

Natural Environment Referral Response - Biodiversity

Application Number:	DA2019/0395
Responsible Officer	Claire Ryan
Land to be developed (Address):	Lot 1 DP 202857 , 7 Trentwood Park AVALON BEACH NSW 2107

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

This application was assessed against Pittwater LEP Clause 7.6 and Pittwater DCP B4.2 Flora and fauna conservation category 1 and wildlife corridor, and B4.4 Flora and fauna habitat enhancement category 2 and wildlife corridor. The site is also mapped as Pittwater Spotted Gum EEC in the SMCMA V3 mapping (OEH 2016). The site is also identified as bushfire prone land.

Any development application must consider proposal options which are compliant with applicable Pittwater LEP and DCP controls, specifically:

- The development is designed, sited and will be managed to avoid any significant adverse environmental impact.
- *Development shall retain and enhance habitat for threatened species, endangered populations, endangered ecological communities and other locally native species.*
- *Development shall provide wildlife corridors via creation, restoration, and / or regeneration of habitat.*
- *Development shall result in no significant onsite loss of canopy cover and no net loss in native canopy trees.*
- *Development shall ensure that at least 80% of any new planting incorporates native vegetation (as per species listed in Native Plants for Your Garden available on the Pittwater Council website). Landscaping is to be outside areas of existing bushland and should not include environmental weeds. Development shall provide an adequate buffer to wildlife corridors.*
- *Caretakers of domestic animals shall prevent them from entering wildlife habitat areas.*
- *Fencing, where permitted, shall be passable by native wildlife.*

The site is known as Lot 3 which was the subject of a previous court approval for a 3 lot subdivision (N0530/15). As part of the subdivision approval, three trees were approved for removal being, T2 *Jacaranda mimosifolia*, T80 *Angophora costata*, and T105 *Syncarpia glomulifera*.

The proposal is for a two-storey dwelling house and attached studio and garage, approximately in alignment with the approved building envelope (marginally larger footprint), and associated landscaping of the site.

The updated **Arboricultural Impact Assessment** (Urban Forestry Australia, 05/03/2019) "*addresses building design changes that may have altered the initial impact assessment by Tree Wise Men [for the original court approval].*". This report states, "*No additional trees are proposed to be removed with this current application.*". The retention and protection of native trees is supported by Biodiversity. The report provides individual tree specific protection measures and hand digging to ensure trees to be retained are protected throughout construction. General tree protection measures and pruning recommendations are within Part 5.3 and Appendix C of the original **Arboricultural Impact Assessment** (Tree Wise Men July 2017).

The updated **Ecological Assessment** (Cumberland Ecology, 04/03/2019) states, "*Due to the extremely similar nature of impacts for the plan approved by the LEC and the proposed plan, the proposed application is not considered to increase impacts on biodiversity values within Lot 3. Within the proposed Lot 3 boundaries, impacts to biodiversity are consistent with the former Flora and Fauna Assessment produced by Cumberland Ecology in 2017.*"

Council's Natural Environment - Biodiversity section supports the application, subject to conditions. There are relevant subdivision conditions of consent for N0530/15 that continue to apply to this dwelling development, which have been added to the conditions. These include B4, B5, B6, B7, B9, B10, B14, B17, B22, C9, C13, D8, D10, D11, D18, D19, D23, D14, F13, F14, F15, and F19. As per B22 of the subdivision consent, any replacement plantings is to be at a ratio of 3:1 for every tree removed. As such 6 replacement canopy trees will 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

Amendment of Landscape Plans

The submitted Landscape Plan is to be amended in accordance with the following:

- Deletion of *Pennisetum alopecuroides*, *Ophiopogon jaburan*
- Replacement with a variety of understorey species - no mono-culture plantings. At least 15 species must be chosen from the Coastal Enriched Sandstone Moist Forest community profile (WSF02, OEH 2016), or any local native species already recorded onsite (Table 6.1 within the Flora and Fauna Assessment by Cumberland Ecology October 2017). At least 3 plantings per square metre.
- Provision of at least 6 local native canopy tree plantings to replace trees to be removed. These must be species which reach a minimum height of 8.5m at maturity and be planted outside of calculated TPZ of trees to be retained and at least 200mm from any proposed structure. At least 4 different species must be planted and species must be chosen from the following list, *Angophora costata*, *Syncarpia glomulifera*, *Corymbia gummifera*, *Allocasuarina littoralis*, *Ceratopetalum gummiferum*, *Corymbia maculata*, *Eucalyptus punctata*, *Glochidion ferdinandi*.

The amended Landscape Plan is to be certified by a qualified landscape architect, arborist or ecologist and provided to the Principal Certifying Authority prior to issue of the Construction Certificate.

