

From: [REDACTED]
To: [Maribyrnong River Flood Review](#)
Cc: [REDACTED]
Subject: Melbourne Water Flood Review Submission
Date: Friday, 17 March 2023 11:27:51 AM
Attachments: [Email to \[REDACTED\] 16 Feb 2023.pdf](#)

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To whom it may concern,

This email submission is to note that Melbourne Water have sought to exclude submissions from further review through the Terms of Reference for the Flood Review of the October 2022 flood in respect of the non-urban catchment for land outside of the urban growth boundary.

Furthermore, it is noted that at the public session at Keilor, Melbourne Water staff lied to us in **their yes response** to our question **will our submissions relating to potential causes and contributors to the Flood Event in the non-urban catchment be accepted and considered by the review panel in respect of the flood event of October, 2022 on land outside of the urban growth boundary and therefore beyond the Terms of Reference?**

Please see below all emailed communication about the lie noted above from Melbourne Water staff.

It is also noted that in the week preceding the flood event that the rainfall was lower than the week prior to the week of the flood, so there are other reasons which I believe created the flood and which I will not divulge, because my submission into the flood review within the non-urban catchment for land outside of the urban growth boundary is not within the Terms of Reference, otherwise known as the flood review exclusion clause.

Regards,

[REDACTED]
[REDACTED]

From: [REDACTED]
Sent: Friday, 10 March 2023 8:17 PM
To: [REDACTED]
Cc: [REDACTED]
[REDACTED]
Subject: Re: Melbourne Water Flood Review

Hi [REDACTED]

further to the complaint below, I also raise issue with the propaganda in the public domain regarding the flood and Melbourne Water's publication (see link below). To this end please also see attached email to [REDACTED] on 16/02/2023, which has conveniently not received a response because it is factual based on all the evidence we have and that is the simple fact that we have received no support as residents or part of our community from Melbourne Water since the October 2022 flood event as all of the evidence in the emails below, the attached emails and the attachments to the emails to [REDACTED] on 16/02/2023.

<https://www.melbournewater.com.au/building-and-works/projects/supporting-residents-and-communities-through-flooding>

As I mentioned in my first email, I look forward to **your dealing with this poor action by Melbourne Water staff, not another Melbourne Water staffer that will protect these individuals, and what will be done to justify the claims that Melbourne Water are supporting residents and our community following the October 2022 flood.**

Regards,

[REDACTED]
[REDACTED]

From: [REDACTED]
Sent: Friday, 10 March 2023 1:27 PM
To: [REDACTED]
Cc: [REDACTED]
[REDACTED]
Subject: Melbourne Water Flood Review

Dear [REDACTED]

this is a formal complaint against [REDACTED], another lady from Melbourne Water at the Keilor Session for the 2022 flood review (name not recorded, but i will leave that to you to ascertain) and [REDACTED]

The complaint is that they each lied (**it's not a misunderstanding**) when they each said "yes" to our very simple question **will our submissions relating to potential causes and contributors to the Flood Event in the non-urban catchment be accepted and considered by the review panel in respect of the flood event of October, 2022 on land outside of the urban growth boundary and therefore beyond the Terms of Reference?**

We now find they will not repeat in writing what they verbally said, hence what they verbally said was an outright lie. Please also be advised that your consultant [REDACTED] [REDACTED] was in the room when the question was asked and she heard their response yes, that they will now not confirm in writing.

They acted disgracefully and without any honour and I look forward to **your dealing with this poor action by Melbourne Water staff, not another Melbourne Water staffer that will protect these individuals.**

Regards,

[REDACTED]
[REDACTED]

From: [REDACTED]
Sent: Friday, 10 March 2023 1:16 PM

To: [REDACTED]
[REDACTED]
[REDACTED]
Cc: [REDACTED]
[REDACTED]
Subject: Re: Melbourne Water enquiry – [REDACTED]

Hi [REDACTED]

there was no misunderstanding. **You and your colleagues straight out lied to the question that was posed to you.**

That was the lady that sat to the left of you (sorry name not known) in the room that you shuffled off [REDACTED] and I into, because she also said yes in answer to the question.

[REDACTED] also said yes in that room and then in the main room continued to encourage me to make submission to which I said I wanted first the written advice from Melbourne Water that they verbally (through yourself and your colleagues) each said yes to our question, **and which clearly is now an outright lie, not a misunderstanding.**

You and your colleagues acted disgracefully and without any honour. And this is not the end of it.

Regards,

[REDACTED]
[REDACTED]

From: [REDACTED]
Sent: Friday, 10 March 2023 1:08 PM

To: [REDACTED]
[REDACTED]
[REDACTED]
Cc: [REDACTED]
[REDACTED]
Subject: RE: Melbourne Water enquiry – [REDACTED]

OFFICIAL

Hi [REDACTED]

I apologise for any misunderstanding.

As mentioned in my last email, you are most welcome to make a submission on the causes and contributors to the flooding of the urban catchment via the Melbourne Water review. Alternatively, a wide-ranging Parliamentary Inquiry into the floods was announced last week. This Inquiry has a much wider scope than the Melbourne Water review. More information on the Parliamentary Inquiry can be found here and submissions are now open [Inquiry into the 2022 Flood Event in Victoria \(parliament.vic.gov.au\)](https://parliament.vic.gov.au/inquiry-into-the-2022-flood-event-in-victoria)

Regards

[REDACTED]

From: [REDACTED]

Sent: Friday, 10 March 2023 10:44 AM

To: [REDACTED]

[REDACTED]

[REDACTED]

Cc: [REDACTED]

[REDACTED]

Subject: Re: Melbourne Water enquiry – [REDACTED]

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Hi [REDACTED]

it is very clear therefore that you and your colleagues including [REDACTED] lied to us on the night of the Keilor session in providing your **yes answer** to our question, **will our submissions relating to potential causes and contributors to the Flood Event in the non-urban catchment be accepted and considered by the review panel in respect of the flood event of October, 2022 on land outside of the urban growth boundary and therefore beyond the Terms of Reference?**

Hi [REDACTED]

Please kindly report this.

Regards,

[REDACTED]

[REDACTED]

From: [REDACTED]

Sent: Friday, 10 March 2023 10:17 AM

To: [REDACTED]

[REDACTED]
Cc: [REDACTED]

Subject: RE: Melbourne Water enquiry – [REDACTED]

OFFICIAL

Dear [REDACTED],

Thank you for your emails regarding the October flooding event.

As previously discussed, my understanding is that submissions on factors that occurred in the upper catchments that go to causes or contributors to flooding are in the scope of the Terms of Reference and you are encouraged to make submissions on these points, and you can do so by emailing [REDACTED]

If you have issue to raise that are outside of the Terms of Reference, I draw to your attention the wide-ranging Parliamentary Inquiry into the floods announced last week. This Inquiry has a much wider scope than the Melb Water review. Therefore, you are encouraged to participate in that process which has now opened for submissions. More information on the Parliamentary Inquiry can be found here [Inquiry into the 2022 Flood Event in Victoria \(parliament.vic.gov.au\)](https://www.parliament.vic.gov.au/inquiry-into-the-2022-flood-event-in-victoria)

For all matters relating specifically to Brimbank Council, you are encouraged to take these matters up directly with them.

Regards

[REDACTED]
[REDACTED]

From: [REDACTED]

Sent: Thursday, 9 March 2023 7:31 PM

To: [REDACTED]
[REDACTED]

Cc: [REDACTED]

Subject: Re: Melbourne Water enquiry – [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]

Haven't seen your response as yet to my email of 8/03/2023, noting there is a submission close date.

Thanks for your email yesterday, in which again you are dancing around the question that was put to you, but which you were adamant that the answer was yes on the night of 17/02/2023.

That question again is, **will our submissions relating to potential causes and contributors to the Flood Event in the non-urban catchment be accepted and considered by the review panel in respect of the flood event of October, 2023 on land outside of the urban growth boundary and therefore beyond**

the Terms of Reference?

I'm not interested in your advice to make submission even if that is for the Terms of Reference to be changed.

Why is there a contradiction between your verbal advice of yes on the night of 17/02/2023 to my question (highlighted above) or have you and your colleagues lied to us in answering our question?

Regards,

[REDACTED]

On 8 Mar 2023, at 3:29 pm, [REDACTED] wrote:

Hi [REDACTED]

Thanks for your email, in which again you are dancing around the question that was put to you, but which you were adamant that the answer was yes on the night of 17/02/2023.

That question again is, **will our submissions relating to potential causes and contributors to the Flood Event in the non-urban catchment be accepted and considered by the review panel in respect of the flood event of October, 2023 on land outside of the urban growth boundary and therefore beyond the Terms of Reference?**

I'm not interested in your advice to make submission even if that is for the Terms of Reference to be changed.

Why is there a contradiction between your verbal advice of yes on the night of 17/02/2023 to my question (highlighted above) or have you and your colleagues lied to us in answering our question?

Regards,

[REDACTED]
[REDACTED]

From: [REDACTED]
Sent: Wednesday, 8 March 2023 2:16 PM
To: [REDACTED]
[REDACTED]
Cc: [REDACTED]
Subject: RE: Melbourne Water enquiry – [REDACTED]

OFFICIAL

Hi [REDACTED]

Thanks for your email.

I've checked with the review team and can confirm that you are most welcome to make a [Submission](#) to the Maribyrnong River Flood Review, noting your property is located outside the review area.

As discussed previously, all submissions should address the Terms of Reference. For information outside the ToR, you can use the [Share Your Experience](#) portal.

I tried giving you a call (no answer) but more than happy for you to give me call to discuss further, my number is [REDACTED] or you can email the review team directly at [REDACTED]

With thanks
[REDACTED]

From: [REDACTED]

Sent: Tuesday, 7 March 2023 5:43 PM

To: [REDACTED]

Cc: [REDACTED]

Subject: Re: Melbourne Water enquiry – [REDACTED]

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Hi [REDACTED]

Haven't seen your response as yet to my email of 5/03/2023, noting there is a submission close date.

At the Keilor session you and your colleagues were very definitive in your yes response that our submissions would be accepted and considered in the flood review even though our land is outside the urban catchment. The attached email contradicts your advice.

Why is there a contradiction or have you and your colleagues lied to us in answering our question?

Regards,
[REDACTED]

From: [REDACTED]

Sent: Sunday, 5 March 2023 9:39 AM

To: [REDACTED]
[REDACTED]

Cc: [REDACTED]

Subject: Fwd: Melbourne Water enquiry – [REDACTED]

Hi [REDACTED]

At the Keilor session you and your colleagues were very definitive in your yes response that our submissions would be accepted and considered in the flood review even though our land is outside the urban catchment. The attached email contradicts your advice.

Why is there a contradiction or have you and your colleagues lied to us in answering our question?

Regards,

[REDACTED]

Begin forwarded message:

From: [REDACTED]
Date: 3 March 2023 at 8:53:44 am AEDT

To: [REDACTED]

Cc: [REDACTED]

Subject: Re: Melbourne Water enquiry – [REDACTED]

Hi [REDACTED]

Thanks for forwarding our email onto Melbourne Water.

As your role was to hear what the people had to say at the sessions ".....to gather people's stories and experiences, after which we (you) will start writing our (your) report", please see attached response from Melbourne Water.

It's a very cleverly crafted response from Melbourne Water from a nameless individual, but what it says is that our submissions relating to potential causes and contributors to the Flood Event in the non-urban catchment will **not be considered by the review panel**. This is despite the assurances from Melbourne Water's [REDACTED] and his colleagues (still ringing in my ears including from [REDACTED]) at our Keilor session that you yourself heard, that we should make submission as they will be considered despite being potential causes and contributors to the Flood Event in the non-urban catchment.

At the very least you are asked to report now that Melbourne

Water seeks to silence those they do not wish to hear from as has been the case and historical experience we have had with Melbourne Water that I mentioned, it's consistent of Melbourne Water. Consistent of them and typical of the historical experiences we have had from Melbourne Water. That is to receive nothing, unless we have to make repeated requests, and even then we are completely dismissed, **as we have been again in this instance.**

Regards,

[REDACTED]
[REDACTED]

From: [REDACTED]
Sent: Monday, 27 February 2023 9:53 AM
To: [REDACTED]
Cc: [REDACTED]
Subject: Re: Melbourne Water enquiry – [REDACTED]

Morning [REDACTED]

Thanks for following up. I forwarded your email to Melb Water last week and I will be sure to forward this email on as well.

Just for a bit of an update – we have a final information session this Wednesday to gather people's stories and experiences, after which we will start writing our report.

I hope all is well on your end

[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]



ENGAGEMENT – COMMUNICATION – CREATIVE – TRAINING – DATA



We respectfully acknowledge Aboriginal and Torres Strait Islander peoples as the First Australians. We recognise their cultures, histories and diversity and their continuing connection to the lands, waters and seas of Australia and the Torres Strait. We acknowledge the Traditional Custodians and Traditional Owners of the many lands where we meet, work, learn and connect. We pay our respects to all Elders past, present and emerging.

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From: [REDACTED]

Date: Saturday, 25 February 2023 at 3:17 pm

To: [REDACTED]

Cc: [REDACTED]

Subject: Re: Melbourne Water enquiry – [REDACTED]
[REDACTED]

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Hi [REDACTED]

I trust all is well.

It's now been a week and two days since the meeting and nothing

has been received from Melbourne Water. That's not surprising to myself and [REDACTED]. In fact, it's consistent. Consistent of them and typical of the historical experiences we have had from Melbourne Water. That is to receive nothing.

For the avoidance of any doubt whatsoever on Melbourne Water's part, as per our request on 17/02/2023, I expect formal Melbourne Water written advice stating that our proposals as they relate to our knowledge of the flood event and in respect of our landholdings beyond the urban growth boundary that is the extent of the review area in the terms of reference, will be accepted and considered and not rejected because they are deemed not relevant being from outside of the review area.

I note that Melbourne Water were prepared to acknowledge this on the night, so a simple written response should not be difficult after all this time, but as I mentioned, it's consistent of Melbourne Water. Consistent of them and typical of the historical experiences we have had from Melbourne Water. That is to receive nothing, unless we have to make repeated requests.

I trust you will follow this up.

Thanks.

Regards,

[REDACTED]
[REDACTED]

From: [REDACTED]
Sent: Friday, 17 February 2023 4:05 PM
To: [REDACTED]
[REDACTED]
Subject: Re: Melbourne Water enquiry – [REDACTED]

Hiya [REDACTED]

Thank you for following up with this one. I will forward your email on to Melbourne Water.

