

From: [REDACTED]
To: [Maribyrnong River Flood Review](#)
Subject: Maribyrnong River Flooding - It must NEVER happen again
Date: Sunday, 29 January 2023 8:25:03 PM
Attachments: [Maribyrnong River Flood Review Submission Template.docx](#)
[Preventing Flooding in the Maribyrnong River Permanently \(January 2023\).pdf](#)

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.

Name: [REDACTED]

Phone: [REDACTED]

Email [REDACTED]

The attached submission addresses the following aspects of the review.

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

Essentially - why is there an Upper Yarra Dam that holds 200,000 ML of water that prevents flooding of the Yarra River in Melbourne, but why is there no similar reservoir in the Maribyrnong River basin?

That is the only question worth asking - and what is to be done about it?

Good luck with the review - and don't leave anything out!

Kind regards,

[REDACTED]

Flooding in the Maribyrnong River Basin

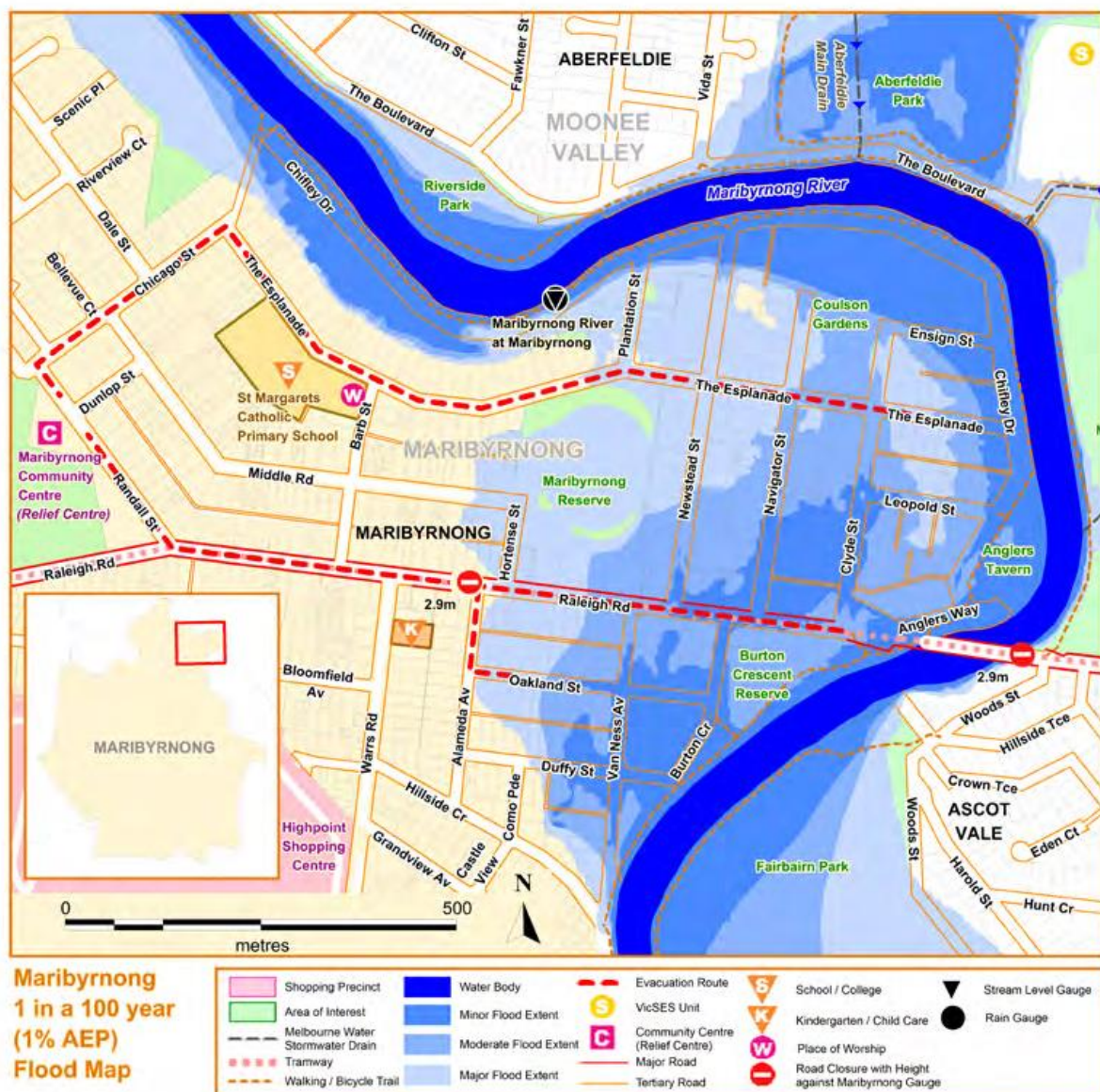
**Proposed Prevention
Measures to take to stop
future flooding events in the
Maribyrnong River Basin
(January 2023)**

Preventing Flooding in the Maribyrnong River Permanently.....	3
Considerations to prevent Maribyrnong River Flooding.....	5
No. 1: Jackson Creek & Rosslynne Reservoir.....	5
Operating Rosslynne Reservoir during floods (By Southern Rural Water).....	5
No. 2: Jackson Creek Flooding Overflow Channels/ Canals to Kororoit Creek & Toolern Creek/ Werribee River.....	6
Channel 1: Potential Channel between Jackson Creek/ Djirri Djirri Creek to Toolern Creek/ Werribee River south of Gisborne.....	6
Channel 2: Potential Channel between Jackson Creek/ Djirri Djirri Creek to Kororoit Creek East south-east of Gisborne.....	7
Channel 3: Potential Channel directly between Jackson Creek to Kororoit Creek East south-east of Gisborne.....	7
Potential New Reservoirs/Dams in the Maribyrnong River/ Deep Creek catchment area.....	8
New Reservoir/Dam 1: Confluence of Deep Creek & Jackson Creek at the headwaters of the Maribyrnong River – West of Melbourne Airport.....	8
New Reservoir/Dam 2: Confluence of Deep Creek & Emu Creek North-North West of Melbourne Airport.....	9
Why not both? (Jackson & Deep Creeks and Jackson & Emu Creeks).....	10
Final suggestion: A 1km channel/canal between the upper Emu Creek and upper Jackson Creek – that could go either way– West of Melbourne Airport.....	10
Maribyrnong River Flows in 2011 & 2022 Floods.....	11
2011 Maribyrnong River Flood Flows (January 11-25, 2011).....	12
2022 Maribyrnong River Flood Flows (October 6-20, 2022).....	13
What needs to be done to prevent the Maribyrnong River Flooding?.....	14
Melbourne Water’s six biggest reservoirs.....	14
The Upper Yarra Reservoir shows the way.....	15
Maribyrnong Flood review by Melbourne Water.....	15
The impact of the Flemington Racecourse floodwall.....	16
Conclusion.....	17

