Natural Values Assessment

For the proposed Track 12 and Upper Luge MTB tracks, Wellington Park

For City of Hobart

July 2020

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1. Introduction

City of Hobart proposes to construct a new mountain bike track ('Track 12' in the CoH *Riding the Mountain* plan) and upgrade an existing informal MTB track (Upper Luge). Track 12 will ascend from Main Fire Trail to the Middle Island Fire Trail (approximately 1400 m length), while the Upper Luge provides a 640 m long descending trail in the opposite direction (Figures 1 and 2).

This report details the results of a desktop and on-ground assessment of natural values in the survey area containing the two tracks.

This natural values assessment and report considers the natural values and ecological implications for track location, design and construction. This provides a basis for making recommendations to minimise impacts on significant natural values.

2. Methods

The natural values assessment was undertaken in two stages: desktop analysis and field survey. The desktop analysis involved extracting data from a variety of sources, including:

- Natural Values Atlas (DPIPWE 2020)
- Protected Matters Search Tool (DEE 2020)
- LISTmap

The field survey was undertaken by a single observer on 8th July 2020. The survey assessed all natural values along the proposed track alignments and more broadly within the survey area. The vegetation communities in the area were determined and mapped based on a combination of on-ground inspection and aerial imagery interpretation.

All vascular plant species encountered were recorded, with an emphasis on detecting rare and threatened species. Searches for potential threatened fauna habitat e.g. tree hollows and den sites, and other evidence e.g. scats, diggings and tracks were also undertaken. No species-specific fauna surveys were conducted.

Locations of threatened flora species, environmental weeds and significant trees were mapped with a handheld GPS. Geographic datum used for mapping was GDA94 Zone 55. Taxonomic nomenclature for flora follows the latest Census of Vascular Plants of Tasmania (de Salas & Baker 2019). Classification of vegetation communities is in accordance with Kitchener and Harris (2013) and TASVEG 3.0.

2.1 Limitations of the survey

Whilst every effort was made to compile a complete list of vascular plants for the site, a single survey is unlikely to detect all species present due to seasonal/temporal variations. Some plants could not be identified to a species level and some species may have been overlooked due to a lack of fertile material. It is also likely that additional species are present but were dormant at the time of survey e.g. annuals, ephemerals.

3. Site description

The proposed tracks are located within a defined 9.3 ha survey area comprising a low ridge between two watercourses, bounded by Middle Island Fire Trail in the west and Main Fire Trail in the east (Figure 1).

The survey area is gently to moderately sloping, with aspect ranging from southeasterly to northeasterly (Figure 2). The bedrock is Permian sandstone and siltstone, overlain by Pleistocene alluvial and talus deposits in places. Elevation ranges from 260 m a.s.l. in the east to 350 m a.s.l. in the west.

The survey area is within Wellington Park and is therefore subject to the *Wellington Park Management Plan 2013*.

Figure 1 – Location of Track 12 and Upper Luge survey area in Wellington Park

4. Native vegetation

The survey area is dominated by eucalypt forest which was burnt in the 1967 bushfires. Most of the canopy trees are regrowth following this event, although there are several older trees present which survived the fire. The survey area has also been subject to two planned burns in the 1980s and one in 1990 (LISTmap Fire History 2019).

4.1 Vegetation communities

One native vegetation community was recorded during the field survey as per the TASVEG 3.0 classification system:

- *Eucalyptus obliqua* wet forest with broadleaf understorey (WOB).

Stands of blue gum (*E. globulus*) in the survey area, totalling less than 0.5 ha, are too small to map separately as *E. globulus* wet forest (WGL). Forest in the north of the survey area, which is somewhat intermediate between typical wet (WOB) and dry *E. obliqua* (DOB) communities, has been included in the WOB community.

The distribution of vegetation communities is shown in Figure 2. A description of the native vegetation community is provided below.

