

**Sanjeev kumar Loura**  
Warriewood Developers  
**Elie Farah**  
Effective Building & Consultancy

**REF:** 24 WD 01  
**DATE:** DECEMBER 19, 2024  
**RE:** Project Ecologist Works  
43, 45 & 49 Warriewood Road, Warriewood

Dear Sanjeev,

All Conditions of Consent relevant to Project Ecologist services, as specified by the Notice of Orders Made by the NSW Land & Environment Court (2023/00096634) for the above site, are outlined in italics below. Also further below are project ecologist requirements stated in the *Biodiversity Development Assessment Report (Cumberland Ecology Version 5, 29/2/24)* as well as the *Biodiversity Management Plan (Cumberland Ecology Version 5, dated 29/2/24)*, also stated in italics.

For each of these project ecologist requirements a response below each is provided. Where these requirements are not yet facilitated or in process, then it is stated as such. This entire compliance report will be updated during the project period at the required stages. At any time all matters and their current status can be seen. Photos from the site inspection are provided at the end.

#### ***BUILDING WORK – BEFORE ISSUE OF A CONSTRUCTION CERTIFICATE***

##### ***37. Engagement of 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 the approved Biodiversity Development Assessment Report (Cumberland Ecology Version 5, 29/2/24) and Biodiversity Management Plan (Cumberland Ecology Version 5, dated 29/2/24).*

*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 Accredited Assessor under the relevant legislation (<https://customer.lmbc.nsw.gov.au/assessment/AccreditedAssessor>)*

*Evidence of engagement of the Project Ecologist is to be provided to the Certifying Authority Prior to issue of Construction Certificate.*

*Reason: To protect native vegetation and wildlife.*

**Response:** Compliant. I can advise that I am a practising member and Councillor of the NSW Ecological Consultants Association. I am also a BAM Accredited Assessor (BAAS 19050). The *TreeHouse Ecology* Animal Research Authority issued by the Secretary's Animal Care & Ethics Committee and Scientific License issued under the Department of Planning and Environment have been provided as attachments to the initial compliance report dated 6/11/24. My CV was also attached to this original compliance.



## **CONDITIONS THAT MUST BE ADDRESSED PRIOR TO ANY COMMENCEMENT**

### **54. Temporary Protection Fencing – Exclusion Zones**

*Prior to the commencement of any works onsite, temporary mesh construction fencing is to be erected surrounding areas of retained native vegetation on the site as mapped in the approved Biodiversity Management Plan.*

*Details demonstrating compliance must be prepared by the Project Ecologist and submitted to the Principal Certifying Authority prior to any commencement.*

*Reason: To protect native vegetation.*

**Response:** Compliant. A Field Ecologist undertook a site inspection on the 26/11/24. We can confirm that vegetation protection fencing is appropriately installed at the rear of the works area. We will soon be initiating vegetation restoration by a bushland regeneration company to the rear of the current fencing in accordance with the BMP. Following this, a surveyor will be able to obtain better access to peg the appropriate boundary of the protection fencing. The fencing will then be moved into place. It is currently further north as no works are being undertaken in this area in the short-term.

### **58. Implementation of Biodiversity Management Plan**

*All requirements in the Biodiversity Management Plan (Ref. 21097RP3, Version r5) dated 29 February 2024 are to be implemented prior, during and post construction and subdivision works.*

*Details demonstrating pre-construction, construction and on-going compliance for the 5 year life of the BMP are to be certified by the project ecologist and submitted to the Certifying Authority prior to the issue of the Occupation Certificate.*

*Reason: Biodiversity / Vegetation Conservation and Management.*

**Response:** In process. The current requirements in consideration to the BMP are the installation of protection fencing, the installation of sediment control fencing and the commencement of weed management in the specified zones of the protection area. The protection fencing and the sediment fencing are both in place. The weed management will commence in the new year and will be progressed once works towards the rear boundary nears.

