

13 November 2020

Megan Taylor
Victorian Planning Authority
Level 25, 35 Collins Street
Melbourne VIC 3000

Dear Megan,

Proposal: Shenstone Park PSP - Responses to Expert Witness Statements
Melbourne Water reference: MWA-1191505
Development Services Scheme: Northern Quarries DSS, Lockerbie East DSS
and Woodstock West DSS

Melbourne Water is supportive of working with the VPA in delivery of the "whole of government" approach in the planning for new greenfield precincts.

In response to The Panels written request issued on Wednesday 04/11/2020, below are Melbourne Water's comments in response to the expert witness statements that propose changes to aspects of the Development Services Schemes within the Shenstone Park PSP:

Expert Witness Statement - Drainage - 75 Langley Park Drive Donnybrook - Val Mag, Stormy Water Solutions

Melbourne Water acknowledges the VPA's comments relating to the logic of the change in alignment for the section of waterway passing through this site (75 Langley Park Drive Donnybrook) and is not unsupportive of further investigation to balance better development outcomes against the design of efficient and effective major drainage infrastructure. Melbourne Water is supportive of the consideration of the alignment of this of this waterway being partially located within the quarry blast buffer that currently encumbers this site.

Melbourne Water would not object to retaining the existing alignment the Trib. of Merri Creek, the cut drain identified in the existing features plan, noting that this was the proposed outcome in earlier iterations of the Lockerbie East Development Services Scheme, however, appropriate consideration would be required for the waterway corridor alignment for the change in direction on the northern boundary of 75 Langley Park Drive Donnybrook.

Melbourne Water does note that the information submitted to date by Stormy Water Solutions (Val Mag) is very preliminary in nature and was submitted late in the formal process, so it is unlikely that there will be an ability to undertake a more detailed assessment of the proponent's preferred waterway alignment to ensure that it aligns with Melbourne Water's relevant guidelines and requirements, and to complete consultation with any other impacted land-owners. It would be more appropriate to consider a proposal of this nature at the subdivisional planning phase, once additional supporting information is available for review and consideration.

As the future urban structure within the supporting documentation for a Precinct Structure Plan shows the conceptual development layout, it would be Melbourne Water's preference to ensure that conceptual outcomes for drainage reserves/waterway corridors relevant to the delivery of major drainage infrastructure provides appropriate contingency for the delivery of this infrastructure, upon the completion of more detailed investigations, including further soil assessments.

Melbourne Water notes that the draft outcomes from Jacob's draft soil assessment that relate to the relevant catchment:

- Merri Creek tributary – This waterway along large parts of its length has the form of an agricultural drain and is in a degraded state. Further increases in runoff could increase erosion. Significant engineering works are likely to be required to create a stable waterway that is resilient to stormwater runoff from surrounding future land development (treatment of sodic and dispersive soils, construction of grade control structures, geosynthetic clay liners / rock treatment of low-flow channels and where water spills into wetlands).
- Steeper slopes – Cutting into these slopes exposes underlying subsoils, and erosion risk is increased with slope. Road batters must be designed with consideration to the erodibility of the soils. Stable linings that are resistant to rainfall and runoff will be required.

The proponent's preferred waterway alignment proposes multiple 90 degree bends, rather than a more gradual change in direction, which is likely to decrease the life of the asset and has the potential to increase maintenance costs, and does not account for localised widening on the bends.

The updated draft future urban structure for the Shenstone Park PSP has again revised the proposed location of the retarding basin and wetland to service this catchment at the request of Melbourne Water. The revised location is in the south-west corner of the precinct and would be accessible from the existing Langley Park Drive. Alluvium Consulting have previously been engaged by Melbourne Water to undertake the conceptual design of this proposed asset, and they will be progressing to functional design in the very near future. Melbourne Water has discussed the revised location with DELWP, Victoria Planning Authority, Whittlesea City Council and Yarra Valley Water. As the land-owner of the relevant land parcels, Yarra Valley Water are generally supportive of the conceptual proposed outcome, however, ongoing discussions will be required to finalise this outcome. The previous iterations of the draft future urban structure has included the footprint of this asset within both 75 Langley Park Drive and 95 Langley Park Drive as different points in time. Melbourne Water's investigation in the relocation of this asset was proposed in response to submissions from the representatives for 75 Langley Park Drive and Yarra Valley Water, and commentary from the Victoria Planning Authority. The revised location of this asset should deliver the detention and stormwater quality outcomes for the corresponding catchment, and provide an appropriate source of treated stormwater to supply the adjacent future growing grass frog ponds. It should be noted that this asset has not been specifically sized to service the land parcels owned by Yarra Valley Water.

