Terms of Reference

Maribyrnong River Flood Event Independent Review

January 2023

This review is being conducted under the auspices of Melbourne Water in its capacity as floodplain manager as prescribed under the Water Act 1989.

The review relates to the Maribyrnong River Flood Event occurring on 14 October 2022 (**Flood Event**). The Review is focussed on the Flood Event as it relates to the urban catchment of the Maribyrnong River, defined as the part of the river within Greater Melbourne. Greater Melbourne is defined as the area within the Urban Growth Boundary and is marked on the current map of Greater Melbourne (source: State Revenue Office Victoria Greater Melbourne and urban zones).

The Maribyrnong River Flood Event Independent Review (**Review**) is a technical review that will report on:

- the causes and contributors to the Flood Event in the urban catchment, including any potential impacts of the Flemington Racecourse Flood Wall on the extent and duration of the Flood Event;
- any impact of prior works or activities in the urban catchment on flood levels and extent during the Flood Event; and
- whether any other matters may have significantly contributed to the Flood Event.

The Review will provide a report to Melbourne Water on the findings and recommendations.

The Review Panel

The Review will be undertaken by a panel which is to be known as the "Maribyrnong River Flood Event Independent Review Panel" (**The Review Panel**)

1. The Review Panel is to include members with the following skills:
   a. Hydrology and hydraulic engineering
   b. Strategic and statutory land use planning
2. The Review Panel is to comprise up to three members, including a Chair (**Review Lead**)
3. The Review Panel may seek external advice as required.

Background to the Review

Following the Flood Event, the Premier announced that Melbourne Water would undertake a review of the Flood Event and the extent to which the Flemington racecourse flood wall may have contributed to its effects.

Melbourne Water has committed to establishing an independent and transparent review process.

To this end, Melbourne Water will appoint a qualified and experienced independent person to be the Review Lead, review relevant materials and provide a report. The Review Lead will be supported by independent technical members to advise on any relevant hydrology and technical input to the planning matters relevant to the review, and to undertake a review of any necessary analysis that may be required to inform the review.

Scope & Matters to be considered

Overall

The Review should:

1. Describe the specific effects of the Flood Event.
2. Confirm the duration and extent of this riverine Flood Event.
3. Identify and describe any predictions or modelling relevant to the Flood Event.
4. Provide analysis of the impact of the Flood Event compared with predictions or modelling, and the basis for any potential differences.
5. Consider other matters relating to hydrology, topography and population that may have made a material contribution.

The Flemington Racecourse flood wall

The Review should:

6. Examine whether the Flemington Racecourse flood protection wall contributed to the extent and duration of the Flood Event.
7. Review the efficacy of Melbourne Water's proposed conditions of approval and mitigation measures relating to the wall and their implementation.

The rainfall and flood event

The Review should assess:

8. The characteristics of the rainfall event(s) across the catchment leading to the Flood Event, including consideration of how these compare to:
    i. historical records
    ii. the Australian Rainfall and Runoff Guidelines (2019)
    iii. flood predictions or modelling that accounts for climate change

Planning for the future

The Review may provide recommendations in relation to any matter associated with:

9. Melbourne Water's approach to flood modelling and prediction.

Out of scope

The following matters are outside the scope of the Review:

1. Any specific policy responses.
2. Future potential mitigation measures such as additional flood walls, levees or dams.
3. Overall emergency responses including warnings and evacuation procedures.
4. Flood recovery.

5. Broad planning matters including decisions, frameworks and processes

Method & Timing

STAGES	KEY TASKS
Stage 1: Project setup Oct - Jan 2022	Establishing oversight, Independent Lead, Terms of Reference and Engagement Platforms.
Stage 2: Public submissions Jan 22 – March 23	Receive Public Submissions.
Stage 3: Information and submissions review Feb 23 – May 23	Review Lead considers submissions and considers whether inputs are required from other experts.
Stage 4: Public and expert sessions May 23 – June 23	Review Lead considers/holds expert meetings, consultations or site visits as required.
Stage 5: Report preparation Jul 23 – Aug 23	Review Lead writes up report findings. Melbourne Water may ask questions of clarification only.
Stage 6: Release review findings and recommendations Sep 23	Melbourne Water submit review report to Government. Public release of report.

Submissions

The Review Panel will consider all relevant submissions and may conduct one on one interviews, workshops, or hearings with invited submitters. When meeting with submitters a quorum of at least two members, one of whom must be the Chair, must be present.

Melbourne Water will retain written submissions or other supporting documentation provided to it until the Panel Report has been released.

All written submissions will be treated as public documents and will be placed online as part of the Review Panel process, with all personal details redacted unless the Review Panel directs that the material is to remain confidential.

Outputs

The Review Lead must produce a written report to Melbourne Water providing:

- an assessment of the matters to be considered as outlined in these Terms of Reference
- a list of persons who made submissions considered by the Review Panel, and
- a list of persons consulted or interviewed by the Review Panel.

Following completion of any report, the Review Panel may deliver an oral briefing to the Melbourne Water Project Control Group.

Keep up to date with what's happening

For more information about this project please email:
maribyrnongriver.floodreview@melbournewater.com.au

or visit:
yoursay.melbournewater.com.au/maribyrnong-river-flood-review

Interpreter
For an interpreter, please call the Translating and Interpreting Service (TIS National) on:
13 14 50

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Maribyrnong River Flood Review
Submission Template

How to use this template

This template has been created to assist you with your email or postal submission to the Maribyrnong River Flood Review. It guides you through what information to provide, based on the scope of the review.

You can lodge a submission by:

1. Completing this template and sending it to maribyrnongriver.floodreview@melbournewater.com.au (with subject line 'Submission to flood review') or Maribyrnong River Flood Review, PO Box 4342, MELBOURNE, VIC, 3001

2. Completing the online form on the flood review website. The online form contains the same questions as this template but it a guided process.

3. Writing a submission without using the template and sending it to maribyrnongriver.floodreview@melbournewater.com.au or Maribyrnong River Flood Review, PO Box 4342, MELBOURNE, VIC, 3001. If you use your own format, please remember to provide your name, phone number and email.

What to include in your submission

Submissions should outline:

- your interest in the review
- how you were impacted by the Maribyrnong River flood event
- the issues and information you would like the independent Review Panel to consider.

You can provide supporting documents, such as photos, as part of your submission.