## **DURING BUILDING WORK**

### **62. Compliance with Ecologist's Recommendations – During construction**

*All impact mitigation measures specified in section 8.5 of the approved Biodiversity Development Assessment Report (Cumberland Ecology Version 5 dated 29/2/24), as summarised in Table 15, are to be implemented at the appropriate stage of development.*

*Compliance with these measures is to be certified by the Project Ecologist in writing to the Principal Certifier prior to issue of any Occupation Certificate.*

*Reason: To confirm compliance with wildlife and habitat protection/replacement measures.*

**Response:** In process. These measures are stated in detail further below and a response to each is also provided, as required.

## **BEFORE ISSUE OF THE OCCUPATION CERTIFICATE**

### **90. Compliance with Ecologist's Recommendations – Post Construction**

*All impact mitigation measures specified in section 8.5 of the approved Biodiversity Development Assessment Report (Cumberland Ecology Version 5 dated 29/2/24), as summarised in Table 15, are to be implemented at the appropriate stage of development.*

*Written and photographic evidence of compliance is to be prepared by the Project Ecologist and provided to the Principal Certifier prior to issue of any Occupation Certificate.*

*Reason: To confirm compliance with wildlife and habitat protection/replacement measures.*

**Response:** In process. These measures are stated in detail further below and a response to each is also provided, as required.

### **91. Protection of Habitat Features**

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

*Details demonstrating compliance are to be provided to the Principal Certifying Authority prior to issue of any Occupation Certificate.*

*Reason: To protect wildlife habitat.*

**Response:** In process. No rock outcrops or watercourses exist on the subject lands. Native vegetation for retention is currently protected with fencing. Native trees identified for removal have been sprayed on the trunk with a white 'X'.

### **95. Temporary Protection Fencing – Exclusion Zones**

*Removal of the temporary mesh construction fencing is to be certified by the project ecologist (or equivalent) and submitted to the Principal Certifying Authority prior to issue of any Occupation Certificate.*

*Reason: To protect native vegetation and waterways.*

**Response:** Not yet required.

### **96. Relocation of Logs and Coarse Woody Debris**

*All logs and branches are to be salvaged from trees prior to any vegetation clearing and reused as fauna habitat within the proposed riparian area of land to be dedicated to Council.*

*Details demonstrating compliance are to be provided to the Principal Certifying Authority prior to issue of any Occupation Certificate.*

*Reason: To protect wildlife habitat.*

**Response:** Not yet required.

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

### **114. Protection of Habitat Features**

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

*Reason: To protect wildlife habitat.*

**Response:** In process. No rock outcrops or watercourses exist on the subject lands. Native vegetation for retention is currently protected with fencing.

## **BEFORE ISSUE OF A SUBDIVISION CERTIFICATE**

### **121. Amended Biodiversity Management Plan**

*The Biodiversity Management Plan (Cumberland Ecology Version 5, 29/2/24) (BMP) is to be amended by a suitably qualified and experienced Ecologist or Bush Regenerator. Except where steps are required earlier by this consent, implementation of the BMP must begin immediately following the commencement of works. In preparing and implementing the BMP the following additional criteria must be addressed:*

*a. A suitably qualified (TAFE Certificate IV in Conservation and Land Management or equivalent) and experienced professional bush regeneration contractor is to be engaged to carry out all weed control, regeneration, revegetation and maintenance works as specified in the BMP. In addition, the site supervisor is to have a minimum of three years demonstrated experience in a similar role.*

*b. Update the weed density performance criteria within Table 2 Performance Indicators to match the weed density performance criteria contained in Table 4.*

*c. Include weed coverage percentage performance indicators within the Phase 3 Maintenance section of Table 4.*

*d. Include the requirement for a Baseline Report prepared by the Ecologist and Hydrologist following completion of the recommended minimum 6 month Water Table Depth Monitoring works. The Baseline Report is to document the Water Table, Water Quality and Vegetation Condition monitoring works, and include rainfall data for the monitoring period. The Baseline Report is to be submitted to Council for review prior to issue of a subdivision works certificate.*

*All subsequent Progress Reports and the Final Report as set out in the BMP should compare changes in site conditions (including changes in groundwater levels) to the Baseline Report.*

*Reason: To protect groundwater dependent ecosystems, native vegetation, wildlife and habitats.*

**Response:** In process. Cumberland Ecology previously provided the initial Biodiversity Management Plan. They are not currently available to amend the plan. The above amendments are generally specific to weeds, so it is most appropriate that the engaged bushland regenerator completes this item. This is a requirement before issue of subdivision certificate, however weed management will need to commence way before then.

