

Water Management Referral Response

Application Number:	DA2020/0484
Date:	30/06/2020
To:	Lashta Haidari
Land to be developed (Address):	Lot 7335 DP 1152473 , 7335 / 1152473 Hakea Avenue FRENCHS FOREST NSW 2086 Lot 7336 DP 1152473 , 7335 / 1152473 Hakea Avenue FRENCHS FOREST NSW 2086

Reasons for referral

Council's Water Management Officers are required to consider the likely impacts.

Officer comments

On consideration of the response from the applicant and further assessment of the site, it is accepted that the site will not support a vegetated stormwater treatment measure. While the proposed filter cartridges remove particulate phosphorus and nitrogen, they are limited in their ability to remove dissolved pollutants, particularly nitrogen; however at this time there is no alternative suitable for this site.

The applicant has proposed a system that includes Ocean Protect Ocean Guard filters (or equivalent) to capture gross pollutants in five inlet pits. If the applicant decides to use an equivalent device, it will require Council approval before installation. The main stormwater treatment measures to be installed include six PSorb StormFilters by Ocean Protect. Again, if an equivalent device is proposed, Council will need to approve its use prior to installation.

The location of the stormwater outlet must be revised to point the outlet and direct discharge downstream according to the NSW guidelines for stormwater outlets (https://www.industry.nsw.gov.au/__data/assets/pdf_file/0020/160463/licensing_approvals_controlled_a) in order to prevent scour damage to the opposite bank.

Council proactively regulates construction sites for sediment management.

The proposal is therefore supported.

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

Recommended Water Management Conditions:

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

Detailed Design of Stormwater Treatment Measures

A certificate from a Civil Engineer, stating that the stormwater treatment measures have been designed in accordance with the detailed design plans submitted for the Construction Certificate and Council's Water Management for Development Policy.

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

Reason: Protection of the receiving environment

Design of Creek Outlet Structure

The outlet structure discharging stormwater into the creek must be designed in accordance with DPI Water's Guidelines for Outlet Structures on Waterfront land, with flows discharged in a downstream direction, not at right-angles to the creek. Guidelines can be found at http://www.water.nsw.gov.au/__data/assets/pdf_file/0009/547254/licensing_approvals_controlled_activit-structures.pdf.

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 and opposite creek bank from the effects of localised erosion.

CONDITIONS TO BE COMPLIED WITH DURING DEMOLITION AND BUILDING WORK

Substitution of Stormwater Treatment Measure

The substitution of an "equivalent" device for the stormwater treatment measure approved in the Development Application process must first be approved by the Principal Certifying Authority.

Details must be submitted to the Principal Certifying Authority for approval prior to installation.

Reason: To ensure stormwater is appropriately managed and in accordance with the Water Management for Development Policy.

Installation and Maintenance of Sediment and Erosion Control

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 Erosion and Sediment Control Plan prepared by Tonkin dated 30 March 2020 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.

The discharge of sediment-laden waters from the site may result in clean-up orders and/or fines under Council's Compliance and Enforcement Policy and legislation including Protection of the Environment Operations Act 1997 and Contaminated Lands Act 1997.

Reason: Protection of the receiving environment

Dewatering Management

Council proactively regulates construction sites for sediment management.

Where a one-off instance of dewatering of groundwater or tailwater is required during works, Council's Catchment Team must be notified of your intention to discharge. Discharges should meet the water quality requirements below. Notification must be via the Team's email address - catchment@northernbeaches.nsw.gov.au.

If continuous dewatering or dewatering on multiple events is expected, a dewatering permit is required from Council's Catchment Team at catchment@northernbeaches.nsw.gov.au.

To obtain a permit, the following information must be contained in a dewatering management plan and provided to Council's Catchment Team. The dewatering management plan must be certified by a suitably qualified civil engineer who has membership of Engineers Australia and appears on the National Engineering Register (NER). Council will issue a permit based on the plan and general terms of approval from WaterNSW, and a dewatering permit provided by WaterNSW prior to dewatering commencing.

