



Office of  
Environment  
& Heritage

Our Ref: DOC19/383405  
Your Ref: MP 09\_0166 MOD 3

Director, Regional Assessments  
Department of Planning and Environment  
GPO Box 39  
Sydney NSW 2001

Attention: Ms Emma Butcher, Planning Officer, Regional Assessments

Dear Mr Witherdin

**Re: Updated Response to Submissions Altitude Aspire Residential Subdivision (MP 09\_0166 MOD 3)**

Thank you for your email dated 8 May 2019 about the Updated Response to Submissions Altitude Aspire Residential Subdivision (MP 09\_0166 MOD 3) May 2019 seeking comments from the Office of Environment and Heritage (OEH). I appreciate the opportunity to provide input.

The OEH has reviewed the updated Response to Submissions report (RtS) prepared by DAC Planning dated 2 May 2019. We note that a Biodiversity Development Assessment Report (BDAR) dated December 2018 has now been prepared by JWA Ecological Consultants. We also note that the revised Aboriginal Cultural Heritage Assessment by Everick dated November 2018 includes changes to Recommendations 2 and 5.

Our review has identified issues for the biodiversity assessment and the BDAR that need to be addressed and we suggest the conditions proposed for Aboriginal cultural heritage reference the revised Aboriginal Cultural Heritage Assessment. These matters and the associated recommendations are detailed in **Attachment 1** to this letter.


In summary, the OEH recommends that:

1. The accredited assessor must:
  - a. undertake a vegetation survey in Vegetation Community 5 as required under the Biodiversity Assessment Method (BAM) including the required number of plots.
  - b. retain the following as candidate species credit species and assume presence, or undertake fauna and flora surveys at the appropriate time, or provide an expert report, unless further justification is provided under Step 3 of the BAM:
    - i. Hairy jointgrass (*Arthraxon hispidus*)
    - ii. Eastern pygmy possum (*Cercartetus nanus*)
    - iii. Three-toed snake-tooth skink (*Coeranoscincus reticulatus*)
    - iv. Coxen's fig parrot (*Cyclopsitta diophthalma coxeni*)

- v. Pale-headed snake (*Hoplocephalus bitorquatus*)
  - vi. Green-thighed frog (*Litoria brevipalmata*)
  - vii. Southern myotis (*Myotis macropus*) (the site is within 200m of a riparian zone)
  - viii. Pink underwing moth (*Phyllodes imperialis* southern subspecies)
  - ix. Mitchell's rainforest snail (*Thersites mitchellae*)
2. Following the above, the accredited assessor must amend the BAM credit calculations and the Biodiversity Development Assessment Report (BDAR) in the following way:
    - a. identify the Vegetation Community 1 as the Lowland Rainforest threatened ecological community
    - b. include the survey data for Vegetation Community 5 and update the credit calculations accordingly
    - c. include a map identifying habitat connectivity in relation to the site including the regional corridor as mapped in the Key Habitats and Corridors.
  3. The BDAR be amended to more fully consider indirect and prescribed impacts, particularly connectivity for threatened species such as the koala and water quality and changes to the hydrological regime on threatened ecological communities in the immediate vicinity of the development footprint.
  4. The BDAR must provide mitigation measures specific to the bulk earthworks in the development footprint. These should include erosion and sediment control, slope stabilisation, weed control, fencing and demarcation of the work area. No works (including temporary and permanent ancillary construction and maintenance facilities) should be located outside the development footprint. If there is a need for sedimentation ponds or other ancillary development outside the development footprint, then this will require an amendment to the current BDAR and other relevant documents.
  5. Once the BAM credit calculations and BDAR are amended, the revised version of the BDAR should be provided to the OEH for review including all relevant shape file data and the finalised BAM credit calculations.
  6. The proponent should consider referring the development matter to the Commonwealth Department of Environment and Energy for impacts on *Macadamia tetraphylla* as a possible controlled action if this has not already been done.
  7. In relation to Aboriginal cultural heritage, the proposed amended Condition B22(i) should refer to the updated Aboriginal Cultural Heritage Assessment by Everick dated November 2018.

If you have any further questions about this issue, Ms Rachel Lonie, Senior Conservation Planning Officer, Conservation and Regional Delivery, OEH, can be contacted on 6650 7130 or at [rachel.lonie@environment.nsw.gov.au](mailto:rachel.lonie@environment.nsw.gov.au).

