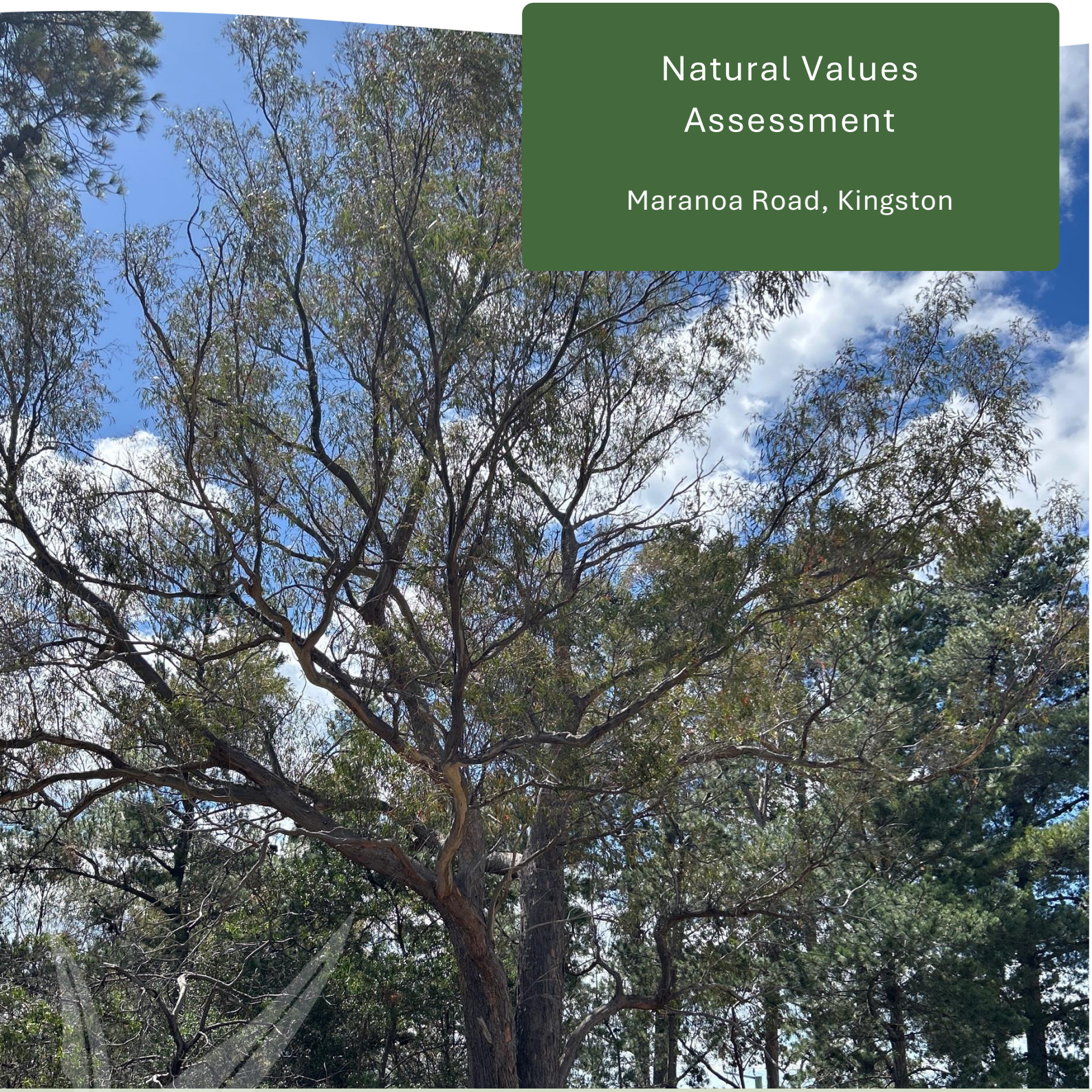
enviro-dynamics
environmental solutions for a changing world

Natural Values Assessment

Maranoa Road, Kingston



Client: Revelstoke Building Solutions
Prepared by: Fiona Walsh & Stuart Rose

December 2024

Contents

1.0 Introduction

This natural values report has been prepared as a requirement for a development application under the Kingborough Interim Planning Scheme 2015.

Enviro-dynamics has been contracted to undertake this natural values assessment on behalf of the Revelstoke Building Solutions. The assessment identifies the natural values of the site including the type and extent of vegetation communities, presence of threatened species and threatened fauna habitat. It also maps weed infestations and identifies any other threats present. Any potential impacts to natural values posed by the development are then analysed against the requirements of the relevant legislation.

2.0 Background

2.1 Site description

The site at Maranoa Road (Figure 1, title - 126707/0) covers approximately 5.2 ha. Kingston Town Shopping Centre and carpark occupies most of the site, with the development and sewer line proposed across approximately 0.5 ha in the southeast corner, bordering Maranoa Road, Calvin Primary School and a new subdivision to the southwest.

The site is zoned General Business under the Kingborough Interim Planning Scheme 2015 and is subject to a Biodiversity Protection Area overlay covering the northern part of the site.

The land has a slight slope to the east and sits at an elevation of approximately 80 meters above sea level. The geology is primarily sandstone.

Figure 1: Site Location

2.2 Development proposal

The development proposal is for the construction of a new warehouse and showroom, installation of a new sewer pipeline and services easement and an extension to the existing carpark. The development proposal was modified from the original illustrated in Figure 2. As such the northern portion of the property where the sewer pipe easement is proposed was surveyed for natural values Figure 3.