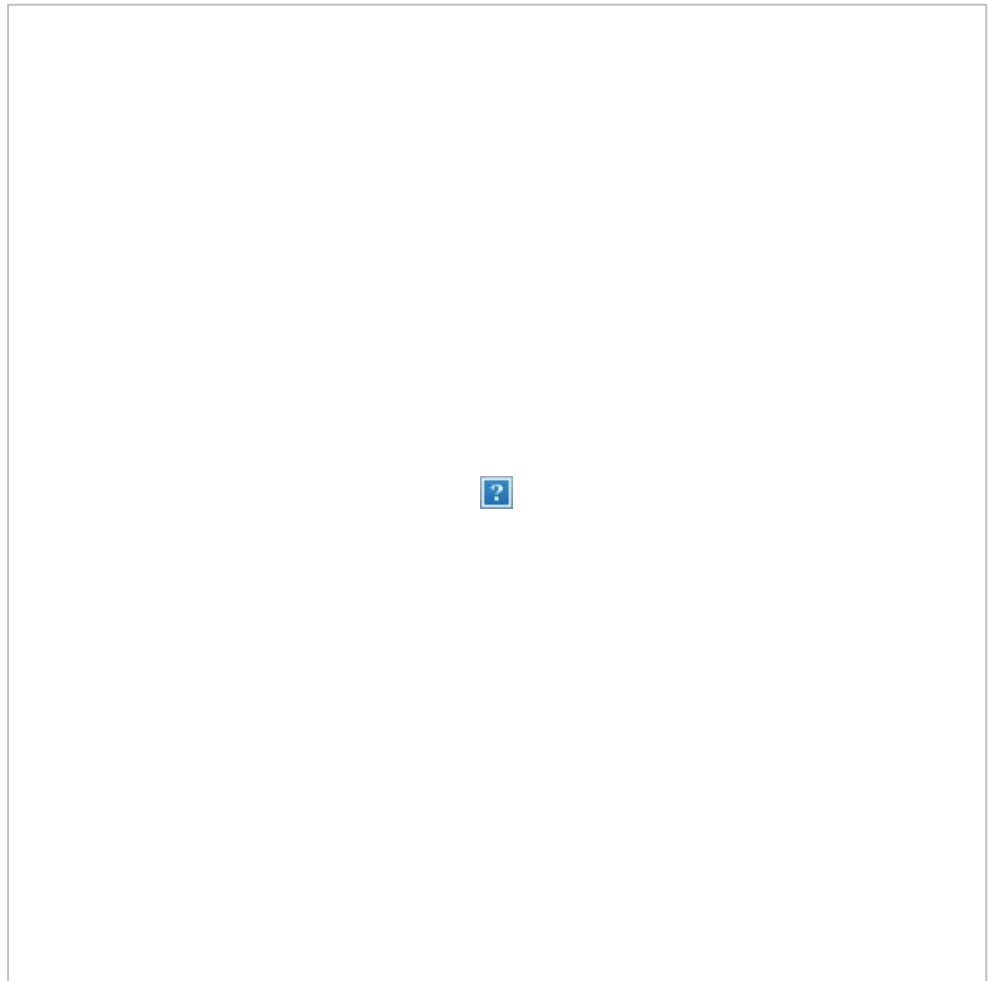
Many thanks and all the best,

[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]



ENGAGEMENT – COMMUNICATION – CREATIVE – TRAINING – DATA



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From: [REDACTED]

Date: Friday, 17 February 2023 at 1:44 pm

To: [REDACTED]

[REDACTED]

Subject: Re: Melbourne Water enquiry – [REDACTED]

[REDACTED]

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Hi [REDACTED]

As per last night's request, I expect formal MW written advice stating that our proposals as they relate to our knowledge of the flood event and in respect of our landholdings beyond the urban growth boundary that is the extent of the review area in the terms of reference, will be accepted and considered and not rejected because they are deemed not relevant being from outside of the review area.

Thanks.

Regards,

[REDACTED]
[REDACTED]

From: [REDACTED]

Sent: Friday, 17 February 2023 2:30 PM

To: [REDACTED]

Cc: [REDACTED]

Subject: RE: Melbourne Water enquiry – [REDACTED]

I have also copied into your response [REDACTED] who I included in the response I sent last night to – you please follow protocol if I copy someone in reply accordingly/dd

We have significant correspondence which we will forward thru to you once I further consult [REDACTED]

Please don't take this in the wrong way – but we should be able to make your job as appointed Melbourne Water consultant / Mediator easy , since we did not see many locally effected flood residents attending and participating in person on masse last night- they have been accommodated and assisted within 48 hours of the event by Brimbank Council for self promotion purposes so makes it easy on Melbourne Water .

From: [REDACTED]

Sent: Friday, February 17, 2023 11:02 AM

To: [REDACTED]

Subject: Re: Melbourne Water enquiry – [REDACTED]

Hello [REDACTED]

Thank you for sending this through. Any information you provide to give context to the flood event will help in the report.

As mentioned at the community information session last night, the report will be shared with Melbourne Water and other key agencies who can look to implement key learnings. It will also be made publicly available. You can keep up to date with the review process [here](#).

And if you have any evidence for the potential causes or contributors to the flood event, I highly encourage you to make a formal submission. All formal submissions will be considered as part of the technical review.

Many thanks again for sharing your experience with me at the community information session last night

Wishing you all the best moving forward

[Redacted signature block]

[Redacted signature block]



ENGAGEMENT – COMMUNICATION – CREATIVE – TRAINING – DATA

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From: [REDACTED]
Date: Thursday, 16 February 2023 at 7:39 pm
To: [REDACTED]
Cc: [REDACTED]
Subject: FW: Melbourne Water enquiry – [REDACTED]
[REDACTED]

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[REDACTED] lets start at the most recent and work back – you can quote in full anything that I have written and put my name in full against it in any communications .

[REDACTED]

From: [REDACTED]

Sent: Thursday, February 16, 2023 2:56 PM

To: [REDACTED]
[REDACTED]
[REDACTED]

Subject: FW: Melbourne Water enquiry – [REDACTED]

[REDACTED] I have not received any acknowledgement of receipt yet to the email response I sent on Wednesday 8th Feb nor a return phone call as I did initially try calling before sending the email .

What no longer ceases to surprise or amaze me is the “continued false broadcasting “or as noted “collaboration “ in the community forums and media but in actual fact there has been no positive engagement or action –

IT IS NOW 4 FULL MONTHS SINCE THE OCTOBER 14th 2020 FLOOD EVENT – WHAT A JOKE – if this doesn’t represent incompetence the dictionary should have the meaning changed .

[REDACTED]

From: [REDACTED]

Sent: Thursday, February 16, 2023 2:48 PM

To: [REDACTED]

[REDACTED]

In reading the response email from [REDACTED] and attached – this continues down the consistent and endemic path and precedent already set of all recent touch points and communications in person and emailed that we have endured since the October flood incident and are an indictment on the negligence and breach of duty of care responses from Melbourne water from all rank and file from [REDACTED] thru to numerous field officers .

What Melb Water purports to the community and media is very different to their actions , engagement and documented responses we have on experienced first hand and have on record .

It is the exact opposite of what their charter as designated in the Victorian Water Act (1989) :

The Victorian Water Act (1989) assigns management responsibility to Melbourne Water for all designated waterways and designated land within Melbourne Water’s waterway management district, for the purposes detailed in the Act. Under

Section 189 of the Act, Melbourne Water is obliged to develop and implement plans and programs and carry out works and activities to improve the social, cultural, ecological and economic values and health of water ecosystems, including their biodiversity, ecological functions, quality of water and other uses that depend on environmental condition.

<https://www.melbournewater.com.au/building-and-works/projects/supporting-residents-and-communities-through-flooding>

All is smoke and mirrors but to action or support .

[REDACTED]

From: [REDACTED]

Sent: Thursday, February 16, 2023 2:16 PM

To [REDACTED]

Cc: [REDACTED]

Subject: Re: Melbourne Water enquiry – [REDACTED]

Hi [REDACTED]

Further to my email below, I've just been doing some googling.

Interesting read this document that I've attached.

In your setting of the scene, you've used the word collaborate to create healthy waterways.

Collaborate meaning: work jointly on an activity or project.

Directing us where to go for things ie: not working jointly on an activity or project, that we've raised, as you have done again and as others have done before you, is not in my humble opinion collaboration for the creation of a healthy Maribyrnong River waterway.

Regards,

[REDACTED]

[REDACTED]

From: [REDACTED]

Sent: Thursday, 16 February 2023 12:48 PM

To [REDACTED]

[REDACTED]

Cc [REDACTED]

Subject: Re: Melbourne Water enquiry – [REDACTED]

Hi [REDACTED]

I refer to your email of 13/02/2023.

To your first 2 dots points.

I note your comment is that your services do not extend to the clearing of flood debris from private property or assets, yet you contradict yourself in saying Melbourne Water is happy to assess whether or not this debris can be removed in relation to the water tank, which has now been washed away because it has only been 4 months since we first contacted Melbourne Water after the flood.

However, your comment that your services do not extend to the clearing of flood debris from private property or assets, is directly contradictory to the statements made in the attached publication from Melbourne Water - *Melbourne Water is the caretaker of river health for the 8,400 kilometres of waterway in the Port Phillip and Westernport region. As part of its role, Melbourne Water has a duty of care to establish and maintain riparian zones along all our waterways to improve waterway health. The waterways of the Port Phillip and Westernport region are major environmental and social assets, which are highly valued by the community and hold particularly high levels of cultural heritage significance. Waterways are important reserves of biodiversity and provide valuable habitat and corridors for native fish, birds, amphibians and mammals such as platypus, and provide, in many cases, a setting for recreational activities. In combination, these attributes (and others) are referred to as river health.*

In relation to your third dot point, there it is again from Melbourne Water, another handball. Once again, your handball in relation to PFAS is contradictory to the statements made in the attached publication from Melbourne Water.

In relation to illegal filling in the floodplain, I will remind Melbourne Water that when first raised by myself with Melbourne Water, the response was that it has not impacted the flood levels upstream by a great amount. That was despite the filling at my best guess being in the order of 2m in depth across

the floodplain and in area subject to inundation where all works are prohibited. After pointing this out, Melbourne Water then again handballed the matter by advising me that it was not a matter for Melbourne Water, but rather a planning matter for Council. That may be so, but the all care and no responsibility attitude from Melbourne Water was appalling. I will ask that Melbourne Water confirms that the former levels before the filling have been returned and the filling removed and Melbourne Water provides written advice that flood levels will not be affected (ie: to rise) upstream.

In addition, on the matter of illegal filling within the flood plain, it is not only one property and I have seen others downstream of our property since the flood that have land slipped into the river waterway.

On the Brimbank Green Wedge Management Plan, we have engaged with Council. It requires that Council engages with stakeholders, one of which is Melbourne Water, and as Melbourne Water claims *Melbourne Water is the caretaker of river health for the 8,400 kilometres of waterway in the Port Phillip and Westernport region. As part of its role, Melbourne Water has a duty of care to establish and maintain riparian zones along all our waterways to improve waterway health*, we look forward to a more proactive Melbourne Water rather than the all care and no responsibility that is the Melbourne Water that we see.

On the Somerset Quarry, we have engaged with Council in relation to the Brimbank Green Wedge Management Plan. It requires that Council engages with stakeholders, one of which is Melbourne Water, and as Melbourne Water claims *Melbourne Water is the caretaker of river health for the 8,400 kilometres of waterway in the Port Phillip and Westernport region. As part of its role, Melbourne Water has a duty of care to establish and maintain riparian zones along all our waterways to improve waterway health*, we look forward to a more proactive Melbourne Water rather than the all care and no responsibility that is the Melbourne Water that we see.

Thank you for your advice on Melbourne Water staff introductions. We are aware of the various departments and

sections, but each of those individuals that we have contacted over many, many years all have the same not my area of responsibility attitude and the all care and no responsibility attitude that is the Melbourne Water that we see. Therefore, claims of *Melbourne Water is the caretaker of river health for the 8,400 kilometres of waterway in the Port Phillip and Westernport region. As part of its role, Melbourne Water has a duty of care to establish and maintain riparian zones along all our waterways to improve waterway health*, just cannot be taken seriously as has been experienced and as seen from your response below.

On the Maribyrnong River Flood Review, your advice is insensitive because the terms of reference for the review advise "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".

Our land is not inside the Urban Growth Boundary, so the important question is, why is our land that also flooded on 14/10/2022 not included in the review. Again, claims of *Melbourne Water is the caretaker of river health for the 8,400 kilometres of waterway in the Port Phillip and Westernport region. As part of its role, Melbourne Water has a duty of care to establish and maintain riparian zones along all our waterways to improve waterway health*, just cannot be taken seriously as has been experienced.

Regards,

[REDACTED]
[REDACTED]

From: [REDACTED]

Sent: Monday, 13 February 2023 2:33 PM

To: [REDACTED]
[REDACTED]

Cc: [REDACTED]

Subject: Fw: Melbourne Water enquiry – [REDACTED]

Hi [REDACTED]

thanks for your email.

I will read it and understand its content in due course and respond separately as needed.

May I ask that you not send these emails to my work email address as this is not a matter for my employer. Thanks.

Regards,

[REDACTED]
[REDACTED]

From: [REDACTED]

Sent: Monday, 13 February 2023 2:29 PM

To: [REDACTED]

Subject: FW: Melbourne Water enquiry – [REDACTED]
[REDACTED]

From: [REDACTED]

Sent: Monday, 13 February 2023 1:52 PM

To: [REDACTED]

Subject: Melbourne Water enquiry – [REDACTED]

Dear [REDACTED]

I understand that you continue to have a number of concerns regarding the management of the Maribyrnong River following recent site visits by Melbourne Water staff to the Keilor district.

I have tried to summarise our position on the issues below however as you'd be aware some of these have a long and complex history and involve multiple stakeholders. If you require further information on the issues outlined below please feel free to contact me and we can work to resolve issues individually.

- Flood of 14 October – MW follow up actions and status. Melbourne Water has been active in the Port Phillip and Westernport catchments including in the Keilor district following the floods on the 14th October. Our works in your area include assessments for erosion and MW asset damage, assessments and site visits to assess damage to river diversion infrastructure and collaboration with other public land managers (Brimbank City Council and Parks Victoria) to assist in the restoration of their assets and services. More broadly across our operating region we have been working tirelessly to remove rubbish and debris from our assets to restore drainage functionality and amenity. Our services do not extend to the clearing of flood debris from private property or assets, further information on possible support for these activities has been provided at the bottom of this email.
- Debris in the river. It was mentioned that a large item (water tank) located in river following the floods. Melbourne Water is happy to assess whether or not this

debris can be removed. Further information regarding the location of this debris can be passed onto the relevant Operations and Maintenance Officer [REDACTED] for assessment via our customer service centre [REDACTED]

- Issues relating to PFAS runoff from Melbourne Airport. Please refer to the EPA as the lead agency on this issue. You may be aware that they have published information regarding this issue on their website.
 - <https://www.epa.vic.gov.au/about-epa/news-media-and-updates/media-releases-and-news/maribyrnong-river-test-results-a-relief>
 - <https://www.epa.vic.gov.au/for-community/current-projects-issues/pfas-in-maribyrnong-catchment>
 - Melbourne Water's primary focus in this issue has been to ensure that the community and our customers are being provided with up-to-date information by the relevant authorities. If you have specific questions or issues you'd like to raise please feel free to contact me via our customer service centre [REDACTED]
- Fill on floodplain - Melbourne Water is aware of a property in the Keilor district which may not have sought the relevant approvals prior to placing fill on their property. This issue is being addressed in collaboration with Brimbank City Council.
- Brimbank Green Wedge Management Plan – status of actions. We recommend you speak directly with Brimbank City Council regarding the status of this management plan.
- Somerset Quarry (105 Annandale Rd) – environmental management. Melbourne Water does not perform a regulatory role in overseeing the operation of Somerset Quarry. If individuals or agencies (including Melbourne Water) observed quarry operations impacting the waterway then the appropriate pathway would be to notify the EPA.
- MW staff introductions – Melbourne Water provides a number of different services to customers in the Keilor district so it can sometimes be confusing to know who to talk to. Most face to face interactions you're likely to have with Melbourne Water staff in your area will be with staff from two teams within Waterways & Catchment Services. Staff from the Maribyrnong Team provide waterway condition services such as revegetation, weed control and litter management. Staff from our Upper Yarra Team provide licensing and water diversion services. If you're ever unsure our customer service centre can get you in touch with the relevant team and provide you with a reference number that can be used to keep track of each request.

