

From: [REDACTED]
To: [Maribyrnong River Flood Review](#); [REDACTED]
Subject: Fwd: Thank you for attending the Maribyrnong River Flood Review community information session in Moonee Ponds
Date: Wednesday, 15 February 2023 5:54:53 PM
Attachments: [MelbWater_MaribFloodReview.docx](#)

Hi [REDACTED]

Please find response from [REDACTED] below following attending info sessions.

Thanks, [REDACTED]

CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe

Hi [REDACTED],

The submission link does not seem to be working on my computer, so am just sending this reply as a standard email. I have attended 3 review sessions (online, Kensington, and Moonee Ponds – will also register for the Maribyrnong one on 21/02), and chatted with a number of MW staff, including [REDACTED], the [REDACTED] and [REDACTED]. We talked about many issues relating to the flood, and [REDACTED] also suggested [REDACTED] might be interested in a few of my comments. Although not directly impacted in any serious way by the flood, I told [REDACTED] I would try to send a bit of a summary of the points we discussed (as well as having previously given her a USB with lots of flood photos, which she said she would return to me on the 21/02 session). I'm therefore attaching the summary as above – it really is just a series of comments, questions, and points for consideration. I would therefore appreciate it if you could forward this email and attachment to [REDACTED] and [REDACTED] as soon as you get a chance.

Thanks in anticipation,

[REDACTED]

[REDACTED])

Sent from [Mail](#) for Windows

From: [REDACTED]

Sent: Tuesday, 14 February 2023 2:52 PM

Subject: Thank you for attending the Maribyrnong River Flood Review community information session in Moonee Ponds

Hello,

Thank you so much for coming along to the Maribyrnong River Flood Review information session, at the Clocktower Centre, Moonee Ponds. It was great to meet you.

We're grateful for the time you gave us, the questions asked, and the stories and experiences shared. Your insights and feedback are extremely valuable to the Review and Melbourne Water's broader understanding of the community's experience of the flood event that occurred in October last year.

We hope you got what you wanted out of the session, however, visit yoursay.melbournewater.com.au/maribyrnong-river-flood-review if you would like to learn more, or participate further.

If you would like to make a submission click [here](#), come along to an upcoming community information session click [here](#), or share your experience on online interactive map click [here](#).

To help us improve future sessions, please take this [short survey](#) about your experience at the community information session.

What next?

The consultation period is open until Friday 17 March 2023.

All submissions received during this time will be provided to the Review Panel and made publicly available online (with personal details removed) and made available online as soon as we can.

The stories and experiences shared by participants will be collated and will create a summary report. The report will be shared publicly with the community, as well as provided to relevant agencies for consideration. This summary report will also be shared with the Independent Review Panel to assist their overall understanding of the flood event.

More links:

Here's some additional information that may be useful for you:

- Information about flood recovery [Supporting residents and communities through flooding | Melbourne Water](#)
- Initial advice on the planning or building process to rebuild or refurbish call Melbourne Water at 131 722 or floodrecovery@melbournewater.com.au
- Free legal information and advice reach out to Disaster Legal Help Victoria (DLHV) <https://www.disasterlegalhelp.org.au/>
- If you have raised a complaint with your insurance company and haven't been able to resolve the matter you can contact Australian Financial Complaints Authority (known as AFCA) visit <https://www.afca.org.au/>

Kind regards,

The Melbourne Water team

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Melbourne Water Maribyrnong River (2022) Flood Review

