

Water Management Referral Response

Application Number:	DA2020/0008
Date:	26/11/2020
To:	Renee Ezzy
Land to be developed (Address):	Lot 27 DP 9151 , 3 Central Road AVALON BEACH NSW 2107

Reasons for referral

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

Officer comments

26/11/20

The response was discussed with the applicant several months ago, and the use of filter cartridges has been accepted with the addition of an infiltration swale at the boundary of the lot. The development has incorporated a rainwater tank that will be used principally for irrigation. The applicant is encouraged to extend its use to flushing toilets in the apartments to better apply water sensitive urban design principles to the development. Sediment and erosion controls must be installed prior to any work on the site and maintained until groundcover has been re-established. Council proactively monitors sediment controls.

17/6/20 - Second referral

The issues I raised in my first referral have not been addressed. The use of filter cartridges for water treatment on this site is not acceptable for the reasons outlined below.

5/3/20 - First referral

This application has been assessed under
Pittwater 21 DCP B5.9

In the PLM report it was noted that "Use of filtration cartridges is not supported for this development due to the need for infiltration".

The downstream catchment is significantly affected by flooding, and all development occurring in this catchment is therefore required to use water treatment measures that achieve infiltration and evaporation, to reduce the amount of runoff entering the stormwater system and Careel Creek during storm events.

Equally, the creek experiences reduced baseflows due to the increased imperviousness of the catchment. Lower baseflows exacerbate issues with odour downstream.

The applicant has not provided a solution for water quality that also achieves infiltration. There has been no compensation for lack of infiltration by decreasing connected impervious areas or providing pervious pavements. It is believed that the site is not constrained and there is sufficient space to incorporate some infiltration in the setback or landscaped areas at the lower end of the site. There are WSUD standard drawings publicly available that provide solutions for steeper sites.

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 Revision 3 of the Stormwater Concept Management plans prepared by Sparks + Partners Consulting Engineers 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.

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 prepared by Sparks + Partners Consulting Engineers 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 Measure

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

Where a one-off instance of dewatering of groundwater or tailwater is required during works, Council's Catchment Team must be notified of the 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).

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 must be collected **within 1 hour before planned 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 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.
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. This permit should be provided to WaterNSW for their permit. Once a permit has been received from WaterNSW, dewatering may commence.

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 Revision 3 of the Stormwater Concept Management plans prepared by Sparks + Partners Consulting Engineers. 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 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 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.

Strata Management Statement

The Strata Management Statement must specifically list the stormwater treatment measures that will be maintained under strata title. The statement must also include the Stormwater Treatment Measure Operation and Maintenance Plan.

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

Reason: To ensure maintenance of all stormwater management assets and protection of the receiving environment.

Maintenance contract for stormwater filtration cartridges

A minimum of a five-year contract with a suitably qualified provider is required for the maintenance of the stormwater filtration cartridges.

A copy of the maintenance contract must be submitted to the Principal Certifying Authority prior to the issue of the final Occupation Certificate.

Reason: To ensure maintenance of the stormwater treatment measures.

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 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.

Reason: Protection of the receiving environment.