S (Natural Hazards and climate change)

- This policy has the objective to minimise the impacts of natural hazards and adapt to the impacts of climate change through risk-based planning.
- The relevant strategies of this clause include to:
 - 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.
 - Direct population growth and development to low-risk locations.

Clause 13.03-1S (Floodplain management)

- This clause has the objective to assist the protection of life, property and community infrastructure from flood hazard, the natural flood carrying capacity of rivers, streams and floodway's, the flood storage function of floodplains and waterways, and floodplain areas of environmental significance or of importance to river health.
- The relevant strategies of this clause are to:
 - 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.
- The Amendment supports these strategies by applying the most current data available for flooding based on recent flood studies completed for Latrobe. The revised data provides an accurate reflection of the floodplains, including the 1 in 100 year event, and the flood storages and capacities required.

Clause 14.02-2S (Water quality)

- This clause has the objective to protect water quality. The strategies to achieve this objective include discouraging incompatible land use activities in areas subject to flooding where the land cannot be sustainably managed to ensure minimum impact on downstream water quality or flow volumes.

The amendment supports the objective and strategies of this clause by setting out revised mapping for the floodplain areas, based on most recent flood data to allow for forward planning and management of new development. In addition to increasing Climate Change is expected to increase the intensity and frequency of storms across the Gippsland Region, as well as change catchment moisture and increase areas burnt by bushfires.

The WGCMA is aware of these catchment processes and the risk Climate Change poses to flooding across our region. The Latrobe River Flood Study has included Climate Change sensitivity testing to understand what the likely impact will be to our communities. These results show that our waterways are not particularly sensitive to Climate Change impacts.

Further to this the WGCMA has been working with the Department of Transport and Planning (DTP) to develop clear guidance for CMAs across Victoria so that the inclusion of non-sea level rise Climate Change processes in flood study outputs is clear, consistent and transparent. It is likely that this work will be completed within the next few years and it follows that any subsequent update to the Flood Overlays will include our better understanding of the changes to these complex catchment processes brought on by Climate Change.

The planning scheme contains detailed Structure Plans for settlements under Clause 11.01-1L Latrobe settlement patterns to complement policy for Settlement at the State and regional level which seeks to promote the sustainable growth and development of Victoria and deliver choice and opportunity for all Victorians through a network of settlements. The structure plans for Glengarry and Toongabbie show the extent of flooding as they have an affect on policy around future development. The Toongabbie Structure Plan included the latest flood overlays through Amendment C126 to the Latrobe Planning Scheme, as such, the Glengarry Town Structure Plan is proposed to be updated to reflect the proposed overlay changes.

It is policy at Clause 11.01-1R Settlement – Gippsland to, amongst other matters, support new urban growth fronts in regional centres where natural hazards and environmental risks can be avoided or managed. Flooding is one such environmental risk.

It is policy at 13.03-1L Floodplain management that development be discouraged in residential areas within the 1% Annual Exceedance Probability (AEP) flood extent or within 30m of existing waterways. Similarly, raised earthworks, and subdivision, other than realignment or consolidation, is similarly discouraged within the mapped extent of a 1% AEP flood. Both overlays provide the means to control new

development.

How does the amendment support or implement the Municipal Planning Strategy?

This strategic consideration only applies if the planning scheme includes an MPS at Clause 02.

Flooding is a natural hazard that can severely disrupt communities and may cause extensive damage, stock loss and, in extreme cases, loss of life.

The Municipal Planning Strategy supports the amendment as it applies the most-up-to-date data in relation to flooding including climate change scenarios for the Latrobe River and Eaglehawk Creek which enables future rezonings to consider climate change scenarios and flood risk in the extent of any rezonings minimising the impact that floods may have on new development. The following strategic directions support the amendment:

- Planning for the environment and landscape values seeks to balance development with the protection of the natural environment.
- Planning for climate change seeks to support use and development that can adapt to the impacts of climate change and seeks to minimise its negative impacts.
- Planning for flooding seeks to deduce the damage and costs associated with flood events.

It is not anticipated to have a significant effect on other areas of the Municipal Planning Strategy other than in Glengarry which will need to review the feasibility of the future low density residential development due to the extent of the flooding.

Does the amendment make proper use of the Victoria Planning Provisions?

The amendment will amend the existing Floodway Overlay (FO) and Land Subject to Inundation Overlay (LSIO) maps that form part of the Latrobe Planning Scheme to ensure that they are consistent with current information on flooding in the municipality. The revisions to the overlays have been determined by the recommendations of flood studies which undertook sensitivity testing and flood simulations to identify the extent of potential flooding from the rivers through computer-based models of the flood plains to generate detailed flood maps for a range of flood events.

The amendment is consistent with Planning Practice Note 12: Applying the Flood Provisions in Planning Schemes, consideration was given to the level of flood risk, and depth and velocity of flood waters in choosing planning scheme tools. The West Gippsland Catchment Management Authority supports the application of the Floodway Overlay and the Land Subject to Inundation Overlay.

The Floodway Overlay (FO) applies to mainstream flooding areas of the floodplain, being the areas, which convey active flood flows or store floodwater, in both rural and urban areas. The Floodway land is generally the higher hazard portion of the floodplain and buildings and works may be at significant risk or could impact the behaviour of floodwaters and therefore need to be controlled.

The Land Subject to Inundation Overlay (LSIO) represents the fringe of the floodplain where the flood depths and velocities are lower. These areas have a lower risk to human life and property than the Floodway Overlay (FO).

A peer review was undertaken to determine whether the Special Building Overlay (SBO) should be applied to areas within the township instead of the exhibited Land Subject to Inundation Overlay. It was determined that these areas will be removed from the Amendment as an urban flood study is currently being undertaken by Latrobe City Council for Moe-Newborough, Morwell, and Traralgon.

Any undocumented areas that apply new mapping have been removed from the amendment unless they are minor corrections.

How does the amendment address the views of any relevant agency?

Exhibition stage

The amendment has been prepared in consultation with the West Gippsland Catchment Management Authority (WGCMA) being the relevant floodplain management authority and recommending referral authority for applications within the overlays.

In addition, during the first exhibition period, held between 3 February 2022 and 7 March 2022, the following agencies made supporting submissions:

- Department of Transport
- Department of Environment, Land Water and Planning (now Department of Environment, Energy, and Climate Change Adaptation)
- CFA
- APA Gas
- Civil Aviation Safety Authority

Approval stage

- The CFA's submission remains outstanding, however, concerns around increased risk along waterways.

Does the amendment address relevant requirements of the Transport Integration Act 2010?

The amendment is consistent with the objectives and decision-making principles in

the Transport Integration Act 2010. Specifically:

- It promotes environmental sustainability by preparing for and adapting to challenges presented by climate change such as increased flood risk.
- It increases efficiency, coordination and reliability by having up to date information about flooding when planning for new roads making them more reliable and minimising any inconvenience caused by disruptions to the road system.

This amendment is unlikely to have a significant impact on the transport system as it is not significantly increasing the capacity for development, and the road network has existing capacity.

Resource and administrative costs

What impact will the new planning provisions have on the resource and administrative costs of the responsible authority?

The proposed amendment is expected to result in an increase in the need for planning permits, particularly where new Flood Overlays have been applied. However, these overlays are supported by existing local policies in the planning scheme to guide decision making, and permit exemptions.

Attachment 1 – Mapping reference table

Locality	Mapping reference	
	Insert LSIO-FO	Delete LSIO-FO
Callignee	Latrobe C131latr Isio-foMap114 Exhibition	Latrobe C131latr d-Isio-foMap114 Exhibition
Flynn	Latrobe C131latr Isio-foMap64 Exhibition	Latrobe C131latr d-Isio-foMap64 Exhibition
	Latrobe C131latr Isio-foMap65 Exhibition	Latrobe C131latr d-Isio-foMap65 Exhibition
	Latrobe C131latr Isio-foMap66 Exhibition	Latrobe C131latr d-Isio-foMap66 Exhibition
Glengarry	Latrobe C131latr Isio-foMap15 Exhibition	Latrobe C131latr d-Isio-foMap15 Exhibition
	Latrobe C131latr Isio-foMap16 Exhibition	Latrobe C131latr d-Isio-foMap16 Exhibition
	Latrobe C131latr Isio-foMap17 Exhibition	Latrobe C131latr d-Isio-foMap17 Exhibition
	Latrobe C131latr Isio-foMap18 Exhibition	Latrobe C131latr d-Isio-foMap18 Exhibition
	Latrobe C131latr Isio-foMap19 Exhibition	Latrobe C131latr d-Isio-foMap19 Exhibition
	Latrobe C131latr Isio-foMap20 Exhibition	Latrobe C131latr d-Isio-foMap20 Exhibition
	Latrobe C131latr Isio-foMap63 Exhibition	Latrobe C131latr d-Isio-foMap63 Exhibition
Glengarry North	Latrobe C131latr Isio-foMap04 Exhibition	Latrobe C131latr d-Isio-foMap05 Exhibition
		Latrobe C131latr d-Isio-foMap20 Exhibition
Glengarry West	Latrobe C131latr Isio-foMap15 Exhibition	Latrobe C131latr d-Isio-foMap15 Exhibition