Preventing Flooding in the Maribyrnong River Permanently

The recent flooding of the Maribyrnong River must never be allowed to happen again – especially when there are solutions available to policy-makers prepared to do the necessary work.

This flood map below shows the areas that are under the greatest threat from renewed flooding in the future and especially as the growing impact of Climate Change makes heavy rainfall and these flooding events more likely.



One thing that doesn't make sense is designating this sort of result as a 1-in-100-year Flood Map.

That makes no sense – even just considering events since Federation.

Maribyrnong River flood levels at the Maribyrnong Gauge

When the Bureau of Meteorology (BoM) issues Flood Warnings, they include a prediction of the flood height at the Chifley Drive gauge. While no two floods are the same, the following table can give you an indication of what you could expect at certain flood heights, including when your access may be cut off and when your property may be affected.

Height (metres)	Impact/level
4.50m	8 September 1906 Highest recorded flooding affecting the Maribyrnong Flood Plain.
4.26m	22 September 1916 Second highest recorded flooding
4.20m	14 May 1974 Although the third highest flood level in recorded history, it caused the greatest degree of damage to residential, industrial and public utilities.
3.83m	15 September 1993 Anglers Tavern lounge and bistro areas under nearly two metres of water, and a further 50 residences flooded over floor level.
2.9m	Major flood level Tram services along routes 57 & 82 and bus services 468 & 952 along Raleigh Road likely to be impacted.
2.83m	10 November 1954 Maribyrnong River breaks its banks causing 200 families to be temporarily homeless. More than 60 rescued by Army boats.
2.3m	Moderate flood level Maribyrnong River Trail flooded at various locations. Burton Crescent Reserve impacted.
2.21m	14 January 2011 Flooding of the lower floor at the Anglers Tavern commenced. Closure of Chifley Drive, Plantation Street and nearby adjoining roads. Infrastructure improvements then implemented and have reduced the risk of similar floods having the same impact.
1.7m	Minor flood level

Since 1906 there have been 7 floods that have impacted businesses and/or residences – 1906, 1916, 1954, 1974, 1993, 2011 & 2022. 7 in 116 years is 1-in-16.5 years.

Even more importantly – since 1906 there have been **5 major floods** of the Maribyrnong River of at least 3.5 metres that have impacted many homes and businesses – in 1906, 1916, 1974, 1993 & 2022. **5 in 116 years is 1-in-23 years.**

Nowhere near 1-in-100 years – where does that number even come from?

Just in the last 30 years (1993-2022) there have been 3 floods (1993, 2011 & 2022). 3 in 30 years is equal to a flooding event every 1-in-10 years.

Going forward these flooding events are clearly going to become more and more frequent – perhaps 1-in-5 years instead of 1-in-10 years?

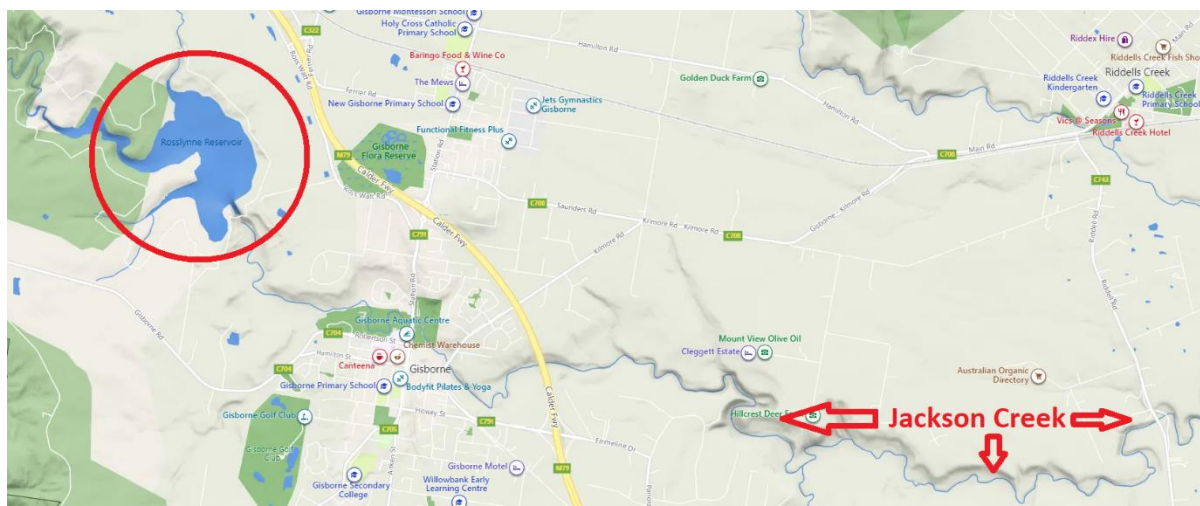
Given the likelihood of a high frequency of flooding in the years ahead major works must be undertaken upriver in the Maribyrnong River Basin to massively reduce the likelihood of these flooding events.

It is possible – and it must be done. State Government MUST step up – under pressure from the relevant Local Governments.