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

Preparation of a Construction Environment Management Plan (CEMP)

A detailed construction environment management plan for the site is to be prepared by the Applicant prior to the commencement of any works on site. The construction management plan is to be consistent with the approved Tree Protection Plan, Flora and Fauna Report and Arborist Report and is to include detailed information and specifications concerning the following:

- Proposed access for tree pruning and removal works and methods for removal of tree waste;
- Proposed access methods for the delivery and storage of materials and storage and removal of waste materials;
- Proposed storage areas for waste and construction materials;
- Quantity of material to be transported
- Proposed truck movements per day
- Proposed hours of operation
- Proposed traffic routes, noting that 3 tonne load limits apply to some roads within the former Pittwater Council Local Government Area
- Location of on/off site parking for construction workers during the construction period.

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

Preparation of Erosion and Sedimentation Control

An Erosion and Sediment Control Plan is to be prepared in accordance with Landcom's Managing Urban Stormwater: Soil and Construction Manual (2004) by a suitably qualified engineer and submitted to the Principal Certifying Authority prior to the issue of the Construction Certificate.

Reason: To protect natural features and habitats in accordance with relevant Natural Environment LEP/DCP controls

Compliance with Arborist's Recommendations – Pre-construction

All pre-construction tree protection measures specified in the Updated Arboricultural Impact Assessment (Urban Forestry Australia, 05/03/2019), and Part 5.3 and Appendix C of the original Arboricultural Impact Assessment (Tree Wise Men July 2017), and these conditions of consent are to be implemented at the appropriate stage of development.

Compliance with pre-construction measures is to be certified by the project arborist and details submitted 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.

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 supervise all works within 5m of significant trees.

Evidence demonstrating Project Arborist engagement (i.e. cover letter from Project Arborist) 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.

Project Ecologist

A Project Ecologist is to be employed for the duration of the approved works to undertake direct supervision to ensure all bushland protection measures are carried out according to the conditions of consent.

The Project Ecologist will provide certification that conditions relating to the recommendations within the Flora and Fauna Assessment by Cumberland Ecology October 2017, and as amended by the Updated Ecological Assessment (Cumberland Ecology, 04/03/2019) are carried out. The Project Ecologist will ensure that all conditions relating to the biodiversity management of the property are fully implemented.

The Project Ecologist must have one of the following memberships/accreditation

- Practising member of the NSW Ecological Consultants Association OR
- Biodiversity Assessment Method assessor accreditation under the NSW *Biodiversity Conservation Act 2016*

Reason: To ensure bushland management.

Preparation of a Tree Transplanting Methodology

A suitably experienced and minimum AQF 5 level Arborist is to prepare a tree transplanting methodology/report in relation to the relocation of two Cabbage Tree Palms T105 and T111. All recommendations within the report must be followed throughout transplanting works. The translocation must occur outside of the Tree Protection Zones of existing trees to be retained and protected.

This strategy is to address maintenance issues such as irrigation, soil testing, weeding, plant staking, fertilising, pest and disease control, remedial pruning and the like. Further, provision is to be made for the contractor to visit the site on a 3 monthly basis from the date of the relocation. After the inspection, the contractor is to issue a report to the project manager certifying that the palm is healthy and performing to expectation.

A copy of the Tree Transplanting Methodology report is to be forwarded to the Principal Certifying Authority prior to issue of Construction Certificate.

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

CONDITIONS THAT MUST BE ADDRESSED PRIOR TO ANY COMMENCEMENT

All priority weeds must be demarcated

Prior to any vegetation clearance, all priority weeds in the canopy and shrub layers should be demarcated in order for these to be disposed of separately from native material.

Weeds listed in Greater Sydney Regional Strategic Weed Management Plan 2017 - 2022 must be removed and managed continuously.

Reason: To reduce the risk of site works contributing to spread of Priority weeds, in accordance with relevant Natural Environment LEP/DCP controls.

CONDITIONS TO BE COMPLIED WITH DURING DEMOLITION AND BUILDING WORK

Implementation of the Tree Transplanting Methodology

A suitably experienced and minimum AQF 5 level Arborist is to directly supervise tree transplanting in accordance with the approved Tree Transplanting Methodology/report in relation to the relocation of two Cabbage Tree Palms T105 and T111. All recommendations within the report must be followed throughout transplanting works. The translocation must occur outside of the Tree Protection Zones of existing trees to be retained and protected.

The Project Arborist is to compile details of compliance including photographic evidence and submit to the Principal Certifying Authority throughout works.

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

No Material Storage within 5m/calculated Tree Protection Zone (TPZ)

No storage of building materials or building waste, excavated fill or topsoil storage is to occur within 5m or the notional TPZ of trees shown on the approved landscape working drawing(s) as being retained or within protective fenced areas. Drainage is to be arranged such that fill, building materials or contaminants are not washed into protective fenced areas.

Reason: To protect and retain trees proposed for retention.

Implementation of Amended Landscape Plan

Landscaping is to be implemented in accordance with the Amended Landscape Plans and these conditions of consent. The new landscaping is to be certified in accordance with approved Landscape Plans and these conditions of consent by a qualified landscape architect, arborist or ecologist 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 – During Construction

All biodiversity-related measures are to be implemented during construction, as specified in the approved Flora and Fauna Assessment by Cumberland Ecology October 2017, Updated Ecological Assessment (Cumberland Ecology, 04/03/2019) and these conditions of consent.