To ensure that a realistic expectation is set, with a particular focus on the net developable area of this site, it would be Melbourne Water's preference to reflect the waterway corridor with more gradual bends when a change in direction is proposed and to detail a wider waterway corridor, noting that this can be further refined as the design of this asset progresses with future development approvals.

Melbourne Water is unable to comment on the appropriateness of the proponent's proposed east-west section of the waterway corridor siting to the north or south of the existing road reserve for Avelin Road, noting that this is an alteration to the existing alignment of the Trib. of Merri Creek and yet to be formally designed. The topography is noted to be slightly steeper to the south of the existing road reserve for Avelin Road.

Proposals of this nature are best addressed at the subdivisional phase of a project, once the site specific assessments have been undertaken and functional design work can commence. To assess a proposal of this nature, the below items would need to be provided:

- Appropriate concept functional designs of both the current alignment and the proposed realignment, in accordance with Melbourne Water's Constructed Waterway Design Manual and Constructed Waterways in Urban Developments Guidelines. This must be accompanied by appropriate modelling and a memo detailing the relevant design assumptions.
- Compliance with the Deemed To Comply Checklist (Concept and Functional Items) in Melbourne Water's Constructed Waterway Design Manual. Noting the bend in the proposed realignment, specific consideration of the Planform criteria is essential.
- Geotechnical assessment which clearly indicates the soil types within this catchment, including identification of the erosion potential and appropriate mitigation measures.
- Civil Estimates of both the current alignment and the proposed realignment based on the concept functional designs proposed.
- Written confirmation on company letterhead from the current owner of the land, that they will fund the difference in design and construction costs between the current alignment and the proposed alignment, including all costs associated with the potential localised widening of the waterway cross section and additional rockwork to suit the realignment proposed. This should also include specific wording stating that this obligation would sit on any contracts associated with sale or transfer of the land.
- Written support from Council for the proposed change in the future urban structure.
- Written support from the other impacted land-owner for the proposed change in the future urban structure

Expert Witness Statement - Drainage - 1100 Donnybrook Road Donnybrook - John Yalden, Taylors

Melbourne Water has had limited interactions with the project team for 1100 Donnybrook Road Donnybrook, with the discussions primarily focusing on the concept intent/layout of the Woodstock West Development Services Scheme.

Prior to the submission of the expert witness statement from John Yalden, which is supported by a stormwater management strategy, Melbourne Water hasn't had the specific opportunity to comment on the concept drainage outcomes proposed within this site.

APA Transmission Easement Drainage Crossing

The specific location and depth of any drainage crossings of the APA Transmission Easement will require further consultation with APA and Melbourne Water, as it must comply with both authorities requirements. In determining an appropriate invert for any crossing of the APA Transmission Easement, discussions should also occur with the land-owners immediately upstream and downstream, to ensure that the invert of this asset does not unfairly prejudice the development potential of their land. This level of detail is not within the scope of the PSP planning process and should be discussed and agreed separate to this process, between all relevant parties, including APA, Council and Melbourne Water.

Waterway Invert

A Development Services Scheme (DSS) sets the concept parameters for future major drainage infrastructure, based on the best available information at the time of creation.

As more detailed information regarding existing constraints and considerations is known, the DSS will often adapt to accommodate these assumptions. Both Rain Consulting and Taylors appear to agree on the concept waterway corridor width of 45 metres at the boundary of this site, noting that this width may change upon completion of a functional/detailed design, however, there does not appear to be specific agreement on the invert of the waterway. This level of detail is not within the scope of the PSP planning process and should be discussed and agreed separate to this process, between all relevant parties, including Council and Melbourne Water.

Extension of Waterway Corridor - 1100 Donnybrook Road Donnybrook

The draft Future Urban Structure (FUS) for the Shenstone Park Precinct Structure Plan (PSP) previously proposed to extend the waterway corridor identified in the Woodstock West DSS through to Donnybrook Road (along the eastern edge of the Gas Easement within 1100 Donnybrook Road Donnybrook), however, this outcome is not in alignment with the standard expectations of a conceptual DSS and is not an outcome for which Melbourne Water will be advocating through the upcoming Planning Panel process. It should be noted that the latest draft of FUS appropriately details the section of waterway corridor within 1100 Donnybrook Road Donnybrook.