	<p>Latrobe C131latr Isio-foMap44 Exhibition</p> <p>Latrobe C131latr Isio-foMap63 Exhibition</p>	<p>Latrobe C131latr d-Isio-foMap44 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap63 Exhibition</p>
Hazelwood	<p>Latrobe C131latr Isio-foMap92 Exhibition</p> <p>Latrobe C131latr Isio-foMap91 Exhibition</p>	
Hazelwood North	<p>Latrobe C131latr Isio-foMap83 Exhibition</p>	<p>Latrobe C131latr d-Isio-foMap92 Exhibition</p>
Koornalla	<p>Latrobe C131latr Isio-foMap101 Exhibition</p> <p>Latrobe C131latr Isio-foMap102 Exhibition</p> <p>Latrobe C131latr Isio-foMap114 Exhibition</p>	<p>Latrobe C131latr d-Isio-foMap101 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap114 Exhibition</p>
Loy Yang	<p>Latrobe C131latr Isio-foMap86 Exhibition</p>	<p>Latrobe C131latr d-Isio-foMap86 Exhibition</p>
Maryvale	<p>Latrobe C131latr Isio-foMap43 Exhibition</p> <p>Latrobe C131latr Isio-foMap44 Exhibition</p>	<p>Latrobe C131latr d-Isio-foMap69 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap38 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap43 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap44 Exhibition</p>
Moe		<p>Latrobe C131latr d-Isio-foMap21 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap22 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap23 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap26 Exhibition</p>

Morwell	<p>Latrobe C131latr Isio-foMap70 Exhibition</p> <p>Latrobe C131latr Isio-foMap71 Exhibition</p> <p>Latrobe C131latr Isio-foMap76 Exhibition</p> <p>Latrobe C131latr Isio-foMap82 Exhibition</p>	
Newborough	<p>Latrobe C131latr Isio-foMap23 Exhibition</p> <p>Latrobe C131latr Isio-foMap24 Exhibition</p> <p>Latrobe C131latr Isio-foMap25 Exhibition</p> <p>Latrobe C131latr Isio-foMap37 Exhibition</p>	<p>Latrobe C131latr d-Isio-foMap23 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap25 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap37 Exhibition</p>
Tanjil South	<p>Latrobe C131latr Isio-foMap11 Exhibition</p> <p>Latrobe C131latr Isio-foMap37 Exhibition</p>	<p>Latrobe C131latr d-Isio-foMap11 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap21 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap37 Exhibition</p>
Traralgon	<p>Latrobe C131latr Isio-foMap44 Exhibition</p> <p>Latrobe C131latr Isio-foMap47 Exhibition</p> <p>Latrobe C131latr Isio-foMap49 Exhibition</p> <p>Latrobe C131latr Isio-foMap50 Exhibition</p> <p>Latrobe C131latr Isio-foMap56 Exhibition</p> <p>Latrobe C131latr Isio-foMap60 Exhibition</p>	<p>Latrobe C131latr d-Isio-foMap44 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap47 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap48 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap49 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap50 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap56 Exhibition</p>

	<p>Latrobe C131latr Isio-foMap61 Exhibition</p> <p>Latrobe C131latr Isio-foMap63 Exhibition</p> <p>Latrobe C131latr Isio-foMap86 Exhibition</p>	<p>Latrobe C131latr d-Isio-foMap60 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap61 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap63 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap86 Exhibition</p>
Traralgon East	<p>Latrobe C131latr Isio-foMap64 Exhibition</p>	<p>Latrobe C131latr d-Isio-foMap52 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap64 Exhibition</p>
Traralgon South	<p>Latrobe C131latr Isio-foMap86 Exhibition</p> <p>Latrobe C131latr Isio-foMap101 Exhibition</p> <p>Latrobe C131latr Isio-foMap102 Exhibition</p>	<p>Latrobe C131latr d-Isio-foMap86 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap101 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap102 Exhibition</p>
Tyers	<p>Latrobe C131latr Isio-foMap14 Exhibition</p> <p>Latrobe C131latr Isio-foMap15 Exhibition</p> <p>Latrobe C131latr Isio-foMap43 Exhibition</p> <p>Latrobe C131latr Isio-foMap44 Exhibition</p>	<p>Latrobe C131latr d-Isio-foMap14 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap15 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap43 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap44 Exhibition</p>
Yallourn	<p>Latrobe C131latr Isio-foMap37 Exhibition</p> <p>Latrobe C131latr Isio-foMap38 Exhibition</p> <p>Latrobe C131latr Isio-foMap41 Exhibition</p> <p>Latrobe C131latr Isio-foMap43 Exhibition</p>	<p>Latrobe C131latr d-Isio-foMap37 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap38 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap41 Exhibition</p> <p>Latrobe C131latr d-Isio-foMap69 Exhibition</p>

	Latrobe C131latr Isio-foMap69 Exhibition	
Yallourn North	Latrobe C131latr Isio-foMap37 Exhibition Latrobe C131latr Isio-foMap38 Exhibition Latrobe C131latr Isio-foMap40 Exhibition Latrobe C131latr Isio-foMap41 Exhibition Latrobe C131latr Isio-foMap43 Exhibition	Latrobe C131latr d-Isio-foMap37 Exhibition Latrobe C131latr d-Isio-foMap38 Exhibition Latrobe C131latr d-Isio-foMap41 Exhibition Latrobe C131latr d-Isio-foMap42 Exhibition Latrobe C131latr d-Isio-foMap43 Exhibition

Attachment 2 – Table of estimated summary of flood related overlays on properties.

Properties	New FO	Delete FO	New LSIO	Delete LSIO
Callignee	3	0	0	2
Driffield	0	0	0	1
Flynn	16	0	4	3
Glengarry	44	0	131	18
Hazelwood	11	0	23	0
Hernes Oak	2	2	2	0
Koornalla	23	0	0	18
Loy Yang	11	0	0	5
Maryvale	2	6	1	0
Moe	5	8	44	31
Morwell	32	5	45	0
Newborough	14	0	0	11
Tanjil South	3	0	0	9
Traralgon	444	4	592	164
Tyers	12	0	13	13
Yallourn North	26	0	0	21
Yinnar	0	0	6	0
	652	25	879	296

Latrobe Planning Scheme

Amendment C131latr

Instruction sheet

The planning authority for this amendment is Latrobe City Council.

The Latrobe Planning Scheme is amended as follows:

Planning Scheme Maps

The Planning Scheme Maps are amended by a total of 82 attached map sheets.

Overlay Maps

1. Amend Planning Scheme Map Nos 5LSIO-FO, 11LSIO-FO, 14LSIO-FO, 15LSIO-FO, 16LSIO-FO, 17LSIO-FO, 18LSIO-FO, 19LSIO-FO, 20LSIO-FO, 21LSIO-FO, 23LSIO-FO, 24LSIO-FO, 25LSIO-FO, 37LSIO-FO, 38LSIO-FO, 41LSIO-FO, 42LSIO-FO, 43LSIO-FO, 44LSIO-FO, 47LSIO-FO, 48LSIO-FO, 49LSIO-FO, 50LSIO-FO, 56LSIO-FO, 60LSIO-FO, 61LSIO-FO, 63LSIO-FO, 64LSIO-FO, 65LSIO-FO, 66LSIO-FO, 69LSIO-FO, 70LSIO-FO, 82LSIO-FO, 83LSIO-FO, 86LSIO-FO, 91LSIO-FO, 92LSIO-FO, 92LSIO-FO, 101LSIO-FO, 102LSIO-FO, 114LSIO-FO in the manner shown on the 76 attached maps marked "Latrobe Planning Scheme, Amendment C131".
2. Insert new Planning Scheme Map Nos 4LSIO-FO, 40LSIO-FO, 71LSIO-FO, and 76LSIO-FO, in the manner shown on the 4 attached maps marked "Latrobe Planning Scheme, Amendment C131".
3. Delete Planning Scheme Map Nos 26LSIO-FO, and 52LSIO-FO, in the manner shown on the 2 attached maps marked "Latrobe Planning Scheme, Amendment C131".

Planning Scheme Ordinance

The Planning Scheme Ordinance is amended as follows:

4. In **Purpose and Vision** – replace Clause 02.04 with a new Clause 02.04 in the form of the attached document.
5. In **Planning Policy Framework**- replace Clause 11.01-1 L with a new Clause 11.01-1 L in the form of the attached document.
6. In **Overlays** – Clause 44.04, replace Schedule 1 with a new Schedule 1 in the form of the attached document.

7. In **Operational Provisions** – Clause 72.03, replace the Schedule with a new Schedule in the form of the attached document.

End of document

FORM 4

Section 63

PLANNING PERMIT

Permit No.: 2004/4395/B
 Planning Scheme: Latrobe Planning Scheme
 Responsible Authority: Latrobe City Council

ADDRESS OF THE LAND: Hedges Avenue, TRARALGON
 Description: L B PS 524079

THE PERMIT ALLOWS: 35 Lot Subdivision (Staged), in accordance with the endorsed plan(s)

THIS PERMIT HAS BEEN AMENDED AS FOLLOWS:

DATE OF AMENDMENT	BRIEF DESCRIPTION OF AMENDMENT
9 June 2010	This planning permit has been amended pursuant to Section 74 of the Planning and Environment Act 1987 to allow the consolidation of the proposed lots 39 and 40 on the endorsed plan include conditions 13-22 and include notes 3 and 4.
9 August 2007	Pursuant to section 73 of the Planning and Environment Act 1987, Planning Permit No 04395 is amended as follows: 1. Change what The Permit Allows to: 37 Lot Subdivision (Staged), in accordance with the endorsed plans. 2. Amend the endorsed plan.

