Natural Values Report

Report for: **Mathew Cater**

Property Location: **345 Squeaking Point Road, Thistlane.**

Prepared by: Scott Livingston
Livingston Natural Resource Services

Date: 7th April 2024
Version 1

Client:	Mathew Cater
Property identification	CT 227658/1, PID 6526812, 345 Squeaking Point Road, Thistlane.
Proposal:	Revision of the spatial extent of Priority Vegetation Area overlay on CT 227658/1, 345 Squeaking Point Road, Thistlane.
Assessment comments:	The property is currently zoned agriculture, and no priority Vegetation Area overlay is shown in planning scheme overlays. This report provides recommendation on the spatial extent of the Priority Vegetation Area overlay based on site surveys rather than Regional Ecosystem Model following rezoning. A field inspection was conducted on the 26th March 2024. This field assessments were used to confirm or otherwise the desktop study findings. This report summarises the findings of the desktop and field assessment.
Version	1

Assessment by:
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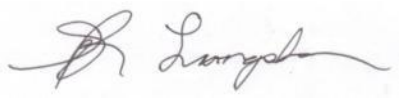

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INTRODUCTION

The Tasmanian Planning Commission (4/3/2024) have directed the representors / owners of CT 227658/1, 345 Squeaking Point Road, Thistlane, provide a submission from a suitably qualified person to support the proposed revised spatial extent of the Natural Assets Code - priority vegetation area overlay on the site following representation in relation to draft amendment 01-2023 of the Tasmanian Planning Scheme – Latrobe.

METHODS

A Natural Values Atlas report was accessed from the DNRET website on 25/3/2024. This report covers known sightings within 5km and fauna species whose predicted range boundaries overlay the site.

A site visit on 26/3/2024 was undertaken by Scott Livingston. All areas of the site were assessed. The survey was conducted in March, which is late in the flowering period of many flora species. No survey can guarantee that all flora will be recorded in a single site visit due to limitations on seasonal and annual variation in abundance and the presence of material for identification. While all significant species known to occur in the area were considered, species such as spring or autumn flowering flora may have been overlooked. A sample of all vegetation communities, aspects and variations in topographic location was achieved.

All mapping and Grid References in this report use GDA 94, Zone 55, with eastings and northings expressed as 6 & 7 digits respectively.

Flora taxonomy nomenclature used is consistent with Census of Vascular Plants of Tasmania, Tasmanian Herbarium 2015, From Forest to Fjaeldmark, Descriptions of Tasmania's Vegetation (Edition 2) Harris & Kitchener, 2005, Little Book of Common Names for Tasmanian Plants, Wapstra et al.

DESCRIPTION

The property contains an existing outbuildings, it is pasture with native vegetation in the western portion of the property. The western boundary formed by Panatana Rivulet. The property fronts Squeaking Point Road to the east. Surrounding land is a mosaic of agricultural land, native vegetation and smaller lifestyle lots, the Thistlane Golf Course forms the southern boundary.

The property ranges in altitude from 5-15m ASL. Under lying geology is Cenozoic cover sequences with sand, quartzite gravel and clay, including interbasalt deposits (Wesley Vale Sand) of Oligocene age.

NATURAL VALUES

VEGETATION

TASVEG 4.0 mapping shows the eastern portion of the property to be Agricultural land with scrub in the central portion and a mosaic of forest and weed infestation in the western portion. Revised mapping extends the agricultural land over most of the mapped scrub. The forest areas mare best attributed to damp sclerophyll forest than the mapped *Eucalpyptus obliqua* forest. The majority of the mapped weed infestation (willow) have been removed.

		Area (ha)	
Vegetation Group	**Vegetation Community**	**TasVeg 4**	**Revised**
Dry eucalypt forest and woodland	(DOB) Eucalyptus obliqua dry forest	2.4	0.1
	(DSC) Eucalyptus amygdalina - Eucalyptus obliqua damp sclerophyll forest		1.9
Non eucalypt forest and woodland	(NAD) Acacia dealbata forest	0.2	
Scrub, heathland and coastal complexes	(SLS) Leptospermum scoparium heathland and scrub	9	
Other natural Environments	(OAQ) water		0.2
Modified land	(FAG) Agricultural land	8	16.7
	(FPE) permanent easements		0.4
	(FUM) urban miscelaneous		0.7
	(FRG) Regenrating Cleared land		0.2
	(FWU) Weed infestation	0.7	
	Total	**20.3**	**20.3**

FLORA

An assessment of the study area was undertaken, and no threatened flora species were identified with the exception of known patch of *Cassinia rugata*, wrinkly dollybush, located in the north east corner of the property. *Cassinia rugata*, has also been recorded in the road verge adjacent to the property. The Natural Values Atlas (Department of Primary Industries, (accessed 25/3/2024) has records of 1 further record of threatened flora species within the property, *Thelymitra holmesii*, bluestar sun-orchid. This record is from 1998 and has a 200m accuracy.

An assessment conducted during at other times of the year may identify further threatened flora species. The Natural Values Atlas (Department of Primary Industries, (accessed 25/3/2024) has records of 2 further record of threatened flora species within500m of the property, and a further 33 within 5km.

FAUNA

The Natural Values Atlas has no records of threatened fauna species within 500m of the property. 22 threatened fauna species are known within 5km of the site. Potential habitat occurs in wet soaks adjacent to Panatana Rivulet for Central North Burrowing crayfish (Engaeus granulatus). Crayfish chimeys are present on site, no species identification was undertaken.The site is within the range of giant freshwater crayfish *(Astocopsis gouldi*) and Panatana Rivulet provides potential habitat, noting there are no known observations within 5km. Wide-ranging species such as owls, eagles, devils and quolls may forage on the site but there is no suitable breeding habitat in the study area.

RAPTOR NESTS

There are no recorded eagle nests within 1 km of the study area. The property has a low (0/10) probability for Eagle Nest (FPA Model) in the vicinity of the study area.

WATER COURSES

Panatana Rivulet forms the Western boundary of the property. The Conservation of Freshwater Ecosystems Vales (CFEV) shows the following values.

ID	Name	Naturalness	Intergrated Conservation Value	Conservation Management Priority
303300	Panatana Rivulet -Southern portion	low	VH	VH

The mapped watercourse protection area is a 40m buffer.