The information you provide in your submission should be within the scope of the review as contained in the **Maribyrnong River Flood Review Terms of Reference** and focus on the following factors:

- the causes and contributors to the Flood Event in the urban catchment, including any potential impacts of the Flemington Racecourse Flood Wall on the extent and duration of the Flood Event;
- any impact of prior works or activities in the urban catchment on flood levels and extent during the Flood Event; and
- whether any other matters may have significantly contributed to the Flood Event.

For more information on the scope of the review, visit the Maribyrnong River Flood Review website.

If you have information to share that is outside of the scope of the review, you can provide this by Sharing your Story on the Maribyrnong River Flood Review website or at a community information session.

Melbourne Water

Maribyrnong River Flood Review
Submission Form

Contact information

Your contact details must be included to make a valid submission. For more information on why this information is needed see the Privacy Collection Notice at the end of this form.

Name Moonee Valley City Council
Phone [redacted]
Email [redacted]

Your interest in the review

What is your interest in the review? (select one)

☐ My property was flooded (complete the section 'How you were impacted')
☐ I live close to the areas flooded
☒ Other interest, please describe: Council area that experienced flooding

How you were impacted

Only complete this section if your property was flooded during the Maribyrnong River flood event

1. Property address
Moonee Valley City Council

2. Property type:
☐ Residence (go to Q3)
☐ Investment property (go to Q7)
☐ Business (go to Q8)
☒ Public asset, e.g. park, sportsfield, etc (go to 'Your Submission' section)
☐ Other, please describe (then go to 'Your Submission' section)
Click or tap here to enter text.

For residences only

3. Is this your usual place of residence? ☐ Yes ☐ No
4. Did you have to move out? ☐ Yes (go to Q5) ☐ No (go to 'Submission Details' section)
5. If Yes, are you still living elsewhere?
☐ Yes (go to Q6) ☐ No (go to 'Submission Details' section)
6. If Yes, do you intend to return? ☐ Yes ☐ No

Melbourne Water

How you were impacted continued

For investment properties only

7. Do you intended to keep or sell the property? ☐ Keep ☐ Sell

For businesses only

8. What is your business name? Click or tap here to enter text.
9. What does your business do? (e.g. café, shop, service station, industry, office, etc) Click or tap here to enter text.
10. Did you have to close your business as a result of the flood? ☐ Yes (go to Q8) ☐ No (go to 'Your Submission' section)
11. Have you been able to reopen your business yet? ☐ Yes (go to 'Your Submission' section) ☐ No (go to Q9)
12. If No, do you intend to reopen your business? ☐ Yes ☐ No

Submission details

Use this section to provide any information that you would like to be considered by the Independent Review Panel.

The information you provide must be relevant to the scope of the review; for more information on the scope of the review refer to page 1 of this template.

If you have information to share that is outside of the scope of the review, you can do this by **Sharing your Story on the Maribyrnong River Flood Review website or at a community information session.**

Please note that text boxes will expand as you type. If you are using a printed copy of this form you can attach separate pages. You can also submit supporting information, such as images, with your submission.

Moonee Valley City Council welcomes the opportunity to make a submission to Melbourne Water's Maribyrnong Flood Review. This submission is an endorsed position of the Council.

Note: Rivervue Retirement Village, 25 Bellavista Drive, Avondale Heights is also referred to as 9 Canning Street, Avondale Heights. Both addresses are used in this submission.

1. The general effects of the flood event on Moonee Valley

On Friday 14 October 2022, residents, businesses, and community organisations including approximately 80 properties in the suburbs of Ascot Vale, Aberfeldie and Avondale Heights were impacted by a major flood of the Maribyrnong River. The flood peaked at 4.3 metres with Maribyrnong River levels increasing from 3am until beginning to recede at 12pm and then dropping below 2.9 metres at 4pm, lasting approximately 12 hours.

Approximately 180 residents were impacted by the flood and the majority of residents impacted in Moonee Valley were over the age of 65 and vulnerable.

The trauma of being evacuated from their homes, being isolated and unable to leave,

requiring temporary accommodation (of up to 12 months), due to their homes and their possessions being significantly damaged or destroyed, has had a significant detrimental effect on their health and well-being. Residents have experienced social isolation, financial stress, emotional trauma, and harm to their welfare. Impacted residents will require ongoing support and advocacy for their recovery.

Council facilities, open spaces and sports and recreational reserves were also significantly impacted by the flood event. Flooding damaged Riverside Park, Canning Reserve, Maribyrnong River Walk Trail, Riverside Golf Course, and Moonee Valley Athletics Centre. They all required cleaning, repairing and replacement of damaged assets and infrastructure. General waste from upstream became dislodged and stuck on trails and open spaces across these areas. To date, the estimated cost of the clean-up to the Council is over $500,000, and over $860,000 for repairs to Council buildings, and over $10,000,000 to residents and community organisations.

Residents, community organisations and sporting clubs were unable to access and use Council spaces and facilities for up to three months, and repairs remain ongoing to Council assets impacted by flood damage. In addition, the equipment belonging to sporting clubs was damaged or destroyed, impacting community well-being, member participation, and social events. The flood event also impacted power, water, and sewerage in Ascot Vale and Avondale Heights. The flood caused public health and environmental risks due to contaminated waste, including mould, water-borne diseases, and increased transmission of mosquito-borne diseases.

2. The general impact of the flood event compared with predictions and modelling previously provided to the Council

Melbourne Water is the flood forecasting and predicting agency for the Maribyrnong River. The combination of the complexity in flood modelling, the speed of the onset of the flood, and the lack of early warning had severe consequences for residents in Ascot Vale and Avondale Heights. Moonee Valley's Local Flood Guide, produced by the SES with Melbourne Water data in October 2020, is consistent with the Land Subject to Inundation Overlay (LSIO) for Ascot Vale flood modelling for a 1% flood and the flood extent on the day.

Rivervue Retirement Village in Avondale Heights was not included in the Local Flood Guide or identified as a property at risk from major flooding, and the October 2022 flood extent exceeded the 2016 revised flood overlay boundaries approved by Melbourne Water. See Attachment 1 Moonee Valley Local Flood Guide and Attachment 2 Flood Extent Mapping Ascot Vale LSIO.

The Maribyrnong River flood peaked at 4.32 metres at 12:01pm on Friday, 14 October. Water levels increased sharply from 1.02 metres at 3:01am to 3.98 metres at 9:25am. The peak level of 4.32 metres recorded at the Maribyrnong gauge is .08 metres (8cm) lower than the 1%, 1 in a 100-year event of 4.40 metres, which is an extreme event. See Figure 1 Maribyrnong River gauge levels the week of the flood, and Attachment 3 Peak Indicative Flood Extent 15 October.