TreeHouse Ecology will be assisting with the engagement of a bushland regenerator and will coordinate a request with Cumberland Ecology to obtain a joint initiative or permissions on the BMP updates, to maintain consistency with the original document elements.

## **122. Compliance with Ecologist's Recommendations – Pre-construction**

*All impact mitigation measures specified in section 8.5 of the approved Biodiversity Development Assessment Report (Cumberland Ecology Version 5 dated 29/2/24), as summarised in Table 15, are to be implemented at the appropriate stage of development.*

*Compliance with these measures is to be certified by the Project Ecologist in writing to the Principal Certifier prior to issue of any Subdivision Works Certificate.*

*Reason: To confirm compliance with wildlife and habitat protection/replacement measures.*

**Note: Response:** In process. These measures are stated in detail further below and a response to each is also provided, as required.

---

Specific measures to be provided by a project ecologist as outlined by the *Biodiversity Development Assessment Report (Cumberland Ecology Version 5, 29/2/24)* include:

### **8.5. Mitigation of Impacts to Native Vegetation and Habitat**

*A range of mitigation measures have been developed for the project to mitigate the impacts to native vegetation and habitat that are unable to be avoided. These include a range of measures to be undertaken before, during and after construction to limit the impact of the project. Each mitigation measure is discussed in detail below, and a summary is provided in Table 15.*

#### **8.5.1. Weed Management**

*In order to minimise the spread of weeds throughout the subject land and adjoining areas, appropriate weed control activities will be undertaken prior to vegetation clearing in accordance with the Greater Sydney Management Region and is subject to the Greater Sydney Regional Strategic Weed Management Plan 2023 – 2027 (NSW Local Land Services 2022) under the NSW Biosecurity Act 2015.*

*The Biosecurity Act 2015 and regulations provide specific legal requirements for state level priority weeds and high risk activities, as provided in the Appendices of the Greater Sydney Regional Strategic Weed Management Plan 2023 – 2027 (NSW Local Land Services 2022). To comply with the objectives of the Greater Sydney Regional Strategic Weed Management Plan, it is recommended the following measures be implemented as part of weed management for the subject land.*

##### **i. Prevention**

*Appropriate construction site hygiene measures will be implemented to prevent entry of new weeds to the area such as the cleaning of equipment prior to entering the subject land.*

##### **ii. Eradication**

*Initial weed management will be carried out within the subject land according to best-practice methods under the direction of a suitably qualified bush regenerator. The targeted species will be those listed under Appendices 1 and 2 of the Greater Sydney Regional Strategic Weed Management Plan 2023 – 2027 (NSW Local Land Services 2022). Initial weed treatment will include eliminating woody species and targeting large dominant infestations of exotic herbs. This may be achieved via a combination of manual*

*weed removal and herbicide use. Weed management will focus on the removal of targeted species from within landscaping areas.*

*Best-practice bush regeneration should undertake measures to avoid adverse impacts to retained vegetation within the subject land, including not over clearing (remove only targeted species), employment of minimal disturbance techniques to avoid soil and surrounding vegetation disturbance, and replacement of disturbed mulch/leaf-litter.*

### **iii. Containment**

*Follow-up monitoring and maintenance should be undertaken in landscaping areas following construction, to contain any re-emergence of weed species.*

**Response:** In process. Weed management will be undertaken by a bushland regeneration company to be engaged early in the new year.