GEOCONSERVATION SITES

There are no mapped geoconservation sites within the study area.

ACID SULPHATE SOILS

There are no mapped acid sulphate soils sites within the study area.

EXISTING DISTURBANCE

The cleared and developed areas of the property area retains some native vegetation in grassland areas which contain a mix of native, exotic pasture species and weeds. Willow infestation remains on portions of Panatana Rivulet with the majority having been removed. The "forest" areas of the property have a modified understory with high proportion of exotic grasses. The identified *Cassina rugata* area in the northeast corner of the property is excluded from grazing. And managed for its flora values.

REGIONAL ECOSYSTEM MODEL

The Regional Ecosystem Model (REM) indicates that the site contains no area of Relative Rarity, the majority of the site is coded as Remnant Vegetation. The eastern portion of the property is coded as potential habitat for *Cassinia rugata.* The western portion of the site are coded for Central North Burrowing crayfish and or giant freshwater crayfish.

The cleared areas of the property on upper slopes contain no suitable habitat with the exception of the now regenerating northeastern corner known to contain *Cassinnia rugata.*

Habitat descriptions of threatened flora in Tasmania, Forest Practices Authority, 2016

Species	**Common name**	**Status** TSPA, EPBCA	**Life form**	**Tasmanian habitat description (and distribution)**
Cassinia rugata	wrinkled dollybush	e, VU	shrub	The main site for Cassinia rugata at Thistlane site is a wetland associated with Themeda triandra (kangaroo grass). An old record from north-east Tasmania was probably from similar habitat. Sites supporting Ozothamnus rosmarinifolius (swamp everlasting bush) may also be suitable for Cassinia rugata.

The REM model indicates that the site may provide habitat for the following threatened fauna species.

Species	**Common name**	**Status** TSPA, EPBCA	**Tasmanian habitat description**

Astacopsis gouldi	giant freshwater crayfish	v, VU	Potential habitat for the giant freshwater crayfish is freshwater streams of all sizes. Characteristics of potential habitat include a combination of well shaded flowing and still waters, deep pools, decaying logs and undercut banks. Riparian vegetation needs to be native and predominantly intact to provide shade, nutrient, energy and structural inputs into streams. Smaller juveniles inhabit shallow fast flowing streams favouring habitats with rocks or logs that are large enough to be stable but not embedded in finer substrates, but overlie coarser substrates and/or have a distinct cavity underneath. Perennial headwater streams have substantially higher juvenile densities than nonperennial headwater streams
Engaeus granulatus	Central North burrowing crayfish	e, EN	Occupies seeps, wetlands and stream banks in relatively undisturbed habitats. The species is only rarely seen above ground or in standing water. Their burrows exhibit characteristic chimneys of pelleted soil. only occurs in central north Tasmania.

Pantana Rivulet and associated wet seeps provide potential habitat for giant freshwater crayfish and Central North burrowing crayfish.

NATURAL ASSETS CODE

C7.4 Development Exempt from this Code

C7.4.1: The following use or development is exempt from this code:

(c) clearance of native vegetation within a priority vegetation area,

(i) on existing pasture or crop production land; provided the native vegetation is not protected by legislation, a permit condition, an agreement made under section 71 of the Act, or a covenant.

There is no known permit condition or agreement under section 71of the act, legislative protection would apply only to significant threatened flora or fauna habitat.

PRIORITY VEGETATION

Areas of the property in close proximity to Panatana Rivulet, and wet soaks adjacent to the rivulet provide potential habitat for threatened fauna species. These areas are considered to meet the definition of Priority Vegetation as defined by the Natural Assets Code. Mapping of these areas was undertaken using lidar derived slope data, to encompass areas likely to remain waterlogged for significant period and excludes steeper area with good drainage. This closely approximates the watercourse protection area. The known *Cassina rugata* population in the NE corner of the property also meets the definition of significant habitat.

CONCLUSIONS

The study area provides potential habitat for threatened flora and fauna in Panatana Rivulet and associated wet seeps., with a known population of Cassinnia rugata in the NE corner of the property. The drier portions of the site which are currently pasture do not provide significant habitat for threatened flora, fauna or contain threatened vegetation communities and do not meet the Natural Assets Code definition of priority vegetation. There appears no reason for inclusion of these areas in an amended Priority Vegetation Overlay. Works within the existing pasture areas of the site would be exempt from the Natural Assets Code under C7.4. ci regardless of the location of the overlay.

Site specific application of the Priority Vegetation Area should apply only to the likely habitat. The existing watercourse protection area covers the Panatana Rivulet priority vegetation, the northeast Cassinnia rugata population is within an area already excluded from grazing.

REFERENCES

Department of Natural Resources and Environment (DNRET). (accessed 25/3/2024). *Natural Values Report, Derived from the Natural Values Atlas, online database.*

DNRET. Thelist.tas.gov.au , spatial datasets

DPIPWE. Tasmanian Vegetation Monitoring and Mapping Program TASVEG 4.0. Department of Primary Industries, Parks, Water and Environment.

Forest Practices Authority, (25/3/2024). *Biodiversity Values Database*, *online database.*

Tasmanian Planning Scheme- Latrobe

Regional Ecosystem Model - Propertty extract by Insight GIS

Tasmanian planning Commission – Direction Tasmanian Planning Scheme Latrobe Draft amendment 01-2023 (4/3/2023)

