

Indra Boss

From: Crane, Andrew <Andrew.Crane@dpipwe.tas.gov.au>
Sent: Thursday, 19 August 2021 12:58 PM
To: Indra Boss
Cc: Barlow, Holly
Subject: [Warning: Suspect URL Email] Planning Application - Tasman Hwy Upgrade works - Hobart Airport to Midway Point (PDPLNPMTD-2021/017782)

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Dear Indra,

Thank you for your email and the opportunity to comment on the Planning Application - Tasman Hwy Upgrade works - Hobart Airport to Midway Point (PDPLNPMTD-2021/017782). Please note that given the very short timeframe provided for comment the Natural and Cultural Heritage Division (NCH) has not been able to fully clarify which issues are (or are not) within the scope of Council's assessment and have therefore provided general comments on the impact to natural values, some of which may not be relevant to Council. It is also noted that we have not been asked to comment on the project in its entirety (and therefore we have not provided comment on the potential impacts related to the alignment of the road and changes to the golf course to the north, although we note that these proposed project elements occur in areas of known significant natural values).

General Comments in Regards to EPBCA Consideration of the Threatened Native Vegetation Community

Referral under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is a separate process to obtaining permits and/or approvals from DPIPWE. The proposed Tasman Highway upgrade project has been referred to the Australian Government for assessment under the EPBC Act, however, the proponent has not consulted with DPIPWE in this process. The EPBC Act referral can be found on the DAWE website: [Public notices - referrals · Basic Portal \(environment.gov.au\)](#).

The threatened native vegetation community located within the proposed roadworks footprint – **Eucalyptus viminalis - Eucalyptus globulus coastal forest and woodland**, is listed under the Tasmanian *Nature Conservation Act 2002* (NCA) but is not listed under the EPBC Act. As such, impacts to this vegetation community have not been assessed during the EPBC Act referral for the proposed highway upgrade. Furthermore a permit to clear this threatened native vegetation community for the purposes described is not required under the Tasmanian *Threatened Species Protection Act 1995* (TSPA). Further discussion of the **Eucalyptus viminalis - Eucalyptus globulus coastal forest and woodland** community within the works footprint is included below.

Threatened Flora

The natural values survey recorded three species of threatened flora from the Milford property, immediately adjacent to the proposed roadworks footprint:

- *Prasophyllum milfordense* (listed as Critically Endangered under the EPBC Act and endangered under the TSPA);
- *Caladenia saggicola* (listed as Critically Endangered under the EPBC Act and endangered under the TSPA); and
- *Caladenia caudata* (listed as Vulnerable under the EPBC Act and vulnerable under the TSPA).

It is NCH's view that the natural values survey report understates the potential impacts to the three species of threatened flora recorded adjacent to the proposed works footprint, particularly to the two critically endangered orchids *Prasophyllum milfordense* and *Caladenia saggicola*, which are unlikely to occur anywhere else other than the Milford property. The estimates provided in the natural values survey report of the proportion of each of these

listed orchids that will be impacted does not account for the fire/slashing history of areas close to the existing Highway (near the northern boundary of Milford). Under an appropriate disturbance regime (preferably fire, but this is known to be difficult so close to the highway and airport), areas at the northern edge of Milford (within the development footprint) could sustain much higher abundances of these species than they presently do. It can be assumed that the existing known distribution of individuals (presenting as a greater abundance further away from the Tasman Highway) is partly due to the different management regimes close to, and further away from, the highway. Basing estimates on known-recent records only (and in the absence of recent fire/slashing along the northern boundary) is an underestimation of the potential habitat availability for these species which would be likely to occur under a different management regime, and therefore an underestimation of the significance of this areas to these species.

While the threatened flora records are outside of the proposed roadworks footprint and are unlikely to be **directly** impacted by the works, however, there are a number of potential **indirect** impacts to these species from the proposal which should be taken into consideration.

- Figure 7 of the natural values survey report maps 'core habitat' for threatened orchids at the Milford property. However, this fails to take into consideration the impacts to areas of adjoining vegetation that are required to be maintained to sustain both the orchid species and the associated vegetation and soil biota. Reduction of native vegetation (including tree removal) to the north of the mapped 'core habitat' has the potential to alter the micro-climates of the areas where the orchids are known to occur. Such changes to micro-climate may increase the exposure of the orchids, soils and associated species to warmer northerly winds, leading to a general drying out of the site. This may detrimentally impact upon the orchids and reduce their abundance over time.
- The impacts of drainage from the redeveloped highway to the orchids (and their mycorrhizal fungal associates) have not been sufficiently considered in the natural values survey report. The longer-term impacts of increased nutrient loads in run-off, increased pollutants from vehicles, and increased weed seeds from vehicles are potentially significant. These impacts are likely to cause significant impacts to the known habitat of these critically endangered orchids.
- The width of necessary easements to the south of the highway footprint, adjacent to threatened flora habitat, is not made clear in the natural values survey report. The report is based on a 'conservative' width of 20m which appears speculative. The natural values survey report admits in the conclusion (page 55) that the effects of earthworks altering hydrology and nutrient loading are unknown. It is recommended that further investigations are undertaken in order to properly quantify the likely impacts of the proposed earthworks to critical habitat for the three threatened orchid species, or alternatively, a larger buffer provided between the roadworks footprint and orchid habitat in order to avoid potential significant impacts from altered hydrology and nutrient loading.
- The existing known threatened flora habitat within the Milford property currently has a low abundance or richness of introduced species and weeds. Weed incursion from the proposed construction works, and longer term from increased exposure to weeds seeds transported on vehicles along the highway, has the potential to cause significant impacts to threatened flora species. If the proposal increases weed presence within the orchid population, this will result in competition and a direct threat to the orchids. Furthermore, manual or chemical weed control in close proximity to the orchids poses a threat in itself (e.g. disrupting the orchid tubers, increasing trampling, and posing potential chemical harm to the orchids and the mycorrhizal fungal associates). It is recommended that these impacts are addressed and mitigation measures are implemented in the planning application for the highway upgrade.