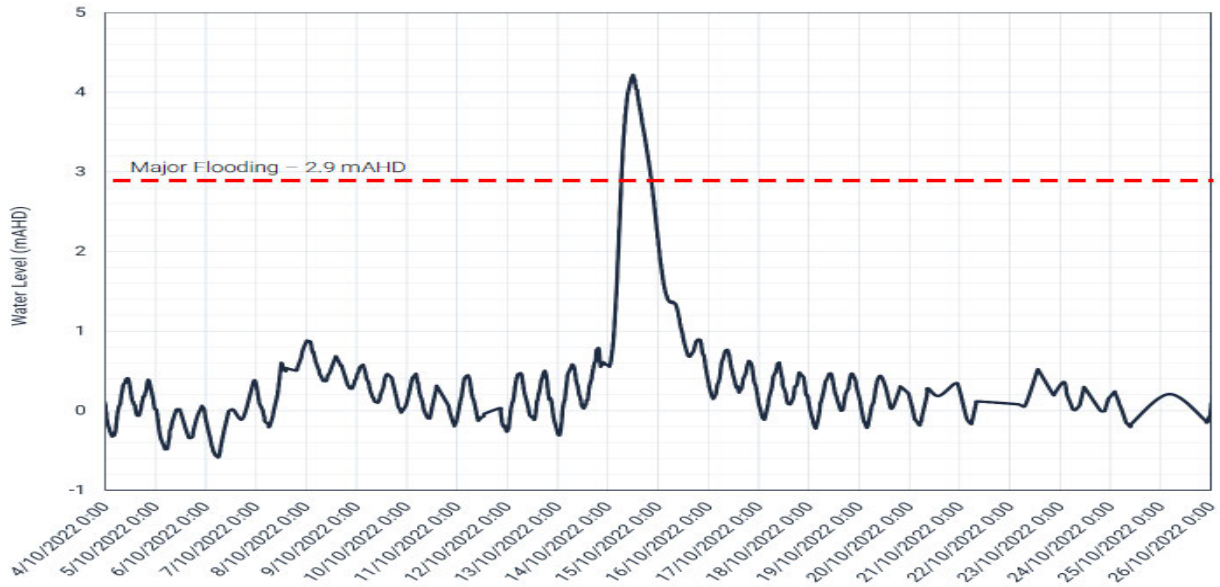


Figure 1. Recorded Water Level Data for Maribyrnong River at Maribyrnong Gauge

Flood extent predictions and modelling from Melbourne Water on October 13 indicated a moderate level flooding event at the Maribyrnong River of 2.3 to 2.6 metres on 14 October 2022. Levels of 2.9 metres are classified as major flooding for the Maribyrnong River at Maribyrnong. There are properties in Maribyrnong township that are impacted at river height of 2.3 to 2.6 metres. There are no properties at risk in a moderate flooding event of 2.3 to 2.6 metres in Ascot Vale.

The LSIO for Ascot Vale locality identified approximately 248 properties that may be affected in 1% (1 in 100 years) flood event. A 2% and 1% event at the Maribyrnong level is between 3.75 metres and 4.40 metres, respectively. At 4.32 metres on the day, the flood damaged approximately 31 properties, primarily in Woods Street. See Attachment 4 for flood impact to Woods Street, Ascot Vale and Attachment 5 is Initial Impact Assessment (IIA) imagery of Woods Street taken 2.18pm, Friday 14 October 2022.

The Local Flood Guide based on modelling provided by Melbourne Water excluded Rivervue Retirement Village from a 1% flood event. Rivervue Retirement Village is located on the northern banks of the Maribyrnong River in Avondale Heights. It has 150 units and 47 were damaged by the flood with 68 residents displaced. Rivervue residents can only return to their residences in June 2023. The units located on Evergreen Avenue and Blueridge Close were built on land that was covered by a previous LSIO that was updated and removed from the overlay in 2016. See Attachment 6 for impacted properties in Rivervue and Attachment 7 for flood extent at Rivervue on the day.

Wood Street and Rivervue properties were inundated and subsequently damaged as a result of flooding from the Maribyrnong River. Both Woods Street and Rivervue are cases where there was a lack of early warning for residents who were ultimately impacted.

Floodplain management, flood modelling, predictions and warnings can effectively reduce communities' exposures to flood hazards, saving lives, livelihoods, environment, infrastructure and economies. Melbourne Water's Flood Integrated Decision Support System (FIDSS) is a vital part of Victoria's Total Flood Warning System (TFWS). As a flood warning system, it serves a critical link between agencies and affected communities prior and during a flood event. Melbourne Water is

responsible for coordinating the assessment and implementation of fit-for-purpose TFWS services that align with identified flood risks for community needs.

3. Council's position on the Flemington Racecourse flood wall

Council's opposition to the Flemington Racecourse Flood Protection Wall remains as adopted at Ordinary Council meeting on 15 February 2005.

The resolution reads:

"Council Resolution: Moved [redacted], seconded [redacted] that Council:

- Reiterates its opposition to the construction of a floodwall along the Maribyrnong River at the Flemington Racecourse based on expert commentary which raised doubts as to the accuracy of the modelling and methodology used in the analysis of the impacts of the floodwall on upstream areas.
- Write to the Minister for Planning and request a review of the decision to allow the Flemington Racecourse flood works, with particular emphasis being placed on undertaking a new analysis of the upstream effects of the proposed floodwall."

In reviewing Melbourne Water's reports provided to Moonee Valley, Council's consultant's findings remained unchanged due to errors and concerns with Melbourne Water's modelling. The 2005 report identified:

- A number of potentially quite serious issues in relation to the modelling work that has been carried out.
- The effects of the floodwall could be greater than predicted by GHD, and the effects of the proposed mitigation works may be somewhat less than predicted.

This advice was provided directly to Melbourne Water. Council then provided the expert commentary to the Minister for Planning who referred it to Melbourne Water. Melbourne Water confirmed that its modelling was sound and issues raised by Moonee Valley City Council and other objectors did not support the need for additional modelling to be conducted.

4. General comments on Melbourne Water's approach to flood modelling and prediction from the point of view of local government

The most important tools for minimising flood hazards relate to:

- land use zonings and overlays that imposes restrictions on building in the most flood-prone places, in line with the flood risk; and,
- flood detection and warning systems combined with community knowledge about and preparation of floods, including evacuation planning.

The LSIO identifies areas that are prone to flooding in a 1 in 100-year average recurrence interval (ARI) flood. This is a flood that, on average, could be expected to occur once in every 100 years.

