

Melissa Allan

From: Michael Prior <Michael.Prior@melbournewater.com.au>
Sent: Thursday, 19 October 2017 10:35 AM
To: Tony Marks
Cc: Ella Adams; Stephen Davis
Subject: TRIM: Lindum Vale: Melbourne Water comments on exhibited PSP and Satterley proposed drainage strategy
Attachments: Sketch of Lindum Vale PSP waterways.pdf

Hi Tony,

I apologise for the delay. I have divided the comments into the exhibited PSP and the Satterley alternative stormwater strategy. As you would be aware, the alternative stormwater strategy would require some significant changes to the layout of the PSP. Melbourne Water's preference is for the alternative stormwater strategy and reasons are outlined below.

Melbourne Water - Comments on Exhibited PSP

A key issue for Melbourne Water with the Lindum Vale PSP is the location of stormwater management assets. The locations shown in Plan 3 Future Urban Structure are not the optimal locations and Melbourne Water considers that the locations shown in the report "Draft Surface Stormwater Management Strategy, 1960 & 2040 Mickleham Road, Mickleham, Lindum Vale, Satterley Property Group, Alluvium, July 2017" are preferable (see section below for further detail). This alternative strategy better manages the stormwater flows from the local catchments by retarding and treating them in three basins before directing all flows to one outlet to the existing drainage reserve east of the site. There is a risk with the current layout of the PSP that overland flood flows would continue eastwards through existing houses and properties. This risk would be greatly reduced with the alternative strategy.

Plan 9 Integrated Water Management. The area shown on this plan should not be a drainage reserve, since this is not its main function. Particularly with our comments above on the preferred stormwater strategy, there will be a smaller area within the central reserve required for stormwater functions. (A similar situation in the Lincoln Heath South PSP 1207.1 separated the drainage area from the environmental area). The area of 12.27 hectares should not be listed for drainage in Table 5 nor in the land budget Table 6 in Appendix 4.1.

Figure 4 Retarding Basin / Wetland Concept Plan. This plan should be changed in accordance with the alternative stormwater strategy (if the alternative is adopted), with the main changes being the removal of the two upper wetlands in this reserve and a reduced area shown as drainage reserve. Battering should be altered to show a battered flow connection from the end of the east-west road through the reserve to carry overland flows from this east-west road.

Section 3.6.1 Integrated Water Management. Melbourne Water supports the requirements and guidelines in this section. It is noted that the requirement for the long-term viability of vegetation will be the responsibility of Council and will need further details to be designed. Different approaches may be needed for trees in different locations (high or low ground) and the amount of watering needs to be defined. Melbourne Water understands that the PSP clauses provide options for this objective that can be further investigated through an upcoming workshop or conversations with Hume City Council.

Melbourne Water - Comments on Alternative Stormwater Strategy (Alluvium)

Overall, Melbourne Water believe the conceptual Alluvium stormwater strategy better manages the stormwater flows from the local catchments by retarding and treating them in three basins before directing all flows to one outlet to the existing drainage reserve east of the site. There is a risk with the current layout of the PSP that overland flood flows would continue eastwards through existing houses and properties. This risk would be greatly reduced with the alternative strategy. It is noted that the preferred stormwater strategy would require two additional drainage reserves to be added to the

PSP. Melbourne Water understands that the landowner is supportive of the alternative stormwater strategy.

There is an upstream catchment of about 80 hectares and so flood flows will be significant, although this could be conveyed through pipe and road. Melbourne Water support the inclusion of a waterway from Mickleham Road through to the central retarding basin / wetland. Management and land ownership need to be agreed and we propose what's shown in the attached diagram. In previous discussions with Melbourne Water, it was considered that a waterway was not required in this location. New information has been made available which suggests construction of a new culvert under Mickleham Road. This new information means a constructed waterway would be desirable which would be in the order of 20m for hydraulic conveyance including freeboard in a reserve of approximately **40m in total width** depending on adjacent roads. It's possible that the flows could be conveyed in a pipe-road (overland flow) arrangement, however the new construction of the culvert at Mickleham Road makes this arrangement less desirable.

Through the conservation reserves, a waterway (swale) would likely need be formed with minimal depth and avoiding trees. This would be need to be approximately 20m wide with no required freeboard from the top of the channel. Melbourne Water would be responsible for the waterway (swale) only; the reserves would likely be in Council ownership. This would need to be discussed at an upcoming workshop.

If you have any further questions, please call me on 9679 6629.

Regards,
Michael

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MERRIFIELD WEST PSP AREA

Possible water to be shown in DS strategy?



	precinct boundary		public acquisition overlay		connector street - boulevard
	existing urban area		conservation reserve		local access street
	local convenience centre		electricity transmission easement		pedestrian/cycle link
	heritage overlay interface area		local park		waterway & drainage reserve
	heritage overlay		landscape values		
	arterial road - existing road reserve		residential area		