THE FOLLOWING CONDITIONS APPLY TO THIS PERMIT:

1. The layout of the subdivision as shown on the endorsed plan must not be altered without the permission of the Responsible Authority.
2. The following works and items must be provided in accordance with plans and specifications approved by the Latrobe City Council:
 - a) Road construction of the new roads in accordance with the Council's Urban Standards, including traffic management works as required. Bradman Boulevard to be constructed as a Collector Road, Hedges Avenue and the proposed road north off Bradman Boulevard to be constructed as Minor Access Streets and the court adjacent to lots 16, 17, 18 and 19 to be constructed as an Access

Date Issued: 6 February 2006


 Signature for the Responsible Authority

FORM 4

Section 63

PLANNING PERMIT

Permit No.: 2004/4395/B
Planning Scheme: Latrobe Planning Scheme
Responsible Authority: Latrobe City Council

- Place.
- b) Construction of temporary vehicle turning areas at the end of all streets that are to be continued at a later stage.
 - c) Construction of underground drainage system accepting stormwater discharge from the road and each lot. Provision of storm surcharge routes and cut-off drains. The pipes must be designed to take the 5 year ARI storm event with surcharge routes provided to take the 100 year ARI storm event.
 - d) Concrete footpaths along both sides of all streets in accordance with Council's Design Guidelines.
 - e) Concrete shared pedestrian footpath/bicycle path to be constructed within the proposed reserve adjacent to the Traralgon Creek.
 - f) All lots in the subdivision (except Lot 33) must be filled to a level above the Traralgon Creek 100 year average recurrence interval flood event.
 - g) Prior to the transfer of the reserve to the City, the reserve must be cleared free of any rubbish or clay, shaped, drained, topsoiled and landscaped to Council's satisfaction.
 - h) Fencing to be provided adjacent to reserves.
 - i) Street lighting and underground electricity supply.
 - j) Street trees.
 - k) Street signs and linemarking.
 - l) Amenity control during construction, including the control of dust, and measures preventing silt and litter entering the drainage system.
3. The plan submitted for certification under the Subdivision Act 1988 must show:
- a) Easements for drainage purposes to the satisfaction of the Council, and
 - b) Street names to the satisfaction of Council.
4. Prior to the issue of Statement of Compliance for any stage, the owner must pay to the Council:
- a) The sum of \$5887 per hectare as a contribution to drainage headworks, or other such arrangement or contribution which the Council agrees to in writing; and
 - b) Engineering fees of 3.25% of construction costs.

Date Issued: 6 February 2006



Signature for the Responsible Authority

FORM 4

Section 63

PLANNING PERMIT

Permit No.: 2004/4395/B
Planning Scheme: Latrobe Planning Scheme
Responsible Authority: Latrobe City Council

5. Prior to the issue of Statement of Compliance for Stage 2, the applicant, or the owner of the land if the applicant is not the owner, must:-
 - a) Enter into an agreement under Section 173 of the Planning and Environment Act 1987 with the Responsible Authority for Lot 33, so that any fencing erected on the lot boundary or on the lot must be of a type capable of passing flood debris, and approved by the West Gippsland Catchment Management Authority; and
 - b) Cause the said agreement under Section 173 of the Planning and Environment Act 1987 to be registered on the title of the land.

6. Construction works on the land must be carried out in a manner that does not result in damage to existing Council assets and does not cause detriment to adjoining owners and occupiers.

7. The owner/applicant must meet the requirements of Gippsland Water in that, prior to the issue of a Statement of Compliance, they:
 - (a) Pay to the Central Gippsland Region Water Authority contributions for Headwork charges and Outfall/Disposal charges for the change in development of the land. These charges are based on the Authority's current rates and reflect the additional loading placed on the water and sewerage reticulation systems by this development.
 - (b) Provide water and wastewater services to Gippsland Water's minimum supply standards, unless otherwise agreed by the Authority.
 - (c) Apply to the Central Gippsland Region Water Authority for details of the conditions required for the provision of water and wastewater services to the subdivision.
 - (d) Ensure that the owner of the land enters into a formal agreement with the Central Gippsland Region Water Authority, under the Authority's Land Development system, for the complete construction of works necessary for the provision of water supply and sewerage services to all lots of the subdivision.
 - (e) Pay to the Central Gippsland Region Water Authority any fees and contributions and satisfy all conditions pertaining to the aforementioned agreement.
 - (f) Gippsland Water requires submission of design plans prior to

Date Issued: 6 February 2006



Signature for the Responsible Authority

FORM 4

Section 63

PLANNING PERMIT

Permit No.: 2004/4395/B
Planning Scheme: Latrobe Planning Scheme
Responsible Authority: Latrobe City Council

- agreeing to certification to determine whether easements will be required over all proposed sewerage works located within the subdivision, and also to determine if the development can be serviced in accordance with out minimum supply standards.
- (g) Install separate water services and sewage disposal connections to the satisfaction of the Central Gippsland Region Water Authority. As Constructed details showing the location of the installed services are required to be submitted to the Authority.
 - (h) Create easements for Pipeline or Ancillary Purposes in favour of the Central Gippsland Region Water Authority over all existing and proposed water and wastewater works located within the subdivision. When a new easement is required over existing water and/or wastewater services a certificate must be issued by a licensed surveyor verifying the location of the services with respect to title boundaries.
 - (i) Any plan of subdivision of the subject land lodged for certification shall be referred to the Central Gippsland Water Authority under Section 8(1) of the Subdivision Act 1988.

Subdivision Construction

- (j) Where subdivisional development requires construction (such as a road) over or near a Gippsland Water asset, care must be taken to ensure that the asset is protected. Specifically, the developer is required to meet Gippsland Water's design requirements prior to the construction of any proposed works over or adjacent to the Breed Street Sewer Rising Main.
8. The Plan of Subdivision submitted for certification under the Subdivision Act 1988 must be referred to SPI Electricity Pty Ltd in accordance with Section 8 of that Act.
The landowner must meet the specific requirements of SPI Electricity Pty Ltd in that they:
- a) Enter in an agreement with SPI Electricity Pty Ltd for supply of electricity to each lot on the endorsed plan.
 - b) Enter into an agreement with SPI Electricity Pty Ltd for the rearrangement of the existing electricity supply system.
 - c) Enter into an agreement with SPI Electricity Pty Ltd for

Date Issued: 6 February 2006


Signature for the Responsible Authority

FORM 4

Section 63

PLANNING PERMIT

Permit No.: 2004/4395/B
Planning Scheme: Latrobe Planning Scheme
Responsible Authority: Latrobe City Council

rearrangement of the points of supply to any existing installations affected by any private electric power line which would cross a boundary created by the subdivision, or by such means as may be agreed by SPI Electricity Pty Ltd.

- d) Provide easements satisfactory to SPI Electricity Pty Ltd for the purpose of "Power Line" in the favour of "Electricity Corporation" pursuant to Section 88 of the Electricity Industry Act 2000, where easements have not been otherwise provided, for all existing SPI Electricity Pty Ltd electric power lines and for any new power lines required to service the lots on the endorsed plan and/or abutting land.
 - e) Obtain for the use of SPI Electricity Pty Ltd any other easement required to service the lots.
 - f) Adjust the position of any existing SPI Electricity Pty Ltd easement to accord with the position of the electricity line(s) as determined by survey.
 - g) Set aside on the plan of subdivision Reserves for the use of SPI Electricity Pty Ltd for electric substations.
 - h) Provide survey plans for any electric substations required by SPI Electricity Pty Ltd and for associated power lines and cables and executes leases for a period of 30 years, at a nominal rental with a right to extend the lease for a further 30 years. SPI Electricity Pty Ltd requires that such leases are to be noted on the title by way of a caveat or a notification under Section 88 (2) of the Transfer of Land Act prior to the registration of the plan of subdivision.
 - i) Provide to SPI Electricity Pty Ltd a copy of the plan of subdivision submitted for certification which shows any amendments which have been required.
9. The specific requirements of the Telstra Corporation Ltd must be met in that:
- a) That the applicant enters into an agreement with Telstra or other licensed telecommunications carrier to the satisfactory provision of telephone cable reticulation to one (1) metre into each allotment created.
 - b) That the plan of subdivision submitted for certification be referred to

Date Issued: 6 February 2006


Signature for the Responsible Authority

FORM 4

Section 63

PLANNING PERMIT

Permit No.: 2004/4395/B
Planning Scheme: Latrobe Planning Scheme
Responsible Authority: Latrobe City Council

Telstra or other licensed telecommunications carrier, whichever is appropriate, in accordance with Section 8 of the Subdivision Act 1988.

- c) Set aside on the plan of subdivision, reserve/s satisfactory to Telstra, for Telecommunications substation/s if required.

10. The Country Fire Authority requires that:
Access

- a) Emergency vehicle access within the subdivision must be provided in accordance with the following:
- i. The road network design, shown in the Proposed Plan of Subdivision, Ref No T04426 meets the requirements of CFA and must not be varied without written approval of CFA.
 - ii. A minimum width of the trafficable road must be at least 5.4 metres.
 - iii. A height clearance of four metres must be provided above all roads.
 - iv. The court bowl must be provided with a minimum trafficable radius of 8 metres.
 - v. The road structures have a minimum load limit of 15 tonnes.
- b) A plan must be provided, identifying the above, with the request for Certification of the Plan of Subdivision.

