

PLANNING PANELS VICTORIA

IN THE MATTER OF *AMENDMENT C384 TO THE MELBOURNE PLANNING SCHEME*

Part B submission made on behalf of Melbourne Water Corporation

Introduction

1. The Part B submissions are made on behalf of Melbourne Water Corporation (Melbourne Water) and are to be read together with the Part A submissions and attachments, filed 3 October 2022 together with Melbourne Water's updated ordinance provisions.
2. The Part A submissions and related documents were prepared jointly by Melbourne Water and Council. The Part A submissions responded to the Panel's directions of 6 September 2022 and addressed the following key considerations:
 - (a) the background to the Amendment including a chronology of events and related planning scheme amendments;
 - (b) the strategic context and assessment of the Amendment, including;
 - (i) an explanation of how the Amendment aligns with flood protections standards, including State Planning Policy as it relates to planning for sea level rise;

- (ii) how the flood modelling underpinning the Amendment and the Overlay maps was carried out, what standards were followed and what assumptions were made; and
 - (iii) an explanation of why the Council has only addressed flooding and inundation issues in certain areas of the municipality;
 - (c) a summary of the issues arising from the submissions made to the Amendment; and
 - (d) changes made in response to submissions.
3. The Part A submissions outlined the role of Melbourne Water and its status as a determining referral authority under the LSIO and SBO 1 and 2 in Melbourne under Clause 66.03.
4. The Part B submissions expand upon those matters and focus upon the matters in contention and the issues raised expressly by the Panel. In particular, the Part B submissions respond to the key issues identified for consideration in the Panel's directions of 6 September 2022, including:
- (a) A response to the substantive matters raised in submissions;
 - (b) Any further changes proposed in response to the evidence presented by the parties; and
 - (c) Melbourne Water's final position in relation to the Amendment.
5. Melbourne Water will also address the more specific matters identified at paragraph 17 of the Panel's directions, in this submission and through the oral evidence of the independent expert witnesses called to give evidence on behalf of Melbourne Water and in the closing submissions of Melbourne Water.

6. In addition to these submissions, Melbourne Water relies upon the evidence of Ms Peterson, whose analysis affirms the sound strategic and policy justifications for the Amendment, and more particularly, the specific controls.
7. Melbourne Water also relies upon the expert evidence of Mr Bishop, who has assessed the modelling as fit for purpose and provides a comprehensive analysis that supports this conclusion.
8. In summary, Melbourne Water's position on the Amendment is that it represents the culmination of a significant body of technical work undertaken over several years. That work is comprehensive, robust and reliable and provides a sound strategic and technical basis for the Amendment. The Part B submissions do not seek to address each of the submissions to the Amendment in detail but will respond to the subject matter thematically.
9. Melbourne Water has prepared a table which outlines the response to individual submissions which is provided with these submissions.

The flood modelling constitutes a proper basis for the Amendment

10. The existing SBO and LSIO mapping in Melbourne are dated. The SBO was last updated on 31 May 2001 via Amendment C012. The LSIO was last updated 10 February 2011 via Amendment C153.
11. The flood modelling that underpinned the introduction of the current planning scheme provisions is dated and has been superseded by the modelling that now underpins the planning controls in this amendment. It is imperative to update the LSIO and SBO to revisit the extent of the overlays in the Scheme so as to correspond with the extent of flooding identified in the more recently modelled flood information.

12. Melbourne Water relies upon the evidence of Mr Bishop in support of the modelling that underpins the Amendment.
13. Mr Cunningham, who is being called by the City of Melbourne also supports the modelling as reliable basis for the proposed SBO3 control, and attests the efficacy of each of the technical reports that underpin the Amendment.
14. Several submitters raise concerns with respect to the modelling, such as:
 - (a) Whether the modelling is accurate and reliable;
 - (b) Whether the modelling provides a sound basis for the extent of the overlays;
 - (c) Whether it is appropriate to rely on the modelling given further work needs to be undertaken with respect to climate change inputs; and
 - (d) Whether the geographical extent of the modelling is sufficient to reliably inform related planning controls.
15. Melbourne Water submits that the evidence of Mr Bishop, and Mr Cunningham supports the modelling as a sound basis for the Amendment and that no matter has been raised in relation to the modelling that warrants delay in implementing the best available information about flood hazard into the Planning Scheme.

Is now the right time to update the controls?

16. Melbourne Water is required to undertake a range of statutory functions and responsibilities relating to floodplain management under the *Water Act 1989*.

17. It is the role of Melbourne Water to provide advice about flooding and controls on development to local councils and the community, to find out how far floodwaters are likely to extend. The proposed update of flood hazard mapping which is to incorporate updated mapping based on the best available information is consistent with Melbourne Water's statutory functions.
18. Melbourne Water considers that it is critical to update the Planning Scheme at this time to ensure that known flood risks are properly reflected in the applicable planning controls and communicated to landowners. It is important to consider the purpose of the flood mapping exercise in the strategic planning context, which is to ensure that flood risks are identified by planning controls.
19. The planning controls then trigger for landowners and responsible authorities a statutory planning process in which a subsequent assessment of site-specific risks associated with identified flood hazards is to be undertaken. It is not necessary, nor appropriate to achieve a 'counsel of perfection' in order to effectively and expertly implement the important hazard *identification* objective of defining flood overlay extents. In light of the purpose of the Amendment – as a planning marker to trigger further detailed consideration of flood risk – it is also entirely appropriate to adopt a level of conservatism in the modelling.
20. Melbourne Water's approach to the modelling is underpinned by a range of policy considerations that seek to ensure that the Planning Scheme is periodically updated on the basis of the best available information.
21. Melbourne Water submits that in substance, the timing of the Amendment ought not to be a contentious proposition because related information and data is constantly improving and the modelling and various flood studies are reliable and robust, albeit that they are qualified by their timing.

22. That qualification is ever-present in this type of rolling predictive modelling environment and cannot be remedied with finality as the data is periodically being updated.
23. There is no basis to delay the implementation of necessary improvements to the planning controls concerning flood hazard. It would be inappropriate to turn away from the extensive and comprehensive body of work that informs the technical aspects of the Amendment, particularly given the age of the existing and outdated flood mapping in the Planning Scheme.
24. It must also be emphasised that by its very nature, the data associated with climate change impacts is evolutionary and consequently, will never be 'perfect'. There will always be further work to be done to inform an understanding of flood risk – that is a consequence of the inherent uncertainty of climate change predictions, in respect of which certainty can never be achieved.
25. As is the case with many measures to address risks arising from environmental hazards, floodplain modelling practice is not frozen in time. Floodplain modelling relies upon past modelling and continuous improvement to models. The flood models which underpin this Amendment were commenced and undertaken in accordance with Australian Rainfall and Runoff 1987 (**ARR 1987**). However, even though there was subsequent change in modelling methodology by virtue of Australian Rainfall and Runoff 2019 (**ARR 2019**) it is noteworthy that ARR 2019 which is the current standard) does not as noted by Mr Bishop in his evidence, represent a 'step change' from the previous guidance found in ARR 1987. Rather, Mr Bishop has characterised the difference between ARR 1987 and ARR 2019 as an incremental improvement to the approach to flood modelling studies.

26. Both ARR 1987 and ARR 2019 expressly recognises that knowledge and information availability is not fixed and that future research and modelling will result in the generation of new information (see the preface). The ARR 2019 also expressly deals with the need to address uncertainty in estimation (at 2.8) and risks from inadequate data (at 4.3).
27. The *Guidelines for Development in Flood Affected Areas* make it clear that flood studies need to be updated periodically as they are dependent on the best available data, which is in turn influenced by many factors, including changes in land use, topography, longer record of flood data, and climate change.¹ The Guidelines encourage authorities to share information so that decision making is informed by the best available data.
28. This necessarily means that new mapping information should be implemented in the Planning Scheme and not set aside until better data is available. Where significant resources are invested in undertaking modelling and other technical work, it is imperative that it is recognised and acted upon in a timely way. Such an approach does not preclude future updates to the Planning Scheme, if and when updated data becomes available. On the contrary, this approach is precisely what is required, and is supported by the guidance provided in *Planning Practice Note 12: Applying the flood provisions in planning schemes, a guide for councils*.

The studies underpinning the Amendment

29. The flood studies that underpin the Amendment have been prepared by different consultants over different time periods. Each of the consultant authors

¹ See the Guidelines at [8].

are suitably qualified and experienced engineers. The work is of a high quality and demonstrates considerable expertise.

30. It must be recognised that there is inherent uncertainty in flood mapping, arising from a range of factors including limitations in data sources, difficulties in capturing real-life scenarios and the ever-changing climate and impacts of climate change.
31. There is no standard model for mapping flood hazards that applies uniformly across Victoria. Moreover, the Planning Scheme and P&E Act do not stipulate the regularity with which flood mapping must be updated.
32. The lack of a standard model for flood mapping has recently been highlighted by the Planning Institute of Victoria in public statements.
33. Melbourne Water acknowledges that there is merit in adopting a standardised model, but it is inappropriate to suggest that mapping should not be updated periodically on the best available data.
34. The planning authority should not delay implementation of measures directed to highlighting flood risk by waiting for a standardised model to be adopted. This is a task that would require extensive time and work to develop guidelines and to undertake updated mapping. Melbourne Water is working within the existing statutory and strategic framework to address flood hazard, in accordance with its statutory obligations and with community safety as the priority.

Factors in favour of updating the Planning Scheme now

35. Melbourne Water submits that the factors that weigh in favour of updating the Planning Scheme without delay are compelling.
36. The importance of updating the flood hazard maps to mitigate risk to life and property is underscored by the recent devastating floods throughout Australia. The existing maps are outdated and need to be updated to accurately convey areas that have actually been identified as prone to flood risk, and to ensure that the community is apprised of those risks and that permit applications can address those risks.
37. The Amendment is consistent with the statutory obligations of the planning authority to take into account significant effects the Amendment may have on the environment, or of the environment on any use or development permitted under the Planning Scheme, and to do all things necessary to encourage and promote the orderly and proper use, development and protection of land to give effect to the ‘economic, social and environmental sustainability of the municipal district, including mitigation and planning for climate change risks’ (section 12 of the P&E Act).
38. The Amendment is consistent with and implements the objectives of planning in Victoria to provide for the fair, orderly, economic and safe working, living and recreational environment for all Victorians and visitors to and to balance the present and future interests of all Victorians (section 4 of the P&E Act). Further, the Amendment is also consistent with the obligation to implement the objectives of the planning framework established by the P&E Act to ensure that the effects on the environment are considered and provide for explicit consideration of social and economic effects when decisions are made about the use and development of land (section 4(2) of the P&E Act).

39. The approval of the Amendment, notwithstanding that the technical work and modelling is periodically refined over time, is consistent with the purpose of the LSIO and SBO controls. The head clauses of the LSIO (cl 44.04) and the SBO (cl 44.05) are directed to the need to identify flood prone land and to minimise the potential of flood risk to life, health and safety. The controls are directed to and seek to ensure that the Planning Scheme identified flood prone land, and note the important role of the floodplain management authority in this process. The LSIO purposes refer to flood prone land *‘in a riverine or coastal area affected by the 1 in 100 (1 per cent Annual Exceedance Probability) year flood or any other area determined by the flood plain management authority’*. [Emphasis added].
40. Relevant state policies for natural hazard and climate change are directed to implementing risk-based planning for climate change in respect of the impacts of natural hazards (see cl 13.01-1S Natural hazards and climate change, which includes strategies *‘to respond to the risks associated with climate change in planning and management decision making processes’* and to *‘identify risk areas using the best available data and climate change science’*. Similarly, cl 13.03-1S Floodplain management includes the objective to assist the protection of *‘life, property and community infrastructure from flood hazard, including coastal inundation, riverine and overland flows’* and includes related strategies that seeks to *‘identify land affected by flooding, including land inundated by the 1 in 100 year flood event (1 per cent Annual Exceedance Probability) or as determined by the floodplain management authority in planning schemes.’*
41. The Amendment applies to significant areas of urban renewal, in which extensive high-density development is contemplated in the short, medium and long term. This only serves to highlight the importance of acting now to ensure

the most up to date information is conveyed to the community, to provide for a trigger to require a risk assessment and to ensure the best available data underpins land use and development decisions.