NCH does not support the statements in the natural values survey report that "The loss of potential habitat on the margins of the population is not likely to lead to a long-term decrease in the size of the population" and "The extent reduction in potential habitat is unlikely to increase the population's susceptibility to extinction from localised stochastic events." The narrower the buffer of native vegetation around the core areas of the three threatened orchid species, the fewer opportunities these species have to spread or increase in geographic range. The distribution of the mycorrhizal fungi that are required for the persistence of *Prasophyllum milfordense* and *Caladenia saggicola* is unknown but it can be presumed that it extends across the Milford property, within areas of

the proposed roadworks footprint. The mycorrhizal associations with orchids vary, but they may be highly species-specific and restricted in geographic range. Any action that removes potential habitat for critically endangered orchids or their fungal associates, has the potential to have a significant impact. Furthermore, potential habitat loss at the margins of the threatened orchid habitat may lead to a long-term decrease in the size of the population, and increase the population's susceptibility to extinction from localised stochastic events. The natural values survey report refers to quite 'low' percentages of loss of potential habitat of the three orchid species, implying that such low percentages are acceptable. However, for critically endangered orchids that occur in only one known location, any loss may be significant.

Threatened Fauna

There is suitable habitat adjacent to the roadworks footprint within the Milford property for a number of threatened fauna species, including the Tasmanian Masked Owl (*Tyto novaehollandiae* subsp. *castanops*), Wedge-tailed Eagle (*Aquila audax* subsp. *fleayi*), White-bellied Sea-eagle (*Haliaeetus leucogaster*), the Spotted-tail Quoll (*Dasyurus maculatus* subsp. *maculatus*) and the Tasmanian Devil (*Sarcophilus harrisii*). In particular, the Milford property contains a number of trees of a suitable size and with hollows for masked owls. The natural values survey estimated that approximately 5-10 trees within the road footprint on the Milford property side of the highway contain hollows with the potential to provide habitat for masked owls. There are no requirements under Tasmanian legislation to obtain permits under the TSPA for removal of potential nest trees (i.e. unoccupied at the time of commencement of construction). While the survey methodology adopted for Masked owl is considered appropriate it has been some time since the survey was undertaken and there is some possibility that a nest may have been established in a tree to be removed in the meantime. It is recommended that trees are resurveyed prior to the works commencing, to ensure no owls are taken.

The recommendation to maintain a buffer between the roadworks and remaining suitable nest trees on the Milford property is supported, in order to minimise disturbance to masked owls that may nest in these trees in the future. The recommendation to maintain a 100 metre buffer between the proposed works and trees which are suitable nest trees for masked owls is supported, as much as is practicable for the works.

Threatened Native Vegetation Communities

The Milford property side of the proposed highway roadworks contains the threatened native vegetation community **Eucalyptus viminalis - Eucalyptus globulus coastal forest and woodland**. The vegetation within the proposed works footprint has been characterised by the natural values survey as being in good condition. Although this area is exempt from requiring approval under local planning provisions (due to being zoned Rural Resource and the Biodiversity Protection Layer not applying to this parcel of land), and exempt from requiring a Forest Practices Plan (due to the project being for the construction of a public road), CAS recommends clearing of this vegetation community is kept to the minimum required for the project.

It is also recommended that the boundary between the roadworks site and the remainder of the **Eucalyptus viminalis - Eucalyptus globulus coastal forest and woodland** community on the Milford property is clearly marked and incursion into this area by machinery and construction vehicles is prevented. This is particularly important to protect habitat for threatened flora and fauna species within the **Eucalyptus viminalis - Eucalyptus globulus coastal forest and woodland** community – as noted in the natural values survey: “the section within the Milford property is in part of an extensive stand of rich biodiversity. The vegetation is dominated by mature hollow bearing trees, trunk diameters frequently exceeding 1 metre. The best sections closer to Pittwater Road are particularly interesting and are significant for the rich assemblage of orchids (including three orchid species listed under the TSPA)”.

Weeds and Diseases

There are a number of observations of weeds declared under the *Weed Management Act 1999* recorded from within the natural values survey area, including boneseed, pampas grass, African lovegrass, blackberry, Montpellier broom and African boxthorn. Vehicles and machinery moving on and off site and materials such as soil, sand or gravel imported onto or exported from the site increase the risk of spreading weeds and/or diseases throughout the construction site which then have the potential to spread to the nearby Milford property. It is important that good hygiene practices are put in place to minimise the risk of weeds and/or diseases being introduced and circulated throughout the site and impacting on threatened natural values. Information about practical hygiene measures to implement can be found in Appendix 1 of the DPIPWE (2015) *Weed and Disease Planning and Hygiene Guidelines - Preventing the spread of weeds and diseases in Tasmania*.

If you have any queries about the above comments, please contact Holly Barlow (holly.barlow@dpipwe.tas.gov.au, ph: 6165 4306).

Kind regards,

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Please note: I no longer have a landline

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