Water Supply

- a) The water reticulation plans must be approved by the CFA.
b) There must be a hydrant within 120 metres from the outer edge of all building envelopes and fire hydrants must be separated by no more than 200 metres apart to CFA's satisfaction.
c) Fire hydrants must be clearly identified in accordance with the Fire Service Guideline – 'Identification of Street Hydrants for Fire Fighting Purposes.' ISBN A17:99/00 published by CFA in 1999.

11. West Gippsland Catchment Management Authority

- a) That future development and use of Lot 33 be restricted to low density agriculture or animal husbandry only. No buildings, filling or significant structures shall be permitted on this land. Before the development starts, the owner shall enter into an agreement with the responsible authority made pursuant to Section 173 of the

Date Issued: 6 February 2006


Signature for the Responsible Authority

FORM 4

Section 63

PLANNING PERMIT

Permit No.: 2004/4395/B
Planning Scheme: Latrobe Planning Scheme
Responsible Authority: Latrobe City Council

Planning and Environment Act 1987, and make application to the Registrar of Titles to have the agreement registered on the title to the land under Section 181 of the Act, acknowledging that no development or land use is permitted other than low density agriculture and animal husbandry and that buildings and land filling are not permitted. The owner shall pay the reasonable costs of the preparation, execution and registration of the Section 173 agreement.

- b) The filling and cutting operation shall be undertaken in the following way:
 - vi. The cut to fill ratio for the purpose of compensatory flood storage volume shall be 1.33:1. Evidence of the achievement of this ratio shall be provided in the form of:
 - 1.1 As constructed records
 - 1.2 Existing natural features
 - 1.3 Existing improvements
 - 1.4 Natural and finished surface levels
 - 1.5 Revised flood planning maps and all digital data (including GIS data) of finished flood extents and levels
 - 1.6 Pre and post development photos.

These records shall be provided to the Responsible Authority and West Gippsland Catchment Management Authority.

- a) Prior to the commencement of filling / cutting on any particular area of the site, topsoil shall be stripped and stockpiled on the site. Topsoil is not to be removed from the site but stored to be used and spread over the site on the completion of the filling operation.
- b) The land shall be shaped so as not to concentrate water onto adjoining land.
- c) Only clean inert filling shall be deposited on the site.
- d) No material shall be stored or dumped on any area not approved for filling or stockpiling.
- e) No damage shall be caused to the banks or riparian zone of Traralgon Creek due to the cutting operation. If any damage is caused, the damage shall be repaired immediately to the satisfaction of the West Gippsland Management Authority.

Date Issued: 6 February 2006


Signature for the Responsible Authority

FORM 4

Section 63

PLANNING PERMIT

Permit No.: 2004/4395/B
Planning Scheme: Latrobe Planning Scheme
Responsible Authority: Latrobe City Council

- f) Any land designated for construction of buildings, shall be compacted in accordance with AS 1289.5-2.1.
- g) Appropriate dust suppression and stormwater management measures shall be implemented to preclude nuisance dust and poor water quality runoff from the site, to the satisfaction of the Responsible Authority and West Gippsland Management Authority.
- h) All filled or cut areas shall be revegetated to prevent erosion as soon as practicable.

All works required to comply with this condition shall be completed to the satisfaction of the Responsible Authority and West Gippsland Catchment Management Authority prior to the issue of Statement of Compliance.

- c) A hold point is required at the completion of the construction of the 'cut' basin. At this point an onsite meeting is required by the floodplain management to review progress and schedule any further hold point requirements.
- d) An Environmental Management Plan for the proposed Traralgon Creek Reserve shall be submitted to the satisfaction of the responsible authority for approval prior to the issue of Statement of Compliance. The plan shall be prepared by the applicant and detail:
 - (i) Rehabilitation works for the 'cut' area and Traralgon Creek;
 - (ii) Weed control;
 - (iii) Vegetation planting;
 - (iv) Creek and vegetation protection works (including fencing);
 - (v) On going management works;
 - (vi) Stormwater treatment measures; and
 - (vii) EPA requirements for construction sites.

Works detailed in the Environmental Management Plan shall be implemented to the satisfaction of the Responsible Authority prior to the issue of a Statement of Compliance and any other works commencing on the site.

Date Issued: 6 February 2006


Signature for the Responsible Authority

FORM 4

Section 63

PLANNING PERMIT

Permit No.: 2004/4395/B
Planning Scheme: Latrobe Planning Scheme
Responsible Authority: Latrobe City Council

12. This permit will expire if:
- a) The subdivision is not commenced within two years of the date of this permit; or
 - b) The subdivision is not completed within five years of the date of commencement.
- The Responsible Authority may extend the periods referred to if a request is made in writing before the permit expires or within three months afterwards.

Note 1. The commencement of the subdivision is regarded by Section 68(3A) of the Planning and Environment Act 1987 as the certification of the plan, and completion is regarded as the registration of the plan).

Note 2. The subject land and all assets and infrastructure on it must remain the responsibility of the owner/developer until such time that final completion is achieved and the works are accepted by the City for care and management.

Conditions Resulting From Amendment 'B'

13. The operator of this permit must comply with the following conditions from West Gippsland Catchment Management Authority:
- a) The finished floor level of any future dwelling at the property is to be a minimum of 300 millimetres above the 1% AEP flood level of 33.2 metres AHD (i.e. 33.2m AHD + 0.3m = 33.5 Metres AHD). This is referred to as the Nominal Flood Protection Level (NFPL)
 - b) No development (including placement of fill) is to occur in floodway overlay portion of the property.
14. All existing and proposed easements and sites for existing and required utility services and roads must be set aside in favour of the relevant authority for which the easement or site is created on the plan of subdivision submitted for certification under the Subdivision Act 1988.
15. That sufficient land must be set aside at the end of Waterford Court and Oxford Place to enable the turning movement of a 12.50m rigid (garbage) truck and either vested in Latrobe City Council as a road reservation or by private agreement with the abutting land owner.

Date Issued: 6 February 2006



Signature for the Responsible Authority

FORM 4

Section 63

PLANNING PERMIT

Permit No.: 2004/4395/B
 Planning Scheme: Latrobe Planning Scheme
 Responsible Authority: Latrobe City Council

16. Prior to the commencement of works, full and detailed construction plans and reports with computations must be submitted to and approved by the Responsible Authority. When approved, the plans will be endorsed and then form part of the permit. The plans must be drawn to scale with dimensions and information submitted must show the details listed in Latrobe City Council's Design Guidelines for Subdivisional Developments. Plans, reports and calculations must include:
- a) How the land will be drained and/or retarded;
 - b) How underground pipe drains are to convey stormwater to the legal point of discharge for the 5 year ARI storm event;
 - c) Provision for stormwater surcharge routes and cut-off drains for the 100 year ARI storm event;
 - d) Provision of geotechnical reports supporting all aspects of pavement design to determine road and pavement requirements including all new and upgraded roads to Minor Access Street requirements;
 - e) Extension of Waterford Court (in accordance with Latrobe City Council's Design Guidelines for Subdivisional Developments) as a Minor Access Street;
 - f) Construction of 1.8m high standard timber paling fences around the boundary of all reserves (except road frontages) to the satisfaction of the Responsible Authority;
 - g) Provision of street lighting along Waterford Court and additional lighting at the following intersection locations:
 - i. Waterford Court/Oxford Place;
 - h) Details regarding any filling of the land which if approved must be carried out utilising fill material and compaction in accordance with relevant Australian Standards and certified including supervision by a Level 1 NATA registered geotechnical engineer. No filling within the proposed drainage reserve for the creek directly west of lots 1-6 and reserve C permitted at any time;
 - i) An Environment Management Plan (EMP) detailing techniques for erosion prevention and control measures during the construction phase and post construction in accordance with EPA Publication 960 "Doing it Right on Subdivisions". The EMP must include:
 - i. Contours (existing and final);
 - ii. Existing site drainage;

Date Issued: 6 February 2006


 Signature for the Responsible Authority

FORM 4

Section 63

PLANNING PERMIT

Permit No.: 2004/4395/B
Planning Scheme: Latrobe Planning Scheme
Responsible Authority: Latrobe City Council

- iii. Limit of clearing, grading and filling (location of earthworks including roads, areas of cut and fill);
 - iv. Locations and design criteria of erosion and sediment control structures;
 - v. Site access;
 - vi. Location of critical areas (drainage lines, water bodies);
 - vii. Proposed techniques for stabilisation of disturbed ground;
 - viii. Procedures for maintenance of erosion controls;
 - ix. Details of staging works; and
 - x. Techniques for dust control.
17. Prior to the commencement of any road/drainage works associated with the subdivision, the following items must be satisfied:
- a) Approval of the drainage and construction plans;
 - b) Submission of a written report and photos of any prior damage to public infrastructure. Listed in the report must be the condition of Kerb & Channel, Footpath, seal, street lights, signs and other public infrastructure fronting the property and abutting at least two properties either side of the development. Unless identified with the written report, any damage to infrastructure post construction will be attributed to the development. The owner or developer of the subject land must pay for any damage caused to the Councils assets/Public infrastructure caused as a result of the development or use permitted by this permit;
 - c) An on-site meeting with Latrobe City Council Officers and the Developer's Contractor to discuss matters such as roadside management, construction techniques, vegetation clearing controls and site environmental management; and
 - d) Implementation of the approved Environmental Management Plan (EMP).
18. Construction works on the land must be carried out in a manner that does not result in damage to existing Council assets and does not cause detriment to adjoining owners and occupiers.
19. Appropriate measures must be implemented throughout the construction stage of the development to rectify and/or minimise mud,

Date Issued: 6 February 2006


Signature for the Responsible Authority

FORM 4

Section 63

PLANNING PERMIT

Permit No.: 2004/4395/B
Planning Scheme: Latrobe Planning Scheme
Responsible Authority: Latrobe City Council

crushed rock or other debris being carried onto public roads or footpaths from the subject land, to the satisfaction of the Responsible Authority.