The technical work continues to evolve

42. The modelling outputs that underpin the Amendment is the best available information on flood risk and ought to guide risk management at this time. The modelling is reliable, notwithstanding that modelling practice and standards have evolved over time.
43. The technical work that underpins the Amendment, comprising flood analysis and a range of investigative studies, is direct to different parts of the municipality and identifies land that is subject to flood hazards of various magnitudes.
44. To the extent that the work that has been undertaken includes historical analysis, it would be wrong to regard it as faulty. Historic flood data is informative of itself as an element in the overall analysis.
45. The technical work builds upon historical data and standards relevant to that work at the time it was undertaken. Even more recent work will over time need to be revisited in light of changes to relevant standards, or updated LiDAR data, for example. That fact does not render the existing flood information deficient, incorrect or inaccurate.
46. Rather, it is appropriate and responsible to recognise that the current valid information will, with time, benefit from further refinement and improvement using the best available data then available. Contrary submissions reflect a fundamental misunderstanding about the nature of predictive analysis and the

need to revisit conclusions as new information becomes available on an ongoing basis.

47. As part of this process of continuous improvement, Melbourne Water across its region has a rolling program to improve flood hazard data, involving the creation, review and refinement of flood models. As new flood model data becomes available, Melbourne Water works with local councils to inform updated flood hazard mapping in the relevant catchments.
48. As noted above, as the technical work and various flood studies have advanced, relevant guidelines (such as ARR 2019) have come into wider use. The modelling work already undertaken has involved a significant time and financial investment by both Melbourne Water and Council. That completed work ought not to be disregarded as it remains relevant and informative. As further data is obtained and standards are updated over time, further work will be undertaken to align with the new criteria or information.
49. Melbourne Water and Council are aligned in their approach to the Amendment, and in jointly recognising that the Amendment will play an important role in providing the most up to date flood information to the community.
50. Other Panels have endorsed the approach adopted by Melbourne Water and Council, including Amendment C91 to the Moorabool Planning Scheme and reports prepared by the Victorian Auditor General's Office which have been critical of delays in implementing hazard mapping.

What do the experts say?

51. Ms Peterson supports the approach of the authorities to the Amendment. Ms Peterson referred at [87] to the objective in cl 13 Environmental risks and

amenity, that planning should prepare for and respond to the impacts of climate change, and noted that *related strategies reflect the shifting nature of projections regarding the effects of climate change and quantifying the potential effects*, including strategies that seek to ‘*identify at risk areas using the best available data and climate change science.*’

52. Ms Peterson observed at [85]:

Planning for climate change requires decision makers to act on evolving information. However, in land use planning where the development outcome will be in place for decades, deferring in the face of uncertainty can ‘lock in’ a greater risk outcome.

53. And further at [89] and [90]:

In this context, planning is a practical application of the precautionary principle, where the risk of climate change, including increased flooding, has been identified. The modelling assists in identifying where the potential for risk exists and applies controls to require a planning assessment to determine an acceptable response.

The policy direction is that action should be taken on the best available information. It does not necessarily mean that this process is a ‘single shot’ that will be fixed into the future. There is capacity for mapping to be updated and revised as the available information changes.

54. Ms Peterson concluded at [92] that *we must take steps now to plan for an inevitable future where flooding becomes an increasing reality.*

55. Accepting this approach as both correct and preferable, the veracity of the flood studies must be considered. The Panel can take a level of comfort that the body of work presented in support of the Amendment comprises a proper strategic and expert analysis that justifies the amended controls.
56. The studies have been prepared by several different expert consultancy firms with particular expertise and experience in hydrology and hydraulic modelling. . Mr Bishop provides a comprehensive analysis of the technical work and flood studies.
57. Key elements appraised by Mr Bishop include the following:

The modelling assumptions

- (a) The fundamental approach to flood modelling has not changed significantly over the last 10 -15 years, notwithstanding minor incremental changes in capabilities and practices.² The flood studies underpinning the Amendment were generally authored between 2015 and 2020. The flood studies rely to some extent on earlier information, however it is not unusual to rely on reports of this age provided they are checked for present purposes.
- (b) The modelling techniques applied to each catchment and used to inform the Amendment are, in Mr Bishop's expert opinion, all considered appropriate for mapping urban design flood extents and the development of planning flood overlays.³

² Compared to the previous decade commencing in the early 1990s in which there was a 'leap' in flood mapping technology comprising the widespread use of LiDAR for floodplain survey purposes and by reason of the shift from 1D to 2D numerical hydraulic models.

³ Page 22 of Mr Bishop's expert statement.

- (c) The various studies rely upon the ARR 1987 rather than the more recent 2019 update. However the majority of flood studies presently utilised in Australia rely upon the ARR 1987 and the change arising from the updated document is not, in Mr Bishop's view, likely to result in substantial changes to the predicted design flood risk such as to render the flood studies uninformative – they remain fit for purpose, as affirmed by the sensitivity analysis for Arden Macaulay and Moonee Ponds Creek (Engeny, July 2020).⁴ Re-running the modelling in accordance with ARR 2019 is, on balance, neither time nor cost effective given that the ultimate difference in outcomes is within reasonable tolerance and the use of ARR 1987 remains fit for purpose.
- (d) The storm condition assumptions include a planning horizon to 2100, allowing for a 0.8m sea level rise due to climate change and increased rainfall storm intensity of 18.5%. Mr Bishop endorses these assumptions, noting that the predicted climate change impacts are evolving:
- (i) The data input of 0.8m assumed sea level rise has been utilised since the *2008 Victorian Coastal Strategy* was implemented and reflects a high emissions scenario consistent with the precautionary principle and the *Victorian Marine and Coastal Policy* (2020);
 - (ii) The future predicted impacts of climate change on rainfall is less certain than sea rise predictions and the ARR 2019 endorses the value of 18.5% based on 5% rainfall increase for every 1 degree of temperature rise to 2100.

⁴ Ibid.

- (iii) As noted by Mr Bishop, it is prudent and logical to consider the impacts of climate change on storm events as well as sea level rise and consequently, the appropriate Nominal Flood Protection Level needs to be determined by reference to appropriate freeboard levels.
- (e) Mr Bishop considers that the grid resolution applied variously to different catchments (2m, 3m, 4m and 10m) is appropriate and there will not be any discernible difference between the accuracy or reliability of related model outputs.⁵ The use of the TUFLOW HPC Engine with sub-grid sampling for modelling the lower Yarra River Catchment was verified by reference to the TUFLOW classic model and was found to be a better fit than the classic model results compared to historic levels.⁶

The modelling methodology

- (f) Mr Bishop affirmed the appropriate use of the lumped rainfall-runoff method in preference to the Rain-on-Grid method, on the basis that the variations in outputs are minor and both methods are well utilised across Melbourne and fit for purpose.⁷
- (g) In terms of the mapping method and outputs, Mr Bishop supported the method set out in the Engeny (November 2020) study on overlay delineation, as appropriate and in line with industry practice for flood mapping.

⁵ Pages 26 and 27.

⁶ Page 27.

⁷ Ibid.

- (h) Mr Bishop also endorsed the use of the LSIO and SBO for the orderly management of flood risk within urban areas, noting that they do not dictate land use and development outcomes but provide for a trigger that requires consideration of flood risk through the referrals process. Site specific flood conditions will be determined at the planning permit application stage.
58. Melbourne Water submits that the modelling provides a sound basis for the flood mapping included in the Amendment. Mr Cunningham's review of the flood studies also affirms this proposition.

Do the specific concerns raised in submissions have merit?

59. Mr Bishop provides a detailed response to submissions that is not proposed to be repeated here.
60. Mr Bishop's evidence demonstrates that the modelling methodology is fit for purpose, notwithstanding that there have been changes to standards over the period during which the flood studies have been undertaken.
61. In essence, the application of the ARR 2019 standard, as one example, makes no material difference to the outcomes of the modelling and Melbourne Water will continue to verify and affirm the findings of the modelling as it continues to undertake further work.
62. It is one thing to point out that the most recent standard was not applied, or the modelling methods between catchments were slightly different, however if such issues are to be considered relevant there must be a real and substantive difference in the modelled outcomes – there must be a real consequence arising from the identified issue. On the contrary, Mr Bishop's evidence demonstrates

that differences in methodology advanced by other parties are likely to be minimal in terms of ultimate outcomes and within freeboard allowances.

63. The submissions and evidence of the submitter parties' together amount to a criticism that the modelling has been undertaken on a basis that is too conservative. Melbourne Water submits that a level of conservatism is entirely appropriate in dealing with subject matter that has the potential to impact life, property and the environment. Assumptions with regard to climate change are also consistent with state policy as noted above. Any other approach would be contrary to the precautionary principle and the policy framework that underpins Melbourne Water's statutory obligations with respect to flood risk management. A level of conservatism is also appropriate in light of the consistently underestimated impacts of climate change.
64. The proposed controls seek to ensure that permit applications trigger the referral process to allow for consideration of the flood risk in respect of a given parcel of land – the controls do not dictate land use or development outcomes but require consideration of the flood risk conditions in planning for land use and development.
65. The evidence of Mr Swan seeks to undermine the flood modelling and is highly critical of Melbourne Water's approach. Mr Swan acknowledges that *from a risk perspective, the adoption of an overlay that is likely to be larger than the real flood extent is considered acceptable provided it is not significantly outside the realms of likely inundation.*⁸
66. Melbourne Water submits that whilst the modelling adopts a level of conservatism, that is an appropriate approach given the nature of the subject matter as one that poses a real risk to life and property. The assumptions

⁸ At page 18.

included in the modelling have been comprehensively analysed and are supported by Mr Bishop and Mr Cunningham, experts with significant experience and expertise.

67. Mr Swan criticises the modelling and the general approach adopted in the Amendment on the basis that the flood mapping and proposed controls will render land undevelopable. The Amendment requires a permit application to be referred to Melbourne Water so that flood risk can be assessed and design solutions resolved, if possible.
68. The terms of the Amendment expressly seek to *ensure that development can be permitted where risk to life and property from flooding can be reduced to an acceptable level* (see the objectives of the overlay schedules). This objective in particular is expressed in facilitative terms and Melbourne Water does not accept the proposition that it fails to exercise discretion where appropriate, in terms of land use and planning outcomes.
69. Having said that, the Victorian Flood Guidelines set out the parameters to be applied to the assessment of flood risk and a degree of caution is warranted in departing from the guidance contained therein. The Victorian Flood Guidelines are premised on extensive research and represent a State level response threshold that ought to be applied unless there is a sound evidentiary basis for adopting an alternative course. Melbourne Water does not accept the criticism of Mr Swan to the effect that it adopts an overly rigid or strict approach to development outcomes in flood affected areas.
70. Mr Beardshaw's evidence is expressed at a high level and does not descend into matters of detail. Mr Beardshaw appears to express the view that modelling the basis of a pump failure scenario is erroneous and renders the

modelling theoretical. The pump failure scenario was adopted for the Arden Macaulay Precinct and Moonee Ponds Creek catchment assessment.