Please see below for some additional information relating to the Maribyrnong Flood including community support and guidance.

- For additional information on how and where you

can contribute to the current Maribyrnong River Flood Review please visit [Maribyrnong River Flood Review | Your Say](#)

- If you need help navigating insurance or property damage you can contact Disaster Legal Help Victoria (DLHV) who provide free information and advice. You can find them on the internet or call their hotline on 1800 113 432
- The Victorian Government is offering disaster relief payments to assist individuals and communities that are experiencing, or are likely to experience, hardship in meeting their relief needs as a result of the flood. More information can be found on the Victorian Government website; Financial support available for people impacted by the 2022 Victorian floods (www.vic.gov.au)

We look forward to working with you in the future.

Regards,

[Redacted Signature] | **Melbourne Water**
[Redacted Contact Information]

Enhancing Life and Liveability.

From: [Redacted]
Sent: Wednesday, February 8, 2023 1:27 PM
To: [Redacted]

[REDACTED]
Subject: FW: Melbourne Water enquiry – [REDACTED]

[REDACTED] thank you for your reply [just tried calling and left a voice message](#) , the original complaint sent thru and addressed to [REDACTED] remains open and please note the following :

The terms of reference clearly indicates that "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".

Our area is not, repeat not, within the Urban Growth Boundary. See attached plan.

Noting for the record there has been at least 6 separate Melbourne Water Employee touch points that have attended the area with no support or resolution .they are aware of the locality surrounds of Keilor River Flats encompassing Arundel / Milburn road area

Also for the record Melbourne Water states they are custodians of the river – well absolutely not considering the in action , lack of duty of care or diligence that I can provide you to date .

[REDACTED] please also note the further miss representations noted on new postings :

<https://www.melbournewater.com.au/building-and-works/projects/supporting-residents-and-communities-through-flooding>

Our flood recovery efforts

Our recovery efforts focussed on conducting various works that included:

- clearing debris – “**Not Melbourne Waters responsibility** “
- assessing damage to critical infrastructure- **Nil**

- making repairs needed to keep our waterways and communities safe.-Nil unsafe debris in tree height flood level posing public risk

Crews were busy clearing litter and material from inlet and outlet structures and grated pits, removing fallen trees and repairing fallen fences throughout affected areas, including the Maribyrnong River precinct.-Nil

One-off water bill rebate

Greater Western Water and Melbourne Water have jointly provided a one-off \$600 bill rebate for eligible customers whose home or business was flooded above floor-level. More than 250 customers have already received rebates, and Greater Western Water encourages any customers who think they are eligible to call [13 44 99](tel:134499) for more bill assistance options.

For more information head to the [Greater Western Water website](#).-Nil

Support for flood-affected residents

We understand that navigating the planning or building process to rebuild or refurbish your property following the October and November 2022 flood events could be challenging. To support our flood affected residents who may need initial advice on the planning or building process we can provide telephone or online meeting support and information services to help you navigate through the process. You can call [REDACTED] or email [REDACTED] and an officer will get back to you within 2 business days to talk with you or to set up a short online meeting.-Nil

From: Melbourne Water [REDACTED]
Sent: Thursday, January 12, 2023 12:56 PM
To: [REDACTED]
Subject: Melbourne Water enquiry – [REDACTED]

Dear [REDACTED]

Thank you for taking the time to share your concerns with Melbourne Water, your feedback is greatly appreciated.

To update on flood recovery efforts, Melbourne Water initially prioritised inspections and repairs that presented critical public safety and operational risks to the safe functioning of our waterways and drainage assets. These activities have been undertaken on publically accessible land and we have been collaborating with Councils across our region to undertake these works.

In addition to the above, Melbourne Water has been undertaking inspections of reported erosion hotspots in the Brimbank Municipality. These have been occurring on both private and public land and have been undertaken in order to allow us to prioritise repair works where this is deemed necessary. If your complaint relates to the clearing of debris from private river frontage we would be happy to come out to meet you in the new year to discuss what support is available.

I am sorry to hear you were impacted by the Oct 14 flood event and interested to learn you had attempted to contact Melbourne Water in late October. I am available to meet and can be contacted on [REDACTED] to arrange.

Your complaint has been noted.

Regards,

[REDACTED]
Melbourne Water
[REDACTED]
[REDACTED]

Enhancing Life and Liveability.

If you have received this email in error, please notify the sender by return email, delete it from your system and destroy any copies.

From: Melbourne Water [REDACTED]
Sent: Friday, December 9, 2022 4:19 PM
To: [REDACTED]
Subject: Melbourne Water enquiry – [REDACTED]

Good afternoon [REDACTED]

I am writing to you to provide receipt of your complaint directed to [REDACTED] in relation to the recent flood events in Keilor. I have passed your concerns onto [REDACTED] office for her review. In the meantime, if there is any further information or queries you'd like me to pass on, please don't hesitate to let me know.

Kind regards,

[REDACTED]
Melbourne Water
[REDACTED]
[REDACTED]

IMPORTANT: This email and any attachments are confidential and may be subject to legal privilege. If you have received this email in error, confidentiality and privilege are not waived and you must not disclose or use the information contained in it. Please notify the sender by return email and delete it from your system. Any personal information in this email must be handled in accordance with the Privacy Act 1988 (Cth). The content of this email does not necessarily represent the views of [REDACTED]

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Hi 

Further to my email below, I've just been doing some googling.

Interesting read this document that I've attached.

In your setting of the scene, you've used the word collaborate to create healthy waterways.

Collaborate meaning: work jointly on an activity or project.

Directing us where to go for things ie: not working jointly on an activity or project, that we've raised, as you have done again and as others have done before you, is not in my humble opinion collaboration for the creation of a healthy Maribyrnong River waterway.

Regards,



[REDACTED]
Sent: Thursday, 16 February 2023 12:48 PM

[REDACTED]
Subject: Re: Melbourne Water enquiry – [REDACTED]
[REDACTED]

I refer to your email of 13/02/2023.

To your first 2 dots points.

I note your comment is that your services do not extend to the clearing of flood debris from private property or assets, yet you contradict yourself in saying Melbourne Water is happy to assess whether or not this debris can be removed in relation to the water tank, which has now been washed away because it has only been 4 months since we first contacted Melbourne Water after the flood.

However, your comment that your services do not extend to the clearing of flood debris from private property or assets, is directly contradictory to the statements made in the attached publication from Melbourne Water - *Melbourne Water is the caretaker of river health for the 8,400 kilometres of waterway in the Port Phillip and Westernport region. As part of its role, Melbourne Water has a duty of care to establish and maintain riparian zones along all our waterways to improve waterway health. The waterways of the Port Phillip and Westernport region are major environmental and social assets, which are highly valued by the community and hold particularly high levels of cultural heritage significance. Waterways are important reserves of biodiversity and provide valuable habitat and corridors for native fish, birds, amphibians and mammals such as platypus, and provide, in many cases, a setting for recreational activities. In combination, these attributes (and others) are referred to as river health.*

In relation to your third dot point, there it is again from Melbourne Water, another handball. Once again, your handball in relation to PFAS

is contradictory to the statements made in the attached publication from Melbourne Water.

In relation to illegal filling in the floodplain, I will remind Melbourne Water that when first raised by myself with Melbourne Water, the response was that it has not impacted the flood levels upstream by a great amount. That was despite the filling at my best guess being in the order of 2m in depth across the floodplain and in area subject to inundation where all works are prohibited. After pointing this out, Melbourne Water then again handballed the matter by advising me that it was not a matter for Melbourne Water, but rather a planning matter for Council. That may be so, but the all care and no responsibility attitude from Melbourne Water was appalling. I will ask that Melbourne Water confirms that the former levels before the filling have been returned and the filling removed and Melbourne Water provides written advice that flood levels will not be affected (ie: to rise) upstream.

In addition, on the matter of illegal filling within the flood plain, it is not only one property and I have seen others downstream of our property since the flood that have land slipped into the river waterway.

On the Brimbank Green Wedge Management Plan, we have engaged with Council. It requires that Council engages with stakeholders, one of which is Melbourne Water, and as Melbourne Water claims *Melbourne Water is the caretaker of river health for the 8,400 kilometres of waterway in the Port Phillip and Westernport region. As part of its role, Melbourne Water has a duty of care to establish and maintain riparian zones along all our waterways to improve waterway health*, we look forward to a more proactive Melbourne Water rather than the all care and no responsibility that is the Melbourne Water that we see.

On the Somerset Quarry, we have engaged with Council in relation to the Brimbank Green Wedge Management Plan. It requires that Council engages with stakeholders, one of which is Melbourne Water, and as Melbourne Water claims *Melbourne Water is the caretaker of river health for the 8,400 kilometres of waterway in the Port Phillip and Westernport region. As part of its role, Melbourne Water has a duty of care to establish and maintain riparian zones along all our waterways to*

improve waterway health, we look forward to a more proactive Melbourne Water rather than the all care and no responsibility that is the Melbourne Water that we see.

Thank you for your advice on Melbourne Water staff introductions. We are aware of the various departments and sections, but each of those individuals that we have contacted over many, many years all have the same not my area of responsibility attitude and the all care and no responsibility attitude that is the Melbourne Water that we see. Therefore, claims of *Melbourne Water is the caretaker of river health for the 8,400 kilometres of waterway in the Port Phillip and Westernport region. As part of its role, Melbourne Water has a duty of care to establish and maintain riparian zones along all our waterways to improve waterway health*, just cannot be taken seriously as has been experienced and as seen from your response below.

On the Maribyrnong River Flood Review, your advice is insensitive because the terms of reference for the review advise "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".

Our land is not inside the Urban Growth Boundary, so the important question is, why is our land that also flooded on 14/10/2022 not included in the review. Again, claims of *Melbourne Water is the caretaker of river health for the 8,400 kilometres of waterway in the Port Phillip and Westernport region. As part of its role, Melbourne Water has a duty of care to establish and maintain riparian zones along all our waterways to improve waterway health*, just cannot be taken seriously as has been experienced.

Regards,

Sent: Monday, 13 February 2023 2:33 PM

[REDACTED]

Subject: Fw: Melbourne Water enquiry – [REDACTED]

[REDACTED]

thanks for your email.

I will read it and understand its content in due course and respond separately as needed.

May I ask that you not send these emails to my work email address as this is not a matter for my employer. Thanks.

Regards,

[REDACTED]

[REDACTED]

Sent: Monday, 13 February 2023 2:29 PM

[REDACTED]

Subject: FW: Melbourne Water enquiry – [REDACTED]

From: Melbourne Water <ReplyService@melbournewater.com.au>

Sent: Monday, 13 February 2023 1:52 PM

[REDACTED]

Subject: Melbourne Water enquiry – [REDACTED]

[REDACTED]

I understand that you continue to have a number of concerns regarding the management of the Maribyrnong River following recent site visits by Melbourne Water staff to the Keilor district. I have tried to summarise our position on the issues below however as you'd be aware some of these have a long and complex history and involve multiple stakeholders. If you require further information on the

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[REDACTED] for assessment via our customer service centre [REDACTED]

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- <https://www.epa.vic.gov.au/about-epa/news-media-and-updates/media-releases-and-news/maribyrnong-river-test-results-a-relief>

- <https://www.epa.vic.gov.au/for-community/current-projects-issues/pfas-in-maribyrnong-catchment>

- Melbourne Water's primary focus in this issue has been to ensure that the community and our customers are being provided with up-to-date information by the relevant authorities. If you have

specific questions or issues you'd like to raise please feel free to contact me via our customer service centre

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We look forward to working with you in the future.

Regards,


**Melbourne Water**


Enhancing Life and Liveability.

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Maribyrnong Catchment Collaboration -- Implementation Workshop 2

Co-delivering the Healthy Waterways Strategy

Date: 28 May 2019

Time: 9.30am-1.30pm

Venue: Medway Golf Club, Maidstone

Purpose of the workshop

The purpose of the workshop was to continue implementation planning by confirming how we will work together to create healthy waterways in the Maribyrnong catchment, and to identify priorities for discussion at the next forum(s). The workshop allowed for members of the catchment community to share information and lessons about existing collaborations in the catchment and to explore how they might work together across the region to implement the [Maribyrnong Catchment Program](#).


Who attended?

A total of **40 participants** representing 22 different organisations attended the workshop.

- 28 participants were external partners who represented a diverse array of groups including: councils, community and landcare groups, land owners, consultants, water retailers, industry groups, PPWCMA, Parks Victoria and DELWP.
- 12 participants from Melbourne Water helped support the conversations and provide catchment knowledge.

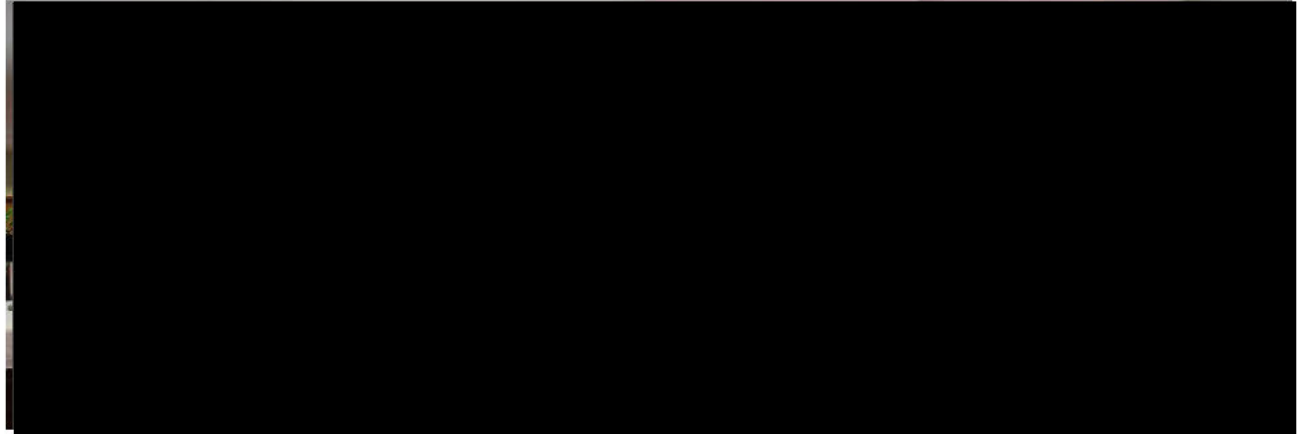
What happened?