Eucalyptus obliqua wet forest with broadleaf understorey (WOB)

This forest type occurs throughout the survey area but varies in structure and composition. The canopy is dominated by stringybark (*E. obliqua*) with blue gum (*E. globulus*) locally dominant (Figure 5) and occasional white gums (*E. viminalis*). Large old emergent trees are infrequent.

There is a dense medium to tall shrub layer of musk (*Olearia argophylla*), blanket leaf (*Bedfordia salicina*) and other broad-leafed shrubs (Figure 3). Smaller shrubs, including cheeseberry (*Cyathodes glauca*) and cherry riceflower (*Pimelea drupacea*), are infrequent. The groundcover is mostly sparse, comprising sedges, forbs and grasses.

The damp gully in the south of the survey area supports a denser understorey of wet forest shrubs. The drier ridgetop and northeast-facing slopes in the north are best

described as 'damp' *E. obliqua* forest (Figure 4), characterised by a shrub layer comprising varnished wattle (*Acacia leprosa*) and native cherry (*Exocarpos cupressiformis*) with smaller shrubs including viscid daisy bush (*Olearia viscosa*) and common heath (*Epacris impressa*). This drier forest has little groundcover vegetation and few mosses and liverworts.

The vegetation is in good condition with few weeds, some fallen logs, adequate eucalypt recruitment and a healthy canopy.

4.1.1 Conservation status of the vegetation community

Eucalyptus obliqua wet forest is not listed as threatened under Schedule 3A of the *Nature Conservation Act 2002* nor listed as Moderate or High Priority Biodiversity Value under the Biodiversity Code (Section E10.0) of the *Hobart Interim Planning Scheme 2015*.

While it is too small to map as a separate community in this instance, it is noted that *E. globulus* wet forest (WGL) is listed as Moderate Priority Biodiversity Value under the Biodiversity Code (Section E10.0) of the *Hobart Interim Planning Scheme 2015*.