71. There can be no doubt that pumps play an important role in controlling flooding in that catchment. The pumps enable the discharge of flow from low lying areas into Moonee Ponds Creek. Pump infrastructure can fail. Due to the significant flood and safety consequences that would arise if the pumps failed (particularly in an urban renewal area where significant increases in population are expected) Mr Bishop has considered that it is reasonable for the purpose of setting the extent of planning scheme flood overlays to make this assumption.
72. The pump failure assumption provides for a safer residual hazard profile. The overlays act as a trigger for planning referral. The floodplain authority retains the discretion to consider what floor heights to apply and other mitigation measures and whether the pump failure scenario is appropriate when assessing the planning application.
73. The evidence of Professor Coombes concludes that the modelling is uncertain and unreliable. Melbourne Water does not accept this proposition. Mr Coombes asserts that the use of ARR 1987 as opposed to the 2019 update gives rise to a *profound uncertainty*.⁹
74. This is to be contrasted with the findings of Mr Bishop that the differences in outcomes arising from the use of ARR1987 as opposed to the ARR 2019 were negligible and did not warrant re-modelling the catchments.

⁹ At page 21.

Future reform program and other technical work

Future modelling reform program

75. Almost relentless flooding events have occurred along Australia's east coast over the past few months, many of which have been serious, dangerous and highly consequential in terms of impact to life and property.
76. Victoria continues to suffer heavy rainfall associated with a third straight summer of La Nina weather patterns, with further rainfall expected and flooding in low level areas occurring across the region. Melbourne Water anticipates increased heavy rainfall events and faster runoff through urban areas as developed areas have greater impermeability, leading to increased runoff.
77. Working from 2016 to prepare flood modelling outcomes into new climate change-ready flood information (July 2021 release), Melbourne Water has adopted the prevailing flood, climate change science and hydraulic engineering techniques, data and methods.
78. This July 2021 data is the basis for the Amendment and provides the scientific data on which all statutory planning and building decisions in Melbourne have been made since its release.
79. Melbourne Water is required by the Flood Management Strategy Port Phillip and Westernport, Action Plan 2021 – 2026, to take action to incorporate into the Planning Scheme the best practice climate change modelling. This action is led by Councils and Melbourne Water, with support from DELWP.
80. Melbourne Water is commencing a new Climate Change-Ready Flood Information and Modelling program across the entire Melbourne Metropolitan area, consistent with its important function to undertake flood (hydraulic)

modelling under Part 4, Division 10 of the *Water Act* 1989 and its obligations under the *Climate Change Act* 2017.

81. The modelling is to include a new and critically important element, in that the scale of the flood modelling will be undertaken at a local government area (or municipality wide scale). This is distinct from the current catchment or sub-catchment modelling approach.
82. Melbourne Water anticipates that the flood modelling and flood study projects could be faster to complete, while still providing important flood risk and mitigation information.
83. More current, accurate flood information will be generated to ensure that the Planning Scheme remains up to date. The new program will use the latest Technical Specifications adopted by Melbourne Water and the ARR2019 specifications (as updated from time to time) as well as the most up to date modelling inputs, e.g. LiDAR data. Melbourne Water proposes to commence engagement on the modelling program with local councils, including Council once the Panel Report has been released in respect of the Amendment.
- 84.
85. Further modelling for the City of Melbourne is proposed and it is anticipated that updated flood information will be available within 2 to 3 years. Until delivery of revised data from future models, the flood data and information from the joint '*City of Melbourne Flood Model 2021*' (21 July 2021), remains the best available scientific and engineering basis for statutory decision making.

Consequence of this work for the Amendment

86. The new rolling modelling program does not abrogate the need for the Amendment, nor does it undermine the existing modelling.
87. On the contrary, the program represents an approach that seeks to ‘catch up’ with this Amendment.
88. There is a need to update the Planning Scheme now to ensure that permit applications within increasingly flood prone locations are referred to Melbourne Water (and as necessary Council) for its consideration as a determining referral authority. It is critical to observe that there is no future modelling scenario when climate change risks are evolving and increasing that will result in the overlay areas *reducing* in size, or a reduction in the risk of flooding.
89. The referrals process is essential for the protection of the community.
90. There is no obligation upon the responsible authority to implement the recommendations of an agency which may be given notice pursuant to section 52 of the P&E Act. Councils can and do regularly disregard Melbourne Water’s advice made in accordance with the general referral power where the land in question is not affected by an SBO or LSIO.
91. Consequently, the Amendment is critical to ensure that land at risk of flooding is identified in the Planning Scheme, notwithstanding that the future work described above will refine and improve the modelling on a periodic basis.

Amendment C407 alignment and response to recommendations

92. The Part A submission sets out the background and purpose of Amendment C407 to the Planning Scheme. Amendment C407 was gazetted on 28 July

2022, rendering submissions supporting the concurrent consideration of the two amendments effectively redundant.

93. The urban renewal of the Arden precinct is reliant upon the delivery of major drainage and water storage infrastructure. The State Government will play a critical role in the delivery of drainage infrastructure, the cost of which will be significant. Related works and land acquisition for an Integrated Stormwater Management and Open Space will be funded as part of the Development Contributions Plan in addition to an Urban Renewal Cost Recovery Scheme process.
94. The timing of the delivery of drainage infrastructure is a topical issue. The Arden Structure Plan contemplates development around the train station initially, with drainage works that impact land in the north of the Arden precinct to be potentially delivered in the mid 2030s. It is important to recognise that the timing of the provision of drainage works and infrastructure is a matter that remains to be funded and the precise timing of the delivery of drainage infrastructure remains uncertain at this time.
95. Any earlier construction of the extensive drainage infrastructure required for Arden's urban renewal would give rise to funding issues that would need to be resolved by the State government.
96. In this context, it is both appropriate and critical to proceed with the Amendment in order to apply the current flood mapping to the renewal precinct. This will ensure transparency and the early provision of flood related information to developers, landowners and potential purchasers of land. As noted below, the Amendment seeks to implement flood mapping and controls that align with the existing advice provided by Melbourne Water and Council's MBS.

97. The Amendment does not seek to ‘align’ with the future form and layout for the Arden precinct as set out in the Structure Plan and related documents. Rather, the Amendment seeks to introduce flood mapping on the basis of the *existing conditions* in Arden. The Amendment has not sought to pre-empt future development outcomes, to rely on as yet unbuilt infrastructure or wait for further additional modelling to be completed before updating the Planning Scheme. It is emphasised that the precise location of the Integrated Stormwater Management Open Space (ISMOS), the most significant drainage infrastructure within the urban renewal precinct could be modified, its scale and form varied and the timing of its provision is uncertain.
98. During the course of the Standing Advisory Committee hearing in respect of Amendment C407, there was considerable debate about the proposed location of the ISMOS. The Arden Structure Plan initially located the ISMOS further to the north of the Arden precinct at the lowest land point. The amendment proposed to locate the ISMOS further to the south for a range of reasons, including important planning considerations that were unrelated to flooding. Hydrology evidence led by landowners who opposed the utilisation of their land for infrastructure supported the location of the ISMOS set out in the draft version of the Arden Structure Plan. Other hydrology experts supported the proposed location (being the location identified in the gazetted Structure Plan). The experts also expressed disagreement about whether the hydrology modelling was sufficiently certain and reliable.
99. The Committee recommended the revision and refinement of the drainage strategy by the VPA and Melbourne Water.¹⁰ Melbourne Water understood the recommendation to be directed towards updating, reviewing or re-running the

¹⁰ Page 50.

modelling. The modelling will be updated as part of the rolling reform program.

100. That work was not commenced during the limited time between receipt of the Committee's report and the approval by the Minister of Amendment C407.

Amendment C417

101. Amendment C417 has been prepared by the City of Melbourne, to implement the land use and built form objectives of the Macaulay Structure Plan 2021.
102. Melbourne Water understands that the Amendment has not yet received authorisation. Melbourne Water defers to the Council on the status of this Amendment and its relationship to this Amendment.

Transitional provisions are unnecessary

103. The proposed planning controls do not seek to introduce transitional provisions in respect of planning permit applications that are under assessment at the time the Amendment is gazetted.¹¹ The purpose of transitional provisions is so that applications for planning permits that have already been lodged are not required to comply with the new planning scheme requirements.

¹¹ There are other circumstances in which transitional provisions may generally apply, such as where an amendment is sought to a planning permit after gazettal of the Amendment, or where a planning permit has been sought in respect of some stages of development but not others.

104. In general terms, fairness may require the application of transitional provisions to the introduction of planning controls that affect the development potential of land, or which have the potential to impact the cost of development. It is often argued in favour of transitional provisions, that developers who have purchased land based on the planning controls applicable at the time have a reasonable expectation that they will be able to develop the land in accordance with those controls. It is readily acknowledged that as a matter of principle, and in balancing the need to instil confidence in the planning system such an approach is a fair and reasonable outcome.
105. However, it must be recognised that most planning controls deal with, or regulate aspects of land use and development that does not touch upon serious issues relating to the need to protect life and property, such as those considerations that arise in flood planning and hazard management.
106. It may be relatively inconsequential to defer the application of a Design and Development Overlay that deals with pure urban design matters like height and setbacks to permit applications made at the time the new control is gazetted, or for the amendment of existing permits, for example.¹² As a matter of principle, it is a significantly different proposition to suggest that critical considerations of public safety can be so readily waived for any new development, even where a permit application has been prepared in good faith on the basis of existing planning controls.
107. Knowledge of the Amendment has been in the public realm since the Amendment was exhibited (14 October 2021 to 29 November 2021) so that

¹² Compare the example of the Fishermans Bend planning controls however, where it was acknowledged that a failure to apply the proposed built form controls to live permit applications would seriously undermine the Vision for Fishermans Bend, as set out in the relevant Structure Planning documents, page 168 and 169 of the Fishermans Bend Planning Review Panel Reports, Report No. 1 – Volume 1.

landowners can and should be progressing permit applications cognisant of the likely change to the Scheme. This is to be contrasted with many other amendments to schemes which occur without notice (by Ministerial intervention) and are therefore more likely to include transitional provisions.

108. In addition, as a practical matter there is little utility in applying transitional provisions as the flood risk profile and consequential implications for any building permit requirements for a development will be implemented through the ‘report and consent’ process required under regulations 153 and 154 of the *Building Regulations* 2018.

109. Regulation 153(2) provides that:

The report and consent of the relevant council must be obtained to an application for a building permit if the site is on an allotment that is in an area liable to flooding.

110. Regulation 153(4) provides:

The relevant council must not give its consent under subregulation (2) if it is of the opinion that there is likely to be a danger to the life, health or safety of the occupants of the building due to flooding of the site.

111. The relevant council may specify a level for the surface of the lowest floor of a building on a site (regulation 153(5)) and must consult with the floodplain manager before doing so (regulation 153(6)).

112. The effect of these provisions strongly supports the controls as proposed, without transitional arrangements. Presently, due to the legislative division between our land use planning and building laws, an application may proceed through the planning permit process only to be refused a building permit under regulation 153 by reason of the need to obtain a report and consent that

implements the risk profile sought to be implemented by the Amendment. This is due to the fact that:

- (a) from 29 July 2021 Council and Melbourne Water have applied the updated flood information sought to be implemented by the Amendment as the ‘best available information’ to building and planning decisions; and
- (b) Council’s Municipal Building Surveyor resolved to use the updated flood information and notified the Victorian Building Authority under the *Building Act* 1993 accordingly.

113. Developments that have commenced assessment from 21 July 2021 through the applicable planning and building approvals in a timely manner are unlikely to be impacted, however, those that allow a significant effluxion of time between the seeking of planning and building approvals carry the risk that the decision-maker for the relevant approval is required to take account of the flood levels then in operation at that time and in the event of a change in flood level the flood level adopted by the relevant decision-maker is the pertinent level for the purposes of decision-making. This is the case in respect of both planning permit applications and consequent amendments or applications in respect of lapsed permits, and in respect of building permits issued after planning permits.
114. In light of the above, transitional provisions would not result in any benefit to permit applications under assessment as the flood information is applied through the building permit process in any event. Implementing the proposed planning controls will ensure that purchasers and developers of land will be informed of the flooding implications for proposed land use and development at the front end of the approvals process.

