

Natural Environment Referral Response - Riparian

Application Number:	DA2023/0669
Proposed Development:	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.
Date:	28/05/2024
To:	Alex Keller
Land to be developed (Address):	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

S34 Supplementary information

The Warriewood Valley Water Management Specification 2001 is establishing the framework for an ecologically sustainable development of the Warriewood Valley with long-term objective of progressive improvement in water quality and habitat restoration.

The Warriewood Valley Development Contributions Plan Amendment 16, Revision 4, 2022, chapter 5 is defining the Warriewood Valley Multi-functional Creek Line Corridor Strategy to provide environmental protection and water and flood management.

The delivery of the multi-functional creek line corridor strategy comprises two components:

- Rehabilitation and reconstruction of the creek line; and
- Dedication of creek line corridor land.

On assessment of the lot boundary and creek center line location the proposed building location satisfies the Warriewood Valley Multi-functional Creek Line Corridor Strategy.

S34

RESOLVED BY CONDITIONS OF CONSENT

Riparian Corridor

9. The creekline corridor design for construction certificate must include an appropriate access point to allow for future creek maintenance.

Resolved. Access provided, see Civil drawings.

INSUFFICIENT INFORMATION

10. Insufficient information has been provided to demonstrate compliance with respect to Water Sensitive Urban Design (WSUD), the Warriewood Valley Urban Land Release Water Management Specification 2001, and Warriewood Valley Landscape Masterplan and Design Guidelines.

Particulars

a) MUSIC model file (.sqz file) is required.

Resolved – The Music model set up is satisfactory. Council note that the management of the Total Suspended Solid (TSS) is generally under the general industry target of 85% removal in the post development mean annual load. Nitrogen and Phosphorus removal performance is acceptable.

b) A topographical survey and a longitudinal profile of the existing creek, including the connections with the adjacent properties, is required.

Resolved. Refer Creek Engineering design

Water Management

13. Insufficient information has been provided to allow the proposed water management to be properly assessed as the proposal is not supported by sufficient information to demonstrate compliance with respect to Water Sensitive Urban Design (WSUD), the Warriewood Valley Urban Land Release Water Management Specification 2001 and Warriewood Valley Landscape Masterplan and Design Guidelines.

Particulars

a) The proposed bio-retention basin must include an access ramp, accommodate for surcharging, and allow for infiltration through the base.

Resolved. Plan for profile shows impervious liner on bio-retention filter to be removed, can be a condition of consent. Basin emergency spillway is satisfactory. No access ramp to the bio-retention basin filter is provided, private owners to carry the cost of complex maintenance

b) The proposed bio-retention basin and road cover the entirety of the outer creekline corridor and so make it inadequate as a wildlife corridor.

Resolved. Subject to conditions. The roads and other impervious areas traditionally sited in the public domain is subject to merit assessment (for up to 25% of the outer Creekline Corridor area). Council recognised the site constraints, however the cumulation of the biofiltration basin, the road, and private lots is detrimental to the wildlife corridor function. Additional ecological

measures are to be implemented to increase the wildlife corridor and habitat value. The proposed biofiltration basin is designed with vertical walls, naturalised access points are to be provided (sandstone boulders, woody debris,...).

c) The proposal identifies residential lots in the 25 metre Outer 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.

To be discussed at S34. Possibly resolved based on creek center line position.

If the corridor is measured from the proposed creek center line (25inner+25 outer) then the encroachment on the outer corridor is minor and acceptable

d) The plant schedule for the creekline corridor presented in the Landscape Plan needs revision as some of the species are unsuitable. The plant schedule must be consistent with the Warriewood Valley Landscape Masterplan and Design Guidelines and the Biodiversity Management Plan.

Resolved Planting plan is improved and is consistent with Biodiversity Management Plan, although not exactly consistent with Warriewood document above.

e) The site coverage (impervious area) at the sector and individual lot scale is to be modelled under the submitted water management plan and is to be consistent with the Warriewood Valley Urban Land Release Water Management Specification 2001.

Resolved

f) The applicant must demonstrate that there will be no adverse impacts upon the environment, adverse impact upon opportunities for rehabilitation of aquatic and riparian vegetation, habitats and ecosystems within the creek line, water quality and flows within the creek line, and the stability of the bank within the creek line, as required by clause 6.1(4) of PLEP 2014.

Subject to conditions

The proposal is therefore supported.

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

Recommended Natural Environment Conditions:

CONDITIONS TO BE SATISFIED PRIOR TO THE ISSUE OF THE CONSTRUCTION CERTIFICATE

Erosion and Sediment Control Plan

A Soil and Water Management Plans (SWMP) shall be prepared by an appropriately qualified person and implemented onsite prior to commencement. The SWMP must meet the requirements outlined in the Landcom publication Managing Urban Stormwater: Soils and Construction - Volume 1, 4th Edition (2004).

Details demonstrating compliance are to be submitted to the Principal Certifier for approval prior to the issue of the Construction Certificate.

Reason: To protect the receiving environment.

Stormwater Outlet Structure to Creek

Stormwater outlet structures to the creek must be designed in accordance with DPE Water's Guidelines for Outlet Structures on Waterfront land. Guidelines can be found on the DPE website.

No mortar is to be used on the outlet. Rocks must be placed using an interlocking system with varying rock sizes. The surface should be a textured finish to break up and dissipate sheet flows.

This design is to be submitted to the Principal Certifier prior to the release of the Construction Certificate.

Reason: To protect the surrounding creek bank from the effects of localised erosion.