It is necessary for Melbourne Water to conduct hydraulic modelling based on the latest site conditions, climate change projections, industry standards, and update the LSIO accordingly. The modelling needs to be both future looking incorporating climate change, and cognisant of past flood events. Clear planning controls and directions, and state-wide guidelines for development on flood plains within the LSIO, would assist local government with issuing permits based on consistent decision-making from Melbourne Water modelling.

SES and Council require accurate local flood modelling combined with seasonal weather forecasting to support planning and preparation for floods. The most recent

flood mapping and information for the LSIO was incorporated into the Moonee Valley Planning Scheme in 2016, and the October 2022 floods demonstrated that this is outdated and inaccurate.

Accurate modelling and predictions to flood events assist both Council and the SES in preparing for and responding to floods.

5. Clarifying Council's role in, and perspective on, flood modelling and predictions related to 9 Canning Street Avondale Heights

The extent of an area subject to flooding is determined by Melbourne Water. To ensure that new development is protected from flooding and does not cause a significant rise in flood levels or flow velocities which may adversely affect other properties, the provisions contained within the LSIO specify particular development and works which require a planning permit along with consent from Melbourne Water. Whilst Council may approve a planning permit it does so on advice from Melbourne Water as a determining authority.

An unoccupied part of the land occupied by the Rivervue Retirement Village at 25 Bellavista Drive, Avondale Heights is affected by the LSIO. The extent of the overlay is largely limited to a slither of land alongside the river with all of the dwellings within the retirement complex unencumbered by the planning control. An aerial image depicting the extent of the overlay is provided below.

Figure 2. Rivervue Retirement Village, 25 Bellavista Drive, Avondale Heights
(LSIO highlighted in blue, property boundary in red)

Council is required to refer the planning application (and subsequent amendments) to Melbourne Water who is the relevant referral authority. Throughout the course of the planning history, Council has acted and relied on the advice of Melbourne Water, as the subject matter expert and referral authority.

Planning Scheme Amendment C151

In January 2015, Melbourne Water requested Council undertake a Planning Scheme Amendment to update the LSIO and Special Building Overlay (SBO). Specifically, the amendment sought to implement updated flood overlay boundaries as a result of advanced methods of mapping and modelling carried out by Melbourne Water to determine land susceptible to flooding and overland flows. This work resulted in changes to Overlay maps within the Moonee Valley Planning Scheme and affected in the order of 1,900 properties by way of removal, application and revision of the Overlays.

An Independent Panel was appointed to consider submissions to the Amendment in October 2015 where it recommended C151 be adopted, subject to minor agreed changes to three exhibited planning scheme maps. Of note, the panel recommended a reduction to the extent of the LSIO on Rivervue as a result of completed flood mitigation earthworks associated with the wetlands adjacent to the Rivervue Retirement Village. The works were to the satisfaction of Melbourne Water which altered the flooding profile of the site and subsequently led to the revised flood map as depicted below.

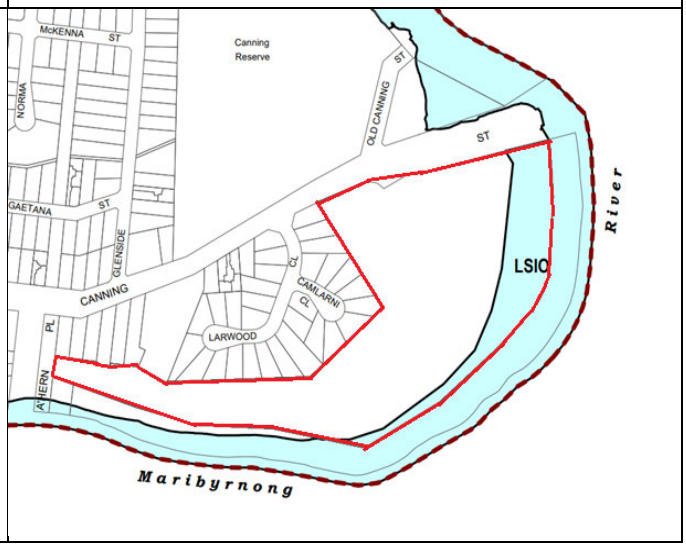
Original LSIO (Pre-Amendment C151)	**Current LSIO (Post Amendment C151)**
	

Figure 3. Amendment C151 was gazetted into the Moonee Valley Planning Scheme in August 2016.

During the 14 October 2022 flood, 47 properties at this site were flooded despite no indication from Melbourne Water that this would occur. VCAT approved the development application (based on advice from Melbourne Water) and the Planning Minister approved the adjustment of the Overlay based on the findings within the panel report.

As a part of this current Review, the Panel should analyse development approvals, existing site levels prior to the development, approved levels, and site modification during the construction and as-constructed building levels. The Panel should also consider future facing modelling that factor climate change and the increased likelihood of more severe flood events in the future.

6. The issues and information MVCC would like the Independent Review Panel to Consider

i. Climate Change, Land Subject to Inundation Overlay (LSIO) and modelling

Climate change is an ongoing and escalating risk that is facing the community. The LSIO must incorporate climate change modelling and draw upon the most up-to-date data.

The Sixth Assessment Report: 2023, from the Intergovernmental Panel on Climate Change, identifies that "Total new anthropogenic GHG emissions have continued to rise during the period 2010-2019, as have cumulative net CO2 emissions since 1850 … Net anthropogenic GHG emissions have increased since 2010 across all major sectors globally. An increasing share of emissions can be attributed to urban areas."

CSIRO states "Australia's weather and climate continues to change in response to a warming global climate … There is evidence that some rainfall extremes are becoming more intense … a higher proportion of total annual rainfall in recent decades has come from heavy rain days. As the climate warms, heavy rainfall is expected to become more intense, based on the physical relationship between temperature and the water-holding capacity of the atmosphere. For heavy rain days, total rainfall is expected to increase by around 7 per cent per degree of warming." Given these projections, the models Melbourne Water use must be forward-looking and should not draw only on historical flood events and records. The LSIO should also reflect this.

The current situation where individual Councils undertake planning scheme amendments on behalf or alongside Melbourne Water should be reviewed and, in the way bushfire overlays have been overhauled, changes made to enable Melbourne Water to make State-wide updates to overlays based on modelling that reflects current and updated knowledge. Planning scheme amendments are lengthy processes therefore any role State Government can play to expedite these to enable the latest and most up-to-date modelling to be incorporated should be implemented.

