

Natural Environment Referral Response - Coastal

Application Number:	DA2017/0947
Responsible Officer	Daniel Milliken
Land to be developed (Address):	Lot CP SP 1977 , 1114 - 1118 Pittwater Road COLLAROY NSW 2097

Reasons for referral

This application seeks consent for land located within the Coastal Zone.

And as such, Council's Natural Environment Unit officers are required to consider the likely impacts on drainage regimes.

Officer comments

Matters for consideration		Comments
Are the proposed works located in an area considered to be generally suitable for coastal protection as identified in:		
The Coastal Zone Management Plan for Collaroy-Narrabeen Beach and Fishermen's Beach.	YES	
Landowners Consent		
Is Landowner's consent from the Department of Primary Industries required for any private protection works that extend onto or under Crown Land.	YES	
Has Landowner's consent from the Department of Primary Industries been granted for any private protection works that extend onto or under Crown Land.	YES	

Northern Beaches Coastal Erosion Policy

Pursuant to Section 79C(a)(i) of the Environmental Planning and Assessment Act 1979, the requirements of the Northern Beaches Coastal Erosion Policy are to be satisfied as follows:

Supporting information:

Is the application accompanied by sufficient information to address the requirements of this policy, the CZMP, the Collaroy-Narrabeen Beach Coastal Protection Works Design Specifications and the Collaroy-Narrabeen Protection Works Assessment Checklist.

Survey identifying the location of all relevant property boundaries with respect to the proposed works including the location of the eastern boundary having regard to any erosion and	Yes subject to condition	Has been addressed in the application. A survey to ensure works are located where approved will be required post completion.
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accretion processes.		
Certification that the works set out in the application are supported by appropriately experienced and qualified specialists in the field of coastal engineering.	Yes	No additional comment
In the case of an application dealing with multiple properties, that an enforceable agreement from all owners has been obtained to fund and construct the works as a single contiguous project.	Not Applicable	No additional comment
A mechanism to ensure appropriate protections for Council and the public in the event that the applicant cannot complete the works in a timely professional; manner (e.g. bank guarantee in favour of Council in the event of non-compliance or failure to complete the works).	No	Has not been addressed. Will be conditioned
Appropriate mechanisms that allow for the efficient maintenance, funding of offsets for any adverse impacts on adjacent properties and/or the public beach and any renewal of the works as required by or on behalf of the benefiting property owner/s.	Yes subject to condition	Will be conditioned to ensure compliance with Northern Beaches Coastal Erosion Policy and Coastal Protection Act.
An assessment demonstrating that the development does not have a long-term impact on coastal processes in the Collaroy-Narrabeen embayment.	Yes	Findings consistent with Collaroy-Narrabeen Beach Coastal Protection Assessment (Manly Hydraulics Laboratory and UNSW Water Research Laboratory, 2016)
An assessment demonstrating that the development does not have a long-term impact on public access to or along the beach.	Yes	Findings consistent with Collaroy-Narrabeen Beach Coastal Protection Assessment (Manly Hydraulics Laboratory and UNSW Water Research Laboratory, 2016)
An assessment of the impact of climate change and sea level rise on the development and the adjoining beach environment.	Yes	No additional comment
Demonstration that the works are consistent with the CZMP and the Northern Beaches Coastal Erosion Policy	Yes	No additional comment
Design and construction:		
Are the works designed and constructed:		
To ensure the long-term coastal processes of the Collaroy-Narrabeen Beach embayment are maintained.	Yes	Findings consistent with Collaroy-Narrabeen Beach Coastal Protection Assessment (Manly Hydraulics