Yours sincerely

 31 May 2019

**DIMITRI YOUNG**  
**Senior Team Leader Planning, North East Branch**  
**Conservation and Regional Delivery**



## **Attachment 1: Detailed OEH Comments – Updated Response to Submissions RTS Altitude Aspire Residential Subdivision (MP 09\_0166 MOD 3)**

### **1. Biodiversity**

The OEH has reviewed the updated Response to Submissions report (RtS) prepared by DAC Planning dated 2 May 2019 including the Biodiversity Development Assessment Report (BDAR) prepared by JWA Ecological Consultants dated December 2018.

The BDAR provides an assessment of the biodiversity impacts arising from the earthworks required for construction of a road that is part of the Stage 1 Altitude Aspire residential development. These works are on the adjoining lot (Lot 1 DP 175234) and there is no approval for residential development on this site. This parcel of land was not part of the Part 3A approval, however the Department of Planning and Environment has advised that the development can be considered for this modification under the former broad Part 3A planning provisions. We note that an Ecological Assessment (EA) has been prepared for Lot 1 DP 175234 by Burchills (July 2018) and that this formed part of the exhibition material for the MOD 3.

Generally, a BDAR must assess the entire subject land even though the development footprint is only a portion of the subject land. In this case only the extent of the bulk earthworks including associated vegetation clearing has been assessed.

The OEH has identified the following issues with the BDAR:

#### **1.1 Vegetation Community 1**

Vegetation Community 1 is described as a 'tall closed forest (*Cinnamomum camphora*)'. The community is considered to most likely represent a very highly degraded form of Plant Community Type (PCT) 1302 White Booyong – Fig subtropical rainforest of the NSW North Coast Bioregion. The proposal will result in a direct loss of 0.3 ha of this PCT.

The BDAR does not consider this community to represent the threatened ecological community (TEC) Lowland Rainforest in the NSW North Coast and Sydney Basin Bioregions due to it being heavily dominated by high-threat exotic weeds, being highly modified by previous clearing and land use, and currently missing structural layers and other diagnostic features.

In the OEH's opinion, these factors do not negate the fact that the vegetation community is likely to represent the TEC as there is no threshold condition state specified in the NSW Scientific Committee's Final Determination. Three native canopy species (*Mallotus philippensis*, *Guioa semiglauc* and *Acacia melanoxylon*) one native mid storey species (*Archontophoenix cunninghamiana*) and *Maclura cochinchinensis* are all listed as species that characterise the Lowland Rainforest TEC in the Final Determination. Weeds are identified as a significant threat to Lowland Rainforest communities. Also, the survey plot was on the edge of the vegetation community and would be expected to be in a poorer condition than in the middle of the area. Therefore, the OEH does not agree that this community is not Lowland Rainforest TEC.

The vegetation that straddles the property boundary has only been mapped on the western side of the fence line. This polygon should include all the canopy cover of the trees and other vegetation regardless of where the trunks or fence line are located. Mapping and area calculations for Vegetation Community 1 need to be amended accordingly.

#### **1.2 Vegetation Community 5**

Vegetation Community 5 is described as a 'substantially cleared land / pasture with scattered exotic regrowth'.

Under Section 3.1.1.3 of the BAM, an accredited assessor can determine that:

- a. an area of land does not contain native vegetation and therefore an assessment of that vegetation zone is not required beyond Section 5.4 or
- b. a vegetation zone is below a certain vegetation integrity score and therefore an assessment of that vegetation zone is not required beyond Section 6.2.

No fieldwork has been undertaken in Vegetation Community 5 to demonstrate either criteria. The BDAR must contain a plot in Community 5 to demonstrate that it meets either of these criteria and therefore does not require further assessment.

### 1.3 Species credit species

Species credit species have been removed from the candidate species list due to the habitat requirements not being met as described in Table 4 of the BDAR:

The BAM only allows candidate threatened species (species credit species) to be removed from further assessment at Step 2 under Section 6.4 if the species is a vagrant species or if none of the habitat constraints identified in the Threatened Biodiversity Data Collection are present. The OEH accepts that the following species credit species can be excluded from further consideration:

- Giant barred frog (*Mixophyes iteratus*) can be excluded because land not within 50 m of semi-permanent and permanent drainages
- Little bentwing-bat (Breeding) (*Miniopterus australis*) can be excluded as there are no cave, tunnel, mine, culvert or other structure known
- Eastern bentwing-bat (Breeding) (*Miniopterus schreibersii oceanensis*) can be excluded as there are no cave, tunnel, mine, culvert or other structure known
- Powerful owl (Breeding) (*Ninox strenua*) can be excluded if there are no living or dead trees with hollow greater than 20cm diameter
- Grey-headed flying-fox (Breeding) (*Pteropus poliocephalus*) can be excluded as there are no breeding camps
- Giant spear lily (*Doryanthes palmeri*) can be excluded based on habitat constraints (no cliffs, steep cliff faces or rocky outcrops)
- *Harnieria hygrophiloides* can be excluded because of geographic limitations given the subject land is not within 5km of Brunswick Heads township