Development processes and the methodology of flood overlay modelling requires review. Melbourne Water should update the boundaries of the overlays and review the development that is permitted under the overlays. There is political and social sensitivity that needs to be considered when adjusting or applying the LSIO or SBO. There are implications for protecting life and there will be perceived impacts on property value. For property owners, insurance premiums are based on the most up-to-date available flood studies rather than planning scheme controls.

A common Frequently Asked Question in any LSIO or SBO (which identifies areas prone to overland flooding), planning scheme amendment is: *Will this affect my insurance premiums or property prices?* The common response generally reads along the following lines:

Insurance premiums and property prices are not town planning considerations. However, these are relevant concerns for the local community and your local representatives are aware of local concerns. Specific pricing issues and other advocacy issues related to insurance premiums should be directed to the Australian Financial Complaints Authority. The provision of updated flooding information within the planning scheme will have a net community benefit by ensuring that the risk of flooding is properly considered in future planning and that risks from flooding may be managed and minimised. The updated mapping will equip Council to plan for future growth in low-risk locations to minimise the impact of natural hazards on the community, development, and infrastructure.

This answer is not helpful for community members who will have a flooding overlay applied to their property and a more constructive conversation needs to occur to recognise that there will be additional costs to owners, and that advice and modelling is speculative in nature and floods have demonstrably not played out in accordance with such modelling in recent times. Advice based on current modelling may be unreliable. This Review could be a platform to reconsider this answer and open a discussion about compensation for landowners when a LSIO or SBO is applied to their property.

Improving community awareness about historic floodplains and flood events as well as providing education opportunities about floods, floodwater, climate change projections, and, more generally, waterways management would benefit the community.

ii. Link between Flood Review, Flood Management Strategy 2021-2026 and State Emergency Management Plan

Melbourne Water has responsibilities under its Role Statement in the State Emergency Management Plan (SEMP), including those as a catchment management authority that manages and protects Melbourne's major water resources. Melbourne Water's role statement under the SEMP is linked to its *Flood Management Strategy Port Phillip and Westernport-Action Plan 2021-2026*.

As per the Flood Review Terms of Reference (ToR) issues out of scope are areas Melbourne Water are responsible for under the SEMP and objectives in its Flood Management Strategy. The ToR excludes "overall emergency responses including warnings and evacuation procedures" and also omits awareness and preparedness and what activities support prevention, key performance indicators listed in the Flood Management Strategies 2016-2021 and 2021-2026.

Melbourne Water's responsibility for mitigation activities in the SEMP includes floodplain management strategy, flood mitigation infrastructure and reform (lessons learnt). Additional responsibilities include regulation in the land use planning building systems for flood in the built and natural environment which relates to future potential mitigation measures. Though excluded from the ToR, all of these matters support minimising and reducing causes and contributors to flood events.

The Review panel needs to address links and responsibilities under the SEMP and whether the Flood Management Strategy will reflect any findings from this Review.

iii. Next Steps

The Melbourne Water Review is a starting point. The Review's TOR and scope are narrow and act to the detriment of building a holistic understanding of the whole flood event – from early warning to building back better. The recently announced Parliamentary Inquiry will assist in broadening the process and identifying lessons learnt. Council recommends the Melbourne Water Review analyses:

- The performance of Melbourne Water's Flood Integrated Decision Support System (FIDSS) in the October 22 Maribyrnong River Flood. FIDSS has been used for minor to moderate floods since 2015, providing real-time information before and after flood events. How data from FIDSS is shared before and after flood events to Local Government Authorities needs to be reviewed and clarified.
- Rivervue development approvals, existing site levels prior to the development, approved levels, and site modification during the construction and as-constructed building levels.
- The development types that are permitted under the LSIO and SBO.
- Implementation of a state-wide approach to flood modelling and updating the LSIO and SBO, which would include regular review of the overlays based on current modelling including the latest climate change projections.
- Opportunities to improve community awareness when purchasing properties that are located on historic floodplains, or have been previously affected by flood overlays or flood events. This could also include general improvements to community education about floods.
- Opportunities for compensation when properties are added to the SBO and LSIO.

Privacy collection notice

As part of the submission process you will be asked to provide your name, phone number and email, plus your address if you were directly impacted by flooding.

We're collecting this in case we need to verify or clarify the information you provide, including if the Review Panel wishes to conduct a one on one interview with you. It won't be used for any other purpose.

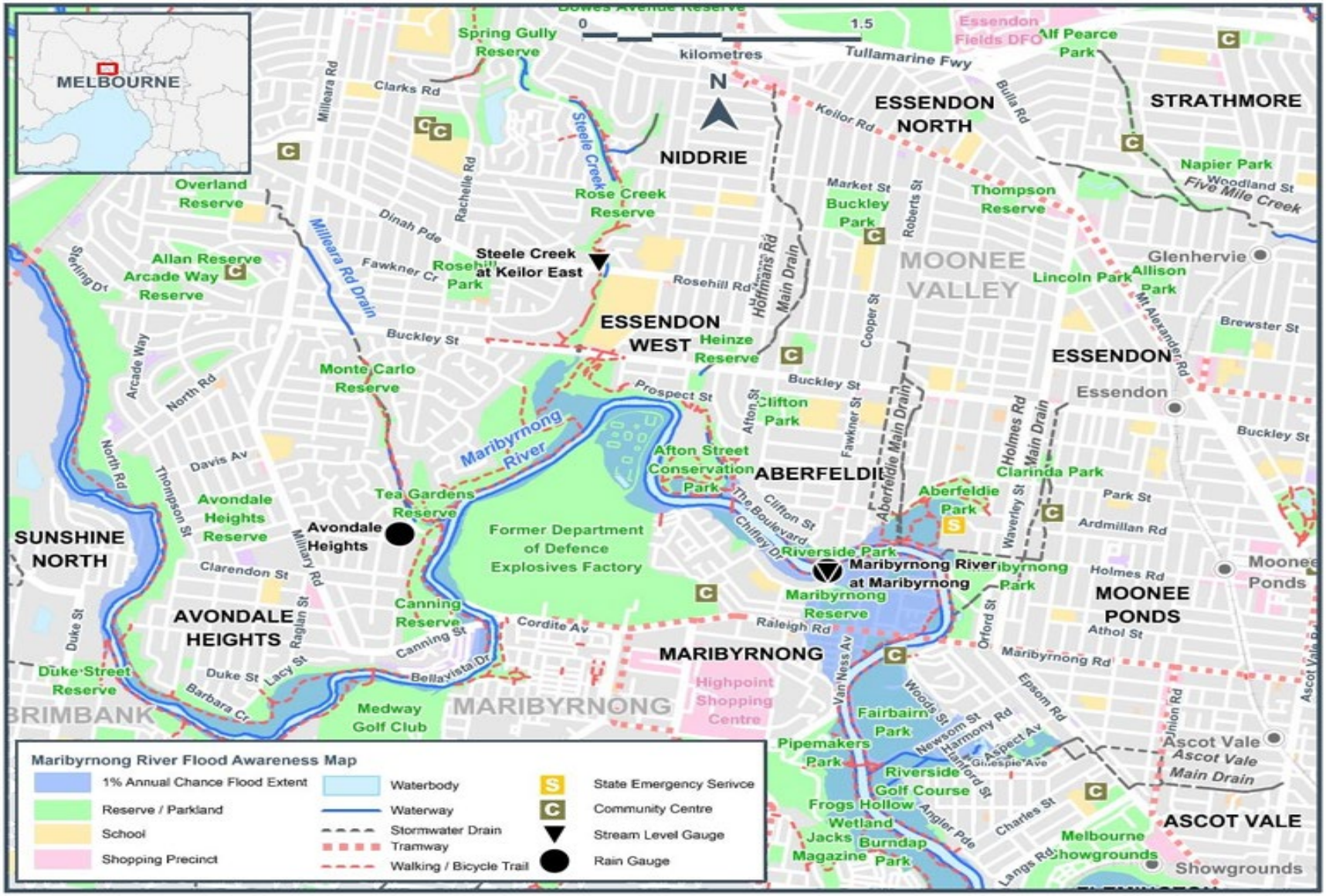
Our collection, use and disclosure of your personal information is regulated by Victorian privacy laws including the *Privacy and Data Protection Act 2014* (Vic).

