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Mount Jukes Drill Sites
NATURAL VALUES ASSESSMENT

16th July 2025

For Georgina Resources

GEO003



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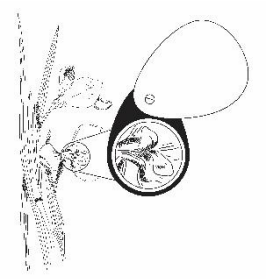
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Location	Mount Jukes, Southwest Tasmania
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Version	Date	Author & Comment	Position
Version 0.1	15/07/2025	Angus Dore - Draft	Graduate Ecologist
Version 1.0	16/07/2025	Will De Angelis	Senior Ecologist



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SUMMARY

Overall, the environmental impacts associated with the proposed exploratory drilling will not significantly impact any natural values. The largest potential for impact is associated with the spread of weed and pathogen propagules, however with proper hygiene protocols in place this can be minimised. Specific recommendations are summarised below for minimising impacts and ensuring legislative compliance.

Vegetation

All vegetation found within the buffer of proposed drill sites and access roads consists of 2 native vegetation communities:

- *Eucalyptus nitida* forest over *Leptospermum* (TASVEG 4.0-unit SWW) – sites MJP2-006 and MJP2-015
- Wet western scrub (TASVEG 4.0-unit WNL) – all southern sites and MJP2-008

All but 1 drill site was free of introduced species with site MJP2-006 containing a minor infestation of 2 common weed species.

Neither of these communities are listed as threatened ecological communities.

All sites should be left free of any waste materials post works and in a condition which will promote the revegetation of native vegetation.

Threatened Flora

No threatened flora species listed under either the TSPA or EPBCA were observed during the survey nor are likely to occur, given the records and distribution of threatened species in the area.

Threatened Fauna

No threatened fauna species or traces of these species such as scats or dens, listed under either the TSPA or EPBCA were observed during the survey nor are likely to utilise the survey area for anything more than occasional foraging.

Introduced Plants and Pathogens

No declared weed species were recorded within the survey area; however, earthworks associated with proposed drill sites and access roads pose a risk of introducing and spreading weeds within the area or spreading propagules through contaminated equipment and machinery.

In addition to this the presence of *Phytophora cinamomi* in site MJP2-008 warrants Pc testing for this site and the 2 additional northern sites, as well as containment of the pathogen through proper washing procedure.

It is recommended that a project specific weed and hygiene management plan be created to manage the risks of spreading weeds and pathogens within and across drill sites. The following best practice guidelines are always appropriate:

- *Keeping it clean - A Tasmanian field hygiene manual to prevent the spread of freshwater pests and pathogens* (Allen and Gartenstein, 2010)
- *Weed and Disease Planning and Hygiene Guidelines - Preventing the spread of weeds and diseases in Tasmania* (DPIPWE, Stewart and Askey-Doran, 2015)

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1. INTRODUCTION

1.1. BACKGROUND

Georgina Resources are an international mining company which is looking to extend it search for minerals within Tasmania's west coast. Mount Jukes is located approximately 10 km south of Queenstown, Tasmania. Around the mid-late 1900's Mount Jukes was home to mining explorations. Further exploration has been proposed along existing highway and access roads (Figure 1). The purpose of this drilling is to extrapolate whether the area is rich in particular minerals.

As part of this project, North Barker Ecosystem Services (NBES) have been engaged by Georgina Resources to assess the natural values associated with the proposed drill sites and tracks around Mount Jukes.

NBES have completed natural values assessments of 7 drill sites and proposed clearing for associated access roads. The 3 northern sites are located on Mount Jukes Road, while the 4 southern sites are located on Mount Jukes Track. Two of the 3 northern drill sites will be accessed by helicopter, while the third will require an access road cleared from the main road. Two of the 4 southern drill sites have an access road already cleared however the remaining 2 will require additional clearing for access roads. The survey area is defined by a 25-metre buffer around each drill site and along all tracks proposed to be cleared (Figure 2).

This report focuses on the natural values constraint associated with the seven drilling sites and proposed access roads for mining exploration on Mount Jukes.