Part 1: Setting the scene

 (at Melbourne Water) welcomed participants and shared his vision of success for the Maribyrnong catchment: members of the catchment community coming together to collaborate and create healthy waterways. He acknowledged the other catchments in the region who have also progressed their collaboration model and opportunities to learn from them.

Facilitator [REDACTED] explained that the purpose of the workshop was to explore how to collaborate in the future whilst remaining connected and engaged with the activities and targets needed to maintain healthy waterways in the region, and identify priorities for the next forum. Invited to connect with each other, participants noted that:

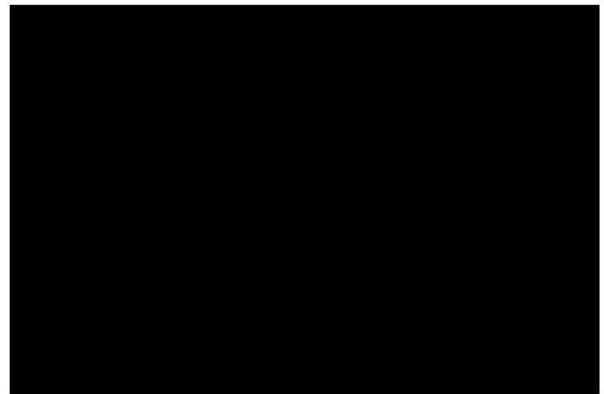
- although everyone is different there are shared goals and a desire to listen
- the program is still attracting new people to come in and participate
- there is value in creating a culture where we have visibility of what each other is doing and can share what we need help with.



Part 2: Building on existing collaborations

Three presentations highlighted existing successful collaborations in the catchment.

- [REDACTED] (Western Water) provided an update on the [Sunbury's Water Future Project](#). He shared how significant population growth in Sunbury is expected to have a serious impact on Jacksons Creek, the water supply options for the new precinct and the innovative community engagement process underway where a deliberative forum of 35 community members has been convened to collaboratively identify possible solutions to Sunbury's water future and report back to water authorities and the State government. The engagement process will provide valuable input to policy discussions, better and more integrated solutions for the precinct, and enable broader community engagement through knowledge building, empowerment and networking.



[REDACTED] noted that *'every good collaboration and good project can be traced back to conversations between people and the alliances that are generated'*.

- reflected on the Chain of Ponds Collaboration, where a group of stakeholders including community, water companies, and State and local governments came together with the vision to transform the Moonee Ponds Creek into an iconic waterway for Melbourne. He discussed how creating meaningful change required developing a new approach which included: a Memorandum of understanding signed by 15 organisations, securing funding for a collaboration lead, developing a prospectus that identifies strategic opportunities, establishing several working groups, developing a brand and building on where the energy is. He also recognised that a key to success was being committed to the process, forming relationships, building trust and having a platform where everyone can be heard and canvass ideas.

- discussed Stanley Park (Mount Macedon) as an example of collaboration. She explained how after being in danger of subdivision 100 years ago, the community came together to purchase and care for Stanley Park. She highlighted how the park's committee of management works with a number of partners, state agencies and community volunteers to restore the park and through their work are discovering multiple species of flora and fauna and animal behaviour. Workshop participants identified that work contributes to the [Co-Designed Catchment Program for the Maribyrnong Catchment Region](#) and the [Biodiversity 2037 Strategy](#) through:

- Monitoring and evaluation
 - Maintaining vegetation quality
 - Weed management
 - Strength of collaboration and community that pulls everyone together, including new partners
 - Importance of protecting headwaters and flows
 - Demonstrating that it is possible to bring back biodiversity
 - Increasing community knowledge and awareness

then invited the participants to share other projects that involve collaboration currently occurring in the Maribyrnong catchment. Projects included:

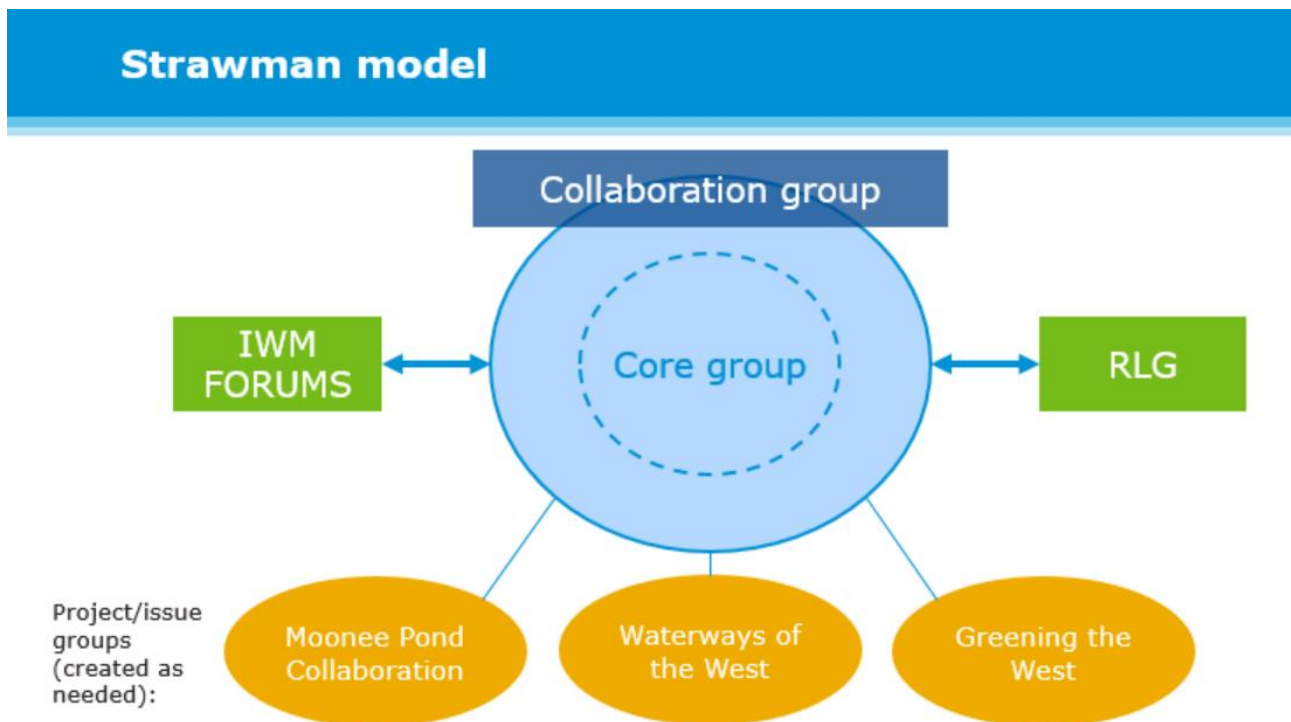
- Riparian work with neighbouring landholders as a Hume Envirochamp
- Working with landowners at a large scale in Darraweit Guim to protect remnant vegetation
- Maribyrnong Valley Connection Project Update
- Rehabilitation of the Stony Creek following on from the Footscray fire

The last project sparked a brief discussion about the possibility of retrofitting industrial estates with wetlands to prevent runoff from entering waterways untreated and how this would be a potential application of the precautionary principle.

Part 3: What is the preferred collaboration model for the Maribyrnong Catchment Program?

██████████ (Melbourne Water) provided an update on where Melbourne Water is at in the implementation of the Strategy, including a draft Monitoring, Evaluation and Reporting framework to be released end of the June and progress on the Waterways and Drainage Investment Plan, which will set Melbourne Water's investment in Waterways for 2021-26.

██████████ then presented a possible model for ongoing collaboration in the Maribyrnong catchment, which was based on the outcomes of the October 2018 workshop and the lessons learnt from the four other catchments.



He explained how the collaboration group is the voice and pulse of the Maribyrnong catchment, and how for the model to work well it needs for everyone to continue to come together and collaborate. He mentioned the important links to the IWM forum and the Region-wide Leadership Group (who has oversight of the Strategy). ██████████ also detailed the functions and roles of collaboration partners and the principles of the model (see details in the document library).

Participants then discussed the concept of a core group, who would act as:

- a central point to convene views, keep track of progress and progress program;

- a connecting point to higher policy but also to local groups, i.e. a facilitator with access to points of influence (e.g. DELWP, EPA) and the power to convene and invite the right people to forums

They decided that:

- they would prefer to continue to meet as a whole of catchment group, three times a year with a solid agenda and a champion who can be the face of the collaboration
- the catchment group should be supported by a smaller coordinating team (or 'conduit group').

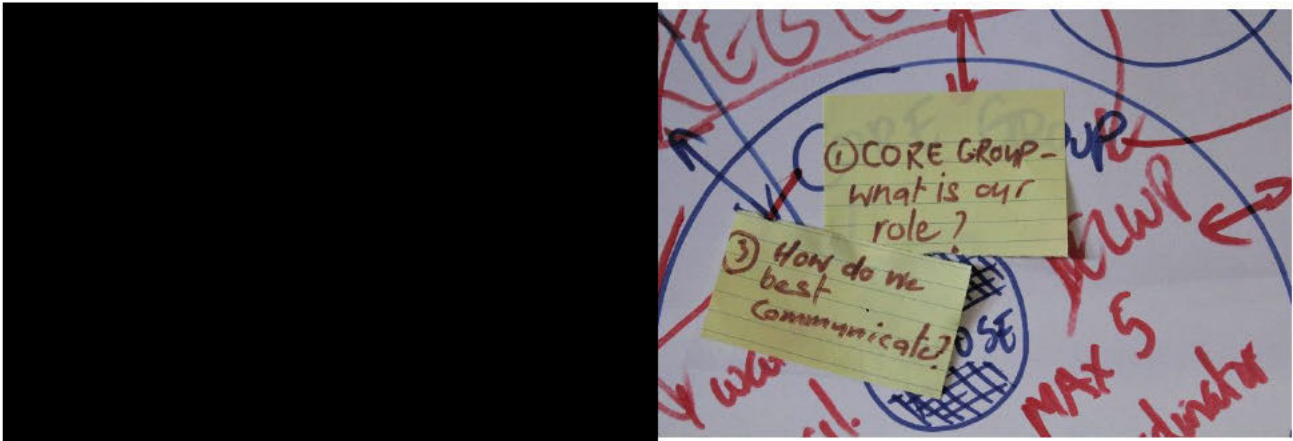
As a starting point, the coordinating team would comprise of about five people (each with a back-up person), include lower and upper catchment collaboration, be supported by Melbourne Water and:

- provide administrative assistance to organise the catchment forums (including setting the agenda)
- facilitate communication with local communities (including the gathering of local stories and mapping of projects)
- be in tune with the catchment needs and issues and critically think about solutions
- communicate priorities that come from forums / influence up
- be well connected and have the power to go out and engage diverse groups (e.g. VicRoads, farmers, etc.).

_____ volunteered to join the Maribyrnong coordinating team.

As a final activity, [REDACTED] invited all participants to identify agenda items for the next forum. Top priorities were:

- **Cross collaboration:** how to best communicate with each other and involve/engage others / the broader group
- **Governance of waterways and management of extraction:** who is responsible for waterway management, oversubscribed water, illegal extraction
- **Funding and grant opportunities:** upcoming grants and/or funding sources
- **Show, share, ask:** having stakeholders showcase specific on ground results, identify gaps in monitoring and evaluation, and seek input and support from agencies
- **Healthy Waterways Strategy progress & updates:** showcasing updates on HWS targets.
- **Networking** (long coffee breaks)
- **Regional vs. local approaches (bottom-up):** accountabilities at all levels of government
- **Strategic priorities:** possible projects and collaborations, setting priorities together to target limited resources (vs. funding what is ready to go)



Part 4: Where to next?

██████████ provided an update on the Region-wide Leadership Group, stating that an interim region-wide leadership group had been set up and was considering input from the catchment forums and how best to connect with the forums.

██████████ provided an update on Waterways of the West. She made reference to the Ministerial Advisors Committee (MAC) for government consideration of how to manage and protect waterways in Melbourne's west and to the community vision process. She stated that the discussion paper by the MAC with input of the vision will be available for public consultation in July/August, and announced that a community assembly had been convened to develop a vision.

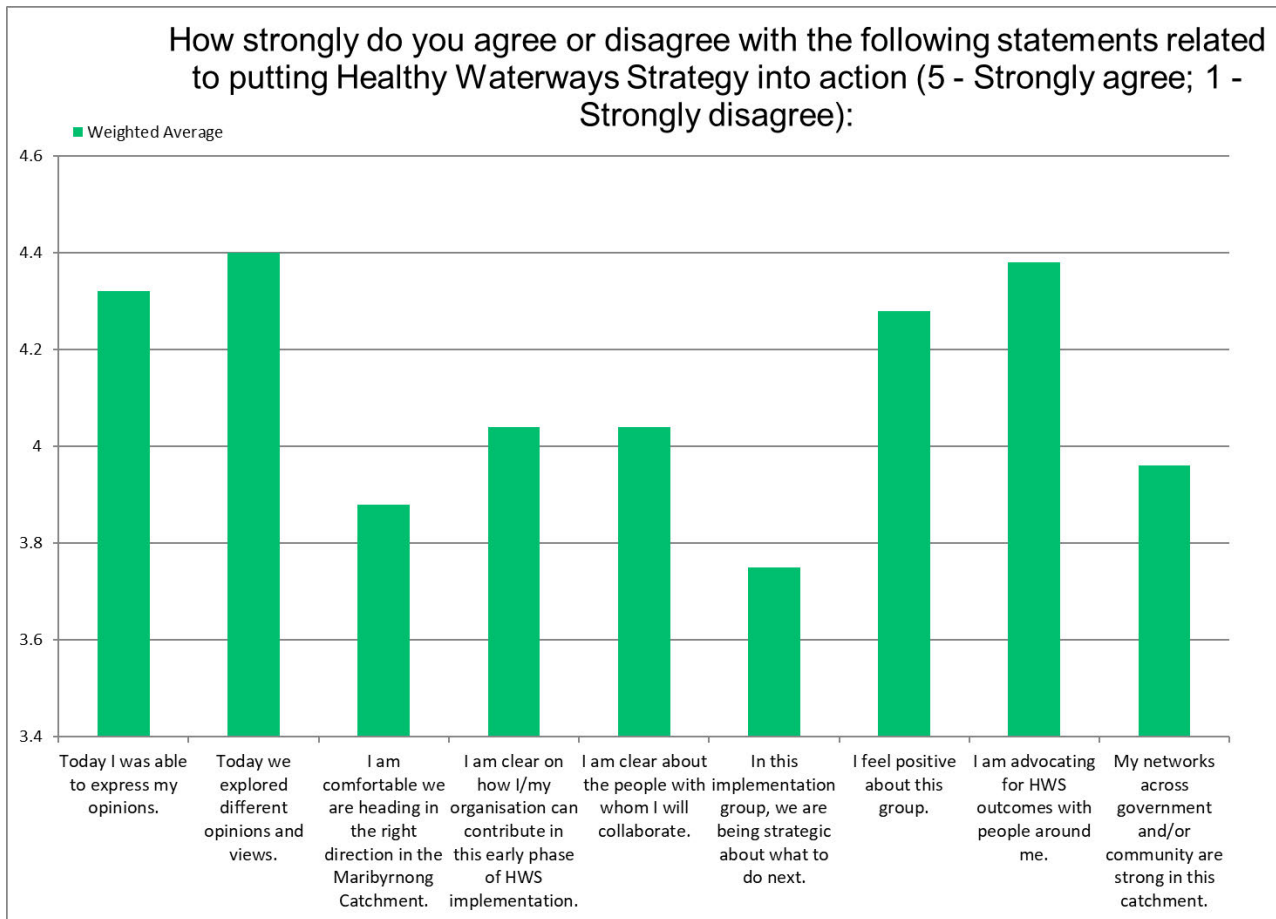
██████████ closed the workshop thanking participants and outlining next steps:

- ██████████ to convene the core group to digest outcomes of today and start planning for next conversation.
- Region-wide Leadership Group meeting on Friday May 31st to progress terms of reference (more information to be available)
- Reporting framework (MERI) draft available for comments in June

Part 5: Evaluation from the sensing sheets

The workshop was evaluated to provide opportunity for ongoing learning. As a final action, participants completed a sensing sheet and provided comments on the design of the workshop and their experience of collaboration.