Considerations to prevent Maribyrnong River Flooding

I don't pretend to have all the answers to preventing Maribyrnong River Flooding, but clearly if the Maribyrnong River is set to break its banks and flood surrounding neighbourhoods perhaps as much as 1-in-5 years going forward as we deal with Climate Change – we must be prepared to suitably investigate mitigation possibilities to prevent this from happening and SAVE MONEY.

No. 1: Jackson Creek & Rosslynne Reservoir



Travelling up the Maribyrnong River leads to the junction of Deep Creek & Jackson Creek near Melbourne Airport (more on that later). Taking the Jackson Creek branch goes through the town of Gisborne and arrives at the Rosslynne Reservoir – just north-west of Gisborne.

The Rosslynne Reservoir is the only major Reservoir in the Maribyrnong Basin – although strangely, it is not fully utilised for flood mitigation.

Operating Rosslynne Reservoir during floods (By Southern Rural Water)

Rosslynne Reservoir has a fixed crest spillway, so that once it is full any excess water coming into the reservoir will flow over the spillway into Jackson Creek. Therefore, Southern Rural Water does not have the ability to deliberately surcharge (over fill) the reservoir.

This reservoir also does not have the ability to pre-release enough water to have any effect on a possible flood, but it can help reduce flood peaks by temporarily storing water if room is available, however, once the lake is full, it has little impact on flows.

Rosslynne Reservoir capacity is 25,400 megalitres (ML) and is managed by Southern Rural Water. This reservoir was not designed to manage floods. It simply stores water for various uses including water supplies for the townships of Sunbury and Gisborne and irrigation water for river diverters along the Maribyrnong River

<https://www.srw.com.au/sites/default/files/documents/2022-05/SRWs-role-during-floods-at-Rosslynne-Reservoir-2.pdf>

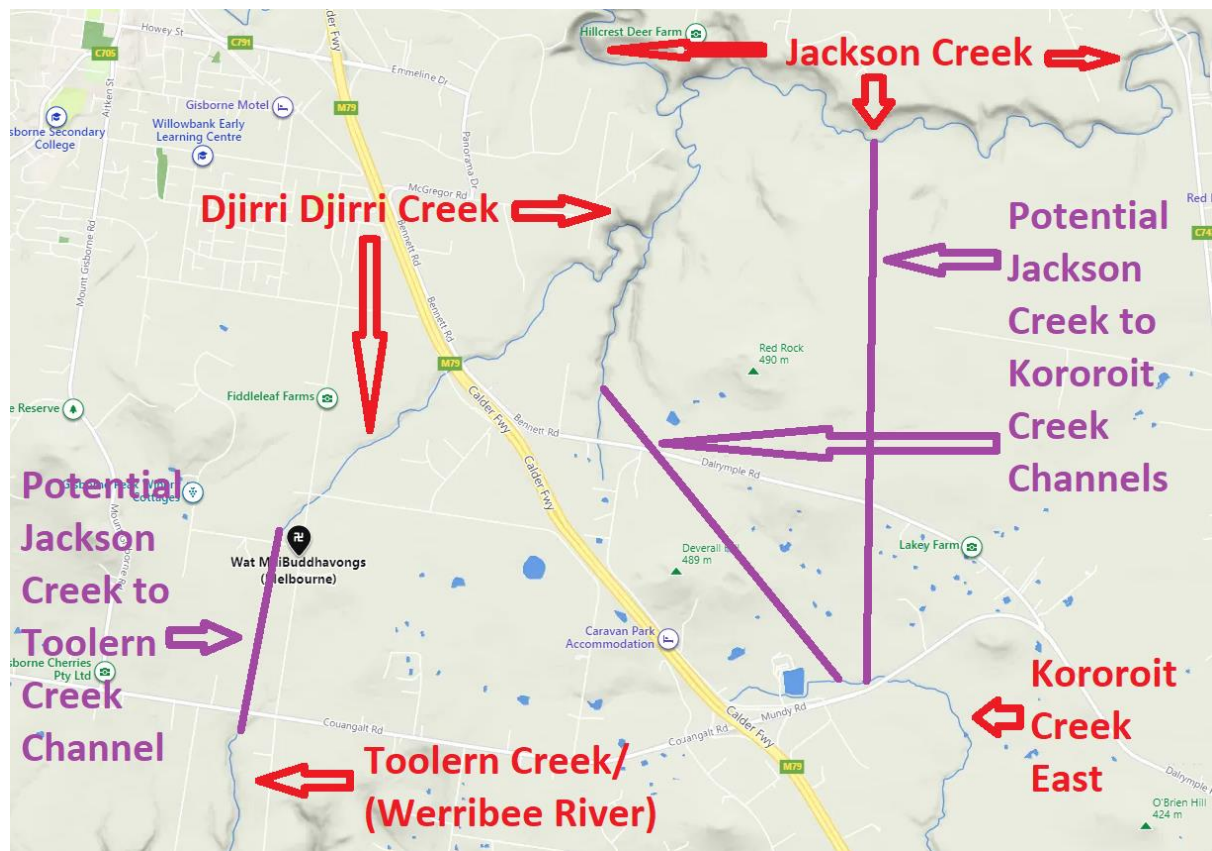
This obviously presents as the first point of action.

Rosslynne Reservoir SHOULD BE RAISED to allow for proper flood mitigation in periods of high water precipitation in its catchment – like recently such as November 2022.

Rosslynne Reservoir should be the first action taken to flood-proof the Maribyrnong River basin from flooding – it is already there and it is the easiest to action.

Raise the Reservoir dam wall and make this a useful and functioning asset for ratepayers in the Jackson Creek/Maribyrnong River basin.

No. 2: Jackson Creek Flooding Overflow Channels/ Canals to Kororoit Creek & Toolern Creek/ Werribee River



The second line of flood mitigation should be investigated with relation to other catchment areas in the Western suburbs which provide greater opportunity to disperse rainfall throughout different river systems in the area.