APPENDIX 1 – MAPS

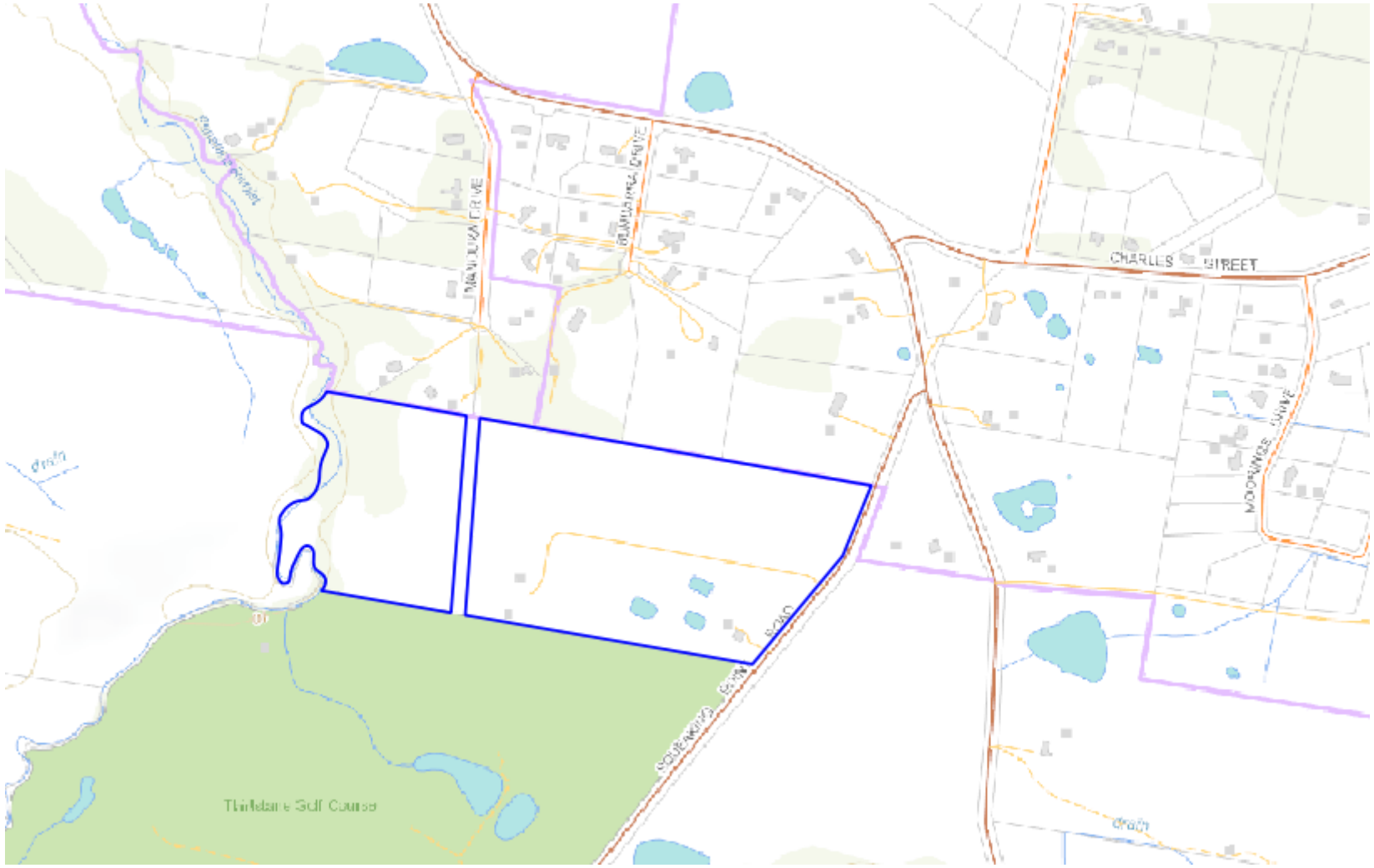

Figure 1: Location Map

Figure 2: Aerial image-

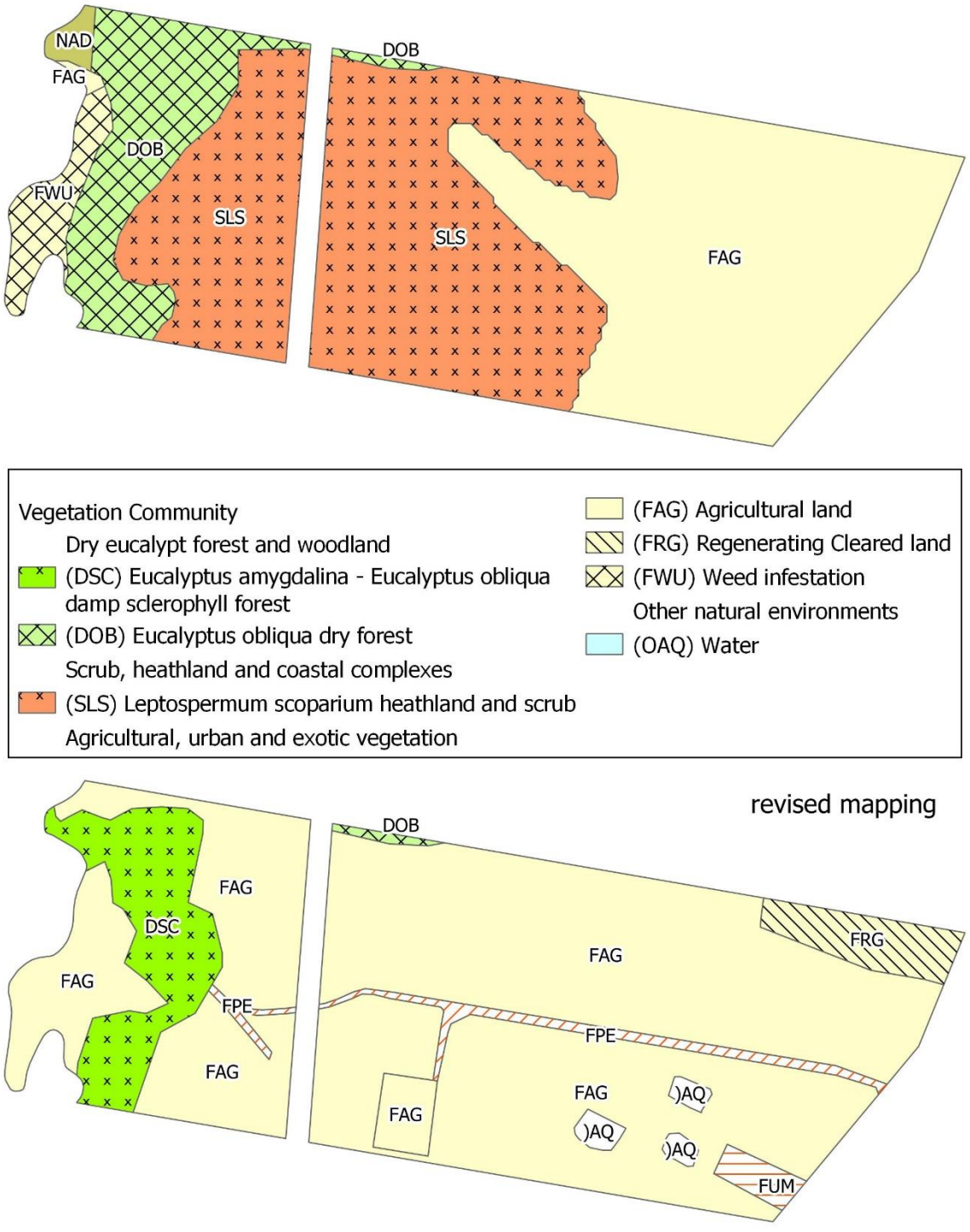

Figure 3: Vegetation Communities

Figure 4: Priority Vegetation

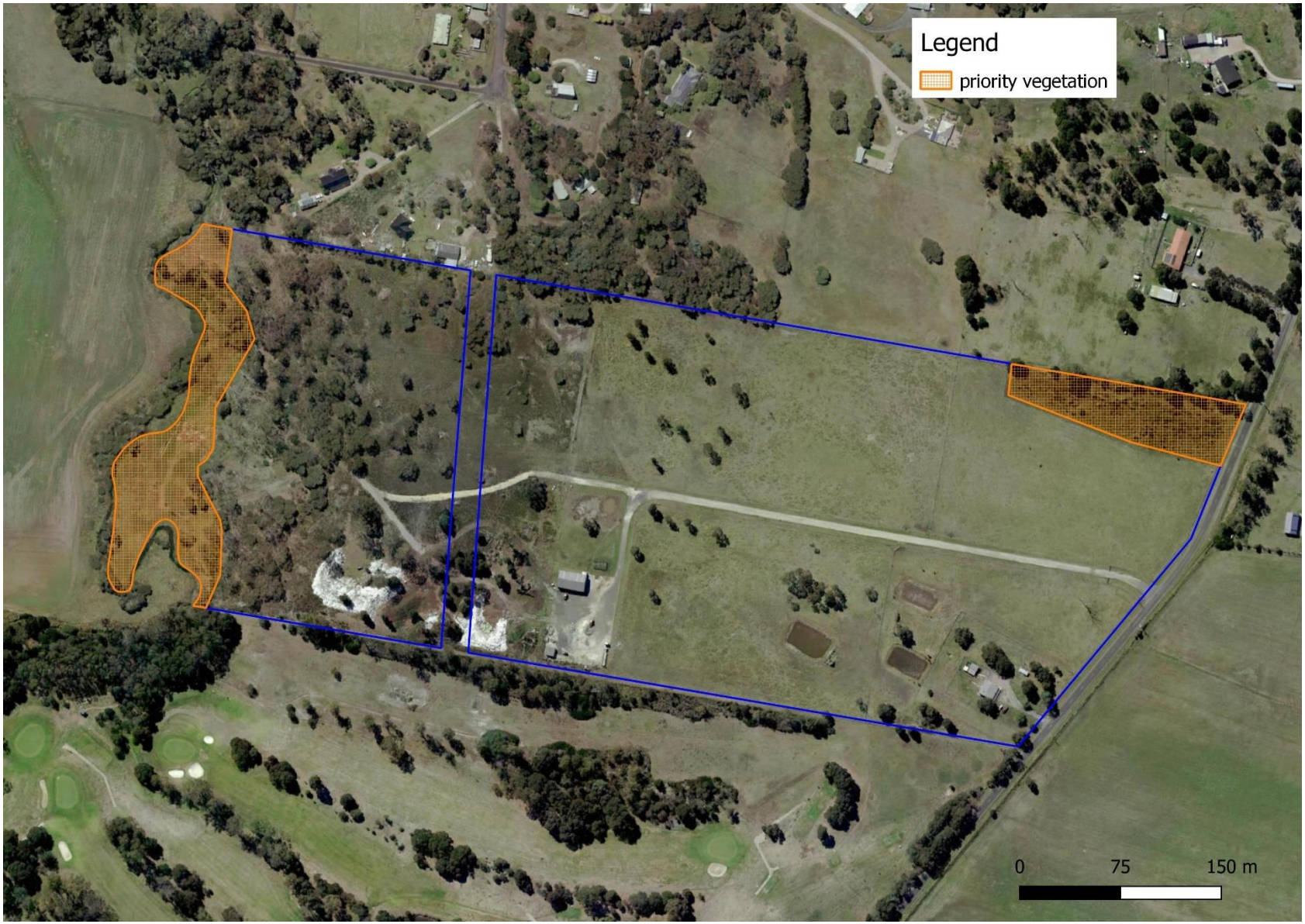

Figure 5: Recommended Priority Vegetation Overlay

APPENDIX 2 – PHOTOS

Figure 6: typical forest vegetation.

Figure 7: Panatana Rivulet.

Figure 8: crayfish chimney.

APPENDIX 3 – THREATENED FLORA

Threatened flora know within 5km (Natural Values Atlas)

Species	Common Name	SS	NS	Last Recorded	Known within 500m	**Tasmanian habitat description (and distribution)**	Habitat Suitability
Acacia ulicifolia	juniper wattle	r		16-Sep-03		Acacia ulicifolia is found in sandy coastal heaths and open heathy forest and woodland in the north and east of Tasmania. Populations are often sparsely distributed, and most sites are near-coastal but it can occasionally extend inland (up to 30 km).	no suitable habitat
Amphibromus neesii	southern swampgrass	r		22-Nov-17	y	Amphibromus neesii is found in damp ground around marshes, lagoons, river flats, pools and streams.	marginal habitat in watercourse wet soaks
