

Geoff Curry.  
National Conservation Officer.  
Australasian Native Orchid Society.  
Web: <https://anos.org.au>  
Email: [geoff.curry59@gmail.com](mailto:geoff.curry59@gmail.com)  
Mobile: 0407636014

To Whom it May Concern,

**Re. 2020/8805 - Tasman Highway Upgrade – Hobart Airport to Sorell Causeway**

I have personally been involved in the annual orchid monitoring surveys of the two EPBC listed orchids, *Caladenia saggicola* and *Prasophyllum milfordense* on the Milford property since 2010 as a senior member of Threatened Plants Tasmania and do not believe the 'Tasman Highway Hobart Airport interchange to Pitt Water Bluff (including associated works on Tasmania Golf Course) Matters of National Environmental Significance SIGNIFICANT IMPACT ASSESSMENT' prepared by Andrew North of North Barker Associates in 2020 fully addresses the direct and indirect impact this development will have on the privately owned Milford Forest and two very significant orchid species that grow in this forest. Both *Caladenia saggicola* and *Prasophyllum milfordense* are listed as ENDANGERED under the Tasmania Threatened Species Protection Act 1995 and CRITICALLY ENDANGERED under the Environment Protection and Biodiversity Conservation Act 1999 as they grow nowhere else on planet Earth.

The threats to the survival of these two species are numerous but the greatest threat is Loss of Habitat yet the Significance SIGNIFICANT IMPACT ASSESSMENT glosses over the loss of more habitat and any impacts the development may have on the two orchid species.

The SIGNIFICANT IMPACT ASSESSMENT states the "Development may affect hydrology and nutrient loading with unknown effects on essential mycorrhiza in soil adjacent to earthworks". We have nominated an indirect impact disturbance buffer of 20m although this is very conservative in our opinion. Two outlying plants recorded in 2018 fall just inside and a third within 3 m of this buffer (Figure 17). The indirect disturbance buffer also captures 0.7 ha of potential habitat, constituting 5% of the total habitat"

The SIGNIFICANT IMPACT ASSESSMENT also states "The proposed drainage upgrades reflect best practice Water Sensitive Urban Design Principles and will not impact or worsen the stormwater quality leaving the Site. The proposed stormwater design includes drainage swales which will be planted with a mix of grass species and will not include any weed species. The grass-lined drains will mitigate pollution and improve stormwater quality prior to discharging into Barilla Bay, Pittwater or onto vegetated areas. Treatment is provided by the grass in the table drains and by exfiltration into the subsoils. Stormwater paths and discharge points will, for the most part, remain unchanged, following the natural terrain and topography of the site. However, at the Pittwater Road intersection, the existing drainage discharges stormwater onto the Milford property near the south-east corner of the intersection. The proposed drainage upgrades convey the stormwater further south before discharging stormwater to the table drain on the eastern side of Pittwater Road."

The increase in road pavement area by over 100%, reduction in vegetation cover and redirected stormwater flows through the 3 stormwater drains emptying into Milford Forest will impact the threatened orchid populations by increasing the volume of storm water causing flooding, increasing nutrient and road borne contamination loads including salt carried by cars from the Sorell Causeway, being discharged into a fragile environment.

Grass lined drains require constant maintenance to remain effective by either slashing / mowing but more often by spraying with a herbicide, both of these methods cause problems in the environment. Slashing / mowing causes vigorous regrowth and encourages weed species to establish and in

Tasmania contributes to the massive annual roadkill of native fauna as wildlife is drawn to the roadside to graze on the fresh green shoots. This roadkill is unsightly and is a known cause of road accidents and roadside deaths of the endangered *Sarcophilus harrisii* the Tasmanian devil. Herbicide residue is known to adversely affect terrestrial orchids so should not be considered as an option on this site and put at risk two EPBC listed species. The discharge of Storm Water into Milford Forest should NOT be allowed.

The SIGNIFICANT IMPACT ASSESSMENT 2020 states “The sagg spider-orchid, *Caladenia saggicola*, is only represented by two populations with Milford supporting more than 99 % of the known total number of plants. The second very small population is confined to a tiny bushland remnant at Dodges Ferry where habitat availability is limited”.