Channel 1: Potential Channel between Jackson Creek/ Djirri Djirri Creek to Toolern Creek/ Werribee River south of Gisborne

The length of a potential channel between Djirri Djirri Creek and Toolern Creek is as little as around 1km. However, this will also involve necessary deepening of Djirri Djirri Creek from Jackson Creek through to the start of the flooding overflow channel – a distance of up to another 4km.

All up that may mean works are required up to a length of 5km to utilise the Djirri Djirri Creek to Toolern Creek/ Werribee River outlet as a flooding overflow channel.

This channel option should form part of the investigation of flood mitigation possibilities although this may not be the optimum solution.

Channel 2: Potential Channel between Jackson Creek/ Djirri Djirri Creek to Kororoit Creek East south-east of Gisborne

The length of a potential channel between Djirri Djirri Creek and Kororoit Creek East is around 2km – although a look at the map shows this does slide between two of the taller landmarks in the area – Red Rock at 490m and Deverall Hill at 489m.

Constructing such a channel will also require deepening works to be carried out on Djirri Djirri Creek of up to another 3km back to the confluence with Jackson Creek to properly create this flooding overflow channel. All up that may mean works are required up to a length of 5km to utilise the Djirri Djirri Creek to Kororoit Creek East outlet as a flooding overflow channel.

This channel option should form part of the investigation of flood mitigation possibilities although this may not be the optimum solution.

Channel 3: Potential Channel directly between Jackson Creek to Kororoit Creek East south-east of Gisborne

The length of a potential channel directly between Jackson Creek and Kororoit Creek East is around 3.5km. This may in fact be the optimum channel option provided here to create a flood overflow channel for excess rain in the upper reaches of Jackson Creek.

This channel option should form part of the investigation of flood mitigation possibilities and may indeed be the optimum solution.

To determine which of these options are the best to pursue will require a proper topographical analysis of the land in question as well as consideration of the landowners in the area.

It is even possible that with an enlarged Rosslynne Reservoir none of these channels will be required.

Alternatively, it may be that the optimal solution to prevent flooding in the lower reaches of the Maribyrnong River is to implement two or even three of the possibilities outlined above for Jackson Creek such as expanding Rosslynne Reservoir and creating one, or two, flooding overflow channels to disburse excess water into the Toolern Creek/ Werribee River and Kororoit Creek systems.

Only a proper study undertaken by the State Government can determine the correct answer to the possibilities outlined above.

Potential New Reservoirs/Dams in the Maribyrnong River/Deep Creek catchment area

The other major options for flood mitigation, apart from building flooding mitigation overflow channels, are to build new reservoirs/dams in the upper reaches of the Maribyrnong River basin – and there are clearly two locations that should be given the utmost consideration.

It may be that one, or both, of these flood mitigation solutions would provide an optimal solution to prevent flooding within the lower Maribyrnong River.

New Reservoir/Dam 1: Confluence of Deep Creek & Jackson Creek at the headwaters of the Maribyrnong River – West of Melbourne Airport