Expert Witness Statement - Drainage - 1150 Donnybrook Road Donnybrook - Luke Cunningham, Rain Consulting

Melbourne Water has met with the project team for 1150 Donnybrook Road Donnybrook on a number of occasions to discuss the preferred approach to the drainage servicing strategy for the sub-catchment of the Woodstock West Development Services Strategy relevant to this site. Melbourne Water has previously discussed the revision of the major drainage infrastructure proposed within this property, and agreed to the revision of the drainage reserves as shown on the current draft future urban structure.

Waterway Invert

A Development Services Scheme (DSS) sets the concept parameters for future major drainage infrastructure, based on the best available information at the time of creation. As more detailed information regarding existing constraints and considerations is known, the DSS will often adapt to accommodate these assumptions. Both Rain Consulting and Taylors appear to agree on the concept waterway corridor width of 45 metres at the boundary of this site, noting that this width may change upon completion of a functional/detailed design, however, there does not appear to be specific agreement on the invert of the waterway. This level of detail is not within the scope of the PSP planning process and should be discussed and agreed separate to this process, between all relevant parties, including Council and Melbourne Water.

Outfalls - External to the PSP

Melbourne Water is working closely with the project team for this site to determine the potential downstream works, external to the Shenstone Park PSP, that may be required to facilitate urbanisation of the upstream catchment. Further work will be required to understand any potential downstream impacts and the extent of any mitigation works. This level of detail is not within the scope of the PSP planning process and should be discussed and agreed separate to this process, between all relevant parties, including Council and Melbourne Water.

Southern Catchment - Sediment Pond

The Woodstock West DSS does not specifically require the inclusion of a sediment pond in the southern catchment of this site to meet best practice stormwater quality treatment. The proponents proposed inclusion of sediment pond or GPT in the southern catchment of this site would not be funded by the Woodstock West DSS.

Melbourne Water has previously had discussions with representatives of 910 Donnybrook Road Donnybrook regarding a proposal to realign the section of the Trib. of Merri Creek that passes diagonally through the south-east corner of this site. Melbourne Water requested further design (and other requirements) for consideration of this proposal, noting that the proposed change in alignment proposes a significant shift from the existing alignment and 90 degree bends, which do not generally align with the design requirements for a constructed waterway. At this stage the information requested by Melbourne Water has not been submitted.

Change in Waterway Alignment - Further Information Request issued to Kate Matthews, Tract (30/06/2020):

We have discussed this proposal internally and there are no initial objections to the proposed realignment of the section of waterway through this site, however, additional information to support this proposed change to the future urban structure will be required:

- *Appropriate concept functional designs of both the current alignment and the proposed realignment, in accordance with Melbourne Water's Constructed Waterway Design Manual and Constructed Waterways in Urban Developments Guidelines. This must be accompanied by appropriate modelling and a memo detailing the relevant design assumptions.*
- *Compliance with the Deemed To Comply Checklist (Concept and Functional Items) in Melbourne Water's Constructed Waterway Design Manual. Noting the bend in the proposed realignment, specific consideration of the Planform criteria is essential.*
- *Civil Estimates of both the current alignment and the proposed realignment based on the concept functional designs proposed.*
- *Written confirmation on company letterhead from the current owner of the land, that they will fund the difference in design and construction costs between the current alignment and the proposed alignment, including all costs associated with the potential localised widening of the waterway cross section and additional rockwork to suit the realignment proposed. This should also include specific wording stating that this obligation would sit on any contracts associated with sale or transfer of the land.*
- *Written support from Council for the proposed change in the future urban structure.*

When designing and implementing a Development Services Scheme (DSS), the infrastructure has to be fit for purpose and optimal in terms of cost. All of our Development Services Schemes are created to align with Melbourne Water's Principles for Provision of Waterway and Drainage Services for Urban Growth.

Melbourne Water would not consider amending the scheme layout for the Lockerbie East Development Services Scheme, as the current alignment is considered optimal in terms of cost and performance, and the scheme would only provide funding equivalent to the intent of works currently proposed. It should also be noted that land reimbursement would not be applicable to the waterway corridors within this precinct.

If the above information is provided and is considered appropriate (to the satisfaction of Council and Melbourne Water), further discussions will be required to consider a mechanism to link the additional obligations to this land parcel.

Melbourne Water would be happy to discuss the above responses and provide further commentary in regards to the drainage evidence raised in a number of expert witness statements.

Should you require any further information please don't hesitate to contact myself on 03 9679 7183 or laurence.newcome@melbournewater.com.au

Kind Regards

A handwritten signature in black ink, appearing to read 'Laurence Newcome', written in a cursive style.

Laurence Newcome
Precinct Structure Planning Coordinator
Catchment Strategies and Services, Development Services