Some Preliminary Comments, Questions, Points for Clarification

- 1) What parameter is conventionally used for flood ranking (eg, peak level at a consistent point/gauge, peak flow rate at same, flood volume, etc) and how reliable can the ranking really be, given all the complicating impacts on same and variation between different reports, eg, for the lower Maribyrnong:
 - a) Emphasis on Keilor gauge in MMBW 1975 report on 1974 flood, and peak level at Maribyrnong (Chifley Drive) not given in long section, but is for Raleigh Rd bridge (at 4.02m). However peak level for the 2022 flood seems to be given for Chifley Drive (at 4.22m – roughly same as on BOM website, and 4.18m in another report), with peak flood flow of approx 770.3 m³/s at around midday. What is the actual comparison point for these two floods? In the MW fact sheet of Jan 2023, the 1916 and 1906 flood peak levels – presumably at or near the Chifley Drive site - are given as 4.26m and 4.50m respectively, and in some info sheets the 1906 peak flow rate seems to range from 840-880 m³/s. The rankings for all of these floods seems to be determined from the above type info..
 - b) In the SES flood warning guide for Maribyrnong / Yarraville / Footscray, the 1906 flood peak level is given as 5.18m (the same as on the Chifley Drive painted flood levels pole – temporarily removed??). Much of the discrepancy between this and the 4.50m figure given above is presumably due to the former being based on the old MMBW level datum, while the latter is based on AHD with a zero level around 0.52m higher than the MMBW zero level.
 - c) Maribyrnong gauge level is affected by tide, Keilor gauge level is not. It seems tide was moving from high (at around 8-9am on 14/10) to low, and around neutral at midday, but was this a higher than normal tidal cycle? (I seem to remember in some of the flood modelling work the tide was assumed to cycle from 0.6m down to zero, and may have been in this range (rather than 0.3m to -0.3m) on the 14/10). Is comparative tidal influence at Maribyrnong gauge known for all of the 2022, 1974, 1916 and 1906 floods?
 - d) Obviously over the period from 1906 to 2022 there have been major changes with urbanization etc in significant parts of the Maribyrnong catchment. Significant “topographical” changes have also been made in the lower catchment, eg, the [REDACTED] development (incl lake) and the cutting off of the Flemington Racecourse section of the overall flood plain by the wall. While the space above normal lake level was supposed to roughly balance loss of flood plain due to fill in the former case, different modelling estimates were made on the impact of the cut-off wall in the latter (see also point 3 below). **While making modelling predictions difficult**, presumably such urbanization / topographical changes over the years (not to mention climate / rainfall intensity / duration changes) are just accepted when comparing actual floods and providing a ranking, ie, a bit like comparing apples and oranges!
 - e) Why, when hourly flood levels and flows for the 2022 flood are given on the MW website for the 14/10, flows on each side of that day are (artificially) shown as zero? (presumably this occurs when flows fall below some “cut-off” value.) However it does seem a bit confusing when compared with hydrograph / river levels on the BOM website, which gives actual values before and after the flood peak day.

- f) Why doesn't the 1916 Maribyrnong flood appear in the fig 4 flooding timeline given in the MW Flood Mgt Strategy for Pt Phillip and Westernport 2021-2031 report (although it shows up as the second ranked Maribyrnong flood in some places)? In the MMBW 1975 report on the 1974 flood, fig 12 seems to show, for the Keilor gauge, a peak of about 700m³/s for the 1974 flood and 640m³/s for the 1916 flood, but high flows extending over nearly a week for the latter, thus giving a greater flood volume overall than the 1974 flood. Hence this shows up a difference between peak flow and volume in the flood ranking, and of course measurements at a different gauge site than recent measurements taken at the Maribyrnong site gauge.
- 2) There has obviously been quite a bit of media coverage of the 2022 flooding at the [REDACTED] but with a fairly steep right hand bank (looking d/s), most overbank flow would occur on the left bank as flood flow approaches the much narrower opening beneath the Canning St bridge. Given that there are no culverts through the Avondale Heights-side embankment leading up to the bridge, it would be expected that this embankment would function as a partial dam, and thus cause substantial heading up upstream, and thus potentially severe flooding on the left bank [REDACTED] side. This obviously did happen, particularly in the lowest two rows of houses, and the new flood-prone area has been defined to include these. It is however most unfortunate that this potential problem was not recognized in advance (eg, compare the road embankment flow resistance to that offered by the Footscray rail embankment with its multiple culverts).
- 3) Modelling of the Flemington Racecourse floodwall impact on potential flooding in the lower Maribyrnong would seem a very difficult exercise, given some of the complications in using model baseline data indicated in point 1 above (eg, gauging and flood rank differences, catchment changes, etc). It seems there were significant differences in modelling approach and indicated impacts b/n Water Technology Pty Ltd consultants (using MIKE 2D unsteady flow model) and GHD (primarily relying on 1D HEC-RAS model) back in about 2003 before the floodwall was finally given approval by [REDACTED] [REDACTED]. I seem to remember the former model suggested a flood level rise of about 0.4m above street level at the corner of Newsom and Stanford Sts for an anticipated peak flow flood, and from my own observations and photos (admittedly taken further back up Newsom St near Enclave), this would seem to be in the right ballpark or even a bit on the low side. Undoubtedly further modelling work on this whole situation will be done as part of the current review, but as above, achieving accurate results may prove quite difficult.
- 4) It seems that the MW flood warning system, after indicating in the few days before 14/10 that significant flooding might be on the way, didn't actually function properly in the night before the rapid rise on that day, so obviously many people didn't have time to react safely as best they could, and major damage occurred. Although the warning system doesn't fall within the review's terms of reference, it probably should, as it has been a major cause of community concern and anger.