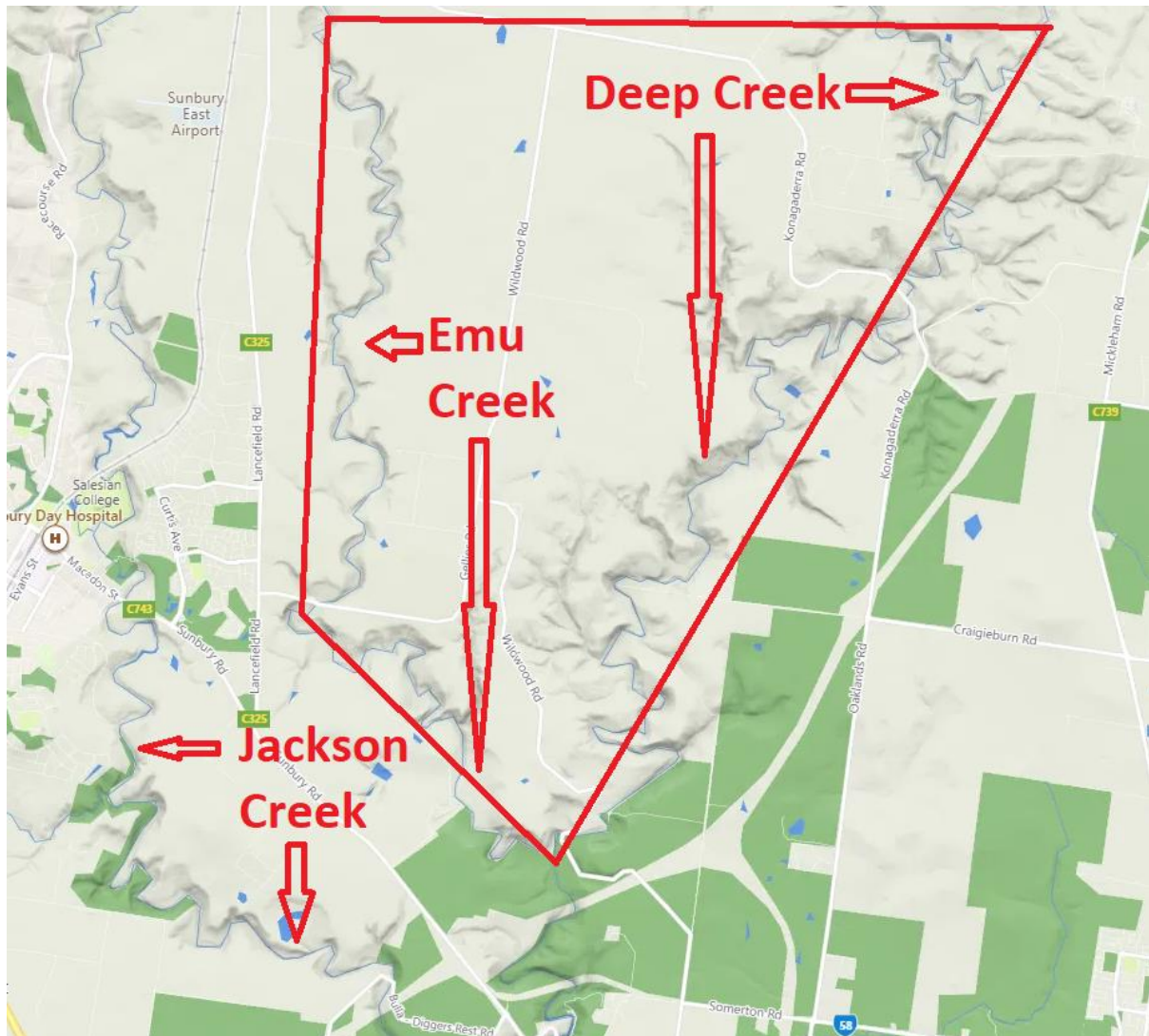


The first and most obvious location for a potential reservoir/dam is at the confluence of Deep Creek & Jackson Creek at the headwaters of the Maribyrnong River to the West of Melbourne Airport.

There is a large area of under-developed land in this area and this land will never be developed for residential purposes – given its location right under the flightpaths of Melbourne Airport.

The fact this land will never be developed makes it a perfect place for a dam used to regulate Maribyrnong River overflows.

New Reservoir/Dam 2: Confluence of Deep Creek & Emu Creek North-North West of Melbourne Airport



The second obvious location for a potential reservoir/dam is slightly further north at the confluence of Deep Creek & Emu Creek. There is a large tract of undeveloped land between these two creeks and this appears as an ideal place for a reservoir – especially given there is already a reservoir on the other Maribyrnong River tributary – Jackson Creek.

If the decision were made to place a reservoir/dam that decision should be made soon as there is a large chance this area will be zoned residential at some point in the next 10-20 years and that chance to place a reservoir/dam on Deep Creek may be lost forever.

Why not both? (Jackson & Deep Creeks and Jackson & Emu Creeks)

Perhaps the ideal solution is to create two dams/reservoirs in both of these locations which will allow further redundancy in the system along with an expanded Rosslynne Reservoir.

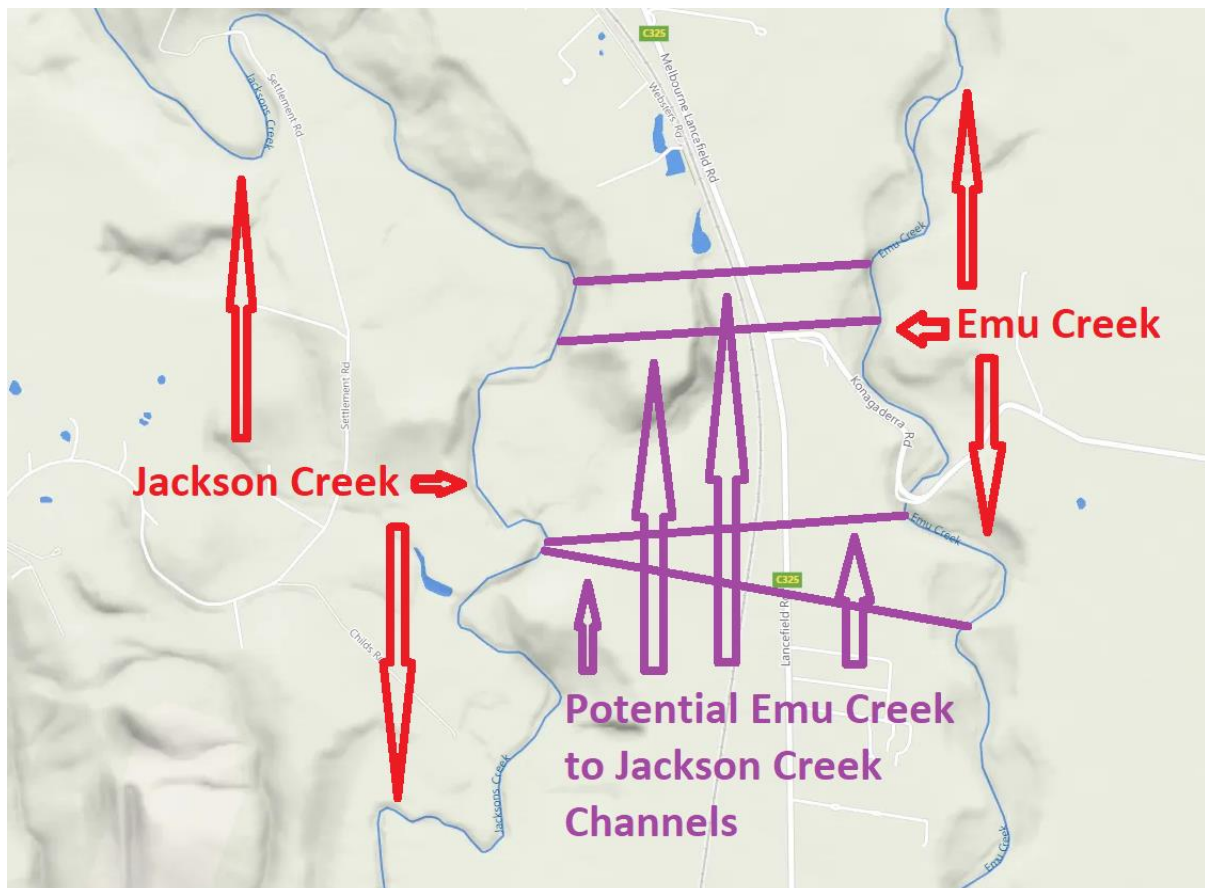
There are many examples from around the world that show multiple reservoir systems are often the ideal solutions to problems of potential river flooding as occurs in the Maribyrnong River basin.

The construction of dams/reservoirs in this area also presents the possibility of using the area for recreational water sports for residents of Melbourne's Northern & Western suburbs – well known dams in the United States such as Lake Mead & Lake Powell are utilised by millions of Americans for just that purpose at both of these artificial reservoirs.