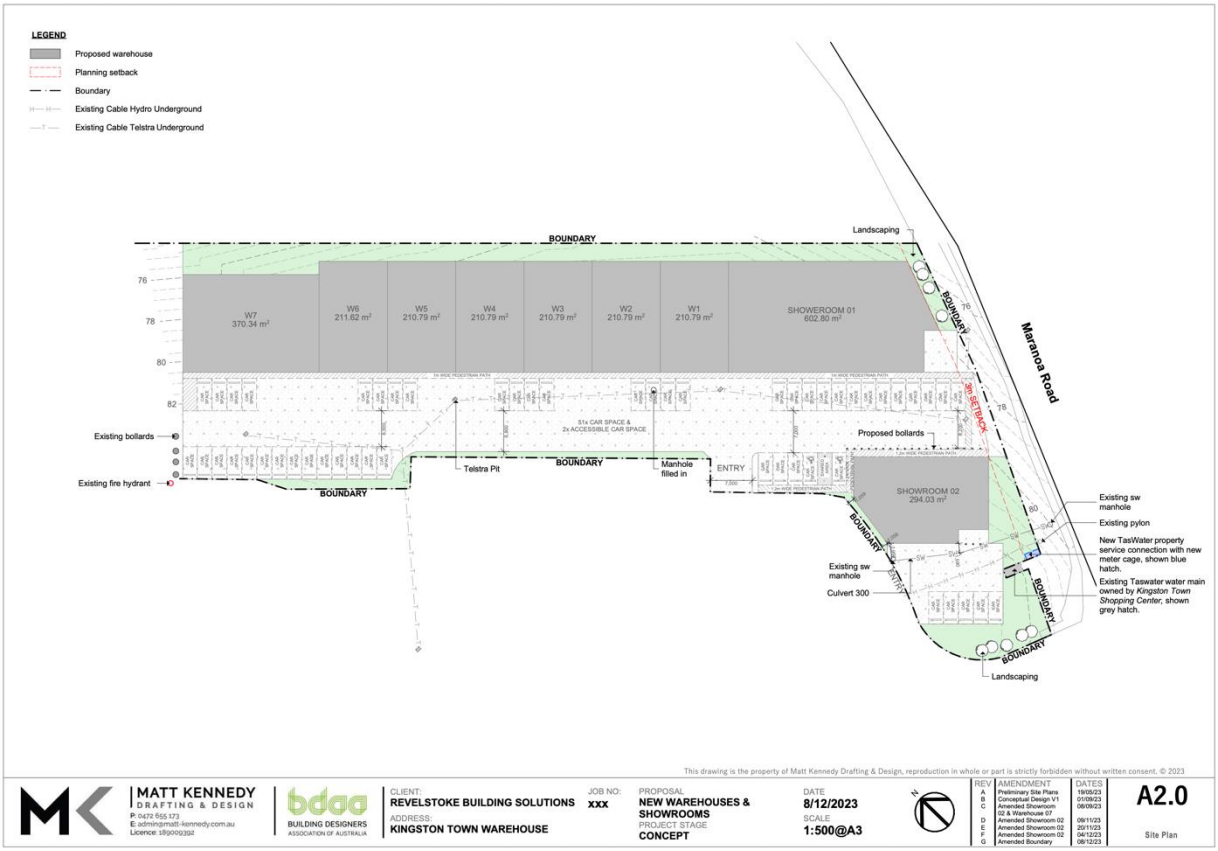


Figure 2: Proposed development plan as supplied by the proponent

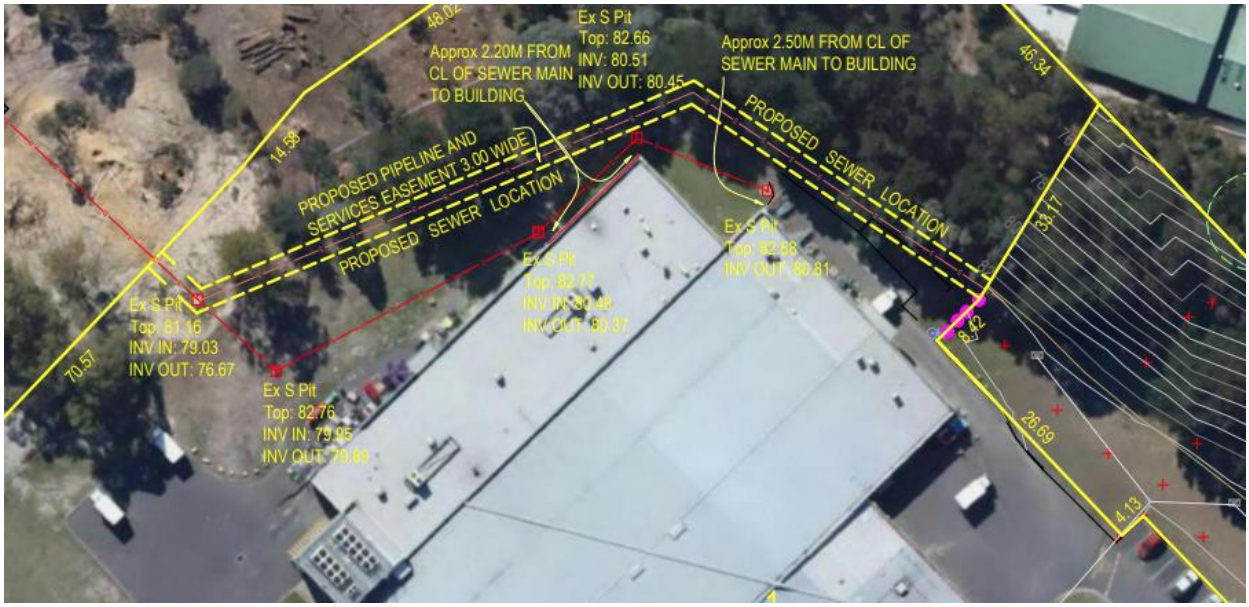


Figure 3: Proposed pipeline and services easement plan as supplied by the proponent

3.0 Methods

The natural values assessment was undertaken in two stages desktop analysis and field survey.