Plate 1. View from southern site looking over nearby ranges

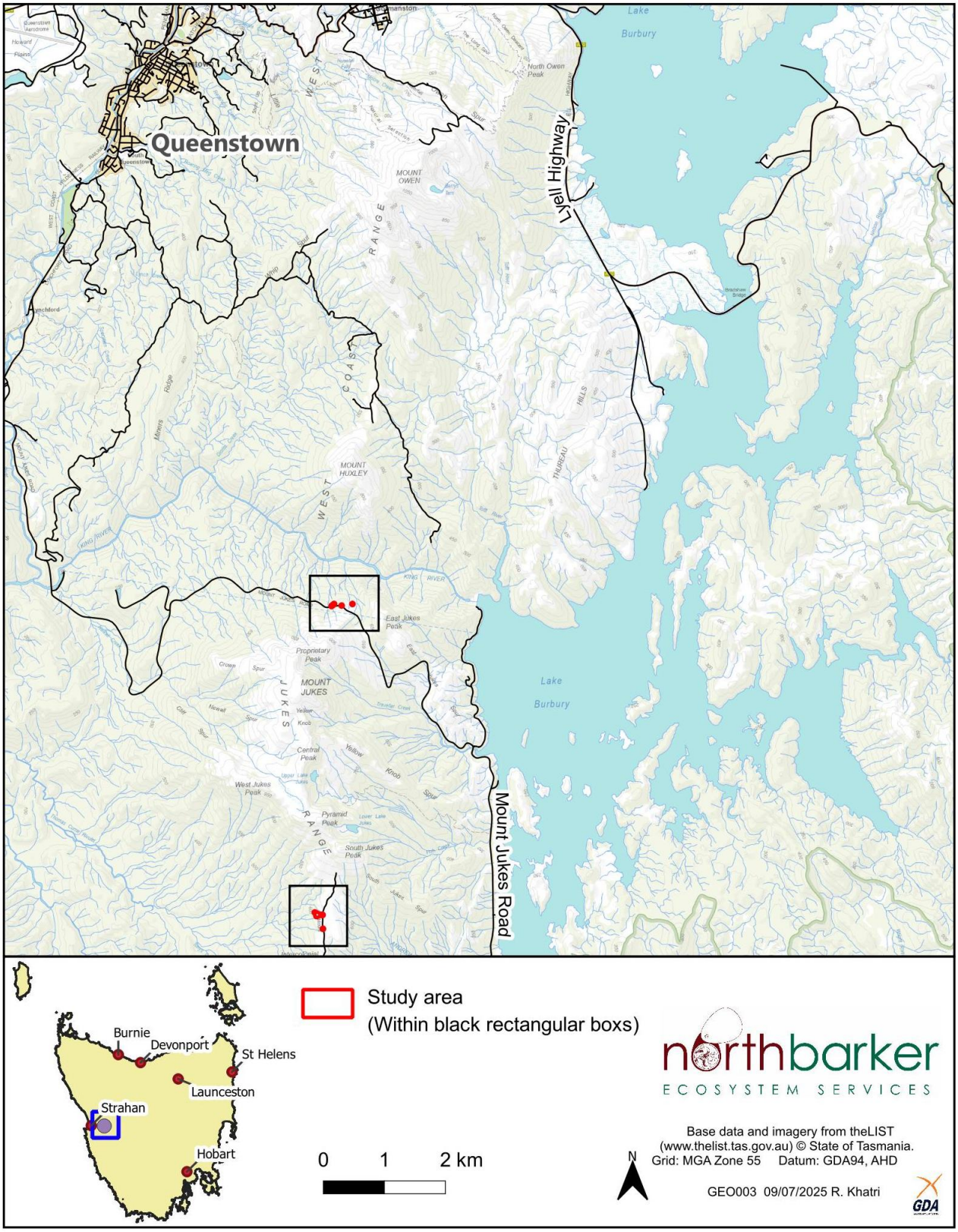


Figure 1. Location of proposed drill sites in relation to Queenstown

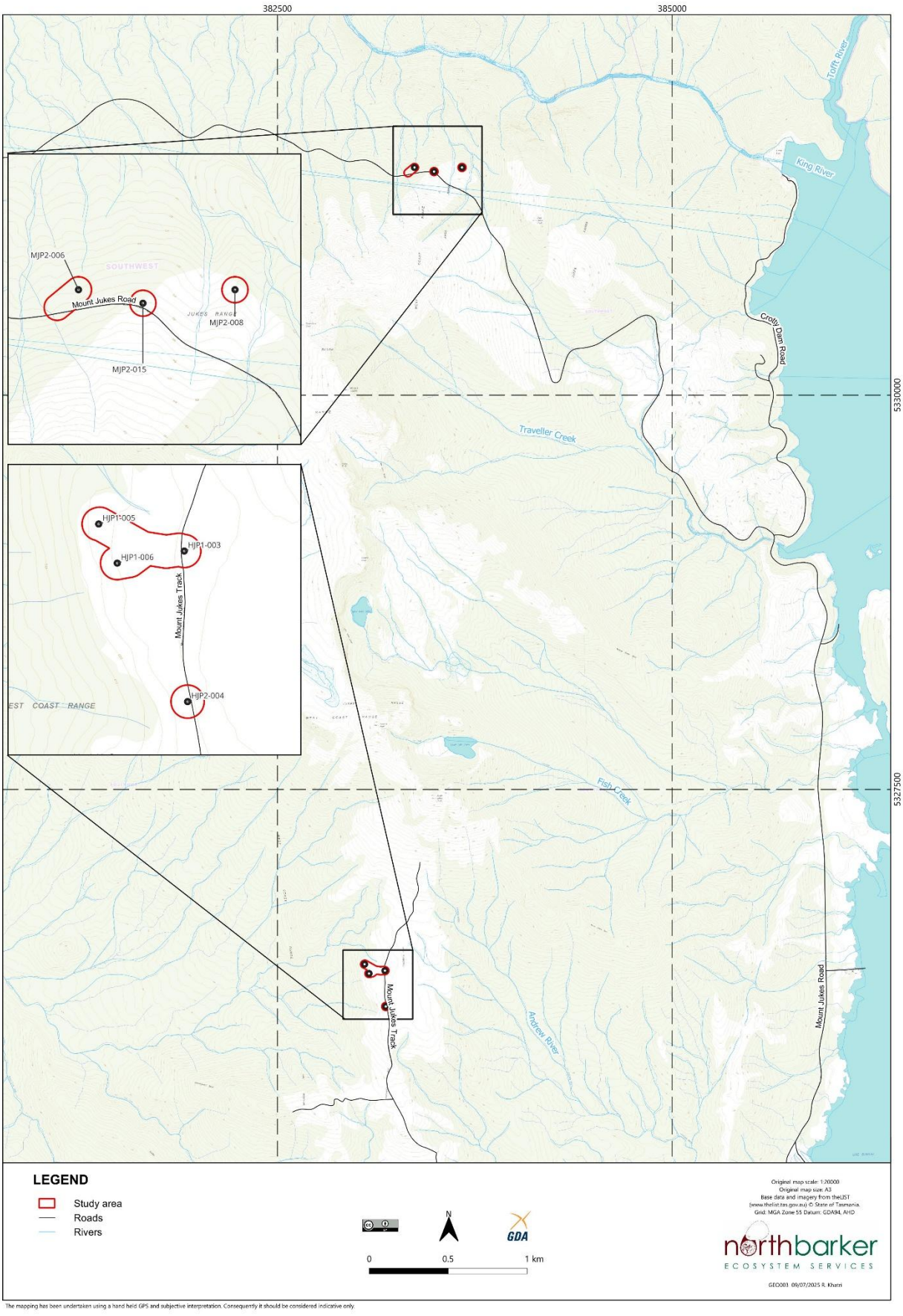


Figure 2. Distribution of drill sites and associated access road study areas

1.2. METHODS

The assessment was undertaken in accordance with the *Guidelines for Natural Values Surveys*[1]. Field surveys were carried out by two ecologists on the 3rd of July 2025. Native vegetation was mapped in accordance with units defined in TASVEG 4.0[2].

The site was surveyed using a meandering area search technique[3]. Additional survey effort was applied to habitats suitable for threatened species and/or vegetation communities (under the Tasmanian *Threatened Species Protection Act 1995* [TSPA], the Tasmanian *Nature Conservation Act 2002* [NCA], and/or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* [EPBCA]), and to 'declared' weeds listed under the Tasmanian *Biosecurity Act 2019* (BSA) and associated *Biosecurity Regulations 2022* and Weeds of National Significance (WoNS) under the *Australian Weed Strategy 2017- 2027*.

All location data was recorded with a handheld GPS and/or GPS mobile app.

Botanical nomenclature follows the current census of Tasmanian plants[4].

The Natural Values Atlas database was consulted for records of threatened species and vegetation types within a 5 km radius[5]. The possibility of the drill sites and access roads supporting threatened values known from within this radius has been considered in the interpretation of results and discussion.

1.3. LIMITATIONS

The field survey was undertaken in winter, therefore values that are seasonal or require specific germination triggers may have been absent or undetectable. Fauna habitat, including the presence of hollows and nests was assessed from ground level only. Vegetation mapping is not always reliable when only a small patch can be assessed, as it can be skewed by local variations and visibility.

2. DRILL SITE VALUES

This section describes the drill sites which and their associated natural values. The drill sites vegetation was comprised almost wholly of native vegetation communities.
No threatened flora species were recorded within the drill sites or access roads.
No traces of threatened fauna traces such as scats or dens were recorded within the drill sites or access roads; however, all sites have the potential to be utilised by threatened fauna species for foraging.
No threatened vegetation communities were present.
No declared weeds were recorded in the surveys.
Evidence of *Phytophthora cinnamomi* (Pc) was observed at MJP2-008 and along the walking track which has been used to access the site. No signs of pathogens were observed in the remaining sites.

A list of all species recorded during field surveys can be found in Appendix B.

A detailed account of the specific values in each drill site and the associated access road is described in section 3.5.

[1] Department of Primary Industries, Parks, Water and Environment (2015)
[2] Kitchener and Harris (2013); Department of Primary Industries, Parks, Water and Environment (2020)
[3] Goff *et al.* (1982)
[4] de Salas and Baker (2023)
[5] Department of Natural Resources and Environment (2023)

2.1. VEGETATION COMMUNITIES

2.1.1. *Eucalyptus nitida* Forest Over *Leptospermum* (TASVEG 4.0-unit: WNL)

This vegetation community was recorded as the only native vegetation present at drill site MJP2-006 and its associated track. It also comprises the entirety of MJP2-015.

This vegetation communities' canopy is dominated by *Eucalyptus nitida* with *Leptospermum scoparium, Acacia mucronate,* and *Melaleuca squarrosa* below. The understory consists of a layer of shorter species such as *Nematolepis squamea,* and *Banksia marginata,* with ferns and graminoids such as *Polystichum proliferum, Blechnum wattsii* and *Gahnia grandis* covering the ground (Plate 2).

2.1.2. Wet Western Scrub (TASVEG 4.0-units: SWW)

This vegetation community was recorded as the only native vegetation in the remaining sites and access road footprint.

This vegetation community consists of a layer of shrubs such as *Eucalyptus vernicosa*, *Leptospermum glaucescens,* and *melaleuca squamea*, with a ground covering of ferns and graminoids such as *Gymnoschoenus sphaerocephalus, Baloskion tetraphyllum,* and *Gleichenia dicarpa* (Plate 3).

2.1.3. Modified Land

Within the footprint of sites MJP2-006 and MJP2-015 small section of road classed as Urban Areas (TASVEG 4.0-units: FUR) are present. This modified land consists mostly of bitumen road and gravel road easements with little vegetation present.



Plate 2. Example of *Eucalyptus nitida* Forest Over *Leptospermum* (WNL) found within the survey area