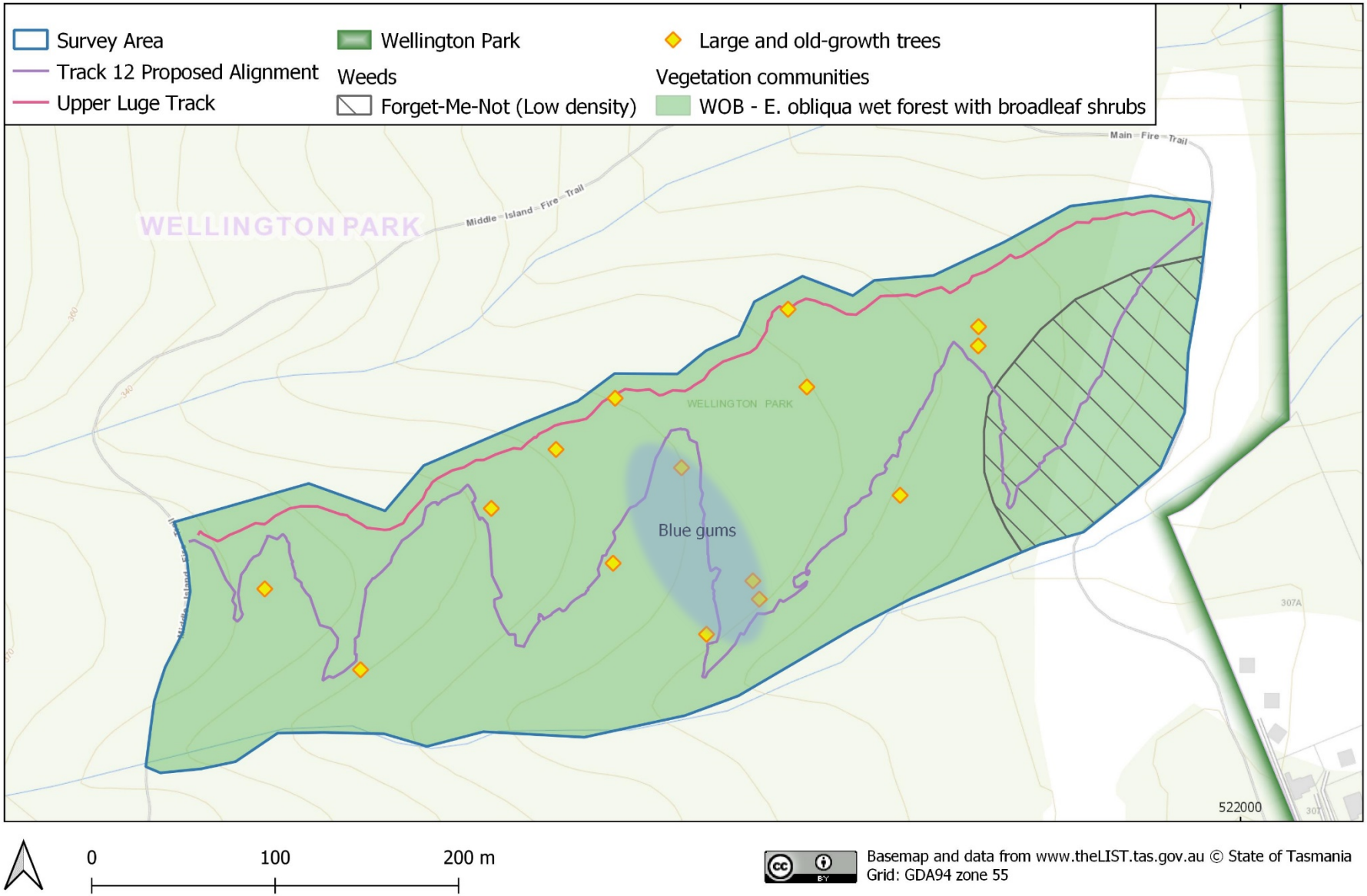

Figure 2 – Vegetation communities of the survey area, with old-growth trees and weeds mapped during survey.

Figure 3 – E. obliqua *wet forest with dense shrub layer.*

Figure 4 – 'Damp' E. obliqua *forest with* Acacia leprosa *understorey at eastern end of Upper Luge Track.*

Figure 5 – Mature Eucalyptus globulus *tree in centre of survey area near Track 12 alignment.*

4.2 Flora

A total of 38 vascular plants were recorded during the survey, of which only one is an introduced species. Additional flora species will occur within the survey area but could have been overlooked due to the inherent limitations of the survey (e.g. timing). Refer to Appendix 1 for the list of species recorded on the site.

4.2.1 Threatened flora

No threatened flora species listed under the *Threatened Species Protection Act 1995* (TSPA) or the *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA) were observed.

A search of the Natural Values Atlas (DPIPWE database) revealed that no threatened flora species have been recorded within 500 m of the site and 11 species have been recorded within 2 km since 1950 (Table 1). All of these species are considered low or very low likelihood of occurring in the survey area.

Table 1 – Threatened flora species recorded from within 2 km of survey area (Natural Values Atlas, July 2020). Comments indicate likelihood of occurrence in project area, potential habitat and optimum timing for surveys. Records prior to 1950 omitted.

