

Natural Environment Referral Response - Biodiversity

Application Number:	DA2019/0762
Responsible Officer	Julie Edwards
Land to be developed (Address):	Lot 166 DP 12749 , 131 Thompson Street SCOTLAND ISLAND NSW 2105

Reasons for referral

This application seeks consent development on land, or within 40m of land, containing:

- All Development Applications on
- Actual or potential threatened species, populations, ecological communities, or their habitats;
- Wildlife corridors;
- Vegetation query stipulating that a Flora and Fauna Assessment is required;
- Vegetation query - X type located in both A & C Wards;

And as such, Council's Natural Environment Unit officers are required to consider the likely potential environmental impacts.

Officer comments

Updated comments 28/10/2019

Council's Natural Environment - Biodiversity section raises no objections, subject to conditions protecting trees to be retained in accordance with AS4970-2009 Protection of trees on development sites. The submitted Stormwater Management Plan (5QS Consulting Group, 09/05/2019) shows trenching within the SRZ of trees to be retained and is not supported. This plan must be amended in consultation with the Project Arborist prior to issue of construction certificate. No trenching works will be permitted within the SRZ of any tree to be retained.

Updated bushfire mitigation information confirms 3 further tree removals, Tree 9 (Low priority of retention), 16 (Medium priority for retention), and tree 32 (Medium priority for retention), for bushfire mitigation purposes.

The applicant cannot satisfy no net loss of canopy trees within the site due to site constraints and bushfire mitigation measures. However, understorey planting is permissible and will be conditioned. Replacement canopy tree plantings may be permitted within adjacent land as shown on the proposal plans.

Original comments 08/10/2019

This application was assessed against Pittwater LEP Clause 7.6 Biodiversity and Pittwater DCP B4.7 Pittwater Spotted Gum EEC. The property is also mapped as Pittwater Spotted Gum EEC within the SMCMA V3 mapping project (OEH 2016). The property is current vacant unsewered land which contains native vegetation/trees characteristic of Pittwater Spotted Gum EEC, with a exotic / mown lawn understorey.

The proposal is for the construction of a two-storey dwelling with 3 bedrooms, kitchen, living and dining, rumpus, bathroom, laundry, associated water tanks, effluent management system and fencing.

The submitted Arboricultural Impact Assessment report (Tree Report, 03/04/2019) assesses 39 trees, 23 trees within the property, and 16 trees within adjoining land. The development will result in the removal of 2 Turpentine trees which have medium retention value. Ten trees within the site will undergo major encroachments within their Tree Protection Zones "TPZ" (and some into the Structural Root Zone "SRZ"), 5 high retention value T1, T7, T8, T33, T37 and 2 medium retention value T2, T4 due to sewerage dispersal and 1 high retention value T13 and 2 medium retention value T16, T29 due to the dwelling location. A further 5 trees will undergo minor encroachments into their TPZ (T8, T12, T32, T35 and T39). The trenching locations within the Effluent dispersal zone are not currently known. Further unknown impacts are detailed below.

The submitted Bushfire Assessment Report (Building Code & Bushfire Hazard Solutions Pty Limited, 13/03/2019) recommends that the whole property be maintained to Inner Protection Area standards, however no clarification was provided to indicate if any vegetation would need to be removed to satisfy this requirement (i.e. there are trees proposed to be retained which will overhang the dwelling). There are no details of tree replacement plantings in accordance with natural environment controls and whether this will be compliant with bushfire recommendations.

The submitted Stormwater Management Plan shows trenching and the Fire Fighting Tank immediately adjacent to significant trees. Impacts to these trees has not been assessed. Trenching and tanks should be realigned in consultation with a qualified Arborist to ensure no impacts to trees proposed for retention.

The submitted Flora and Fauna Assessment (Ecological Consultants Australia Pty Ltd, April 2019) includes a Test of Significance ("5-part test") for Pittwater Spotted Gum EEC, as well as threatened species known from the locality, all concluding non-significant impacts. This report satisfies impact assessment requirements. The recommendations include replanting 20 canopy trees to replace the 2 to be removed, which may not be feasible due to bushfire mitigation requirements.

Council's Natural Environment - Biodiversity section cannot complete this assessment until further information is provided.