Specifically the Project Ecologist must undertake pre-clearance surveys and direct supervision of all tree removal works.

Compliance with these measures is to be certified by the project ecologist in writing including photographic evidence 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.

Implementation of Erosion and Sediment Control Plan

The Erosion and Sediment Control Plan is to be fully implemented and measures are to remain in effective operation until all development activities have been completed and the site fully stabilised.

No building materials or other materials are to be placed on Bushland vegetation. Sediment is not to leave the site or enter areas of Bushland vegetation.

Sedimentation and erosion controls are to be effectively maintained at all times during the course of construction and shall not be removed until the site has been stabilised or landscaped to the Principal Certifying Authority's satisfaction.

Evidence of compliance is to be certified by a suitably qualified engineer and submitted to the Principal Certifying Authority prior to the issue of any Occupation Certificate.

Reason: To protect natural features and habitats in accordance with relevant Natural Environment LEP/DCP controls.

Compliance with Arborist's Recommendations – During Construction

All tree protection measures to be implemented during construction, as specified in Updated Arboricultural Impact Assessment (Urban Forestry Australia, 05/03/2019), and Part 5.3 and Appendix C of the original Arboricultural Impact Assessment (Tree Wise Men July 2017) and these conditions of consent are to be implemented at the appropriate stage of development.

The updated Arboricultural Impact Assessment provides specific recommendations for construction in the vicinity of existing trees T103, T104, T110, T130, and group of Turpentine T120, T121, T123, and T124. All hand-digging must be directly supervised by the Project Arborist.

Compliance with these measures is to be certified by the project arborist in writing, including photographic evidence, and details 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.

Signage – No work / storage within dripline

The project manager is to erect signs advising all contractors and visitors to the site that no works or storage are to take place within the dripline of existing trees.

Reason: To protect and retain trees proposed for retention.

**CONDITIONS WHICH MUST BE COMPLIED WITH PRIOR TO THE ISSUE OF THE
OCCUPATION CERTIFICATE****Certification of Completion of Tree Transplanting**

A suitably experienced and minimum AQF 5 level Arborist is to directly supervise tree transplanting in accordance with the approved Tree Transplanting Methodology/report in relation to the relocation of two Cabbage Tree Palms T105 and T111. All recommendations within the report must be followed throughout transplanting works. The translocation must occur outside of the Tree Protection Zones of existing trees to be retained and protected.

Details of compliance should include information and photographic evidence of irrigation, soil testing,

weeding, plant staking, fertilising, pest and disease control, remedial pruning and the like. Further, provision is to be made for the contractor to visit the site on a 3 monthly basis from the date of the relocation. After the inspection, the contractor is to issue a report to the project manager certifying that the palm is healthy and performing to expectation.

The Project Arborist is to compile details of compliance including photographic evidence and submit to the Principal Certifying Authority prior to issue of 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 – Post Construction

All biodiversity-related measures are to be implemented at the appropriate stage of development, as specified in the approved Flora and Fauna Assessment by Cumberland Ecology (October 2017) and as amended by Updated Ecological Assessment (Cumberland Ecology, 04/03/2019) and these conditions of consent.

Removal of exotic weeds is to be certified by Project Ecologist.

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.

Compliance with Arborist's Recommendations – During and Post-construction

All tree protection measures to be implemented, as specified in Updated Arboricultural Impact Assessment (Urban Forestry Australia, 05/03/2019), and Part 5.3 and Appendix C of the original Arboricultural Impact Assessment (Tree Wise Men July 2017), and these conditions of consent are to be implemented at the appropriate stage of development.

The updated Arboricultural Impact Assessment provides specific recommendations for construction in the vicinity of existing trees T103, T104, T110, T130, and group of Turpentine T120, T121, T123, and T124. All hand-digging must be directly supervised by the Project Arborist.

Satisfactory establishment/initiation of post-construction measures is to be certified by the consulting arborist and details 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 6 locally native canopy trees are to be planted on site to replace trees approved for removal. Species are to have a minimum mature height of 8.5m and be consistent with these conditions of consent. 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 complete and in accordance with these conditions of consent by a qualified landscape architect, arborist or ecologist, 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.

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.

Replacement of Canopy Trees

Tree replacement plantings required under this consent 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.

Reason: To replace locally native trees in accordance with relevant Natural Environment LEP/DCP controls.

Retention of Natural Features

All natural landscape features, including natural rock outcrops, natural vegetation, soil and watercourses, are to remain undisturbed except where affected by necessary works detailed on approved plans.

Reason: To ensure the retention of natural features.

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, domestic pet animals are to be kept from entering wildlife habitat areas at all times. Dogs and cats are to be kept in an enclosed area or on a leash such that they cannot enter areas of bushland, unrestrained, on the site or on surrounding properties or reserves. Ferrets and rabbits are to be kept in a locked hutch/run at all times.

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.

Reason: Wildlife protection