Please note that all submissions are public documents and will be placed online as part of the Review Panel process. Any identifying information will be redacted, and your name and contact information will not be shared.

By making a submission, you consent to Melbourne Water collecting any personal information which you provide in, and with, your submission.

For more information about how Melbourne Water protects your privacy view our Privacy Policy.

Attachment 1 – Moonee Valley Local Flood Guide (October 2020)



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Attachment 1 (continued) – Ascot Vale Local Flood Guide (October 2020)

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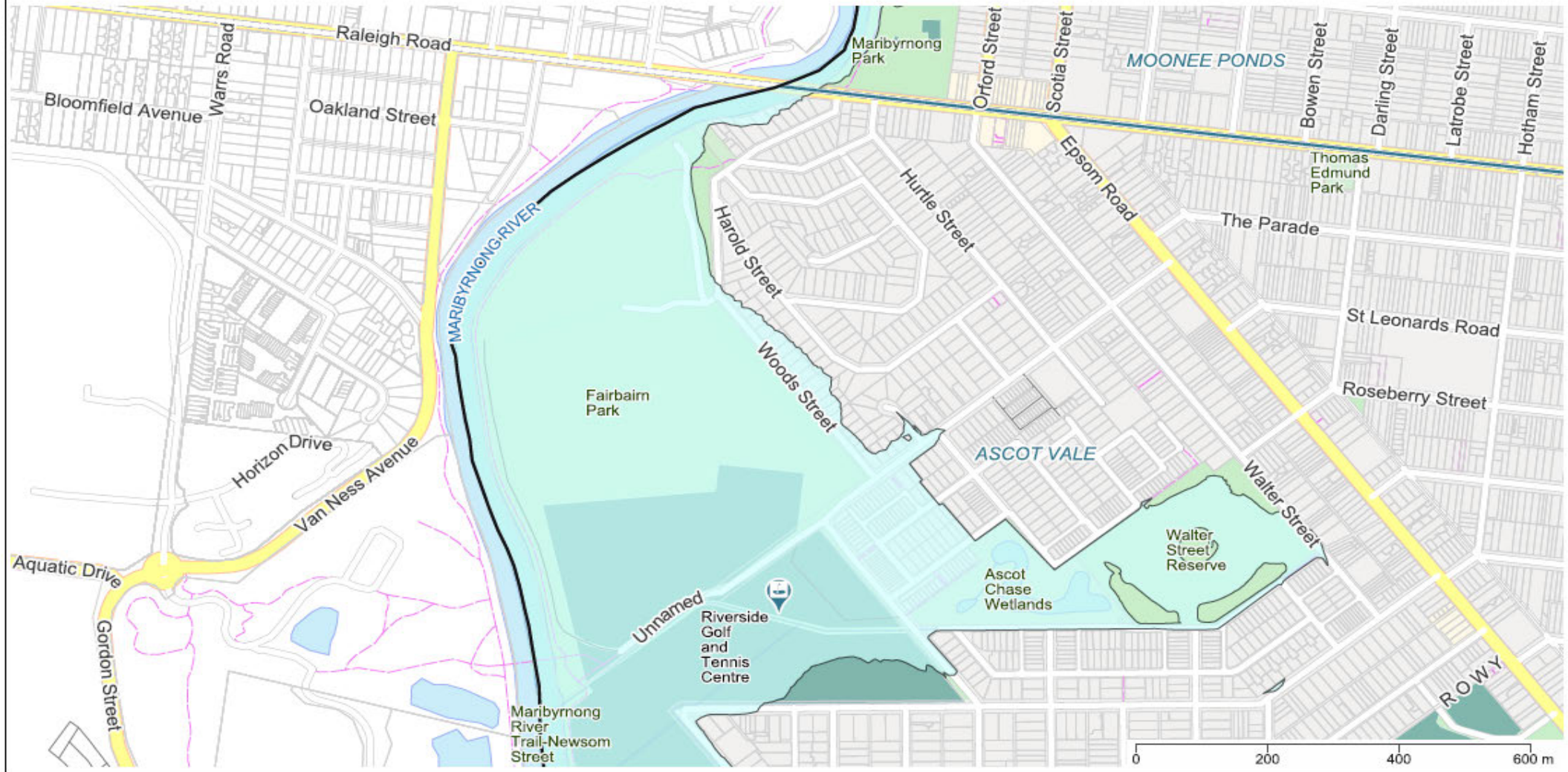
Attachment 2 - Ascot Vale LSIO (2016)



