

Engineering Referral Response

Application Number:	DA2023/0689
Proposed Development:	Demolition works and construction of a dwelling house
Date:	21/08/2023
To:	Stephanie Gelder
Land to be developed (Address):	Lot 10 DP 9561 , 7 New Street BALGOWLAH HEIGHTS NSW 2093

Reasons for referral

This application seeks consent for the following:

- New Dwellings or
- Applications that require OSD where additional impervious area exceeds 50m² or
- Alterations to existing or new driveways or
- Where proposals affect or are adjacent to Council drainage infrastructure incl. watercourses and drainage channels or
- Torrens, Stratum and Community Title Subdivisions or
- All new Commercial and Industrial and RFB Development with the exception of signage or
- Works/uses in flood affected areas

And as such, Council's development engineers are required to consider the likely impacts on drainage regimes.

Officer comments

The proposal is for the construction of a new dwelling. The site is in Region 3, Zone 1 and as such OSD is required in accordance with Section 9.3.3.2 of Council's Water Management for Development Policy.

The submitted stormwater plan proposes discharge to the kerb via an OSD system. However, the proposed OSD volume appears low. Additional information required for assessment is as follows:

- Drains model
- Amended plans to show predeveloped and post developed flows including flows from the OSD system and bypass flows.

Additional Information Provided on 26/7/2023

A OSD design that only complies with Section 9.3.3.2.1 is not sufficient and the proposed volume of OSD is not adequate. The design of the OSD system must be in accordance with Section 9.3.3.2. Critical storm events are to be considered in accordance with Section 9.3.3.2.2. PSD shall be determined in accordance with Section 9.3.3.2.3 and Site storage requirements are to comply with Section 9.3.3.2.4.

Amended plans and models are to be submitted for further assessment.

Additional Information Provided on 18/8/2023

The amended stormwater plans and model have been reviewed.

Comments regarding the model are as follows:

- In the ILSAX model the depression storages are not set correctly . Paved is set as 2mm. It should be set as 1mm. Grasses is set as 50mm. it should be 5mm.
- 2019 ARI rainfall data should be used for the model.
- Tc for the grassed areas is set too low. Please refer to tables in the Water Management for Development Policy. Council's review suggests a Tc of approximately 14 -15 mins.
- A predeveloped flow of 30 L/s is too high. Council's review suggests a PSD of approximately 17 L/s.
- The bypass area is too large. More of the site should be captured within the OSD system.
- Subsequently the proposed OSD volume is not sufficient.
- The plans are to show details of all flows including bypass flows.

Please provide amended plans and model for further assessment.

The proposal is therefore unsupported.

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

Recommended Engineering Conditions:

Nil.