3.1 Desktop analysis

The desktop analysis involved extracting data from the following sources, including:

- Natural Values Atlas report, generated 8th December 2023 (NRE 2023)
- LIST map

3.2 Field survey

The field survey was undertaken on the 6 February and the 27 November 2024. Vegetation communities on site were assessed and classified according to TASVEG 4.0. All vascular plant species encountered were recorded, with an emphasis on detecting threatened species. Searches for threatened fauna habitat (e.g. tree hollows and den sites) and evidence of the presence of fauna (e.g. scats, diggings and tracks) were also undertaken. No detailed fauna surveys were conducted.

Locations of threatened flora, fauna habitat and significant weeds were mapped using Mergin Maps (merginmaps.com) on an iPhone handheld device with built in GPS at an accuracy of between 3.5 and 5 m (geographic datum used was GDA94 Zone 55). Population data of flora was captured (e.g. numbers of individuals, area occupied and density).

Taxonomic nomenclature for flora follows the latest Census of Vascular Plants of Tasmania (Baker & de Salas 2023). Classification of vegetation communities is in accordance with Kitchener and Harris (2013) and TASVEG 4.0.

3.3 Limitations of the survey

Whilst every effort was made to compile a complete list of vascular plants and identify threatened fauna and their habitat, 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 reproductive material. It is also possible that ephemeral or annual species are present but were dormant at the time of survey

4.0 Natural values assessment

This section outlines the findings of the desktop analysis and field survey, including a description of the vegetation communities, threatened flora, fauna habitat values and weeds.

This section outlines the findings of the desktop analysis and field survey, including a description of any vegetation communities, threatened flora, fauna habitat values and weeds identified. A full taxonomic list identified on site is available in Appendix 1 and Appendix 2.

4.1 Vegetation communities

Two modified vegetation communities were mapped during the field survey, as per the TASVEG 4.0 classification system (Figure 4 & 5).

- Unverified plantations for silviculture (FPU)
- Urban areas (FUR)

Unverified plantations for silviculture (FPU)

FPU includes all timber plantations that are not included as part of current Tasmanian Forest Group Plantation (TFGP) dataset (softwood or hardwood). Infrastructure and cleared land associated with these are also included in this unit (e.g. fire breaks, access tracks, escaped plantation wildlings, windrows as well as small areas of native forest adjoining commercial tree farms) (Harris and Kitchener. 2005).

TASVEG 4.0 has this area mapped as *Eucalyptus amygdalina* forest and woodland on sandstone (DAS), and *Eucalyptus pulchella* forest and woodland (DPU). However, the survey confirmed the community is not DAS and DPU but is FPU (Plate 1 to 3). Historically the area would have been occupied by native eucalypt woodland. Aside from a couple of remaining trees and some remnant native species in the understory, it has been replaced with radiata pine. These would have been planted when the shopping centre was built to create a wind break.

Plate 1: Looking west to the FPU

Plate 2: Understory within the FPU

Plate 3: Looking south along the southeastern boundary within the FPU

Urban areas (FUR)

Urban areas (FUR) include urban and suburban landscapes. These areas are largely or wholly devoid of vegetation apart from areas such as suburban gardens, street trees and parks (Harris and Kitchener. 2005).

The area which has been mapped as FUR (Plate 4 to 5) is the grassed area adjacent to the existing carpark and behind the shopping centre complex. This area is dominated by introduced species.

Plate 4: FUR located between the existing carpark and the FPU

Plate 5: FUR located between the existing shopping centre complex and the FPU.

Figure 4: Vegetation communities on site

Figure 5: Vegetation communities on site

4.2 Tree plan

There are 15 native trees located within 15 m of the development footprint. These trees are outlined in Table 1, Figure 6 and Figure 7. As per the Kingborough Councils 'Guidelines for a tree plan', all trees have been measured, identified and mapped. Most of the trees present within the site are radiata pine, an introduced species and are not required to be mapped.

Tree number 7 was initially intended to be retained. However, an assessment by Gregor Nass of TreeGlider Tree and Habitat Services, found that the development would impact the tree, rendering the tree unsafe and recommends its removal.

Table 1: Details of trees within 15 m of the proposed building envelope and driveway

Tree		**DBH**	**TPZ**	**Conservation Value**	**Comments**
1	*Acacia melanoxylon*	59 cm	7.1 m	-	Retain
2	stag (dead tree, species unknown)	58 cm	7 m	-	Retain
3	*Eucalyptus amygdalina*	30 cm	3.6 m	-	Removed. Located within building footprint
4	*Eucalyptus tenuiramis*	62 cm	7.4 m	-	Remove. Located within building footprint
5	*Eucalyptus amygdalina*	72 cm	8.6 m	Very High	Remove. Located within building footprint
6	*Eucalyptus tenuiramis*	82 cm	9.1 m	Very High	Remove. Located within building footprint
7	*Eucalyptus amygdalina*	98 cm	11.8 m	Very High	Remove as per arborists recommendation.
8	*Acacia dealbata*	25 cm	3.0 m	-	Retain

Tree		DBH	TPZ	Conservation Value	Comments
9	*Acacia dealbata*	26.cm	3.1 m	-	Retain
10	*Allocasuarina verticillata*	25 cm	3 m	-	Retain
11	*Allocasuarina verticillata*	26 cm	3.1 m	-	Retain
12	*Acacia dealbata*	30 cm	3.6 m	-	Remove. Located within sewer line footprint
13	*Eucalyptus amygdalina*	81 cm	9.8 m	Very High	Remove. Located within building footprint
14	*Acacia dealbata*	56 cm	6.7 m	-	Retain
15	*Exocarpos cupressiformis*	26 cm	3.1 m	-	Retain

