

PART A PANEL SUBMISSION

GREATER GEELONG PLANNING SCHEME AMENDMENT C339ggee Part 2

Flood Studies Implementation - Lower Barwon and Moorabool Rivers and Bellarine Peninsula Coastal Hazard

Part A Submission to the Independent Panel

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CONTENTS

INTRODUCTION.....	3
SUMMARY OF THE AMENDMENT	3
A. BACKGROUND	5
OVERVIEW	5
FLOOD STUDY AREAS AND FLOOD HISTORY	5
PLANNING SCHEME CHANGES PROPOSED BY AMENDMENT C339GEE PART 2.7	
AUTHORISATION AND PUBLIC EXHIBITION	8
SUBMISSIONS	9
CHRONOLOGY OF EVENTS	10
B. STRATEGIC CONTEXT AND ASSESSMENT	13
STRATEGIC ASSESSMENT	13
CONSIDERATION AGAINST THE PLANNING POLICY FRAMEWORK	13
USE OF THE VICTORIA PLANNING PROVISIONS	15
RELEVANT PLANNING PRACTICE NOTES.....	15
C. ISSUES IDENTIFIED IN SUBMISSIONS	18
KEY ISSUES RAISED	18
THEME 1 - NO HISTORY OF FLOODING	18
THEME 2 - NEED FOR IMPROVED DRAINAGE INFRASTRUCTURE.....	18
THEME 3 - LAND NOT CONSIDERED FLOOD PRONE DUE TO TYPOGRAPHY	19
THEME 4 - RECENT DEVELOPMENT WORKS / NEW HOUSING ESTATES.....	19
THEME 5 - CHALLENGES TO VALIDITY OF FLOOD MODELLING	19
THEME 6 - IMPACT ON HOUSE/PROPERTY INSURANCE.....	20
THEME 7 - IMPACT ON PROPERTY VALUES	20
THEME 8 - COMPLEX OR SITE-SPECIFIC SUBMISSIONS.....	20
D. CHANGES IN RESPONSE TO SUBMISSIONS	21
REVIEW OF COMPLEX SUBMISSIONS	21
CHANGES TO THE EXHIBITED AMENDMENT.....	22
CONCLUSION	24
APPENDICIES	25
APPENDIX 1 – MINISTER’S DELEGATE AUTHORISATION LETTER.....	25
APPENDIX 2 – RESPONSE TO STRATEGIC ASSESSMENT GUIDELINES	27
APPENDIX 3 – LIST OF SUBMITTERS AND THEME BASED SUMMARY	30
APPENDIX 4 – MAP OF SUBMITTERS TO C339 PART 2 BY NUMBER	31
APPENDIX 5 – EXTRACTS FROM THE “REVIEW OF COMPLEX SUBMISISON – LARA, AVALON & FYANSFORD JULY 2022”	32

INTRODUCTION

1. This submission has been prepared by the Planning Authority, the City of Greater Geelong, in response to the Panel's Direction No.4 issued on 12 May 2023 which states:

Council must circulate a Part A submission to parties on the distribution list by 12 noon on Monday, 15 May 2023 that includes:

- A. background to the Amendment including chronology of events*
- B. strategic context and assessment*
- C. issues identified in submissions*
- D. any suggested changes to the Amendment in response to submissions*

Note: The Panel Chair granted an extension of time that allowed Council to provide its Part A submission by Friday 19 May 2023.

2. The structure of this Part A submission follows the above Panel Direction.
3. A further "Part B" Submission will be presented at the Panel Hearing starting on 19 June 2023. The Panel has directed that Council's Part B submission includes:
 - its response to submissions and evidence its final position on the Amendment.
 - Its final position on the Amendment

SUMMARY OF THE AMENDMENT

4. Amendment C339 Part 2 ("the Amendment") proposes to implement the *Flood Risk Management Study – Lower Barwon River and Lower Moorabool River* (March 2019) and part of the *Bellarine Peninsula - Corio Bay Local Coastal Hazard Assessment* (Dec 2015). It revises the mapping extent of the Floodway Overlay (FO) and the Land Subject to Inundation Overlay (LSIO and LSIO2) in the areas of the respective studies and amends the Schedules to the FO and LSIO.
5. The Amendment specifically seeks to:
 - Amend the Schedule to Clause 44.03 Floodway Overlay to include floodway objectives, statement of risk, permit requirements, applications requirements and decision guidelines, and renumber the schedule to Schedule 1;
 - Amend the Schedule to Clause 44.04 Land Subject to Inundation Overlay to include inundation objectives, statement of risk, permit requirements, applications requirements and decision guidelines, and renumber to Schedule 1;
 - Apply the Floodway Overlay Schedule 1 (FO1) and Land Subject to Inundation Overlay Schedule 1 (LSIO1) to properties identified in the *Flood Risk Management Study – Lower Barwon River and Lower Moorabool River* (March 2019);
 - Delete the Floodway Overlay (FO) and Land Subject to Inundation Overlay (LSIO) from properties or parts of properties identified in the *Flood Risk Management Study – Lower Barwon River and Lower Moorabool River* (March 2019);

- Amend the application of the Floodway Overlay Schedule 1 (FO1) and Land Subject to Inundation Overlay Schedule 1 (LSIO1) to include all other land currently identified as Flood Overlay (FO) or Land Subject to Inundation Overlay (LSIO).
 - Apply the Land Subject to Inundation Overlay Schedule 2 (LSIO2) to selected properties identified in the *Bellarine Peninsula - Corio Bay Local Coastal Hazard Assessment* (Dec 2015);
 - Insert new Planning Scheme Maps 32LSIO-FO and 64LSIO-FO.
 - Amend Planning Scheme Maps 15LSIO-FO, 16LSIO-FO, 20LSIO-FO, 21LSIO-FO, 22LSIO-FO, 23LSIO-FO, 24LSIO-FO, 27LSIO-FO, , 29LSIO-FO, 31LSIO-FO,32LSIO-FO, 36LSIO-FO, 46LSIO-FO, 47LSIO-FO, 48LSIOFO, 49LSIO-FO, 50LSIO-FO, 52LSIO-FO, 53LSIO-FO, 54LSIO-FO, 55LSIO-FO, 56LSIO-FO, 65LSIO-FO, 66LSIO-FO, 67LSIO-FO, 68LSIO-FO, 69LSIO-FO, 70LSIO-FO, 77LSIO-FO, 78LSIO-FO, 79LSIO-FO, 80LSIO-FO, 81LSIO-FO 82LSIO-FO, 83LSIO-FO, 86LSIO-FO and 88LSIO-FO, and;
 - Amend the Schedule to Clause 72.03 to include new planning scheme maps in the Greater Geelong Planning Scheme.
6. It is acknowledged that some of the proposed Planning Scheme Maps listed above will need to be updated to remove the Lara Flood Study properties from this amendment. The change is required due to the Council Meeting on 28 March 2023 where it was resolved to abandon the Lara Flood Study implementation.
7. The [C339ggee Part 2 website](#) includes copies of the Explanatory Report, Instruction Sheet, new clauses and proposed overlay maps.

A. BACKGROUND

OVERVIEW

8. The main purpose of the Amendment is to implement the following two flood studies by updating planning scheme overlay maps:
 - *Flood Risk Management Study – Lower Barwon River and Lower Moorabool River (March 2019)*
 - Part of the *Bellarine Peninsula - Corio Bay Local Coastal Hazard Assessment (Dec 2015)* – only the remaining areas around Lake Connewarre and the Barwon River Estuary not already implemented by Amendment C394ggee.
9. The revised overlay mapping will help ensure that any significant buildings and works constructed in areas identified as flood prone consider future flooding and associated risks.
10. The Amendment is also required to modify the schedules to the Land Subject to Inundation Overlay and Floodway Overlay currently contained within the Greater Geelong Planning Scheme as they do not conform with the Ministerial Direction and require further permit exemptions to accord with industry best practice.
11. The flood studies were prepared by expert engineers and scientists and involved extensive research, mapping, analysis, scenario modelling and public consultation.
12. The *Flood Risk Management Study – Lower Barwon River and Lower Moorabool River (March 2019)* was prepared by Water Technology – Water, Coastal & Environmental Consultants being a joint project of the Corangamite Catchment Management Authority and the City of Greater Geelong.
13. The *Bellarine Peninsula – Corio Bay Local Coastal Hazard Assessment (Dec 2015)* was prepared by Cardno on behalf of City of Greater Geelong, the former Department of Sustainability and Environment, the Corangamite Catchment Management Authority, the former Department of Planning and Community Development and the Borough of Queenscliffe.