However, the following species credit species cannot be excluded from further consideration:

- Scented acronychia (*Acronychia littoralis*)
- Hairy jointgrass (*Arthraxon hispidus*)
- Eastern pygmy possum (*Cercartetus nanus*)
- Three-toed snake-tooth skink (*Coeranoscincus reticulatus*)
- Coxen's fig parrot (*Cyclopsitta diophthalma coxeni*)
- Pale-headed snake (*Hoplocephalus bitorquatus*)
- Green-thighed frog (*Litoria brevipalmata*)
- Southern myotis (*Myotis macropus*)
- Mitchell's rainforest snail (*Thersites mitchellae*)

*A. littoralis* cannot be excluded as it is within 5km of the coast which triggers a geographic limitation. *M. macropus* cannot be excluded because the subject land is within 200m of a riparian zone which triggers one of the listed habitat constraints. *C. reticulatus* can only be excluded if the habitat constraints (leaf and bark litter/fallen standing dead timber including logs or timber and logs on the ground) are not present and the assessor has not demonstrated this.

The accredited assessor is required to demonstrate at Step 3 after carrying out a field assessment that the habitat constraints or microhabitats for that species are substantially degraded such that the species is unlikely to utilise the subject land. Rather than demonstrate this the assessor has



described why certain habitat features are missing from the subject land, which is not a valid argument under the BAM to exclude these species from further consideration.

In the case of Hairy jointgrass (*Arthraxon hispidus*) the BDAR states the subject land does not contain wet/moist areas such as creeks, soaks or swamps and has north and west facing slopes that are unsuitable for this species due to excessive light exposure. This is not the OEH experience in surveying for *A. hispidus* where the species has been found on moist north facing slopes and in degraded and modified areas. Surveys for this species may also be required in Vegetation Community 5.

For the Mitchell's rainforest snail (*Thersites mitchellae*), the BDAR states the subject land does not contain rainforest or swamp forest on alluvial soils and that the elevation and highly degraded/disturbed nature of vegetation occurring on the subject land would preclude the occurrence of this species. The OEH notes that a targeted survey for *T. mitchellae* by Stephanie Clark in 2018 for the Tweed Valley Hospital site at Cudgen (located approximately 6 kms to the south-east of the subject land) found that small disturbed areas of PCT 1302 White Booyong – Fig subtropical rainforest were suitable habitat for the species.

For the above reasons the OEH considers that the following species must be retained as candidate species credit species in the BDAR unless the assessor can provide further justification in order to meet the requirements under Step 3 of the BAM:

- Scented acronychia (*Acronychia littoralis*)
- Hairy jointgrass (*Arthraxon hispidus*)
- Three-toed snake-tooth skink (*Coeranoscincus reticulatus*)
- Eastern pygmy possum (*Cercartetus nanus*)
- Coxen's fig parrot (*Cyclopsitta diophthalma coxeni*)
- Pale-headed snake (*Hoplocephalus bitorquatus*)
- Green-thighed frog (*Litoria brevipalmata*)
- Southern myotis (*Myotis macropus*)
- Mitchell's rainforest snail (*Thersites mitchellae*)

As per the BAM, these species must be surveyed at the appropriate times of the year. Alternatively, they could be assumed to be present or have an expert report prepared as per section 6.5.2 of the BAM.

#### **1.4 *Macadamia tetraphylla***

The BDAR states that four stems of *Macadamia tetraphylla* have been recorded along the boundary fence. There was originally only one *M. tetraphylla* recorded along the fence line (Burchills 2018) and two were recorded on the adjoining development to the east by James Warren and Associates (2013). The earlier ecological assessment included a translocation management plan with provisions for planting of additional *M. tetraphylla* plants and surrogate habitat, ensuring that a net gain for this species and its habitat results from the proposed development. No *M. tetraphylla* are now proposed to be translocated. The BDAR has calculated the loss of these threatened plants as requiring eight species credits.