Figure 4: Trees over 25 cm DBH occurring on site

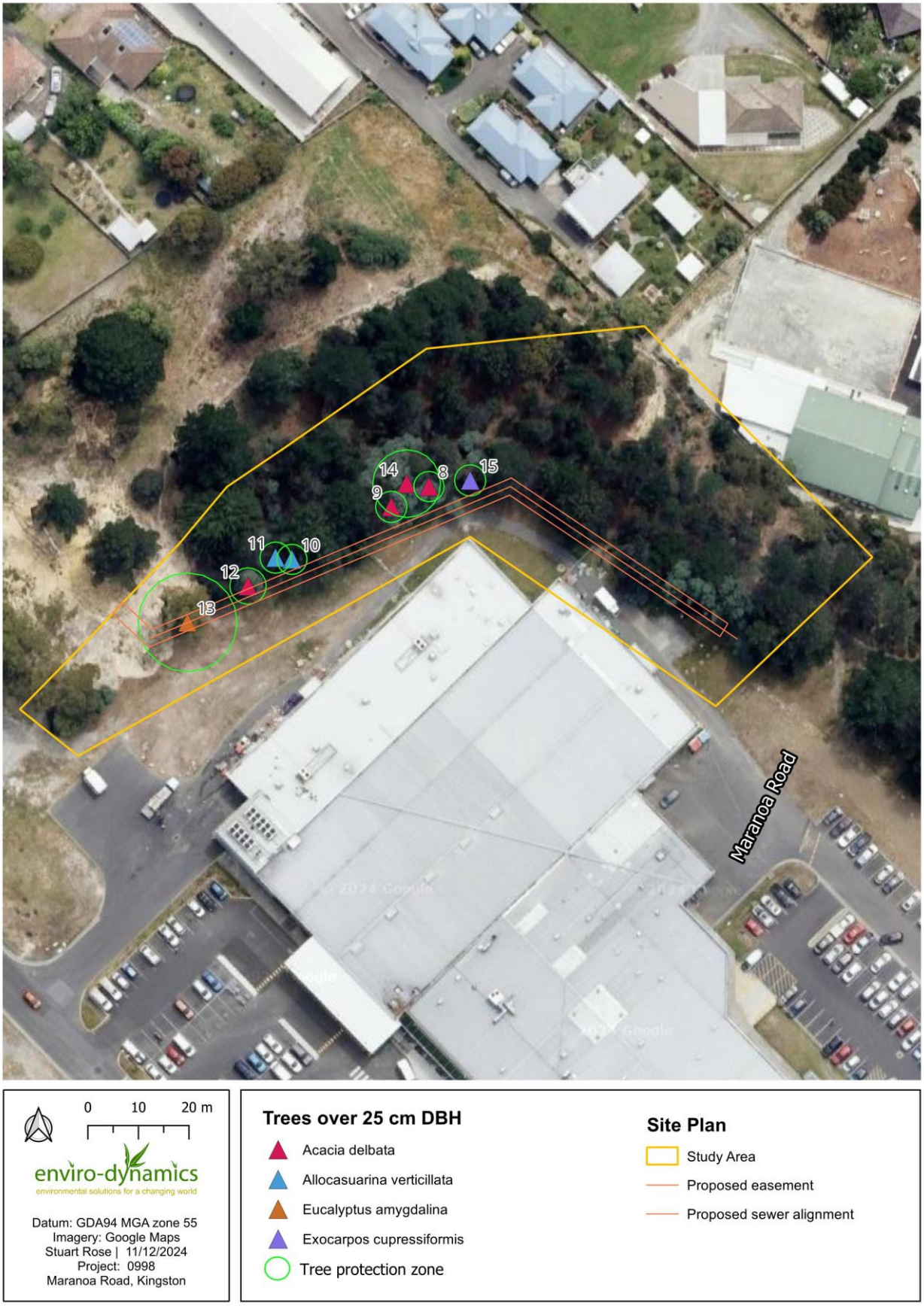


Figure 7: Trees over 25 cm DBH occurring on site

4.3 Flora

A total of 32 vascular plants were recorded during the survey, of which 16 are introduced species. Additional flora species are likely to occur within the site and some plants could have been overlooked due to the inherent limitations of the survey e.g. seasonal timing, timed meander method. For the full list of flora species recorded during the survey see Appendix 1 and Appendix 2.

4.3.1 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 recorded during the survey.

A search of the Natural Values Atlas (NRE database) indicated that several threatened flora species have been recorded from within 5 km of the site. Those recorded within 500 m or within 5 km, with suitable habitat on site, are addressed in the table 1. Those with no suitable habitat and no conceivable chance are occurring (such as marine species) are listed in Appendix 3.

Table 2: Threatened flora species recorded on the Natural Values Atlas within 5 km of the site

Species	Status TSPA / EPBCA	Records within 500m / 5km	Comments
Caladenia filamentosa daddy longlegs	r/ -	1 / 12	*Caladenia filamentosa* occurs in lowland heathy and sedgy eucalypt forest and woodland on sandy soils. No suitable habitat present
Senecio longipilus longhair fireweed	vu / -	1 / 1	A perennial herb that was presumed to be extinct in Tasmania until it was re-discovered in late 2019 at St Patricks Plains. On mainland Australia the species occurs in grassland, herb fields, shrubland and woodland, mostly at elevations over 1,000 m but sometimes in lowland areas. In Tasmania, the two presumed extinct sites are in lowland locations and the St Patricks Plains site occurs in herb-rich *Poa*-dominated native grassland on basalt at an elevation of 870 m.