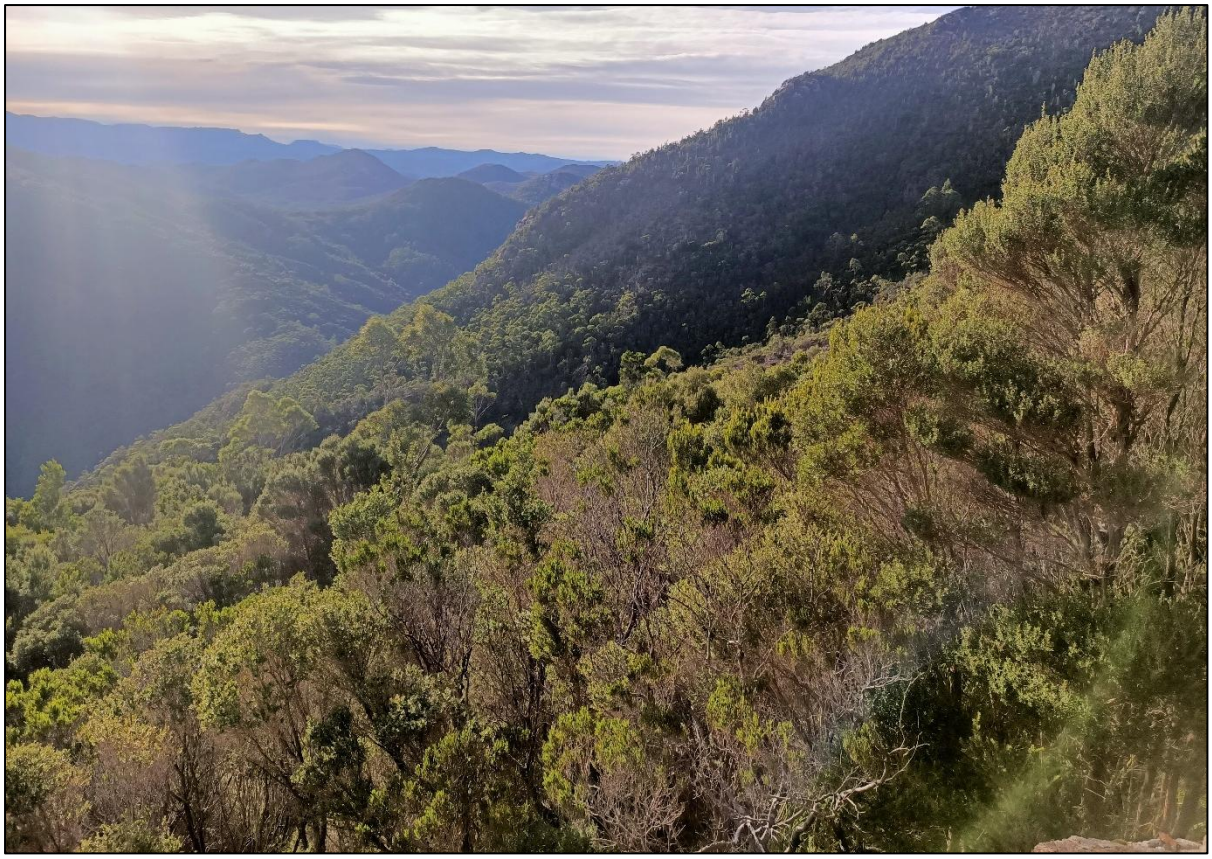


Plate 3. Example of Wet Western Scrub found within survey area

2.2. CONSERVATION SIGNIFICANT FLORA

No threatened flora species listed under either the TSPA or EPBCA were observed during the survey, and none are considered likely to occur.

According to the Natural Valus Atlas[6], one TSPA listed flora species, *Pimelea milliganii,* has been previously recorded within 5 km of the study area. Habitats such as these have not been extensively surveyed for threatened species in the past due to their remote nature, and the lack of NVA records within 5 km of these sites may be a reflection of this. Threatened species recorded from similar habitats just outside of this 5 km buffer include *Milligania longifolia, Persoonia muelleri* subsp. *angustifolia, Planocarpa sulcata,* and *Orthoceras strictum.*

No evidence of these species was observed, however threatened ephemeral species such as the horned orchid, *Orthoceras strictum* do not flower at the time of year the surveys were conducted. Most observations of this species within Tasmania are from lower altitudes than the survey areas, and while suitable habitat is present the likelihood of occurrence very is low.

These species has been considered in regard to the likelihood of occurrence and is not likely to occur. Further commentary relating to the likelihood of occurrence of these species can be found in Appendix B.

2.3. CONSERVATION SIGNIFICANT FAUNA

No threatened fauna species listed under either the TSPA or EPBCA were observed during the survey, nor were any traces such as scats, nests or dens. No suitable denning or nesting habitat is present

[6] Department of Natural Resources and Environment (2023)

within the study area, and the foraging habitat represented inside the study area is of negligible value to these species.

According to the Natural Valus Atlas[7], 5 TSPA or EPBCA listed fauna species have been previously recorded within 5 km of the study area. One of these species, the spotted-tailed quoll, has been recorded within 500 m of the study area.

These species have been considered in regard to their likelihood of occurrence, and none are likely to occur. Further commentary relating to the likelihood of occurrence of these species can be found in Appendix C.

2.4. INTRODUCED PLANTS AND PATHOGENS

2.4.1. Introduced Plants

No flora species classified as 'declared' weeds under the Tasmanian *Biosecurity Act 2019* were recorded during the surveys. Two common introduced plant species, *Hypochaeris radicata* and *Aira sp.* were recorded within the study area. Both of these species were recorded at site MJP2-015 along the margins of the road.

2.4.2. Pathogens

Evidence of *Phytophthora cinnamomi* (Pc) were detected at site MJP2-008 and along the track used to access the site. Plants within this area which were displaying symptomatic evidence of the pathogen include *Epacris impressa* and *Sprengelia incarnata* (Plate 4). Pc has previously been detected on the access road to the southern sites.

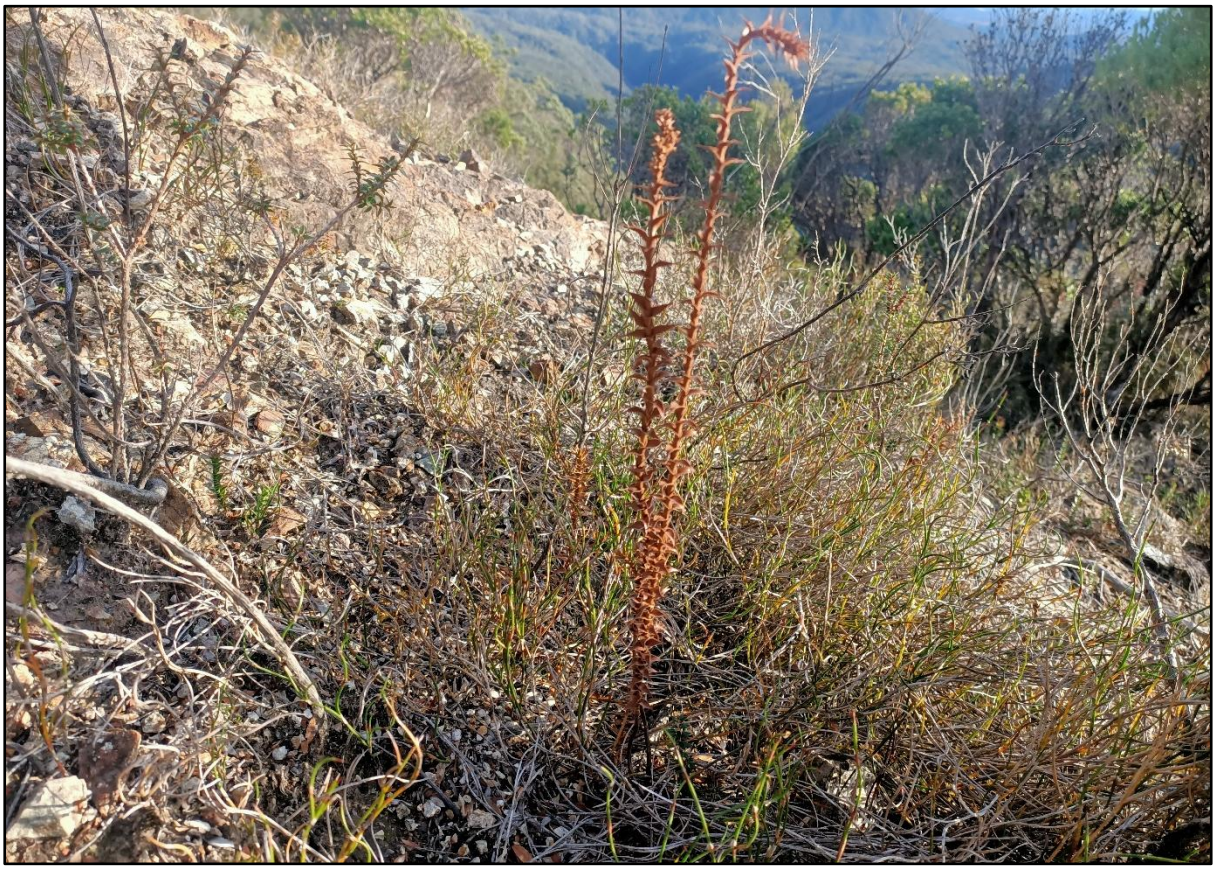


Plate 4: *Sprengelia incarnata* displaying symptomatic evidence of *Phytophthora cinnamomi* (Pc)

[7] Department of Natural Resources and Environment (2023)

3. ASSESSMENT OF IMPACT AND MITIGATION

The proposed drill sites and access roads will not have a significant impact on natural value present in any of the associated footprints.

The specific recommendations for the components that were assessed are provided below.

See section 3.5 for details describing impacts to the natural values from the drill sites and associated access roads.