Caladenia caudata	tailed spider-orchid	v	VU	19-Oct-98		Caladenia caudata has highly variable habitat, which includes the central north: Eucalyptus obliqua heathy forest on low undulating hills; the north-east: E. globulus grassy/heathy coastal forest, E. amygdalina heathy woodland and forest, Allocasuarina woodland; and the south-east: E. amygdalina forest and woodland on sandstone, coastal E. viminalis forest on deep sands. Substrates vary from dolerite to sandstone to granite, with soils ranging from deep windblown sands, sands derived from sandstone and well-developed clay loams developed from dolerite. A high degree of insolation is typical of many sites.	marginal habitat
Caladenia congesta	blacktongue finger-orchid	e		1-Oct-14	y	Caladenia congesta occurs in northern Tasmania, occurring sporadically in heathland, heathy woodland and open forest, usually on dry sites and amongst grass tussocks on slopes. Soils are sandy and loamy and often gravelly.	no suitable habitat
Caladenia tonellii	robust fingers	e	CR	8-Nov-07	y	In Henry Somerset Conservation Area, Caladenia tonellii occurs in Eucalyptus obliqua-E. amygdalina forest with a shrubby understorey, on shallow clay loam and shallow gravelly loam over clay. Topography varies from flats to slopes up to about 80 m above sea level. Sites near Scottsdale and Sisters Beach require	no suitable habitat