Lake Powell (Arizona & Utah) is an artificial reservoir on the [Colorado River](#) in [Utah](#) and [Arizona](#), United States. It is a major vacation destination visited by approximately two million people every year. It is the second largest artificial reservoir by maximum water capacity in the United States behind [Lake Mead](#), storing 25,166,000 acre-feet ($3.1042 \times 10^{10} \text{ m}^3$) of water when full.

Lake Mead (Arizona & Nevada) provides many types of recreation to locals and visitors, including boating, fishing, swimming, sunbathing, and water skiing. Four marinas are located on Lake Mead: Las Vegas Boat Harbor and Lake Mead Marina (in Hemenway Harbor, NV) operated by the Gripenstogs, and Callville Bay (in Callville Bay, NV) and Temple Bar (in Arizona).

Final suggestion: A 1km channel/canal between the upper Emu Creek and upper Jackson Creek – that could go either way– West of Melbourne Airport



There is one other possible mitigation action worth looking at – and depending upon if other possibilities are taken up – these flooding overflow channels could flow either way from Emu Creek to Jackson Creek or vice-versa from Jackson Creek to Emu Creek.

These two major tributaries of the Maribyrnong River come within about 1km of each other just south of Clarkefield making this most probably the cheapest and most cost-effective mitigation works available of any of the outlined possibilities.

As mentioned above – the optimal solution is likely a combination of the 7 possibilities outlined in this document – perhaps even as many as 5-6 of them to provide redundancy and flexibility in the Maribyrnong River system that will prevent flooding of the lower Maribyrnong ever happening again.

Maribyrnong River Flows in 2011 & 2022 Floods

A key question that must be answered is how big do the potential reservoirs/dams need to actually be to provide proper flood mitigation in the event of rainfalls similar to that experienced in 2022 – or even much larger.

It turns out – the dams do not need to be that large to provide capacity to prevent floods like what happened in October 2022 from happening again.

See below for full stats on the Maribyrnong River Flows during the 2011 & 2022 Floods at the Keilor Monitoring Site: <https://www.melbournewater.com.au/water-and-environment/water-management/rainfall-and-river-levels#/reader/230105A>

January 2011 Floods: January 13-18, 2011.

Flood Peak: January 15, 2011: 25,291 ML in one day (A measured peak flow of 36,653 ML)

2 Day Flood Peak: January 14-15, 2011: 41,242.8 ML in two days (Average of 20,621.4 ML)

October 2022 Floods: October 13-18, 2022.

Flood Peak: October 14, 2022: 51,755.6 ML in one day (A measured peak flow of 70,778.9 ML)

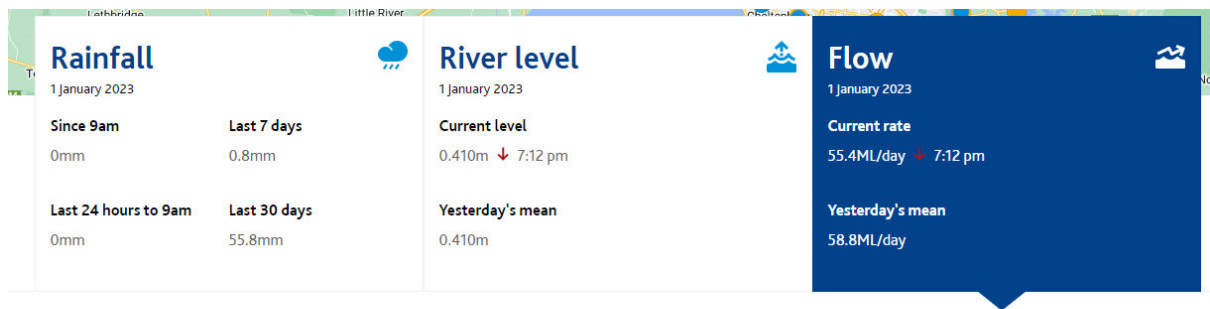
2 Day Flood Peak: October 14-15, 2022: 66,196.6 ML in two days (Average of 33,098.3 ML)

3 Day Flood Peak: October 14-16, 2022: 70,929.3 ML in three days (Average of 23,643.3 ML)

The real problem for the flooded areas was that over 50,000 ML came down the Maribyrnong River in one day – and the River was unable to handle this volume of water without breaking its banks.

The possibility of constructing 3 dams/reservoirs holding 50,000 ML each – a “doubled” Rosslynne Reservoir and two new reservoirs of 50,000 ML each (or even more if suitable) would provide substantial redundancy to allow for “freak” rainfall events such as what happened in October 2022.

2011 Maribyrnong River Flood Flows (January 11-25, 2011)



Additional detail for: Keilor

Choose from commonly requested data or configure your own data

Interval

Daily

Choose date range

1 Jan 2011 - 1 Feb 2011

Table

Chart

Date	Max flow (ML/day)	Min flow (ML/day)	Mean flow (ML/day)	Max flow (m3/s)	Min flow (m3/s)	Mean Flow (m3/s)
25 Jan 2011	220.1	168.6	183.8	2.548	1.951	2.127
24 Jan 2011	220.1	181.0	200.8	2.548	2.095	2.323
23 Jan 2011	248.6	206.8	224.7	2.877	2.393	2.600
22 Jan 2011	295.9	234.1	265.5	3.424	2.709	3.073
21 Jan 2011	367.4	295.9	322.2	4.252	3.424	3.729
20 Jan 2011	447.4	349.0	400.0	5.178	4.039	4.629
19 Jan 2011	647.8	447.4	541.7	7.498	5.178	6.269
18 Jan 2011	1,091.6	647.8	843.9	12.635	7.498	9.767
17 Jan 2011	2,530.4	1,091.6	1,692.4	29.287	12.635	19.588
16 Jan 2011	12,332.0	2,530.4	5,674.6	142.732	29.287	65.678
15 Jan 2011	36,653.0	12,460.5	25,291.1	424.224	144.218	292.721
14 Jan 2011	29,587.3	1,568.1	15,951.7	342.445	18.150	184.626
13 Jan 2011	1,568.1	263.7	718.3	18.150	3.052	8.313
12 Jan 2011	295.9	29.6	71.2	3.424	0.343	0.824
11 Jan 2011	42.9	29.6	34.4	0.497	0.343	0.399