Species	Status TSPA	Status EPBCA	Comments
doublejointed speargrass *Austrostipa bigeniculata*	r		**Very low** – Occurs in drier open woodlands and grassland.
forest fingers *Caladenia sylvicola*	e	CR	**Low** – Suitable habitat present but species is very localised, being known only from a single location, 1.8 km from the survey area. Flowering Oct–Nov.
Tasmanian daisytree *Centropappus brunonis*	r		**Very low** – Occurs above 700 m elevation in open forest on boulderfields or in subalpine forest.
tiny midge-orchid *Corunastylis nuda*	r		**Low** – Occurs in a range of habitats including wet sclerophyll forest. However, all records within 2 km of the site are on dry north-facing slopes. Flowering Jan–Mar.
bare midge-orchid *Corunastylis nudiscapa*	e		**Very low** – Occurs in dry open forest, typically on north-facing slopes. Flowering Dec–Apr (usually late Feb – early April).
wispy clubsedge *Isolepis habra*	r		**Low** – Not recorded in the area since 1971. Possible habitat present. Ideal survey timing is January–March.
yellow riceflower *Pimelea flava* subsp. *flava*	r		**Low –** Lowland dry or damp forest species. Likely to have been recorded if present within project area.
ferny buttercup *Ranunculus pumilio* var. *pumilio*	r		**Very low** – Single record in Wellington Park from Guy Fawkes Rivulet in 1984. No suitable damp habitat.
leafy fireweed *Senecio squarrosus*	r		**Low –** Occurs in dry forest. Flowering October–December.
montane ivy-leaf violet *Viola curtisiae*	r		**Very low** – Alpine species restricted to high elevations.
fuzzy new-holland daisy *Vittadinia cuneata var. cuneata*	r		**Very low** – One record from Mount Wellington in 1984. Exact location not known. Occurs in drier habitats.

4.2.2 Introduced plants and pathogens

One introduced plant was recorded during the survey: Forget-Me-Not (*Myosotis* sp.). This herbaceous environmental weed (Figure 6) occurs in low densities in the east of the survey area (Figure 2).

No species listed as declared weeds under the *Weed Management Act 1999* are present.

No indications of *Phytophthora cinnamomi* (Pc) infection were observed and most of the vegetation present is not susceptible to this pathogen.

Figure 6 – Forget-Me-Not (Myosotis *sp.*) *in east of survey area.*

4.1 Fauna

4.1.1 Threatened fauna

No threatened fauna species listed under the *Threatened Species Protection Act 1995* or under the *Environment Protection and Biodiversity Conservation Act 1999* were observed during the survey.

A search of the Natural Values Atlas (DPIPWE database) revealed that five threatened fauna species have been recorded within 500 m of the site and an additional 11 species have been recorded within 2 km since 1950 (Table 2).

Table 2 – Threatened fauna species recorded from within 2 km of survey area (Natural Values Atlas, July 2020). Comments indicate likelihood of occurrence in project area and potential habitat. Records prior to 1950 omitted.

Species	Status TSPA	Status EPBCA	Comments
Species recorded within 500 m of survey area			
spotted-tail quoll *Dasyurus maculatus*	r	VU	Likely to forage across the project area. Possibly potential den sites including hollow logs.
Eastern quoll *Dasyurus viverrinus*		EN	Numerous records within 2 km. Likely to forage across the study area. Potential den sites occur in the area (e.g. fallen logs).
swift parrot *Lathamus discolor*	e	CR	Mature blue gums in the survey area provide potential foraging habitat. There is potential nesting habitat present in old growth trees with hollows. Only one known nesting site recorded within 2 km.
eastern barred bandicoot *Perameles gunnii*		VU	Numerous records within 2 km. Prefers a mosaic of vegetation types including open grassy habitats. Forest with dense understorey at eastern edge of survey area is potential nesting habitat due to proximity to open foraging habitat in firebreak.
masked owl *Tyto novaehollandiae*	e	VU	Several records within 2 km. Requires large tree hollows for nesting. Area likely to be used for foraging and nesting trees may be present.
Species recorded within 2 km of survey area			
grey goshawk *Accipiter novaehollandiae*	e		Several records within 2 km. Likely to forage across the area. Nests in wet forest, typically near watercourses. Suitable nesting habitat may be present in gully on southern edge of survey area.
azure kingfisher *Alcedo azurea* subsp. *diemensis*	e	EN	Riparian species. No suitable habitat in study area.
chaostola skipper *Antipodia chaostola* subsp. *leucophaea*	e	EN	Strongly associated with the larval food plants *Gahnia radula* and *G. microstachya*. Habitat is near-coastal lowland dry forest. No suitable habitat present.
Tasmanian wedge-tailed eagle *Aquila audax* subsp. *fleayi*	e	EN	Nests in tall forest on sheltered slopes away from disturbances such as roads. No nests known in the area. No suitable nesting trees present.