26 out of 40 attendees (65%) filled out the sensing sheets.



What did you enjoy about this workshop?

"It wasn't MW centric, other agencies and community groups have ownership"

"Networking, feeling connected to the big picture decisions of water health"

What could be improved for next time?

"Include a visual update of all the projects. Clarity on priorities"

"Reminder of the HWS targets and what needs to change at a strategic level"

"Showcasing the 'wins' stakeholders have had through a presentation - specifically showcasing on ground outcomes"

What could you/your organisation be doing more of to meet the targets in the Maribyrnong Catchment Program?

"Improvement in advocacy to get planning improvements"

"Promoting community participation in awareness and care of the waterways"

"Continue to look for opportunities via collaboration to maximise similar objectives: as many stakeholders as possible benefit"

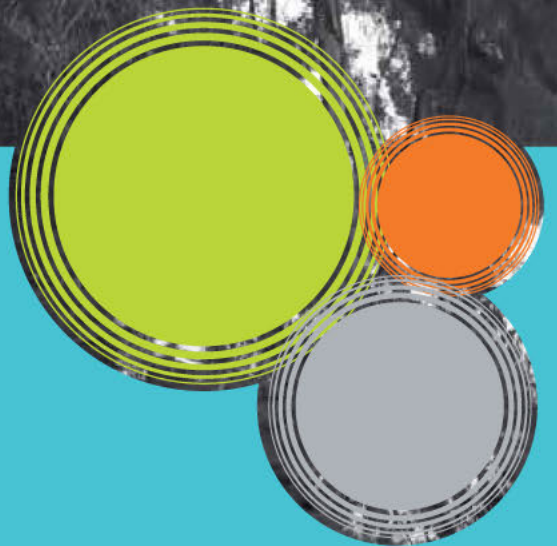
For more information about creating healthy waterways together please visit

<https://yoursay.melbournewater.com.au/healthywaterways>



Waterway Corridors

Guidelines for greenfield development
areas within the Port Phillip
and Westernport Region





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Front Cover: Lower Werribee River; an example of the waterway values present on many of the waterways within the urban growth boundary that these guidelines will help to protect.





1 Introduction

Melbourne Water is the caretaker of river health for the 8,400 kilometres of waterway in the Port Phillip and Westernport region. As part of its role, Melbourne Water has a duty of care to establish and maintain riparian zones along all our waterways to improve waterway health.

The waterways of the Port Phillip and Westernport region are major environmental and social assets, which are highly valued by the community and hold particularly high levels of cultural heritage significance. Waterways are important reserves of biodiversity and provide valuable habitat and corridors for native fish, birds, amphibians and mammals such as platypus, and provide, in many cases, a setting for recreational activities. In combination, these attributes (and others) are referred to as *river health*.

There has been significant improvement in river health in the Port Phillip and Westernport region over recent decades, and some waterways in the region are in excellent condition (in terms of river health). However, nearly half are in poor or very poor condition, and more than 200 kilometres of waterways need to be carefully managed as urban development spreads into currently undeveloped areas.

Urban development represents both a great challenge and a great opportunity for river health. The preservation, rehabilitation and restoration of appropriate riparian zones¹ in urban developments is essential if the river health objectives as defined in the Healthy Waterways Strategy² are to be met. The size and condition of the riparian zone is important for channel bed and bank stability, water quality, and aquatic and riparian biodiversity, which are all cornerstones of a healthy waterway and catchment system.

1 The area immediately adjacent to the waterway is referred to as the 'riparian zone'; the waterway (bed and banks) and riparian zones on both banks are collectively defined as the 'waterway corridor'.
2 Melbourne Water 2012, 'Healthy Waterways Strategy (draft)'.

2 Purpose of the guidelines

These guidelines have been developed to provide a consistent, strategic approach to the management of riparian zones in greenfield developments.

They define minimum standards for *waterway corridor widths*, vegetation quality, infrastructure and activities permitted within waterway corridors.

As caretaker of waterway health in the Port Phillip and Westernport region, Melbourne Water has an obligation to ensure that appropriate provisions are made to ensure waterway resilience and function in the face of environmental pressures such

as urban development. These guidelines will facilitate a consistent and strategic approach for government authorities, local government and developers to create environmentally and socially sustainable waterway corridors in new developments.

These guidelines do not remove the need for detailed environmental assessment of waterways and their surrounding environs prior to development occurring.

3 What is a waterway corridor?

A waterway corridor is defined (for the purposes of these guidelines) as the waterway channel and its associated riparian zones.

Assigning a waterway corridor preserves areas of the riparian zone that protect or enhance native vegetation, river health and biodiversity in some cases, the waterway corridor may also be able to support a level of passive recreational use or some stormwater treatment elements.

The waterway corridor is the area of land that is required to help ensure a resilient waterway system – both ecologically and socially – that can effectively absorb and/or recover from damaging processes without losing core functionality.

In greenfield development sites waterway corridors are created through the modification of title boundaries during the subdivision process to preserve the waterway corridor for specified purposes. Melbourne Water is a statutory referral agency in this process and provides comment on planning permit applications as referred by the Responsible Authority and has the power under the Water Act 1989 to require reserves and/or easements for the purpose of drainage

and waterway management. Ultimately, the waterway corridor may be considered non-developable for either, or both, of these management requirements.

The width of waterway corridor required to meet the objectives of the corridors varies depending on the type of waterway (physical morphology, vegetation type, geologic setting etc). You can find more detailed information in Sections 5 and 6. These corridors establish the optimum balance between river health, biodiversity, social amenity, asset protection and developable land requirements. The minimum waterway corridor widths specified in these guidelines are based on the best available science, are compatible with current legislation and comparable to waterway corridor management in other jurisdictions.

The approach to calculating the waterway corridor width at a particular location depends on whether the waterway is an existing waterway or an artificial waterway that will be constructed as part of urban development, as well as considering any site specific factors such as environmental values, recreation uses or landscape characteristics.

In existing waterways the waterway corridor is defined by setbacks from the waterway that specify the minimum distance from the waterway on each side of the channel to urban development features such as roads and subdivisional lots. For new or existing

constructed channels the standard waterway corridor is defined as the sum of the width of the waterway channel and the setbacks on both banks, as described in Section 7.

In constructed waterways, an alternative approach is used to define waterway corridor widths, as there is no pre-existing waterway channel from which to define setbacks. Waterway corridor widths in constructed waterways are scaled according to the hydraulic width of the constructed waterway. The hydraulic width concept (as described in detail in Section 8) is a well understood variable in constructed waterway design across the development industry.

For both constructed and existing waterways there are a number of other factors (described in Section 6) that may require urban development to be located further from the waterway than specified by the minimum waterway corridor width (e.g. flood protection or the presence of highly sensitive flora and fauna).

In addition to the width of waterway corridors, these guidelines also specify controlled activities and infrastructure within the waterway corridors, and riparian zone management requirements. These requirements are described for existing waterways (Section 7) and constructed waterways (Section 8).



4 Scope of the guidelines

The guidelines apply only to greenfield development areas, which are defined as areas identified for urban development (residential, commercial or industrial) by state and/or local government, located on or beyond the boundaries of existing urban development.

Melbourne Water prepares Development Services Schemes or strategies for greenfield development areas that determine the surface water management infrastructure requirements within each catchment.

The guidelines do not apply to:

- Redevelopment zones, i.e. sites that are being redeveloped from some previous development use (e.g. development of a factory into a housing estate)
- Infill development, i.e. sites that may not have been previously developed but are surrounded by existing development.
- Rural waterways in forested and agricultural catchments that are not subject to urban development.
- Wetland systems, both natural and man made. Protection and management of these systems require considerations in addition to those covered in these guidelines, especially when they are managed for biodiversity purposes.

These guidelines focus on regional drainage assets, which can be perennial (always flowing) and ephemeral (flowing sometimes) rivers and/or creeks with catchments greater than 60 hectares. They also provide recommendations for local waterways/drainage lines that are commonly managed by organisations other than Melbourne Water. Please see section 7.2 for more information regarding smaller, local drainage assets.

The guidelines apply to all subdivisions of two lots or more.

Note: these guidelines do apply to parcels of land that may be surrounded by development within existing Development Services Schemes.



5 Objectives for waterway corridors in greenfield development areas

The objectives for waterway corridors in greenfield development areas of the Port Phillip and Westernport are:

- To protect, enhance or restore river health and biodiversity
- To enable some complementary use of waterways for recreational purposes and infrastructure (if appropriate) while maintaining primary river health, flood protection and biodiversity functions
- To provide effective flood protection.

Waterway corridors and associated riparian vegetation provide a range of river health functions, including:

- Provision of food and habitat for aquatic fauna
- Provision of breeding, feeding and habitat for terrestrial fauna
- Provision of corridors for fauna movement up and down the waterway
- Provision of fauna refugia in developed landscapes and enhancing links between remaining habitats that would otherwise remain fragmented
- Stabilisation of channel banks against erosion
- Shading and maintenance of natural temperatures within waterways
- Reducing sediments and pollutants that reach waterways through overland flow
- Maintenance and improved water quality through filtering and nutrient cycling within the riparian zone and vegetated buffer zone
- Allowance for inclusion of some stormwater treatment systems within vegetation buffer zones if appropriate
- Allow space for natural migration of the waterway channel, especially in areas with highly erosive soil types
- Recruiting large woody debris into the stream and for riparian habitat over the long term.

Riparian zones differ from terrestrial lands in several ways: they often have more fertile soils, higher moisture levels and different plant species. Due to these factors, riparian zones provide the habitat features needed by a diverse range of wildlife species.

Riparian zones may also provide space for recreation and social activities. They provide an interface between urban development and waterways and visual amenity. Although Melbourne Water is the caretaker of waterways and has a primary objective of protecting and enhancing the health of waterways, we recognise the benefits of healthy, accessible riparian zones to communities and the importance of engaging the community with waterways and river health. This document is intended to provide clarity for the creation of waterway corridors that will balance the needs of the environment and the community in urban developments.

Waterways are also an extremely important component of the landscape in terms of indigenous cultural heritage as reflected in the Aboriginal Heritage Act 2006 and Regulations 2007. These list the land within 200m of a named waterway as being 'culturally significant'. By protecting and enhancing riparian areas, we can assist in preserving and in some cases, enhancing, cultural heritage values.

The objectives for waterway corridors were used to identify optimum waterway corridor widths, riparian vegetation zones, and permitted activities and infrastructure.



6 Principles underlying the guidelines

The development of the guidelines is underpinned by a number of principles:

- The minimum waterway corridor widths and riparian vegetation zoning required to meet the river health / biodiversity and social objectives described above are based on the best available science and riparian management practice in Australia and worldwide
- The minimum waterway corridor widths also take into account the scale of vegetation required to provide robust and self-sustaining riparian vegetation communities over the long-term. Narrow waterway corridors require high levels of maintenance and plant replacement to prevent weed invasion, and do not provide the minimum spacing requirements for riparian trees (which are generally required components of healthy riparian vegetation communities in urban developments)
- The minimum required waterway corridor width varies dependant on stream order, which increases with distance downstream of headwater streams. Smaller waterways in the headwaters of catchments will have smaller riparian zone widths and large waterways in the downstream area of a catchment will have wider riparian zones. This ensures that waterway corridors are at an appropriate spatial scale for the size of the waterway in any given location
- Waterways do not need to have 'permanent' or 'flowing' water to be considered waterways under the Water Act 1989. Therefore ephemeral waterways are also considered 'waterways' for the purpose of these guidelines
- Two distinct riparian sub-zones are identified within the waterway corridor: a core riparian zone (CRZ) of high quality native vegetation immediately adjacent to the waterway to provide the greatest biodiversity benefit; and, a robust vegetated buffer (VB) between the core riparian zone and the edge of the waterway corridor to protect the high value vegetation in the core riparian zone from 'edge effects'
- While Melbourne Water is supportive of community interaction and use of waterway corridors, infrastructure and recreational activities will be limited in the high value 'core riparian zone' to protect river health and biodiversity values. There is more flexibility in locating public open space assets (such as shared pathways) in the 'vegetated buffer'. It should be noted that a development's Public Open Space contribution is a council requirement and is determined/ approved separately to Melbourne Water's waterway corridor requirements.



The waterway corridor widths or setback widths in these guidelines are minimum widths, which may be increased to reflect site specific factors, as described below:

- Where high value species and/or communities are present, especially those listed as key values in the Healthy Waterways Strategy, Waterway Corridor width may be increased to protect or enhance habitat for these species. High value species may be – but are not limited to – those listed under the Environment Protection and Biodiversity Conservation Act or Flora and Fauna Guarantee Act
- Where the site forms an important part of an existing, or potential high value habitat corridor
- Where a fuel break is required 'by relevant authorities' to mitigate fire risk
- Where a site has been determined by MelbourneWater to contain significant local or regional waterway values
- Where a waterway reach requires greater levels of protection to ensure significant upstream or downstream values are protected
- Where the site contains high value geomorphic features or assemblages

that may be negatively affected by adopting inadequate setbacks e.g. escarpments or chain of ponds

- If there is risk of significant channel migration in the future (presence of highly erodible soils)
- Where biodiversity conservation or stormwater quality assets are required within the waterway corridor
- Where substantial recreation based assets are proposed to be placed within the waterway corridor
- Natural wetlands that fall within a waterway corridor may have requirements beyond those listed in these guidelines. Likewise, waterway corridors may need to be expanded to include wetlands associated with the system or modified to provide an adequate connectivity between the wetland and the waterway corridor
- Where cultural heritage sites of significance have been identified.