1. Preliminary testing of groundwater/tailwater must be conducted by a NATA accredited laboratory to establish a correlation between NTU and TSS. This will allow the use of grab sampling at short notice prior to planned discharges.
2. Grab samples from at least three locations must be collected within 1 hour of discharge that comply with the parameters in the table below.
3. The groundwater/tailwater to be discharged must be compliant with the water quality requirements below, the General Terms of Approval/Controlled Activity permit issued by WaterNSW (if applicable), Landcom's 'Managing Urban Stormwater: Soils and Construction' (2004) (Blue Book), Council's Compliance and Enforcement Policy and legislation including Protection of the Environment Operations Act 1997 and Contaminated Lands Act 1997.

Water Quality (<one hour of planned discharge)

Oil and grease, not visible

pH, 6.5-8.5

Total Suspended Solids (TSS), <50mg/L NTU from a meter/grab sample

4. All records of approvals, water discharges and monitoring results are to be documented and kept on site. Records must include a diagram showing testing locations, and photos of the water to be discharged at the time of testing. Copies of all records shall be provided to the appropriate regulatory authority, including Council, upon request.
5. Tailwater must be discharged to the nearest stormwater pit in accordance with Council's Auspec1 Design Manual and must not spread over any road, footpath and the like. Discharge to the kerb and gutter will not be accepted. Where there is no stormwater pit within 100 metres of the site, Council's Catchment Team must be contacted to discuss alternative arrangements.

On receipt of a satisfactory dewatering management plan, Council's Catchment Team will issue a permit that will allow dewatering for up to one year.

Reason: Protection of the receiving environment

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

Certification for the Installation of Stormwater Treatment Measures

A certificate from a Civil Engineer, who has membership to Engineers Australia and the National Engineers Register must be provided, stating that the stormwater treatment measures have been installed in accordance with the plans prepared by Tonkin. The certificate must confirm that stormwater treatment measures are completed, online, in good condition and are not impacted by sediment. The stormwater outlet must direct discharges in a downstream direction.

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

Reason: Protection of the receiving environment

Positive Covenant, Restriction as to User and Registration of Encumbrances for Stormwater Treatment Measures

A positive covenant shall be created on the title of the land requiring the proprietor of the land to maintain the stormwater treatment measures in accordance with the standard requirements of Council, the manufacturer and as required by the Stormwater Treatment Measures Operation and Maintenance Plan.

A restriction as to user shall be created on the title over the stormwater treatment measures, restricting any alteration to the measures.

The terms of the positive covenant and restriction as to user are to be prepared to Council's standard requirements (available from Council) at the applicant's expense and endorsed by the Northern Beaches Council's delegate prior to lodgement with the Department of Lands. Northern Beaches Council shall be nominated as the party to release, vary or modify such covenant.

A copy of the certificate of title demonstrating the creation of the positive covenant and restriction as to user is to be submitted to the Principal Certifying Authority prior to the issue of any interim / final Occupation Certificate.

Reason: To identify encumbrances on land, ensure ongoing maintenance, and ensure modification to the stormwater treatment measures is not carried out without Council's approval.

Stormwater Treatment Measures Operation and Maintenance Plan

An Operation and Maintenance Plan is to be prepared to ensure the proposed stormwater treatment measures remain effective.

The Plan must be attached to the Positive Covenant and contain the following:

1. Detail on the stormwater treatment measures:
 - a) Work as executed drawings
 - b) Intent of the stormwater treatment measures including modelled pollutant removal rates
 - c) Site detail showing catchment for each device
 - d) Impervious area restrictions to maintain the water balance for the site
 - e) Funding arrangements for the maintenance of all stormwater treatment measures
 - f) Identification of maintenance and management responsibilities
 - g) Maintenance and emergency contact information
2. Maintenance schedule and procedure - ongoing

- a) Activity description, and duration and frequency of visits
- b) Routine maintenance requirements
- c) Work Health and Safety requirements
- d) Waste management and disposal
- e) Traffic control (if required)
- f) Renewal, decommissioning and replacement timelines and activities of all stormwater treatment measures (please note that a DA may be required if an alternative stormwater treatment measure is proposed)
- g) Requirements for inspection and maintenance records, noting that these records are required to be maintained and made available to Council upon request.

Details demonstrating compliance shall be submitted to the Principal Certifying Authority prior to the release of the Occupation Certificate.

Works as Executed Drawings - Stormwater Treatment Measures and stormwater outlet

Works as Executed Drawings for the stormwater treatment measures and stormwater outlet to the creek 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 the Stormwater Treatment Measure Operation and Maintenance Plan, 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