Species	Status TSPA	Status EPBCA	Comments
white bellied sea-eagle *Haliaeetus leucogaster*	v		Nests close to rivers, waterbodies or coastline. No potential nesting habitat. Last recorded in the area in 1980.
white-throated needletail *Hirundapus caudacutus*		VU	Does not breed in Australia. Species is mostly aerial in the non-breeding season, but roosts in trees. Last recorded in the area in 1981.
forty-spotted pardalote *Pardalotus quadragintus*	e	EN	Dependent on white gum (*E. viminalis*). Limited suitable habitat in study area. Last recorded in the area in 1980 and the species is not currently known to occur in the Hobart or Mount Wellington region.
Silky snail *Roblinella agnewi*	r		Several records with 2 km. Endemic to Mount Wellington in rocky areas at elevations above ~600 m. No suitable habitat in project area.
Tasmanian devil *Sarcophilus harrisii*	e	EN	Several records within 2 km. Likely to forage across the study area. Possibly potential den sites, including hollow logs.

4.1.2 Threatened fauna habitat

There is suitable habitat for several threatened species in the area, including wide-ranging species such as the grey goshawk, masked owl, Tasmanian devil, spotted-tail quoll and eastern quoll. No nest or den sites where observed during the survey. Bandicoot diggings observed in the east of the survey area may be from the brown bandicoot (not threatened) or the eastern barred bandicoot (EPBCA-listed).

Suitable foraging habitat for the swift parrot was observed near the centre of the survey area, where several mature blue gums are present (Figure 2). Old-growth eucalypt trees in the survey area may provide suitable nesting habitat for swift parrots and other hollow-nesting fauna. Several mature and old-growth trees were mapped during the survey (Figure 2) and there may be others in the survey area.

5. Potential impacts of proposed works

No threatened communities will be impacted. There is a very low likelihood of threatened flora being present and impacted.

Wide-ranging mobile threatened fauna species, such as raptors and marsupial carnivores, are likely to visit the survey area and may nest in the area. Removal of trees with hollows will impact actual or potential nesting habitat for hollow-nesting threatened species such as the swift parrot and masked owl. Earthworks or removal of large fallen logs has the potential to destroy or disturb denning sites for threatened mammal species (e.g. Tasmanian devil, quolls).

Impacts on habitat for threatened fauna species are expected to be negligible, unless nesting or denning sites are disturbed or destroyed. However, this is unlikely since no den sites were detected during the on-ground survey and there is no need to remove old-growth trees.

Impacts on non-threatened species and other natural values is likely to be minimal given the small spatial extent of works. There may be no need to remove living or dead trees. If necessary, removal of some smaller live or dead trees (under 60 cm DBH) would have little impact since the forest is at an age where it is undergoing natural stand thinning.

Minor excavations will be required with consequent impacts on soils and drainage. These will be confined to the footprint of the works, which at an average width of under 1.5 m (including batters on cross slopes) and a track length of around 2000 m, is expected to be less than 3000 m^2, of which the Upper Luge segment is already somewhat disturbed.

Vegetation clearing, earthworks, machinery use and importation of materials such as gravel pose a risk of introducing weeds to the area.

6. Summary and recommendations

An on-ground survey of the proposed Track 12 and Upper Luge found no significant natural values that will be impacted by track construction or upgrade works or use by walkers and cyclists.

No state or Commonwealth listed threatened communities occur in the survey area. There is a low likelihood of threatened flora species occurring within the area. No known significant habitat for threatened fauna species will be impacted.

There is no need to alter the track alignment for protection of natural values. This assessment of natural values impacts, and recommendations also applies to alternative track alignments within the survey area.