		Laboratory and UNSW Water Research Laboratory, 2016)
To ensure that the presence of the works will not adversely impact on adjoining private and public properties, or adversely affect the long-term amenity of the adjoining beach and surf zone.	Yes Yes subject to condition No Not Applicable	
Such that the works are only visible temporarily during and after significant erosion events.	Yes	Works consistent with Collaroy-Narrabeen Beach Coastal Protection Works Specifications.
To be contiguous, similar and integrated with adjoining protection works constructed in the embayment.	Yes subject to condition	Works will contained within one property boundary. Condition to be applied in relation to interaction with adjoining works to ensure to ensure no impact on adjacent properties.
To a consistent design standard that provides an appropriate level of protection from coastal erosion for affected properties.	Yes	Works consistent with Collaroy-Narrabeen Beach Coastal Protection Works Specifications
To ensure public access is not adversely impacted by any new protection works.	Yes	Findings consistent with Collaroy-Narrabeen Beach Coastal Protection Assessment (Manly Hydraulics Laboratory and UNSW Water Research Laboratory, 2016)
To ensure access for ongoing maintenance of the works.	No	Suitable access landward of the works is not possible due to the location of the existing structure. However suitable measure are in place to ensure that maintenance works can be delayed until access from the seaward side of the works is possible.
In accordance with the minimum criteria outlined in the Collaroy-Narrabeen Beach Coastal Protection Works Design Specifications.	Yes, but for access	Matters related to access dealt with above.
Maintenance		
Coastal protection works are to be maintained in a manner that ensures the ongoing level of design performance. Have the following maintenance considerations been addressed in the application?		
Undertaking a routine series of inspections.	Yes	Inspection following storms to be conditioned
Ensuring works are renewed in a timely manner such that the design level of protection is not threatened.	Yes	Inspection following storms to be conditioned
Ensuring works are upgraded as required in response to changes in impacts associated with frequency or intensity of storm events or sea level rise associated with climate change.	Yes subject to condition	To be conditioned to ensure works are maintained in accordance with approved plans.



Ensuring suitable access is retained to the works so that ongoing maintenance can be implemented by private and/or public owners.	Yes subject to condition	Suitable access landward of the works is not possible due to the location of the existing structure. However suitable measure are in place to ensure that maintenance works can be delayed until access from the seaward side of the works is possible.
Existing protection works (e.g. loose rock or geobags) that are not incorporated into permanent protection works shall be removed by the Principal Asset Owner for the permanent works.	Not Applicable	No additional comment

WLEP 2011 requirements Clauses 5.5 and 6.5

Pursuant to Section 79C(a)(i) of the Environmental Planning and Assessment Act 1979, the objectives of the Warringah Local Environmental Plan 2011 (WLEP 2011) are considered as follows:

Assessment Consideration	Assessment Acceptability	Further Assessment Comment
Does the development maintain existing public access to and along the coastal foreshore?	Yes	Findings consistent with Collaroy-Narrabeen Beach Coastal Protection Assessment (Manly Hydraulics Laboratory and UNSW Water Research Laboratory, 2016)
Is the development suitable in relation to the surrounding area and its impact on the natural scenic qualities?	Yes	Works consistent with Collaroy-Narrabeen Beach Coastal Protection Works Specifications
Is the development suitable in relation to the surrounding area and its impact on the amenity of the coastal foreshore?	Yes	Findings consistent with Collaroy-Narrabeen Beach Coastal Protection Assessment (Manly Hydraulics Laboratory and UNSW Water Research Laboratory, 2016)
Is the development suitable in relation to its cumulative impacts and other development in the coastal catchment?	Yes	Findings consistent with Collaroy-Narrabeen Beach Coastal Protection Assessment (Manly Hydraulics Laboratory and UNSW Water Research Laboratory, 2016)
Will the development adversely affect coastal process significantly?	No	Findings consistent with Collaroy-Narrabeen Beach Coastal Protection Assessment (Manly Hydraulics Laboratory and UNSW Water Research Laboratory, 2016)
Will the development increase the impacts of coastal hazards to other development or properties significantly?	No	Works will contained within one property boundary. Condition to be applied in relation to interaction with adjoining works to ensure to ensure no impact on adjacent properties.
Will the development increase the impacts of coastal hazards to the	No	Findings consistent with Collaroy-Narrabeen Beach Coastal Protection

detriment of the environment?		Assessment (Manly Hydraulics Laboratory and UNSW Water Research Laboratory, 2016)
Does the development incorporate appropriate measures to minimise exposure to coastal hazards?	Yes	Works consistent with Collaroy-Narrabeen Beach Coastal Protection Works Specifications
Does the development incorporate appropriate for modification in response to sea level rise?	Yes	Works consistent with Collaroy-Narrabeen Beach Coastal Protection Works Specifications