FLOOD STUDY AREAS AND FLOOD HISTORY

Lower Barwon River and Lower Moorabool River Flood Study Area

14. The study area is defined by the lower reaches of the Barwon River and the Moorabool River to the mouth of the Barwon River including Waurm Ponds Creek and a number of small tributaries. The study area extends upstream to the Batesford streamflow gauge on the Moorabool River and the Pollocksford streamflow gauge on the Barwon River.
15. The floodplains of the Barwon and Moorabool Rivers have faced significant riverine floods noted in 1852, 1880, 1909, 1951, 1978, 1995, 2001 and 2011. Fortunately given the long and frequent history of flooding along the Barwon and Moorabool Rivers much of the residential development through Geelong and the wider catchment is located outside of the areas known to be subject to

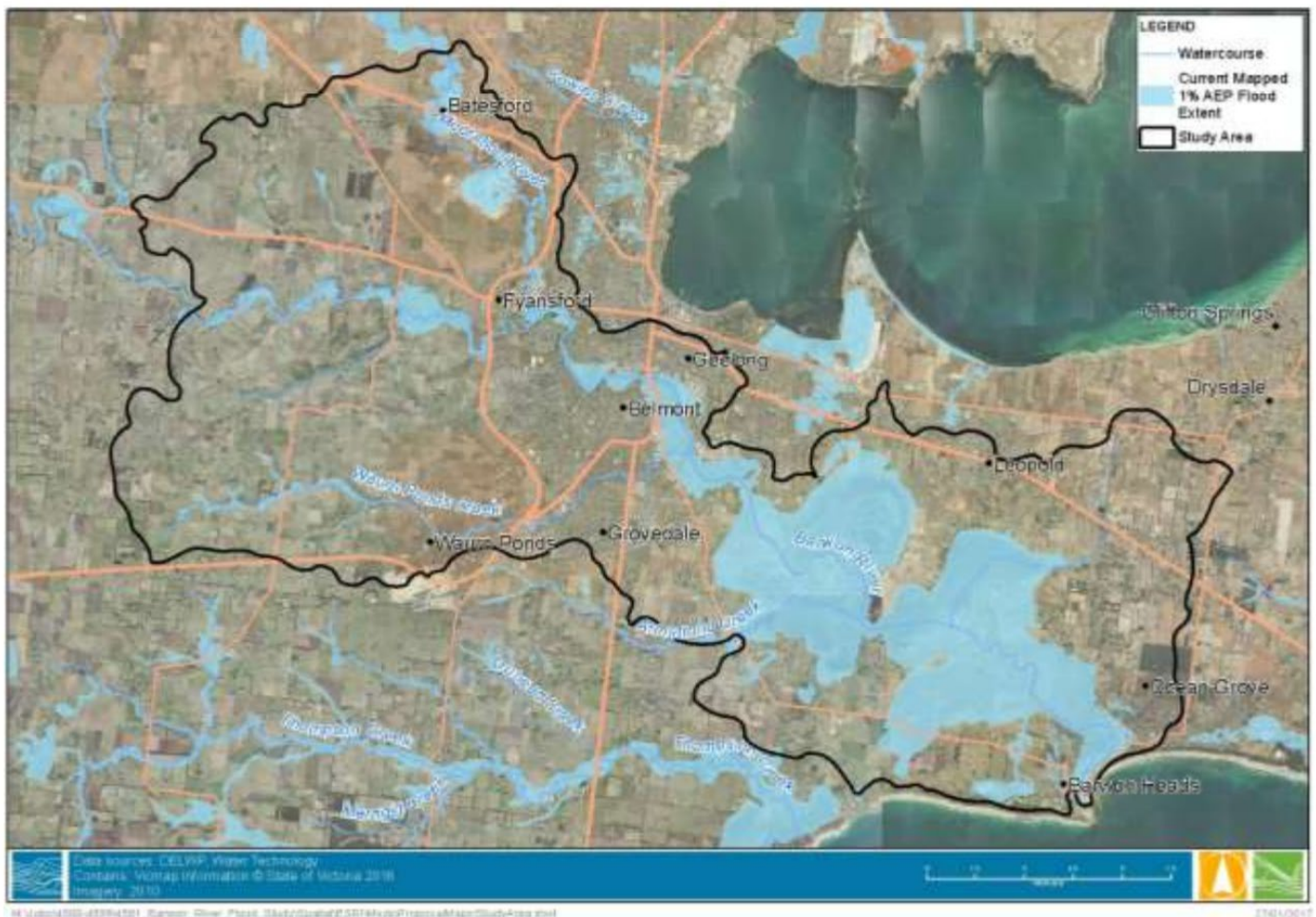
flooding. Consequently, much of the floodplain is now occupied for recreational uses with some land still occupied by industrial businesses.

16. The study describes previous flooding investigations of the Barwon and Moorabool Rivers, as well as a number of important tributaries including the Leigh River, Waurin Ponds Creek and Armstrong Creek have occurred over the past 50 years, the most significant of these include:

- *Geelong Flood Plain Management Study, GHD (1982);*
- *Geelong Flood Mitigation Strategy Final Report, GHD (1997); and*
- *Moorabool and Barwon River Regional Flood Mapping Project, GHD (2016).*

17. The study produces flood mapping and improves the flood intelligence for the major waterways in and around the city of Geelong within the study area shown in **Figure 1** below.

Figure 1 - Lower Barwon / Lower Moorabool Flood Study Area



Bellarine Peninsula - Corio Bay Local Coastal Hazard Assessment Area

18. The *Bellarine Peninsula - Corio Bay Local Coastal Hazard Assessment December 2015 (LCHA)* covers the Bellarine Peninsula and Corio Bay coastline from Breamlea to Avalon, however the majority of this study has already been *implemented* by Amendment C394ggee. Amendment C339ggee Part 2 only implements an overlay (LSIO2) for some properties on the fringes of Lake Connewarre and the Barwon River estuary as shown in **Figure 2** below.

Figure 2 - Area affected by LSIO2 (yellow) in Amendment C339ggee Part 2



PLANNING SCHEME CHANGES PROPOSED BY AMENDMENT C339GEE PART 2

19. The Amendment revises the mapping extent of the Floodway Overlay (FO), Land Subject to Inundation Overlay (LSIO and LSIO2) in the areas of the respective studies and amends the Schedules to the FO and LSIO.

20. The Amendment affects the flood study areas differently as summarised below:

Lower Barwon River and Lower Moorabool River Flood Investigation Area

21. Along the lower Barwon River and lower Moorabool River many properties are already subject to flood overlays but the map extent of these is changing due to the new flood investigation which has re-modelled flooding in the catchment. In some cases properties will be completely removed

from a flood overlay and in other cases the area subject to the overlays is increasing or decreasing depending on the results of the flood modelling undertaken.

Bellarine Peninsula Corio Bay Local Coastal Hazard Assessment area

22. In the lower reaches of Lake Connewarre and the Barwon River estuary the Land Subject to Inundation Overlay (LSIO2) is being applied. This overlay recognises properties that will be subject to inundation as a result of coastal storm surge and future sea level rise. The LSIO2 has already been applied to over 1600 properties around the Bellarine Peninsula and Corio Bay by a previous amendment C394ggee.

Other areas already covered by the FO and LSIO

23. There are a number of properties outside the two abovementioned flood study areas where the flood overlay mapping will not change. However, they will be affected by changes to the LSIO and FO schedules (the written part of the scheme). The changes to the schedules will greatly reduce the circumstances in which a permit is required for buildings and works.

24. Note the existing LSIO and FO areas within the Lara Flood Study area are proposed to remain in the current FO and LSIO as the Lara part of the original Amendment C339ggee was abandoned.

AUTHORISATION AND PUBLIC EXHIBITION

25. On 28 July 2020 Council resolved to support the preparation and public exhibition of the original Amendment C339ggee which also implemented the Lara Flood Study with several thousand properties being applied with Special Building Overlay (SBO). The amendment affected 7,744 properties in total.

26. The GIS mapping for the amendment was complex and the official amendment maps took the City and the then DELWP several months to resolve and prepare.

27. On 2 March 2021 the City requested Ministerial authorisation to prepare and exhibit the amendment. The Minister's delegate issued authorisation on 19 May 2021 subject to the following conditions:

- *Update the Instruction Sheet and Explanatory Report to ensure they correctly represent the mapping changes proposed by the amendment prior to exhibition; and*
- *Include in the Explanatory Report the strategic justification for the proposed rezonings of land in Lara.*

28. A copy of the letter of authorisation is in **Appendix 1**.

29. Amendment C339ggee was exhibited from 15 July 2021 to 16 August 2021.

30. Notices were sent to 10,326 owners and occupiers of land affected by the proposed overlay and zone changes, government authorities, land managers and prescribed Ministers. The Notices were grouped and tailored to specify the changes relating to specific properties and were accompanied by a map showing the overlay or zone changes.
31. Information was published on Council's website including the amendment and supporting documents, Frequently Asked Questions and interactive google maps showing the extent of the new overlays. Hard copies of the amendment and supporting documents were available for viewing at the Brougham Street Geelong Customer Service Centre in Geelong and the Lara Library.
32. Notices were placed in the Geelong Independent on Friday 9 July 2021 and the Geelong Advertiser on Saturday 10 July 2021. A Government Gazette notice was published on 15 July 2021.

SUBMISSIONS

33. A total of 561 submissions were received during the exhibition period of Amendment C339ggee with 56 relating to what is now C339ggee Part 2.
34. Of the 56 submissions relating to C339ggee Part 2, 46 submissions objected and 10 submissions either supported, did not object or provided comments.
35. An additional late submission (objection) from Tract consulting was received on 19 April 2023. This was formally accepted on 26 April 2023 and subsequently sent to Panel for consideration.
36. An additional late submission (supportive) from Collie Town Planners Pty Ltd was received on 28 April 2023. This was accepted on 2 May 2023 and subsequently sent to Panel for consideration.
37. In total, 58 submissions relating to C339ggee Part 2 have been received and referred to the Panel for consideration. This includes 46 submissions of objection, 7 submissions of support or acceptance and 5 submissions of comment only.

