

89 Cambridge Park Drive
Cambridge Tasmania 7170 Australia
t +61 3 6245 4500 f +61 3 6245 4550

www.entura.com.au

Project Note

To	Dave Procter HT PHES
From	Raymond Brereton p +61 0417 336 407 e ray.brereton@entura.com.au
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INTRODUCTION AND METHOD

A flora and vegetation assessment of the proposed geotechnical survey sites and associated access track was completed in December 2019. The survey targeted the presence of flora species listed as threatened under either the *Threatened Species Protection Act 1995* (TSP Act) or the *Environmental Protection and Biodiversity Conservation Act 2001* (EPBC Act). Vegetation communities present on site were identified and attributed to Tasmanian Vegetation Mapping Units (Harris and Kitchener 2013) and the presence of any vegetation communities list under the Tasmanian *Nature Conservation Act 2002* or the EPBC Act were also recorded and mapped. All native species of flora encountered during the survey were recorded. Nomenclature for flora follows the current census of Tasmanian Vascular Plants (de Salas and Baker 2018).

FLORA AND FAUNA ASSESSMENT

Vegetation Communities

Three geotechnical sites were surveyed which included one test pit (TR-TP01) and two drill holes (TR-BH01 and TR-BH06). The test pit site TR-TP01 is located near the shores of Lake Plimsoll in the TASVEG vegetation community *western wet scrub* (SWW). One of the drill sites (TR-BH01) is also located on the shores of Lake Plimsoll in Western buttongrass moorland (MBW). The other drill site (TR-BH06) is located adjacent the access road to the Tribute Power Station in *Nothofagus - Atherosperma* rainforest (RMT).

WE OWN. WE OPERATE. WE CONSULT.

Site TR-BH01

The drill hole at site TR-BH1 is located just off the road into Lake Plimsoll in western buttongrass moorland (MBW) (Figure 1). This vegetation community is dominated by *Gymnoschoenus sphaerocephalus* (buttongrass). Other rush and sedges present were *Empodisma minus* (spreading roperush), *Lepidosperma filiforme* (common rapiersedge) and *Leptocarpus tenax* (slender twinerush). There were also scattered occurrences of the shrubs *Sprengelia incarnata* (pink swampheath) and *Dillwynia sericea* (showy parrotpea).



Figure 1. Western buttongrass moorland (MBW)

Site TR-TP01

The test pit is located in *western wet scrub* (SWW) which is characterised by a dense cover of tall *Leptospermum scoparium* (common tea tree) with emergent small *Eucalyptus nitida* trees (western peppermint) (Figure 2). Other tall shrub species present included *Acacia mucronata* (caterpillar wattle), *Banksia marginata* (silver banksia), *Leptospermum nitidum* (shiny teatree) and *Melaleuca squameum* (swamp honey myrtle). The ground layer absent in this community because of the dense shrub layer.

The test pit location will be accessed from the existing boat ramp on the shore of Lake Plimsoll and along the exposed lake shore. There will no disturbance of native vegetation along the access track.



Figure 2. *Eucalyptus nitida* forest over *Leptospermum* (WNL)

Site TR-BH06

The drill hole and access track for the TR-BH06 are located in *Nothofagus - Atherosperma* rainforest (RMT). This vegetation community at the site was dominated by large *Nothofagus cunninghamii* (myrtle) trees up to 25 m tall (Figure 3). Other rainforest trees present included *Eucryphia lucida* (Leatherwood) and *Atherosperma moschatum* (sassafras). *Acacia melanoxylon* (blackwood) and *Acacia dealbata* (silver wattle) were also present as canopy trees. The small tree layer was comprised of a scattering of *Acacia mucronata* (caterpillar wattle), *Leptospermum scoparium* (common teatree) and *Nematolepis squameum* (satinwood). The ground layer was confined to a sparse covering of ferns namely *Blechnum wattsii* (hard waterfern) and *Dicksonia antarctica* (tree fern)



Figure 3. *Nothofagus - Atherosperma* rainforest (RMT)

Species of Conservation Significance

Threatened Flora species

No threatened flora species were recorded from area proposed for the geotechnical drill site. A list of flora species recorded during the site assessment is provided in Table 1 below>

Threatened Fauna

No threatened fauna or their habitats have been recorded from the study area.

Introduced species

There were a small number of introduced species recorded along the access track to Lake Plimsoll and along the access road to the Tribute Power Station namely the widespread weedy herbs *Plantago lanceolata* (ribwort plantain), *Anagallis arvensis* (scarlet pimpernel), *Prunella vulgaris* (selfheal) and *Hypochaeris radicata* (cats ear). However, *Rubus fruticosus* agg (blackberry) which is listed as a declared weed under the *Weed Management Act 1995* was recorded along the Tribute Power Station road.

MANAGEMENT RECOMMENDATIONS

Large *Nothofagus cunninghamii* (Myrtle) trees

At the proposed site of TR-BH06 (including access track) it is recommended that no *Nothofagus cunninghamii* with a diameter at breast height (DBH) of greater than 50cm be

felled and that felling of *Nothofagus cunninghamii* trees with a DBH of greater than 30cm be avoided where ever possible.