Species	Status TSPA / EPBCA	Records within 500m / 5km	Comments
			No suitable habitat present. NVA record is from 1929 with a 2 km accuracy.
Senecio squarrosus leafy fireweed	r / -	1 / 3	*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 present.
Thelymitra atronitida blackhood sun-orchid	e/ -	12 / 28	*Thelymitra atronitida* has been recorded from near-coastal heathland, sedgeland and open heathy/sedgy eucalypt woodland on relatively poorly drained sandy loams. The altitude range of known sites is 10-120 m above sea level. No suitable habitat present.

(EPBCA) CR = Critically Endangered, EN = Endangered, VU = Vulnerable (TSPA) e = endangered, v = vulnerable, r= rare

4.3.2 Weeds

16 introduced species were recorded at the site. Five are listed as a declared pests under the *Biosecurity Act 2019 (*BA) and three are weeds of national significance (WoNS) (Table 3, Figure 8 and Figure 9).

Zone A weeds include those Tasmanian municipalities for which eradication of a declared weed is the principal management objective. These municipalities are either free of the declared weed, host only small, isolated infestations, or host larger infestations which are deemed eradicable.

Zone B weeds include those Tasmanian municipalities for which containment of the declared weed is the principal management objective. Such municipalities host large, widespread infestations of the declared weed that are not deemed eradicable because the feasibility of effective management is currently low.

All declared and WoNs species will need to be managed in accordance with the act following the best practise prescriptions as laid out in the *Weed and Disease Planning and Hygiene Guidelines - Preventing the spread of weeds and diseases in Tasmania* (DPIPWE, Stewart and Askey-Doran, 2015).

Table 3: Declared weeds present on site

Species	Comment	BA Zone	Declared	WoNs
Boneseed *Chrysanthemoides monilifera subsp. monilifera*	Widespread throughout site	Zone B Containment	Yes	Yes
Pampas grass *Cortaderia selloana*	Single plant on site	Zone A Eradication	Yes	No
Spanish heath *Erica lusitanica*	Single plant on site	Zone B Containment	Yes	No
Montpellier broom *Genista monspessulana*	Widespread throughout site.	Zone A Eradication	Yes	Yes
Blackberry *Rubus fruticosus*	Widespread throughout site	Zone B Containment	Yes	Yes

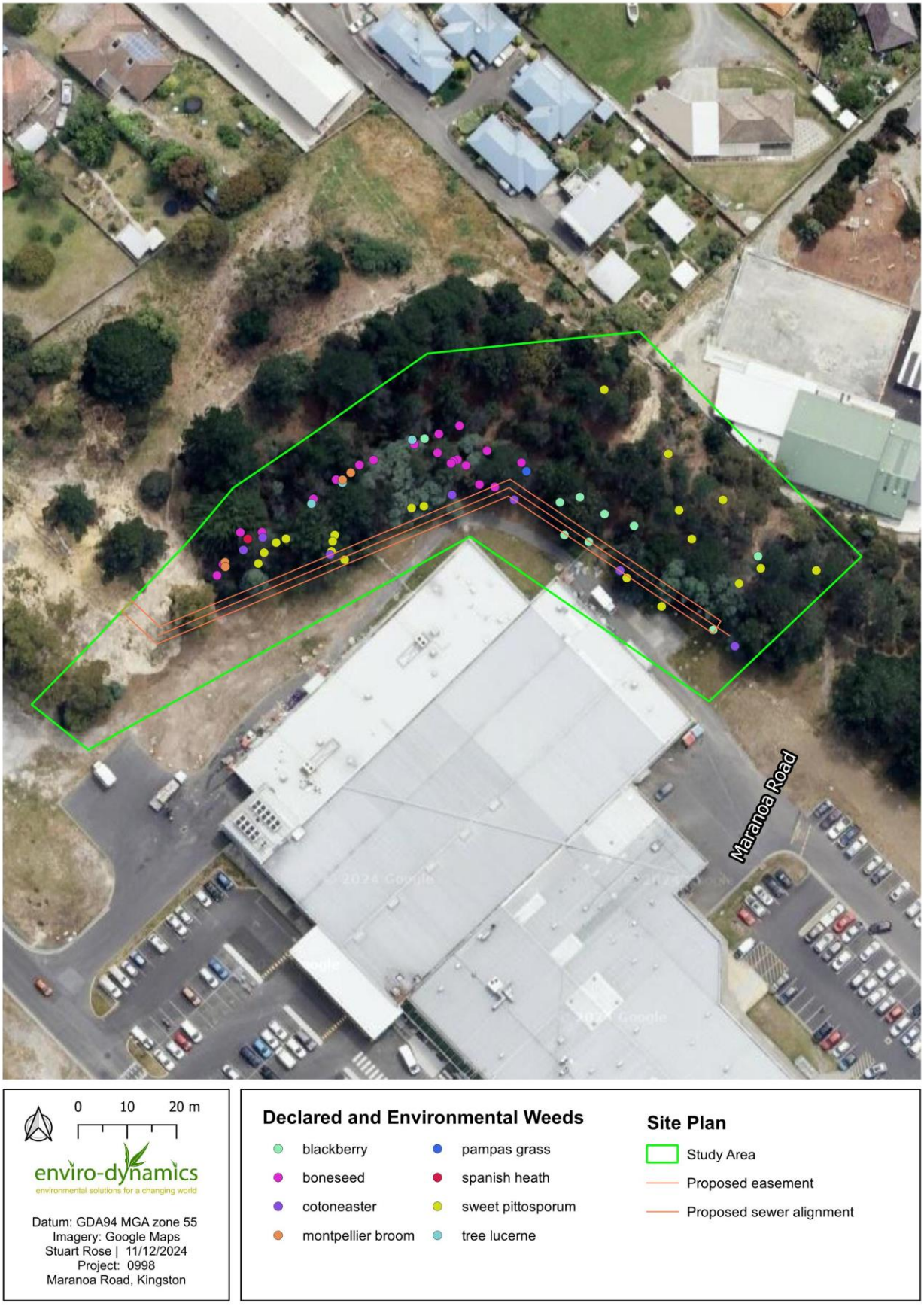


Figure 8: Weeds recorded on site

4.4 Fauna

4.4.1 Threatened fauna

No threatened fauna species listed under the Tasmanian *Threatened Species Protection Act 1995* (TSPA) or under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA) were recorded during the survey.