The Dodges Ferry site is a small degraded habitat (0.15 ha) infested with invasive weeds and only 2 plants emerging and flowering in 2013 and 1 plant emerged and flowered in 2016. I have personally checked this site annually since 2016 and there has been no emergence of leaves or flowers since 2016. It is highly unlikely the species survives on this site. See Plate 1a. Dodges Ferry site October 2020.

The SIGNIFICANT IMPACT ASSESSMENT states: The milford leek-orchid, *Prasophyllum milfordense*, is only known from the Milford property, with one historic collection for Hobart Airport in 1995. A simple cross check with the data contained in the Natural Values Atlas shows this one record is very unlikely to play any further part in the survival of the species as it is now under the Hobart Airport runway, confirming that Milford Forest is the only site this orchid grows today. See Plate 1b. NVA record for *Prasophyllum milfordense* outside Milford property boundary

The volunteer group Threatened Plants Tasmania (Wildcare INC) has assisted botanists from DPIPW Threatened Species Section to monitor *Caladenia saggicola* and *Prasophyllum milfordense* on the Milford property since 2009 until the 2019 flowering season. During this time the main focus was gathering data on the plants contained in the fenced enclosure and a very small effort was put into extended surveys of the remainder of the property.

In 2020 the DPIPW Threatened Species Section botanists were unable to conduct annual surveys so Threatened Plants Tasmania and the Milford Forest Landcare Group continued the annual monitoring with a larger number of experienced volunteers. Focus is now on surveying as much of the suitable habitat as possible as opposed to concentrating on the known population inside the fenced enclosure. All data collected during these surveys has and will be supplied to the DPIPW Threatened Species Section and submitted for record on the Natural Values Atlas.

The survey for *Caladenia saggicola* was conducted on 12 September 2020 with a total of 12 volunteers recording a record number of 763 flowering plants, an increase of almost 50% over the number recorded in 2018.

There are many factors that may have contributed to this record number that may include –

1. A good year for orchid flowering because of higher rainfall at a suitable time
2. Modified / improved understory vegetation management practices by the owner who is managing the Milford Forest area for the benefit of the 2 orchid species.
3. A larger number of experienced volunteers surveying the site.
4. A change in survey practise from concentrating of the orchids inside the fenced enclosure to surveying as much suitable habitat as possible.

The annual survey for *Prasophyllum milfordense* is scheduled for Saturday 14 November 2020 and a similar survey strategy will be undertaken.

I do not believe this project should proceed until this survey is undertaken and results collated to map the full population of *Prasophyllum milfordense*. as we expect that a similar increase in numbers and distribution will be discovered, including potentially to within 20 m of the project boundary This will mean that before any development occurs, management practices must be put into place.

Note that there is a huge discrepancy with the data collected by Threatened Plants Tasmania during the annual surveys and the data contained in the Natural Values Atlas. This is because individual waypoints are not recorded in the NVA, but one general waypoint is recorded with the following note – “Full point data held by the Threatened Species Section”.

This is in part to protect the orchids from illegal collecting by orchid hunters.

Without the full data set from these it is impossible to ascertain the actual orchid locations across the site from the NVA. The 2020 report when complete will contain the most detailed and current list of plant locations.

Milford Forest is a remnant *Eucalyptus viminalis* – *Eucalyptus globulus* coastal forest and woodland a SCHEDULE 3A - Threatened native vegetation communities under the Tasmanian Nature Conservation Act 2002 and any approvals for this project must be considered in conjunction with the EPBC review as the author of SIGNIFICANT IMPACT ASSESSMENT, Andrew North reported on a much smaller project covering this same area in 2000 and again in 2001 reported “The preservation of the remnant old growth Heathy/shrubby *E. viminalis* coastal forest community is a high priority, although it is well reserved state wide it is considered endangered within the south east bio-region, and of high conservation significance.” Both reports are attached by email.

It is clear to me that not enough importance has been given to the long term survival of two Critically Endangered species of orchids that grow nowhere else on Earth except Milford Forest. Approval for this project should not be granted until the survey results for *Prasophyllum milfordense* have been collated and mapped so proper safeguards can be put in place to protect the two orchid species.