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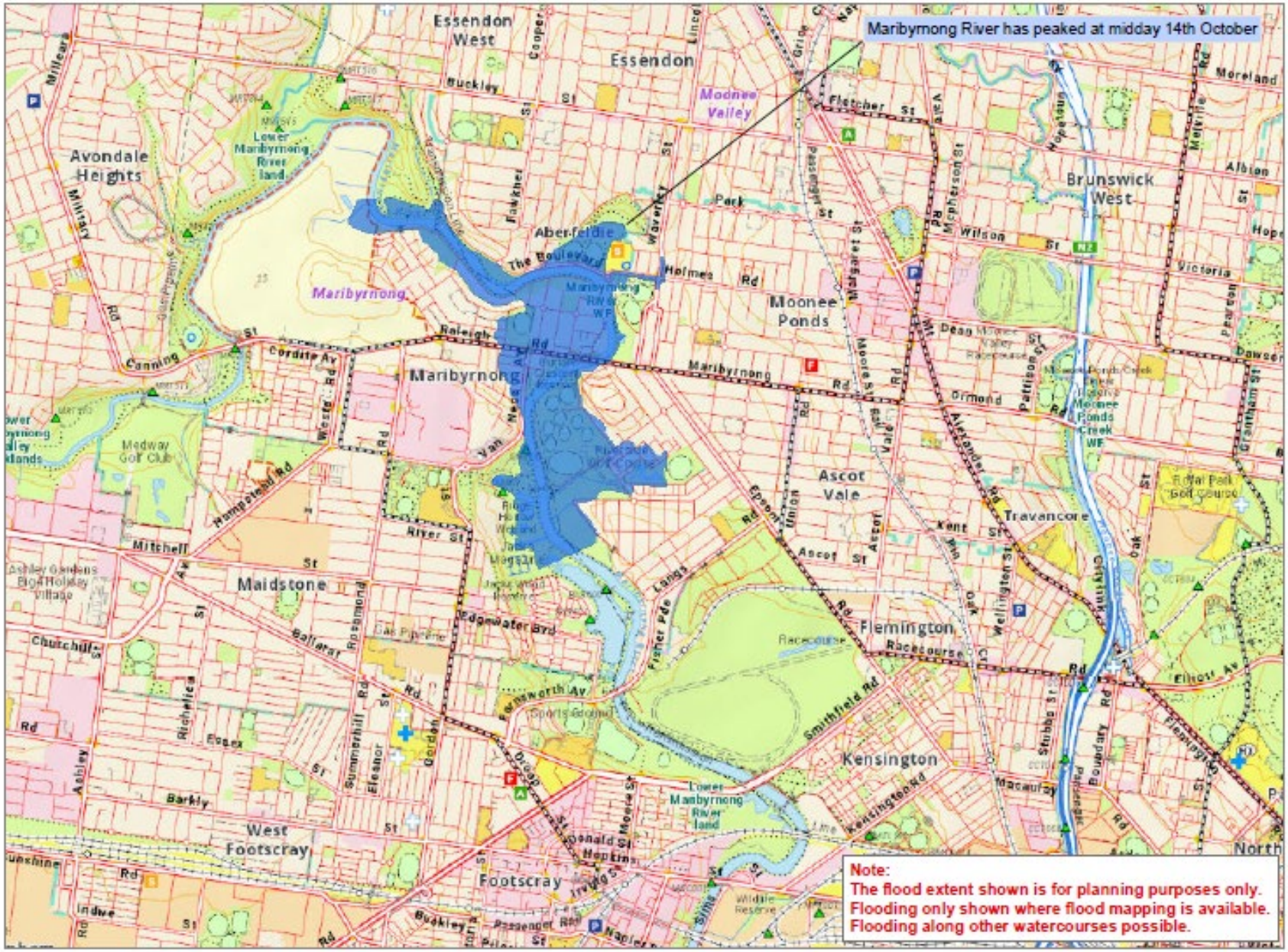
Scale 1:7639

City of Moonee Valley

Attachment 3 Peak Indicative Flood Extent - Maribyrnong River 17:15hrs 15 Oct 2022 - A3L 1:25,000



Print Date: 15/10/2022
Print Time: 17:15:50

Flood Gauge

- Major
- Moderate
- Minor
- Below Flood Level
- Flood Prediction Extent

PROJECTION: Lambert Conformal Conic
HORIZONTAL DATUM:GDA 1994
COORDINATE SYSTEM:GDA 1994 VICGRID94