3.1. VEGETATION COMMUNITIES

No NCA or EPBCA listed threatened ecological communities are present in any of the work corridors.

The drill sites are relatively small, and the footprint of any drilling activity is unlikely to affect vegetation outside of the buffered survey area.

3.2. CONSERVATION SIGNIFICANT FLORA

There will be no direct impact of the proposed upgrades to threatened flora as no values are currently present.

3.3. CONSERVATION SIGNIFICANT FAUNA

No significant impacts are likely to occur to TPSA or EPBCA listed fauna.

As there will be no significant impact to threatened species, it is not necessary to refer the proposed upgrades under the TPSA or the EPBCA act.

3.4. INTRODUCED PLANTS AND PATHOGENS

Earthworks associated with proposed drill sites and access roads pose a risk of introducing and spreading weeds within the area or spreading propagules through contaminated equipment and machinery. Introducing weeds to this healthy landscape will compromise the immediate native vegetation and the surrounding areas reserves.

In addition to this, the presence of *Phytophthora cinnamomi* around site MJP2-008 warrants Pc testing for this site and the two additional northern sites, as well as containment of the pathogen through proper washing procedure.

It is recommended that a project specific weed and hygiene management plan be created to manage the risks of spreading weeds within and across drill sites. The following best practice guidelines are always appropriate:

- *Keeping it clean - A Tasmanian field hygiene manual to prevent the spread of freshwater pests and pathogens* (Allen and Gartenstein, 2010)
- *Weed and Disease Planning and Hygiene Guidelines - Preventing the spread of weeds and diseases in Tasmania* (DPIPWE, Stewart and Askey-Doran, 2015)

3.5. DRILL SITE SUMMARIES

Earthworks in all drill sites and their associated access roads are expected to have a low impact on the natural values present in the area. The largest risk posed to these areas and the surrounding vegetation is the introduction and spread of weed species and Pc. This impact can be mitigated if proper weed and hygiene management is employed pre, during and post-works.

3.5.1. MJP2-006 and access road

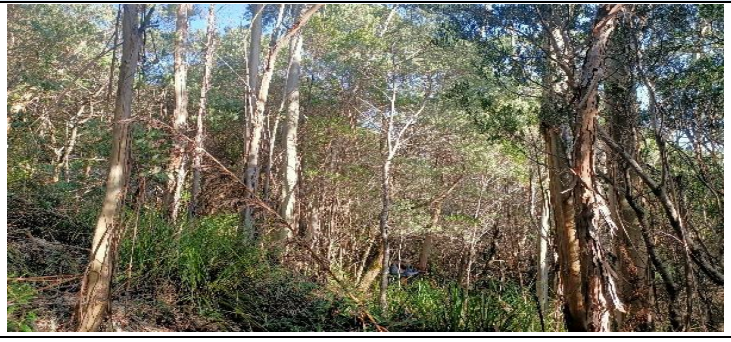
Asset ID		Risk to Natural Values
MJP2-006		LOW
Zone	**Natural Asset Code (C7.0) Provision/s**	**Triggers with the code**
Rural (zone 20)	Waterway and Coastal Protection Area	**ACTIVITY EXEMPT**
Drill Site Description		
This drill site is located just north of Mount Jukes Road (Figure 3). Clearing will be required from this road to the drill site. The vegetation surrounding the drill site is WNL with some FUM at the end of the access road buffer. No presence of threatened fauna or flora was found.		
Natural Values		
Vegetation type around outfall	The vegetation in the drill site is non-threatened. • *Eucalyptus nitida* forest over *Leptospermum* (TASVEG 4.0-unit WNL)	
Vegetation Impact	Minimal impact anticipated	
Threatened flora, fauna and/or fauna habitat	No signs and/or presence of threatened flora and/or significant fauna habitats were observed within the drill site. No suitable threatened fauna habitat exists within the drill site.	
Threatened flora, fauna Impact	Negligible potential impact.	
Recommended mitigation	Clear as little native vegetation as possible. Post works be sure to leave the site free from any waste and in a condition which will promote native revegetation of the area.	
TSPA/EPBC	No permit required / Not a significant impact to MNES.	
Weeds (Declared, WoNS & Environmental)	• Silvery hairgrass (*Aira sp.*) • Rough catsear *(Hypochaeris radicata)*	
Recommended mitigation	Conduct Pc testing on susceptible plants along the road. Implement a weed and hygiene management plan to prevent the introduction and spread of weeds.	
Drill Site		
		



Figure 3. Natural values associated with drill hole MJP2-006 and access road

3.5.2. MJP2-008

Asset ID		Risk to Natural Values
MJP2-008		LOW
Zone	**Natural Asset Code (C7.0) Provision/s**	**Triggers with the code**
Rural (zone 20)	Waterway and Coastal Protection Area	**ACTIVITY EXEMPT**
Drill Site Description		
This drill site is located just north of Mount Jukes Road (Figure 4). The vegetation surrounding the drill site is SWW. No presence of threatened fauna or flora was found.		
Natural Values		
Vegetation type	The vegetation in the drill site is non-threatened. • Western Wet Scrub (TASVEG 4.0-unit SWW)	
Vegetation Impact	Minimal impact anticipated	
Threatened flora, fauna and/or fauna habitat	No signs and/or presence of threatened flora and/or significant fauna habitats were observed within the drill site. No suitable threatened fauna habitat exists within the drill site.	
Threatened flora, fauna Impact	Negligible potential impact	
Recommended mitigation	Clear as little native vegetation as possible. Post works be sure to leave the site free from any waste and in a condition which will promote native revegetation of the area.	
TSPA/EPBC	No permit required / Not a significant impact to MNES.	
Weeds (Declared, WoNS & Environmental)	No weeds recorded.	
Recommended mitigation	Conduct Pc testing on susceptible plants within the site and along the access track to the site. Implement a weed and hygiene management plan to prevent the introduction and spread of weeds.	
Drill Site		
		