20. The operator of this permit must ensure that dust suppression is undertaken in the form of constant water spraying or other natural based proprietary dust suppressant to ensure that dust caused by vehicles moving within the site does not cause a nuisance to surrounding properties to the satisfaction of the Responsible Authority.
21. Prior to the issue of a statement of compliance under the Subdivision Act 1988, the following must be provided in accordance with plans and specifications approved by the Responsible Authority:
- a) Drainage construction works;
 - b) Road construction works;
 - c) Street lighting;
 - d) Reserve fencing works;
 - e) Construction of an all weather turn around area at the end of Waterford Court to enable the turning movement of a 12.50m rigid (garbage) truck to the satisfaction of the Responsible Authority;
 - f) Site reinstatement; and
 - g) Provision of as constructed plans for road and drainage works as per Latrobe City Council Design Guidelines for Subdivisional Developments.
22. Prior to the issue of a statement of compliance, the owner must pay to Latrobe City Council:
- a) engineering fees of 0.75% of the value of the documented works being for plan checking costs of the Responsible Authority in accordance with the Subdivisions Act 1988; and
 - b) engineering fees of 2.5% of the actual construction cost of the work being for costs of the Responsible Authority supervision of the works in accordance with the Subdivisions Act 1988.

Date Issued: 6 February 2006


Signature for the Responsible Authority

FORM 4

Section 63

PLANNING PERMIT

Permit No.: 2004/4395/B
Planning Scheme: Latrobe Planning Scheme
Responsible Authority: Latrobe City Council

- Note 3.** Prior to the commencement of works, the Responsible Authority must be notified in writing of any proposed building work (as defined by Council's Local Law No. 3) at least 7 days prior to the building works commencing or materials/equipment delivered to the site and unless exempted by the Responsible Authority, an Asset Protection Permit must be obtained.
- Note 4.** The Responsible Authority may require the operator of this permit to maintain or repair the existing vehicle crossing or to make a contribution towards the cost of the repair of the road if in the opinion of the responsible authority vehicles accessing the premises are found to be contributing to the deterioration of the road or vehicle crossing.

END CONDITIONS

Date Issued: 6 February 2006


Signature for the Responsible Authority

IMPORTANT INFORMATION ABOUT THIS NOTICE

WHAT HAS BEEN DECIDED?

The Responsible Authority has issued a permit.

WHEN DOES A PERMIT BEGIN?

A permit operates:

- ❖ from the date specified in the permit, or
- ❖ if no date is specified, from:
 - i. the date of the decision of the Victorian Civil and Administrative Tribunal, if the permit was issued at the direction of the Tribunal, or
 - i. the date on which it was issued, in any other case.

WHEN DOES A PERMIT EXPIRE?

1. A permit for the development of land expires if:
 - ❖ the development or any stage of it does not start within the time specified in the permit, or
 - ❖ the development requires the certification of a plan of subdivision or consolidation under the *Subdivision Act 1988* and the plan is not certified within two years of the issue of the permit, unless the permit contains a different provision; or
 - ❖ the development or any stage is not completed within the time specified in the permit, or, if no time is specified, within two years after the issue of the permit or in the case of a subdivision or consolidation within 5 years of the certification of the plan of subdivision or consolidation under the *Subdivision Act 1988*.
2. A permit for the use of land expires if:
 - ❖ the use does not start within the time specified in the permit, or if no time is specified, within two years after the issue of the permit, or
 - ❖ the use is discontinued for a period of two years.
3. A permit for the development and use of land expires if:
 - ❖ the development or any stage of it does not start within the time specified in the permit; or
 - ❖ the development or any stage of it is not completed within the time specified in the permit, or if no time is specified, within two years after the issue of the permit; or
 - ❖ the use does not start within the time specified in the permit, or, if no time is specified, within two years after the completion of the development, or
 - ❖ the use is discontinued for a period of two years
4. If a permit for the use of land or the development and use of land or relating to any of the circumstances mentioned in section 6A(2) of the *Planning and Environment Act 1987*, or to any combination of use, development or any of those circumstances requires the certification of a plan under the *Subdivision Act 1988*, unless the permit contains a different provision:
 - ❖ the use or development of any stage is to be taken to have started when the plan is certified; and
 - ❖ the permit expires if the plan is not certified within two years of the issue of the permit.
5. The expiry of a permit does not affect the validity of anything done under that permit before the expiry.

WHAT ABOUT APPEALS?

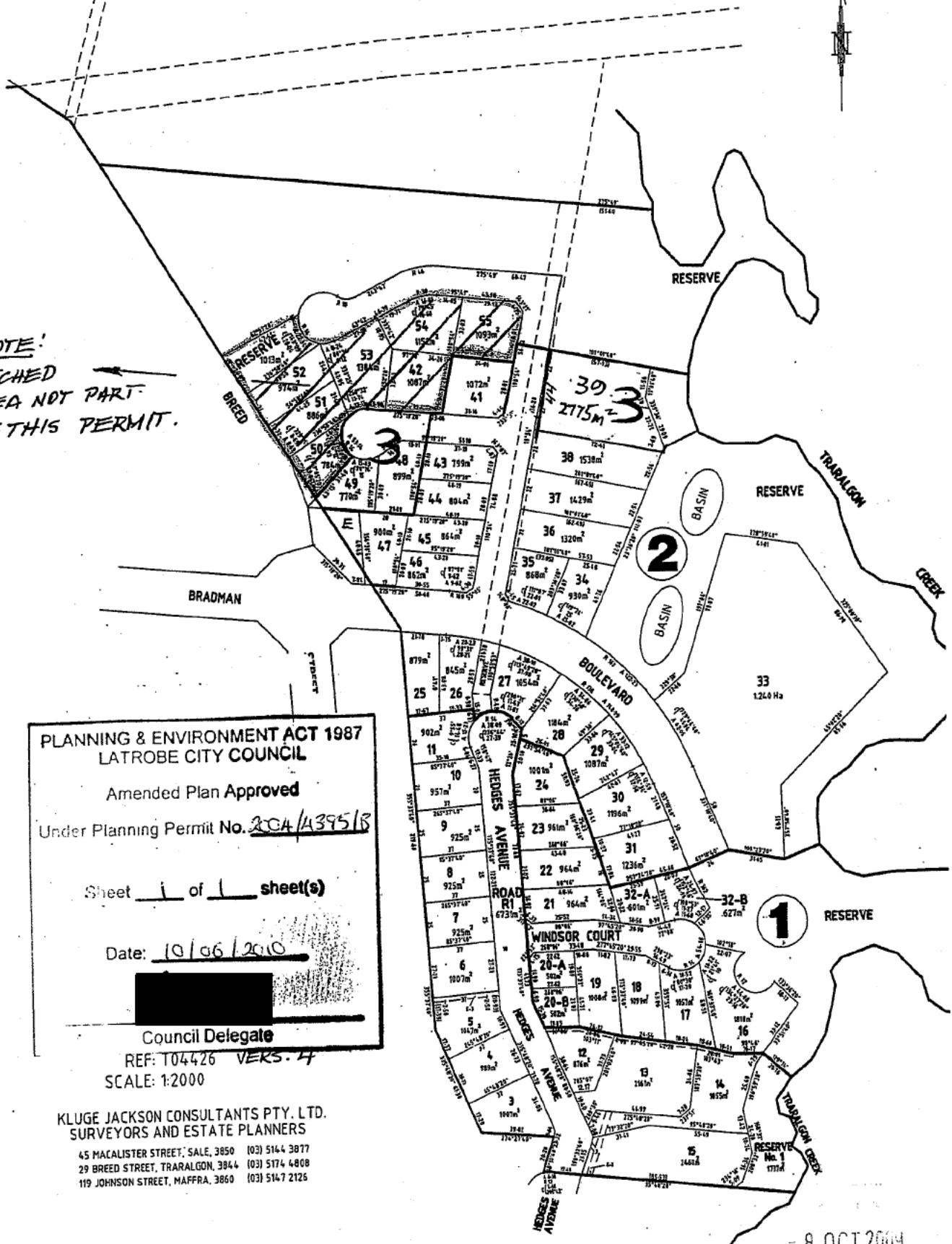
- ❖ The person who applied for the permit may apply for a review of any condition in the permit unless it was granted at the direction of the Victorian Civil and Administrative Tribunal where, in which case no right of review exists.
- ❖ An application for review must be lodged within 60 days after the permit was issued, unless a Notice of Decision to Grant a Permit has been issued previously, in which case the application for review must be lodged within 60 days after the giving of that notice.
- ❖ An application for review is lodged with the Victorian Civil and Administrative Tribunal.
- ❖ An application for review must be made on an Application for Review form which can be obtained from the Victorian Civil and Administrative Tribunal, and be accompanied by the applicable fee.
- ❖ An application for review must state the grounds upon which it is based.
- ❖ An application for review must also be served on the Responsible Authority.
- ❖ Details about applications for review and the fees payable can be obtained from VCAT.
- ❖

STAGING PLAN VERSION 4
 LOT B, PS 524079M
 PART OF C.A. 22 & 23
 PARISH OF TRARALGON

NOTE:
 HATCHED
 AREA NOT PART
 OF THIS PERMIT.