Consideration of the impact of the proposal on *M. tetraphylla* may be required under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* as the species is listed as vulnerable. According to the *Southern Macadamia Species Recovery Plan 2019 – 2024* the total population size for *M. tetraphylla* is estimated to be between 1000 – 2000 mature individuals with approximately 75 key populations with around 5-20 mature specimens at each locality. The Recovery Plan states that removal or destruction of *M. tetraphylla* plants, or of viable plant material (fruits, seeds, cuttings, seedlings), increased herbicide usage, nutrient runoff or changed hydrology are actions which could have a significant impact on the species.







The earthworks are upslope of Lowland Rainforest and Swamp sclerophyll forest TECs and a significant area of vegetation that fringes the Terranora Broadwater and that is a Coastal Wetland as identified in State Environmental Planning Policy (Coastal Management) 2018. As described in Figure 7 of the BDAR, some of the development footprint is within the proximity area for Coastal Wetlands.

The BDAR does not satisfactorily consider the prescribed impacts of the development on water quality, water bodies and hydrological processes that sustain threatened species and threatened ecological communities. It does not identify the measures that will be put in place to manage stormwater and overland flow and slope stabilisation to protect water quality and hydrological regimes during and post construction.

The BDAR must also consider the impacts of development on the connectivity of different areas of habitat of threatened species that facilitates the movement of those species across their range, or the impacts of development on movement of threatened species that maintains their lifecycle. The BDAR should reference the Key Habitats and Corridors mapping and include this in the site and location maps as required under 4.2.1.3 of the BAM.

Consideration of connectivity impacts should include assessing the connectivity value of the vegetation (including the trees along the fence line). One species that should be considered is the koala, noting that there are recent koala records approximately 240 m and 700 m to the south and south-east of the site. Although koalas have not been recorded within the development footprint, the proximity of records to the south and south-east and the areas of potential habitat to the north (such as Swamp sclerophyll forest TEC) suggest the impact on habitat connectivity for koalas should be considered under the prescribed impacts section of the BDAR.

### **OEH Recommendations**

1. The accredited assessor must:
  - a. undertake a vegetation survey in Vegetation Community 5 as required under the Biodiversity Assessment Method (BAM) including the required number of plots
  - b. retain the following as candidate species credit species and assume presence, or undertake fauna and flora surveys at the appropriate time, or provide an expert report, unless further justification is provided under Step 3 of the BAM:
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    - viii. Pink underwing moth (*Phyllodes imperialis* southern subspecies)
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2. Following the above, the accredited assessor must amend the BAM credit calculations and the Biodiversity Development Assessment Report (BDAR) in the following way:
  - a. identify the Vegetation Community 1 as the Lowland Rainforest threatened ecological community
  - b. include the survey data for Vegetation Community 5 and update the credit calculations accordingly
  - c. include a map identifying habitat connectivity in relation to the site including the regional corridor as mapped in the Key Habitats and Corridors.
3. The BDAR be amended to more fully consider indirect and prescribed impacts, particularly connectivity for threatened species such as the koala and water quality and changes to the hydrological regime on threatened ecological communities in the immediate vicinity of the development footprint.

4. The BDAR must provide mitigation measures specific to the bulk earthworks in the development footprint. These should include erosion and sediment control, slope stabilisation, weed control, fencing and demarcation of the work area. No works (including temporary and permanent ancillary construction and maintenance facilities) should be located outside the development footprint. If there is a need for sedimentation ponds or other ancillary development outside the development footprint, then this will require an amendment to the current BDAR and other relevant documents.
5. Once the BAM credit calculations and BDAR are amended, the revised version of the BDAR should be provided to the OEH for review including all relevant shape file data and the finalised BAM credit calculations.
6. The proponent should consider referring the development matter to the Commonwealth Department of Environment and Energy for impacts on *Macadamia tetraphylla* as a possible controlled action if this has not already been done.

## **2. Aboriginal Cultural Heritage**

The OEH previously recommended changes to Recommendations 2 and 5. These changes have been made in the updated Aboriginal Cultural Heritage Assessment by Everick dated November 2018. However, the RtS includes a proposed amended Condition B22(i) that refers to the former assessment:

“Details of the Aboriginal Cultural Heritage Program for personnel and contractors (the program should be developed and implemented in collaboration with the local Aboriginal community). The relevant recommendations contained in the Aboriginal Cultural Heritage Report prepared by Everick Heritage Consultants Pty Ltd dated July 2018, should be addressed in the CEMP.”

### ***OEH Recommendation***

7. Condition B22(i) should be amended to refer to the updated Aboriginal Cultural Heritage Assessment by Everick dated November 2018.