						confirmation as the habitat is quite different (e.g. quartzite-based soils on steeper slopes around Sisters Beach).	
Cassinia rugata	wrinkled dollybush	e	VU	10-Nov-19	y	The main site for Cassinia rugata at Thistlane site is a wetland associated with Themeda triandra (kangaroo grass). An old record from north-east Tasmania was probably from similar habitat. Sites supporting Ozothamnus rosmarinifolius (swamp everlasting bush) may also be suitable for Cassinia rugata.	suitable habitat in known site
Centipeda cunninghamii	erect sneezeweed	r		21-Mar-10	y	Centipeda cunninghamii is found in a wide variety of soil types, usually in areas subject to flooding or where water is stagnant. The seasonally dry margins of wetlands and lagoons also have the potential to support this species. It is currently known from the Sea Elephant River on King Island, the lower reaches of the South Esk River near Launceston, and Panatana Rivulet near Thistlane.	marginal habitat along watercourse wet soaks
Comesperma defoliatum	leafless milkwort	r		13-Jan-19	y	Comesperma defoliatum occurs in wet heathland/sedgeland, buttongrass moorland, coastal low scrub and on the crests of dunes. It has also been recorded from flat alkaline pans. The predominant substrates include peat, quartzite and sand.	no suitable habitat
Cyrtostylis robusta	large gnat-orchid	r		1-Sep-21		Cyrtostylis robusta is known from coastal or near-coastal sites in forest and heathland on well-drained soils. There is sometimes a strong correlation with Allocasuarina verticillata (drooping sheoak) on coastal dolerite cliffs.	no suitable habitat
Epacris exserta	south esk heath	e	PEN	01-Nov-1895		Epacris exserta occurs along the lower reaches of the South Esk, North Esk and Supply rivers. It is a strictly riparian species that grows in areas subject to periodic inundation, mainly on alluvium amongst dolerite boulders within dense riparian scrub, and occasionally in open rocky sites. It has been recorded from 10-310 m above sea level.	no suitable habitat
Euphrasia scabra	yellow eyebright	e		18-Apr-32		Euphrasia scabra occurs in moist herb/sedge communities in grassy leads in marshes and in drier open grassy areas at the headwaters of creeks. Its habitat is associated with gaps created by grazing, flooding or other disturbance. It has been recorded from scattered sites throughout lowland areas of Tasmania, including the north-west coast, central north, Midlands, Eastern Tiers and around Hobart. However, it is considered to be extinct from many of these sites, and populations are low and transient in areas (Eastern Tiers and Hobart) with the greatest probability of still supporting the species.	no suitable habitat

Gratiola pubescens	hairy brooklime	r		18-Dec-16	y	Gratiola pubescens is most commonly located in permanently or seasonally damp or swampy ground, including the margins of farm dams.	marginal habitat along watercourse wet soaks
Gynatrix pulchella	fragrant hempbush	r		30-Jan-08	y	Gynatrix pulchella occurs as a riparian shrub, found along rivers and drainage channels, sometimes extending onto adjacent floodplains (including old paddocks), predominantly in the north of the State.	marginal habitat along watercourse wet soaks
Isolepis habra	wispy clubsedge	r		16-Jan-12	y	The habitat of Isolepis habra is poorly understood and variable as it occurs from lowland to highland sites in forest and non-forest habitats. Wet sclerophyll and riparian habitats may be preferred.	no suitable habitat
Isolepis stellata	star clubsedge	r		30-Dec-17		Isolepis stellata has been recorded from near-coastal areas in the State's north and east, and also in the Northern Midlands near Conara. Habitat includes the margins of sedgy wetlands, wet soaks and seasonally inundated heathy sedgelands: the altitude of recorded sites in Tasmania ranges from close to sea level to elevations of 240 m above sea level.	no suitable habitat
Lepidosperma viscidum	sticky swordsedge	r		10-Oct-05		Lepidosperma viscidum occurs in a range of heathland to heathy/shrubby woodland habitats often dominated by species of Allocasuarina (sheoak) on a range of substrates.	no suitable habitat
Limonium australe var. australe	yellow sea-lavender	r		2-Aug-19		Limonium australe var. australe occurs in succulent or graminoid saltmarsh close to the high water mark, typically near small brackish streams.	no suitable habitat
Lycopus australis	australian gypsywort	e		30-Jan-08	y	Lycopus australis occurs in moist shaded places including disturbed areas within Melaleuca ericifolia swamp forest, Phragmites australis reed beds, and rocky (dolerite) riverbeds fringed by riparian scrub.	no suitable habitat
Lythrum salicaria	purple loosestrife	v		30-Jan-08	y	Lythrum salicaria inhabits swamps, stream banks and rivers mainly in the north and north-east of the State. It can also occur between gaps in Melaleuca ericifolia forest. This species can act as a weed, proliferating along roadsides and other disturbed areas, and, as horticultural strains are in cultivation and birds can disperse seed, some occurrences may not be native.	no suitable habitat
Parietaria debilis	shade pellitory	r		20-Nov-01		Parietaria debilis occurs around muttonbird rookeries, on cliffs/rocks in the salt spray zone, in moist shaded areas in dune scrubs, and under rock overhangs in forested gullies.	no suitable habitat

