

Water Management Referral Response

Application Number:	DA2025/1304
Proposed Development:	Construction of dwelling houses on proposed lots 1 - 11
Date:	27/10/2025
To:	Brittany Harrison
Land to be developed (Address):	Lot 1 DP 349085 , 49 Warriewood Road WARRIEWOOD NSW 2102 Lot 2 DP 972209 , 43 Warriewood Road WARRIEWOOD NSW 2102 Lot 2 DP 349085 , 45 Warriewood Road WARRIEWOOD NSW 2102

Reasons for referral

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

Officer comments

The application has been assessed with reference to the following:

- Supplied plans and supporting documentation
- Warriewood valley water specification
- Relevant provisions of the Local Environmental Plan (LEP) and Development Control Plan (DCP)
- State Environmental Planning Policy (Resilience and Hazards) 2021
- Court approved development application DA2021/2600 LEC 2023/96634

The proposed stormwater management strategy is based on the court-approved Development Application DA2021/2600 LEC 2023/96634. The biofiltration media depth specified under DA2021/2600 (100–150 mm) is below best-practice standards. To optimise performance within the approved design, the following requirements must be implemented:

- The biofiltration system must use sandy loam filter media with a saturated hydraulic conductivity of approximately 200 mm/hr.
- The base must not be lined with a waterproof membrane and must not be over-compacted, in order to maintain infiltration capacity.
- Vegetation must consist of hardy, deep-rooted native species suited to shallow media conditions.
- A strict inspection and maintenance regime must be implemented to manage sediment build-up, vegetation health, and infiltration performance.

The Environment and Resilience catchment team has reviewed the proposal and confirms that the development application DA2025/1304 is supported for water management issues.

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 Certifier for approval prior to the issue of the Construction Certificate.

Reason: Protection of the receiving environment.

Detailed Design of Stormwater Treatment Measures and Biofiltration

Prior to the commencement of any construction works, the applicant must provide certification and ensure that the stormwater treatment measures are designed, constructed, and maintained in accordance with the following requirements:

- A certificate from a Civil Engineer must be submitted to the Principal Certifying Authority, confirming that the stormwater treatment measures have been designed in accordance with:
 - the Stormwater Plans and details shown on the CIVIL WORKS drawing set Rev08 dated 10/08/2025 by CEC (Project SW24353); and
 - Council's Water Management for Development Policy.
- The biofiltration system must:
 - use sandy loam filter media with a saturated hydraulic conductivity of approximately 200 mm/hr;
 - not be lined with a waterproof membrane;
 - not be over-compacted, in order to maintain infiltration capacity; and
 - be planted with native species suited to shallow media conditions.

Reason: To ensure the stormwater treatment system is designed and constructed in accordance with approved engineering plans, Council's policy requirements, and best-practice biofiltration standards

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.

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

Certification for the Installation of Stormwater Treatment Measures and Biofiltration

Prior to the issue of an Occupation Certificate, the applicant must provide the Principal Certifier with a Civil Engineer's Certification including:

- A certificate from a Civil Engineer who is a member of Engineers Australia and listed on the National Engineers Register.
- The certificate must confirm that the stormwater treatment measures have been installed in accordance with:
 - Installation Requirements
 - The biofiltration system must be installed strictly in accordance with the approved engineering drawings and specifications.
 - The filter media must be placed in layers to avoid segregation and compaction, and the base must remain uncompacted to maintain infiltration capacity.
 - The system must not be lined with a waterproof membrane, ensuring vegetation root systems can connect with underlying soils
 - All pipework, underdrains, and overflow structures must be installed to design levels and inspected prior to backfilling
 - Vegetation must be planted at the specified densities and watered until established.
 - Initial Hydraulic Conductivity (Field Test)
 - The installed biofiltration system must be field-tested using a double-ring infiltrometer (or equivalent recognised field infiltration test) to confirm the in-situ saturated hydraulic conductivity (Ksat).
 - The measured Ksat must fall within the range of 100–300 mm/hr, with a design target of approximately 200 mm/hr.
 - The test must be carried out by a qualified geotechnical engineer with relevant experience in infiltration testing
 - Test results must be certified by the supervising Civil Engineer and submitted to the Principal Certifier
- Laboratory Test Certificate
 - Issued by a NATA-accredited laboratory.
 - Confirms the saturated hydraulic conductivity of the filter media (e.g. ~200 mm/hr for sandy loam, consistent with Water by Design and CRC for Water Sensitive Cities guidelines).
 - Includes results of particle size distribution (PSD) testing to demonstrate compliance with bioretention media specifications.
- Supplier Compliance Certificate
 - Provided by the media supplier
 - States that the supplied media complies with Water by Design Bioretention Filter Media Specifications (2023) or an equivalent recognised guideline.

- Quality Assurance Documentation
- Batch test results for the actual material delivered to site.
- Chain of custody or delivery dockets linking the tested sample to the installed media.
- Vegetation Establishment
 - Evidence that vegetation within the biofiltration system demonstrates a minimum 80% survival rate of plantings.

Reason: To ensure the stormwater treatment system is constructed in accordance with approved plans, meets recognised performance standards, and protects 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 Certifier prior to the issue of the 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 visitsAdditionally 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 Certifier 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 Certifier 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.

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.