115. Presently, and in the absence of a planning control, the issue arises late in the approvals process at the building permit stage. This brings with it the potential for increased costs and delay arising from a redesign and a process of ‘reverse engineering’ development plans.
116. This only serves to highlight the need for the Amendment, to bring the Planning Scheme into alignment with existing standards that are presently applied. It is submitted that proper and orderly planning requires the community to be clearly informed of flood risk at the planning permit stage of the approvals process, so that it may be considered early in the design process.

Drafting considerations

117. Melbourne Water relies upon the expert evidence of Ms Peterson in relation to drafting considerations.
118. Ms Peterson endorses the LSIO and SBO as the appropriate overlays to address flood risk based on modelling of mainstream and stormwater flooding, and makes the distinction between the proposed controls and the Flood Overlay and Urban Floodway Zone.¹³
119. Melbourne Water proposes to amend the objectives that are common to the proposed overlays. The proposed amended objectives are as follows:
- (a) To ensure that the development prioritises the protection of human life, including emergency services personnel;

¹³ At [134] to [136].

- (b) To ensure development can be permitted where the risk to life and property from flooding can be reduced to an acceptable level;
- (c) To ensure development does not increase flood levels and / or velocities to the detriment of surrounding properties; and
- (d) To ensure that any new development is suitably designed to be compatible with the identified flood hazard and local drainage characteristics.

120. It is submitted that these objectives make it clear that the overlays are intended to prioritise the protection of life, whilst also facilitating development where risk can be sufficiently reduced. The objectives are clearer and nuanced and directive in their content.
121. Ms Peterson recommends the deletion of the final objective as it relates to urban design considerations and lacks any connection to flood management. It is inappropriate to include urban design considerations in overlays that are intended to deal with flood risk management, for the reasons set out above. Melbourne Water supports this amendment.
122. Ms Peterson endorses the permit and application requirements. The Schedules appropriately identify buildings and works that do not require a permit, consistent with the relevant parent clause. The exclusions are confined and that is an appropriate approach to ensure that applications are referred to Melbourne Water for a risk assessment. Melbourne Water has rationalised the application requirements to ensure it is provided with the necessary information.
123. The decision guidelines seek to focus upon flood risk issues and not urban design considerations. The proposed additional decision guidelines are directed to consideration of quantifiable risk assessment and management factors, and

are more comprehensive than those initially proposed. The terms of the decision guidelines will ensure that risk is assessed in a comprehensive and balanced manner.

The Good Design Guide for Buildings in Flood Affected Areas in Fishermans Bend, Arden and Macaulay

124. The *Good Design Guide for Buildings in Flood Affected Area in Fishermans Bend, Arden and Macaulay* (City of Melbourne, Melbourne Water and City of Port Phillip, 2021) (**The Good Design Guidelines**) are proposed to be included as a background document in LSIO Schedule 3, and Schedules 2 and 3 to the SBO.
125. The City of Melbourne seeks to include reference to the Good Design Guidelines in the decision guidelines to the LSIO and SBO and to designate the Guidelines as an Incorporated Document.
126. It is the position of Melbourne Water that it is inappropriate to reference the Good Design Guidelines in the decision guidelines on the basis that:
 - (a) The Good Design Guidelines include an express statement that they are not intended to either supersede any requirement of the Victorian Flood Guidelines and Sea Level Rise Guidelines or the relevant Planning Scheme, and are not to perform the role of a decision guide for the determination of applications by the relevant floodplain manager – including the Good Design Guidelines in the decision guidelines of the

Schedules would be contrary to the intended purpose and express limitation of the Good Design Guidelines;¹⁴

- (b) The Good Design Guidelines are directed to urban design outcomes and are unrelated to the purposes of the LSIO or the SBO and to the contents of the Schedules;
- (c) The intent of the Good Design Guidelines have been developed by the City of Port Phillip, Council and Melbourne Water, with input from a range of other government agencies and are intended to *help designers achieve good design and equitable access in flood affected areas, while managing the known hazards to human safety and property damage from flooding*.¹⁵ Melbourne Water submits that it is more appropriate for the Good Design Guidelines to be referred to in planning provisions directed to urban design outcomes (such as relevant DDOs including DDO1 or relevant urban design policies). Referencing the Guidelines in urban design policies, controls and relevant zones will ensure that the Guidelines are given due weight and consideration in planning permit applications;
- (d) Including the Good Design Guidelines within the decision guidelines of the Schedules would inappropriately elevate the document in such a way that is inconsistent with its role as a Background Document, the purpose of which is to *provide information that helps to understand why a*

¹⁴ Within the disclaimer section of the Good Design Guidelines.

¹⁵ The Good Design Guidelines at page 5.

*particular policy or provision has been included in the Planning Scheme.*¹⁶ The Practitioners Guide provides further that:

*A background document must relate directly to a specific policy or provision. A document that includes a lot of information that is not directly relevant to the specific provision of the scheme will not generally be suitable for mention as a background document.*¹⁷

- (e) As a document directed solely to urban design considerations the Good Design Guidelines do not provide any context for, nor do they inform an understanding of why the unrelated planning provisions direct to flood hazard and risk management were included in the Planning Scheme. Moreover, the Practitioners Guide expressly provides that a *decision guideline should not refer to a Background Document*.¹⁸ This is not surprising given that Background Documents have no statutory weight and no role in decision making.
- (f) There is a real question about how a decision maker would take into account the Good Design Guidelines in decision making about flood hazard and risk management, given the document is proposed by Council to be included in the decision guidelines without any broader related context within the relevant Schedules. There is no guidance for decision makers about how to balance the achievement of the urban design outcomes in the Good Design Guidelines against the flood hazard outcomes sought by the remainder of the provisions, where they

¹⁶ The Practitioners Guide at page 86.

¹⁷ Page 86.

¹⁸ At page 114.

may be in conflict; there is no guidance for decision makers about how to resolve any conflict between the outcomes in the Good Design Guidelines and the Guidelines for Development in Flood Affected Areas, noting the high consequence of decision making as it relates to potential risks to life and property.¹⁹ The inclusion of the Good Design Guideline as a decision guideline without any such context or guidance gives rise to a real potential for inconsistent decision making.

127. The proposed removal of the Good Design Guideline from the decision guidelines is consistent with Melbourne Water's previous recommendations to Council and DELWP. Melbourne Water does not object to the inclusion of the Good Design Guideline as a Background Document, although it acknowledges that Ms Peterson does not support that approach and instead recommends that the document be listed only as a Background Document in the Schedule to clause 72.08. Melbourne Water does not oppose this course.
128. Ms Peterson advises that the document could be appropriately referenced within the PPF in cls 15.01-1L-04 Urban design and 15.01-1L-05 Urban design outside the Capital City Zone, with additional direction on how development proposals subject to the LSIO or SBO should incorporate urban design measures.²⁰ This would provide the necessary contextual content to inform and guide decision makers in the application of urban design principles and outcomes in respect of land subject to flooding.

¹⁹ This tension is evident in policy, noting for example that the Fishermans Bend Urban Renewal Area Policy at cl 11.03-6L-06 seeks to ensure that urban design considerations are critical factors in decision making, providing for the internal ground floor level of buildings to be raised only as a last resort.

²⁰ Para 205 of Ms Peterson's expert statement.

129. The Council refers to Amendment C308 as support for the inclusion of the Good Design Guideline in the proposed controls. It is unsurprising that the Panel in respect of Amendment C308 included the *Central Melbourne Design Guide* as an Incorporated Document in the Planning Scheme given that the Amendment was singularly directed to the introduction of urban design controls in central Melbourne. Amendment C308 does not represent ‘a similar’ approach to the Amendment. On the contrary, the Amendment differs significantly as it is not, either expressly or implicitly, directed to urban design considerations.
130. It is also of significance that Mr Campbell for Council does not venture to provide a substantive analysis of the proper role of the Good Design Guide in the context of the planning provisions, but rather provides a critique on the efficacy of the contents and structure of the document.
131. Melbourne Water submits that the principles and guidance contained in the Good Design Guidelines are sound and important. The document should be included in the Planning Scheme in a manner that appropriately affords the document the weight it deserves, with context and further guidance on its application. It is not appropriate to include the document in the decision guidelines have regard to the matters set out above.

Impact of the NFPL on built form

Mandatory height provisions in the residential zone controls

132. Submitters have raised concerns regarding the relationship between the increased floor levels required under the proposed controls and the height restrictions contained in the Planning Scheme.

133. The residential zones contain mandatory height provisions, including the Neighbourhood Residential Zone (cl 32.09-10), the General Residential Zone 9cl 32.08-10), the Residential Growth Zone (cl 32.07-9) and the Mixed Use Zone (cl 32.04-11).
134. The mandatory height provisions already allow for the impact of any necessary increase of the ground floor levels arising from flood risk. The zone provisions each provide:

Building height if land is subject to inundation

If the land is in a Special Building Overlay, Land Subject to Inundation Overlay or is land liable to inundation the maximum building height specified in the zone or schedule to the zone is the vertical distance from the minimum floor level determined by the relevant drainage authority or floodplain management authority to the roof or parapet at any point.

135. Ms Peterson endorses the zone provisions as satisfactorily addressing the potential for unreasonable built form impacts arising from the relationship between the mandatory maximum heights and the Amendment requirements. Other zones do not contain mandatory height provisions and so the issue does not arise.

Relationship with DDOs

136. Ms Peterson reviewed the suite of Design and Development Overlays that apply to the municipality, including changes made by Amendment C308, and found that the Amendment would not impact the implementation or effectiveness of these controls.

137. The *vast majority* of the DDOs have discretionary height controls, such as DDO8, DDO9, DDO10 and DDO28 and much of the land subject of these controls is not covered by the Amendment.
138. DDO60 Special Character Areas – Built Form (Southbank) includes mandatory height restrictions of between 14m and 70m maximum height and a permit cannot vary these restrictions. Ms Peterson mapped the extent of DDO60 land that is subject of the Amendment and sets out in her report the built form outcomes for the relevant areas.
139. Ms Peterson concludes that insofar as there is a small area of land in the southern portion of the land subject of DDO60 and the Amendment, there should be an allowance for heights to be taken from the increased ground floor level as provided for in the residential zone provisions. Melbourne Water does not oppose this recommendation.

The maintenance and upgrading of drainage and flooding infrastructure

140. Melbourne Water is the designated floodplain manager for the Port Philip and Westernport region which stretches from the Yarra Ranges in the east to Ballan in the west, and from Kinglake in the north down to the Mornington Peninsula, as well as Phillip and French Islands.
141. Within Melbourne Water's region, there are more than 200,000 properties at risk of flooding. Many of these properties were constructed prior to appropriate drainage controls being in place.
142. Melbourne Water's role includes maintaining and operating Melbourne's drainage system and minimising the impact of flooding where possible and within the resources available.