CHRONOLOGY OF EVENTS

38. The following is a chronology of the key events relating to Amendment C339ggee and subsequent C339ggee Part 2.

DATE	EVENT/DESCRIPTION
Dec 2015	Bellarine Peninsula – Corio Bay Local Coastal Hazard Assessment completed.
1 Mar 2019	Flood Risk Management Study – Lower Barwon River and Lower Moorabool River completed.
28 Jul 2020	<p>Council Meeting to support exhibition</p> <p><u>Resolution:</u> <i>That Council:</i></p> <ol style="list-style-type: none"> 1. <i>Support the preparation and exhibition of Amendment C339 to the Greater Geelong Planning Scheme to:</i> <ol style="list-style-type: none"> a. <i>Revise the extent of application of the Urban Flood Zone (UFZ), Public Conservation Zone (PCRZ), Public Park and Recreation Zone (PPRZ), Floodway Overlay (FO), Land Subject to Inundation Overlay (LSIO), Schedules 1 and 2 (LSIO1 & LSIO2) and Special Building Overlay (SBO) in the areas of the respective studies identified in attachments 3,4 & 5; and</i> b. <i>Amend the Schedules to the Floodway Overlay (FO), Land Subject to Inundation Overlay (LSIO) and the Special Building Overlay (SBO) consistent with the recommendations of the Lower Barwon and Lower Moorabool Flood Investigation and the Lara Flood Study.</i> 2. <i>Request the Minister for Planning to authorise the preparation and exhibition of Amendment C339.</i>
19 May 2021	Amendment C339ggee Authorised by the Minister for Planning’s delegate.
15 Jul 2021 to 16 Aug 2021	<p>Public Exhibition</p> <p><u>Outcome:</u> A total of 561 submissions were received. Of these, 535 submissions objected and 26 submissions either supported, did not object or provided comments only. The majority of submissions were from the Lara Flood Study area with 505 submissions.</p>
14 Dec 2021	<p>Council Meeting to consider submissions</p> <p><u>Resolution:</u> <i>That Council:</i></p> <p><i>Having considered all submissions to Amendment C339ggee - Flood Overlays and Zones (Lara Flood Study, Lower Barwon & Moorabool Rivers, Bellarine Peninsula Coastal Hazard) resolves to:</i></p> <ol style="list-style-type: none"> 1. <i>Request the Minister for Planning to appoint an Independent Panel under Part 5 of the Planning and Environment Act 1987 to consider all submissions to Amendment C339ggee except those relating to the Lara Flood Study;</i>

	<ol style="list-style-type: none"> 2. <i>Defer a decision on the Lara Flood Study submissions to allow Council officers to investigate and prepare a further report on the site specific and more complex submissions and report back to Council in early 2022;</i> 3. <i>Refer all submissions except the Lara Flood Study submissions to the Panel;</i> 4. <i>Submit to the Panel its response to the submissions (except the Lara Flood Study submissions) generally as outlined in this report; and</i> 5. <i>Note that Council officers will liaise with Planning Panels Victoria to delay appointment of a Panel and a Panel Hearing pending the outcome of Council's future consideration of the Lara Flood Study submissions.</i>
Jan – July 2022	<p><i>Review of Complex Submissions – Lara, Avalon and Fyansford July 2022 prepared with input from City planners and engineers, CCMA and Water Technology. Recommends removal of a total of 2203 properties from the proposed overlays - almost entirely new housing estates and growth areas which have developed since the flood mapping was undertaken.</i></p>
27 Sep 2022	<p>Council Meeting to further consider submissions (including the report on complex submissions) and an officer recommendation to refer them to a Panel</p> <p><u>Resolution:</u> <i>That Council:</i></p> <ol style="list-style-type: none"> 1. <i>Acknowledge the further work undertaken in the Review of Complex Submissions – Lara, Avalon and Fyansford (Attachment 1);</i> 2. <i>Defer a decision on the Lara Flood Study Submissions in order for Council officers to undertake further work which:</i> <ul style="list-style-type: none"> • <i>Reviews the previous criteria as detailed in Attachment 1 of this report, page 15, page 3 for consideration of complex submissions;</i> • <i>determines any reasonable opportunities for the removal of properties proposed to be applied with a flood overlay control; and</i> • <i>At the completion of 2.2, prepares a report to Council that considers all the submissions.</i> 3. <i>Request the Chief Executive Officer to allocate appropriate resources to undertake this further work referred in point 2 above; and</i> 4. <i>Note the additional work and costs to facilitate an additional review of submissions as outlined in (2) for the Lara Flood Study is in the order of approximately \$30,000.</i>
Oct 2022 – Feb 2023	<p>Further review of Lara submissions and overlay maps in particular SBO mapping. Officers prepare a report to Council recommending referral to an independent Panel and removal of a further 755 marginally impacted properties from the proposed SBO at Lara (around 20 per cent of the SBO properties) in addition to the 2,203 properties previously recommended in the July 2022 review.</p>
28 Mar 2023	<p>Council Meeting to further consider submissions and an officer recommendation to refer them to a Panel</p>

	<u>Resolution: That Council, having further considered submissions to Amendment C339ggee Flood Zones and Overlays, resolves to abandon the part of the Amendment which relates to the Lara Flood Study properties and refer remaining submissions to an independent Panel.</u>
29 Mar 2023	Amendment C339ggee split into two parts: <u>C339ggee Part 1: Implementation of Lara Flood Study ABANDONED</u> <u>C339ggee Part 2: Implementation of Flood Studies – Lower Barwon and Moorabool Rivers and Bellarine Peninsula Coastal Hazard</u>
5 Apr 2023	City of Greater Geelong writes to Planning Panels Victoria and requests that a Panel be appointed for C339ggee Part 2.
13 Apr 2023	Planning Panels Victoria confirm that a Panel has been appointed for C339ggee Part 2.
2 May 2023	Directions Hearing for C339ggee Part 2.
11 May 2023	C339ggee Part 1 formally Abandoned and Gazetted.
12 May 2023	Panel issues directions and timetable for C339ggee Part 2.
19 Jun 2023	Panel Hearing to commence for C339ggee Part 2.

B. STRATEGIC CONTEXT AND ASSESSMENT

STRATEGIC ASSESSMENT

39. Minister's Direction No. 11 requires a planning authority to evaluate and discuss how an amendment addresses a number of strategic considerations. What should be considered as part of the Direction is explained in the Department's *Practice Note 46 (May 2017): "Strategic Assessment Guidelines for preparing and evaluating planning scheme amendments."* The exhibited Explanatory Report includes a Strategic Assessment and this is the basis for the response to the Strategic Assessment Guidelines provided in **Appendix 2**.
40. The *Victorian Floodplain Management Strategy 2016* is a State Government strategy that clarifies the roles and responsibilities of government agencies and authorities involved in flood management. In relation to planning, the strategy explains: "Enhanced effort in municipal planning, supported by increased knowledge of flood hazards, will go a long way towards securing resilience to floods. Flood overlays need to be introduced or updated as soon as possible after new flood maps are produced to maximise the returns on investment in flood information and help manage risk."(p.13).

CONSIDERATION AGAINST THE PLANNING POLICY FRAMEWORK

41. This section of this presentation is based on the assessment in the Explanatory Report with respect to the Planning Policy Framework as it relates to the Amendment.
42. The proposed amendment has been assessed against the objectives and strategies of the Planning Policy Framework, in particular:

Clause 11 Settlement - identifies that planning for settlements, must have regard to health and safety. The Amendment supports this principle by documenting the extent of flooding and the degree of risk from its impacts by using the FO for areas that are at risk of faster flood flows and depths and the LSIO for overflow areas.

Clause 11.02-1S Supply of urban land – identifies that Planning for urban growth should consider the limits of land capability and natural hazards and environmental quality. The amendment implements this clause by identifying land that is subject to the natural hazards of flooding and intense rainfall events.

Clause 11.03-2S Growth areas – requires planning to respond to climate change and increase environmental sustainability. The amendment implements this clause by introducing updated planning controls that will ensure new development, subdivision and works proceeds in a manner that is compatible with flood risk.

Clause 12.02-1S Protection of the marine and coastal environment – including the objective:

- To protect and enhance the marine and coastal environment.

Clause 12.02-1L Protection of coastal areas – including strategies to:

- Restrict development on primary dunes.
- Set use or development back from coastal areas, estuaries and coastal wetlands to provide a buffer that is adequate to accommodate coastal recession and the landward migration of coastal wetland vegetation communities such as mangroves and salt marshes.
- Minimise the loss of, and wherever possible increase, public access to the foreshore environment.
- Limit the number of stormwater outlets to the coast.

Clause 12.02-2S Marine and coastal Crown land – including the objective:

- To ensure the use and development of marine and coastal Crown land is ecologically sustainable, minimises impacts on cultural and environmental values, and improves public benefit for current and future generations.