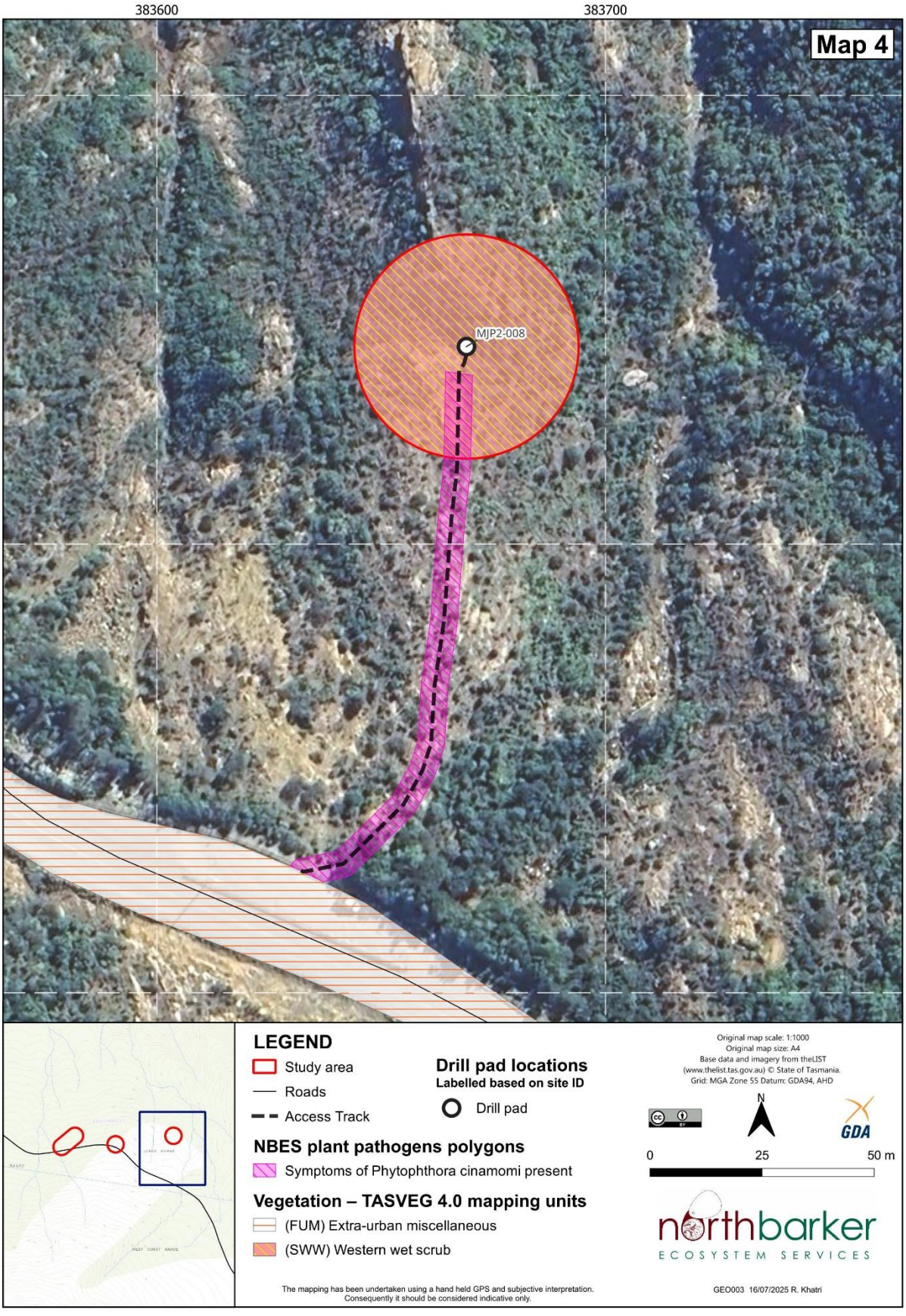


Figure 4. Natural values and pathogens associated with drill pad MJP2-008

3.5.3. MJP2-015

Asset ID		Risk to Natural Values
MJP2-015		**LOW**
Zone	**Natural Asset Code (C7.0) Provision/s**	**Triggers with the code**
Rural (zone 20)	Waterway and Coastal Protection Area	**ACTIVITY EXEMPT**
Drill Site Description		
This drill site is adjacent to Mount Jukes Road to the north (Figure 5). The vegetation surrounding the drill site is WNL with some FUM on the southern edge of the buffer. No presence of threatened fauna or flora was found.		
Natural Values		
Vegetation type	The vegetation in the drill site is non-threatened. • *Eucalyptus nitida* forest over *Leptospermum* (TASVEG 4.0-unit WNL)	
Vegetation Impact	Minimal impact anticipated	
Threatened flora, fauna and/or fauna habitat	No signs and/or presence of threatened flora and/or significant fauna habitats were observed within the drill site. No suitable threatened fauna habitat exists within the drill site.	
Threatened flora, fauna Impact	Negligible potential impact.	
Recommended mitigation	Clear as little native vegetation as possible. Post works be sure to leave the site free from any waste and in a condition which will promote native revegetation of the area.	
TSPA/EPBC	No permit required / Not a significant impact to MNES.	
Weeds (Declared, WoNS & Environmental)	No weeds recorded.	
Recommended mitigation	Conduct Pc testing on susceptible plants along the road. Implement a weed and hygiene management plan to prevent the introduction and spread of weeds.	
Drill Site		
		

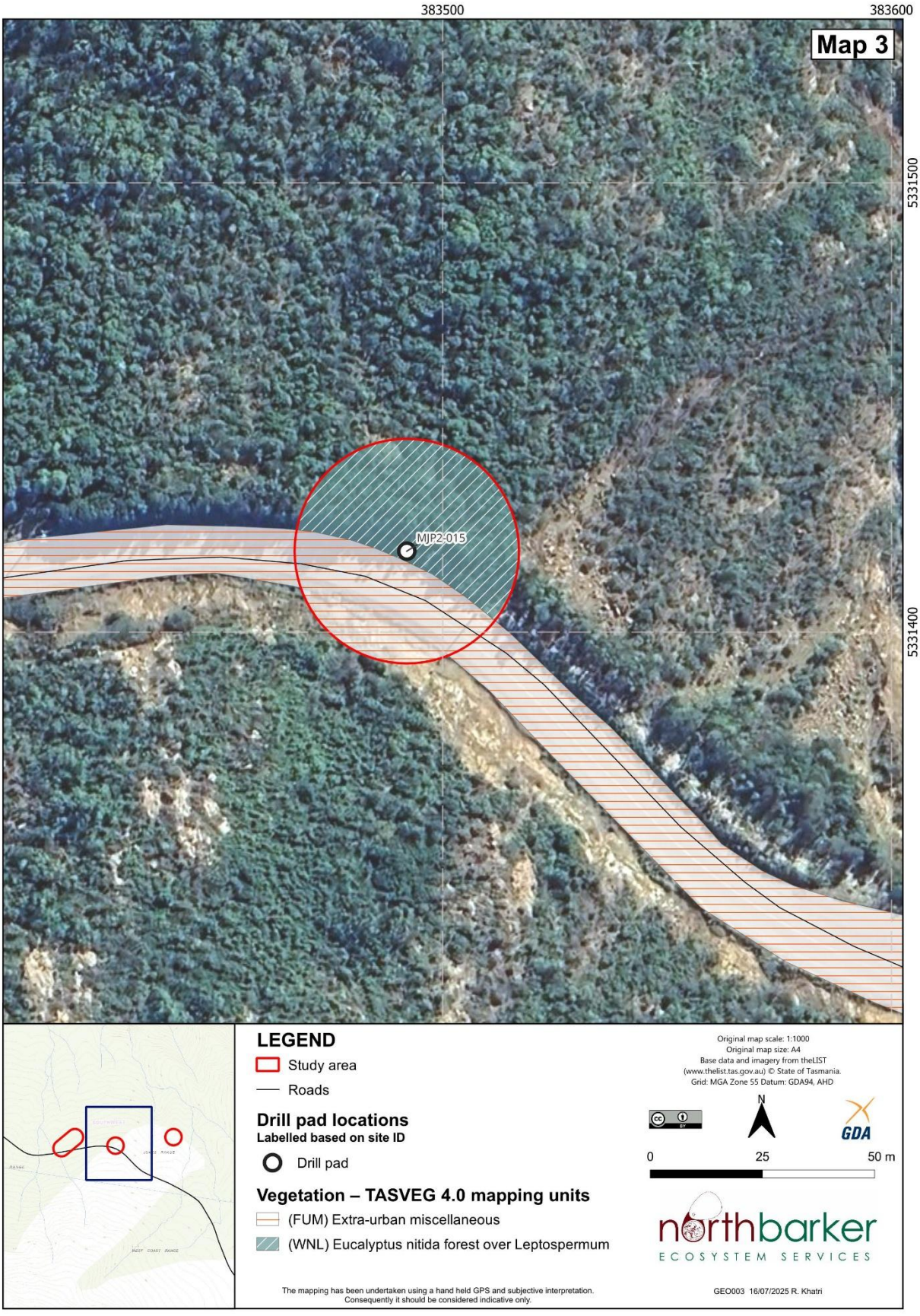
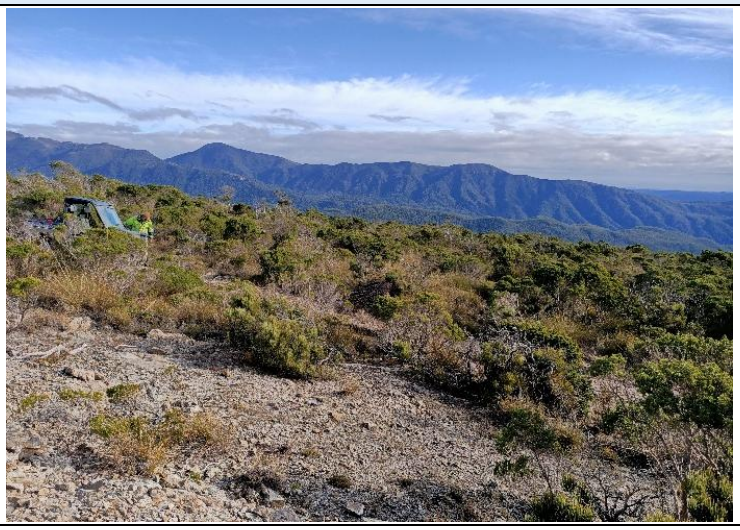


Figure 5. Natural values associated with drill hole MJP2-015

3.5.4. HJP2-003

Asset ID		Risk to Natural Values
HJP2-003		LOW
Zone	**Natural Asset Code (C7.0) Provision/s**	**Triggers with the code**
Environmental management (zone 23)	Priority vegetation area	**ACTIVITY EXEMPT**
Drill Site Description		
This drill site is located directly adjacent to Mount Jukes Track (Figure 6). The vegetation surrounding the drill site is SWW. No presence of threatened fauna or flora was found.		
Natural Values		
Vegetation type	The vegetation in the drill site is non-threatened. • Western Wet Scrub (TASVEG 4.0-unit SWW)	
Vegetation Impact	Minimal impact anticipated	
Threatened flora, fauna and/or fauna habitat	No signs and/or presence of threatened flora and/or significant fauna habitats were observed within the drill site. No suitable threatened fauna habitat exists within the drill site.	
Threatened flora, fauna Impact	Negligible potential impact.	
Recommended mitigation	Clear as little native vegetation as possible. Post works be sure to leave the site free from any waste and in a condition which will promote native revegetation of the area.	
TSPA/EPBC	No permit required / Not a significant impact to MNES.	
Weeds (Declared, WoNS & Environmental)	No weeds recorded.	
Recommended mitigation	Implement a weed and hygiene management plan to prevent the introduction and spread of weeds.	
Drill Site		
		