### **8.5.2. Delineation of Clearing Limits**

*The current limits of clearing will be marked either by high visibility tape on trees or metal/wooden pickets, fencing or an equivalent boundary marker that will be installed prior to clearing. To avoid unnecessary or inadvertent vegetation and habitat removal or impacts on fauna, disturbance must be restricted to the delineated area and no stockpiling of equipment, machinery, soil, rock or vegetation will occur beyond this boundary.*

**Response:** Compliant. Fencing is only required along the boundary of the conservation area to be restored. This is in place.

### **8.5.3. Tree Protection Measures**

*As trees to be retained have the potential to be impacted during the construction of the proposed development, tree protection measures are proposed to be implemented to avoid inadvertent impacts to trees that are marked for retention. These measures include the implementation of Tree Protection Devices, tree protection fencing, and relevant signage.*

**Response:** Compliant. Tree protection fencing is only required along the boundary of the conservation area to be restored as these are the only trees to be retained. This is in place.

### **8.5.4. Pre-clearance Surveys**

*To minimise impacts to fauna species during construction, pre-clearance surveys will be conducted in all areas of vegetation that are required to be cleared. Pre-clearing surveys will be undertaken within one week of clearing activities by a qualified ecologist.*

*Habitat features to be identified include:*

- *Hollow-bearing trees;*
- *Human-made structures;*
- *Rock; and*
- *Log Piles.*

*Such features have the potential to contain native species. All habitat features will be identified, recorded and flagged with fluorescent marking tape and trees will have an "H" spray painted with marking paint on two sides of the tree.*

**Response:** Compliant. A pre-clearing site inspection by a field ecologist was undertaken on the 26/11/24. The following was undertaken or noted at this time:

- All trees identified for retention in the Arborist Report were marked with blue tape and a blue painted dot on the trunk to ensure visibility and mitigate the risk of tape failure. These included trees T23 and T26 which were found to contain hollows ranging from 10–20 cm in diameter.
- All tree identified for removal were marked with a large white X on the trunk. These included trees T27, T16 & T28. T16 is a thicket containing 13 Casuarina trees as identified in the Arborist Report. Each was marked with a white X and individually numbered using white paint. The thicket contained another 6-10 trees with a DBH<150 that will require removal. The thicket also contains invasive species, including Coral Trees and other weeds that will require removal. Tree T28 is identified as a dense thicket of Coral Trees. The area is overgrown and inaccessible for trunk marking. Supervision during clearing will be required to ensure proper identification.
- No trees marked for removal exhibited habitat features at the time of inspection.
- No trees in the northern section of the property are identified for retention.
- Two derelict houses were inspected for evidence of wildlife (e.g., scats, nests, or other signs). No indications of wildlife were found during the inspection.

#### **8.5.5. Staging of Clearing**

*The clearing will be conducted using a two-stage clearing process as follows:*

*Stage 1: Clearing will commence following the identification of potential habitat features by a qualified ecologist. Hollow-bearing trees marked during pre-clearing will not be cleared during the first stage. However, all vegetation around these trees will be cleared to enable isolation of the feature. Other habitat features, such as hollow-bearing logs, can be removed during Stage 1 only if done under supervision by a qualified ecologist.*

*Identified hollow-bearing trees will be left at a minimum overnight after Stage 1 clearing to allow resident fauna to voluntarily move from the area.*

*Stage 2: After hollow-bearing trees have been left overnight, the trees will be cleared using the following*

*protocols:*

- *Trees marked as containing hollows will be shaken by machinery prior to clearing to encourage any animals remaining to leave the hollows and move on;*
- *Use a bulldozer or excavator to start pushing the tree over. Move the bulldozer over the roots and continue gently pushing the tree over;*
- *Remove branches with hollows and sections of trunk and set aside for immediate transfer to a storage area for placement within retained vegetation; and*
- *All hollows will be investigated by an ecologist for the presence of fauna following felling of the tree.*

*The felled habitat tree will be left overnight to allow any remaining fauna time to leave the hollows and move on.*

*The two-stage clearing process enables fauna a chance to self-relocate upon nightfall, when foraging typically occurs.*