Clause 12.03-1S River and riparian corridors, waterways, lakes, wetlands and billabongs – identifies the need to protect and enhance waterway systems including river and riparian corridors, waterways, lakes, wetlands and billabongs.

Clause 12.03-1R Rivers of the Barwon – Identifies the need to maintain and enhance the natural landscape, biodiversity, cultural and social values, and the Traditional Owner living cultural heritage values of the Rivers of the Barwon, comprising of the Barwon (Parwan), Leigh (Waywatcurtan), Moorabool (Mooroobull) and Yarowee (Yarowee) Rivers, their tributaries and wetlands.

Clause 12.03-1L River corridors, waterways, lakes and wetlands – including strategies to:

- Ensure that land use and development avoids isolating wetlands and provides for connective water flows and vegetative links.
- Ensure waterways and wetlands are not drained or adversely affected as a result of development.

Clause 13 Environmental Risks and Amenity – identifies that planning should aim to avoid or minimise natural and human-made environmental hazards. The amendment implements this clause by introducing new and updated planning controls that will ensure new development, subdivision and works proceed in a manner that minimises exposure to environmental risks associated with flooding.

Clause 13.01-1S Natural hazards and climate change – identifies the need for adaptation response strategies for existing settlements in risk areas to accommodate change over time. The amendment assists in implementing this by providing more accurate information to guide subdivision and development in responding to risks associated with flooding.

Clause 13.01-2S Coastal inundation and erosion – the amendment achieves the policy objective “to plan for the potential coastal impacts of climate change” and implements the following strategies:

- Plan for sea level rise of not less than 0.8 metres by 2100 and allow for the combined effects of tides, storm surges, coastal processes and local conditions such as topography and geology when assessing risks and coastal impacts associated with climate change.
- Ensure that land subject to coastal hazards is identified and appropriately managed to ensure that future development is not at risk.
- Avoid development in identified coastal hazard areas susceptible to inundation.

Clause 13.03-1S Floodplain Management - identifies that planning is 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.
- Floodplain areas of environmental significance or of importance to river health.

The Amendment supports these objectives by accurately identifying the floodplains and flood prone areas and ensuring that planning controls that seek to protect the environmental functions of the floodplain are accurately applied.

Clause 13.03-1L Floodplain management – including the strategy to:

- Discourage land use and development in floodplains where flood function may be impaired.

USE OF THE VICTORIA PLANNING PROVISIONS

43. The Amendment makes proper use of the Victorian Planning provisions in so far as:

- Amending, updating and applying the schedule to the Floodway Overlay, which is the accepted tool to identify and manage areas susceptible to flooding.
- Amending, updating and applying the schedule to the Land Subject to Inundation Overlay, which is the accepted tool to identify and manage areas susceptible to inundation.

RELEVANT PLANNING PRACTICE NOTES

44. The application of the flood overlays in the Amendment is considered to follow the advice provided in *Planning Practice Note 12 – Applying the Flood Provisions in Planning Schemes – A guide for councils DELWP June 2015* (PPN12).

45. In relation to the implementation of the [Lower Barwon River and Lower Moorabool River Flood Risk Management Study \(March 2019\)](#) the Amendment revises the application of existing LSIO and FO mapping along the Barwon River and Moorabool River. In some cases, land currently in the LSIO is now proposed for FO by the Amendment and conversely some land is changing from

FO to LSIO. Some properties which currently have no overlays are now being included and some are being removed. Other have a lesser or greater degree of overlay coverage under the Amendment.

46. The new overlay mapping reflects the more accurate flood extents coming out of the March 2019 study. The decision as to whether LSIO or FO is applied is described at page 59 and 60 of the flood study and is summarised as follows:
47. The **LSIO** identifies land liable to inundation by overland flow, in flood storage or in flood fringe areas affected by the 1% AEP flood. Draft LSIO layers have been prepared for the study area based on the 1% AEP flood extent.
48. The **FO** identifies waterways, main flood paths, drainage depressions and high hazard areas. The identification of FO can be based on numerous methods.
49. The flood study describes three methods for applying the FO:
 - *Advisory Notes for Delineating Floodways (Edwards, 1998).*
 - *CMA Method 01 (same as Edwards, 1998 but drops 10% AEP and reduces depth threshold):*
 - *CMA Method 02 - Method adopted by City of Ballarat for the Burrumbeet Catchment (C178). This is based on Cox et al (2010) as part of ARR Project 10 update. This*
50. The draft extent of the floodway overlay recommended for the study area is based on CMA Method 2 which is the most recently developed method. The CMA Method 2 criteria uses the following criteria not apply the FO:
 - *1% AEP depths ≥ 0.5 m*
 - *1% AEP $V \times D \geq 0.4$ m²/s*
51. The above approach is considered to be consistent with the PPN12 advice in particular Table 11 which is copied overleaf.
52. The application and choice of overlays will be discussed further in Council's Part B submission and expert evidence.

Table 1. Application of the flood zone and overlays

	Urban Floodway Zone	Floodway Overlay	Land Subject to Inundation Overlay	Special Building Overlay
Urban or rural areas?	Urban areas only	Both urban and rural areas	Both urban and rural areas	Urban areas only
Mainstream or stormwater flooding?	Mainstream flooding from a river or stream	Mainstream flooding from a river or stream	Mainstream flooding from a river or stream	Stormwater flooding along overland flow paths
Application	<p>Case 1 (see Fig. 2.3)</p> <ul style="list-style-type: none"> Urban land which is mainly undeveloped The stream channel or primary flow path area Important for conveying and/or storing floodwater Higher flood depths and/or flow velocities Higher potential flood risk Unsuitable for intensive urban development. 	<p>All cases</p> <ul style="list-style-type: none"> The stream channel or primary flow path area Important for conveying and/or storing floodwater Higher flood depths and/or flow velocities Higher potential flood risk, but usually not as severe as in the UFZ. <p>Case 2</p> <ul style="list-style-type: none"> Rural land which is mainly undeveloped. <p>Case 3</p> <ul style="list-style-type: none"> Urban land which is mainly undeveloped Unsuitable for intensive urban development but may be suitable for development compatible with the flood risk (for example, public purpose uses, such as school grounds, golf courses, sports grounds and recreation areas). <p>Case 4</p> <ul style="list-style-type: none"> Urban land that is fully or substantially developed (for example, currently zoned residential, commercial or industrial areas). 	<p>Case 5 (see Fig. 2.1)</p> <ul style="list-style-type: none"> Rural or urban areas where the extent of the floodway has not been identified and only the extent of land subject to inundation is known Areas that cover the total extent of land subject to inundation, including the higher risk floodway component LSIO can be applied as an interim measure until further mapping of the floodway is carried out. <p>Case 6 (see Fig. 2.2)</p> <ul style="list-style-type: none"> Rural land that is mainly undeveloped Areas where the extent of the floodway has been identified and LSIO covers the balance of land subject to inundation, excluding the floodway component Lower flood depths and/or flow velocities Lower potential flood risk. <p>Case 7 (see Fig.2.3)</p> <ul style="list-style-type: none"> Urban land that is fully or substantially developed ('flood fringe') Areas where the extent of the floodway has been identified and the LSIO covers the balance of land subject to inundation, except the floodway component Lower flood depths, lower flow velocities Lower potential flood risk. 	<p>Case 8 (see Fig. 2.4)</p> <ul style="list-style-type: none"> Urban land that is inundated if the capacity of the drainage system is exceeded during heavy rainfall Currently used by Melbourne Water in the Melbourne metropolitan area Can be applied by councils for regional towns provided overland flow path areas are delineated.

C. ISSUES IDENTIFIED IN SUBMISSIONS

53. The Panel has requested a summary of the main issues raised in the submissions.

KEY ISSUES RAISED

54. The key issues raised in submissions were grouped under the following themes in the December 2021 Council report that considered submissions to the original Amendment C339ggee:

1. No history of flooding
2. Need for improved drainage infrastructure
3. Land not considered flood prone due to typography
4. Recent development works / new housing estates
5. Challenges to validity of flood modelling
6. Impact on insurance
7. Impact on property values
8. Complex or site-specific submissions.

55. An updated list of submitters for C339ggee Part 2 and a theme based summary is provided in **Appendix 3** (unless permission has been given submitter's names will be redacted when this Part A submission is published on the City's website).

56. In accordance with Panel Direction 5 a map was prepared and circulated showing the location of submitters (by number) and this is in **Appendix 4**.

57. Further details of the themes raised in submissions is provided below and updated responses will be provided in Council's Part B submission.

THEME 1 - NO HISTORY OF FLOODING

58. Several submitters raised the theme of 'no history of flooding' in the Lower Barwon Moorabool River Flood Study area.

59. Examples-

- Submission 51 states that *"My block has never had water on it in the may years I have been living here."*
- Submission 64 states that *"My property has approximately 1 acre of high ground which has never been flooded (even in the 1995 flood) ..."*
- Submission 152 states that *"The property has no history of flooding."*

THEME 2 - NEED FOR IMPROVED DRAINAGE INFRASTRUCTURE

60. A common theme in submissions is that Council should invest in new or upgraded drainage infrastructure to prevent the risk of flooding rather than apply planning controls or designate areas as flood prone.