3.5.5. HJP2-004

Asset ID		Risk to Natural Values
HJP2-004		**LOW**
Zone	**Natural Asset Code (C7.0) Provision/s**	**Triggers with the code**
Environmental management (zone 23)	Priority vegetation area	**ACTIVITY EXEMPT**
Drill Site Description		
This drill site is located directly adjacent to Mount Jukes Track (Figure 6). The vegetation surrounding the drill site is SWW. No presence of threatened fauna or flora was found.		
Natural Values		
Vegetation type	The vegetation in the drill site is non-threatened. • Western Wet Scrub (TASVEG 4.0-unit SWW)	
Vegetation Impact	Minimal impact anticipated	
Threatened flora, fauna and/or fauna habitat	No signs and/or presence of threatened flora and/or significant fauna habitats were observed within the drill site. No suitable threatened fauna habitat exists within the drill site.	
Threatened flora, fauna Impact	Negligible potential impact.	
Recommended mitigation	Clear as little native vegetation as possible. Post works be sure to leave the site free from any waste and in a condition which will promote native revegetation of the area.	
TSPA/EPBC	No permit required / Not a significant impact to MNES.	
Weeds (Declared, WoNS & Environmental)	No weeds recorded.	
Recommended mitigation	Implement a weed and hygiene management plan to prevent the introduction and spread of weeds.	
Drill Site		
		

3.5.6. HJP2-005 and access road

Asset ID		Risk to Natural Values
HJP2-005		**LOW**
Zone	**Natural Asset Code (C7.0) Provision/s**	**Triggers with the code**
Environmental management (zone 23)	Priority vegetation area	**ACTIVITY EXEMPT**
Drill Site Description		
This drill site is located ~100 metres west of the road (Figure 6). Clearing will be required from this access road to the drill site. The vegetation surrounding the drill site is SWW. No presence of threatened fauna or flora was found.		
Natural Values		
Vegetation type	The vegetation in the drill site is non-threatened. • Western Wet Scrub (TASVEG 4.0-unit SWW)	
Vegetation Impact	Minimal impact anticipated	
Threatened flora, fauna and/or fauna habitat	No signs and/or presence of threatened flora and/or significant fauna habitats were observed within the drill site. No suitable threatened fauna habitat exists within the drill site.	
Threatened flora, fauna Impact	Negligible potential impact.	
Recommended mitigation	Clear as little native vegetation as possible. Post works be sure to leave the site free from any waste and in a condition which will promote native revegetation of the area.	
TSPA/EPBC	No permit required / Not a significant impact to MNES.	
Weeds (Declared, WoNS & Environmental)	No weeds recorded.	
Recommended mitigation	Implement a weed and hygiene management plan to prevent the introduction and spread of weeds.	
Drill Site		
		

3.5.7. HJP2-006 and access road

Asset ID		Risk to Natural Values
HJP2-006		**LOW**
Zone	**Natural Asset Code (C7.0) Provision/s**	**Triggers with the code**
Environmental management (zone 23)	Priority vegetation area	**ACTIVITY EXEMPT**
Drill Site Description		
This drill site is located ~100 metres west of the access road (Figure 6). Clearing will be required from this access road to the drill site. The vegetation surrounding the drill site is SWW. No presence of threatened fauna or flora was found.		
Natural Values		
Vegetation type	The vegetation in the drill site is non-threatened. • Western Wet Scrub (TASVEG 4.0-unit SWW)	
Vegetation Impact	Minimal impact anticipated	
Threatened flora, fauna and/or fauna habitat	No signs and/or presence of threatened flora and/or significant fauna habitats were observed within the drill site. No suitable threatened fauna habitat exists within the drill site.	
Threatened flora, fauna Impact	Negligible potential impact.	
Recommended mitigation	Clear as little native vegetation as possible. Post works be sure to leave the site free from any waste and in a condition which will promote native revegetation of the area.	
TSPA/EPBC	No permit required / Not a significant impact to MNES.	
Weeds (Declared, WoNS & Environmental)	No weeds recorded.	
Recommended mitigation	Implement a weed and hygiene management plan to prevent the introduction and spread of weeds.	
Drill Site		
		

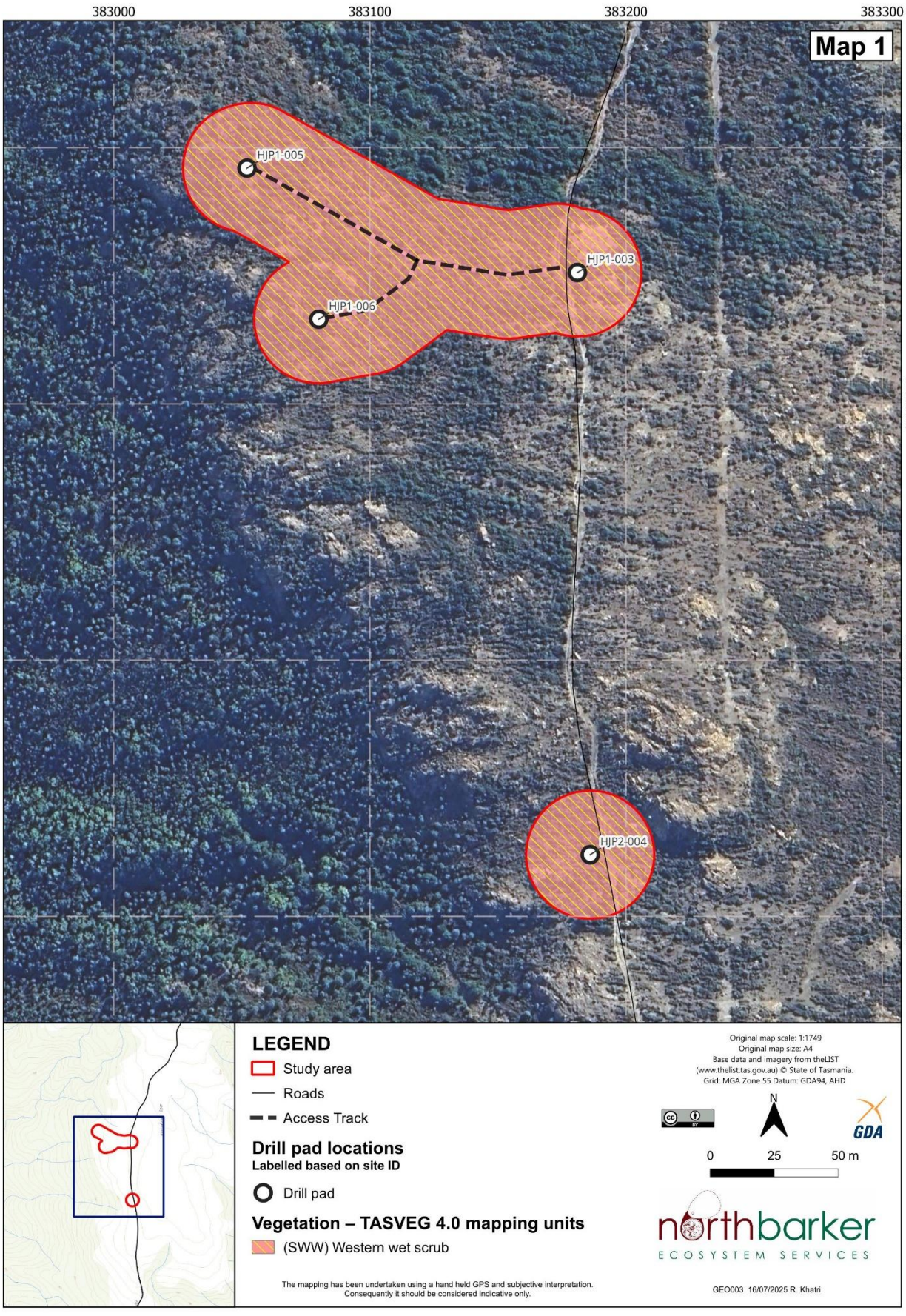


Figure 6. Natural values associated with drill holes HJP2-003, HJP2-004, HJP2-005, HJP2-006 and access roads

4. LEGISLATIVE IMPLICATIONS

4.1. COMMONWEALTH *ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999*

The EPBCA is structured for self-assessment, with guidelines and criteria available to assist any person who proposes to take an action to decide whether they should submit a referral to the national Department of Climate Change, Energy, the Environment and Water for a decision by the Minister on whether assessment and approval is required under the Act.

