

27 October 2023

Dear Chadia.

## Re: Officer South PSP - Stormwater Requirements for 105 Patterson Road, Officer

I have reviewed the macro stormwater requirements and concepts associated with the Officer South PSP and your clients land at 105 Patterson Road, Officer. The site is located at the southern edge of the PSP and is subject to a number of proposed drainage related assets. The site context from the PSP documentation is shown in Figure 1. This high-level review is based on this document and the following:

- A review of the PSP documentation including Figure 1 and Figure 2 as replicated here.
- A review of the objectives as listed in the PSP.
- Industry knowledge of the area including my experience working at Cardinia Council (2013-2015)
- Understanding of MW scheme principles

I have not received any of the underlying hydrological or water quality models from Melbourne Water (or requested them at this stage), and as such my understanding is limited to the above documents and my industry knowledge of the schemes and the area.

As shown in Figure 2, the PSP proposes a Waterway along the southern boundary of the property. It is also noted that a major wetland system is proposed to the east of the site, and a major sewerage pumping station is located within the vicinity. From this, and the proposed PSP boundary, it is theorised that all of these assets are located in these areas as they are required at the lowest elevation in the PSP. In some respects, the site and the surrounding land uses, and proposed water assets are dominated by this low elevation and have little to do with the best uses of the land in this part of the PSP. That aside the following points are noted for the water assets:

- The proposed location of the waterway along the southern boundary is not a current waterway location, and as such, this corridor should be purchased as part of the scheme.
- It seems the waterway is placed here due to the outfall invert restriction and the arbitrary edge of PSP. Were options outside of the PSP canvassed that could provide a better overall outcome? These might include:
  - Wetland placement along Gum Scrub Creek corridor or connection point with Cardinia Creek.
  - Waterway to be placed on the current valley line (as is current MW policy) at 30 Patterson Road
- Could the waterways be aligned in a more north-south alignment to match the topography and
  existing drainage format. This would facilitate 2 smaller wetlands at ~30 Patterson Road as
  depicted in Figure 2. This would be a smaller capital cost (at the acknowledged higher operational
  cost for 2 wetlands/RBs)
- It is noted that large sewer mains would presumably be required in this waterway corridor (to connect to the pumping station) and as such the land take for this asset may be larger than as shown.

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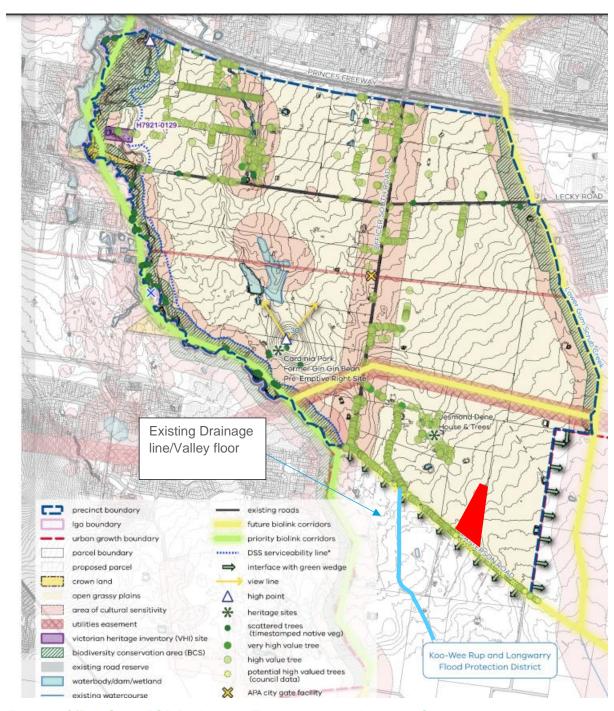


Figure 1. Officer South PSP Background Topography and Vegetation Context

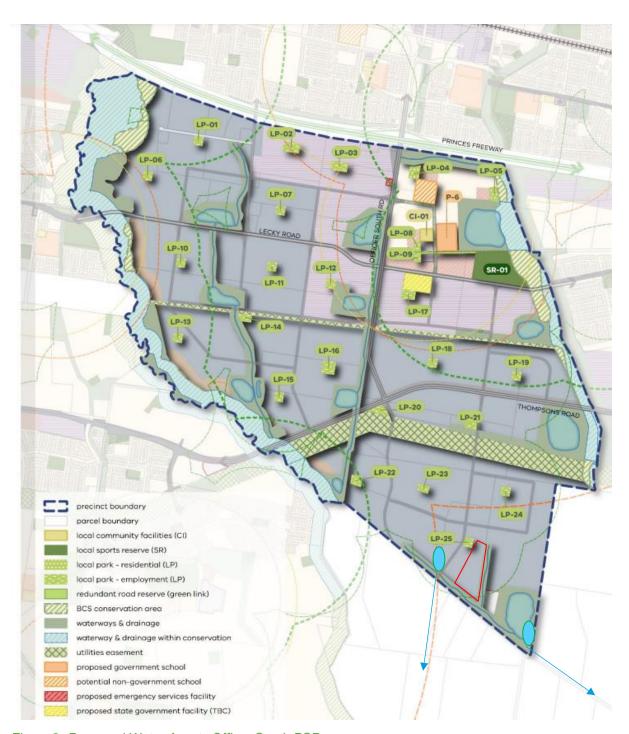


Figure 2. Proposed Water Assets Officer South PSP



Afflux Consulting Pty Ltd PO Box 457, Emerald VIC 3782 Based on this review, I suggest the following points are requested of the VPA consultation:

- Confirmation that if the waterway asset is placed on this parcel that the land will be reimbursed at
  the applicable development land use rate. This would be in line with current principles for
  development schemes and given that there are other hydrological options this would be a
  minimum requirement.
- Review if a single RB/wetland asset in this location (SE corner of the PSP) with associated waterways to facilitate the asset is the best arrangement of stormwater assets.
- Confirmation of the land take associated with the waterway corridor including the sewer asset offsets as required by Melbourne Water.

Yours sincerely,

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Principal Engineer

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