

## Water Management Referral Response

<b>Application Number:</b>	DA2021/2189
<b>Date:</b>	20/01/2022
<b>To:</b>	Lashta Haidari
<b>Land to be developed (Address):</b>	Lot X DP 405206 , 39 Frenchs Forest Road East FRENCHS FOREST NSW 2086

### 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 Warringah LEP, DCP and Protection of Waterways and Riparian Lands Policy (Policy PL740) and Council Water Management for Development Policy objectives.

The supplied reports and plans were considered as well as the community submissions.

For the purpose of the development application the supplied documentation has been assessed as satisfactory.

The proposed stormwater treatment chain includes pit baskets and a biofiltration system.

The proposed treatment chain is satisfactory, the water quality treatment performance (MUSIC model) is subject to conditions.

Turf planting of the filter area of the bio basin is not supported and the native vegetation planting of suitable species is a condition to approval. Additionally native vegetation planting of the entire basin is highly recommended.

Refer biofiltration guidelines for the role of plants.

[https://watersensitivecities.org.au/wp-](https://watersensitivecities.org.au/wp-content/uploads/2016/09/Adoption_Guidelines_for_Stormwater_Biofiltration_Systems.pdf)

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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 [stormwater plan from henry&hymas 20980\\_DA\\_C100 rev5 26.03.2021](#) and Council's Water Management for Development Policy.

The following points must be included in the stormwater treatment measures certificates.

1. The stormwaterwater quality model (MUSIC or approved equivalent) is to be updated to the

latest treatment chain arrangement and results must satisfy the Council's Water Management for Development Policy table 5 General Stormwater Quality Requirements.

2. Turf planting of the filter area of the bio basin is not supported, at least 50% of species in the filter area is to be selected from the following list:

- *Baumea juncea*
- *Baumea rubiginosa*
- *Carex appressa*
- *Ficinia nodosa*
- *Goodenia ovata*
- *Juncus usitatus*
- *Juncus flavidus*
- *Juncus pallidus*
- *Juncus subsecundus*
- *Melaleuca ericifolia*
- *Leptospermum polygalifolium*
- *Dianella revoluta*
- *Gahnia filum*
- *Lachnagrostis billardierei*
- *Lachnagrostis filiformis*
- *Poa labillardieri*
- *Themeda trianda*, *Themeda australis*
- *Schoenoplectus mucronatus*

Filter plant density is to be at 8 to 10 plant by square meter.

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.

## **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 construction certificate approved plans. The certificate must confirm that stormwater treatment measures are completed, online, in good condition and are not impacted by sediment.

The bio retention filter must be in good conditions (vegetation, sediment). The filter saturated hydraulic conductivity must be tested and be within an acceptable range (minimum 150mm/hr and maximum 500 mm/h, preferably 200mm/hr).

Vegetated measures must exhibit an 80 percent survival rate of plantings minimum.

The work as executed drawing is to be part of the certificate and shall include the bio filtration filter area and locate flushing points.

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 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.