PLANNING & ENVIRONMENT ACT 1987
 LATROBE CITY COUNCIL
 Amended Plan Approved
 Under Planning Permit No. 20CA/4395/B
 Sheet 1 of 1 sheet(s)
 Date: 10/06/2010
 Council Delegate
 REF: T04426 **VERS. 4**
 SCALE: 1:2000

KLUGE JACKSON CONSULTANTS PTY. LTD.
 SURVEYORS AND ESTATE PLANNERS
 45 MACALISTER STREET, SALE, 3850 (03) 5144 3877
 29 BREED STREET, TRARALGON, 3844 (03) 5174 4808
 119 JOHNSON STREET, MAFFRA, 3860 (03) 5147 2125



8 OCT 2009



WGCMA Ref: WG-F-2018-0064
Document No: 1
Date: 20 February 2018

██████████
██████████
████████████████████

████████████████████

Dear ██████████

Application Number (CMA Ref): WG-F-2018-0064

Property: **Street:** Bradman Boulevard, Traralgon, Victoria 3844
Cadastral: Lot 33, PS547909, Parish of Traralgon

Thank you for your enquiry, received at the West Gippsland Catchment Management Authority ('the Authority') on 13 February 2018. The Authority understands you require flood advice for the potential subdivision of the property.

The 1% Annual Exceedance Probability (AEP³) flood level (commonly known as the 1 in 100 year flood) under current climatic conditions ranges across the property from 33.8 to 34.2 metres AHD⁴.

The Authority would be **likely to object** to the proposal, based on the following grounds:

1. The proposal is not consistent with the objective of the State Planning Policy Framework (SPPF), Clause 13.02-1 - Floodplain Management - to assist the protection of life, property and community infrastructure from flood hazard.
2. The proposal is not consistent with the objectives of the Municipal Strategic Statement (MSS), Clause 21.04-2 – Floodplains - to minimise the potential for loss of life, risk to health and damage to property, as a result of flooding and to sustainably manage floodplains.
3. The proposal is not consistent with the purpose of the Land Subject to Inundation Overlay, Clause 44.04, which seeks to ensure that development maintains the free passage and temporary storage of floodwaters, minimises flood damage, is compatible with the flood hazard and local drainage conditions and will not cause any significant rise in flood level or flow velocity.
4. The proposal is not consistent with the Principles and Objectives from the West Gippsland Catchment Management Authority's Flood Guidelines, '*Guidelines for development in flood prone areas*' (2013).

5. The proposal is not consistent with the decision guidelines in the Victorian Planning Provision Practice Note PNP11 '*Applying for a Planning Permit Under the Flood Provisions – A guide for councils, referral authorities and applicants*', in that:

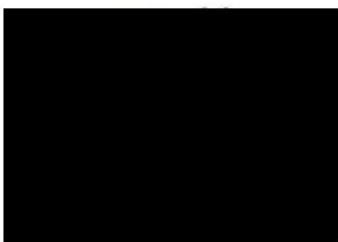
- a. It is not consistent with the SPPF (Clause 13.02-1).
- b. It is not consistent with the MSS (Clause 21.04-2).
- c. It is likely to result in danger to the life, health and safety of the occupants due to flooding of the site.
- d. It is likely to increase the burden on emergency services and the risk to emergency personnel.
- e. It is likely to increase the amount of flood damages to public or private assets.
- f. It is likely to increase the number of buildings located in a floodway area.

Please note: This document contains flood level **advice only** and does not constitute approval or otherwise of any development at this location.

Please refer to the attached **explanatory report** for further detail.

Should you have any queries, please do not hesitate to contact [REDACTED] on 1300 094 262. To assist the Authority in handling any enquiries please quote **WG-F-2018-0064** in your correspondence with us.

Yours sincerely,

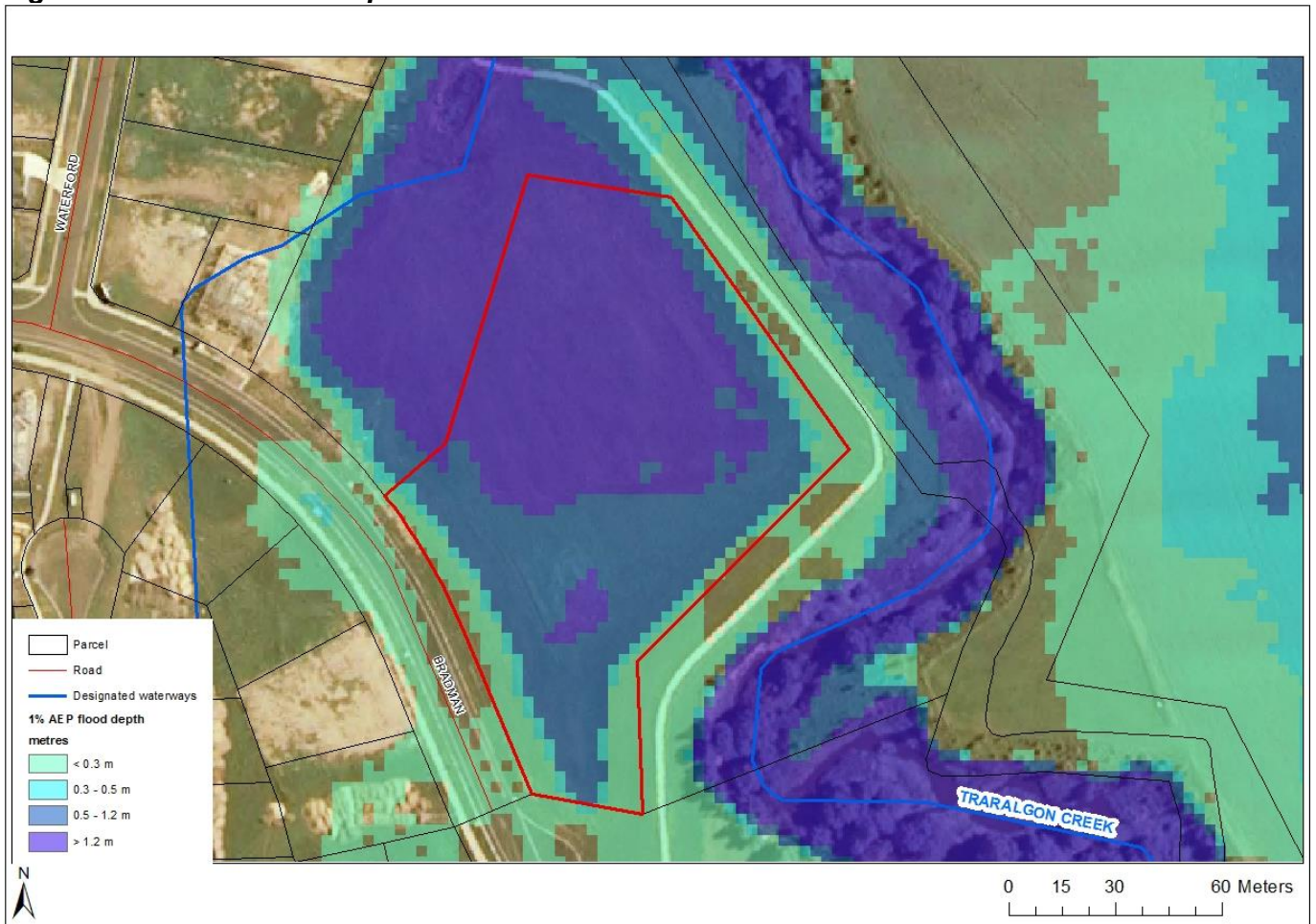


Cc: Latrobe City Council

The information contained in this correspondence is subject to the disclaimers and definitions attached.

EXPLANATORY REPORT

Figure 1 – 1% AEP flood depth



Decision Guidelines

The West Gippsland Catchment Management Authority assesses all applications against the following National, State and Local Policies, Guidelines and Practice Notes:

1. [Technical Flood Risk Management Guideline: Flood Hazard](#) (Australian Emergency Management Institute, 2014)
2. [Victorian Floodplain Management Strategy](#) (Victoria State Government, 2016)
3. Council Planning Schemes ([Planning Schemes Online](#)), including the:
 - i. State Planning Policy Framework
 - ii. Local Planning Policy Framework
 - iii. Relevant Zones and Overlays
4. [Guidelines for Coastal Catchment Management Authorities: Assessing development in relation to sea level rise](#) (DSE, 2012)
5. [Applying for a Planning Permit under the Flood Provisions – A Guide for Councils, Referral Authorities and Applicants](#) (DELWP, 2015)
6. [Flood Guidelines - Guidelines for development in flood prone areas](#) (West Gippsland Catchment Management Authority, 2013)
7. [West Gippsland Waterway Strategy](#) (2014-2022)
8. [West Gippsland Regional Catchment Strategy](#) (2013-2019)

Table 1 – Flood Data

	Current conditions
1% AEP flood level - property	33.8 – 34.2 m AHD
Lowest land elevation - property	31.8 m AHD
Highest land elevation – property	34.2 m AHD
Lowest land elevation - road (evacuation route)	33.5 m AHD
FLOOD DEPTH	
Minimum depth of flooding on property	0.1 m
Maximum depth of flooding on property	2.0 m
Maximum flood depth on road (evacuation route)	0.3 m
HAZARD ASSESSMENT	
Hazard category - property	Extreme
Hazard category - road	Low

1% AEP³ Flood Level Determination

Floods are classified by the frequency at which they are likely to occur. In Victoria, all proposals for development on floodplains are assessed against a flood that, on average, will occur once every 100 years. A flood of this size has a 1% chance of occurring in any given year, and is known as either the 100 year Average Recurrence Interval (ARI⁵) flood or the 1% Annual Exceedance Probability (AEP) flood.