Persicaria decipiens	slender waterpepper	v		3-Mar-10	y	Persicaria decipiens occurs on the banks of rivers and streams, mostly in the north of the State, including King Island. The species may colonise farm dams.	marginal habitat along watercourse wet soaks
Phyllangium divergens	wiry mitrewort	v		20-Oct-90		Phyllangium divergens occurs in a wide variety of near-coastal habitats on a range of substrates, a common feature usually being bare ground (e.g. tracks) and rock exposures (e.g. outcrops, coastal cliffs, etc.).	no suitable habitat
Phylloglossum drummondii	pygmy clubmoss	r		8-Sep-90		Phylloglossum drummondii occurs in wet peaty soils where there is little competition from other plants.	no suitable habitat
Pomaderris intermedia	lemon dogwood	r		7-Aug-90		Pomaderris intermedia occurs in heathland and heathy woodland on eastern Bass Strait islands but extends to mainly dry sclerophyll forest on mainland Tasmania, most often associated with rock outcrops (dolerite), riparian areas and open forest.	no suitable habitat
Prasophyllum limnetes	marsh leek-orchid	e	CR	6-Jan-23	y	Prasophyllum limnetes is known only from one site near Thistlane where it occurs in the ecotone between low-lying marshy heath/sedgeland dominated by rushes and sedges with scattered patches of Lomandra longifolia (sagg) and Themeda triandra (kangaroo grass), and coastal Eucalyptus amygdalina woodland with a heathy/grassy understorey.	no suitable habitat
Prasophyllum pulchellum	pretty leek-orchid	e	CR	19-Nov-19	y	Prasophyllum pulchellum is known from widely scattered coastal and near-coastal sites in the north, north-west and south-east of the State. It occurs in dense low sedgy heath with pockets of Melaleuca (paperbark) or Leptospermum (teatree) on poorly to moderately-drained sandy or peaty loam. Recent collections ascribed to the species from the Tasman Peninsula were from dolerite outcrops among wind-pruned coastal scrub/low eucalypt woodland.	no suitable habitat
Pterostylis squamata	ruddy greenhood	v		29-Nov-80		Pterostylis squamata occurs in heathy and grassy open eucalypt forest, woodland and heathland on well-drained sandy and clay loams.	no suitable habitat
Pterostylis ziegeleri	grassland greenhood	v	VU	31-Oct-81		Pterostylis ziegeleri occurs in the State's south, east and north, with an outlying occurrence in the north-west. In coastal areas, the species occurs on the slopes of low stabilised sand dunes and in grassy dune swales, while in the Midlands it grows in native grassland or grassy woodland on well-drained clay loams derived from basalt.	no suitable habitat

Ruppia megacarpa	largefruit seatassel	r		28-Feb-1887		Ruppia megacarpa occurs in estuaries and lagoons along the east and south-east coasts, and brackish lagoons in the Midlands; there is also an historic record from the Tamar estuary in the States' north.	no suitable habitat
Senecio squarrosus	leafy fireweed	r		16-Dec-16	y	Senecio squarrosus occurs in a wide variety of habitats. One form occurs predominantly in lowland damp tussock grasslands. The more widespread and common form occurs mainly in dry forests (often grassy) but extends to wet forests and other vegetation types.	no suitable habitat
Solanum opacum	greenberry nightshade	e		6-Nov-32		Solanum opacum is known from a variety of habitats. On King Island, the species occurs in poorly-drained tall Melaleuca ericifolia swamp forest. Similarly, on Inner Sister Island, it occurs in Melaleuca ericifolia/Leptospermum laevigatum scrub on sandy loams in a small	no suitable habitat
Spyridium obcordatum	creeping dustymiller	v	VU	2-Apr-23		Spyridium obcordatum is restricted to the Central North Coast. In hills to the east of the Dazzler Range near Beaconsfield, it primarily occurs amongst serpentine outcrops in dry open forest or woodland dominated by Eucalyptus amygdalina. In coastal areas from Greens Beach to Hawley Beach at Thistlane, it occurs on sandstone and dolerite in Allocasuarina verticillata woodland and Allocasuarina monilifera-Leptospermum scoparium heath. The species is often associated with outcropping rocks, exposed rock plates and rocky ground. It occurs at altitudes less than 180 m above sea level. It is most abundant in disturbed areas, as it can proliferate from soil-stored seed after disturbance.	no suitable habitat
Spyridium parvifolium	dustymiller	p		2-Sep-59		*Spyridium parvifolium* var. *parvifolium* mainly occurs in near-coastal areas in northern Tasmania. It occurs in a range of vegetation types, mainly shrubby dry sclerophyll forests and woodlands. It can proliferate from soil-stored seed after disturbance.	no suitable habitat
Tetratheca ciliata	northern pinkbells	r		01-Jan-1000		Tetratheca ciliata occurs from near-coastal areas in the State's north at elevations below 70 m, ranging from Rocky Cape in the west to Tomahawk/Boobyalla in the east, and an outlying site near Liffey about 60 km inland and 320 m above sea level. It has been recorded from heathlands and heathy woodlands on sandy well-drained soils, the woodland dominated by Eucalyptus amygdalina.	no suitable habitat
Thelymitra holmesii	bluestar sun-orchid	r		19-Nov-19	y	Thelymitra holmesii occurs in moist areas of grassland, heathy open forest and heathland in water-retentive soils such as clay loam and peaty loam, in soaks, beside streams and around swamp margins, usually below about 200 m above sea level.	no suitable habitat

Thelymitra mucida	plum sun-orchid	e		1-Oct-17	y	Thelymitra mucida occurs in moist to wet depressions, swamp margins and other low-lying sites in coastal and near-coastal heathland, heathy forest and shrubland in dark sandy or peaty soils, usually below about 50 m above sea level.	no suitable habitat

APPENDIX 4 – THREATENED FAUNA

Threatened fauna know within 5km (Natural Values Atlas) or within the range of the species.