Under the Act, an action will require approval from the minister if the action has, will have, or is likely to have, a significant impact on a matter of national environmental significance (MNES), which includes all species and communities listed as threatened and/or migratory under the Act, as well as world heritage values.

It is not considered likely that any MNES protected under this Act will be impacted by the proposed works to an extent that will trigger the Act and require referral of the project for consideration as a controlled action by the Minister.

4.2. TASMANIAN *THREATENED SPECIES PROTECTION ACT 1995*

Under the TSPA, a person cannot knowingly without a permit 'take' a listed species. The definition of 'take' encompassing actions that kill, injure, catch, damage, destroy and/or collect threatened species or vegetation elements that support threatened species, *e.g.,* nests and dens.

Disturbance to either threatened flora or fauna species within the meaning of the word 'take' under the Act will trigger the requirement for a permit under this Act.

No threatened flora species will be impacted by the proposed upgrades; thus, no action is required under this Act.

No threatened fauna or threatened fauna habitat will be disturbed by the proposed upgrades; thus, no action is required under this Act.

4.3. TASMANIAN *BIOSECURITY ACT 2019*

According to the provisions of the Tasmanian *Biosecurity Regulations 2022*, administered under the Tasmanian *Biosecurity Act 2019*, Zone A localities are areas in which eradication is deemed feasible (generally due to the existence of a targeted management plan) and is the responsibility of the landowner or land manager, or in the case of disturbance the development proponent.

4.4. TASMANIAN PLANNING SCHEME

In consideration of the requirements of *Land Use Planning and Approvals Act 1993* (LUPAA), each municipal area incorporates development standards codes under the appropriate planning scheme. All drill sites are located entirely within the West Coast Council area, which is subject to the provisions of the *Tasmanian Planning Scheme 2022*.

The northern drill sites are zoned as Rural (Zone 20), while the southern drill sites are zones as Environmental Management (Zone23).

The proposed works are exempt from the Tasmanian planning scheme.

5. CONCLUSION AND RECOMMENDATIONS

Overall, the environmental impacts associated with the proposed exploratory drilling will not significantly impact any natural values. The largest potential for impact is associated with the spread of weed and pathogen propagules, however with proper hygiene protocols in place this can be minimised. Specific recommendations are summarised below for minimising impacts and ensuring legislative compliance.

5.1. VEGETATION

All vegetation found within the buffer of proposed drill sites consists of 2 native vegetation communities:

- *Eucalyptus nitida* forest over *Leptospermum* (TASVEG 4.0-unit SWW) – sites MJP2-006 and MJP2-015
- Wet western scrub (TASVEG 4.0-unit WNL) – all southern sites and MJP2-008

All but 1 drill site was free of introduced species with site MJP2-006 containing a minor infestation of 2 common weed species along the edge of the road.

Neither of these communities are listed as threatened ecological communities under the NCA or the EPBCA.

All sites should be left free of any waste materials post works and in a condition which will promote the revegetation of native vegetation.

5.2. THREATENED FLORA

No threatened flora species listed under either the TSPA or EPBCA were observed during the survey nor are likely to occur, given the records and distribution of threatened species in the area.

5.3. THREATENED FAUNA

No threatened fauna species or traces of these species such as scats or dens, listed under either the TSPA or EPBCA were observed during the survey nor are likely to utilise the survey area for anything more than occasional foraging.

5.4. INTRODUCED PLANTS AND PATHOGENS

No declared weed species were recorded within the survey area; however, earthworks associated with proposed drill sites and access roads pose a risk of introducing and spreading weeds within the area or spreading propagules through contaminated equipment and machinery.

In addition to this the presence of *Phytophthora cinnamomi* in site MJP2-008 warrants Pc testing for this site and the two additional northern sites, as well as containment of the pathogen through proper washing procedure.

It is recommended that a project specific weed and hygiene management plan be created to manage the risks of spreading weeds and pathogens within and across drill sites. The following best practice guidelines are always appropriate:

- *Keeping it clean - A Tasmanian field hygiene manual to prevent the spread of freshwater pests and pathogens* (Allen and Gartenstein, 2010)
- *Weed and Disease Planning and Hygiene Guidelines - Preventing the spread of weeds and diseases in Tasmania* (DPIPWE, Stewart and Askey-Doran, 2015)

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APPENDIX A – SPECIES LIST

Species list - project: GEO003

Status codes:

ORIGIN	NATIONAL SCHEDULE	STATE SCHEDULE
i - introduced	EPBC Act 1999	TSP Act 1995
d - declared weed WM Act	CR - critically endangered	e - endangered
en - endemic to Tasmania	EN - endangered	v - vulnerable
t - within Australia, occurs only in Tas.	VU - vulnerable	r - rare

Sites:

12	HJP2-003,004,005,006 - E383153, N5326362	3/07/2025 Angus Dore
13	MJP2-006 and Access Track - E383368, N5331444	3/07/2025 Will DeAngelis
14	MJP2-015 - E383370, N5331418	3/07/2025 Angus Dore
15	MJP2-008 - E383669, N5331443	3/07/2025 Angus Dore

Site	Name	Common name	Status
	DICOTYLEDONAE		
	APIACEAE		
13	*Hydrocotyle hirta*	hairy pennywort	
	ASTERACEAE		
13	*Cotula alpina*	alpine buttons	
12	*Helichrysum pumilum*	tiny alpine everlasting	en
14	*Hypochaeris radicata*	rough catsear	i
13 14	*Lagenophora stipitata*	blue bottledaisy	
12 13 14 15	*Olearia persoonioides*	geebung daisybush	en
13 14	*Olearia stellulata*	sawleaf daisybush	
	CUNONIACEAE		
13	*Anodopetalum biglandulosum*	horizontal	en
12 13 14 15	*Bauera rubioides*	wiry bauera	
	ERICACEAE		
12	*Archeria serpyllifolia*	thyme summit-heath	en
12 13 14 15	*Epacris impressa*	common heath	
13	*Gaultheria hispida*	copperleaf snowberry	en
14 15	*Monotoca glauca*	goldey wood	
12	*Pentachondra pumila*	carpet frillyheath	
12 14 15	*Sprengelia incarnata*	pink swampheath	
	EUCRYPHIACEAE		
13	*Eucryphia lucida*	leatherwood	en
12	*Eucryphia milliganii subsp. milliganii*	dwarf leatherwood	en
	FABACEAE		
13 14 15	*Acacia mucronata*	variable sallow wattle	
13	*Acacia verticillata*	prickly moses	

14	*Acacia verticillata subsp. ruscifolia*	broadleaf prickly moses	
	FAGACEAE		
12	*Nothofagus cunninghamii*	myrtle beech	
	HALORAGACEAE		
13 14	*Gonocarpus teucrioides*	forest raspwort	
	LOGANIACEAE		
14	*Mitrasacme pilosa*	hairy mitrewort	
	MYRTACEAE		
12	*Baeckea leptocaulis*	slender heathmyrtle	en
12 13 14	*Eucalyptus nitida*	western peppermint	en
15			
12	*Eucalyptus vernicosa*	varnished gum	en
12 15	*Leptospermum glaucescens*	smoky teatree	en
13 14 15	*Leptospermum scoparium*	common tea-tree	
12 15	*Melaleuca squamea*	swamp honeymyrtle	
13 14 15	*Melaleuca squarrosa*	scented paperbark	
	PITTOSPORACEAE		
12 13 14	*Billardiera longiflora*	purple appleberry	en
	POLYGALACEAE		
15	*Comesperma retusum*	mountain milkwort	
	PROTEACEAE		
12 13 15	*Banksia marginata*	silver banksia	
12 15	*Cenarrhenes nitida*	native plum	en
12	*Lomatia polymorpha*	mountain guitarplant	en
12	*Orites revolutus*	revolute orites	en
12	*Persoonia gunnii*	mountain geebung	en
12 13	*Telopea truncata*	tasmanian waratah	en
	RANUNCULACEAE		
14	*Clematis sp.*	clematis	
	ROSACEAE		
13 14	*Acaena novae-zelandiae*	common buzzy	
	RUTACEAE		
13 14	*Nematolepis squamea*	satinwood	
	STYLIDIACEAE		
12	*Stylidium graminifolium*	narrowleaf triggerplant	
	THYMELAEACEAE		
13 14	*Pimelea drupacea*	cherry riceflower	
13 14 15	*Pimelea linifolia*	slender riceflower	
	VIOLACEAE		
13 14 15	*Viola sp*	garden violet	
	MONOCOTYLEDONAE		
	BLANDFORDIACEAE		
12	*Blandfordia punicea*	christmas bells	en
	CYPERACEAE		
12	*Carpha curvata*	curly strawsedge	en