THEME 3 - LAND NOT CONSIDERED FLOOD PRONE DUE TO TYPOGRAPHY

61. Several submitters questioned the flood prone designation of their property by reference to topography such as a property being on the side of a hill or in an area well clear of any creeks or rivers.

62. Examples-

- Submission 51 states that - *"I know my block is next to the Waurm Ponds creek (on the north side) which does flood on heavy rain, but there is a large area of flood plain on the south side of the creek which is approx 2 metres lower than my block which is where the water runs into when the creek over flows."*

THEME 4 - RECENT DEVELOPMENT WORKS / NEW HOUSING ESTATES

63. This theme in submissions includes new housing estates that have developed since the Lower Barwon Moorabool flood studies were undertaken and are now considered by the submitters to be no longer flood prone. The theme also covers smaller scale site development or drainage works that landowners have undertaken or that they believe the flood studies have ignored or missed.

64. Examples-

Fyansford Green

- Submitter 269 from The Parade, Fyansford, and submitter 440 from Monier Way, Fyansford have all raised questions and concerns about the extent of the overlays in the area which is a relatively new housing estate next to the Moorabool River.

Heights Estate, Herne Hill

- Submitter 434 from Salisbury Circuit, Fyansford and Submitter 78 Cardno TGM lodged an objection related to land known as the Heights Estate at Herne Hill. The submission states: *On 19 August 2014 Planning permit PP-107-2012/A was issued for the subdivision of land at 355 Church Street, Herne Hill in accordance with endorsed plans which includes the area of land now proposed for a Flood Overlay. Since then the Heights Estate subdivision has now been completed. The planning permit for the subdivision of this land was supported by the Heights Development Flood Impact Assessment 2017 developed by BMT WBM. The Assessment determined that the subject land is not flood prone under development conditions.... We are therefore surprised to now see that part of this land is now deemed to be flood prone as determined by this amendment.*

THEME 5 - CHALLENGES TO VALIDITY OF FLOOD MODELLING

65. A number of submitters question the flood modelling and flood studies that the overlay maps are based on.

66. Examples-

- Submission 147 states that – *“A 1% flood, using the statistics & map from pages 1 & 2 of the CCMA Flood Information Property Report, (Attachment 3) would not rise high enough to inundate this land. Our contour map (Supporting document 2), shows that the land is above the 4.02m ADH quoted by CCMA as the maximum flood level in a 1%AEP flood for our property. As previously stated, the land rises to over 10 metres.”*

THEME 6 - IMPACT ON HOUSE/PROPERTY INSURANCE

67. Several submissions identified the potential increase in insurance premiums or difficulty to obtain insurance coverage because of properties now being either designated as flood prone or within a flooding overlay such as the SBO, LSIO or FO.

68. Examples-

- Submission 138 states that *“I have experienced first-hand the negative impacts to not only property values, but also excessive premiums of properties located in flood zones”.*
- Submission 187 states that *“We will suffer unfair financial repercussions due to increased insurance premiums.”*

THEME 7 - IMPACT ON PROPERTY VALUES

69. Many submissions were received regarding the potential reduction in property values because of the overlay. Other submissions were received noting the potential impact on the future value, usability and resale of the property or other financial implications.

70. Examples-

- Submission 2 states that *“the proposed change to the overlay from LSIO to FO1 on Sommers and Frank Street, Belmont is likely to introduce ongoing costs and other issues for the residents that have been listed in the report by consultant Water Technology.”*
- Submission 60 states that *“Property values will in-turn be significantly reduced as the flood zone overlay will be view as ‘high risk’, therefore limiting potential buyers if/when we should choose to sell the property”.*

THEME 8 - COMPLEX OR SITE-SPECIFIC SUBMISSIONS.

71. Many submitters provided specific information about their property or raised more complex issues than the more generic themes and objections. This includes 4 submissions from Fyansford which is the Lower Barwon Lower Moorabool Area. These submissions are further discussed in **Part D** of this report.

D. CHANGES IN RESPONSE TO SUBMISSIONS

REVIEW OF COMPLEX SUBMISSIONS

72. Following the Council Meeting held on 14 December 2021, Council officers further reviewed the submissions that had been categorised as complex submissions.
73. Around 50 submissions were selected for closer review from the Lara Flood Study area plus an additional 4 submissions from Fyansford which is part of the Lower Barwon Lower Moorabool Flood Study Area.
74. The submissions selected for further review were considered to be the more complex submissions that raised issues beyond the other themes already addressed in the report to Council of 14 December 2021. The submissions reviewed were selected as they included information such as: site specific, factual or evidence-based information or data, technical information (including from qualified flood and drainage engineers), local topographic information and knowledge, information on localised drainage systems and information on development and landform changes that have occurred on the ground since original flood studies were prepared and that may impact on the flood prone nature of the land.

Results of the Review which relate to C399ggee Part 2

75. Water Technology, as the original authors of the *Lower Barwon River and Lower Moorabool River Flood Study*, reviewed the submissions regarding flooding and drainage at Fyansford. The Water Technology advice is included as an Appendix in the *Review of Complex Submissions – Lara, Avalon and Fyansford, City of Greater Geelong July 2022* which is in the minutes of the Council Meeting of 27 September 2022 and available on the C339ggeePart2 webpage.
76. Extracts from the Review of Complex Submissions relating to Fyansford are in **Appendix 5** of this Part A submission.

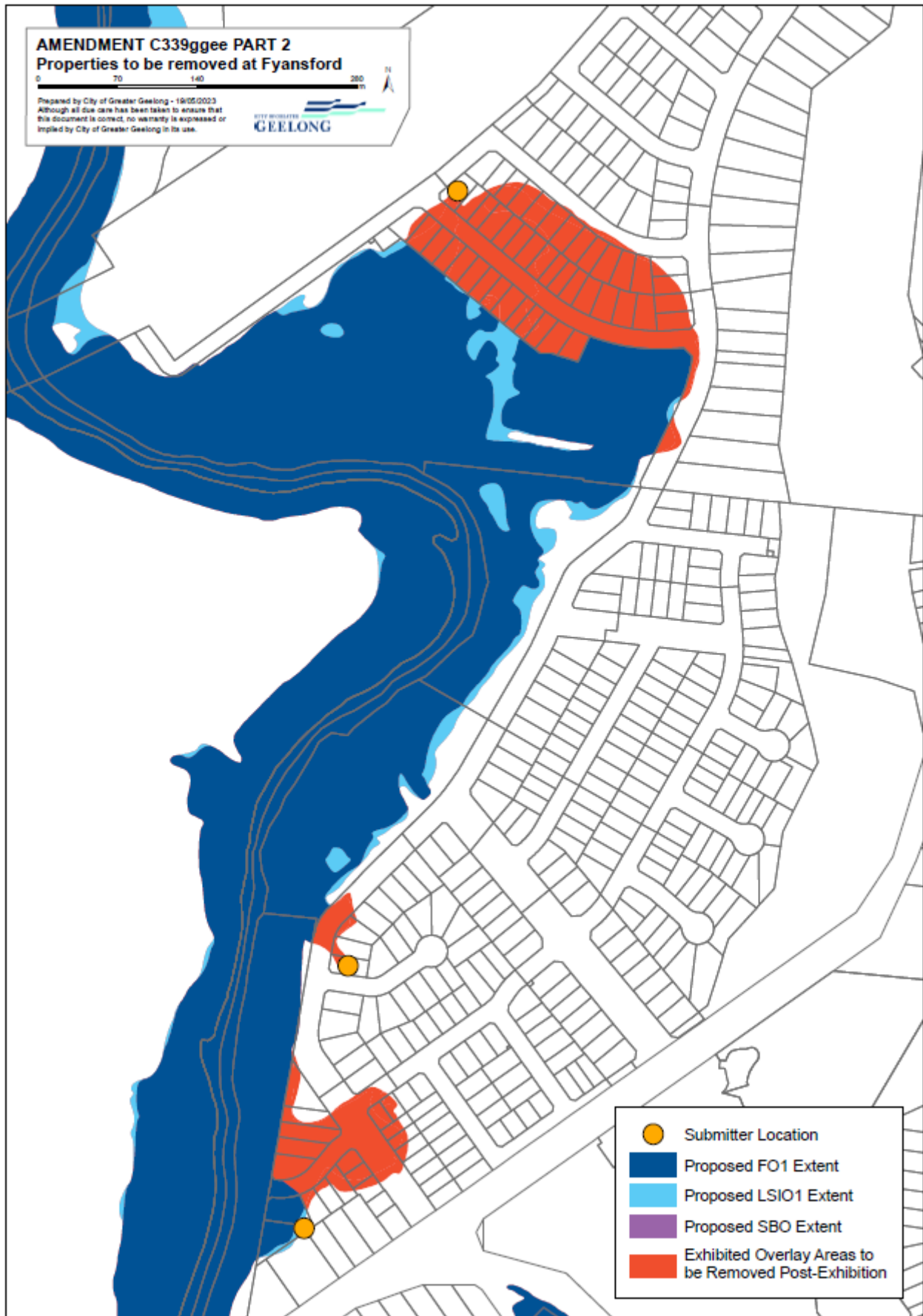
Summary of the Water Technology advice relating to Fyansford

77. The information on which the Lower Barwon and Lower Moorabool Flood Study was based was collected in January 2017. At this time the areas around Fyansford were under construction. Since this time these works have been completed which include filling to achieve flood protection. The works within both the Gen Fyansford and Heights estates protect new residential lots from inundation during the 1% AEP riverine flood event, as such it is recommended that these properties now be excluded from the planning scheme amendment, and the exhibited flood related overlays be clipped to the filled development areas.