In situations where the standard waterway corridor width – as specified in these guidelines – is less than the width of the post development 1 in 100 year ARI flood³ extent, the waterway corridor will be extended to include the entire 100 year ARI flood extent i.e. the 100 year ARI line becomes the waterway corridor boundary. Under these circumstances, the corridor

width required in excess of the 'minimum setback width' will be treated as 'vegetated buffer'.

It should be noted that in rare instances, the required waterway setback may be narrower than standard (minimum) width. Narrower setbacks will only be considered if it can be conclusively demonstrated that the objectives of waterway corridors (as outlined in these guidelines) will still be met.



3 Average Recurrence Interval is the expected time period between flood events of a given size. A 100 year ARI flood can also be thought of as a flood with a 1% chance of occurring in any year.



7 Waterway corridors for existing waterways

Existing waterways are typically well-defined channels, which may flow permanently or only during the wetter months of the year.

They will generally require only localised modification such as bank re-profiling, strengthening and/or revegetation as part of urban development. The condition of existing waterways in greenfield development areas is variable, but they are important environmental and social assets.

The approach to defining waterway corridor widths and riparian zones in existing waterways is based on the application of setback widths, as described in the following sections.

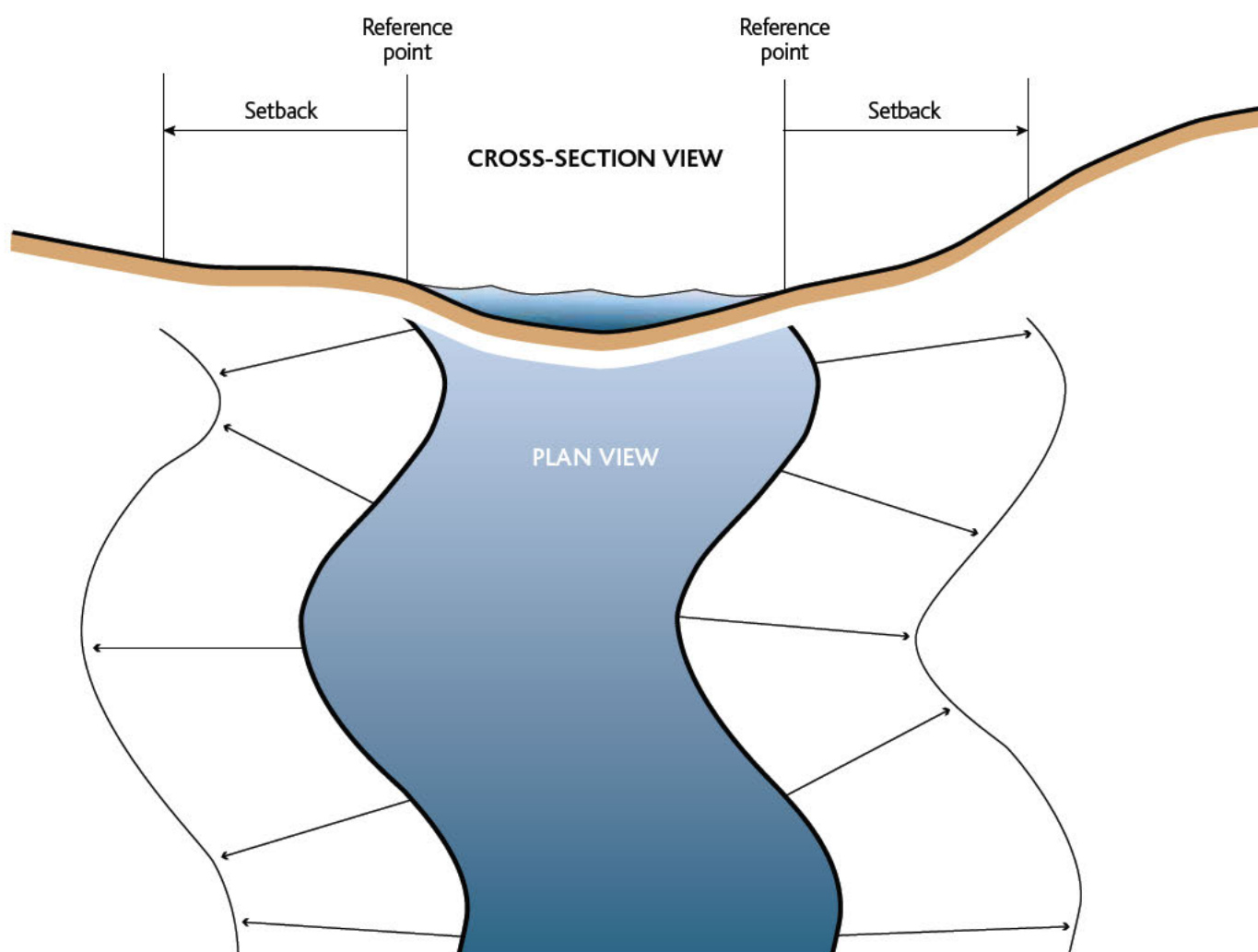
7.1 Minimum standard setback widths

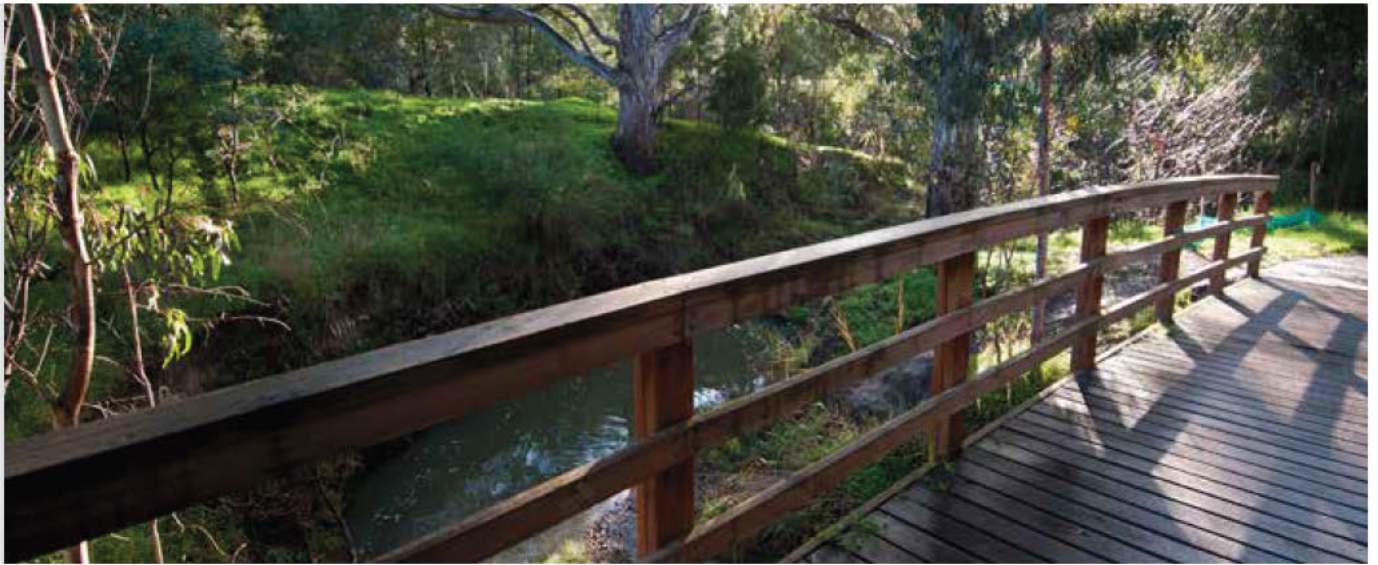
Three standard setback widths apply to existing waterways in the Port Phillip and Westernport region: 20 m, 30 m and 50 m. These setback widths have been defined following a comprehensive review of waterway management science in Australia and worldwide. They provide a balance between achieving river health and biodiversity objectives, providing for recreation and visual amenity and maximising developable land.

The setback widths apply to both banks and are measured from a setback reference point as shown in Figure 1 (below).

The reference point is generally the Top of Bank (break of slope from the river bank to surrounding land) of the waterway. In some cases top of bank may not be easily defined, and an alternative reference point such as a hydraulic measurement may be required instead. Melbourne Water will provide further direction on how to determine and locate the reference point at specific sites as required. Please contact Melbourne Water on 131722 to request this information.

Figure 1. Schematic illustration of setback from waterway





7.2 How do setbacks vary with position in the catchment?

The setback that applies to a waterway at a particular location depends on the position of the site in the stream channel network. The underlying principle is that smaller waterways require a smaller setback to meet waterway health objectives, larger streams require a larger setback and major waterways require the largest setback.

The Strahler stream ordering system⁴ is used to define a particular location in the stream channel network. The Strahler stream order is a simple method of defining stream size based on a hierarchy of tributaries. A small stream with no tributaries is defined as a first order stream. When two first order streams come together, they form a second order stream. When two second order streams come together, they form

a third order stream. Streams of lower order joining a higher order stream do not change the order of the higher stream, so if a first order stream joins a second order stream, it remains a second order stream. The Strahler stream order concept is illustrated schematically in Figure 2.



4 Strahler, AN, 1953 'Hypsometric (area altitude) analysis of erosional topology'. Geological Society of America Bulletin, 63(11), 1117 – 1142.

Figure 2. Strahler stream order network

The stream order is used to define the setback that applies to a development site in a particular location in the Port Phillip and Westernport stream channel network. The three categories of setback width are assigned to stream orders as follows:

1. First and second order streams have a minimum 20 m setback on both banks
2. Third order streams have a minimum 30 m setback on both banks
3. Fourth order and greater streams have a minimum 50 m setback on both banks.

Once the setback width at a site has been determined from the stream order of the waterway at that site, the application and integration of the setbacks into the urban design process can be finalised, as described in the sections below.

Please note: for the purpose of these guidelines the calculation of the stream order begins at the 60 hectare catchment size i.e. if a waterway/stream of 60 hectare catchment size has one or more drainage lines flowing into it, its stream order is still classified as one.

Streams less than 60ha catchment size

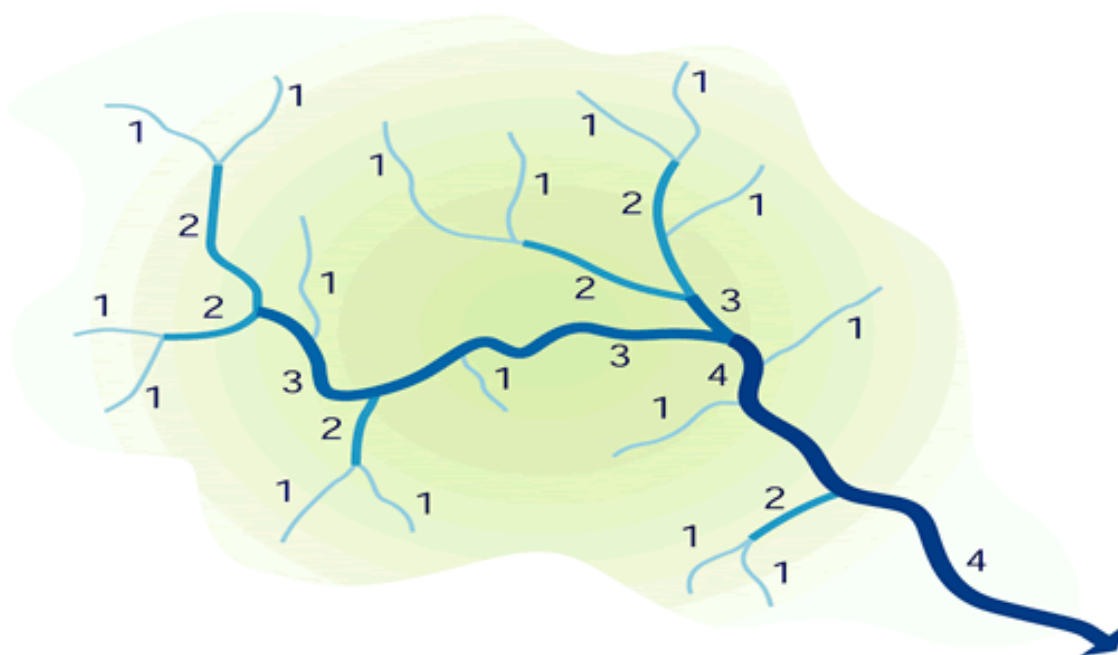
Generally, local government has a lead role in management of waterways with catchments less than 60 hectares; however, Melbourne Water recognises the important role these smaller streams play in regulating the health of the broader waterway system and the implicit values they hold in their own right. For example, minor waterways:

- are key habitat for vast numbers of flora and fauna species
- have an important role in regulating flows
- can be major sources of sediment and nutrient inputs if not appropriately managed.

The responsibility for managing these small, local waterways has traditionally fallen to local government. Under the Water Act 1989, Melbourne Water has the power to intervene with management of any 'waterway' within the Port Phillip and Westernport region, regardless of its catchment size, provided that it fits the description of a 'waterway' provided in the Act.

In instances where a small local waterway (<60ha catchment size) is identified as important to the health of the waterway as a whole, or where the potential exists for degrading processes acting upon it to spread throughout the system, Melbourne Water may take a direct management role. The required setback/corridor width for such waterways will be determined on a 'case by case' basis depending on specific values/threats.

While Melbourne Water does not take direct management responsibility for streams with catchments less than 60ha, we strongly recommend they are retained in a natural state and encourage Councils to provide setbacks that will ensure the values listed above are protected. A recent report by the National Water Commission (The Importance of Headwater Streams⁵) emphasises the difficulty in determining appropriate widths for these small streams, but does note that hydrology and nutrient/sediment/pollutant input may be equally or more important than 'buffer' widths in maintaining their condition. A 10-20m buffer width for each bank is cited as a recommended minimum in several studies listed in this document.



5 L.Barmuta, A.Watson, A.Clarke and A.Clappcott 2009 'The Importance of Headwater Streams' Waterlines Report Series No 25.

7.3 Setback sub-zones

As described earlier, there are two sub-zones within each of the setback widths. The sub-zones have different roles in meeting the overall setback objectives and different activities and infrastructure requirements.

The two sub-zones are:

- the core riparian zone (CRZ)
- the vegetated buffer (VB).