*Provisions will be made to protect any native fauna during clearing activities by the following means:*

- All staff working on the vegetation clearing will be briefed about the possible fauna present and should avoid injuring any present;*
- Animals disturbed or dislodged during the clearance but not injured will be assisted to move to adjacent bushland or other specified locations; and*
- If animals are injured during the vegetation clearance, appropriate steps will be taken to humanely treat the animal (either taken to the nearest veterinary clinic for treatment, or if the animal is unlikely to survive, it will be humanely euthanised).*

*Provision of a report following the completion of clearing works will be provided detailing the total number and species of individuals recorded and details of their release/health.*

**Response:** Not yet required. No trees for removal were recorded showing hollows or other notable habitat opportunity. An ecologist will be present for the supervised removal of all trees.

#### **8.5.6. Sedimentation Control Measures**

*The project may result in erosion and transport of sediments because of soil disturbance during construction.*

*In order to prevent this impact, construction activities will be undertaken in accordance with “The Blue Book” and the Civil Engineering Works report for the project (ACOR Consultants 2024).*

*According to the Civil Engineering Works report, all sediment and erosion control methods shall be made consistent with the Northern Beaches Council guidelines and the Department of Housing’s ‘Managing Urban Stormwater; Soils and Construction Manual’ (Landcom 2004). Additionally, no construction works will commence until all sediment and erosion control measures have been inspected by the principal certifying authority, and will be regularly inspected to ensure the measures’ correct and efficient function throughout the duration of the construction activities until the principal certifying authority is satisfied that the measures can be removed. Further measures include dust control for the entirety of the construction activities, and all stockpiles are to be clear of all retained trees and drainage lines such that they are protected from erosion.*

**Response:** In process. The sediment fencing is currently in place and will be maintained during the works period.

#### **8.5.7. Stormwater Management Measures**

*Considerable effort has been taken by the ACOR Consultants (2024) to ensure that engineering plans provide an outcome that accommodates the maintenance of base flows currently servicing the TEC. At this stage, it is expected that future flows will be largely limited to +/- 10% of current conditions (ACOR Consultants 2024).*

*This is achieved through a multi-faceted approach including structures designed to regulate flow differently during low flow events vs high flow events. Specifically, a low flow weir has been designed into the proposed culvert to regulate flow into Narrabeen Creek that will mimic pre-development flow levels. During high flow events, are*



*managed using a level spreader and energy dissipater that is designed into the proposed swale, that will act to spread flow evenly across the rear of the study area that is expected to be within +/- 10% of the current conditions (ACOR Consultants 2024). Additionally, measures include incorporating rainwater reuse tanks for use by the proposed dwellings and residential flat buildings.*

**Response:** Not yet required.

#### **8.5.8. Habitat Feature Salvage**

*Where present, fauna habitat features including hollow-bearing trees and rock will be salvaged from the subject land during clearing and stockpiled for future use in restoration of the BMP Area. The placement of salvaged items will increase habitat complexity as such items are used by a variety of invertebrate and vertebrate species as microhabitat areas.*

*Habitat features are to be stored until such time as restoration of the BMP Area commences. Storage must be undertaken within designated stockpile areas, with onsite contractors made aware material is to be retained, to prevent loss of stored habitat features prior to utilisation. Placement of stored habitat features within the BMP Area will be undertaken in co-ordination with an ecologist.*

*Tree limbs containing hollows felled during the clearing process will be relocated within the BMP Area. These will be used for habitat reconstruction within the BMP Area. Hollows will be trimmed by a tree removal specialist and will be relocated to trees within the BMP Area. When the relocation of a hollow is not possible, a nest box will be placed in a tree in the BMP Area to ensure that all lost arboreal habitat is either relocated or replaced.*

*Hollows to be translocated will be those that are structurally sound to the extent that they survive the trees felling and subsequent translocation. The suitability of each hollow is to be determined during pre-clearance surveys by an ecologist.*

