

21/04/2021

Our Ref: 251-20 (DA Lots 1 & 2)

Northern Beaches Council
725 Pittwater Road,
Dee Why, NSW, 2099

Attention: Northern Beaches Council

**Re: Stormwater Management Report for the Proposed 2 Lot Subdivision of Lot 7
DP 1251955 – Fern Creek/Dove Lane, Warriewood**

BACKGROUND

This letter has been prepared by Craig & Rhodes to support the Development Application (DA 2021/1727) to subdivide Lot 7 DP 1251955 into two Torrens Title Lots (Lot 1 and Lot 2) and one Residue Lot (Lot 3). Note Lot 3 will be subdivided further subject to a different DA (DA2021/0053). Refer to proposed Plan of Subdivision of Lot 7 DP1251955 for your reference (Sheet 251-20G L01 [01] – Stage 1).

The letter provides details on how the following are managed in accordance with the relevant Northern Beaches Engineering Controls:

- Stormwater drainage strategy to manage runoff generated from the lot in accordance with the relevant Northern Beaches Council engineering controls.
- How to manage the external catchments flows generated from the upstream property.

The proposed two residential lots will be accessed through the Dove Lane, Warriewood refer **Figure 1**.

Craig & Rhodes is currently preparing Construction Certificate documents under the approved Application Number DA2018/1044 which includes the construction of the public roads (Fern Creek Road & Dove Lane) and associated infrastructure services within the road reserve.



Figure 1 – General Layout of DA 2018/1044 & Proposed Site Location

STORMWATER QUANTITY & QUALITY

In accordance with Council Pre-DA Meeting Minutes dated 3/11/21 (attached), Pittwater 21 Development Control Plan – Section B5.12 Stormwater Drainage Systems and Natural Watercourse, and the Warriewood Valley Urban Land Release - Water Management Specification should be adopted for the DA assessment of Stormwater Management for the proposed development.

a) Stormwater Quantity

Lots 1 & 2 are proposed to each have its own onsite detention (OSD) systems with minimum storage capacity and permissible site discharge as outlined in Section 4.6.3 and Appendix A of the Warriewood Valley Urban Land Release - Water Management Specification. The specific location and detailed design for the proposed individual OSD will be part of the future dwelling development applications.

A separate DA (DA2021/0053) has been submitted to Council inclusive of the area of Residue Lot 3. Under DA2021/0053, runoff generated from the Residue Lot 3 will be conveyed to a proposed underground OSD Tank. The location and the design of this underground OSD tank is included as part of stormwater management under DA DA2021/0053.



b) Stormwater Quality

Lot 1 and Lot 2 as proposed will both require an on-lot Stormwater Quality Control System (i.e. raingarden or storm filter). In accordance with the Warriewood Valley Urban Land Release Water Management Specification, stormwater quality treatment devices are to be provided to meet the stormwater quality objectives. Detailed stormwater quality design will be part of the future dwelling development applications for Lot 1 and 2.

The proposed Stormwater Management for DA2021/0053 includes a combined OSD/Bio-retention tank. The area of residue Lot 3 under this proposed DA has been included as part of the stormwater catchment for the proposed combined OSD/Bio-retention under DA2021/0053.

External Catchment Conveyance

The topographic survey and lidar information indicate an upstream catchment approximately 0.6 ha into the south of the subject site (Refer to Appendix A –Sheet 0701). This catchment consists of rural bush land and a small residential dwelling. As part of proposed works, a pit & pipe system along the southern boundary of Lot 1 & 2 to capture runoff generated from the upstream catchment.

In accordance with Council's Water Management for Development Policy (Section 6.3 – Conveyance of Overland Flow), the pit & pipe network is designed to cater for 5% AEP storm event. All other storms in excess of the 5% AEP, up to and including the 1% AEP will be conveyed through a grassed swale as overland flow path to the proposed Dove Lane road reserve.

For details of the swale, pit & pipe modelling, refer submitted CC application for DA2018/1044.

CONCLUSION

The proposed two lot subdivision development meets the drainage design requirements in accordance with Pittwater DCP and Council's relevant policies.

- Onsite detention and stormwater quality measures will be provided as part of the individual dwelling development applications to satisfy council's requirements.
- The external catchment is managed through the overland flow path and pit & pipe system.

Please contact the undersigned if you have any questions or require any further information.

Yours faithfully,

Zhou (Joe) Yu - Senior Civil Engineer
CRAIG & RHODES PTY LTD



Appendix A