4.4.2 Threatened fauna habitat

Habitat for one fauna species listed under both the TSPA and the EPBCA was recorded during the survey (Figure 9).

Chaostola Skipper (*Antipodia chaostola* subsp. *leucophaea*)

TSPA endangered, EPBCA Endangered

The chaostola skipper is a medium sized brown butterfly, endemic to Tasmania. It has a two-year life cycle and adults fly for a few weeks between October and December. It is restricted to dry forests which contain their favoured food plants - *Gahnia radula* and/or *G. microstachya*. *Gahnia radula* is not a threatened plant and is widespread in Tasmania.

Chaostola skipper shelters are distinctive, entrances are located at the bottom of the plant, rather than the top which most other species do. The larvae also feed on the leaves above their shelters, leaving small chewing patterns.

A patch of approximately 50 m^2 of *Gahnia radula* with around 50 small clumps are present within the building area (Figure 4). A thorough survey inspecting for shelters or evidence of feeding from the chaostola skipper was undertaken on site. Although the skippers fly between October and December, evidence of their presence can be detected at any time of year. No evidence was found of the skipper during the survey.

Additional species

A search of the Natural Values Atlas (NRE database) indicated that several threatened fauna species had been recorded within 5 km of the site. Those recorded within 500 m or within 5 km, with suitable habitat on site, are addressed in the Table 4. Those with no suitable habitat and no conceivable chance are occurring (such as marine species) are listed in Appendix 3.

Table 4: Threatened fauna species recorded on the Natural Values Atlas within 5 km of the site

Species	Status TSPA / EPBCA	Records 500m / 5 km	Comment
Antipodia chaostola subsp. *leucophaea* chaostola skipper	e / EN	1 / 42	This species is restricted to dry forest and woodland supporting the sedge *Gahnia radula* and occurs in isolated populations in south-eastern and eastern Tasmania. **Suitable habitat present. Survey conducted for evidence of skippers being present and none was found.**
Dasyurus maculatus subsp. *maculatus* Spotted-tailed quoll	r / VU	1 / 6	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 and or plantation areas. No suitable habitat present.
Perameles gunnii Eastern barred bandicoot	- / VU	1 / 1	Potential habitat for the eastern barred bandicoot is forests with a grassy understorey, native and exotic open vegetation types including woodlands and open grasslands, particularly in landscapes with a mosaic of agricultural land and remnant bushland. No suitable habitat present.
Tyto novaehollandiae castanops Tasmanian masked owl	e / -	3 / 3	This species occupies a range of habitats which contain some mature forest, usually below 600 m altitude - these include native forests and woodlands as well as agricultural areas with a mosaic of native vegetation and pasture. No suitable habitat present.

Figure 9: Weeds and threatened fauna habitat recorded on site

5.0 Development impacts and legislation

The following section outlines the impacts of the proposed development on natural values and provides an assessment of the proposal against the relevant legislation and planning requirements.

Impacts on natural values

The proposed development will require the removal of three eucalypt trees with a fourth in need of assessment. These four trees are classified as very high value conservation as per the Kingborough Councils 'Guidelines for a tree plan'.

Removal of radiata pine trees will also be required. These are an introduced species and are of no significance to the natural values on the site.

The proposed development will also result in disturbance to a small and isolated population of *Gahnia radula*. This species is a known habitat for the threatened chaostola skipper butterfly. Chaostola skipper butterflies were not recorded within the proposed development area.

5.1 Commonwealth Environment Protection and Biodiversity Conservation Act 1999

> *A person must not take an action that has, will have or is likely to have a significant impact on any of the matters of national environmental significance without approval from the Australian Government Minister for the Environment (the Minister).*

No threatened flora or fauna species were observed.

Habitat for the chaostola skipper (EPBCA – EN) is present on site. A thorough survey was undertaken, and no evidence of the chaostola skipper was found. *Gahnia radula* is not a threatened plant and is widespread in Tasmania. No further action is required.

5.2 Tasmanian Threatened Species Protection Act 1995

> *In Tasmania, threatened species (flora and fauna) are protected under the Tasmanian Threatened Species Protection Act 1995. Under this Act, a permit is required to knowingly "take" (which includes kill, injure, catch, damage, destroy and collect), keep, trade in or process any specimen of a listed species.*

No threatened flora or fauna species were observed.

Habitat for the chaostola skipper (TSPA – e) is present on site. A thorough survey was undertaken, and no evidence of the chaostola skipper was found. *Gahnia radula* is not a threatened plant and is widespread in Tasmania. No further action is required.

5.3 Tasmanian Nature Conservation Act 2005

No vegetation communities listed under schedule 3A of the *Tasmanian Nature Conservation Act* 2002 were observed on site.

5.4 Tasmanian Biosecurity Act 2019

Five declared weed species were recorded on site. Zone A species are those where eradication is the principal management objective and should be treated as a priority. Zone B species should be controlled appropriately to limit their spread.

Zone A species (Montpellier broom) will need to be managed in accordance with the relevant Statutory Weed Management Plans following the best practise prescriptions as laid out in the *Weed and Disease Planning and Hygiene Guidelines - Preventing the spread of weeds and diseases in Tasmania* (DPIPWE, Stewart and Askey-Doran, 2015)

5.5 Kingborough Interim Planning Scheme 2015

Requirements of the Biodiversity Code (E10.0)

The site of the proposed development is partially covered by a Biodiversity Protection Area and must meet the development standards of the Biodiversity Code E10.7. The site is classed as a 'moderate' priority biodiversity value under Table E10.1 of the Biodiversity Code. This is due to the presence of potential habitat for the chaostola skipper.