**Response:** Not yet required. A field ecologist will be on hand during clearance to facilitate this requirement.

#### **8.5.9. Biodiversity Management Plan**

*Areas of the study area that will be retained will be rehabilitated and managed in the longer term under a Biodiversity Management Plan. The rehabilitation of Swamp Mahogany Forest includes a 0.88 ha area that will be managed and revegetated where appropriate using a full suite of species indicative of the TEC, and a range of these species of shrubs and groundcovers will be prioritised across landscaped areas of the site. It is understood that following an initial period of five years, the area within 25 m of the rear boundary of the study area along Narrabeen Creek will be dedicated to Northern Beaches Council.*

*A Biodiversity Management Plan has been prepared as part of the project (21097RP3).*

**Response:** In process. The rehabilitation requirements of the BMP will be facilitated by a bushland regeneration company to be engaged early in the new year.

#### **8.5.10. Landscaping with Swamp Mahogany Forest Species**

Where possible, it is recommended that native plant species characteristic of Swamp Mahogany Forest be incorporated into the landscape plan for the subject land. A recommended species list is provided in the BMP (doc. 21097RP3). All native re-plantings should be sourced from local nurseries or come from seed sourced from the property.

**Response:** Not yet required.

---

Specific measures to be provided by a project ecologist as outlined by the *Biodiversity Management Plan (Cumberland Ecology Version 5, dated 29/2/24)* include:

#### ***Vegetation Clearing Plan***

##### ***5.1. Hygiene Protocols***

**Response:** In process. The protocols to prevent *Phytophthora cinnamomi*, Myrtle Rust (*Puccinia psidii*), amphibian chytrid fungus (*Batrachochytrium dendrobatidis*), and invasive plants will be advised by us as the project ecologists, during the relevant stages of the works.

##### ***5.2. Environmental Inductions***

*Inductions will be undertaken for all personnel who will work within the BMP Area prior to the commencement of any works. The induction will specify in detail which areas of vegetation are approved to be removed and the importance of not damaging retained vegetation, as all native vegetation comprises an occurrence of an EEC. The induction will specify that unauthorised personnel are not permitted to enter retained vegetation areas, and that no machinery or stockpiling of materials is permitted within the BMP Area.*

**Response:** In process. Environmental inductions will be facilitated by us as the project ecologists, during the relevant stages of the works.

##### ***5.3. Protection of Vegetation during Construction Phase***

**Response:** In process. Pre-work requirements to protect vegetation are currently in place.

##### ***5.4. Clearing Supervision***

*An inspection of all vegetation to be removed will be undertaken on each morning of clearing works prior to clearing commencing. The inspection will be undertaken by a qualified ecologist in order to determine that no fauna species are present within vegetation to be cleared or nearby vegetation.*

*The attending ecologist must also supervise the removal of all vegetation required to be removed. If clearing is undertaken in two separate sections, one ecologist is required to supervise the removal of vegetation within each section.*

**Response:** Not yet required. A field ecologist will be on hand during clearance to facilitate this requirement.

### ***5.5. Salvage of Habitat Items***

**Response:** Not yet required. A field ecologist will be on hand during clearance to facilitate this requirement.

### ***5.6. Weed Management During Clearing***

**Response:** In process. The rehabilitation requirements of the BMP will be facilitated by a bushland regeneration company to be engaged early in the new year.

### ***5.7. Erosion and Sediment Control***

**Response:** In process. The sediment fencing is currently in place and will be maintained during the works period.

Please let me know if you have any questions.

Kind regards,



**Corey Mead**

*Fauna Ecologist* B App Sc BAAS 19050

E: [corey@treehouseecology.com.au](mailto:corey@treehouseecology.com.au)

Ph: 0401557882





## PHOTOS



Site frontage – no hollows or nests observed



Derelict buildings – no signs of fauna use observed inside





Casuarina trees marked for removal.



Protection fencing and sediment fencing. Restoration vegetation seen on the right.





Northern boundary of bushland restoration area. Material to be cleaned up.



Sediment fencing protecting restoration area.