N

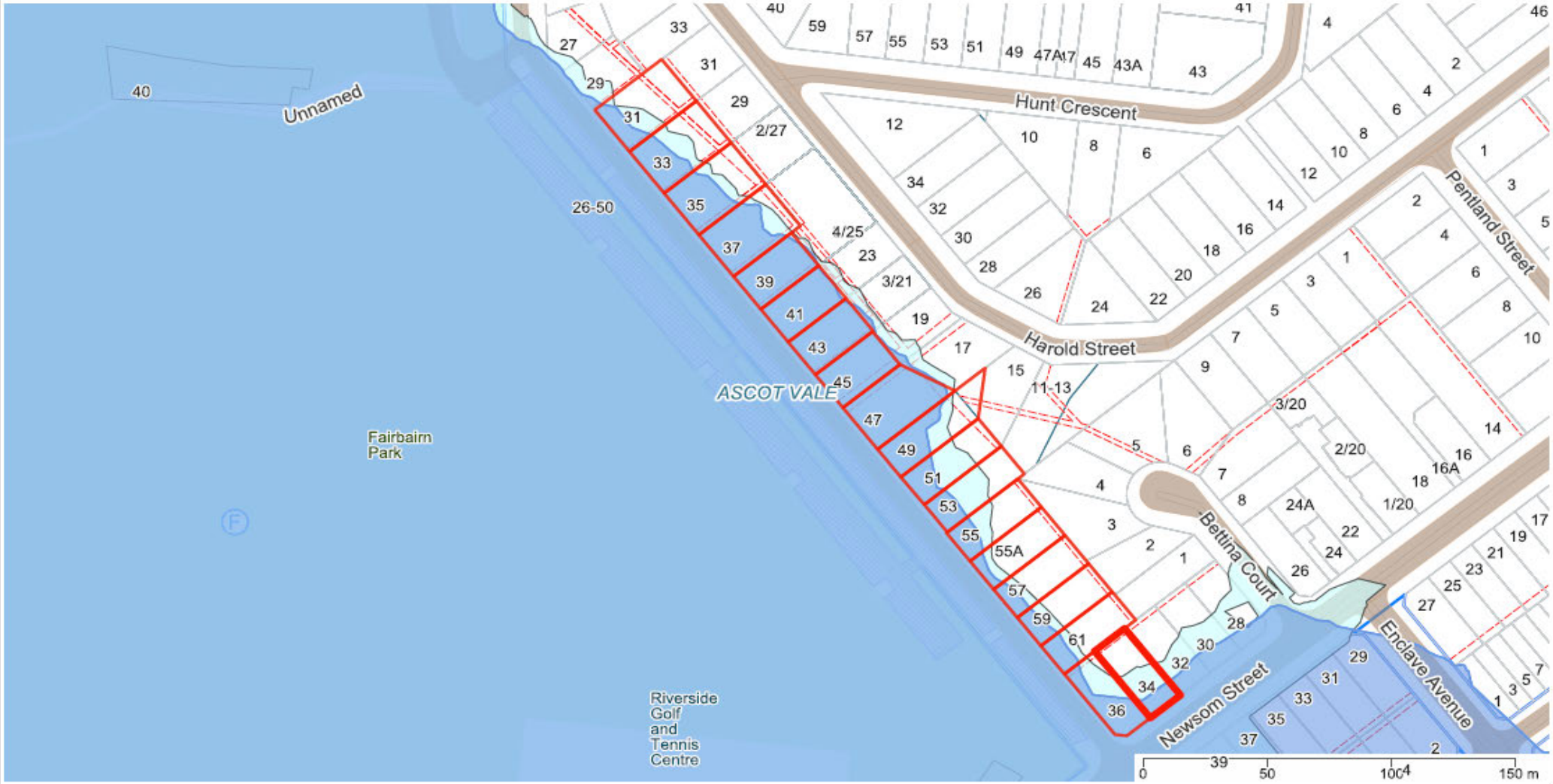
1:25,000

0 0.225 0.45 0.9 Kilometres

Disclaimer:
This map is a snapshot generated from Victorian Government data. The State of Victoria does not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any loss or damage which may arise from reliance upon it. All persons accessing this information should make appropriate enquiries to assure the currency of the data.

MXD name: C:\WMOfine_downloads\20221015\projects\20221015_1600_Peak_Indicative_Forecast_Flood_Extent_Maribyrnong_River_A3L_50K.mxd
PC login: wordumap
PC Number: CSL0E02862

Attachment 4 - Ascot Vale LSIO, Indicative Flood Extent and Flood Damaged Properties in Woods Street, Ascot Vale



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N

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Scale 1:2000

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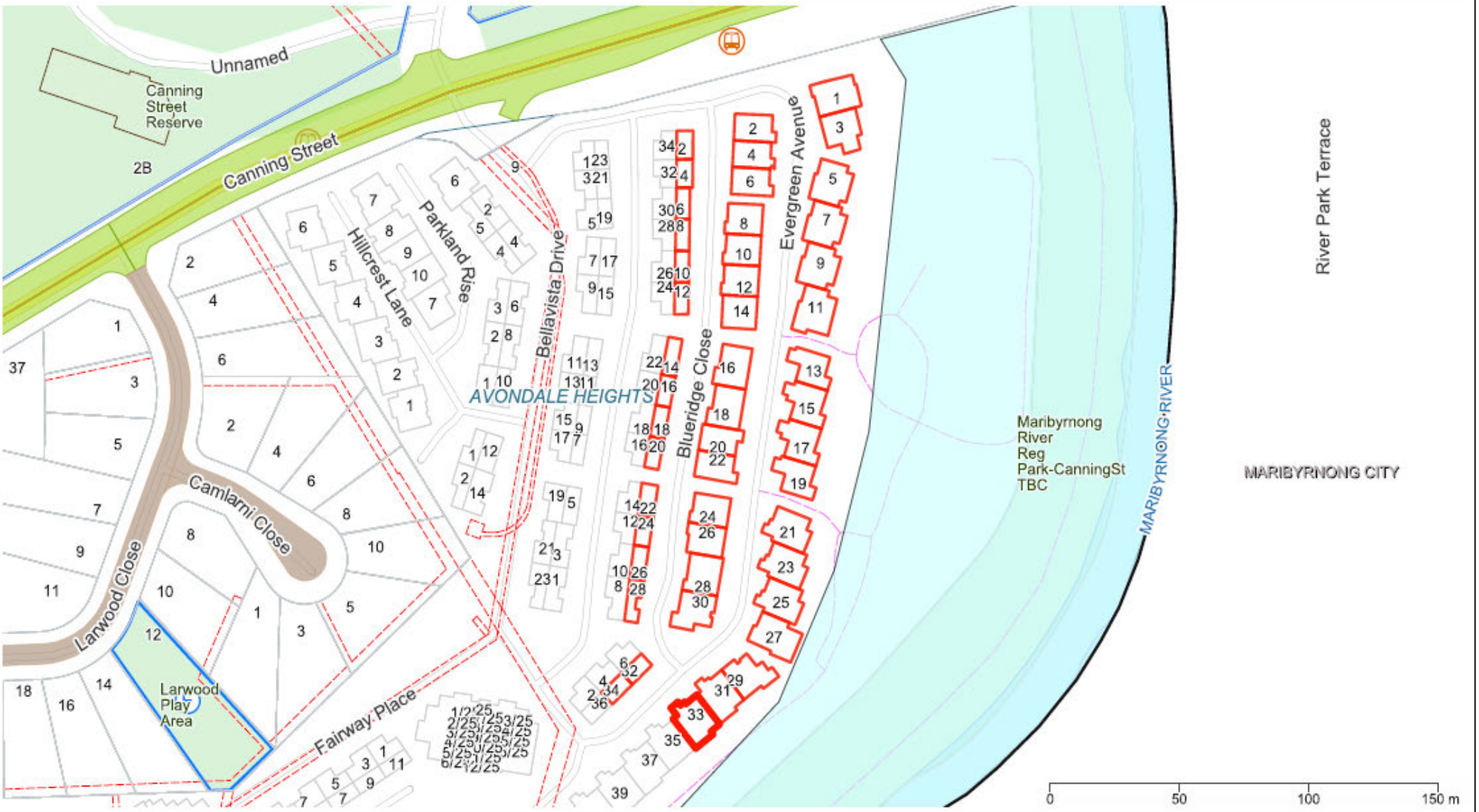
Attachment 5 – Flooding of Woods Street, Fairbairn Park, and Riverside Golf Course, Ascot Vale – Fire Rescue Victoria

Attachment 6 - Rivervue LSIO and Damaged Properties by October 14 Maribyrnong River Flood



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Scale 1:1827

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Attachment 7 – Blue Ridge Close, Rivervue Retirement Village – Friday 14 October, 2022 – Public Domain

Attachment 8 – Aerial View Rivervue Retirement Village, Friday 14 October 2022 – Photograph courtesy of Evie Matic