Species	Common Name	SS	NS	Known within 500m	Known within 5km	Range	Habitat Description	Habitat suitability
Accipiter novaehollandiae	grey goshawk	e			y		Requires wet sclerophyll forest for breeding and foraging. Potential habitat for the grey goshawk is native forest with mature elements below 600m altitude, particularly along watercourses. Significant habitat for the grey goshawk may be summarised as areas of wet forest, rainforest and damp forest patches in dry forest, with a relatively closed mature canopy, low stem density, and open understorey in close proximity to foraging habitat and a freshwater body (i.e. stream, river, lake, swamp, etc.). FPA's Fauna Technical Note 12 can be used as a guide in the identification of grey goshawk habitat.	marginal in riparian forest
Antipodia chaostola	chaostola skipper	e	EN			Potential	Potential habitat for the Chaostola Skipper is dry forest and woodland supporting Gahnia radula (usually on sandstone and other sedimentary rock types) or Gahnia microstachya (usually on granite baseds ubstrates).	no suitable habitat
Aquila audax	wedge-tailed eagle	pe	PEN		y	Potential	Potential habitat for the wedge tailed eagle comprises potential nesting habitat and potential foraging habitat. Potential foraging habitat is a wide variety of forest (including areas subject to native forest silviculture) and non-forest habitats. Potential nesting habitat is tall eucalypt trees in large tracts (usually more than 10ha) of eucalypt or	may forage no nesting habitat

							mixed forest. Nest trees are usually amongst the largest in a locality. They are generally in sheltered positions on leeward slopes, between the lower and mid sections of a slope and with the top of the tree usually lower than the ground level of the top of the ridge, although in some parts of the State topographic shelter is not always a significant factor (e.g. parts of the northwest and Central Highlands). Nests are usually not constructed close to sources of disturbance and nests close to disturbance are less productive. More than one nest may occur within a territory but only one is used for breeding in any one year. Breeding failure often promotes a change of nest in the next year. [Significant habitat for the wedge tailed eagle is all native forest and native non-forest vegetation within 500 m or 1 km line of sight of known nest sites (where the nest tree is still present).	
Ardenna grisea	sooty shearwater		VU		y		shorebird	no suitable habitat
Arenaria interpres	ruddy turnstone		VU		y		shorebird	no suitable habitat
Astacopsis gouldi	lutaralipina or giant freshwater crayfish	v	VU			Potential	Potential habitat for the giant freshwater crayfish is freshwater streams of all sizes. Characteristics of potential habitat include a combination of well shaded flowing and still waters, deep pools, decaying logs and undercut banks. Riparian vegetation needs to be native and predominantly intact to provide shade, nutrient, energy and structural inputs into streams. Smaller juveniles inhabit shallow fast flowing streams favouring habitats with rocks or logs that are large enough to be stable but not	Potential habitat within watercourse, not known with 5 km

							embedded in finer substrates, but overlie coarser substrates and/or have a distinct cavity underneath. Perennial headwater streams have substantially higher juvenile densities than nonperennial headwater streams. See FPA's Fauna Technical Note 16 for guidance on how to identify categories of potential habitat suitability (high suitability habitat, moderate suitability habitat and low suitability habitat) of class 4 streams. The GFC Habitat Suitability Map may be used in the assessment of habitat suitability for all other stream classes, however on ground assessment is recommended.	
Botaurus poiciloptilus	australasian bittern		EN		y		Australasian Bitterns are widespread but uncommon over south-eastern Australia.Favours permanent freshwater wetlands with tall, dense vegetation, particularly bullrushes (Typha spp.) and spikerushes (Eleocharis spp.)	no suitable habitat
Calidris ferruginea	curlew sandpiper		CR		y		The Curlew Sandpiper is a summer migrant from north-eastern Siberia and Alaska, found in many Australian coastal sites and may also be seen inland in suitable habitats. The Curlew Sandpiper is mostly found on intertidal mudflats of estuaries, lagoons, and mangroves, as well as beaches, rocky shores and around salt lakes. Its breeding habitat is the lowland tundra of Siberia.	no suitable habitat
Catadromus lacordairei	Green-lined ground beetle	v			y	Known	Open grassy/sedgey woodlands associated with wetlands and low-lying plains or flats adjacent to rivers/streams. Key habitat elements that need to be present include sheltering sites such as patches of stone, coarse woody debris and/or cracked soils. Highly active and mibile species that can fly and often comes to ground close to water	marginal in wet soaks adjacent to watercourse

							sources and is rarely found further than 250m from a water source.	
Ceyx azureus subsp. diemenensis	Tasmanian azure kingfisher	e	EN			Core	Potential habitat for the Azure Kingfisher comprises potential foraging habitat and potential breeding habitat. Potential foraging habitat is primarily freshwater (occasionally estuarine) waterbodies such as large rivers and streams with well-developed overhanging vegetation suitable for perching and water deep enough for dive-feeding. Potential breeding habitat is usually steep banks of large rivers (a breeding site is a hole (burrow) drilled in the bank).	no suitable habitat
Dasyurus maculatus	spotted-tailed quoll	r	VU	y	y	Potential		
Dasyurus maculatus subsp. maculatus	spotted-tailed quoll	r	VU		y	Potential	Potential habitat for the spotted tailed quoll is coastal scrub, riparian areas, rainforest, wet forest, damp forest, dry forest and blackwood swamp forest (mature and regrowth), particularly where structurally complex areas are present, and includes remnant patches in cleared agricultural land or plantation areas. Significant habitat for the spotted tailed quoll is all potential denning habitat within the core range of the species. Potential denning habitat for the spotted tailed quoll includes 1) any forest remnant (>0.5ha) in a cleared or plantation landscape that is structurally complex (high canopy, with dense understorey and ground vegetation cover), free from the risk of inundation, or 2) a rock outcrop, rock crevice, rock pile, burrow with a small entrance, hollow logs, large piles of coarse woody debris and caves. FPA's Fauna Technical Note 10 can be used as a guide in	may forage no denning habitat