CHANGES TO THE EXHIBITED AMENDMENT

78. The *Review of Complex Submissions – Lara, Avalon and Fyansford, City of Greater Geelong July 2022* recommends removal of a total of 65 properties adjacent to the Moorabool River at Fyansford from the exhibited flood overlays based on the Water Technology and internal Council engineering advice. These properties are shown in red on the map overleaf in **Figure 3**.
79. Removal of the properties from the overlays resolves the following submissions:
- Submission 78 – from Cardno consultants relating to The Heights Estate
 - Submission 434 – from an individual owner of a property on Salisbury Circuit
 - Submission 440 - from an individual owner of a property on Monier Way
 - Submission 544 – from an individual owner of a property on Salisbury Circuit
80. The property at 12-14 The Parade Fyansford (Submission 269) is recommended to remain within the exhibited overlay. Water Technology advised that the limit of the flood protection works within Fyansford do not extend to the property and as such given the low ground levels within the property and adjacent road the area is likely to be inundated during the 1% AEP flood event.
81. In summary, the only changes agreed by Council to the exhibited amendment to date (as it relates to C339ggee Part 2) is the reduction in the overlay mapping at Fyansford as shown in red on **Figure 3** to remove 65 properties. These properties are in new housing estates which have developed since the original flood study was prepared. These new residential lots are considered to be protected from inundation during the 1% AEP riverine flood event
82. A further “Part B” Submission will be presented at the Panel Hearing starting on 19 June 2023. The Panel has directed that Council’s Part B submission includes:
- *its response to submissions and evidence its final position on the Amendment.*
 - *its final position on the Amendment*
83. The Part B submission will include updated responses to the themes and issues raised in submissions and consideration of any further changes to the amendment as a result of submissions.

Figure 3 – Post exhibition changes to Flood overlays at Fyansford



CONCLUSION

84. This completes Council's Part A submission.

APPENDICES

APPENDIX 1 – MINISTER’S DELEGATE AUTHORISATION LETTER



Department of Environment,
Land, Water and Planning

8 Nicholson Street
East Melbourne, Victoria 3002
PO Box 500
East Melbourne, Victoria 8002

Mr Martin Cutter
Chief Executive Officer
Greater Geelong City Council
Email address: bgough@geelongcity.vic.gov.au

Dear Mr Cutter

PROPOSED GREATER GEELONG PLANNING SCHEME AMENDMENT C339GGEE

I refer to the council’s application for authorisation to prepare an amendment to the Greater Geelong Planning Scheme.

Under delegation from the Minister for Planning, in accordance with section 8A of the *Planning and Environment Act 1987* (the Act), I authorise the council as planning authority to prepare Amendment C339ggee subject to the following conditions:

1. Update the Instruction Sheet and Explanatory Report to ensure they correctly represent the mapping changes proposed by the amendment prior to exhibition.
2. Include in the Explanatory Report the strategic justification for the proposed rezonings of land in Lara.

The amendment must be submitted to the Minister for approval.

The authorisation to prepare the amendment is not an indication of whether or not the amendment will ultimately be supported.

Please note that [Ministerial Direction No. 15](#) sets times for completing steps in the planning scheme amendment process. This includes the council:

- giving notice of the amendment within 40 business days of receiving authorisation; and
- before notice of the amendment is given, setting directions hearing and panel hearing dates with the agreement of Planning Panels Victoria. These dates should be included in the Explanatory Report ([Practice Note 77: Pre-setting panel hearing dates](#) provides information about this step).

The direction also sets out times for subsequent steps of the process following exhibition of the amendment.

The Minister may grant an exemption from requirements of this direction. Each exemption request will be considered on its merits. Circumstances in which an exemption may be appropriate are outlined in [Advisory Note 48: Ministerial Direction No.15 – the planning scheme amendment process](#).

In accordance with sections 17(3) and (4) of the Act, the amendment must be submitted to the Minister at least 10 business days before council first gives notice of the amendment.

Please submit the amendment electronically using the Amendment Tracking System (ATS).

Privacy Statement
Any personal information about you or a third party in your correspondence will be protected under the provisions of the Privacy and Data Protection Act 2014. It will only be used or disclosed to appropriate Ministerial, Statutory Authority, or departmental staff in regard to the purpose for which it was provided, unless required or authorised by law. Enquiries about access to information about you held by the Department should be directed to the Privacy Coordinator, Department of Environment, Land, Water and Planning, PO Box 500, East Melbourne, Victoria 8002



OFFICIAL

If you would like further information, please contact Mark Gregory, Senior Planner, Department of Environment, Land, Water and Planning, on (03) 5226 4606 or email Mark.Gregory@delwp.vic.gov.au.

Yours sincerely



Kim McGough
Manager-Barwon South West
Regional Planning Services

19/ 05/ 2021

APPENDIX 2 – RESPONSE TO STRATEGIC ASSESSMENT GUIDELINES

Why is the amendment required?

The amendment is required to implement the findings of *Flood Risk Management Study – Lower Barwon River and Lower Moorabool River* (March 2019) and part of the *Bellarine Peninsula - Corio Bay Local Coastal Hazard Assessment* (Dec 2015) by updating the flood overlay maps.

The amendment is also required to modify the LSIO Schedule and FO Schedule currently contained within the Greater Geelong Planning Scheme as they do not conform with the Ministerial Direction on Form and Content of Planning Scheme.

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

The Amendment implements the following objectives from section 4 of the *Planning and Environment Act 1987*:

- (a) To provide for 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.
- (g) To balance the present and future interests of all Victorians.

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

The amendment is considered to result in an overall net community benefit in terms of its environmental, social and economic effects. Specifically, the amendment will introduce and update planning scheme controls that trigger a planning permit for relevant buildings and works. This includes new dwellings, subdivision and earthworks that alter natural ground levels. The Responsible Authority and floodplain management authority will be able to assess planning applications in areas identified as potentially vulnerable from hazards such as flooding, inundation, sea level rise and overland storm water flow.

The Amendment is expected to have positive economic and social benefits, as flooding, inundation and overland flow of storm water can result in significant costs for the community and the State. It can severely disrupt communities and in extreme cases, cause extensive damage to public and private property, agricultural losses, personal hardship and potential loss of life. The Amendment has positive economic and social benefits by identifying areas where planning permit assessment can reduce these risks.

Does the amendment address relevant bushfire risk?

The amendment has no impact on existing bushfire risk.

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

The Amendment is consistent with the Ministerial Direction on the Form and Content of Planning Schemes under section 7(5) of the Planning and Environment Act 1987.

The Amendment is affected by Ministerial Direction No. 11 - Strategic Assessment of Amendments under section 12 of the Planning and Environment Act 1987 and complies with this direction.

The Amendment is affected by Ministerial Direction No. 15 - The Planning Scheme Amendment Process and complies with this direction.

How does the amendment support or implement the Planning Policy Framework?

39. The proposed amendment has been assessed against the objectives and strategies of the Planning Policy Framework, in particular:

Clause 11 Settlement - identifies that planning for settlements, must have regard to health and safety. The Amendment supports this principle by documenting the extent of flooding and the degree of risk from its impacts by using the FO for areas that are at risk of faster flood flows and depths and the LSIO for overflow areas.

Clause 11.02-1S Supply of urban land – identifies that Planning for urban growth should consider the limits of land capability and natural hazards and environmental quality. The amendment implements this clause by identifying land that is subject to the natural hazards of flooding and intense rainfall events.

Clause 11.03-2S Growth areas – requires planning to respond to climate change and increase environmental sustainability. The amendment implements this clause by introducing updated planning controls that will ensure new development, subdivision and works proceeds in a manner that is compatible with flood risk.

Clause 12.02-1S Protection of the marine and coastal environment – including the objective:

- To protect and enhance the marine and coastal environment.

Clause 12.02-1L Protection of coastal areas – including strategies to:

- Restrict development on primary dunes.
- Set use or development back from coastal areas, estuaries and coastal wetlands to provide a buffer that is adequate to accommodate coastal recession and the landward migration of coastal wetland vegetation communities such as mangroves and salt marshes.
- Minimise the loss of, and wherever possible increase, public access to the foreshore environment.
- Limit the number of stormwater outlets to the coast.

Clause 12.02-2S Marine and coastal Crown land – including the objective:

- To ensure the use and development of marine and coastal Crown land is ecologically sustainable, minimises impacts on cultural and environmental values, and improves public benefit for current and future generations.

Clause 12.03-1S River and riparian corridors, waterways, lakes, wetlands and billabongs – identifies the need to protect and enhance waterway systems including river and riparian corridors, waterways, lakes, wetlands and billabongs.