The relationship between these sub-zones is shown in Figure 3

The core riparian zone is fully vegetated with native vegetation selected in accordance with the vegetation component of the Healthy Waterways Visions⁶. Depending on various factors such as geographic location, stream form and current condition, the required vegetation type may vary from

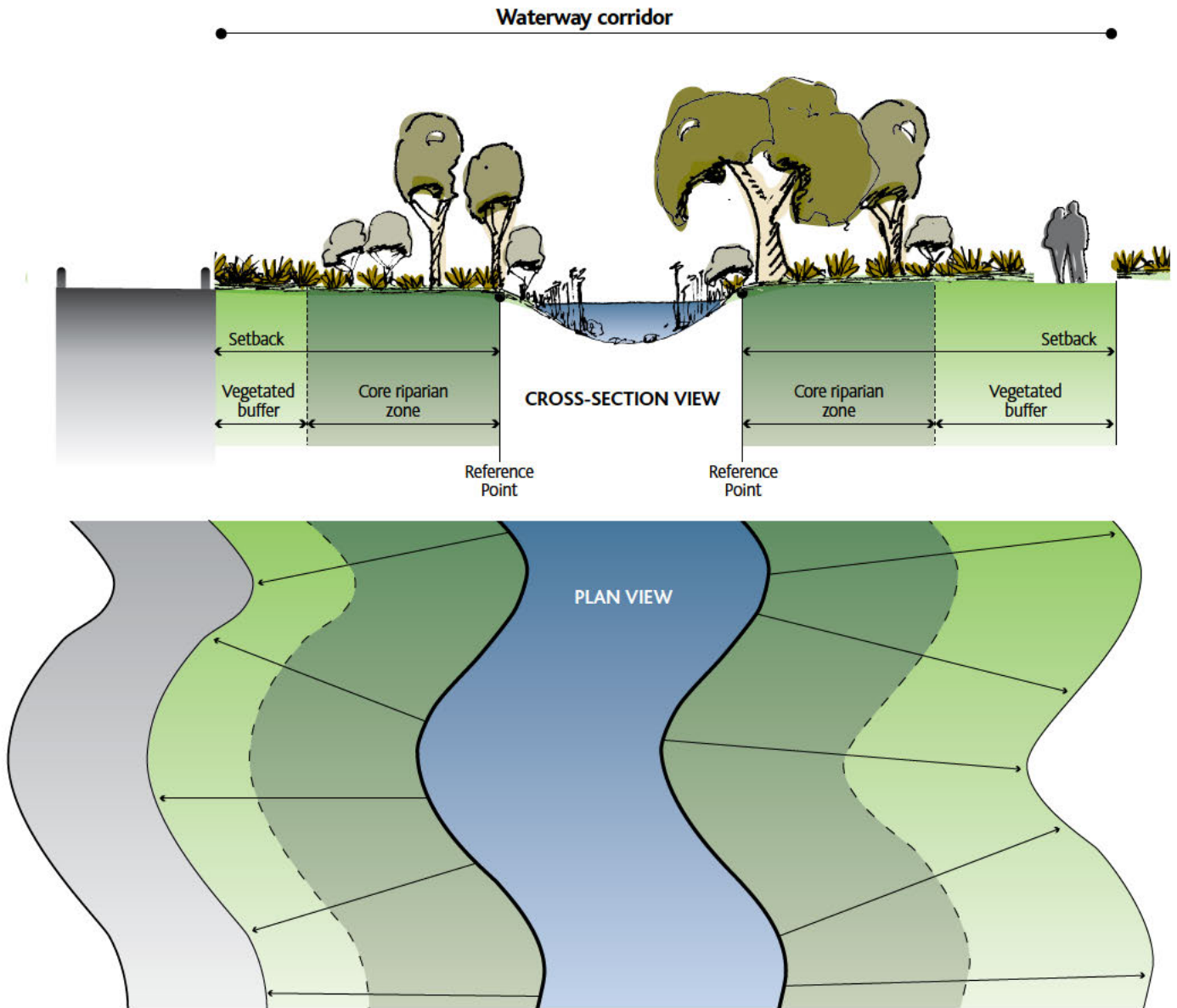
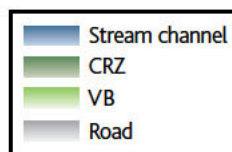


Figure 3. Schematic illustrations of setback sub-zones in cross-section (top) and plan view (bottom). Core riparian zone is shown as CRZ and vegetated buffer as VB.



⁶ The Healthy Waterways Visions communicate Melbourne Water's longer term aims for the form and function of waterways in the Port Phillip and Westport region. The visions provide one consistent Melbourne Water view of what the form and function of waterways could be in 20-years and articulate the levels of service that we need to apply to get there.

primarily trees and shrubs through to predominately native grass cover. The core riparian zone provides the main river health and biodiversity functions of the riparian setback. It is the area immediately adjacent to the waterway, and the vegetation in this zone provides the shading, nutrient and wood inputs to the stream required for healthy instream ecosystem function.

The vegetated buffer protects the core riparian zone from edge effects that will impact on vegetation and fauna in the core riparian zone. These edge effects include:

- weed invasion from adjacent areas
- light penetration
- micro-climate changes
- litter/pollution
- trampling

A 10 m wide vegetated buffer running immediately adjacent and parallel to the core riparian zone is required to protect the core riparian zone for all three standard widths. Therefore, although the width of the core riparian zone varies according to stream order, the width of the adjacent vegetated buffer remains constant at 10m (Table 1).

The 'vegetated buffer' vegetation type will vary from site to site, but will need to be designed in such a way that the integrity of the core riparian zone is protected. In many cases this will require this zone having similar vegetation to the core riparian zone. Melbourne Water will provide guidance on a site specific basis regarding the type of vegetation required.

Table 1. Core riparian zone and vegetated buffer widths for different overall setback widths in existing channels

OVERALL SETBACK WIDTH (M)	CORE RIPARIAN ZONE WIDTH (M)	VEGETATED BUFFER WIDTH (M)
20 m	10 m	10 m
30 m	20 m	10 m
50 m	40 m	10 m

In order to maintain the river health and biodiversity value of the riparian buffers in the waterway corridors it is necessary to limit the extent to which the vegetated buffer is impacted by services and infrastructure. As described above, riparian buffers provide a corridor through which fauna can travel across the landscape and habitat for fauna that do not migrate, hence optimisation of vegetation quality within this zone will greatly improve the ecological effectiveness of the waterway corridor.

Every effort should be made to locate underground services such as power, water and sewerage outside the core riparian zone to maintain the integrity of waterway function. Similarly, sports ovals, playgrounds, and maintenance tracks should also be located outside the core riparian zone, as they may create a barrier to faunal movement, despite being vegetated.

Wherever possible, shared pathways should also be located outside the core riparian zone and should meet the standards defined in Shared Path Guidelines⁷ (available on the Melbourne Water website). While Melbourne Water has a strong preference for the assets and features listed above to be wholly located outside of the core riparian zone, partial placement of assets within this zone will be considered in situations where it is absolutely necessary or where a clear benefit to the community and/or environmental health can be demonstrated.

In some instances, stormwater treatment systems such as constructed wetlands and bio-retention systems may be located within the core riparian zone – subject to Melbourne Water approval – but should form a relatively small proportion of the area of the core riparian zone so as not to degrade its ecological function or put the asset at undue risk from flooding and/or stream migration.

Fire breaks may be required adjacent to areas of vegetation. The Core Riparian Zone and Vegetated Buffer Zone will usually consist of dense vegetation, and should not be included in any fire break. Fire breaks must meet the requirements of relevant public authorities, and will generally require space in addition to the waterway corridor. In some instances roads that are located adjacent to a waterway corridor may suffice as a fire break.

Determining fire break requirements is a shared responsibility between all associated land owners and managers, therefore Melbourne Water recommends developers engage with these agencies early in waterway corridor design process, to determine what requirements will need to be met (both fire break and building design as outlined in AS 3959-2009).



7 Melbourne Water, 2009, Shared Path Guidelines.



7.4 Determining waterway corridor width and extent in existing waterways

Three steps are required to determine the standard waterway corridor width at any given site:

1. determine the Strahler Order of the waterway and the associated standard setback
2. identify 'reference point' lines for both sides of the waterway – setbacks are measured from these lines.
3. Consider site specific values and land uses that may require the setbacks in excess of the minimum (see section 6 and section 9.1).

Strahler orders

Strahler orders have been determined and mapped for all designated waterways with catchment areas equal to or greater than 60Ha in the Port Phillip and Westport.

Developers should contact Melbourne Water at an early stage in the development process to ascertain the Strahler order and associated standard setback width for the site in question. Where necessary the developer may need to consult with other agencies such as the Department of Environment and Primary Industries, Parks Victoria and/or the relevant council to determine any further requirements associated with the waterway corridor zone (biodiversity protection, open space requirements, stormwater treatment etc).

8 Waterway corridors for constructed waterways

Greenfield urban development often requires the construction of artificial waterways to effectively drain stormwater from urban areas. In recent years the approach to designing constructed waterways has moved from being solely or primarily concerned with efficient drainage to a more holistic approach that balances drainage requirements with the need to provide an environmental and social asset for new communities.

Melbourne Water has a responsibility to establish and maintain healthy riparian zones along all its waterways, whether existing or constructed. There is therefore a need to provide waterway corridors for constructed waterways as well as existing 'natural' waterways. However, to set the corridor width, an alternative approach is required because there are significant differences between existing and constructed waterways, the most important for the purpose of these guidelines being, that there is no natural top of bank point in a constructed waterway to use as a setback reference point.

The approach to defining constructed waterway corridor widths is founded on the principles outlined in Section 6, and based on the concept of 'hydraulic width', which is defined as the width of the water surface at the 1 in 100 year ARI flow level in the channel.

8.1 Constructed waterway corridor widths

Constructed waterways are completely artificial waterways that have been created where either a small existing waterway/drainage line has required expansion or there was no existing waterway/drainage line prior to development. Construction of a waterway may be required to: enhance channel capacity, provide flood conveyance/protection and provide drainage outfall with a stable channel and an aesthetically pleasing landscape with some degree of habitat and ecological function.

The waterway corridor width for constructed waterways is defined as a factor of the hydraulic width of the main channel of the waterway. Hydraulic width is defined as the width of the water surface in metres at the 1 in 100 year ARI post development flow level in the channel.

By scaling the waterway corridor width to the hydraulic width, the resulting waterway corridor widths will be sized according to position in the catchment, which is consistent with the underlying principle that smaller waterways – which carry smaller flows – require a smaller setback to meet the objectives for setbacks, whilst larger streams carry more flow and will require a larger setback and major waterways require the largest setback in order to meet both hydraulic and ecological objectives.

Constructed waterway corridor widths are also classified into the CRZ and VB sub-zones. The sub-zones have different roles in meeting the overall setback objectives and different activities and infrastructure requirements, as described for existing waterways in Section 7.3.



8.2 Determining waterway corridor width in constructed waterways

Constructed waterway corridor width is related to the hydraulic width (1 in 100 year ARI flood extent) by a sliding scale, as shown in Table 2.

Table 2. Sliding scale for calculating constructed waterway corridor widths

CRITERIA	RESULTING CORRIDOR WIDTH RANGE
Hydraulic width 5m to 30m	30m-55m
Hydraulic width 35m to 45m	45m-60m
Hydraulic width > 50m	55m-70m

The waterway corridor widths and sub-zone widths for a range of hydraulic widths in constructed waterways are shown in Table 3 and 4. When reading these tables, it should be noted that the Core Riparian Zone and Vegetated Buffer widths are 'total widths' and are not applied as 'setbacks' from the edge of the hydraulic width as is the case with natural channels. The Hydraulic Width falls within and forms a part of, the Core Riparian Zone as shown in Figure 4.

Melbourne Water will require maintenance access to both sides of all waterways. This may be provided in two ways:

- by providing an 'active edge' i.e. a road, that allows access for maintenance vehicles along the length of the waterway
- through the provision of maintenance tracks suitable for vehicular traffic where the waterway does not have an active edge.

Our preference is for the provision of 'active edges', as this has the dual benefit of encouraging positive interaction with the waterway as well as providing continuous maintenance access.

Where detailed information on road or other potential interfaces to the waterway is not available, Table 4 should be used as a starting point. Corridor width requirements can be refined as more detail is available..

Table 3. Sliding scale for calculating constructed waterway corridor widths – assumes active edges (roads) that allow vehicle access along entire corridor length, on both sides of the corridor.

HYDRAULIC WIDTH (M)	CRZ WIDTH (M)	VB WIDTH (M)	CORRIDOR WIDTH (M)
5	20	10	30
10	20	10	30
15	25	15	40
20	25	15	40
25	30	15	45
30	30	15	45
35	30	15	45
40	30	20	50
45	35	20	55
50	35	20	55
55	40	20	60
60	40	20	60
65	40	25	65
70	45	25	70

Table 4. Sliding scale for calculating constructed waterway corridor widths – addition of shared trail/maintenance track either side of channel (within vegetated buffer)

HYDRAULIC WIDTH (M)	CRZ WIDTH (M)	VB WIDTH (M)	CORRIDOR WIDTH (M)
5	20	20	40
10	20	20	40
15	20	25	45
20	25	25	50
25	30	25	55
30	30	25	55
35	30	25	55
40	35	25	60
45	35	25	60
50	35	25	60
55	40	25	65
60	40	25	65
65	40	25	65
70	45	25	70





While 'active edges' need to allow vehicle access along the entire reach of the waterway, this does not mean a 'road' needs to extend the whole length of the waterway. If sections of waterway cannot have 'active edges' but still allow vehicular access to the waterway, the widths in Table 3 can be used as a guide for corridor width.

The pilot channel (conveys regular flows and is typically 3 month ARI capacity) of a constructed waterway may move across the waterway corridor width along its length, but the design should ensure that the channel does not come within 10m of the edge of the corridor.

This will ensure continuity of the riparian zone; while also providing a suitable buffer should channel erosion occur in the future. Likewise, the entire 'waterway corridor' may meander if deemed functionally appropriate during the design phase.