6.1 Recommendations

- Do not remove or damage large (>100 cm DBH) or old-growth eucalypt trees. Track to avoid the base of large trees (min 2m) where possible.
- Avoid removal of any blue gums (*Eucalyptus globulus*).
- If evidence of raptor nesting, swift parrot nesting or marsupial denning is observed, work must stop immediately and contact DPIPWE Threatened Species Section.
- Vegetation clearance and soil disturbance should be kept to a minimum.
- Do not remove coarse woody debris from the site.
- Avoid importing foreign aggregates if possible. If surfacing is required, it should be sourced from a weed-free source.
- Follow standard weed hygiene procedures during track construction.
- Control of Forget-Me-Not (*Myosotis* sp.) by hand pulling could be undertaken in conjunction with track construction works.
- Conduct a weed survey of the track alignment around 12 months after track construction to identify and control any weeds which may establish following works.

References

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Nature Conservation Act 2002. Available at http://www.thelaw.tas.gov.au/index.w3p

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Appendix 1 – Plant species list for Track 12 and Upper Luge survey area

Recorder: Nick Fitzgerald **Date:** 8/07/2020

e = endemic i = introduced d = declared weed

Dicotyledons		
ASTERACEAE		
e	*Bedfordia salicina*	Tasmanian Blanket Leaf
	Olearia argophylla	Musk
	Olearia viscosa	Viscid Daisy Bush
	Senecio sp.	Groundsel
BORAGINACEAE		
i	*Myosotis* sp.	Forget-me-not
ERICACEAE		
e	*Cyathodes glauca*	Cheeseberry
	Epacris impressa	Common Heath
EUPHORBIACEAE		
	Beyeria viscosa	Pinkwood
	Poranthera microphylla	Small Poranthera
FABACEAE		
	Pultenaea daphnoides var. *obcordata*	Native Daphne
GERANIACEAE		
	Geranium sp.	
MALVACEAE		
e	*Asterotrichion discolor*	Currajong
MIMOSACEAE		
	Acacia dealbata subsp. *dealbata*	Silver Wattle
	Acacia leprosa	Varnished wattle
MYRTACEAE		
	Eucalyptus globulus subsp. *globulus*	Tasmanian Blue Gum
	Eucalyptus obliqua	Stringybark
	Eucalyptus viminalis subsp. *viminalis*	White Gum
OXALIDACEAE		
	Oxalis perennans	Native Oxalis
PITTOSPORACEAE		
e	*Billardiera longiflora*	Climbing Blue berry
	Bursaria spinosa subsp. *spinosa*	Prickly Box
	Pittosporum bicolor	Cheesewood
PROTEACEAE		
	Hakea lissosperma	Needle Bush

RANUNCULACEAE		
	Clematis sp.	Clematis
RHAMNACEAE		
	Pomaderris apetala subsp. *apetala*	Dogwood
e	*Pomaderris elliptica* var. *elliptica*	Yellow Pomaderris
RUBIACEAE		
	Coprosma quadrifida	Native Currant
RUTACEAE		
	Zieria arborescens subsp. *arborescens*	
SANTALACEAE		
	Exocarpos cupressiformis	Native Cherry
THYMELAEACEAE		
	Pimelea drupacea	Cherry Rice-flower
VIOLACEAE		
e	*Viola hederacea*	Native Violet

Monocotyledons

CYPERACEAE		
	Gahnia grandis	Cutting Grass
	Lepidosperma ensiforme	Sword Sedge
HEMEROCALLIDACEAE		
	Dianella tasmanica	Flax lily
ORCHIDACEAE		
	Pterostylis sp.	Greenhood
POACEAE		
	Microlaena stipoides	Weeping Grass

Pteridophytes

DENNSTAEDTIACEAE		
	Histiopteris incisa	Bat's Wing
	Hypolepis rugosula	Ruddy Ground-fern
	Pteridium esculentum	Bracken