

Water Management Referral Response

Application Number:	DA2022/0456
Date:	04/07/2022
To:	Adam Susko
Land to be developed (Address):	Lot 4 DP 737411 , 62 Myoora Road TERREY HILLS NSW 2084

Reasons for referral

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

Officer comments

The proposal was assessed under the current creek and water management legislation framework, the relevant parts of the LEP, DCP and Water Management for Development Policy. The Creek Management Study 2004 principles and NRAR waterfront land principles were also considered in the assessment.

The supplied reports, plans and documentation were considered.

Water Quality

The proposed stormwater management is integrating a 50kL rainwater tank, gross pollutant trap (pit inserts), and stormwater cartridges.

It is noted the inclusion of 32 pit inserts, high number of pit inserts are generally not recommended due to the high maintenance regime. Council strongly recommend an alternative gross pollutant system (end of line) to manage the gross pollutant to facilitate the site management.

Pollutant loading (sediment and nutrient) will be reduced to the Water Management for Development Policy requirement and is as such considered as a water quality treatment chain subject to conditions.

Dewatering

1. Tailwater (surface water, rainwater, minor seepage): Please contact catchment@northernbeaches.nsw.gov.au for advice on Council's water quality requirements for a single instance of dewatering tailwater that collects in an excavation during works. A Council dewatering permit application must be made for expected multiple instances or continuous dewatering of tailwater.

2. Groundwater:

The geotechnical report from JKgeotechnics 34278Brpt is indicating that groundwater inflow is likely in the proposed excavation level for the basement.

The report is stating that a sump and pump management system might be sufficient during construction.

If the dewatering operation is becoming more complex during construction activity then:

- A permit from Council will be required for any dewatering of groundwater (Contact catchment@northernbeaches.nsw.gov.au for more information about Council permits).
- An application for interference with an aquifer is required to WaterNSW (If the need for water management act (WMA) approvals only becomes apparent following development consent, applicants should be referred directly to WaterNSW).

https://www.waternsw.com.au/__data/assets/pdf_file/0003/155424/Dewatering-information-forcouncilsand-applicants.pdf

https://www.waternsw.com.au/__data/assets/pdf_file/0005/167279/Geotechnical-Investigation-Reports-Minimum-Requirements-fact-sheet.pdf

<https://www.waternsw.com.au/customer-service/water-licensing/dewatering>

The geotechnical report from JKgeotechnics (Date: 3 September 2021 Ref: 34278Brpt) is stating that "Groundwater seepage is expected within the basement excavation and drainage will need to be provided to control such seepage".

Additional geotechnical investigation and seepage water quality investigation will be required prior the issue of the occupation certificate to confirm the collected seepage if suitable for pumping to the stormwater network.

If not suitable alternatives solutions must be arranged prior the issue of the occupation certificate.

Sediment management

Due to the sensitivity of the downstream environment it is imperative that an erosion and sediment management strategy is developed and implemented to ensure protection of this area during construction.

This proposal is supported with 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 Water Management Conditions:

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

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 that must include sediment fences, stabilised site access, materials and waste stockpiles locations, location of any stormwater pits on the site and how they are going to be protected.
- 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: Protection of the receiving environment.

Detailed Design of Stormwater Treatment Measures - Major

A certificate from a Civil Engineer, stating that the stormwater treatment measures have been designed in accordance with the **stormwater report (Northrop 20.09.21)** and Council's Water Management for Development Policy.

The certificate is to include the results of the water quality modelling relevant to the project and plans and must meet the table 5 general water quality requirements of the water policy for development.

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

Reason: Protection of the receiving environment.

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 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: Protection of the receiving environment.

Substitution of Stormwater Treatment Measures

The substitution of an "equivalent" device for the stormwater treatment measure approved under the Development Consent 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.

Dewatering Management

Tailwater (surface water and rainwater): Please contact catchment@northernbeaches.nsw.gov.au for advice on Council's water quality requirements for a single instance of dewatering tailwater that collects in an excavation during works. A dewatering permit application must be made for expected multiple instances or continuous dewatering of tailwater.

Additional geotechnical investigation and seepage water quality investigation will be required prior to the issue of the occupation certificate to confirm the collected seepage is suitable for pumping to the stormwater network.

If not suitable alternatives water quality solutions must be arranged prior to the issue of the occupation certificate.

All approvals, water discharges and monitoring results are to be documented and kept on site. Copies of all records shall be provided to the appropriate regulatory authority, including Council, upon request.

Reason: Protection of the receiving environment and groundwater resources.

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 CC approved plans. The certificate must confirm that stormwater treatment measures are completed, online, in good condition and are not impacted by sediment. Vegetated measures must exhibit an 80 percent survival rate of plantings.

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 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 the community or strata management statement if applicable) 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) Vegetation species list associated with each type of vegetated stormwater treatment measure
 - e) Impervious area restrictions to maintain the water balance for the site

- f) Funding arrangements for the maintenance of all stormwater treatment measures
- g) Identification of maintenance and management responsibilities
- h) Maintenance and emergency contact information

2. Maintenance schedule and procedure - establishment period of one year following commissioning of the stormwater treatment measure:

- a) Activity description, and duration and frequency of visits

Additionally for vegetated devices:

- b) Monitoring and assessment to achieve an 80 percent survival rate for plantings
- c) Management of weeds, pests and erosion, with weed and sediment cover limited to a maximum of 5 percent of the total area of the stormwater treatment measure

3. 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.

Reason: Protection of the receiving environment.

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 - Major

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.

Vegetated stormwater treatment measures must maintain an 80 percent survival rate of plantings and limit weed cover to no more than 10 percent of the total area of the stormwater treatment measure.

Where replacement cartridges or other necessary components for the system become unavailable, an alternative system is required to be retrofitted into the development to achieve an equivalent pollutant reduction outcome. Evidence supporting the replacement must be retained on site and made available to Council as required.

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.