Clause 12.03-1R Rivers of the Barwon – Identifies the need to maintain and enhance the natural landscape, biodiversity, cultural and social values, and the Traditional Owner living cultural heritage values of the Rivers of the Barwon, comprising of the Barwon (Parwan), Leigh (Waywatcurtan), Moorabool (Moorroobull) and Yarrowee (Yarrowee) Rivers, their tributaries and wetlands.

Clause 12.03-1L River corridors, waterways, lakes and wetlands – including strategies to:

- Ensure that land use and development avoids isolating wetlands and provides for connective water flows and vegetative links.
- Ensure waterways and wetlands are not drained or adversely affected as a result of development.

Clause 13 Environmental Risks and Amenity – identifies that planning should aim to avoid or minimise natural and human-made environmental hazards. The amendment implements this clause by introducing new and updated planning controls that will ensure new development, subdivision and works proceed in a manner that minimises exposure to environmental risks associated with flooding.

Clause 13.01-1S Natural hazards and climate change – identifies the need for adaptation response strategies for existing settlements in risk areas to accommodate change over time. The amendment assists in implementing this by providing more accurate information to guide subdivision and development in responding to risks associated with flooding.

Clause 13.01-2S Coastal inundation and erosion – the amendment achieves the policy objective “to plan for the potential coastal impacts of climate change” and implements the following strategies:

- Plan for sea level rise of not less than 0.8 metres by 2100 and allow for the combined effects of tides, storm surges, coastal processes and local conditions such as topography and geology when assessing risks and coastal impacts associated with climate change.
- Ensure that land subject to coastal hazards is identified and appropriately managed to ensure that future development is not at risk.
- Avoid development in identified coastal hazard areas susceptible to inundation.

Clause 13.03-1S Floodplain Management - identifies that planning is 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.
- Floodplain areas of environmental significance or of importance to river health.

The amendment supports these objectives by accurately identifying the floodplains and flood prone areas and ensuring that planning controls that seek to protect the environmental functions of the floodplain are accurately applied.

Clause 13.03-1L Floodplain management – including the strategy to:

- Discourage land use and development in floodplains where flood function may be impaired.

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

The Amendment makes proper use of the Victorian Planning provisions in so far as:

- Amending, updating and applying the schedule to the Floodway Overlay, which is the accepted tool to identify and manage areas susceptible to flooding.
- Amending, updating and applying the schedule to the Land Subject to Inundation Overlay, which is the accepted tool to identify and manage areas susceptible to inundation.
- Applying the Special Building Overlay, which is the accepted tool to identify and manage areas susceptible to overland flow.

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

The Amendment has been prepared in consultation with the Corangamite Catchment Management Authority (CCMA). The extent of the overlays and the configuration of the mapping included in this Amendment have been prepared in consultation with the CCMA. Other agencies will be consulted via the exhibition process of this amendment.

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

The amendment does not have any significant impacts on the transport system.

Resource and administrative costs

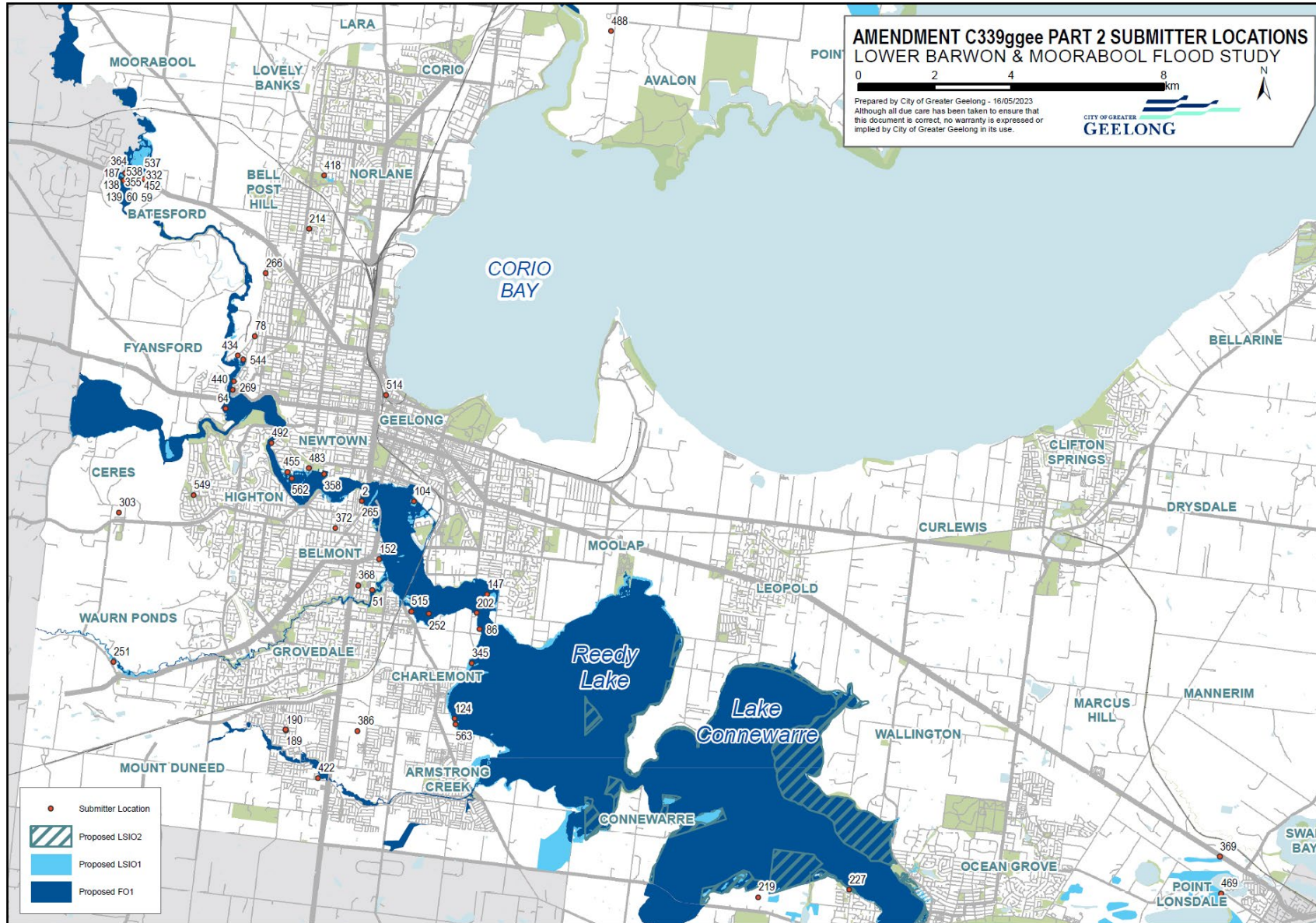
What impact will the new planning provisions have on the resource and administrative costs of the responsible authority?

The proposed Amendment will trigger planning permit applications as a result of the new planning controls. However, the Amendment will not pose unreasonable resource and administrative costs on Council in its normal capacity as the Responsible Authority. It is further considered that these increased demands will be offset by the improved performance of the planning scheme and the potential for reduced demands on Council's emergency management response and flood recovery resources.