WDCP 2011 requirements Clause E9 – Coastline Hazard

Pursuant to Section 79C(a)(i) of the Environmental Planning and Assessment Act 1979, the Objectives of the Warringah Development Control Plan 2011 (WDCP 2011) are considered the following:

Assessment Consideration	Assessment Acceptability	Further Assessment Comment
Does the proposal provide protection from coastal processes and coastline hazards for proposed buildings and works along Collaroy Beach, Narrabeen Beach and Fisherman's Beach?	Yes	No additional comment
Does the development mitigate any adverse impact on the scenic quality of Collaroy, Narrabeen and Fisherman's Beaches?	Yes	No additional comment
Does the development mitigate any adverse impact on the coastal processes affecting adjacent land?	Yes subject to condition	Works will contained within one property boundary. Condition to be applied in relation to interaction with adjoining works to ensure to ensure no impact on adjacent properties.
Does the development retain the area's regional role for public recreation and amenity?	Yes	No additional comment

Requirements under SEPP 71 – Coastal Protection; and Clause 55 - Development within the coastal zone [compulsory if land to which Plan applies includes land in the coastal zone]

The proposal has been identified as being located within a Sensitive Coastal Location as identified on the Coastline Hazard Map. Accordingly, pursuant to Section 79C(a)(i) of the Environmental Planning and Assessment Act 1979, the provisions of State Environmental Planning Policy No.71 – Coastal Protection are to be considered.

Assessment Consideration	Assessment Acceptability	Further Assessment Comment
Is the development acceptable with regard to the SEPP 71: <i>(a) to protect and manage the natural, cultural, recreational and economic attributes of the New South Wales coast, and...</i> <i>(f) to protect and preserve beach environments and beach amenity,</i>	Yes	No additional comment



<p><i>and</i> <i>(g) to protect and preserve native coastal vegetation, and</i> <i>(h) to protect and preserve the marine environment of New South Wales, and</i> <i>(i) to protect and preserve rock platforms, and</i> <i>(j) to manage the coastal zone in accordance with the principles of ecologically sustainable development (within the meaning of section 6 (2) of the Protection of the Environment Administration Act 1991), and...</i> <i>(l) to encourage a strategic approach to coastal management.</i></p>		
<p>Does the development implement measures to conserve animals (within the meaning of the Threatened Species Conservation Act 1995) and plants (within the meaning of that Act), and their habitats?</p>	<p>Not Applicable</p>	<p>No additional comment</p>
<p>Does the development implement measures to conserve fish (within the meaning of Part 7A of the Fisheries Management Act 1994) and marine vegetation (within the meaning of that Part), and their habitats?</p>	<p>Not Applicable</p>	<p>No additional comment</p>
<p>Does the development take into consideration existing wildlife corridors and the impact of development on these corridors?</p>	<p>Not Applicable</p>	<p>No additional comment</p>
<p>Are the likely impact of coastal processes and coastal hazards on the development and any likely impacts of the development on coastal processes and coastal hazards acceptable?</p>	<p>Yes</p>	<p>Findings consistent with Collaroy-Narrabeen Beach Coastal Protection Assessment (Manly Hydraulics Laboratory and UNSW Water Research Laboratory, 2016)</p>
<p>Are the likely impacts of development on the water quality of coastal waterbodies acceptable?</p>	<p>Yes</p>	<p>No additional comment</p>
<p>Is the development acceptable with regard to:</p> <p>(i) the cumulative impacts of the proposed development on the environment, and</p> <p>(ii) measures to ensure that water and energy usage by the proposed</p>	<p>Yes</p>	<p>No additional comment</p>

development is efficient		
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Conclusion / General Comments

The proposed coastal protection works are consistent with the CZMP for Collaroy-Narrabeen Beach and Fisherman Beach as well as the Northern Beaches Coastal Erosion Policy. The proposal can be approved subject to condition.