143. The maintenance of Melbourne Water's drainage system occurs through regular removal of debris and silt and the repair and replacement of infrastructure or parts of it when they are no longer fit for purpose.
144. Managing flood risk and exposure occurs through setting building and renovation criteria, providing flooding advice and updating flood information for the greater Melbourne area. Augmentation of the drainage network occurs in locations of high risk, typically where buildings are inundated
145. A number of submitters have argued that the Amendment inappropriately shifts responsibility for managing flood risk to landowners and that new drainage infrastructure, as well as better maintenance of existing infrastructure would potentially alleviate the need for the Amendment.
146. Melbourne Water is diligent in the implementation of its statutory obligations with respect to the provision, management, and maintenance of drainage infrastructure.
147. Flood risk in Melbourne is not increasing because of a failure on the part of Melbourne Water to maintain drainage infrastructure. The significant underlying cause of increased risk of flooding to greater areas of land across Melbourne is the effects of climate change.
148. There is also no doubt that new flood management infrastructure will need to be implemented over time to facilitate the urban renewal of the Arden precinct for example. This infrastructure will be substantially funded by the State government, and through a Development Contributions Plan.
149. However, it is an oversimplification to suggest that new drainage infrastructure is a complete answer to climate change impacts, including future increases in

flood risk. It is also a serious underestimation of those impacts over time, as changes in the environment cannot be ‘engineered away’.

150. Of critical importance is the need to identify flood prone land, and to be wholly transparent about those predictions. To the extent that certainty can be achieved in predictive climate analysis, it is essential that the community is apprised of the best available information so that land use and development proposals are properly considered and tailored to meet the risk.

Conclusion

151. The Amendment is required to update the existing, outdated flood overlay maps in the Scheme.
152. The Amendment will implement will translate the updated flood modelling into the Scheme so as to identify land which is flood prone, taking into account the modelled impacts of climate change to 2100. This approach is entirely consistent with, and supported by State policy regarding the impacts of climate change. The Amendment will achieve a net community benefit.
153. Melbourne Water submits that the Panel should recommend approval of the Amendment in accordance with the revised controls drafted by Melbourne Water.

Marita Foley

Nicola Collingwood

Counsel for the Melbourne Water

Instructed by Allens

12 October 2022

Amendment c384melb – Submission Responses (Part B Submission)

No.	Submitter name	Submitter type	Address	Proposed overlay	Key theme	Category	Sub-category	Submission summary	Change requested by submitter	Melbourne Water Response	Proposed change	Submission status
1	Ben Stokes	Landowner	51 Parsons Street, Kensington	LSIO3	Flood overlay/modelling	Extent of overlay	Application to property	<ul style="list-style-type: none"> States that the property is not affected by, and should not be included in, the revised flood overlay. States that the detailed overlay map online indicates the road is affected but not the house. Comments that 'in any case our house is built up, it sits 75cm above ground level'. 	Proposed change to technical matter – change to extent of overlay	<p>The modelling demonstrates that almost the entire property is inundated by year 2100 1% AEP flood depths exceeding 0.05 metres. Therefore, the LSIO3 will include the property. The flood extent smoothing parameters that have been applied have a minimal impact on the extent of the overlay within the property.</p> <p>The design of the existing dwelling may provide a degree of protection against above floor flooding. However, the flood overlay is required to designate land within the LSIO and SBO areas (including the property) that modelling has identified as being highly likely to be subject to inundation in the event of a flood. This will allow for the application of risk appropriate controls and measures to manage any future development in a way that minimises potential flood damage through the planning permit process.</p>	None – proposed overlay to be retained	Unresolved
3	Chunxia Xiang	Landowner	883 & 889 Collins Street, Docklands	LSIO3	Costs associated with Amendment	Insurance, property values and other costs	Application to property	Opposes the Amendment. States Amendment 'will be costly' and 'heavy burden' for property owner.	Comment only	The Amendment is required to designate land within the LSIO and SBO areas that modelling has identified as being highly likely to be subject to inundation in the event of a flood; and to apply risk appropriate controls and measures to manage new development in a way that minimises potential flood damage through the planning permit process.	No change required	Not applicable

No.	Submitter name	Submitter type	Address	Proposed overlay	Key theme	Category	Sub-category	Submission summary	Change requested by submitter	Response	Proposed change	Submission status
										Potential impacts on insurance premiums and availability for affected properties, and on the value of affected properties, are not relevant considerations in the context of the introduction of flood controls. The Panel has not been provided with an evidentiary basis to conclude that insurance premiums will increase specifically as a result.		
4	Narelle Haralambous	Landowner	34 Newton St Kensington	LSIO1 (existing, administrative change only)	Flood overlay/modelling	Extent of overlay	Application to property	<ul style="list-style-type: none"> Disagrees that Newton Street is subject to flooding. The highlighted section of the street on the map is 'grassed area and water does not sit, swell or is [sic] subject to flooding'. 	Comment only	<p>The property is within the existing LSIO1 area, which modelling has identified as being highly likely to be subject to inundation in the event of a flood. The LSIO1 delineates riverine flooding associated with the Maribyrnong River.</p> <p>The mapping of the existing LSIO1 is not proposed to be changed by this Amendment. Changes proposed to Schedule 1 of Clause 44.04 are administrative in nature and involve updates to the Schedule's formatting in order to comply with the requirements in Ministerial Direction Form and Content of Planning Schemes.</p> <p>The proposed SBO3, which includes Newton Street (but not the property itself), delineates flooding risk related to the City of Melbourne's drainage system.</p>	No change required	Not applicable

7	Hee Mong Lee	Landowner	145/88 Southbank Boulevard, Southbank	LSIO3	Flood overlay/modelling	Extent of overlay	Application to property	<ul style="list-style-type: none"> • Opposes the Amendment and the property being included in the proposed flood overlay. • States that the flood overlay will 'unnecessarily increase 	Proposed change to technical matter – change to extent of overlay	The modelling demonstrates that the entire property is inundated by year 2100 1% AEP flood depths exceeding 0.05 metres. Therefore, the LSIO3 is appropriate in this instance.	None – proposed overlay to be retained	Unresolved
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No.	Submitter name	Submitter type	Address	Proposed overlay	Key theme	Category	Sub-category	Submission summary	Change requested by submitter	Response	Proposed change	Submission status
								anxiety among residents and visitors as they will have the perception that it is a flood zone area'.		and will include the subject property.		
					Costs associated with Amendment	Insurance, property values and other costs	Application to property	<ul style="list-style-type: none"> States that the flood overlay will decrease the property's value and increase insurance premiums. 	Comment only	<p>The Amendment is required to designate land within the LSIO and SBO areas that modelling has identified as being highly likely to be subject to inundation in the event of a flood; and to apply risk appropriate controls and measures to manage new development in a way that minimises potential flood damage through the planning permit process.</p> <p>Potential impacts on insurance premiums and availability for affected properties, and on the value of affected properties, are not relevant considerations in the context of the introduction of updated flood controls. The Panel has not been provided with an evidentiary basis to conclude that insurance premiums will increase specifically as a result.</p>	No change required	Not applicable
8	Queenie Lee	Landowner	145/88 Southbank Boulevard, Southbank	LSIO3	See above	See above	See above	This submission is a repeat of submission 7.	See above	See above.	See above	See above

9	Urban Planning Collective on behalf of Evolve Development / Evolve No.22 Pty Ltd	Landowner	131-139 Sturt Street, Southbank	LSIO3	Transitional arrangements	Lack of transitional provisions for existing permit holders	Application to property	<ul style="list-style-type: none"> The LSIO3 does not offer transitional provisions for existing permit holders, in particular where the proposed flood level requirements have been met. An additional planning permit trigger would unreasonably impact the progression of our client's development and would be an unreasonable administrative burden in this instance given flooding has already been considered The relevant Zones (including the CCZ) should be updated so building heights are measured from the minimum floor level determined by the relevant drainage authority or floodplain management authority (as per Clause 32.08-11 or the approach within the General Residential Zone, for example). The design solutions for meeting the new LSIO requirements may also be difficult to achieve in circumstances in light of the gazettal of Amendment C308 to the Scheme and application of the DDO1 with new urban design controls. Discretion should be afforded with regard to the DDO1 (mandatory controls in particular), where SBOs or LISOs are a critical design factor. 	Proposed change to technical matter – introduction of transitional arrangements	<p>This submission appears to relate to a specific development proposal relevant to the property, for which planning permissions have already been granted.</p> <p>Transitional provisions are not proposed to be included in this Amendment and it is important to ensure that development responds to known flood risk.</p> <p>The flood information that underpins each development assessment represents the best available flood data at a point in time, which can be subject to change as new information becomes available and as further studies are carried out.</p>	None	Unresolved
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No.	Submitter name	Submitter type	Address	Proposed overlay	Key theme	Category	Sub-category	Submission summary	Change requested by submitter	Response	Proposed change	Submission status
										<p>Melbourne Water is required to provide the latest flood risk information to customers, and to consider that information in all development assessments.</p> <p>If a property is affected by a proposed inundation overlay, landowners with existing planning approvals or active planning and building applications are advised to approach Melbourne Water or Council (depending on the overlay) to discuss implications of the Amendment for their development.</p>		
					Flood overlay/modelling	Interaction between overlay and other planning controls	Application to property	<ul style="list-style-type: none"> Comments on the possibility of new requirements for higher ground floor levels within developments and the implications such requirements would have for maximum height control areas (such as the Capital City Zone) <ul style="list-style-type: none"> Suggests updating measurement practices for buildings in these areas so that building heights are measured from a minimum floor level as determined by Melbourne Water. States that design solutions to meet new LSIO requirements may 'be difficult to achieve' in the context of Gazettal C308 (DDO1 mandatory controls). <ul style="list-style-type: none"> Suggests discretion should be afforded in respect of the DDO1 where SBOs or LSIOs are a critical design factor. 	Out of scope	<p>The purpose of this Amendment is to update the LSIO and SBO extents in certain catchments in the Melbourne Planning Scheme to reflect updated flood modelling and current and future flooding risk in these areas. Interactions with separate height controls and other mandatory controls are not relevant considerations in the context of the introduction of updated flood controls.</p> <p>The modelling demonstrates that the entire property is inundated by year 2100 1% AEP flood depths exceeding 0.05 metres. Therefore, the LSIO3 will include the property.</p>	No change required	Not applicable

No.	Submitter name	Submitter type	Address	Proposed overlay	Key theme	Category	Sub-category	Submission summary	Change requested by submitter	Response	Proposed change	Submission status
					Further information or clarification about Amendment's application/impact sought	Impact of Amendment	General	<ul style="list-style-type: none"> Notes that flood level information was not included in the exhibited documentation, such that it is difficult to consider the Amendment's impact 	Comment only	Flood level and flood depth information can be provided by Melbourne Water upon request	No change required	Not applicable
13	Urban Development Institute of Australia	Industry representative	-	-	Good Design Guide			<ul style="list-style-type: none"> Supports intent of the Amendment and stated role of the Good Design Guide for Buildings in Flood Affected Areas (the Guide). Raises the following issues in respect of the Guide: <ul style="list-style-type: none"> The Guide does not provide a clear hierarchy of objectives where there is conflict. Notes the proposed requirement for buildings to be constructed in accordance with the NFPL (which is two metres above footpath level) – states this is likely to result in 'poor streetscape outcome[s]'. States that proposed 'transition zones' create inefficiencies regarding use of and yield from space. Refers to vague language used in the Guide, and lack of indication as to the Guide's legal status in the context of other requirements of the Melbourne Planning Scheme – 'our concern is that council officers will adopt the guide as a set of binding requirements'. Comments on a lack of regard for various matters, including the impacts of the NFPL on built form heights and basements, and the role of legal and indemnification agreements. <p>Requests the following changes to the Guide:</p> <ul style="list-style-type: none"> Provision of a clear hierarchy where there 	Proposed change to policy position	<p>The Guide is designed to assist the development industry, applicants and decision makers with designing new development in flood affected areas within Fishermans Bend, Arden and Macaulay. It contains written and visual examples to help developers and stakeholders in designing new developments, ensuring that buildings are safe during flood events, accessible to all and positively contribute to their context through good urban design.</p> <p>Following further review since exhibition of the Amendment, Melbourne Water will be seeking to amend the Schedules to the flood controls to remove reference to urban design principles in the Objectives and in having the Good Design Guide as a Decision Guidelines in the LSI03 and SBO2. Whilst Melbourne Water notes that the document provides urban design guidance to applicants when designing a building in the Arden Macaulay and Fishermans Bend Precincts, urban design principles are not related to the primary purpose of the parent control and Melbourne Water does not propose to include the Guide in the decision guidelines (Special Building Overlay – Clause 44.05 and Land Subject to Inundation</p>	LSIO3 to be updated	[Partly resolved]