12 13 14 15	*Gahnia grandis*	cutting grass	
12	*Gymnoschoenus sphaerocephalus*	buttongrass	
12	*Lepidosperma monticola*	fan sedge	en
12	*Schoenus lepidosperma subsp. lepidosperma*	slender bogsedge	
	LUZURIAGACEAE		
13 14	*Drymophila cyanocarpa*	turquoise berry	
	POACEAE		
14	*Aira sp.*	hair grass	i
13 14	*Microlaena stipoides*	weeping grass	
12 14 15	*Rytidosperma sp.*	wallabygrass	
	RESTIONACEAE		
12 13 14 15	*Baloskion tetraphyllum subsp. tetraphyllum*	tassel cordrush	
14 15	*Calorophus elongatus*	long roperush	
12 13 15	*Empodisma minus*	spreading roperush	
	XYRIDACEAE		
12 15	*Xyris operculata*	tall yelloweye	

PTERIDOPHYTA

	ASPIDIACEAE		
13 14	*Polystichum proliferum*	mother shieldfern	
14	*Rumohra adiantiformis*	leathery shieldfern	
	BLECHNACEAE		
12 13 14 15	*Blechnum wattsii*	hard waterfern	
	DENNSTAEDTIACEAE		
13	*Histiopteris incisa*	batswing fern	
14	*Pteridium esculentum subsp. esculentum*	bracken	
	DICKSONIACEAE		
13	*Dicksonia antarctica*	soft treefern	
	GLEICHENIACEAE		
12 14 15	*Gleichenia dicarpa*	pouched coralfern	
13	*Gleichenia microphylla*	scrambling coralfern	
13 14	*Sticherus tener*	silky fanfern	
	GRAMMITIDACEAE		
13	*Notogrammitis billardierei*	common fingerfern	
	LINDSAEACEAE		
15	*Lindsaea linearis*	screw fern	
	LYCOPODIACEAE		
12 14 15	*Lycopodiella diffusa*	buttongrass clubmoss	t
12	*Lycopodiella lateralis*	slender clubmoss	
13 14	*Lycopodium deuterodensum*	conifer clubmoss	
	POLYPODIACEAE		
14	*Microsorum pustulatum subsp.*	kangaroo fern	
	PTERIDACEAE		

13 14	*Pteris epaleata*	netted brake
	SCHIZAEACEAE	
15	*Schizaea fistulosa*	narrow combfern
	SELAGINELLACEAE	
13 14	*Selaginella uliginosa*	swamp spikemoss

APPENDIX B – CONSERVATION SIGNIFICANT FLORA

Conservation Significant Flora recorded within 5 km					
Species	**Status TSPA / EPBCA**	**Records within 500 m / 5 km**	**Habitat**	**Likelihood of Impact**	**Commentary**
Pimelea milliganii silver riceflower	Rare / -	0 / 2	*Pimelea milliganii* occurs in alpine heath on mountain summits in the south-west of the State.	**Low**	Suitable habitat present, however species unlikely to be overlooked.
Additional Conservation Significant Flora known from similar habitats outside the 5 km buffer					
Milligania longifolia Longleaf milligania	Rare / -	0 / 0	*Milligania longifolia* occurs only onriverine cliffs of limestone and occasionally quartzite. It is usually found in narrow ledges on crevices above normal flood level along the Franklin and Gordon rivers in the south-west (at low altitudes). This species also occurs along the Vale River in Cradle Mountain at about 700 m above sea level.	**None**	Habitat in the survey areas not optimal due to wrong geologies. Species unlikely to be overlooked.
Persoonia muelleri subsp. angustifolia Narrowleaf geebung	Rare / -	0 / 0	*Persoonia muelleri subsp. angustifolia* occurs in central and western Tasmania in rainforest to dense scrub and perhaps, sub-alpine heath in a variety of sedimentary and metamorphic substrata. It typically occurs in the ecotone between dry scrub and rainforest, particularly where high light levels occur on the ground due to a shorter and more open scrub. It is found from 50-700 m above sea level.	**Low**	Suitable habitat present, however species unlikely to be overlooked.
Planocarpa sulcata Grooved cheeseberry	Rare / -	0 / 0	*Planocarpa sulcata* occurs in exposed alpine, coniferous and deciduous heath on shallow soils in the western mountains at elevations greater than 950 m above sea level.	**None**	All drill sites are below the typical altitudinal range for this species and it is not likely to occur. Unlikely to have been overlooked.
Orthoceras strictum Horned orchid	Rare / -	0 / 0	*Orthoceras strictum* occurs in a wide range of habitat types including buttongrass moorland, sedgy and scrubby heathland, sedgy eucalypt shrubland and open forest, usually on poorly to moderately drained peaty, sandy and clay soils that are at least seasonally moist. It can also occur on thin mossy soils at soaks on and below rock faces. The species has a wide elevation range from sea level to 1000 m above sea level.	**Low**	Some suitable habitat within the survey areas however this species is not often recorded from altitudes at this level in Tasmania. Unlikely to occur.

APPENDIX C - CONSERVATION SIGNIFICANT FAUNA WITHIN 5 KM

Species	Status TSPA / EPBCA	Records within 500 m / 5 km	Potential to Occur	Observations and Preferred Habitat	Commentary
MAMMALS					
Dasyurus maculatus maculatus spotted-tailed quoll	Rare / Vulnerable	1 / 18	Denning: NONE Foraging: LOW	This naturally rare forest-dweller most commonly inhabits wet forest but also occurs in dry forest. It forages and hunts on farmland and pasture, travelling up to 20 km at night, and shelters in logs, rocks or thick vegetation. Important habitat includes large patches of forest containing adequate denning sites and high densities of mammalian prey.	No suitable denning habitat present within study area. suitable foraging habitat is present, however study area provides only a minor portion of total habitat in local area.
Dasyurus viverrinus eastern quoll	Endangered / Endangered	0 / 4	Denning: NONE Foraging: LOW	Occurs in most parts of Tasmania but is recorded infrequently in the wetter western third of the state. This species' distribution is associated with areas of low rainfall and cold winter minimum temperatures. It is found in a range of vegetation types including open grassland (including farmland), tussock grassland, grassy woodland, dry eucalypt forest, coastal scrub and alpine heathland, but is typically absent from large tracts of wet eucalypt forest and rainforest.	No suitable denning habitat present within study area. suitable foraging habitat is present, however study area provides only a minor portion of total habitat in local area.
Sarcophilus harrisii Tasmanian devil	Endangered / Endangered	0 / 10	Denning: NONE Foraging: LOW	This species occupies a wide range of habitats across Tasmania and exploits landscapes with a mosaic of pasture and forest with elevated prey densities; it is attracted to roadkill hotspots with concentrated scavenging resource. The protection of breeding opportunities is particularly important for the species due to the mortalities from demographic pressures. This species is known to den in log hollows and wombat burrows.	No suitable denning habitat present within study area. suitable foraging habitat is present, however study area provides only a minor portion of total habitat in local area.
BIRDS					
Aquila audax fleayi Tasmanian wedge-tailed eagle	Endangered / Endangered	0 / 1	Nesting: NONE Foraging: LOW	This species nests in a range of old-growth native forests and is dependent on forest for nesting. Territories can contain up to five alternate nests that are usually close to each other but may be up to 1 km	No suitable nesting habitat present within study area. suitable foraging habitat is present, however study

Species	Status TSPA / EPBCA	Records within 500 m / 5 km	Potential to Occur	Observations and Preferred Habitat	Commentary
				apart where habitat is locally restricted. This eagle preys and scavenges on a wide variety of fauna including fish, reptiles, birds and mammals.	area provides only a minor portion of total habitat in local area.
Gallinago hardwickii Lathams snipe	-/ Vulnerable	0 / 1	NONE	Latham's snipe utilises a broad range of habitats from coastal / inland lakes and wetlands to rivers and wet grassland. Around wetlands, Latham's snipe favour a variety of vegetation cover such as sedges, lignum, grasses, rushes and reeds. Whilst they were once widespread throughout Tasmania's coastline and inland lakes in the early 80s, there are fewer recent records which may reflect a declining abundance and distribution throughout the state.	No suitable water bodies within study area or in close proximity.