It is noted that this proposal integrates with existing informal coastal protection works that extend both north and south of this proposal for a distance of approximately 1.3 kilometres. The proposed works cover a distance of approximately **60** meters.

This has been taken into account in assessing the potential impact of these works and actions required to coordinate protection with adjoining properties.

Works will contained within one property boundary. Condition to be applied in relation to interaction with adjoining works to ensure to ensure no impact on adjacent properties.

Recommendation

NO OBJECTION	Unlikely Significant Impact - Subject to conditions
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Referral Body Recommendation

Recommended for approval, subject to conditions

Refusal comments

Recommended Natural Environment Conditions:

DEFERRED COMMENCEMENT CONDITIONS

Easements for construction, support and maintenance

The applicant is to provide evidence to the consent authority to the satisfaction to the consent authority that:

a) An easement has been registered over so much of 1114 -1118 (SP 1977), Pittwater Road, Collaroy as necessary for construction, support and maintenance to allow the owner to carry out its obligations under this consent and otherwise burdening the owners of the properties and their successors in title to maintain the coastal protection works to the standard approved by the Development Consent, approved plans and specifications in the Consent. The easement may provide that it shall be released if the coastal protection works are removed

b) An easement for support has been registered in relation to the part of the coastal protection works on the Crown Land. The easement is to:

- i. burden Lot SP 1977; and
- ii. benefit the Crown Land; and
- iii. to be on terms satisfactory to the Crown.

c) The easement referred to in deferred commencement condition 2.a) shall also provide that:

- i. if reasonably required by Council, by notice in writing only, the coastal protection works located within the easement site shall be maintained to the standard approved by the Development Consent, approved plans and specifications in the Consent if any damage occurs that impacts the support or performance of the works; and
- ii. the owners of the lot burdened must not place any improvements or structures that cannot be easily relocated within the easement site or interfere with the coastal protection works within the easement site or the support they offer.

d) The easement referred to in deferred commencement condition 2.a) shall be to the reasonable satisfaction of Council's solicitors and all costs associated with the preparation and execution of the easement shall be borne by the owners.

Reason: To create long term (i.e. 60 years) support of the coastal protection works for the benefit of all owners (currently and in the future) and to maintain the coastal protection works to ensure the protection of all affected properties and to ensure any requirements for the occupation of adjoining public land are satisfied and maintained. (DACNEADC1)

Lawful occupation of the works on Crown Land

The applicant is to produce evidence to the consent authority to the satisfaction of the consent authority of the registration on title of the Crown Land of any instrument required by the Crown and on terms satisfactory to the Crown for the lawful entitlement for the works to be constructed and maintained by the owners of the properties 1114 -1118 (SP 1977), Pittwater Road, Collaroy ('the owners') on the Crown Land and to remain on the Crown Land.

Reason: To ensure the lawful occupation of the works on public land.

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

Interaction with adjoining works

A detailed plan and cross section(s) at the common boundaries are to be prepared confirming the method and location for integration of the proposed works and the existing protection on the adjoining properties.

Details demonstrating the actions required to ensure compliance with this requirement are to be prepared by a suitably qualified coastal engineer and submitted to Northern Beaches Council for approval prior to issue of the construction certificate

Reason: To provide adequate detail to enable works to be constructed to without impacting the adjoining works or properties.

Maintenance Management Plan for Coastal Protection Works

A management plan is to be prepared for the maintenance of the coastal protection works and adaptation of the works to changed conditions which may occur as a result of future climate change.

The plan is to also address the arrangements required for suitable access to the works in the event that maintenance is required.

Details demonstrating compliance with this requirement are to be prepared by a suitably qualified coastal engineer and submitted to Northern Beaches Council for approval prior to issue of the construction certificate.