E10.7.1 Buildings and Works

As the acceptable solutions cannot be met, the performance criteria must be addressed.

P1 Clearance and conversion or disturbance must satisfy the following:

(b) if moderate biodiversity values

(i) development is designed and located to minimise impacts, having regard to constraints such as topography or land hazard and the particular requirements of the development;

Assessment: The proposed development is situated within a modified and developed urban area. It is surrounded by developed land and will have minimal impact on natural values. The

endangered chaostola skipper was not recorded on site during a targeted survey of the *Gahnia radula* plants, within the proposed development area. *Gahnia radula* is not a threatened plant and is widespread in Tasmania. The small population of *Gahnia radula* present, is in a highly degraded area, with minimal natural values.

(ii) Impacts resulting from bushfire hazard management measures are minimised as far as reasonably practicable through siting and fire-resistant design of habitable buildings;

Assessment: The site is not within a bushfire prone area.

(iii) remaining moderate priority biodiversity values on the site are retained and improved through implementation of current best practice mitigation strategies and ongoing management measures designed to protect the integrity of these values;

Assessment: There are no native vegetation communities present within the site. The area to the northwest of the proposed development is predominately radiata pine with minimal native species present in the understory. Whilst the development will result in disturbance to a small population of *Gahnia radula,* it is not a threatened plant and is widespread in Tasmania.

(iv) residual adverse impacts on moderate priority biodiversity values not able to be avoided or satisfactorily mitigated are offset in accordance with the *Guidelines for the use of Biodiversity Offsets in the local planning approval process, Southern Tasmanian Councils Authority, April 2013* and Kingborough Biodiversity Offset Policy 6.10, November 2016.

Assessment: The small population of *Gahnia radula*, which has resulted in the 'moderate biodiversity value 'classification, was extensively searched for evidence of the endangered chaostola skipper. No skippers were found within the proposed development area. Due to the isolated nature of habitat, the relatively small population of *Gahnia radula* plants, and the lack of survey evidence, it is considered unlikely that the site supports a population of this species.

The relatively small population of *Gahnia radula* that will be disturbed - in combination with the widespread nature of dry forest with the potential to contain this habitat species, suggests that the overall adverse impact on the habitat of the endangered chaostola skipper is minimal.

6.0 Conclusion and recommendations

The natural values of land at Maranoa Road, Kingston were assessed as part of a development application for a proposed warehouse, showroom and sewer pipeline easement.

No native vegetation communities were present on site.

No threatened flora or fauna species were recorded on site. Potential habitat for the chaostola skipper was identified and a thorough survey was conducted. No evidence of the skipper was found.

Four trees of very high conservation value will be removed as they are within the proposed development footprint. Most trees on the site are radiata pine, which is an introduced species and of no natural value significance.

Council should consider incorporating the following recommendations into a planning permit, in the event the proposed development is approved.

Recommendations:

- As per the Kingborough Biodiversity Offset Policy Table 1, option c (financial offsets) a payment per very high conservation value tree (tree ID 5, 6, 7 and 13) be paid.
- As per the Kingborough Biodiversity Offset Policy Table 1, option c (financial offsets) a payment per hectare be paid to compensate for the loss of 50 m^2 chaostola skipper habitat.
- All declared and environmental weeds must be controlled in accordance with the Statutory Weed Management Plan and the *Weed and Disease Planning and Hygiene Guidelines - Preventing the spread of weeds and diseases in Tasmania* (DPIPWE, Stewart and Askey-Doran, 2015). Weed management should be undertaken prior to the commencement of works.
- Any soil or gravel imported to the site for construction or landscaping purposes should be from a weed free source to prevent the establishment of further introduced species on the site.

7.0 References

Biosecurity Act 2019.
Available at https://www.legislation.tas.gov.au/view/html/inforce/current/act-2019-022

Commonwealth of Australia (1999) Environment Protection and Biodiversity Conservation Act 1999. No. 91, 1999.

de Salas, M.F. & Baker, M.L. (2019) *A Census of the Vascular Plants of Tasmania, Including Macquarie Island*. (Tasmanian Herbarium, Tasmanian Museum and Art Gallery. Hobart)

DPIPWE (2015) *Guidelines for Natural Values Survey – Terrestrial Development Proposals. Version 1.0. 16th April 2015*. Policy and Conservation Advice Branch. Department of Primary Industries, Parks, Water and Environment, Hobart.

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

FPA (2016) *'Habitat descriptions and survey notes for Tasmania's threatened flora species',* Forest Practices Authority, Hobart, Tasmania

TASVEG 4.0*,* Released July 2020. Tasmanian Vegetation Monitoring and Mapping Program, Natural and Cultural Heritage Division.

Harris, S and Kitchener, A. 2005*, From Forest to Fjaeldmark: Descriptions of Tasmania's Vegetation,* DPIW, Hobart.

