Water Management Referral Response

Application Number:	DA2020/0552

Date:	15/10/2020
To:	Lashta Haidari
Land to be developed (Address):	Lot 2615 DP 752038 , 181 Allambie Road ALLAMBIE HEIGHTS NSW 2100

Reasons for referral

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

Officer comments

Comments 15/10/2020
Additional information has been received and reviewed. The documentation is conforming with Council request.

Environment & Climate Change is generally satisfied with the revisions and is therefore supportive of the proposal, subject to conditions.

Comments 30/9/2020
No further information has been received addressing the previous NECC Water Management comments.

The Landscape plan, engineering plans and stormwater management report has been reviewed.
In general the information provided is insufficient to review the proposed water quality treatment chain.
The development application is not supported.

The following information is required to further assess the application:

- All MUSIC data files (*)
-Bio retention hydraulic sizing calculation including infiltration parameters
-High Flow bypass dimensions and locations
-Internal pit arrangement including overflow pit
-Location of flushing points
-Geoxtextile fabric lining grade and flow rate suitable for infiltration purpose
-Internal pit overflow sizing
-Drainage pipes arrangement
-Connection between bio 1 and 2
-Connection to the pond (from bio 2)
-Water level control system of the pond
-Pond high flow bypass
-Pond bathymetry
-Revised bio planting plan with a minimum of 7 native macrophyte species at a density of 10 plants by

square meter
-Detail of the inlet zone (from OSD)
-Management of the bioretention during construction

(*)As per PLM recommendation all MUSIC data files must be provided to Council.

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

Soil and Water Management Plan
A Soil and Water Management Plan (SWMP) shall be prepared by a suitably qualified Civil Engineer, who has membership to the Institution of Engineers Australia, National Professional Engineers Register (NPER-3) 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) and Council's Water Management for Development Policy. The SWMP must include the following as a minimum:-

- Site boundaries and contours;
- Vehicle access points, proposed roads and other impervious areas (e.g. parking areas and site facilities)
- Location of all drains, pits, downpipes and waterways on and nearby the site;
- Planned stages of excavation, site disturbance and building;
- Stormwater management and discharge points;
- Integration with onsite detention/infiltration;
- Sediment control basin locations and volume (if proposed);
- Proposed erosion and sediment controls and their locations;
- Location of washdown and stockpile areas including covering materials and methods;
- Vegetation management including removal and revegetation;
- A schedule and programme of the sequence of the sediment and erosion control works or devices to be installed and maintained.
- Inspection and maintenance program;
- North point and scale.

All Site drainage and sediment and erosion control works and measures as described in the SWMP, and any other pollution controls, as required by these conditions, shall be implemented prior to commencement of any other works at the Site.

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

Reason: To promote the long-term sustainability of ecosystem functions.

Detailed Design of Stormwater Treatment Measures

A certificate from a Civil Engineer, stating that the stormwater treatment measures have been detailed designed in accordance with:

- STANTEC drawings rev E 08/07/20

CI-500-01 STORMWATER DRAINAGE CATCHMENT PLAN
CI-520-01 STORMWATER MANAGEMENT PLAN
CI-522-01 STORMWATER LONG SECTIONS
CI-526-01 STORMWATER MANAGEMENT DETAILS - SHEET 1 OF 2
CI-526-02 STORMWATER MANAGEMENT DETAILS - SHEET 2 OF 2

- ARTERA drawings

Finishes Plan- Pond L2-CD-22 rev A 18/0/20
Grading & Setout Plan - Pond drawing L2-CD-32 rev A 18/09/20

- 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

Construction Environment Management Plan

A Construction Environmental Management Plan (CEMP) must be prepared in accordance with the environmental risks and mitigation methods identified in the Waterway Impact Statement and must be kept in the site office.

An induction plan for site personnel must be prepared that addresses the CEMP.

The CEMP and site induction plan must be submitted to the Certifying Authority for approval prior to the issue of the Construction Certificate.

Reason: To protect native vegetation, wildlife, habitats and receiving waterways.

CONDITIONS TO BE COMPLIED WITH DURING DEMOLITION AND BUILDING WORK

Dewatering Management (Large sites/basements)

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).

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

Installation and Maintenance of Sediment and Erosion Control

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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 STANTEC drawing CI-070-01 rev. E dated 08/07/20 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

Substitution of Stormwater Treatment Measure

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

Site inductions for Construction Environment Management Plan

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The site Environmental Officer (or appropriate equivalent) must induct all staff prior to their starting work, with an induction record maintained and available onsite at all times.

Personnel conducting the site induction must:

(a) Be familiar with any environmental protection conditions under the development approval and/or the Construction Environment Management Plan

(b) Be familiar with the names and contact details of relevant people and authorities in the event of any environmental or site management emergency.

(c) Be familiar with the presence of environmentally significant areas within and surrounding the site.

(d) Be able to identify threatened species of fauna if they enter the site, especially Red-crowned Toadlet.

(e) Be familiar with animal welfare issues and procedures should human-wildlife interactions take place during the construction phase.

Reason: To ensure all personnel understand what must be done to protect native vegetation, wildlife, habitats and receiving waterways on the site.

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

Certification for the Installation of Stormwater Quality System
A certificate from a Civil Engineer, who has membership to the Institution of Engineers Australia, National Professional Engineers Register (NPER-3) shall be submitted to the Principal Certifying Authority prior to the release of the Occupation Certificate, stating that the stormwater quality management system has been installed in accordance with the detail design for construction and Council's Water Management Policy.

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

Reason: Protection of the receiving environment.

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 Quality System
Works as Executed Drawings for the stormwater quality system 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.

Removal of Sediment and Erosion Controls (OC)
Before demobilising from the site and once vegetation cover has been re-established across 70 percent of the site, the applicant is to remove all temporary sediment and erosion controls.

Any area of the site that requires ongoing stabilisation must have jute mesh or matting incorporated into the revegetated area. Mulch may be used on slopes subject to sheet flow with a gradient of no more than 1 metre in height for every 3 horizontal metres. Mulch must be laid to a depth of 50-100mm. If using mulch within two metres of the top of bank of a waterway, coir logs or similar must be placed at

the downslope edge of the mulched area to prevent migration of the mulch to the waterway.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority for approval prior to the issue 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 Subdivision/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.

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.

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