Reason: To ensure a plan is in place for the on-going maintenance and adaptation of the works prior to the start of construction. (DACNECPCC1)

Performance of coastal protection works

A statement is to be prepared by a suitably qualified coastal engineer that the proposed works:

- Will maintain their structural integrity during the design storm event in the absence of formal coastal protection works being constructed on the adjoining land.
- Will not adversely impact coastal processes to the detriment of the adjoining land.

Details demonstrating the actions required to ensure compliance with this requirement are to be prepared by a suitably qualified coastal engineer and submitted to Northern Beaches Council for approval prior to issue of the construction certificate.

Reason: To ensure ongoing structural integrity and performance of the proposed works (DACNECPCC3)

Maintenance Obligations and Public Safety

The owners of 1114 -1118 (SP 1977), Pittwater Road, Collaroy must provide an irrevocable bank guarantee (or other suitable legally binding obligation) to Council prior to the issue of any construction certificate in the amount of \$1000 per lineal metre of work (based on the length of the seaward property boundary) to undertake maintenance of the coastal protection works in the event that they are damaged as a result of coastal storm, including to undertake any works required to remove any threat to public safety arising from the coastal protection works including the removal of rocks or debris, that have become dislodged from the works, from the public beach and adjacent public land.

In this condition "maintenance" means the restoration of the works to a standard in accordance with the approved plans and specifications following any damage caused by a coastal storm.

The bank guarantee (or other suitable legally binding obligation) is to be replenished if drawn upon and increased to allow for Consumer Price Index (CPI) every 10 years from the date of establishment.

The bank guarantee (or other suitable legally binding obligation) is to be in the favour of Council. The funds may be accessed by the owners, for the undertaking of works referred to in this condition, with the written consent of Council.

Reason: To satisfy the requirements of Section 27 of the Coastal Management Act 2016 and to ensure the coastal protection works will not pose any threat to public safety.(DACNECPCC4)

Design Drawings

The following changes relevant to the drawings (S.01 to S.08) submitted with the application shall be made prior to issue of the construction certificate:

- Design Drawing 5989-S04 Rev B: Note 6 be amended to make reference to washing sand into the completed rock works to avoid formation of sink holes.

- Design Drawing 5989-S10 Rev B: Be amended to confirm the depth of existing piles under the residential structure.
- Design Drawing 5989-S20 Rev B: Note 1 be amended to confirm that lower (seaward) end of the staircase will be supported by appropriately designed piles and not concrete footing sitting on an armour rock boulder.

Reason: To ensure sufficient information is provided with the design drawings.

CONDITIONS TO BE COMPLIED WITH DURING DEMOLITION AND BUILDING WORK

Historic Artefacts and Aboriginal relics

If any World War Two era tank traps or any Aboriginal relics (or other historic artefacts) are uncovered during the works, Council is to be notified immediately so all excavation or construction work must immediately stop and not recommence until written approval is provided by the Office of Environment and Heritage.

Reason: To protect historic heritage and ensure any artefacts and relics are safely removed/dealt with. (DACNEEDW1)

Sand

No sand excavated from the beach to construct the works is to be placed landward of or buried under the protection works before, during or after construction. All such sand shall be placed seaward of or over the works. The sand shall be screened to remove unsuitable material as required.

Reason: To avoid damage to the beach. (DACNEEDW2)

Safety requirements under storm conditions

Works are not to be placed during storm conditions unless the owner/s obtains a written opinion from a suitably qualified coastal engineer that the placement of the works under these conditions does not present a significant safety risk to any person or will result in damage to the beach. This opinion is to be kept by the landowner until the works are completed. If adverse weather conditions are forecast, the works site is to be made safe (where practical) to avoid the dispersal of equipment and debris onto the beach and into the surf zone.

Reason: To ensure the safety of workers and the public during construction.