Flood Peak: January 15, 2011: 25,291 ML in one day (A measured peak flow of 36,653 ML)

2 Day Flood Peak: January 14-15, 2011: 41,242.8 ML in two days (Average of 20,621.4 ML)

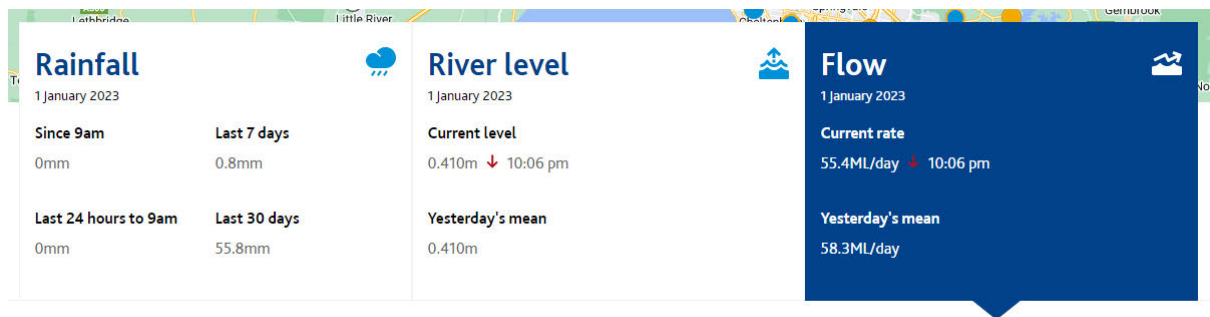
3 Day Flood Peak: January 14-16, 2011: 46,917.4 ML in three days (Average of 15,639.1 ML)

4 Day Flood Peak: January 14-17, 2011: 48,609.8 ML in four days (Average of 12,152.5 ML)

5 Day Flood Peak: January 14-18, 2011: 49,453.7 ML in five days (Average of 9,890.7 ML)

6 Day Flood Peak: January 13-18, 2011: 50,172.0 ML in six days (Average of 8,362.0 ML).

2022 Maribyrnong River Flood Flows (October 6-20, 2022)



Additional detail for: Keilor

Choose from commonly requested data or configure your own data

Interval

Daily

Choose date range

1 Oct 2022 - 1 Dec 2022

Table

Chart

Date	Max flow (ML/day)	Min flow (ML/day)	Mean flow (ML/day)	Max flow (m3/s)	Min flow (m3/s)	Mean Flow (m3/s)
20 Oct 2022	991.1	832.6	892.7	11.471	9.637	10.332
19 Oct 2022	1,339.8	991.1	1,139.9	15.507	11.471	13.193
18 Oct 2022	1,902.3	1,339.8	1,582.6	22.017	15.507	18.317
17 Oct 2022	3,240.6	1,902.3	2,498.4	37.507	22.017	28.917
16 Oct 2022	6,895.9	3,240.6	4,733.3	79.814	37.507	54.784
15 Oct 2022	26,729.1	6,949.0	14,441.0	309.365	80.428	167.142
14 Oct 2022	70,778.9	19,995.8	51,755.6	819.200	231.433	599.023
13 Oct 2022	19,697.2	604.9	3,835.0	227.977	7.001	44.387
12 Oct 2022	736.1	604.9	668.6	8.520	7.001	7.738
11 Oct 2022	5,817.0	736.1	945.5	67.326	8.520	10.943
10 Oct 2022	2,409.1	1,157.7	1,626.8	27.883	13.399	18.828
9 Oct 2022	7,981.1	2,409.1	4,700.4	92.374	27.883	54.402
8 Oct 2022	13,240.5	6,580.0	9,181.5	153.246	76.157	106.267
7 Oct 2022	14,745.7	461.0	6,116.2	170.668	5.336	70.789
6 Oct 2022	544.4	318.9	347.4	6.301	3.691	4.021

Flood Peak: October 14, 2022: 51,755.6 ML in one day (A measured peak flow of 70,778.9 ML)

2 Day Flood Peak: October 14-15, 2022: 66,196.6 ML in two days (Average of 33,098.3 ML)

3 Day Flood Peak: October 14-16, 2022: 70,929.3 ML in three days (Average of 23,643.3 ML)

4 Day Flood Peak: October 13-16, 2022: 74,764.9 ML in four days (Average of 18,691.2 ML)

5 Day Flood Peak: October 13-17, 2022: 77,263.3 ML in five days (Average of 15,452.7 ML)

6 Day Flood Peak: October 13-18, 2022: 78,845.9 ML in six days (Average of 13,141.0 ML).

What needs to be done to prevent the Maribyrnong River Flooding?

The possibilities outlined above indicate that likely the best solution to preventing the Maribyrnong River from flooding in the future is to expand the Rosslynne Reservoir and construct 1-2 more dams/ reservoirs in the suggested locations at the confluence of Jackson Creek & Deep Creek and further upriver at the confluence of Emu Creek & Deep Creek.

These 2-3 reservoirs would have the capability of holding 50,000 ML each and provide Melbourne Water / Southern Rural Water with the ability to regulate river flows in the event of extreme rainfall events to prevent flooding in the lower Maribyrnong.

A comparison of other reservoirs/ dams managed by Melbourne Water shows that reservoirs of this size would only be equivalent to the fifth largest of the Melbourne Water reservoirs – around half the size of the fourth largest reservoir – Sugarloaf at 96,253 ML North-East of Melbourne.

