

## Natural Environment Referral Response - Riparian

<b>Application Number:</b>	DA2023/0669
<b>Proposed Development:</b>	Demolition work and the construction of 28 dwellings, infrastructure, roadworks, tree removal, landscaping, community title subdivision and the dedication of the creekline corridor to Council.
<b>Date:</b>	15/09/2023
<b>To:</b>	Alex Keller
<b>Land to be developed (Address):</b>	Lot 4 DP 553816 , 16 Macpherson Street WARRIEWOOD NSW 2102

### Reasons for referral

This application seeks consent for the following:

- All Development Applications on land, and located within 40 metres of land, containing a watercourse, or
- All Development Applications on land containing a wetland, or located within 100m of land containing a wetland,
- All Development Applications on land that is mapped as “DCP Map Waterways and Riparian Land”.

And as such, Council's Natural Environment Unit officers are required to consider the likely impacts on drainage regimes.

### Officer comments

#### Supplementary Information

The supplementary information provided does not address the concerns of the original assessment.

#### Original Assessment

Not supported.

This referral relates to the Narrabeen Creek and the creekline corridor.

This application has been assessed in consideration of:

- Supplied plans and reports;
- Pittwater LEP 2014 6.1 Warriewood Valley Release Area (Protection and rehabilitation of creekline corridors and riparian areas, including water quality and flows, and bank stability)
- Pittwater 21 DCP C6.1 Integrated Water Cycle Management (Use and rehabilitation of creekline corridors and riparian land)
- Pittwater 21 DCP C6.2 Natural Environment and Landscaping Principles (Integration and landscaping of the creekline corridor)
- Warriewood Valley Landscape Masterplan and Design Guidelines (Public Domain) (Detailed guidance on creekline corridor improvements)

- Warriewood Valley Urban Land Release Water Management Specification 2001 (Detailed guidance on the restoration of creekline corridors in Warriewood)
- State Environmental Planning Policy (Resilience and Hazards) 2021 (section 2.8 & 2.12) (Protecting the hydrological integrity of the adjacent coastal wetland and no impact to quantity and quality of surface AND groundwater flows)
- Water Management Act 2000;
- Water Management (General) Regulation 2018;

General terms of approval and a controlled activity permit are required from the Department of Planning and Environment (DPE) – Water prior to any works in Narrabeen Creek and the creekline corridor.

### CREEKLINE CORRIDOR

Any part of residential lots, dwellings, garages, fences and other vertical built structures are not permitted within the 25 metre wide Outer Creekline Corridor. The proposal is inconsistent with this requirement.

### CREEKLINE DESIGN

Creekline plans have been provided. On review, changes and additional information are required. The existing creek profile has only been presented as cross-sections, and a survey of the existing creek profile is required to properly assess the proposed changes.

A longitudinal section has been provided of the proposed creek profile and the land through which this profile traverses, but a longitudinal section of the existing creek must also be provided. Note that the 5% grade proposed is considered steep and a redesign should be considered.

Survey information on the existing and proposed connections to the adjoining lots, upstream and downstream, must be provided. The proposed connections must minimise any abrupt transitions between lots.

Council would like the creekline design to include a 2.5 metre wide ramp connecting Brands Lane to the creek for servicing.

### CREEKLINE PLANTING

The proposed floodplain area of the creek is a good design feature and should be planted densely with macrophytes. Changes are required to the proposed planting plan. The following species must be replaced: *Cyperus gracilis*; *Carex longebrachiata*; *Corymbia maculata*; *Pittosporum undulata*. These plants must be replaced with species listed under Plant Species for Landscape Development in the Warriewood Valley Landscape Masterplan and Design Guidelines. Additional aquatic and grass species are also desired.

### BIO-BASIN DESIGN

The bio-basin is a good feature but its design must also account for any potential surcharging. This should be incorporated into the design, such as via a levee and defined flow path.

The outlet of the bio-retention basin must be set back from the waterway a minimum of 13 times the diameter of the outlet pipe to connect with the floodplain and be consistent with the Warriewood Valley Landscape Masterplan. For example, a 200mm pipe must be set back a minimum of 2.6 metres from the toe of the creek bed. 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 rock-lined swale must connect to the creek at a 45 degree angle.

The bio-basin must be located entirely in the private buffer i.e., the outer 25 metres of the creekline corridor. The inner and outer creekline areas must be shown in the plans in relation to the bio-basin.

### SEDIMENT AND EROSION CONTROLS

Sediment and erosion plan. Narrabeen Creek experiences flash flooding for which the proposed sediment control of straw bales for in-stream works is insufficient. A sediment curtain must be included for the duration of the in-stream works, ideally just downstream of the property boundary.

The proposal is therefore unsupported.

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

**Recommended Natural Environment Conditions:**

Nil.