										Overlay- Clause 44.04)		
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No.	Submitter name	Submitter type	Address	Proposed overlay	Key theme	Category	Sub-category	Submission summary	Change requested by submitter	Response	Proposed change	Submission status
								<p>are multiple conflicting goals.</p> <ul style="list-style-type: none"> ◦ Further clarity as to the statutory decision-making process and legal status of the Guide. ◦ Suggests the use of a 'whole-of-precinct' approach for better streetscape outcomes – for instance, raising footpaths to increase gutter height. ◦ Suggests the removal of ramps and stairs (i.e., unsaleable areas) from FAR calculations (where applicable) and revision of the FAR definition to apply above the requisite flood level. ◦ Provision of guidance on the interaction of the NFPL and built form overlays. 				
					Further information or clarification about Amendment's application/impact sought	Impact of Amendment	General	<p>Refers to issues with the proposed ordinances and maps:</p> <ul style="list-style-type: none"> ◦ The proposed maps do not contain sufficient information about the 'limitations or potential' of a parcel of land affected by LSIOs and SBOs. ◦ The NFPL data should be available in a GIS format, and on LASSI or Vicplan. ◦ The requirements that apply when converting an existing building for re-use are unclear (especially where the building is subject to a Heritage Overlay). Is the ground floor level required to be raised to the NFPL? 	Comment only	<p>The Amendment is required to designate land within the LSIO and SBO areas that modelling has identified as being highly likely to be subject to inundation in the event of a flood; and to apply risk appropriate controls and measures to manage new development in a way that minimises potential flood damage through the planning permit process.</p> <p>Applications for planning permits within the revised LSIO and SBO areas will be referred to Melbourne Water for development-specific review and advice. Land parcels may be impacted by flooding from a variety of sources and therefore the NFPL needs to be calculated based on the particular development proposal.</p> <p>The maps represented in the planning scheme are a standardised format</p>	No change required	Not applicable

No.	Submitter name	Submitter type	Address	Proposed overlay	Key theme	Category	Sub-category	Submission summary	Change requested by submitter	Response	Proposed change	Submission status
										<p>across Victoria as part of the Victorian Planning Provisions (VPPS's).</p> <p>Land parcels may be impacted by flooding from a variety of sources and the NFPL may also vary and therefore needs to be calculated based on the development proposal.</p>		
					LSIO Schedules			<p>Requests the following changes to the Amendment:</p> <ul style="list-style-type: none"> Written approval from the floodplain management authority be valid for 12 months (rather than 3 months). Floor areas below the NFPL be considered 'basement'. Overall podium or street wall height be increased in accordance with requirements to raise the ground floor of a building above footpath level. 	Proposed change to technical matter – change to LSIO Schedules	<p>The Schedules to Clause 44.04 set out the permit requirements,application requirements and decision guidelines applicable to areas covered by an LSIO.</p> <p>Melbourne Water is of the view that any written approval should be valid for a period of 3 months and not a longer period. This ensures that the development proposal is designed in consideration of the most up to flood risk data information. The flood information that underpins each development assessment provided represents the best available flood data at a point in time which can be subject to change as new information becomes available and as further studies are carried out.</p> <p>Melbourne Water is obligated to provide to customers the latest flood risk information and to apply this information to all development assessments.</p>		Not applicable

No.	Submitter name	Submitter type	Address	Proposed overlay	Key theme	Category	Sub-category	Submission summary	Change requested by submitter	Response	Proposed change	Submission status
14	Mirvac	Industry representative	-	-	Transitional arrangements	Lack of transitional provisions for existing permit holders	General	Requests the addition of a provision to ensure existing planning permit holders who have obtained endorsed drawings prior to the Amendment can obtain the requisite building permit.	Proposed change to technical matter – introduction of transitional arrangements	<p>Transitional provisions are not proposed to be included in this Amendment.</p> <p>The flood information that underpins each development assessment represents the best available flood data at a point in time, which can be subject to change as new information becomes available and as further studies are carried out.</p> <p>Melbourne Water is required to provide the latest flood risk information to customers, and to consider that information in all development assessments.</p> <p>If a property is affected by a proposed inundation overlay, landowners with existing planning approvals, or active planning or building applications, are advised to approach Melbourne Water or Council (depending on the overlay) to discuss implications of the Amendment for their development.</p>	None	Unresolved

No.	Submitter name	Submitter type	Address	Proposed overlay	Key theme	Category	Sub-category	Submission summary	Change requested by submitter	Response	Proposed change	Submission status
15	Planning & Property Partners on behalf of Yarra Park City Pty Ltd	Landowner	93-119 Kavanagh Street, Southbank	LSIO3	Further information or clarification about Amendment's application/impact sought	Impact of Amendment	Application to property	<ul style="list-style-type: none"> • Outlines that major redevelopment has been approved for staged development and is partially constructed. Designs for subsequent development stages have been endorsed under the permit but not constructed. • Requests clarification on whether the underlying flood modelling used for the Amendment is the same as that used in the advice Melbourne Water gave the property owner in 2019. • Requests clarification on how the proposed changes to previous flood levels apply to the property. 	No change – clarification sought from Melbourne Water	<p>The modelling demonstrates that the entire property is inundated by year 2100 1% AEP flood depths exceeding 0.05 metres. Therefore, the LSIO3 will include the property.</p> <p>The flood information that underpins each development assessment represents the best available flood data at a point in time, which can be subject to change as new information becomes available and as further studies are carried out.</p> <p>Melbourne Water is required to provide the latest flood risk information to customers, and to consider that information in all development assessments.</p> <p>If a property is affected by a proposed inundation overlay, landowners with existing planning approvals, or active planning or building applications, are advised to approach Melbourne Water or Council (depending on the overlay) to discuss implications of the Amendment for their development.</p>	None – proposed overlay to be retained	Unresolved
16	Victorian Planning Authority	Industry representative	-	-	Good Design Guide			Supports the inclusion of the Good Design Guide into the Melbourne Planning Scheme as a Background Document.	Comment Only	Noted	No change required	Not applicable

No.	Submitter name	Submitter type	Address	Proposed overlay	Key theme	Category	Sub-category	Submission summary	Change requested by submitter	Response	Proposed change	Submission status
					Synergy between Amendment C407 and Amendment C384			<ul style="list-style-type: none"> Supports the Amendment as it applies to the Arden Precinct. Notes that Melbourne Water and City of Melbourne have made submissions in relation to Amendment C407: <ul style="list-style-type: none"> Notes that the City of Melbourne submission states there is 'inconsistency and contradiction with proposed updates to inundation overlays Amendment C384Melb' but states it does not share the view that there is inconsistency and contradiction between Amendment C407 and Amendment C384; and comments that 'it is apparent that Melbourne Water consider Amendments C407melb and C384melb to be aligned'. Comments that any inconsistencies and contradictions between the Amendments should be avoided and that VPA will seek to ensure alignment via Amendment C407. 	Comment only	Noted Council's initial concerns regarding any potential inconsistencies between Amendment c407melb and Amendment c384melb have been resolved.	No change required	Not applicable
22	HWL Ebsworth Lawyers on behalf of Rockford Constant Velocity Pty Ltd	Landowner	62-70 Gracie Street, North Melbourne	LSIO3	Synergy between Amendment C407 and Amendment C384			<ul style="list-style-type: none"> Opposes the Amendment and states that it 'lacks a sound strategic basis' and 'fails to provide for fair or orderly planning'. States that the Amendment should not be divorced from the Arden Structure Plan (which should be considered to provide for the orderly planning of the Arden Precinct). 	Comment only	Noted.	No change required	Not applicable
					Flood overlay/modelling	Certainty of flood modelling	General	<ul style="list-style-type: none"> States that further work needs to be undertaken with respect to the climate change assumptions that underpin the modelling. Comments that there is no certainty that the modelling is consistent with the best 	Proposed change to technical matter – amendments to underlying flood modelling	The flood modelling adopts specified climate change scenarios and parameters consistent with key Victorian legislation and policy, including the Climate Change Act 2017 (Vic), Water Act 1989 (Vic),	None	Resolved

No.	Submitter name	Submitter type	Address	Proposed overlay	Key theme	Category	Sub-category	Submission summary	Change requested by submitter	Response	Proposed change	Submission status
								practice objectives of the ARR 2019 standards – modelling needs to be 'fit for purpose'.		<p>Victorian Floodplain Management Strategy, Marine and Coastal Policy and State Planning Policy in the Victorian Planning Provisions.</p> <p>These adopted climate change parameters and scenarios are those considered necessary to build resilience to, and reduce the risks posed by, climate change, and to protect the community from climate change impacts.</p> <p>The modelling demonstrates that the entire property is inundated by year 2100 1% AEP flood depths exceeding 0.05 metres. Therefore, the LSI03 will include the property.</p>		
24	Hall and Willcox on behalf of Citywide Service Solutions Pty Ltd	Landowner	208-292 Arden Street, 2-54 Green Street and 22-44 Henderson Street, North Melbourne	LSIO3	Synergy between Amendment C407 and Amendment C384			States that Amendments C384 and C407 should be considered concurrently so that flood matters are considered holistically.	Comment only	Noted.	No change required	Not applicable
25	HWL Ebsworth Lawyers on behalf of RSA Holdings Pty Ltd	Landowner	49-51 Henderson, North Melbourne	LSIO3	See above	See above	See above	<ul style="list-style-type: none"> This submission is a substantive repeat of submission 22. 	See above	See above.	See above	See above

No.	Submitter name	Submitter type	Address	Proposed overlay	Key theme	Category	Sub-category	Submission summary	Change requested by submitter	Response	Proposed change	Submission status
26	Parkville Association	Community	Parkville	SBO3	Costs associated with Amendment	Insurance, property values and other costs	General	<ul style="list-style-type: none"> • Opposes the Amendment as it applies to Parkville. • Refers to concerns about impacts on insurance premiums and property values. • Comments on actions and measures that could be taken by Council. • States more needs to be done to update drainage and stormwater management in Parkville. • If these updates are made, there is no need for Parkville to be included in the proposed overlay. • Refers to Council budgetary constraints preventing mitigation measures. 	Comment only	<p>The Amendment is required to designate land within the LSIO and SBO areas that modelling has identified as being highly likely to be subject to inundation in the event of a flood; and to apply risk appropriate controls and measures to manage new development in a way that minimises potential flood damage through the planning permit process.</p> <p>Potential impacts on insurance premiums and availability for affected properties, and on the value of affected properties, are not relevant considerations in the context of the introduction of flood controls.</p> <p>While there may be opportunities to refine and improve drainage maintenance practices and undertake capital works, the issue of drainage maintenance and on-ground mitigation works is not relevant to the Amendment and application of the LSIO and SBO to land identified as subject to flooding. Such work will require separate consideration outside of the Amendment process. It may be that the impact of drainage maintenance and capital works is considered in the assessment of planning permit applications.</p>	No change required	Not applicable