Further information and clarification

- A statement addressing how the proposal has been designed and sited to avoid adverse environmental impact, in accordance with Section 7.6 (Biodiversity Protection) of the PLEP.
- A qualified Arborist is to assess the impacts of trenching within the sewerage dispersal area (referencing plans showing locations of trenches), stormwater trenching, and identify construction machinery access to minimise impacts to trees.
- The updated Bushfire Assessment Report is to explore mitigation options which reduce impacts to existing native vegetation, and is to clarify if any vegetation is required to be removed or modified to achieve the recommended APZ.
- Machinery access to the site is to be identified on the proposal plans which minimises potential impacts to trees during construction.
- Landscape Plan which shows replacement canopy trees and which complies with bushfire mitigation recommendations and natural controls (i.e. no net loss)
- Review of updated RFS referral comments may be required

Referral Body Recommendation

Recommended for approval, subject to conditions

Recommended Natural Environment Conditions:

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

Stormwater Plans to be amended

The stormwater plans are to be amended to include the following:

- Must show all surveyed trees
- Must not propose trenching within the calculated Structural Root Zone (SRZ) of any surveyed trees to be retained.
- Trenching must be aligned to avoid and minimise impacts to trees in consultation with the project Arborist.

Compliance with these measures is to be certified in writing by the project arborist, including photographic evidence, and submitted to the Principal Certifying Authority prior to issue of the Occupation Certificate.

Reason: To confirm compliance with tree protection/replacement measures in accordance with relevant Natural Environment LEP/DCP controls.

Preparation of Landscape Plans

Detailed Landscape Plans are to be prepared and certified by a qualified landscape architect and are to include the following:

- the location of existing trees and vegetation to be retained, removed and/or planted. The structural root zone (SRZ) and tree protection zone (TPZ) of all existing trees must be indicated in accordance with Arboricultural Impact Assessment report (Tree Report, 03/04/2019) and the updated Tree Schedule Table as amended by these conditions of consent.
- A planting schedule comprising a minimum of 80% locally native vegetation species from the Pittwater Spotted Gum EEC species list as a proportion of the total number of plants. The planting schedule is to specify details including stratum, species/common names, quantities, pot sizes and staking details.
- Provision of shrubby vegetation in islands or clumps covering no more than 20% of the total area of the site.
- The proposed finished treatment of garden areas, including soil depth and the location of retaining walls and underground services.

The Landscape Plan is to be certified in writing by a qualified landscape architect prior to issue of the Construction Certificate.

Reason: To ensure landscaping is consistent with relevant Natural Environment LEP/DCP controls.

Engage a Project Ecologist

A project ecologist is to be employed for the duration of the approved works to ensure all biodiversity protection measures are carried out in accordance with conditions of consent and the Flora and Fauna Assessment (Ecological Consultants Australia Pty Ltd, April 2019).

The project ecologist must have one of the following memberships/accreditation,

- Practising member of the NSW Ecological Consultants Association (<https://www.ecansw.org.au/find-a-consultant/>) OR
- Biodiversity Assessment Method assessor accreditation under the NSW Biodiversity Conservation Act 2016 (<https://customer.lmbc.nsw.gov.au/assessment/AccreditedAssessor>)

Evidence of engagement of a qualified ecologist is to be provided to the Principal Certifying Authority Prior to issue of Construction Certificate.

Reason: To protect native vegetation and wildlife in accordance with relevant Natural Environment LEP/DCP controls.

Engage a Project Arborist

A Project Arborist with a minimum of AQF Level 5 is to be appointed for the duration of the works. The Project Arborist is to implement pre-construction tree protection measures and undertake direct supervision of all works within 5m of significant trees.

In addition, the Project Arborist is to update "Appendix 2 - Results of Arboricultural Assessment" table, columns detailing DBH, TPZ, and SRZ, as the calculations below do not correlate with the heading (calculations and headings are mixed up), e.g. see table below showing changes to the table including but not limited to trees which will incur TPZ encroachments and that may be near stormwater and construction access.

Table 1. Example Tree Schedule Table showing correct DBH TPZ and SRZ calculations

Id	Botanical name	Height (m)	DBH (mm)	TPZ (Rm)	SRZ (Rm)
1	<i>Corymbia maculata</i>	21	650	7.2	2.7
2	<i>Corymbia maculata</i>	15	250	3	1.9
4	<i>Corymbia maculata</i>	10	150	2	1.5
7	<i>Corymbia maculata</i>	15	250	3	1.9
8	<i>Corymbia maculata</i>	15	250	3	1.9
12	<i>Corymbia maculata</i>	17	350	4.2	2.1
13	<i>Corymbia maculata</i>	22	850	10.2	3.1
29	<i>Corymbia maculata</i>	20	400	4.8	2.3
30	<i>Allocasuarina littoralis</i>	14	200	2.4	1.7
31	<i>Allocasuarina littoralis</i>	9	100	2	1.5
32	<i>Corymbia maculata</i>	22	400	4.8	2.3
33	<i>Corymbia maculata</i>	22	300	3.6	2
34	<i>Corymbia maculata</i>	15	300	3.6	2
35	<i>Corymbia maculata</i>	22	500	6	2.5
37	<i>Corymbia maculata</i>	24	900	10.8	3.2
38	<i>Corymbia maculata</i>	22	300	3.6	2
39	<i>Corymbia maculata</i>	24	900	10.8	3.2

