Natural Environment Referral Response - Riparian

Application Number:	DA2020/1176

Date:	30/09/2020
To:	Anne-Marie Young
Land to be developed (Address):	Lot X DP 395065 , 1107 Oxford Falls Road FRENCHS FOREST NSW 2086

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

This application has been assessed against relevant legislation for waterways.

Groundwater was not encountered during the geotechnical assessment. However if groundwater is encountered during works, the applicant must ensure dewatering is in compliance with Council's conditions. Any outlets into the creek must be designed in accordance with DPI Water's Guidelines for Outlet Structures on Waterfront land.

As the proposed works increase impervious areas by more than $50m^2$ a water quality improvement device must be installed prior to the commencement of works, it must allow for safe and regular maintenance. Standard sediment and erosion controls are to be implemented prior to works and removed only once groundcover has been established. These measures must be detailed in an Erosion and Sediment Control Plan (ESCP).

With the application of these conditions it is considered unlikely that the application will have an adverse impact on the integrity and resilience of the biophysical, ecological and hydrological environment. It is therefore recommended for approval 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

Design of Stormwater Outlet Structure to Creek

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

http://www.water.nsw.gov.au/__data/assets/pdf_file/0009/547254/licensing_approvals_controlled_activit-structures.pdf. Visual impacts must also be minimised.

No mortar is to be used on the outlet. Rocks must be placed using an interlocking system with varying rock sizes. Rock size should range from 80-300mm and be placed to 300mm deep (with a keystone downslope) according to the following specifications:

Dmin = 20mm

D10 = 80mm (ie. only 10% smaller than 80mm)

D50 = 150mm

D90 = 300mm

The surface should be a textured finish to break up and dissipate sheet flows.

This design is to be submitted to the Certifying Authority prior to the release of the Construction Certificate.

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

Erosion and Sediment Control Plan
An Erosion and Sediment Control Plan (ESCP) shall be prepared by an appropriately qualified person and implemented onsite prior to commencement. The ESCP must meet the requirements outlined in the Landcom publication Managing Urban Stormwater: Soils and Construction - Volume 1, 4th Edition (2004). The ESCP must include the following as a minimum:-

- Site Boundaries and contours;
- Approximate location of trees and other vegetation, showing items for removal or retention (consistent with any other plans attached to the application)
- Location of site access, proposed roads and other impervious areas (e.g. parking areas and site facilities);
- Existing and proposed drainage patterns with stormwater discharge points

- Locations and methods of all erosion and sediment controls;
- North point and scale.

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

Reason: To mitigate environmental impact resulting from site disturbance.

Water Quality Management

The applicant must install a filtration device (such as a sediment control pit or absorption trench) that captures organic matter and coarse sediments prior to discharge of stormwater from the land. All stormwater treatment measures must make provision for convenient and safe regular inspection, periodic cleaning, and maintenance.

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

CONDITIONS THAT MUST BE ADDRESSED PRIOR TO ANY COMMENCEMENT

Installation and Maintenance of Sediment and Erosion Control
Sediment and erosion controls must be installed in accordance with Landcom's 'Managing Urban Stormwater: Soils and Construction' (2004).

Techniques used for erosion and sediment control on site 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 the site is sufficiently stabilised with vegetation.

Reason: To protect the surrounding environment from the effects of sedimentation and erosion from the site.

CONDITIONS TO BE COMPLIED WITH DURING DEMOLITION AND BUILDING WORK

Dewatering management
Groundwater or rain can fill your excavation and you will need to remove it before you continue work. The water might just be rain, or it might be groundwater that is seeping into your excavation. Groundwater in particular might not be very good quality and if it mixes with sediment and is pumped into the stormwater system, can affect fish and vegetation in the receiving waterway, for example a local lagoon.

There are a number of guidelines, policies and laws that govern this work, including Landcom's 'Managing Urban Stormwater: Soils and Construction' (2004) (Blue Book), Council's Compliance and Enforcement Policy, the Protection of the Environment Operations Act 1997, and the Contaminated Lands Act 1997.

When you begin excavating to greater than one metre below the soil surface, you should:
1. Note any advice you have received with your development application about acid sulphate soils, and how to respond if acid sulphate soils are exposed.
2. Watch the excavation for signs of water seeping in or collecting at the bottom. If any water collects in

your excavation, you should STOP WORK.

Option 1:
1. Arrange for a vacuum sucker truck (search these words online to find companies) to remove the sediment-laden water in the excavation. This is a good option if the water is seeping in slowly and you think you can remove it on one or two occasions before sealing the excavation. If this option is chosen, there must be no discharge of water to Council's stormwater system (including the gutter). The company you use will provide advice on disposal of the water.

Option 2:
1. Hire a settling tank, sometimes called a sediment tank. There are several specialist companies that hire these eg. Sydney Sediment Tank Hire, or The Plant Yard, but most construction equipment hire companies will have these eg. Kennards or Coates Hire.
2. Hire a small pump.
3. Get a liquid pH kit (available from hardware stores or pet stores).
4. Test the water from the excavation for pH. Take a photo of the result with something white behind the vial so the colour is obvious.
5. If the sample has a pH
a. between 6.5 and 8.5 the water will not require any additives – you can just pass the water through the hired settling tank.
b. below 6.5 or over 8.5, the water will need treatment and you will need to get advice from an environmental consultant on how to treat it. It's a simple process either way, but you need advice based on your specific test results.
6. Send an email to catchment@northernbeaches.nsw.gov.au and include:
a. pH test results and photo of test
b. how you will treat pH (if necessary, see 5b)
c. hire confirmation for the sediment settling tank.
7. Council will issue a dewatering permit and tell you where you can discharge the water.
8. Keep a copy of the permit and test results on site, in case of Council inspection.
9. When you need to remove water from your excavation, pump the water to the tank.
10. Discharge the treated water from the tank directly to the approved location indicated in your Council dewatering permit.
11. When you have sealed the excavation and emptied the last amount of clean water from the top of the tank, you can disconnect the pump and tank setup. You should clean out any sediment/sludge that has settled to the bottom of the tank. This needs to go to Kimbriki for disposal.

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

Works as Executed Drawings - Stormwater Treatment Measures

Works as Executed Drawings for the stormwater treatment measures must be prepared in accordance with Council's Guideline for Preparing Works as Executed Data for Council Stormwater Assets.

The drawings shall be submitted to the Principal Certifying Authority prior to the release of the Occupation Certificate.

Reason: Protection of the receiving environment

ON-GOING CONDITIONS THAT MUST BE COMPLIED WITH AT ALL TIMES

Maintenance of Stormwater Treatment Measures

Stormwater treatment measures must be maintained at all times in accordance with manufacturer's specifications and as necessary to achieve the required stormwater quality targets for the development.

Northern Beaches Council reserves the right to enter the property and carry out appropriate maintenance of the device at the cost of the property owner.

Reason: Protection of the receiving environment