No.	Submitter name	Submitter type	Address	Proposed overlay	Key theme	Category	Sub-category	Submission summary	Change requested by submitter	Response	Proposed change	Submission status
29	George Weston Foods Ltd	Landowner	24 - 78 Laurens Street, North Melbourne	LSIO3	Further information or clarification about Amendment's application/impact sought	Impact of Amendment	General	<ul style="list-style-type: none"> Expresses a need for further discussion on the Amendment and for further advice on the process. 'Letters to residents headlined Fishermans Bend, Arden and Macaulay would hardly alert Parkvillians of this Amendment'. 	Comment only	Noted.	No change required	Not applicable
					Flood overlay/modelling	Extent of overlay	Application to Parkville	<ul style="list-style-type: none"> Requests that Parkville be removed from the overlay: <ul style="list-style-type: none"> Questions necessity of the Amendment. Claims that there is no possibility that areas in Parkville will flood – there is a 3 metre drop south of Flemington Rd where water will flow. 	Proposed change to technical matter – change to extent of overlay	The Amendment is required to identify land within the LSIO and SBO areas that modelling has identified as being highly likely to be subject to inundation in the event of a flood, and to apply risk appropriate controls and measures to manage new development in a way that minimises potential flood damage through the planning permit process.	None – proposed overlay to be retained	Unresolved
					Synergy between Amendment C407 and Amendment C384			<p>States the Amendment does not take into account the significant work being done as part of Amendment C407.</p> <ul style="list-style-type: none"> Raises concern about synergies between Amendments C384 and C407 and 'overlapping nature' of planning controls. Refers to the 'lack of cohesion' between the Amendments. Amendment C384 complicates the planning process by implementing a new planning control that includes a permit 	Comment only	The purpose of this Amendment is to update the LSIO and SBO extents in certain catchments in the Melbourne Planning Scheme to reflect updated flood modelling and current and future flooding risk in these areas.	No change required	Not applicable

No.	Submitter name	Submitter type	Address	Proposed overlay	Key theme	Category	Sub-category	Submission summary	Change requested by submitter	Response	Proposed change	Submission status
								<p>trigger for buildings and works.</p> <ul style="list-style-type: none"> Notes the property is already affected by Heritage Overlays and the ability to meet requirements of the LSIO3 and proposed controls under C407 'raises concern'. 				
					LSIO Schedules			<ul style="list-style-type: none"> States the LSIO3 should include additional permit exemptions. <ul style="list-style-type: none"> Compares LSIO3 with LSIO2 (which includes additional permit exemptions). Suggests the inclusion in LSIO3 of exemptions for works that are uncontroversial in respect of flood impacts and provides a minimum list of proposed exemptions. Refers to matters 'outside the purpose or scope of the LSIO', which should not be included in the LSIO3. <ul style="list-style-type: none"> Suggests deletion of purpose relating to safe access and egress, good urban design and equitable access. Suggests deletion of decision guidelines relating to urban design and equitable access, physical and visual connection of ground floor design, and activation of street edge and frontage. Refers to Practice Note 12 and Rule 5 of the 'Rules for writing a planning scheme'. States that when the LSIO3 is considered, regard must be had to existing site conditions and how they can respond to built form requirements. 	Proposed change to technical matter – change to LSIO Schedules	<p>In respect of planning permit exemptions, the Schedule for LSIO2 is a defined precinct, notably Flemington Racecourse (Special Use Zone Schedule 1). Flemington Racecourse is predominantly protected from flooding by a gabion levee wall around the Maribyrnong River. This protection allows for a greater number of planning permit exemptions for proposals associated with a reduced risk of property damage by flooding.</p> <p>Council and Melbourne Water have prepared amendments to the overlay schedules following further review since exhibition of the Amendment, further permit exemptions will not apply.</p> <p>The Good Design Guide is designed to assist the development industry, applicants and decision makers with designing new development in flood affected areas within Fishermans Bend, Arden and Macaulay. It contains written and visual examples to help developers and stakeholders in designing new developments, ensuring that buildings are safe during flood events,</p>	Amendments to Schedule	

No.	Submitter name	Submitter type	Address	Proposed overlay	Key theme	Category	Sub-category	Submission summary	Change requested by submitter	Response	Proposed change	Submission status
										<p>accessible to all and positively contribute to their context through good urban design.</p> <p>Following further review since exhibition of the Amendment, Melbourne Water will be seek to amend the Schedules to the flood controls to remove reference to urban design principles in the Objectives and in having the Good Design Guide as a Decision Guidelines in the LSI03 and SBO2. Whilst Melbourne Water note that the document provides urban design guidance to applicants when designing a building in the Arden Macaulay and Fishermans Bend Precincts, urban design principles are not related to the purpose of the parent control (Special Building Overlay – Clause 44.05 and Land Subject to Inundation Overlay- Clause 44.04) in the VPP's.</p>		
30	ESR Real Estate (Australia) Pty Ltd	Landowner	Southgate - 1-3 Southgate Avenue and 16-60 City Road, Southbank	LSIO3	Flood overlay/modelling	Policy basis of modelling		<ul style="list-style-type: none"> Supports intent of the Amendment. Refers to concerns about how the overlay will be applied and 'whether the underlying data is acceptable for that application', in respect of: <ul style="list-style-type: none"> use of the 2100 climate change scenario (which has not been used for any other flood planning in Victoria) in the proposed overlay. over-estimation of flood levels in GHD modelling, resulting in a flood 	Comment only	<p>The flood modelling adopts specified climate change scenarios and parameters consistent with key Victorian legislation and policy, including the Climate Change Act 2017 (Vic), Water Act 1989 (Vic), Victorian Floodplain Management Strategy, Marine and Coastal Policy and State Planning Policy in the Victorian Planning Provisions.</p> <p>These adopted climate change parameters and scenarios are those</p>	No change required	Not applicable

No.	Submitter name	Submitter type	Address	Proposed overlay	Key theme	Category	Sub-category	Submission summary	Change requested by submitter	Response	Proposed change	Submission status
								<p>extent that is too conservative – compared to the 1934 flood</p> <ul style="list-style-type: none"> ◦ narrow consideration of climate change impacts (i.e., '19.5%' [sic] increase in rainfall intensity) and apparent disregard of other catchment processes. ◦ conservative adoption of Representative Concentration Pathway (RCP) 8.5 – instead adopting RCP 4.5 results in an 8% increase in rainfall intensity. ◦ existing AHD RL's [Australian Height Datum Reduced Levels which are above the current minimum planning scheme and MW requirement of R.L. 2.4m AHD for retail areas. 		<p>considered necessary to build resilience to, and reduce the risks posed by, climate change, and to protect the community from climate change impacts.</p> <p>The property is partially covered by the proposed LSIO3. The modelling demonstrates that greater than 2% of the total area of the property is inundated by year 2100 1% AEP flood depths. Therefore, the LSIO3 will include the property.</p>		
					Costs associated with Amendment	Insurance, property values and other costs	Application to property	<ul style="list-style-type: none"> • Raises concerns about impacts on development costs. • Suggests implementation of precinct or city scale measures. • States that adoption of flood planning levels for a future condition risks adding significant cost to development (that may not be required if city scale measures were implemented). • Raises concerns about impacts of the NPFL on the redevelopment of Southgate (specifically, the connectivity of spaces/properties in built form). • Suggests there may be limited opportunities to comply with the Amendment given typical rejection by Melbourne Water of engineering measures such as flood barriers. 	Comment only	<p>The Amendment is required to designate land within the LSIO and SBO areas that modelling has identified as being highly likely to be subject to inundation in the event of a flood; and to apply risk appropriate controls and measures to manage new development in a way that minimises potential flood damage through the planning permit process.</p> <p>Potential increases to development costs are not relevant considerations in the context of the introduction of updated flood controls.</p> <p>While there may be opportunities to implement flood mitigation measures at a precinct or city scale, the issue of on-ground</p>	No change required	Not applicable

No.	Submitter name	Submitter type	Address	Proposed overlay	Key theme	Category	Sub-category	Submission summary	Change requested by submitter	Response	Proposed change	Submission status
										mitigation works is not relevant to the Amendment and application of the LSIO and SBO to land identified as subject to flooding. Such work will require separate consideration outside of the Amendment process. It may be that the impact of mitigation works is considered in the assessment of planning permit applications.		
					Further information or clarification about Amendment's application/impact sought	Clarification of decision-making criteria		<ul style="list-style-type: none"> States there is a lack of clarity regarding how decision criteria will be assessed and applied by Council and Melbourne Water. Requests that Council require development of a Local Floodplain Development Plan to assist in clarifying requirements for developers. 	Proposed change to technical matter – introduction of Local Floodplain Development Plan	The purpose of this Amendment is to update the LSIO and SBO extents in certain catchments in the Melbourne Planning Scheme to reflect updated flood modelling and current and future flooding risk in these areas. The application of the overlays identifies flood risk, within which permits are generally triggered for development, where more detailed investigation of flood risk and design response can occur.	None	Unresolved
31	Robin Vowels	Community	Parkville	SBO3	Flood overlay/modelling	Extent of overlay	Application to Parkville	<ul style="list-style-type: none"> Opposes the Amendment as it applies to Parkville. Comments on actions and measures that could be taken by Council. 	Comment only	The Amendment is required to designate land within the LSIO and SBO areas that modelling has identified as being highly likely to be subject to inundation	No change required	Not applicable

No.	Submitter name	Submitter type	Address	Proposed overlay	Key theme	Category	Sub-category	Submission summary	Change requested by submitter	Response	Proposed change	Submission status
								<ul style="list-style-type: none"> There is a lack of drains in the lanes of Morrah St, Story Street, Park Drive, Ievers Reserve and surrounding areas. Council should replace all grille drains so that the grille is oriented in the direction of water flow. Council should connect rainwater discharge points to the existing underground stormwater infrastructure, or construct a new infrastructure. If these updates are made, there is no need to increase the extent that is included in the proposed overlay. 		<p>in the event of a flood; and to apply risk appropriate controls and measures to manage new development in a way that minimises potential flood damage through the planning permit process.</p> <p>While there may be opportunities to refine and improve drainage maintenance practices and undertake capital works, the issue of drainage maintenance and on-ground mitigation works is not relevant to the Amendment and application of the LSIO and SBO to land identified as subject to flooding. Such work will require separate consideration outside of the Amendment process. It may be that the impact of drainage maintenance and capital works is considered in the assessment of planning permit applications.</p>		
34	Hatch Roberts Day on behalf of Claric Ninety Nine Pty Ltd	Landowner	13-33 Hartley Street, Docklands	LSIO3	Transitional arrangements	Lack of transitional provisions for existing permit holders		Requests the addition of transitional provisions to ensure that the current proposal relating to the property (a redevelopment site) is not further impacted by planning controls that were subsequently drafted after previous reviews of the proposal by Melbourne Water as referral authority.	Proposed change to technical matter – introduction of transitional arrangements	<p>This submission appears to relate to a specific development proposal relevant to the property, which is outside the scope of this Amendment</p> <p>Transitional provisions are not proposed to be included in this Amendment.</p> <p>The flood information that underpins each development</p>	None	Unresolved

No.	Submitter name	Submitter type	Address	Proposed overlay	Key theme	Category	Sub-category	Submission summary	Change requested by submitter	Response	Proposed change	Submission status
										<p>assessment represents the best available flood data at a point in time, which can be subject to change as new information becomes available and as further studies are carried out.</p> <p>Melbourne Water is required to provide the latest flood risk information to customers, and to consider that information in all development assessments.</p> <p>If a property is affected by a proposed inundation overlay, landowners with existing planning approvals, or active planning or building applications, are advised to approach Melbourne Water or Council (depending on the overlay) to discuss implications of the Amendment for their development.</p>		
35	Planning & Property Partners on behalf of BA Glen Investments Pty Ltd	Landowner	135-157 Racecourse Road, Kensington	LSIO3	Flood overlay/modelling	Extent of overlays	General	<ul style="list-style-type: none"> • Opposes the Amendment (though supports intent of the Amendment). • Questions why the Amendment applies to only six 'targeted' areas as opposed to the whole municipality. <ul style="list-style-type: none"> ◦ Comments that limited application suggests that only these areas will be designed to respond to flooding and this approach does not consider the potential flow-on flood impact on other areas not included in the Amendment. ◦ '[A] piecemeal approach simply cannot be applied'. ◦ Suggests a broader, municipal wide approach. 	Comment only	<p>The Amendment applies to land identified as being subject to inundation from riverine flooding (LSIO) in the Moonee Ponds Creek and Lower Yarra River waterways, and drainage flooding (SBO) in the Arden, Macaulay and Moonee Ponds Creek, Elizabeth Street, Fishermans Bend, Hobsons Road and Southbank catchments.</p> <p>Catchments were prioritised based on future projected development growth across these catchments, including the Arden Macaulay and Fishermans Bend Precincts.</p>	No change required	Not applicable