Weeds

Rubus fruticosus aggregate a declared weed species was recorded on the Tribute Power Station Road near the proposed drill site TR-BH06. The road is located within the West Coast municipality which is listed as a Zone B municipality in the Statutory Weed Management Plans for blackberry. The objective of weed management in Zone B municipalities is 'Containment within municipal boundaries, protection of specified areas within municipal boundaries, prevention of spread to Zone A municipalities'.

It is recommended that a weed and disease protocol is implemented during the proposed works which focuses on weed and hygiene management for vehicles, machinery, equipment and any construction materials. Suitable hygiene measures should include the wash down of vehicles and equipment prior to and at the completion of works. Such a protocol should be consistent with the weed containment and eradication approach outlined in the corresponding Statutory Weed Management Plans, the guidelines for weed and disease hygiene (DPIPWE 2015).

Table 1. Species list for *Eucalyptus delegatensis* dry forest and woodland in the Rowallan Option 2 area. i – introduced, e – endemic.

Species	Common name	Status
Dicotyledonae		
ASTERACEAE		
<i>Hypochaeris radicata</i>	Cats ear	i
<i>Senecio spp.</i>	fireweed	
CUNONIACEAE		
<i>Bauera rubioides</i>	Wiry bauera	
EPACRIDACEAE		
<i>Sprengelia incarnata</i>	Pink swampheath	
<i>Epacris lanuginosa</i>	Swamp heath	
<i>Trochocarpa gunnii</i>	Fragrant purpleberry	e
EUCRYPHIACEAE		
<i>Eucryphia lucida</i>	Leatherwood	e
FABACEAE		
<i>Acacia mucronata</i>	Caterpillar wattle	
<i>Acacia verticillata</i>	Prickly mooses	
<i>Dillwynia sericea</i>	showy parrotpea	
<i>Pultenaea juniperina</i>	Prickly beauty	
FAGACEAE		
<i>Nothofagus cunninghamii</i>	Myrtle beech	
GERANIACEAE		
<i>Geranium brevicaule</i>	Alpine cranesbill	
LAMIACEAE		
<i>Prunella vulgaris</i>	Selfheal	
MIMOSACEAE		

Species	Common name	Status
<i>Acacia dealbata</i>	Silver wattle	
MONIMIACEAE		
<i>Atherosperma moschatum</i>	Sassafras	
MYRTACEAE		
<i>Eucalyptus nitida</i>	Western peppermint	e
<i>Leptospermum nitidum</i>	Shiny teatree	e
<i>Leptospermum scoparium</i> var. <i>scoparium</i>	Common teatree	
<i>Melaleuca squamea</i>	Swamp honeymyrtle	
PLANTAGINACEAE		
<i>Plantago lanceolata</i>	Ribwort plantain	
PRIMULACEAE		
<i>Anagallis arvensis</i>	Scarlet pimpernel	i
PROTEACEAE		
<i>Agastachys odorata</i>	Fragrant candlebush	e
<i>Banksia marginata</i>	Silver banksia	
ROSACEAE		
<i>Acaena novae-zelandiae</i>	Common buzzy	
RUTACEAE		
<i>Acradenia frankliniae</i>	Whitey wood	e
<i>Boronia pilosa</i>	Hairy boronia	
THYMELAEACEAE		
<i>Pimelea drupacea</i>	Cherry riceflower	
VIOLACEAE		
<i>Viola hederacea</i>	Ivy-leaf violet	
Monocotyledonae		
CENTROLEPIDACEAE		
<i>Centrolepis strigosa</i> subsp. <i>strigosa</i>	Hairy bristlewort	
CYPERACEAE		
<i>Gahnia grandis</i>	Cutting grass	
<i>Gymnoschoenus sphaerocephalus</i>	Button grass	
<i>Lepidosperma filiforme</i>	Common rapiersedge	
ORCHIDACEAE		
<i>Thelymitra</i> spp.	sun-orchid	
POACEAE		
<i>Anthoxanthum odoratum</i>	Sweet vernal	i
<i>Holcus lanatus</i>	Yorkshire fog	i
RESTIONACEAE		
<i>Calorophus elongatus</i>	Long roperush	
<i>Empodisma minus</i>	Spreading roperush	
<i>Eurychorda complanata</i>	Flat cordrush	
<i>Hypolaena fastigiata</i>	Tassel roperush	
<i>Leptocarpus tenax</i>	Slender twinerush	

Species	Common name	Status
Pteridophyta		
BLECHNACEAE		
<i>Blechnum wattsii</i>	Hard waterfern	
GLEICHENIACEAE		
<i>Gleichenia microphylla</i>	Scrambling corallfern	
<i>Sticherus tener</i>	Silky fanfern	
GRAMMITIDACEAE		
<i>Notogrammitis billardierei</i>	Common finger fern	

References

de Salas, M.F. and Baker, M.L. (2018). *A Census of the Vascular Plants of Tasmania, including Macquarie Island*. Tasmanian Herbarium, Tasmanian Museum and Art Gallery, www.tmag.tas.gov.au.

DPIPWE (2015). *Weed and Disease Planning and Hygiene Guidelines – Preventing the spread of weeds and diseases in Tasmania*. (Eds.) Karen Stewart and Michael Askey-Doran. Department of Primary Industries, Parks, Water and Environment (DPIPWE).