Evidence demonstrating Project Arborist engagement and the amended Tree Schedule is to be provided to the Principal Certifying Authority prior to the issue of Construction Certificate.

Reason: Tree protection in accordance with relevant Natural Environment LEP/DCP controls.

CONDITIONS THAT MUST BE ADDRESSED PRIOR TO ANY COMMENCEMENT

Compliance with Arborist's Recommendations – Pre-construction

All pre-construction tree protection measures specified in the submitted arborist report (Tree Report, 03/04/2019) and these conditions of consent are to be implemented at the appropriate stage of development.

In addition, the Project Arborist must undertake direct supervision of installation of tree protection

measures for construction access to the site including trunk and ground protection. The Project Arborist is to clearly mark the trees to be removed (T9, T14, T15, T16, T32). All other trees are to be retained and protected.

Compliance with pre-construction measures is to be certified in writing by the project arborist and provided to the Principal Certifying Authority prior to issue of the Construction Certificate.

Reason: To confirm compliance with tree protection/replacement measures in accordance with relevant Natural Environment LEP/DCP controls.

Compliance with Ecologist's Recommendations – Pre-construction

All pre-construction biodiversity-related measures specified in the approved Flora and Fauna Assessment (Ecological Consultants Australia Pty Ltd, April 2019) and these conditions of consent are to be implemented at the appropriate stage of the development.

Compliance with pre-construction measures is to be certified by the project ecologist prior to issue of the Construction Certificate.

Reason: To confirm compliance with wildlife and habitat protection/replacement measures in accordance with relevant Natural Environment LEP/DCP controls.

CONDITIONS TO BE COMPLIED WITH DURING DEMOLITION AND BUILDING WORK

Compliance with Arborist's Recommendations – During Construction

All tree protection measures to be implemented during construction, as specified in Arboricultural Impact Assessment report (Tree Report, 03/04/2019) and these conditions of consent are to be implemented at the appropriate stage of development.

In addition, the Project Arborist is to undertake direct supervision of all excavation works within the Tree Protection Zone (TPZ) of trees to be retained, and to ensure compliance with no excavation within the Structural Root Zone (SRZ) as amended by these conditions of consent, including for the installation of sewerage dispersal and stormwater trenches.

Compliance with these measures is to be certified in writing by the project arborist, including photographic evidence, and submitted to the Principal Certifying Authority prior to issue of the Occupation Certificate.

Reason: To confirm compliance with tree protection/replacement measures in accordance with relevant Natural Environment LEP/DCP controls.

Compliance with Ecologist's Recommendations – During Construction

All biodiversity-related measures are to be implemented during construction in accordance with the approved Flora and Fauna Assessment (Ecological Consultants Australia Pty Ltd, April 2019) and these conditions of consent.

In addition, the Project Arborist is to undertake direct supervision of all approved tree removal works to ensure no native fauna are injured or harmed.

Compliance with these measures is to be certified by the project ecologist in writing to the Principal Certifying Authority prior to issue of the Occupation Certificate.

Reason: To confirm compliance with wildlife and habitat protection/replacement measures in accordance with relevant Natural Environment LEP/DCP controls.

No excavation within the Structural Root Zone of Retained Trees

No excavation is permitted within the calculated Structural Root Zone of trees to be retained.

Reason: To confirm compliance with tree protection/replacement measures in accordance with relevant Natural Environment LEP/DCP controls.

Implementation of Landscape Plan

Landscaping is to be implemented in accordance with the approved Landscape Plans and these conditions of consent. The new landscaping is to be certified by a qualified landscape architect as being in accordance with the approved Landscape Plans and these conditions of consent prior to issue of the Occupation Certificate.

Reason: To ensure landscaping is consistent with relevant Natural Environment LEP/DCP controls.