No.	Submitter name	Submitter type	Address	Proposed overlay	Key theme	Category	Sub-category	Submission summary	Change requested by submitter	Response	Proposed change	Submission status
								<ul style="list-style-type: none"> States the Amendment disregards existing built form conditions and the implications this may have for the directional flow of water during a flood event. 'Such existing built form conditions are not referenced as an application requirement within the exhibited LSIO3 control (which is drafted as though all sites are currently vacant), however notably the existing site use and development forms a decision guideline within the LSIO parent control'. 		<p>The mapping extents of the existing LSIO1, LSIO2 and existing SBO outside the catchments included in this Amendment are not proposed to be amended as the modelling for these catchments has not yet been updated.</p> <p>Further updates to the mapping extents in the municipality will be considered in due course in future flood studies.</p> <p>The modelling represents existing built form with higher Manning's roughness. Existing building footprints are not represented as full flow blockages, as buildings may be subject to above floor flooding and the building footprint will be part of the flood extent. This approach is consistent with Melbourne Water's Flood Mapping Specification and industry best practice for catchment wide flood modelling. Retaining the overlay within this property will help to ensure that future floor levels are set appropriately.</p> <p>The property is partially covered by the proposed LSIO3. The modelling demonstrates that greater than 2% of the total area of the property is inundated by year 2100 1% AEP flood depths. Therefore, the LSIO3 will include the property.</p>		
					Further information or clarification about Amendment's application/impact sought	Impact of Amendment		<ul style="list-style-type: none"> Notes that further technical and hydrological advice has been sought to determine the Amendment's implications with respect to the current development application. 	Comment only	This submission appears to relate to a specific development proposal relevant to the property, which is outside the scope of this Amendment.	No change required	Not applicable

No.	Submitter name	Submitter type	Address	Proposed overlay	Key theme	Category	Sub-category	Submission summary	Change requested by submitter	Response	Proposed change	Submission status
										Practical guidance regarding the Amendment's implications and application to existing planning permits and planning applications will be addressed directly with relevant landowners, outside of the Amendment process.		
36	Planning & Property Partners on behalf of Assemble Communities Pty Ltd	Landowner	86-96 Stubbs Street, Kensington	LSIO3	See above	See above	See above	<ul style="list-style-type: none"> This submission is a substantive repeat of submission 35. 	See above	See above.	See above	See above
37	Property Council of Australia	Industry representative	-	-	Transitional arrangements	Lack of transitional provisions for existing permit holders	General	<ul style="list-style-type: none"> Supports intent of the Amendment. States that the main concern is how the Amendment will impact 'projects already advanced and designed in accordance with previously established flood levels and inundation overlays'. <ul style="list-style-type: none"> Raises concerns about retrospective application to existing planning permits – refers to example of Spencer St development. Suggests that sites that already have a planning permit and endorsed drawings should not be required to update their design to obtain a building permit. Suggests that Council and Melbourne Water establish a dedicated concierge service to facilitate the implementation of the Amendment for all affected projects already underway. Emphasises that facilitating the uninterrupted progress of projects already underway is 	Proposed change to technical matter – introduction of transitional arrangements	<p>Transitional provisions are not proposed to be included in this Amendment.</p> <p>Practical guidance regarding the Amendment's implications for and application to existing planning permits and planning applications will be addressed directly with relevant landowners, outside of the Amendment process.</p>	None	Unresolved

No.	Submitter name	Submitter type	Address	Proposed overlay	Key theme	Category	Sub-category	Submission summary	Change requested by submitter	Response	Proposed change	Submission status
								essential for post-pandemic CBD revival.				
39	Planning & Property Partners on behalf of BEG Developments Pty Ltd	Landowner	139-149 Boundary Road, North Melbourne	LSIO3	Flood overlay/modelling	Extent of overlays	General	<ul style="list-style-type: none"> Opposes the Amendment due to its application to only six 'targeted' areas as opposed to the whole municipality. <ul style="list-style-type: none"> Suggests a municipal wide amendment is required to combat climate change. 	Comment only	<p>The Amendment applies to land identified as being subject to inundation from riverine flooding (LSIO) in the Moonee Ponds Creek and Lower Yarra River waterways, and drainage flooding (SBO) in the Arden, Macaulay and Moonee Ponds Creek, Elizabeth Street, Fishermans Bend, Hobsons Road and Southbank catchments.</p> <p>Catchments were prioritised based on future projected development growth across these catchments, including the Arden Macaulay and Fishermans Bend Precincts.</p> <p>The mapping extents of the existing LSIO1, LSIO2 and existing SBO outside the catchments included in this Amendment are not proposed to be amended as the modelling for these catchments has not yet been updated.</p> <p>Further updates to the mapping extents in the municipality will be considered in due course in future flood studies.</p>	No change	Not applicable
							Application to property	<ul style="list-style-type: none"> Notes the property is only partially covered by the proposed LSIO3. Suggests that the proposed overlay be updated to consider existing conditions and reflect the property's title boundary (which has historically had buildings built up to it and where there is existing vehicle access). 	Proposed change to technical matter – change to extent of overlay	<p>The property is partially covered by the proposed LSIO3. The modelling demonstrates that greater than 25% of the property's road frontage to Alfred Street is inundated and greater than 2% of the total area of the property is inundated by year 2100 1% AEP flood depths. Therefore, the LSIO3 will include the property.</p>	None – proposed overlay to be retained	Unresolved

No.	Submitter name	Submitter type	Address	Proposed overlay	Key theme	Category	Sub-category	Submission summary	Change requested by submitter	Response	Proposed change	Submission status
										The modelling represents existing built form with higher Manning's roughness. Existing building footprints are not represented as full flow blockages, as buildings may be subject to above floor flooding and the building footprint will be part of the flood extent. This approach is consistent with Melbourne Water's Flood Mapping Specification and industry best practice for catchment wide flood modelling. Retaining the overlay within this property will help to ensure that future floor levels are set appropriately.		
43	Beulah (on behalf of another, identity unknown)	Industry representative	118 & 158 City Road Southbank	LSIO3	Flood overlay/modelling	Certainty of modelling	General	<ul style="list-style-type: none"> • Supports intent of the Amendment. • Raises concerns about the impact of controls on development within Southbank. <ul style="list-style-type: none"> ◦ Emphasises the need for a high level of certainty and accuracy around technical information underpinning the Amendment. ◦ Requests the Council to undertake a peer review of the technical documentation that underpins the modelling to assess accuracy. 	Review of flood modelling	The modelling forming the basis of the proposed overlay was undertaken by suitably qualified consultants and consistent with industry standards and Melbourne Water's Flood Mapping Specifications at the time.	None	Resolved

No.	Submitter name	Submitter type	Address	Proposed overlay	Key theme	Category	Sub-category	Submission summary	Change requested by submitter	Response	Proposed change	Submission status
44	Cedar Woods Properties Limited	Perspective landowner	151 Sturt Street, Southbank	LSIO3	Redevelopment potential, urban design	Urban design considerations	Application to property	<p>The new LSIOs may require higher ground floor levels within developments. However, this may have implications on maximum (mandatory or discretionary) height control areas.</p> <p>Concerned that the balance between two potentially competing planning objectives of the LSIO and the DDO1 may impact any future redevelopment of the site. Again, we submit that discretion should be afforded with regard to the DDO1 (the mandatory controls in particular), where Special Building Overlays or Land Subject to Inundation Overlays are a relevant design factor.</p>	<p>Amendment should be modified to ensure that the proposed policy provisions provide an appropriate, fair, efficient and sustainable land use and development framework</p>	<p>The purpose of this Amendment is to update the LSIO and SBO extents in certain catchments in the Melbourne Planning Scheme to reflect updated flood modelling and current and future flooding risk in these areas. Interactions with separate height controls and other mandatory controls are not relevant considerations in the context of the introduction of updated flood controls.</p> <p>Melbourne Water is required to provide the latest flood risk information to customers, and to consider that information in all development assessments.</p> <p>In assessing development, Melbourne Water is guided by the DELWP Guidelines for Development in Flood Prone Areas (DELWP 2019) which provides an assessment framework to assist decisions on development in flood affected areas. In principle, development should not intensify the harmful impacts of flooding whether is it in protecting built form or the risk to people and community.</p>		Unresolved

No.	Submitter name	Submitter type	Address	Proposed overlay	Key theme	Category	Sub-category	Submission summary	Change requested by submitter	Response	Proposed change	Submission status
45	Crown Resorts	Landowner	25 Haig Street, Southbank 1-29 Queens Bridge Street, Southbank 2-68 Whiteman Street, Southbank	LSIO3	Redevelopment potential, urban design	Urban design considerations	Application to property	<p>Crown is concerned that the significant floor level and freeboard requirements arising from Amendment C384 will make it extremely difficult to redevelop and upgrade the Crown complex of buildings as they fall due for upgrade works due to the need for interconnection between existing sites and any new development.</p> <p>Crown considers that the LSIO3 is premature and that a precinct-wide approach should be taken to mitigating and managing the future increased flood risk associated with climate change modelling.</p> <p>It is Crown's submission that the urban design references should remain in the LSIO3 and that it is appropriate and lawful for those references to be included as objectives in the Land Subject to Inundation Overlay.</p> <p>It is further submitted that additional objectives need to be included to enable consideration of constrained sites and where existing buildings, such as the Crown complex are proposed to be refurbished rather than completely rebuilt.</p>	LSIO3 - additional objectives need to be included to enable consideration of constrained sites and where existing buildings, such as the Crown complex are proposed to be refurbished rather than completely rebuilt.	<p>While there may be opportunities to implement flood mitigation measures at a precinct or city scale, the issue of on-ground mitigation works is not relevant to the Amendment and application of the LSIO and SBO to land identified as subject to flooding. Such work will require separate consideration outside of the Amendment process</p> <p>Melbourne Water is required to provide the latest flood risk information to customers, and to consider that information in all development assessments.</p> <p>In assessing development, Melbourne Water is guided by the DELWP Guidelines for Development in Flood Prone Areas (DELWP 2019) which provides an assessment framework to assist decisions on development in flood affected areas. In principle, development should not intensify the harmful impacts of flooding whether is it in protecting built form or the risk to people and community.</p> <p>Following further review since exhibition of the Amendment, Melbourne Water will be seek to amend the Schedules to the flood controls to remove reference to urban design principles in the Objectives and in having the Good Design Guide as a Decision</p>		Unresolved

No.	Submitter name	Submitter type	Address	Proposed overlay	Key theme	Category	Sub-category	Submission summary	Change requested by submitter	Response	Proposed change	Submission status
										Guidelines in the LSI03 and SBO2. Whilst Melbourne Water note that the document provides urban design guidance to applicants when designing a building in the Arden Macaulay and Fishermans Bend Precincts, urban design principles are not related to the primary purpose of the parent control (Special Building Overlay – Clause 44.05 and Land Subject to Inundation Overlay- Clause 44.04).		