Removal of unsuitable material

Any existing rock or material encountered in the works area during construction of the works not incorporated into permanent protection works shall be removed by the owner/s, or used as backfill consistent with Item 3(g) of the Development Consent Operational Conditions herein and consistent with Council's Coastal Erosion Policy Section 9(d). This shall include the area excavated within a line extending from either longitudinal property boundary to the mean low water mark. Confirmation of this requirement is to be provided to Council by the engineer supervising the works.

Reason: To ensure that all unsuitable material is removed from the beach.

Completion of Construction Works

All construction works must be completed within 12 months of the on-site commencement of the construction works.

Reason: To ensure the works are completed in a timely manner.

Site Supervision

A suitably qualified coastal engineer is to be employed to supervise construction for the duration of the approved works.

Reason: To ensure appropriate construction of coastal protection works.

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

Certification of works

The constructed coastal protection works are to be certified by a suitable qualified coastal engineer as being constructed in accordance with the approved design and performance criteria. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to approval of an occupation certificate. This certification is to be provided to Council on issue of the Occupation Certificate.

Reason: To ensure appropriate design and construction of coastal protection works. (DACNEFPOC1)

Restoration of sand and vegetation

The coastal protection works are to be covered in sand and vegetation (local native species as per Inspection Report (Wiesner 2017) or other native species known to occur locally in the area and should be planted at recommended density of 4 plants per square metre) upon completion of the rock works.

Details are to be provided to the Principal Certifying Authority prior to the issue of the Occupation Certificate. These details are to be provided to Council on issue of the Occupation Certificate.

Reason: To limit the impact of the works on the visual quality of the beach. (DACNEFPOC2)

Surveys During Works and Post completion survey

A declaration by a registered surveyor is required as evidence that all construction has been effected in accordance with the Development Consent, approved plans and specifications in the Consent. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to approval of an occupation certificate. Survey plans and a declaration are to be provided to Council on issue of the Occupation Certificate.

Reason: To ensure accurate location of coastal protection works. (DACNEFPOC2)

ON-GOING CONDITIONS THAT MUST BE COMPLIED WITH AT ALL TIMES

Ongoing maintenance of the Coastal Protection Works and beach amenity

The coastal protection works must be maintained in accordance with the Development Consent, conditions, approved plans and specifications as outlined in this consent. The maintenance must be to a standard that does not compromise the protection or integrity of the adjoining land.

Appropriate arrangements to allow sufficient access to the works in the event that maintenance is required are to be maintained in accordance with Maintenance Management Plan of the Coastal Protection Works and the easement for construction, support and maintenance identified in Deferred Commencement Condition 1.

Any impact to the beach resulting from damage or failure of coastal protection works must be rectified by the owner of the works as part of maintaining the works as per condition 42 of this consent. If required the financial arrangements established in condition 11 of this consent may be utilised in accordance with any written consent that may be issued by Council.

Reason: To satisfy the requirements of Section 27 of the Coastal Management Act 2016 and to ensure that the coastal protection works will not pose any significant threat to public safety.

Removal of debris

The owners must obtain all necessary approvals and then remove debris from any adjoining public land if part of the coastal protection works is dispersed onto that land, with such removal to be done as soon as reasonably practicable to the satisfaction of Council and, if necessary, the Crown, at no cost to Council. If required the financial arrangements established in condition 11 of this consent may be utilised in accordance with any written consent that may be issued by Council.

Note: Debris will be taken to have been deposited from 1114 -1118 (SP 1977), Pittwater Road, Collaroy if it is found on public land within a line extending from either longitudinal boundary to the mean low water mark, and it is evident to have originated from the works or from within the SP 1977 property.

Reason: To ensure the safety of the public beach. (DACNEGOG2)

Post storm inspection

After any storm event that exposes any part of the coastal protection works to damage, that impacts the support or performance on the works (including if directed by Council in writing that such an event has occurred), the owners are to procure, at their cost, inspections by a suitably qualified coastal engineer of the coastal protection works. A detailed report is to be provided by this coastal engineer and any recommendations within the report are to be undertaken as soon as reasonably practicable after necessary approvals are obtained.

Reason: To ensure the coastal protection works are maintained after a storm event. (DACNEGOG1)