

14 William Street
Oatlands Tasmania 7120 Australia
t +61 3 6254 1494 m +61 499 541 441
e gondwanaheritagesolutions@gmail.com

Project Note

To	David Procter Entura
From	Greg Jackman, Heritage Consultant, BSc, Grad. Dip. Hum, Grad. Dip. SIS (Hons) Adv. Dip. Proj. Mgt M. ICOMOS p 0499 541 441 e gondwanaheritagesolutions@gmail.com
Project	BoTN Tribute geotechnical investigations
Project reference	TBA
Document number	TBA
Date	25 February 2020
Subject	Tribute geotechnical investigation sites Aboriginal heritage assessment TR-BH01, TR-TP01 and TR-BH06

1. Introduction

In accordance with Entura's instructions dated 14 February 2020, an assessment was conducted on 21 February of the proposed Tribute pumped hydro geotechnical investigation sites TR-BH01 and TR-TP01 located at the proposed intake at Lake Plimsoll, and TR-BH06 located over the proposed underground PHES power station beside the Tribute PS access road.

Cursory (informal inspections were undertaken of two areas proposed for surface excavations, including the Lake Plimsoll intake and proposed new switchyard above the new power station. The area proposed for the lake Mackintosh intake was not accessible at the time of inspection.

2. Methodology

The site assessments were conducted by Consulting Archaeologist (CA) Greg Jackman and Aboriginal Heritage Officer (AHO) Caleb Pedder by means of meandering pedestrian transects in accordance with Aboriginal Heritage Tasmania's (AHT) *Standards and Procedures June 2018*.

Surveys focussed on a 20m radius of the proposed geotechnical investigation sites. Ground Surface Visibility (GSV) was extremely poor at all proposed investigation sites. GSV at Lake Plimsoll was effectively 0% at the TR-BH01 location on the top side of the intake access road, increasing to 10% locally where it appeared an excavator had driven through the area.

GSV at the TR-TP01 location on the lake shore was similarly 0%, but increased to 50% along the lake shore less than 10m to the south of the test site. A 100m-long transect was walked along the shoreline immediately abutting the TR-TP01 location for context.

GSV at the TR-BH06 site and adjacent switchyard was effectively 0%

3. Site descriptions

TR-BH01

The test site (and broader intake excavation footprint) is situated on the lower footslope of a south-trending spur of Owen Conglomerate overlooking Lake Plimsoll, on the east side of a broad drainage gully that enters the lake from the northwest. It is backed to the north by a ridge of conglomerate and bordered to the south by the intake access road that has been widened to form a turning circle 75m to the southeast.

Soils are shallow peats developed on siliceous gravels of glacial derivation with minimal pedologic structure, supporting tea tree, banksia, buttongrass and other wet heathland shrubs. The ground slopes approx. 15-20° to the southwest and is poorly drained and boggy. An excavator has driven through the area immediately north of the test hole site, leaving ruts up to 30cm deep.

TR-TP01

The test site is situated 60m south of TR-BH01, lower down the east side of the drainage gully and approximately 10m above the lake high-water level. The area slopes southwest at c. 10° and is subject to flooding, supporting reedy grasses and tussocks with an abrupt change to woody vegetation as the ground steepens upslope towards the intake access road.

Soils comprise shallow peat up to 150mm thick developed on siliceous gravels with no minimal pedologic structure. The area is likely to have been boggy even before the raising of the lake due to the proximity of the drainage gully.

TR-BH06

The test hole site is located on the west side of a small island between two drainage channels within a broad north facing gully approx. 1.5km from Lake Murchison. The peg site is waterlogged. The area is covered in wet forest containing sassafras and myrtle which will make construction of an access road difficult.

To the west, the proposed switchyard is mostly situated on the crest of a broad, gently north sloping ridge between two drainage lines. The ground steepens over the southern third of the switchyard area (approx. 20°). The area is forested with an open understorey. This area has moderate potential for heritage based on terrain attributes but was not able to be surveyed owing to 0% GSV.

4. Results

No Aboriginal relics or Potential Areas of sensitivity were identified during the assessment. The extremely low GSV conditions substantially negate the effectiveness of the survey and the potential for relics to be present or impacted has consequently been deduced on terrain factors.

Notwithstanding the lack of effective visibility, the potential for Aboriginal relics to be present at the proposed TR-BH01 and TR-TP01 locations is considered low owing to the southerly aspect of the locations, the poor drainage and general lack of resources or other useful cultural attributes such as use for cross country travel.

5. Management

During reconnaissance for the site assessments it was observed that extremely low GSV is the norm for the Tribute PH scheme area. Under these conditions there is little point undertaking further Aboriginal heritage assessments for individual geotech test sites. Some means of improving GSV will be necessary before surface survey can be deemed an effective assessment method for Aboriginal heritage.

With this in mind the following recommendations are made:

1. No further assessment of the proposed Lake Plimsoll intake is warranted until such time as GSV is increased above 10%
2. No further assessment of the proposed power station/switchyard site is warranted until such time as GSV is increased above 10%
3. Ground survey of the proposed Lake Mackintosh intake is not currently recommended owing to the extreme steepness of slope, difficulty of access and likely 0% GSV. No further assessment of this area is warranted until these issues have been moderated.
4. Geotechnical investigation sites TR-BH02 and TR-BH03 are likely to be accessed via helicopter and a pedestrian walking track. Any associated potential heritage impacts are considered to be minimal and able to be mitigated during works.
5. Geotechnical investigation sites TR-BH04 and TR-BH05 are accessible via Anthony Road and are unlikely to require significant ground disturbance for access. TR-BH04 is situated in the centre of a narrow drainage gully that is considered to have low potential for Aboriginal heritage. TR-BH05 is situated on the west side of a small saddle with more positive attributes for Aboriginal heritage, however the area is thickly vegetated. No further assessment of either location is warranted until such time as GSV is increased above 10%
6. As a general rule, and workers or contractors engaged in ground-disturbing works or cutting tracks etc. should be aware of, and capable of implementing, Aboriginal Tasmania's Unanticipated Discovery Plan.