							the identification of potential denning habitat.	
Engaeus granulatus	Central North burrowing crayfish	e	EN	y	y	Potential	Occupies seeps, wetlands and stream banks in relatively undisturbed habitats. The species is only rarely seen above ground or in standing water. Their burrows exhibit characteristic chimneys of pelleted soil. only occurs in central north Tasmania.	potential habitat in wet soaks
Galaxiella pusilla	eastern dwarf galaxias	v	VU			Potential	Potential habitat for the dwarf galaxiid is slowflowing waters such as swamps, lagoons, drains or backwaters of streams, often with aquatic vegetation. It may also be found in temporary waters that dry up in summer for as long as 6-7 months, especially if burrowing crayfish burrows are present (although these will usually be connected to permanent water). Habitat may include forested swampy areas but does not include blackwood swamp forest. Juveniles congregate in groups at the water surface in pools free of vegetation. Significant habitat for the dwarf galaxiid is all potential habitat and a 30m streamside reserve within the core range.	no suitable habitat
Gallinago hardwickii	lathams snipe		VU		y		wetlands	no suitable habitat
Gazameda gunnii	Gunn's screw shell	v			y		Marine species.	no suitable habitat
Haliaeetus leucogaster	white-bellied sea-eagle	v			y	Potential	Potential habitat for the White Bellied Sea eagle species comprises potential nesting habitat and potential foraging habitat. Potential foraging habitat is any large waterbody (including sea coasts, estuaries, wide rivers, lakes, impoundments and even large farm dams) supporting prey items (fish). Potential nesting habitat is tall eucalypt trees in large tracts (usually more	may forage marginal nesting habitat

							than 10 ha) of eucalypt or mixed forest within 5 km of the coast (nearest coast including shores, bays, inlets and peninsulas), large rivers (Class 1), lakes or complexes of large farm dams. Scattered trees along river banks or pasture land may also be used. Significant habitat for the white bellied sea eagle is all native forest and native non-forest vegetation within 500 m or 1 km line of sight of known nest sites (where nest tree still present).	
Hirundapus caudacutus	white-throated needletail		VU		y		Migratory bird, rarely lands in tasmania	may overfly
Lathamus discolor	swift parrot	e	CR	y	y	Potential	Potential breeding habitat for the swift parrot comprises potential foraging habitat and potential nesting habitat, and is based on definitions of foraging and nesting trees. Potential foraging habitat comprises E. globulus or E. ovata trees that are old enough to flower. Potential nesting habitat is considered to comprise eucalypt forests that contain hollow-bearing trees.	no suitable habitat
Litoria raniformis	green and gold frog	v	VU		y	Potential	Potential habitat for the green and gold frog is permanent and temporary waterbodies, usually with vegetation in or around them. Potential habitat includes features such as natural lagoons, permanently or seasonally inundated swamps and wetlands, farm dams, irrigation channels, artificial water holding sites such as old quarries, slow flowing stretches of streams and rivers and drainage features.	no suitable habitat
Neophema chrysostoma	blue-winged parrot		VU	y	y		The Blue-winged Parrot inhabits a range of habitats from coastal, sub-coastal and inland areas, right through to semi-arid zones. Throughout their range, they favour grasslands and grassy woodlands. They are	no suitable habitat

							often found near wetlands both near the coast and in semi-arid zones. Blue-winged Parrots can also be seen in altered environments such as airfields, golf courses and paddocks.	
Numenius madagascariensis	eastern curlew	e	CR		y		shorebird	no suitable habitat
Perameles gunnii	eastern barred bandicoot		VU	y	y	Potential	Potential habitat for the eastern barred bandicoot is open vegetation types including woodlands and open forests with a grassy understorey, native and exotic grasslands, particularly in landscapes with a mosaic of agricultural land and remnant bushland. Significant habitat for the Eastern Barred Bandicoot is dense tussock grass sagg sedge swards, piles of coarse woody debris and denser patches of low shrubs (especially those that are densely branched close to the ground providing shelter) within the core range of the species.	marginal foraging habitat
Prototroctes maraena	australian grayling	v	VU			Potential	All streams and rivers in their lower to middle reaches. Areas above permanent barriers that prevent fish migration are not potential habitat	possible but unlikely

Sarcophilus harrisii	tasmanian devil	e	EN		y	Potential	Potential habitat for the Tasmanian devil is all terrestrial native habitats, forestry plantations and pasture. Devils require shelter (e.g. dense vegetation, hollow logs, burrows or caves) and hunting habitat (open understorey mixed with patches of dense vegetation) within their home range (427km2). Significant habitat for the Tasmanian devil is a patch of potential denning habitat where three or more entrances (large enough for a devil to pass through) may be found within 100m of one another, and where no other potential denning habitat with three or more entrances may be found within a 1km radius, being the approximate area of the smallest recorded devil home range (Pemberton 1990). Potential denning habitat for the Tasmanian devil is areas of burrow-able, well drained soil, log piles or sheltered overhangs such as cliffs, rocky outcrops, knolls, caves and earth banks, free from risk of inundation and with at least one entrance through which a devil could pass.	may forage n denning habitat
Seriolella brama	Blue Warehou		CD		y		marine	no suitable habitat
Sternula nereis subsp. nereis	fairy tern	v	VU		y		marine	no suitable habitat
Thalassarche cauta	shy albatross	v	EN		y		marine	no suitable habitat
Thinornis cucullatus	hooded plover		PVU		y		shorebird	no suitable habitat
Thinornis rubricollis	hooded plover		VU		y		shorebird	no suitable habitat

Tyto novaehollandiae subsp. castanops	masked owl (Tasmanian)	e	VU			Core	Potential habitat for the masked owl is all areas with trees with large hollows (>15 cm entrance diameter). In terms of using mapping layers, potential habitat is considered to be all areas with at least 20% mature eucalypt crown cover (PI type mature density class `a', `b', or `c'). From on ground surveys this is areas with at least 8 trees per hectare over 100cm dbh. Remnants and paddock trees in agricultural areas may also constitute potential habitat. Significant habitat for the masked owl is any areas within the core range of native dry forest with trees over 100cm dbh with large hollows (>15 cm entrance diameter). Such areas usually have no regrowth component or just a sparse regrowth component. In terms of using mapping layers for an initial desktop assessment prior to an on ground survey. Significant habitat may occur in all areas within the core range classified as dry forest (TASVEG dry Eucalypt forest and woodland) with at least 20% mature eucalypt crown cover (PI type mature density class `a', `b', or `c') that is classified as mature (Growth Stage class `M'). From on ground surveys this is areas with at least 8 trees per hectare over 100cm dbh and more than half of the canopy cover is comprised of mature trees. Remnants and paddock trees in agricultural areas may also constitute significant habitat.	may forage nesting habitat (lage hollows)

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