Please note that the 1% AEP flood is the minimum standard for planning in Victoria, and is not the largest flood that could occur. There is always a possibility that a flood larger in height and extent than the 1% AEP flood may occur in the future.

Flood levels for the 1% AEP flood event (commonly known as the 1 in 100 year flood) have not been designated or declared for this area under the *Water Act 1989*. The estimated 1% AEP flood level for the property ranges from 33.8 to 34.2 metres AHD⁴. These levels were obtained from the *Traralgon Flood Study (2016)*.

The Authority holds no information in relation to the arrangement and capacity of stormwater drainage infrastructure in the area and recommends that you contact Council for more information.

Flood Hazard Assessment

The West Gippsland Catchment Management Authority's *'Flood Guidelines - Guidelines for development in flood prone areas'* (2013) state that where flood depth during a 1% AEP flood event is likely to exceed 0.3 metres over the development site or 0.3 metres over the vehicle route from the property, a proposal that seeks to intensify development through the creation of additional lots or dwellings is not supported as it would increase the amount of people and property exposed to the flood hazard.

Table 1 demonstrates that the above criteria are **not** met.

Definitions and Disclaimers

1. The area referred to in this letter as the 'proposed development location' is the land parcel(s) that, according to the Authority's assessment, most closely represent(s) the location identified by the applicant. The identification of the 'proposed development location' on the Authority's GIS has been done in good faith and in accordance with the information given to the Authority by the applicant(s) and/or the local government authority.
2. While every endeavour has been made by the Authority to identify the proposed development location on its GIS using VicMap Parcel and Address data, the Authority accepts no responsibility for or makes no warranty with regard to the accuracy or naming of this proposed development location according to its official land title description.
3. **AEP** as Annual Exceedance Probability – is the likelihood of occurrence of a flood of given size or larger occurring in any one year. AEP is expressed as a percentage (%) risk and may be expressed as the reciprocal of ARI (Average Recurrence Interval).

Please note that the 1% probability flood is not the probable maximum flood (PMF). There is always a possibility that a flood larger in height and extent than the 1% probability flood may occur in the future.

4. **AHD** as Australian Height Datum - is the adopted national height datum that generally relates to height above mean sea level. Elevation is in metres.
5. **ARI** as Average Recurrence Interval - is the likelihood of occurrence, expressed in terms of the long-term average number of years, between flood events as large as or larger than the design flood event. For example, floods with a discharge as large as or larger than the 100 year ARI flood will occur on average once every 100 years.
6. Nominal Flood Protection Level – is the minimum height required to protect a building or its contents, which includes a freeboard above the 1% AEP flood level.
7. No warranty is made as to the accuracy or liability of any studies, estimates, calculations, opinions, conclusions, recommendations (which may change without notice) or other information contained in this letter and, to the maximum extent permitted by law, the Authority disclaims all liability and responsibility for any direct or indirect loss or damage which may be suffered by any recipient or other person through relying on anything contained in or omitted from this letter.
8. This letter has been prepared for the sole use by the party to whom it is addressed and no responsibility is accepted by the Authority with regard to any third party use of the whole or of any part of its contents. Neither the whole nor any part of this letter or any reference thereto may be included in any document, circular or statement without the Authority's written approval of the form and context in which it would appear.
9. The flood information provided represents the best estimates based on currently available information. This information is subject to change as new information becomes available and as further studies are carried out.
10. Please note that land levels provided by the Authority are an estimate only and should not be relied on by the applicant. Prior to any detailed planning or building approvals, a licensed surveyor should be engaged to confirm the above levels.

From: "CMA Planning" <planning@wgcma.vic.gov.au>
Sent: Wed, 1 Mar 2023 17:47:03 +1100
To: "Latrobe City" <latrobe@latrobe.vic.gov.au>
Subject: Attention: Planning Department FYI: WGCMA Flood response for Bradman Boulevard Traralgon Vic 3844 Our ref: WGCMA-F-2023-00104
Attachments: WGCMA-F-2023-00104.pdf

⚠ EXTERNAL EMAIL: Do not click any links or open any attachments unless you trust the sender and know the content is safe. ⚠

OFFICIAL

For your information

OFFICIAL

Flood Advice Response issued for Bradman Boulevard Traralgon Vic 3844.

Regards

Planning Administration

West & East Gippsland Catchment Management Authority
16 Hotham Street (PO Box 1374), Traralgon 3844
For any queries, please contact;
Office Phone: 1300 094 262

www.wgcma.vic.gov.au Stay informed, [sign up to our mailing list](#).



I respectfully acknowledge the Traditional Owners of the Country upon which I work; their Elders past, present and future.

West Gippsland Catchment Management Authority, 16 Hotham Street Traralgon and Corner Young & Bair Streets Leongatha | PO Box 1374 Traralgon 3844 | 1300 094 262 for standard call cost | westgippy@wgcma.vic.gov.au | www.wgcma.vic.gov.au

This email (and any attachments) is for the intended recipient only. The information it contains may be confidential or sensitive. If you are not the intended recipient you must not reproduce or distribute any part of this email, disclose its contents to any other party, or take any action in reliance on it. If you have received this email in error, please contact the sender immediately and delete the message from your computer.



25 years of catchment health



We acknowledge and pay our respects to the Traditional Owners of the region, the Gunaikurnai, the Bunurong, the Boonwurrung and the Wurundjeri Peoples and pay respects to Elders, past, present and emerging.

sign up to our [Catchment Snapshot Newsletter](#)






OFFICIAL



WGCMA Ref: WGCMA-F-2023-00104
Document No: 1
Date: 1 March 2023



Dear 

Application Number (CMA Ref): WGCMA-F-2023-00104

Property: **Street:** Bradman Boulevard, Traralgon Vic 3844
Cadastral: Lot 33 PS547909, Parish of Traralgon

Thank you for your enquiry, received at the West Gippsland Catchment Management Authority ('the Authority') on 8 February 2023. The Authority understands you require flood advice as you are investigating the potential to subdivide the land into five lots.

The 1% Annual Exceedance Probability (AEP³) flood level (commonly known as the 1 in 100 year flood) under current climatic conditions ranges from 33.8 metres AHD to 34.2 metres AHD⁴.

The applicable 1% AEP flood level for this property is 34.2.

If you apply for a Planning Permit, the Authority would be **likely to object** to the proposal, based on the following grounds:

1. The proposal is not consistent with the objective of the Planning Policy Framework (PPF) Clause 13.01-1S - Natural hazards and climate change - to minimise the impacts of natural hazards and adapt to the impacts of climate change through risk-based planning.
2. The proposal is not consistent with the objective of the Planning Policy Framework (PPF), Clause 13.03-1S - Floodplain management - to assist the protection of life, property and community infrastructure from flood hazard; the natural flood carrying capacity of rivers, streams and floodways; the flood storage function of floodplains and waterways; and floodplain areas of environmental significance or of importance to river health.
3. The proposal is not consistent with the Strategic Direction outlined in Clause 02.03-3 Floodplain Management, which seeks to '*Reduce the damage and costs associated with flood events*'.

OFFICIAL

4. The proposal is not consistent with the purpose of the Land Subject to Inundation Overlay, Clause 44.04, which seeks to ensure that development maintains the free passage and temporary storage of floodwaters, minimises flood damage, is compatible with the flood hazard and local drainage conditions and will not cause any significant rise in flood level or flow velocity.
5. The proposal is not consistent with the Principles and Objectives from the West Gippsland Catchment Management Authority's Flood Guidelines, *Guidelines for development in flood prone areas* (2020).
6. The proposal is not consistent with the decision guidelines in the Victorian Planning Provision Practice Note PNP11 *Applying for a Planning Permit Under the Flood Provisions – A guide for councils, referral authorities and applicants*, in that:
 - a. It is not consistent with the Planning Policy Framework (PPF).
 - b. It is not consistent with the Local Planning Policy Framework (LPPF).
 - c. It is likely to result in danger to the life, health and safety of the occupants due to flooding of the site.
 - d. It is likely to increase the burden on emergency services and the risk to emergency personnel.
 - e. It is likely to increase the amount of flood damages to public or private assets.
 - f. It is likely to increase the number of buildings located in a floodway area.

Please note: The Authority has provided this advice as preliminary information only and has been based on the information you have provided. Any flood level advice provided is based on the most accurate information currently available and may change if new information becomes available.

The Authority can provide further information regarding any proposed development of the property in response to a planning permit application referred by the Latrobe City Council in accordance with the *Planning and Environment Act 1987*.

Please refer to the attached **explanatory report** for further detail.

Should you have any queries, please do not hesitate to contact [REDACTED] on 1300 094 262 or email planning@wgcm.vic.gov.au. To assist the Authority in handling any enquiries please quote **WGCMA-F-2023-00104** in your correspondence with us.