Melbourne Water's six biggest reservoirs

Water storage area	Total capacity (ML)	Current volume (ML)	% full	Recorded rainfall (mm)	
Thomson	1,068,000	1,071,474	+133	100%	3.0 View hourly unverified
Cardinia	286,911	256,629	-347	89.4%	N/A View hourly unverified
Upper Yarra	200,579	180,631	-397	90.1%	0.6 View hourly unverified
Sugarloaf	96,253	91,017	0	94.6%	N/A View hourly unverified
Silvan	40,445	35,689	-242	88.2%	N/A View hourly unverified
Tarago	37,580	37,785	+7	100%	N/A View hourly unverified

www.melbournewater.com.au/water-and-environment/water-management/water-storage-levels#

The range of potential water channels/ canals that are suggested could also be constructed to provide more flexibility to the overall water management within the Maribyrnong River system.

The dirt that will be required to be excavated as part of these projects can itself be utilised to create levees and embankments where required to further assist in required flood mitigation strategies in other parts of the Maribyrnong River basin.

The Upper Yarra Reservoir shows the way

The most pertinent example of how flood mitigation can be achieved is the Upper Yarra Reservoir which has prevented serious flooding along the Yarra River, including within suburban Melbourne, ever since it was constructed from 1948-1957.

The Upper Yarra Reservoir, with a maximum storage level of 200,000+ ML, is far larger than any of the proposed reservoirs to be built in the Maribyrnong River catchment – and likely larger than all three potential reservoirs put together – thus showcasing how a larger pattern of rainfall as there is in the Yarra River catchment can be regulated to prevent flooding in the lower reaches.

The successful operation of the Upper Yarra Reservoir at preventing flooding throughout suburban Melbourne in the last 60 years shows that the comparatively minor works required to achieve the same outcome and save billions of dollars from future flooding in the lower Maribyrnong River is well within the capabilities of a modern construction business.

Maribyrnong Flood review by Melbourne Water

An independently-led review will be undertaken into the October 2022 Maribyrnong River flood.

About the review

The review will look at the causes and contributors to the October 2022 flooding event in the urban area of the Maribyrnong River catchment, including any impacts the Flemington Racecourse flood wall may have had.

How the review will work

The review will invite submissions from stakeholders and the community, in particular impacted residents.

Submissions will open from 17 January 2023. Further details about the review will also be released at this time and a series of community information sessions will be held.

Terms of Reference for the review are currently being developed.

██████████, an independent expert in planning and environment, has been appointed to lead the review. He has more than 25 years of experience across environmental impact assessment, planning and environmental law.

Independent experts will also support the review as required.

Melbourne Water will keep the community updated throughout the review process.

<https://www.melbournewater.com.au/building-and-works/projects/maribyrnong-flood-review>

<https://www.melbournewater.com.au/about/what-we-do/news/maribyrnong-flood-review-update>

The impact of the Flemington Racecourse floodwall

One of the biggest outcries at the time of the October 14, 2022 flood was that the construction of the Flemington Racecourse floodwall had exacerbated the flooding of the nearby areas.

A look at the history of flooding in the area shows that since 1900 there have been many floods in this area – well before there was any Flemington Racecourse floodwall!

Especially relevant is the ‘major flooding’ that has occurred on four occasions – 1906 (4.5 metres), 1916 (4.26 metres), 1974 (4.20 metres) and 1993 (3.83 metres) before the Flemington Racecourse floodwall even existed.

These four floods in 87 years – about 1-in-22 years – shows that removing the floodwall will achieve nothing to protect properties located in low-lying areas along the Maribyrnong River – but only serve to place the Flemington Racecourse once again at risk of being flooded – for no gain!

These four floods prove comprehensively that the recent flood in October 2022 was barely impacted by the construction of the Flemington Racecourse floodwall and that the best solutions to prevent flooding in the Maribyrnong River basin involve significant capital works further up the Maribyrnong Basin as suggested in this document.

Potential new reservoirs at the confluence of Jackson Creek & Deep Creek and the confluence of Emu Creek & Deep Creek as well as several potential flood overflow channels in north-western Melbourne to divert water into other river systems that will remove the chance of flooding again happening in the lower reaches of the Maribyrnong River.

Conclusion

It is vital the flooding of the lower Maribyrnong River never be allowed to happen again and it is well within the range of our current technologies and abilities to ensure it never happens again.

I would urge the City of Maribyrnong to investigate the possibilities outlined in this document as well as prepare a submission to Melbourne Water's Maribyrnong Flood Review which takes into account these flood mitigation options and builds on them to the optimal result as determined by the City of Maribyrnong.

I would note that other Local Governments to which the City of Maribyrnong should be in contact with regards to submissions to the Maribyrnong Flood Review include the City of Hume, City of Melton, City of Brimbank, City of Moonee Valley, City of Hobsons Bay, City of Wyndham and the Shire of the Macedon Ranges.

A total of 7 City Councils & 1 Shire Council are those with the greatest stake in the outcome of the Maribyrnong River basin flooding inquiry and it is the City of Maribyrnong which is the most subject to flooding of all eight councils – so SHOULD take the lead role on Local Government submissions.

The flood mitigation proposals in this document are located upriver in the City of Hume, City of Melton and Shire of the Macedon Ranges but they will have a large impact on all downstream councils mentioned here – and especially the City of Maribyrnong.

It is no good to attempt to deflect blame to the Flemington Racecourse floodwall when prior flooding events shows this floodwall will have only a negligible impact on future bouts of heavy rainfall such as experienced recently in October 2022.

The solutions to prevent flooding in the Maribyrnong River basin ever happening again and its important the proposals to rectify the current situation are taken seriously.

These proposals also prevent large opportunities for bringing investment and jobs into the State of Victoria and providing ongoing benefits through the recreational activity possibilities to millions of Victorians for years and decades to come.

Thankyou for your consideration of these proposals and I hope to see the proper recommendations eventually adopted that ensure there is no flooding event like we experienced in October 2022 ever again once the requisite dams, reservoirs, channels and canals are constructed.

Best regards,

Name: [REDACTED]

Phone: [REDACTED]

Email: [REDACTED]