Geoff Curry.  
National Conservation Officer.  
Australasian Native Orchid Society.  
Web: <https://anos.org.au>

#### References:

Tasmanian Threatened Species Listing Statements:  
<http://dPIPWE.tas.gov.au/Documents/Caladenia-saggicola-LS.pdf>  
<https://dPIPWE.tas.gov.au/Documents/Prasophyllum-milfordense-LS.pdf>

*From Forest to Fjaeldmark.*  
[https://dPIPWE.tas.gov.au/Documents/f2f\\_dry\\_eucalypt.pdf](https://dPIPWE.tas.gov.au/Documents/f2f_dry_eucalypt.pdf)

DPIPWE. *Tasmanian Threatened Native Vegetation Communities*  
<https://dPIPWE.tas.gov.au/Documents/23%20Eucalyptus%20viminalis%20Eucalyptus%20globulus%20coastal%20forest%20and%20woodland.pdf>

Zoë Magnus, Lorne K. Kriwoken, Nicholas J. Mooney & Menna E. Jones (2004)  
*REDUCING THE INCIDENCE OF WILDLIFE ROADKILL: IMPROVING THE VISITOR EXPERIENCE IN TASMANIA*



Manfred Jusaitis. *Herbicidal control of bridal creeper (Asparagus asparagoides) in an ecologically sensitive environment.*

DPIPWE Wildlife Management, Roadkill Project.

<https://dpiipwe.tas.gov.au/wildlife-management/save-the-tasmanian-devil-program/about-the-program/roadkill-project>



Plate 1a. Dodges Ferry site October 2020.

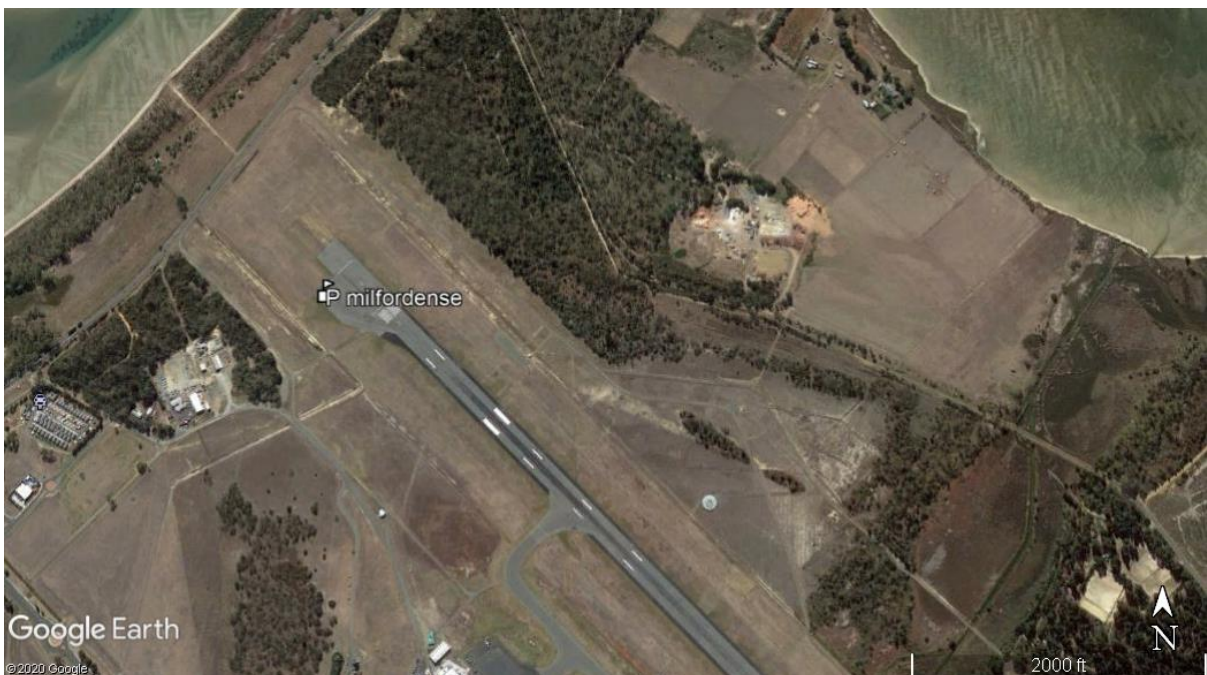


Plate 1b. NVA record for *Prasophyllum milfordense* outside Milford property boundary

**Appendix 1.(attached by email)**

Botanic survey Tasman Hwy-Pittwater Jctn done by Andrew North in 2000

Milford survey done for minor road widening 2001 by Andrew North