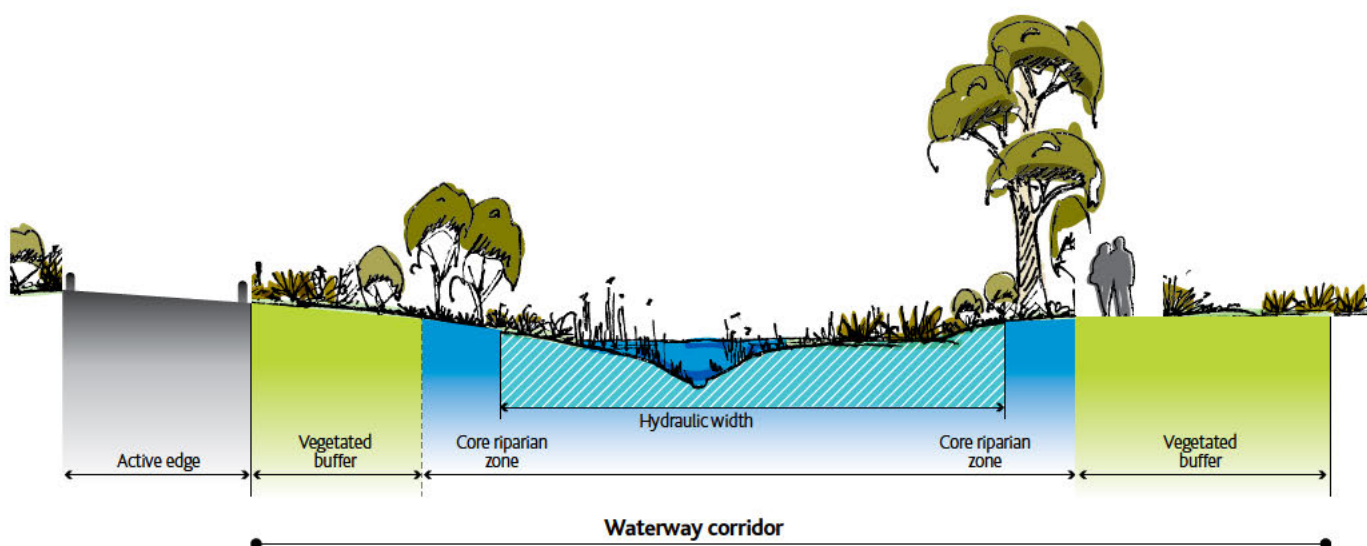
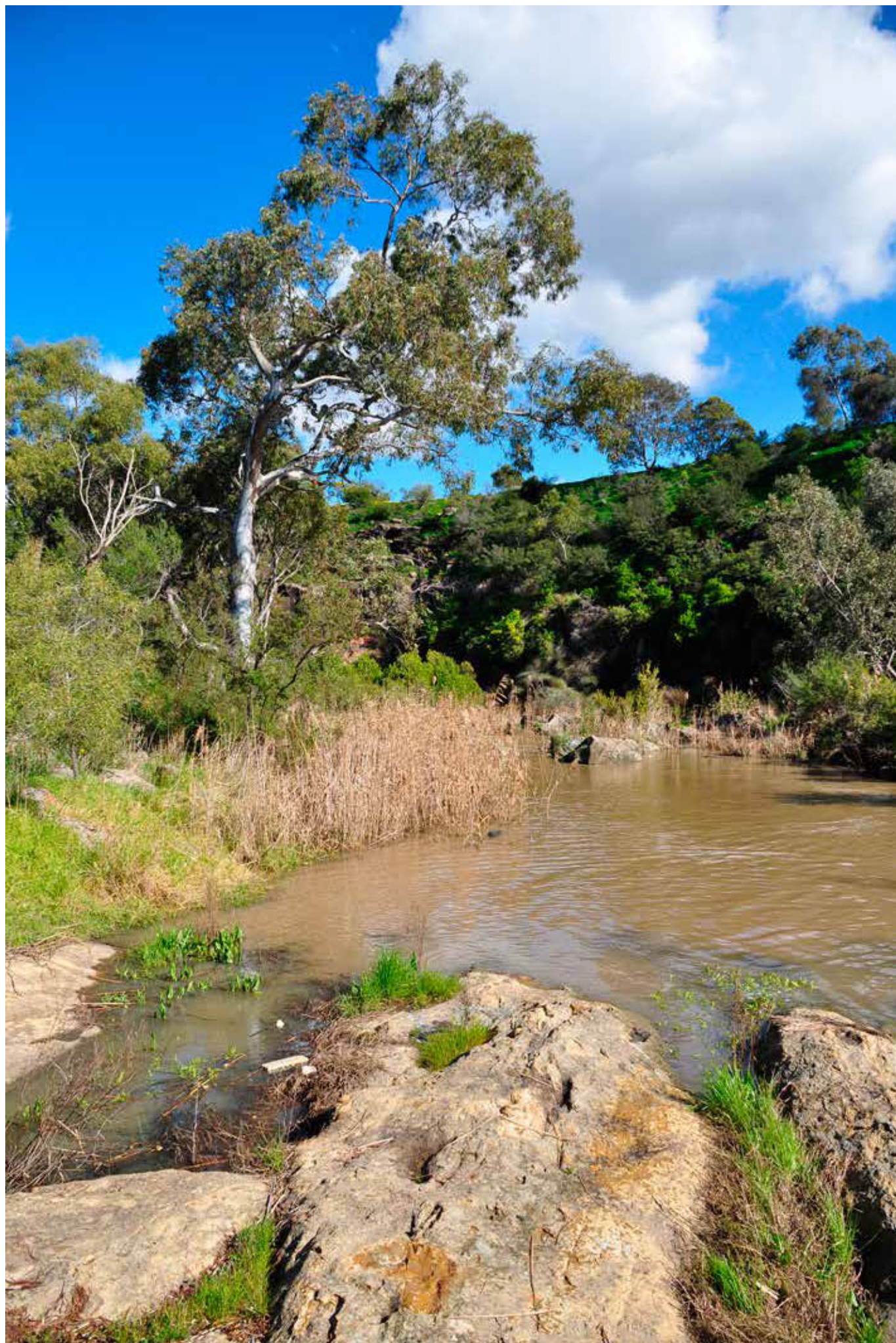


Figure 4. Example of setback sub-zones for constructed waterways



9 Incorporating site specific values and urban design elements into waterway corridors

9.1 Site specific values

As described in the Section 6, the waterways corridor widths presented in these guidelines are the standard widths to be adopted within greenfield urban developments. Following the definition of the minimum standard waterway corridors for a site (as described in the previous sections) specific investigations should be undertaken to identify factors that may lead to the variation in the waterway corridor widths, i.e. where the setback may need to be greater or narrower to locally account for site values and/or constraints. To recap from Section 6, these factors may include (but not be limited to):

- High value species and/or communities may require increased setbacks to protect habitat for these species
- Where the site forms an important part of an existing, or potential high value habitat corridor
- Where the site contains high value geomorphic features or assemblages that may be negatively affected by setting inadequate waterway corridor widths (e.g. backwaters, rocky outcrops or escarpments)
- Where a site has been determined by Melbourne Water to contain significant local or regional waterway values
- Where built assets require protection from potential future channel migration (especially important in areas with highly erodible soils)

- Where a waterway reach requires greater levels of protection to ensure significant upstream or downstream values are protected
- If the 100 year flood extent exceeds the standard waterway corridor width defined in these guidelines then the setback will be defined by the flood extent.

Where other land uses such as recreation or fire buffers also lead to requirements for land near a waterway, other relevant planning mechanisms will be used to provide for those purposes as required. All expected land uses within and adjacent to the waterway corridor should be considered together as early as possible in the planning process to enable an integrated and efficient corridor plan.

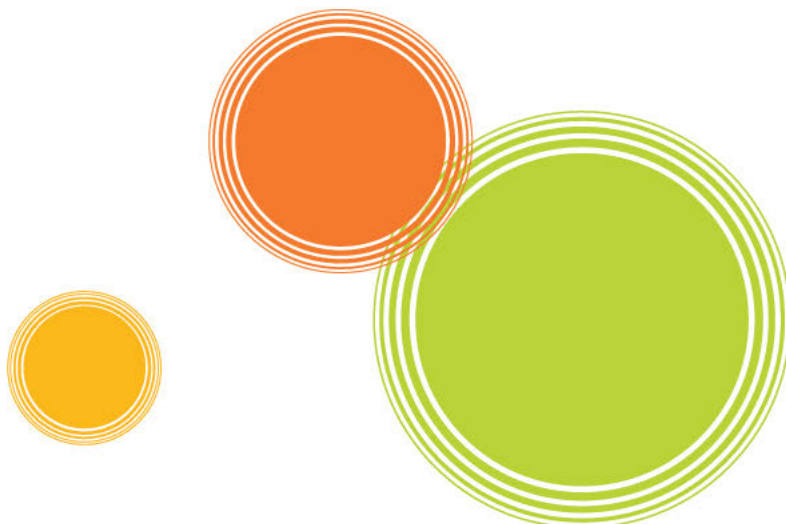
Depending on the shape of the line joining the setback reference points, the overall corridor width may not fit well with the intended subdivisional layout of the development site. It may be possible to adjust the setback line – creating a variable setback width, or in some cases – to fit better with the design of the development, provided built assets/infrastructure are not put at risk and there is no net loss in the total waterway corridor width and waterway functionality.

It will always be Melbourne Water's preference for the corridor width to remain constant, avoiding narrow sections that barriers to fauna movement or negatively affect waterway function i.e. reduction of setbacks on one bank will be compensated with an equal increase in setback on the opposite bank.

Allowing for these types of variations is intended to provide flexibility when fitting the subdivisional layout around the waterway corridor. The final configuration of the waterway corridor in a greenfield site (i.e. the width of the overall setback, core riparian zone and vegetated buffer) must be agreed with Melbourne Water during the planning phase for the development.

Net Gain

In some instances, vegetation Net Gain offsets may be allowed to be established on land within greenfield development areas that is to be transferred to Melbourne Water; this includes waterway corridors. Please contact the Melbourne Water on 131 722 if you wish to explore options for placement of Net Gain offsets within waterway corridors.



9.2 Ownership and ongoing maintenance of the waterway corridor

Once a waterway corridor has been incorporated into the development plan, attention turns to the design and construction of civil and landscaping works that may be required and then to the ongoing maintenance responsibilities for the waterway, the riparian zones and any adjacent open space and associated infrastructure. Waterway corridors are nearly always vested as Reserves in favour of either the local Council or Melbourne Water (the party in whom the land is vested becomes the land owner). Typically, because of the multiple uses of the waterway corridor, the Reserve is vested in favour of Council with a Memorandum of Common Provisions easement created over the Reserve area in favour of Melbourne Water. That way, both parties' interests are accounted for. Accompanying the creation of the Reserve and any easements is a Maintenance Agreement which details the areas and actions that Council and Melbourne Water are responsible for maintaining.

Other options such as singular authority ownership with easements/maintenance agreements in the name of other concerned authorities may also be appropriate; so might involvement of private parties such as Owners Corporations (e.g. Golf Courses). Lastly, service/utility providers may also require an easement in their favour to be created within the waterway corridor Reserve for assets such as power lines, gas mains, water mains, sewerage pipelines, and telephone/internet cables etc.

The following principles should be applied when developing arrangements for ownership and ongoing maintenance of various components of the waterway corridor:

Ownership of the waterway corridor

- Where there are public use benefits, it is Melbourne Water preference that Council, or DEPI take ownership of the Reserve.
- Where the Reserve is to be managed for the singular purpose of waterway management, Melbourne Water will normally take ownership of the Reserve.
- Where the Reserve is in Council/DEPI ownership, Melbourne Water will require a Memorandum of Common Provisions easement in our favour to be created on the Plan of Subdivision to enable access to undertake the range of maintenance activities included in the Schedule to the Maintenance Agreement.
- Where there are private interests immediately adjacent to the waterway and it is not possible to create a Reserve for the waterway corridor for example, the waterway runs through a golf course, Melbourne Water will require a Memorandum of Common Provisions easement to be created over the waterway on the Plan of Subdivision.

Maintenance of the waterway corridor

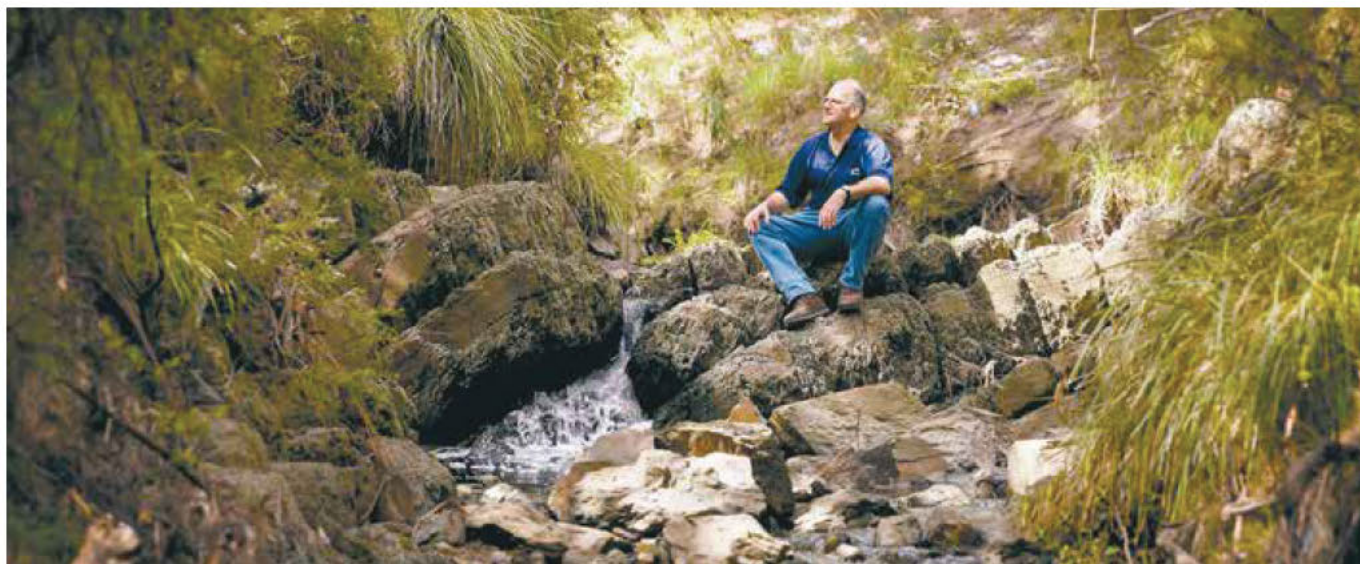
- Melbourne Water assumes responsibility for maintaining vegetation within the channel bed to the edge of ephemeral plantings on the banks, i.e. the regularly 'wetted' areas usually associated with the lower banks and ongoing maintenance of the physical integrity of the bed and banks
- In the absence of public use benefits, Melbourne Water will take responsibility of maintaining vegetation on the bed, banks, core riparian zone and vegetated buffer if this land is to be managed purely for waterway health purposes.
- Council or DEPI/Parks Victoria will assume ongoing maintenance responsibility for any part of the waterway corridor where there is an intended recreational use. In most instances this will be part of, or the entire, vegetated buffer, but may include sections of the core riparian zone where recreational assets such as pedestrian bridges cross through this area. Such areas will be clearly marked on the plan that accompanies the schedule of maintenance activities each party is responsible for.

Where Melbourne Water is responsible for maintaining the waterway corridor, we will do so to Melbourne Water standards; if a higher standard is required then the authority requiring the higher standard will be responsible for any additional works required.

Involvement of third parties

- Involvement of a party other than, or in addition to, Council on freehold land where Melbourne Water has a waterway management interest, will require the creation of a Section 173 Agreement. The Section 173 Agreement is a legally binding agreement that ensures that the requirements of the accompanying Maintenance Agreement, and Schedule/ Plan of activities that each party is responsible for are maintained in perpetuity. The s173 Agreement is tied to the land upon which the waterway corridor has been created.
- In the case of multiple parties sharing management interests for land vested in the crown, a management agreement of some form (options would need to be explored as to the most appropriate for the particular situation) will need to be entered into to ensure effective delineation of maintenance responsibility.

While Melbourne Water will work with key stakeholders to determine ongoing ownership and maintenance responsibilities as early in the planning process as possible (e.g. Precinct Structure Plans/Conservation Management Plans), it is expected that the ownership and maintenance responsibilities of many waterway corridor Reserves will need to be decided on a case by case basis later in the planning process as information required to assess against the guiding principles listed above become available.



10 Waterway Corridor Guideline review process

Recognising the complex and continuously evolving nature of waterway science and town planning theory, Melbourne Water will undertake regular reviews of these guidelines with the intention of providing the very best service to all key customers and stakeholders.

Melbourne Water will conduct an initial review of these guidelines 12 months from the initial launch date, and then conduct subsequent reviews every 24 months.

Melbourne Water welcomes feedback on the guidelines and their implementation success at all times and will endeavour to involve all key stakeholders and customers in the review process. Feedback can be provided via telephone (131 722) or via online submission.



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