APPENDIX 3 – LIST OF SUBMITTERS AND THEME BASED SUMMARY

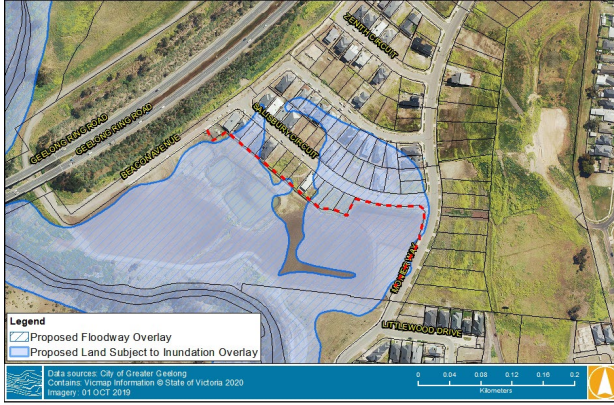
Submitter					Themes							
No.	Surname	First name	Suburb	Type	No History of flooding	Drainage	Topography	Recent Development Works	Challenges Flood Modelling	Impact on Insurance	Impact on property values	Complex needs investigation
2	Adams	Amber	Belmont	Objection					X		X	
51			Geelong	Objection	X		X		X			X
59	Bradley	Aaron	Batesford	Objection						X	X	X
60	Bradley	Justine	Batesford	Objection					X	X	X	X
64	Brandt	Conrad	Fyansford	Objection	X		X			X	X	X
78	Cardno TGM	Chris Marshall	Geelong	Objection				X				X
86			Charlemont	Objection			X	X				X
104			Belmont	Objection		X	X					
123	Department of Transport		Geelong	Comment								
124	Devlin	Linda	Charlemont	Supports			X					
138	Edge	William	Batesford	Objection				X		X	X	
139	Edge	Ann	Batesford	Objection			X	X		X	X	
147			St Albans Park	Objection	X		X					
152			Geelong	Objection	X		X	X		X	X	
187	Greville	Marcus	Batesford	Objection			X		X	X	X	
189			Mount Duneed	Objection	X							
190	Griffiths	Meg	Mt Duneed	Objection	X						X	
202			Charlemont	Objection				X				
214			Bell Park	Objection						X	X	
219			Connewarre	Objection								
227	Hollingsworth	Frank	Barwon Heads	Objection	X				X			
251	Johns	Malcolm	Waurm Ponds	Objection	X						X	
252			Charlemont	Acceptance								
265	Knight	Catherine	Belmont	Objection		X			X			
266	Konstadinopoulos	Vasilios and Tasia	Hamllyn Heights	Objection								
269	KVA Design	Kane and Denise Airey	Fyansford	Objection		X		X				
277	Lin	Wei	Blackburn	Objection							X	
303	McCann	Gregor	Ceres	Objection					X			
321	Melbourne Water		Melbourne	Support								
332	Moore	Laurence	Batesford	Objection						X	X	
345			Charlemont	Comment								
350	Nguyen	Henry	Point Cook	Comment								
355			Batesford	Objection							X	
358	NovoPlanning Pty Ltd	Kirsten Kilpatrick	Newtown	Objection						X	X	
364	Ollis	Judy	Batesford	Objection	X					X	X	
368	Palmer	Alistair	Belmont	Objection			X	X	X			
369			Point Lonsdale	Objection								
372	Parrot	Jennifer	Belmont	Objection								
386	Pivot Homes		Torquay	Objection		X		X				
418			Norlane	Objection		X		X				
434	Sawyer	David	Fyansford	Objection					X	X	X	
440	Schulz	Colin & Lorraine	Fyansford	Objection			X		X	X		
442			Freshwater Creek	Objection			X	X	X			
452			Batesford	Objection			X					
455	Sincock Planning	Paul & Russell Malishev	Geelong	Objection			X	X				
469			Queenscliff	Objection			X		X			
483	Taylor	Jo	Newtown	Comment								
488			Avondale Heights	Objection			X		X			
492			Newtown	Comment								
514	Wadawurrung		Geelong	Support								X
515	Wang	Jinfeng	Charlemont	Support	X							X
537	Wilson	Ricky	Batesford	Objection	X	X				X	X	
538	Wilson	Angela	Batesford	Objection						X	X	
544	Wishart	Ian	Inverleigh	Objection								
549	Wong	Stuart	Highton	Objection						X	X	
561	Corangamite CMA		Colac	Support								
562	Late	Tract Consultant		Objection					X			
563	Late	Collie Town Planners		Support								

APPENDIX 4 – MAP OF SUBMITTERS TO C339 PART 2 BY NUMBER





APPENDIX 5 – EXTRACTS FROM THE “REVIEW OF COMPLEX SUBMISISON – LARA, AVALON & FYANSFORD JULY 2022”

Sub No.	Surname	Property Address	Suburb (Growth Area)	Reviewed by:	Proposed Planning Control	Summary of Submission	Response	Change to maps?
78			Fyansford	Water Technology Consultants		<p>Submitter 78 Cardno TGM lodged an objection related to land known as the Heights Estate at 355 Church Street, Herne Hill. They state: On 19 August 2014 Planning permit PP-107-2012/A was issued for the subdivision of land at 355 Church Street, Herne Hill in accordance with endorsed plans which includes the area of land now proposed for a Flood Overlay. Since then, the Heights Estate subdivision has now been completed. The planning permit for the subdivision of this land was supported by the Heights Development Flood Impact Assessment 2017 developed by BMT WBM. The Assessment determined that the subject land is not flood prone under development conditions... we are therefore surprised to now see that part of this land is now deemed to be flood prone as determined by this amendment.</p>	<p><u>Summary of response (see Water Technology Memo 12 May 2022 for full comments):</u></p> <p>The Lower Barwon and Lower Moorabool Flood Study was based on topographic information derived from aerial survey collected in January 2017. At this time “The Heights” estate had commenced some earthworks but filling of this area had not begun. This means that raised ground levels resulting from the development were not incorporated into the hydraulic modelling.</p> <p>The 1% AEP design flood level and corresponding flood extent on which the Land Subject to Inundation Overlay is based is around 8.3 m AHD in this area.</p> <p>It is understood that ground levels within the lowest sections of the estate have now been raised. Approved plans provided to council indicate that ground levels within Salisbury Circuit and the sections shown to be flooded under the exhibited overlay have been raised to at least 9.4 metres AHD within the land on the southern side of Salisbury Circuit.</p> <p>This means that site lots within the Heights Estate are now higher than the applicable design flood level and the associated residential lots would not be subject to inundation during the 1% AEP design flood.</p> <p>It is evident that the exhibited overlay does not align with the likely flooding extent at this location based on the fill that has been placed in that area.</p> <p>It is therefore recommended that the exhibited LSIO map be clipped to the extent of filling within the Heights development. The Figure 4 below shows the exhibited clipped flooding extent at the location (dashed red line).</p>	<p>Yes - exclude from overlay</p> <p>See Map 8 (Note: see updated Map at Figure 3 of Part A submission)</p>

Sub No.	Surname	Property Address	Suburb (Growth Area)	Reviewed by:	Proposed Planning Control	Summary of Submission	Response	Change to maps?
							 <p>Figure 3 Recommended Flood Extent Limit</p>	
434		Salisbury Circuit	Fyansford	Water Technology Consultants		Raised questions and concerns about the extent of the overlays in the area which is a relatively new housing estate next to the Moorabool River.	<p><u>Summary of response (see Water Technology Memo 12 May 2022 for full comments):</u> See response above to submission 78.</p>	Yes - exclude from overlay See Map 8 Note: see updated Map at Figure 3 of Part A submission)
440		Monier Way	Fyansford	Water Technology Consultants		Raised questions and concerns about the extent of the overlays in the area which is a relatively new housing estate next to the Moorabool River.	<p><u>Summary of response (see Water Technology Memo 12 May 2022 for full comments):</u> The Lower Barwon and Lower Moorabool Flood Study was based on topographic information derived from aerial survey collected in January 2017. At this time “Gen Fyansford” estate had commenced earthworks but extensive filling of this area had not begun. This means that raised ground levels as part of the development were not incorporated into the modelling.</p>	Yes - exclude from overlay See Map 8 Note: see updated Map at Figure 3 of Part A submission)

Sub No.	Surname	Property Address	Suburb (Growth Area)	Reviewed by:	Proposed Planning Control	Summary of Submission	Response	Change to maps?
							<p>The 1% AEP flood level and corresponding flood extent on which the Land Subject to Inundation Overlay is based is around 8.15 m AHD in this area.</p> <p>It is understood that ground levels within the lowest sections of the estate have now been raised. Approved plans provided to council indicate that ground levels within Monier Way and the sections shown to be flooded in the exhibited C339 overlay have been raised to 9.3 – 9.6 metres AHD along Monier Way. Figure 6 shows a side-by-side comparison of the existing and flood-study topography, highlighted where the lots have been filled. Figure 7 shows a comparison of the existing and exhibited LSIO layers.</p> <p>This means that Gen Fyansford land levels are now higher than the applicable flood level and the associated residential lots would not be subject to inundation in a 1% AEP design flood.</p> <p>It is therefore recommended that the exhibited LSIO map be clipped to the extent of filling within this area of development. The Figure 8 below shows the exhibited clipped flooding extent at the location (dashed red line).</p>	

Sub No.	Surname	Property Address	Suburb (Growth Area)	Reviewed by:	Proposed Planning Control	Summary of Submission	Response	Change to maps?
							 <p>Figure 4 Recommended Floodway and Land Subject to Inundation Clip Line</p>	
269		The Parade	Fyansford	Water Technology Consultants		<p>Raised questions and concerns about the extent of the overlays in the area which is a relatively new housing estate next to the Moorabool River.</p>	<p><u>Summary of response (see Water Technology Memo 12 May 2022 for full comments):</u></p> <p>The topographic information on which the Lower Barwon and Lower Moorabool Flood Study was based on aerial survey collected in January 2017. Ground levels on the subject property are understood to range between 7.1 – 7.6 metres AHD. The 1% AEP design flood levels and corresponding flood extent on which the Land Subject to Inundation Overlay is based, are around 8.15 m AHD in this area. The topographic data is shown in Figure 10. Figure 11 shows a comparison between current and exhibited flood overlays.</p> <p>At the time of the flood study the “Gen Fyansford” estate had commenced earthworks but filling of this area had not occurred. This means that raised ground levels as part of the development were not incorporated into the modelling or extent mapping. A detailed review of construction plans indicates that flood protection works</p>	<p>Yes - exclude from overlay See Map 8 Note: see updated Map at Figure 3 of Part A submission)</p>

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							<p>within the estate do not extend to the subject property. The Gen Fyansford estate is filled above the applicable 1% AEP flood level in order to provide flood protection to all residential lots.</p> <p>Whilst it is acknowledged that the existing flood modelling within this section of the floodplain does not account for filling of the Gen Fyansford estate, the impact of filling is likely to be localised and only provide flood immunity to the areas shown to be filled above the applicable flood level. Having regard to this it is recommended that the LSIO and FO extent in this location be clipped to match the filled area as shown in Figure 12.</p>  <p>Figure 5 Recommended Floodway and Land Subject to Inundation Clip Line</p>	