

Engineering Referral Response

Application Number:	DA2019/0807
To:	Lashta Haidari
Land to be developed (Address):	Lot 16 DP 7022 , 19 Kooloora Avenue FRESHWATER NSW 2096

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

Development Engineers have assessed the proposal and cannot support it due to the following reason.

A overland flow study report is required to be submitted to Council's Development Engineer for assessment. The site is located in Kooloora Avenue and it is located within the basin of a remnant lagoon with a catchment discharging to Freshwater Beach.

A Civil Engineer should be engaged to investigate and verify whether the subject property is affected by an overland flows during a 1 in 100 ARI storm event. The study shall include:

1. The applicant is to submit a hydraulic report showing the 100 Year Average Recurrence Interval (ARI) stormwater flow over the subject site, prepared by a Chartered Professional Civil Engineer of Engineers Australia. All calculations are to be carried out in accordance with the guidelines provided in "Australian Rainfall and Run Off", a publication of the Institution of Engineers, Australia. All levels are to be shown in Australian Height Datum (AHD).
2. The 100 year ARI flood flow level must be established in AHD for the proposed future floor levels and basement entry levels which shall be a minimum of 500 mm above the 100 year flood level. This is to ensure that the proposed future dwellings and basement car parking areas are protected in major storm events.
3. A Drains Model of the Freshwater catchment using sub-catchments, infiltration basins is to be created in the overland flow study report. Using the Drains model, the peak water level height within the infiltration basin for the critical storm event, considering tailwater effects, incoming catchment flows, outgoing absorption flows, and outgoing pipe flows is to be determined.

The proposed development must comply with all requirements of Council's Section 9.3, Overland Flow of Council's PL 850 Water : Water Management Policy. Runoff from the developed site must not cause a detrimental effect on any property.

Failure to comply with Clause C4 in Warringah DCP 2011.

Referral Body Recommendation

Recommended for refusal

Refusal comments**Recommended Engineering Conditions:**

Nil.