**CONDITIONS WHICH MUST BE COMPLIED WITH PRIOR TO THE ISSUE OF THE
OCCUPATION CERTIFICATE****Compliance with Arborist's Recommendations – During and Post-construction**

All tree protection measures to be implemented following construction, as specified in Arboricultural Impact Assessment report (Tree Report, 03/04/2019) and these conditions of consent, are to be implemented. Written certification of compliance is to be prepared by the project arborist and submitted to the Principal Certifying Authority prior to issue of the Occupation Certificate.

Reason: To confirm compliance with tree protection/replacement measures in accordance with relevant Natural Environment LEP/DCP controls.

Replacement of Canopy Trees

At least 5 locally native canopy trees are to be planted to replace prescribed trees approved for removal. Species are to have a minimum mature height of 8.5m and be consistent tree species listed within the Pittwater Spotted Gum EEC. Tree plantings are to be retained for the life of the development and/or for their safe natural life. Trees that die or are removed must be replaced with another locally native canopy tree. Replacement plantings are to be certified as being completed in accordance with these conditions of consent by a qualified landscape architect, and details submitted to the Principal Certifying Authority prior to issue of any Occupation Certificate.

Reason: To establish appropriate landscaping in accordance with relevant Natural Environment LEP/DCP controls

Certification of Landscape Plan

Landscaping is to be implemented in accordance with the approved Landscape Plans and these conditions of consent. The new landscaping is to be certified by a qualified landscape architect as being complete and in accordance with approved Landscape Plans and these conditions of consent prior to issue of the Occupation Certificate.

Reason: To ensure landscaping is consistent with relevant Natural Environment LEP/DCP controls.

Compliance with Ecologist's Recommendations – Post Construction

All biodiversity-related measures are to be implemented at the appropriate stage of development in accordance with the approved Flora and Fauna Assessment (Ecological Consultants Australia Pty Ltd, April 2019) and these conditions of consent. Satisfactory establishment/initiation of post-construction measures is to be certified by the project ecologist prior to issue of any Occupation Certificate.

Reason: To confirm compliance with wildlife and habitat protection/replacement measures in accordance with relevant Natural Environment LEP/DCP controls.

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

Control of Weeds

Prior to the completion of works, all priority weeds (as listed under the Biosecurity Act 2015) are to be removed/controlled within the subject site using an appropriately registered control method. Information on weeds of the Northern Beaches can be found at the NSW WeedWise website (<http://weeds.dpi.nsw.gov.au/>). All environmental weeds are to be removed and controlled. Refer to Council website http://www.pittwater.nsw.gov.au/environment/noxious_weeds

Reason: Weed management.

Tree Retention

In accordance with Pittwater 21 DCP Control B4.22 Protection of Trees and Bushland Vegetation, all existing trees as indicated in the Survey Plan shall be retained except where Council's prior written consent has been obtained, for trees that stand within the envelope of approved development areas and removal is approved through an arborist report. For all other tree issues not related to a development application, applications must be made to Council's Tree Management Officers.

Reason: To ensure the retention of the Urban Forest/Natural Environment.

Clearance of Structures from Trees

A minimum of 200mm clearance is to always be maintained to the tree trunk from proposed bearers, joists and decking.

Reason: To ensure existing/proposed trees are not negatively impacted.

No Planting Environmental Weeds

No environmental weeds are to be planted on the site. Information on weeds of the Northern Beaches can be found at the NSW WeedWise website (<http://weeds.dpi.nsw.gov.au/>).

Reason: Weed management.

Works to cease if item found

If any Aboriginal Engravings or Relics are unearthed all work is to cease immediately and the Aboriginal Heritage Office (AHO) and Office of Environment and Heritage (OEH) are to be notified.

Reason: To protect Aboriginal Heritage.

Dead or Injured Wildlife

If construction activity associated with this development results in injury or death of a native mammal, bird, reptile or amphibian, a registered wildlife rescue and rehabilitation organisation must be contacted for advice.

Reason: To mitigate potential impacts to native wildlife resulting from construction activity.

Domestic Animals Exclusion

For the life of the development, cats are to be kept in a cat run and/or inside the dwelling such that they are prevented from entering wildlife habitat areas at all times. Dogs are to be kept in an enclosed area such that they cannot enter areas of bushland, unrestrained, on surrounding properties.

Reason: Wildlife protection

Fencing for Wildlife Passage

Any new fencing (with the exception of swimming pool fencing) is to be made passable to native wildlife. Hole dimensions are to be a minimum of 150mm wide x 100mm high at ground level spaced at 6 metre intervals.

Reason: Management of wildlife corridors