

Water Management Referral Response

Application Number:	DA2023/0976
Proposed Development:	Demolition works, civil and infrastructure works, subdivision into 53 lots and one community title road, the construction of 53 dwellings and associated works.
Date:	06/10/2023
To:	Thomas Prosser
Land to be developed (Address):	Lot 1 DP 592091 , 20 - 22 Macpherson Street WARRIEWOOD NSW 2102

Reasons for referral

Council's Water Management Officers are required to consider the likely impacts.

Officer comments

Not supported.

This application has been assessed in consideration of:

- Supplied plans and reports;
- Pittwater LEP 2014 6.1 Warriewood Valley Release Area (Impacts to water quality of creeks)
- Pittwater 21 DCP C6.1 Integrated Water Cycle Management (Water Management Report, surface and groundwater quality management and monitoring)
- Pittwater 21 DCP C6.2 Natural Environment and Landscaping Principles (Location of water quality treatment measures)
- Warriewood Valley Urban Land Release Water Management Specification 2001 (Detailed guidance on water quality monitoring and management)
- State Environmental Planning Policy (Resilience and Hazards) 2021 (section 2.8 & 2.12) (Protecting the hydrological integrity of the downstream coastal wetland, and no impact to quantity and quality of surface AND groundwater flows)

This referral relates to water quality management on the site. A separate referral has been prepared in relation to the creekline corridor and Narrabeen Creek.

General requirements

A water management report has been provided. **A MUSIC model, including the data files, of pre-development and post-development conditions for the subdivision design should be submitted as soon as possible prior to perusal of the Water Management comments.**

The plans for the bio-retention basin must clearly show the boundaries of the inner and outer creekline corridor, noting that the bio-basin must be located entirely in the private buffer i.e., the outer creekline corridor.

Water Cycle Assessment

Council preference is for a bio-retention basin without an impervious liner to promote infiltration and baseflow to Narrabeen Creek. The stormwater management report Ref 359-21 indicates that this is intended and this must be reflected in the design plans.

The water management model (MUSIC) set up is to reflect the BASIX guidelines. The rainwater

tanks requirements of BASIX are 1,500L and associated roof area collection (65 and 90 sqm depending on dwellings).

Reference to CAMDEN COUNCIL'S to be deleted.

Water Quality Management

Council agrees with the definition of the site proposed in the Stormwater Management Report (Ref: 359-21). The subject site is an existing commercial site with at grade carparking.

The aim of the WARRIEWOOD VALLEY URBAN LAND RELEASE WATER MANAGEMENT SPECIFICATION is to create an effective but unobtrusive stormwater management system that enhances, rather than reduces the values of the area and ensures minimal impact on downstream sites.

Council note that a no impact comparison (pre development against mitigated developed scenario) is not meeting the basics industry targets (see below):

- Total Phosphorous 65% reduction in the post development mean annual load
- Total Nitrogen 45% reduction in the post development mean annual load
- Total Suspended Solids 85% reduction in the post development mean annual load
- Gross Pollutants 90% reduction in the post development mean annual load (for pollutants greater than 5mm in diameter)

Due to the existing commercial nature of the site the general stormwater quality targets should be used for the proposed development.

Council is supportive of a bio-retention basin but further detail is required and the design requires some revision, including:

- addition of weir and spillway
- include top of bank of minimum 500mm

Council is supportive of a stormwater outlet set back from the creek which connects with the floodplain. However, the outlet must connect to the creek via rock-lined swale to ensure it does not scour the floodplain and creek bank. Energy dissipation structures such as rock-lined swales must have a natural appearance and their invert at the base of the creek to ensure there is no additional scour induced by their presence. The connection to the creek should be made at a 45 degree angle.

A considerable amount of the catchment post-development would not drain directly to the bio-retention basin. The stormwater outlet from the OSD must connect to a filter strip as per the Warriewood Valley Urban Land Release Water Management Specification 2001. The filter strip is to be located at the toe of the 1(V) in 4(H) upper riparian embankment and allow for the the low flow to be disperse/spreaded in the riparian corridor. High flows to be connected to the main stormwater outlet.

The stormwater management report Ref 359-21, page 2 of 23, refers to a temporary on-site detention tank and a bio-retention basin. Reference to these features as temporary must be clarified or else removed. Section 7.3 and 7.5 are referring to basin access from Lorikeet Grove and lifting of maintenance equipment, report to be updated to reflect the use of the proposed access ramp.

Table 7 on page 17 of the Stormwater Management Report lists Council as responsible for maintenance of the Onsite Detention Basin. This reference must be removed. Council will not be responsible for maintenance of the bio-retention basin.

A draft maintenance and operation manual in regard to the GPT and Bio Retention/detention basin

operation is to be submitted for review.

The applicant is to prepare a draft community management statement for Council's review and is to feature appropriate by-laws /reference to a the operation and maintenance of all stormwater quality systems (including but not limited to gross pollutant traps , the OSD tank and bio retention/OSD basin).

The proposal is therefore unsupported.

Note: Should you have any concerns with the referral comments above, please discuss these with the Responsible Officer.

Recommended Water Management Conditions:

Nil.