Yours sincerely,

[REDACTED]

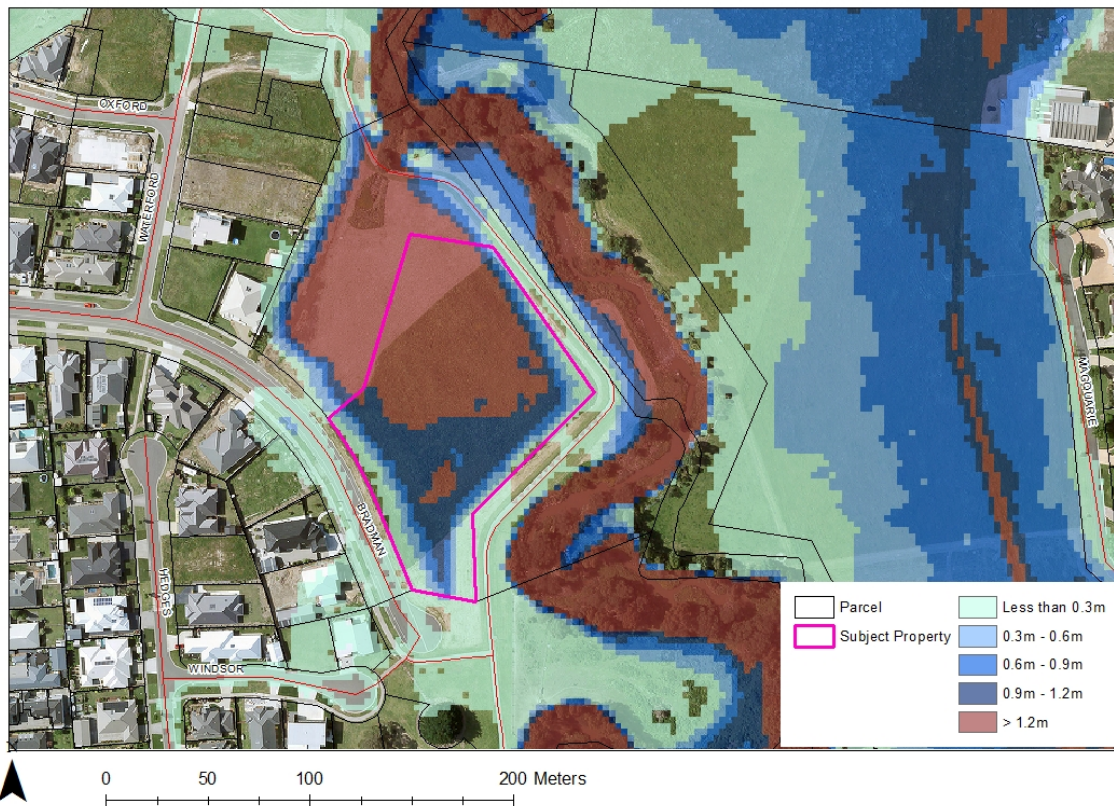
[REDACTED]

Cc: Latrobe City Council

The information contained in this correspondence is subject to the disclaimers and definitions attached.

EXPLANATORY REPORT

Figure 1 – 1% AEP flood extent and depth



Decision Guidelines

The West Gippsland Catchment Management Authority assesses all applications against the following National, State and Local Policies, Guidelines and Practice Notes:

1. [‘Technical Flood Risk Management Guideline: Flood Hazard’](#) (Australian Emergency Management Institute, 2014)
2. [‘Victorian Floodplain Management Strategy’](#) (Victoria State Government, 2016)
3. Council Planning Schemes ([Planning Schemes Online](#)), including the:
 - i. Planning Policy Framework
 - ii. Local Planning Policy Framework
 - iii. Relevant Zones and Overlays
4. [‘Guidelines for Coastal Catchment Management Authorities: Assessing development in relation to sea level rise’](#) (DSE, 2012)
5. [‘Applying for a Planning Permit under the Flood Provisions – A Guide for Councils, Referral Authorities and Applicants’](#) (DELWP, 2015)
6. [‘Flood Guidelines - Guidelines for development in flood prone areas’](#) (West Gippsland Catchment Management Authority, 2020)
7. [‘West Gippsland Waterway Strategy’](#) (2014-2022)
8. [‘West Gippsland Regional Catchment Strategy’](#) (2013-2019)
9. [‘West Gippsland Floodplain Management Strategy’](#) (2018-2027)

Table 1 – Flood Data

	Current conditions
1% AEP flood level – property	33.8 - 34.2 m AHD
Lowest land elevation – property	31.8 m AHD
Highest land elevation – property	34.2 m AHD
Lowest land elevation – road (evacuation route)	33.5 m AHD
FLOOD DEPTH	
Minimum depth of flooding on property	< 0.1 m
Maximum depth of flooding on property	2.0 m
Percentage of property flooded	98%
Maximum flood depth on road (evacuation route)	0.3 m
FLOOD VELOCITY	
Maximum flow velocity for the purposes of the Building Code of Australia (Construction of Buildings in Flood Hazard Areas)	0.9 m/s
HAZARD ASSESSMENT	
Hazard category – property	Extreme
Hazard category – road	Low

1% AEP³ Flood Level Determination

Floods are classified by the frequency at which they are likely to occur. In Victoria, all proposals for development on floodplains are assessed against a flood that, on average, will occur once every 100 years. A flood of this size has a 1% chance of occurring in any given year, and is known as either the 100 year Average Recurrence Interval (ARI⁵) flood or the 1% Annual Exceedance Probability (AEP) flood.

Please note that the 1% AEP flood is the minimum standard for planning in Victoria, and is not the largest flood that could occur. There is always a possibility that a flood larger in height and extent than the 1% AEP flood may occur in the future.

Flood levels for the 1% AEP flood event have not been designated or declared for this area under the *Water Act 1989*. The estimated 1% AEP flood level for this location ranges from 33.8 metres AHD to 34.2 metres AHD which was obtained from the *Traralgon Flood Study (2016)*.

The applicable 1% AEP flood level for this property is 34.2 metres AHD.

The Authority holds no information in relation to the arrangement and capacity of stormwater drainage infrastructure in the area and recommends that you contact Council for more information.

Flood Hazard Assessment

The West Gippsland Catchment Management Authority's *Flood Guidelines - Guidelines for development in flood prone areas* (2020) state that where flood depth during a 1% AEP flood event is likely to exceed 0.3 metres over the development site or 0.3 metres over the vehicle route from the property, a proposal that seeks to intensify development through the creation of additional lots or dwellings is not supported as it would increase the amount of people and property exposed to the flood hazard.

Table 1 demonstrates that the above criteria are **not met**.

The Authority understands that this property was created as a flood storage area as part of an offset for filling another part of the subdivision. As such the Authority would not support any filling or development of this property.

The Authority considers that the current property zone is not appropriate and has previously recommended to Council that it be rezoned as Urban Floodway Zone to better reflect the flood hazard and subsequent lack of development potential.

Planning Scheme Amendment C131latr recommends application of the Floodway Overlay to the property, rather than the Land Subject to Inundation Overlay, to better reflect the flood hazard at the site.

Definitions and Disclaimers

1. The area referred to in this letter as the 'proposed development location' is the land parcel(s) that, according to the Authority's assessment, most closely represent(s) the location identified by the applicant. The identification of the 'proposed development location' on the Authority's GIS has been done in good faith and in accordance with the information given to the Authority by the applicant(s) and/or the local government authority.
2. While every endeavour has been made by the Authority to identify the proposed development location on its GIS using VicMap Parcel and Address data, the Authority accepts no responsibility for or makes no warranty with regard to the accuracy or naming of this proposed development location according to its official land title description.
3. **AEP** as Annual Exceedance Probability – is the likelihood of occurrence of a flood of given size or larger occurring in any one year. AEP is expressed as a percentage (%) risk and may be expressed as the reciprocal of ARI (Average Recurrence Interval).

Please note that the 1% probability flood is not the probable maximum flood (PMF). There is always a possibility that a flood larger in height and extent than the 1% probability flood may occur in the future.

4. **AHD** as Australian Height Datum - is the adopted national height datum that generally relates to height above mean sea level. Elevation is in metres.
5. **ARI** as Average Recurrence Interval - is the likelihood of occurrence, expressed in terms of the long-term average number of years, between flood events as large as or larger than the design flood event. For example, floods with a discharge as large as or larger than the 100 year ARI flood will occur on average once every 100 years.
6. Nominal Flood Protection Level – is the minimum height required to protect a building or its contents, which includes a freeboard above the 1% AEP flood level.
7. No warranty is made as to the accuracy or liability of any studies, estimates, calculations, opinions, conclusions, recommendations (which may change without notice) or other information contained in this letter and, to the maximum extent permitted by law, the Authority disclaims all liability and responsibility for any direct or indirect loss or damage which may be suffered by any recipient or other person through relying on anything contained in or omitted from this letter.
8. This letter has been prepared for the sole use by the party to whom it is addressed and no responsibility is accepted by the Authority with regard to any third party use of the whole or of any part of its contents. Neither the whole nor any part of this letter or any reference thereto may be included in any document, circular or statement without the Authority's written approval of the form and context in which it would appear.
9. The flood information provided represents the best estimates based on currently available information. This information is subject to change as new information becomes available and as further studies are carried out.
10. Please note that land levels provided by the Authority are an estimate only and should not be relied on by the applicant. Prior to any detailed planning or building approvals, a licensed surveyor should be engaged to confirm the above levels.