Detailed Design of Creek Works

A certificate from a suitably qualified engineer who has membership of Engineers Australia and the National Engineering Register (NER), stating that the creek works have been designed in accordance with the NARRABEEN CREEK REHABILITATION WORKS drawings 048-22C-CK-0001, 048-22C-CK-0003, 048-22C-CK-0101, 048-22C-CK-0741, 048-22C-CK-0771, 048-22C-CK-0901 prepared by CRAIG&RHODES revision F dated 22.11.23 and the approved Waterways Impact Statement.

The certificate shall be submitted to the Certifier prior to the release of the Construction Certificate.

Reason: To ensure creek works are completed in accordance with the consent approval.

Riparian corridor Landscape plan

Amended and detailed landscape plans (at 1:200 scale minimum) are to be submitted, including typical detailed sections. The amended detailed landscape plans shall include the following information:

Creekline corridor landscape plan demonstrating the planting layout for the inner and outer creekline corridors. The plan shall detail planting layout, and plant schedules with selection, quantities and size. Typical sections shall be provided. The creekline corridor landscape plan shall be co-ordinated with the amended Riparian Corridor Vegetation Management Plan required by Condition. Casuarina glauca and Eucalyptus robusta shall occupy a minimum of 40% of the tree canopy schedule within the creekline corridor. Selected native trees shall be in accordance with the Plant Species List contained within the Warriewood Valley Release Area Landscape Masterplan and Design Guidelines. The creekline corridor landscape plan shall clearly indicate the extent of the inner 25m wide public creekline corridor that is solely composed of native flora/fauna and adjoining the creekline, as well as the 25m wide outer private landscaped buffer. The amended landscape plan shall include the following detail:

- All trees shall be installed at 200mm pot size.
- All shrubs within the 50m creekline corridor shall be installed at 1 per 1m².
- All grasses and groundcovers within the 50m creekline corridor shall be installed at 6 per 1m².

Reason: protect and enhance the riparian corridor

Riparian Corridor Vegetation Management Plan

A Riparian Corridor Vegetation Management Plan is required to be submitted making provision for a 25m wide inner riparian corridor in compliance with the requirements of Section C6.7 of PDCP 21 and consistent with the biodiversity report (AEP 2564.01, rev04 dated October 2023) and Ecological Assessment Report (AEP 2564, Rev: 03 dated 4 May 2023). In addition, species selected must include species from the planting lists of the Warriewood Valley Landscape Masterplan. The amended plan is also to specify the removal of non-indigenous tree species as part of the rehabilitation/restoration works.

Reason: protect and enhance the riparian corridor

Detailed design of all works for Narrabeen creek corridor

The complete detailed design of all works for Narrabeen creek corridor are to be submitted to Council and approved in writing by Council prior to the issue of any construction certificate. The detailed designs is to be accordance with the creek plans 048-22C-CK-0101,048-22C-CK-0741,048-22C-CK-0771 revision F dated 22.11.23 from Craig&rhodes. the detail design is to includes

- design rational in a summary report with rock sizing graduation including nominal rock size (D10,D50, D90) and calculations.
- the construction of Narrabeen Creek corridor and associated transitions to upstream and downstream boundaries in compliance with the requirements of the Warriewood Valley Water Management Specification (WMS), i.e. low flow batter 1(v) in 3(h) up to the 50 percent AEP, then 1(v) in 6 (h) batter to 20 percent AEP and 1(v) in 8(h) batter over 20 percent AEP.
- 2.5 metre servicing wide ramp connecting Brands Lane to inner corridor is required.

CONDITIONS TO BE COMPLIED WITH DURING DEMOLITION AND BUILDING WORK

Installation and Maintenance of Sediment and Erosion Controls

Council proactively regulates construction sites for sediment management.

Sediment and erosion controls must be installed in accordance with Landcom's 'Managing Urban Stormwater: Soils and Construction' (2004) and the construction certificate approved Erosion and Sediment Control Plan prior to commencement of any other works on site.

Erosion and sediment controls are to be adequately maintained and monitored at all times, particularly after periods of rain, and shall remain in proper operation until all development activities have been completed and vegetation cover has been re-established across 70 percent of the site, and the remaining areas have been stabilised with ongoing measures such as jute mesh or matting.

Reason: To protect the receiving environment.

Aquatic environment protection

Environmental safeguards are to be used during construction to protect the aquatic environment. Appropriate methods must be installed and secured to ensure damage to the aquatic environment is minimised. Actions and recommendations of the aquatic ecology report must be followed.

Reason: To protect the aquatic environment.

CONDITIONS WHICH MUST BE COMPLIED WITH PRIOR TO THE ISSUE OF THE OCCUPATION CERTIFICATE

Certification for Creek Works

A certificate from a Civil Engineer, who has membership to Engineers Australia and the National Engineers Register must be provided, stating that the creek works have been completed in accordance with the creek and riparian plans approved at construction certificate stage .

The certificate shall be submitted to the Principal Certifier prior to the release of the **Subdivision** Certificate.

Reason: To ensure creek works are completed in accordance with the consent approval.

Temporary Protection Fencing – Exclusion Zones

Removal of the temporary mesh construction fencing is to be certified by the project ecologist (or equivalent) and submitted to the Principal Certifier prior to issue of any Occupation Certificate.

Reason: To protect native vegetation and waterways.

**CONDITIONS THAT MUST BE COMPLIED WITH PRIOR TO THE ISSUE OF ANY STRATA
SUBDIVISION OR SUBDIVISION CERTIFICATE**

Natural Watercourse

Natural watercourses are to be accurately shown on all copies of the subdivision plan by the surveyor as “natural watercourses of variable widths”, for lodgement with NSW Land Registry Services.

Details demonstrating compliance are to be submitted to the Principal Certifier prior to the issue of the Subdivision Certificate.

Reason: To determine the location of natural drainage systems.