NRE *Threatened Species Note Sheets, Listing Statements and Recovery Plans*
Available at https://www.threatenedspecieslink.tas.gov.au/

Nature Conservation Act 2002.
Available at https://www.legislation.tas.gov.au/view/html/inforce/current/act-2002-063

Threatened Species Protection Act 1995.
Available at https://www.legislation.tas.gov.au/view/html/inforce/current/act-1995-083

Appendix 1 – Vascular Plant List (warehouse & showroom site)

Recorder: Fiona Walsh **Date:** Tuesday, 6 February 2024

Dicotyledons

ASTERACEAE			
Hypochaeris radicata	rough catsear	i	
FABACEAE			
Acacia dealbata subsp. dealbata	silver wattle		
Acacia floribunda	gossamer wattle	i	
Bossiaea cinerea	showy bossia		
MYRTACEAE			
Eucalyptus amygdalina	black peppermint	end	
PITTOSPORACEAE			
Pittosporum undulatum	sweet pittosporum	i	
PLANTAGINACEAE			
Plantago coronopus subsp. coronopus	slender buckshorn plantain	i	
Plantago lanceolata	ribwort plantain	i	
ROSACEAE			
Cotoneaster sp.		i	
Rubus fruticosus	blackberry	i	d
SANTALACEAE			
Exocarpos cupressiformis	common native-cherry		
SAPINDACEAE			
Dodonaea viscosa subsp. spatulata	broadleaf hopbush		

Gymnosperms

PINACEAE			
Pinus radiata	radiata pine	i	

Monocotyledons

CYPERACEAE		
Gahnia radula	thatch sawsedge	
POACEAE		
Aira caryophyllea subsp. caryophyllea	silvery hairgrass	i
Briza maxima	greater quaking-grass	i
Dactylis glomerata	cocksfoot	i
Rytidosperma sp.		

Pteridophytes

DENNSTAEDTIACEAE	
Pteridium esculentum subsp. esculentum	bracken

---

end = Tasmanian endemic i = introduced

d = declared weed ~ *(Weed Management Act 1999)*

CR = Critically Endangered, EN = Endangered, VU = Vulnerable ~ *(Environment Protection and Biodiversity Conservation Act 1999)*

e = endangered v = vulnerable r= rare ~ *(Tasmanian Threatened Species Protection Act 1995)*

Appendix 2 – Vascular Plant List (sewer line)

Recorder: Stuart Rose **Date:** Tuesday, 10 December 2024

Dicotyledons

ASTERACEAE			
Cassinia aculeata subsp. aculeata	common dollybush		
Chrysanthemoides monilifera subsp.	boneseed	i	d
CASUARINACEAE			
Allocasuarina verticillata	drooping sheoak		
ERICACEAE			
Erica lusitanica	spanish heath	i	d
FABACEAE			
Acacia dealbata subsp. dealbata	silver wattle		
Acacia longifolia subsp. sophorae	coast wattle		
Acacia melanoxylon	blackwood		
Chamaecytisus palmensis	tree lucerne	i	
Genista monspessulana	montpellier broom	i	d
MYRTACEAE			
Eucalyptus amygdalina	black peppermint	end	
Eucalyptus ovata var. ovata	black gum		
Eucalyptus pulchella	white peppermint	end	
Eucalyptus viminalis subsp. viminalis	white gum		
PITTOSPORACEAE			
Pittosporum undulatum	sweet pittosporum	i	
ROSACEAE			
Cotoneaster sp.		i	
Rubus fruticosus	blackberry	i	d

SANTALACEAE			
Exocarpos cupressiformis	common native-cherry		
Gymnosperms			
PINACEAE			
Pinus radiata	radiata pine	i	
Monocotyledons			
ASPARAGACEAE			
Lomandra longifolia	sagg		
CYPERACEAE			
Gahnia radula	thatch sawsedge		
POACEAE			
Briza maxima	greater quaking-grass	i	
Cortaderia selloana	silver pampasgrass	i	d
Dactylis glomerata	cocksfoot	i	
Elytrigia repens	english couch	i	
Pteridophytes			
DENNSTAEDTIACEAE			
Pteridium esculentum subsp. esculentum	bracken		

---

end = Tasmanian endemic i = introduced

d = declared weed ~ *(Weed Management Act 1999)*

CR = Critically Endangered, EN = Endangered, VU = Vulnerable ~ *(Environment Protection and Biodiversity Conservation Act 1999)*

e = endangered v = vulnerable r= rare ~ *(Tasmanian Threatened Species Protection Act 1995)*

Appendix 3 Natural Values Atlas Records within 5 km

Verified threatened flora records within 5 km of the project area; SS = Tasmanian Threatened Species Protection Act 1995, NS = Commonwealth Environment Protection and Biodiversity Conservation Act 1999

Threatened flora within 5000 metres

Verified Records

Species	Common Name	SS	NS	Bio	Observation Count	Last Recorded
Asperula scoparia subsp. scoparia	prickly woodruff	r		n	1	08-Nov-2022
Austrostipa bigeniculata	doublejointed speargrass	r		n	3	18-Aug-2010
Caladenia caudata	tailed spider-orchid	v	VU	e	8	17-Sep-2008
Caladenia filamentosa	daddy longlegs	r		n	12	30-Oct-2007
Carex gunniana	mountain sedge	r		n	1	01-Nov-1984
Comesperma defoliatum	leafless milkwort	r		n	7	26-Jan-2015
Discaria pubescens	spiky anchorplant	e		n	1	01-Jan-1840
Eucalyptus obliqua x risdonii		ph		e	1	17-Nov-2004
Goodenia geniculata	bent native-primrose	e		n	1	20-Oct-1929
Lachnagrostis robusta	tall blowngrass	r		n	1	23-Dec-1944
Lachnagrostis semibarbata var. filifolia	narrowleaf blowngrass	r		n	1	01-Feb-1929
Lepidosperma tortuosum	twisting rapiersedge	r		n	21	21-Nov-2018
Pomaderris elachophylla	small-leaf dogwood	v		n	2	15-May-1945
Prostanthera rotundifolia	roundleaf mintbush	v		n	2	19-Oct-2020
Pterostylis squamata	ruddy greenhood	v		n	12	14-Dec-2020
Senecio longipilus	longhair fireweed	v		n	1	20-Oct-1929
Senecio squarrosus	leafy fireweed	r		n	3	23-Oct-2006
Thelymitra atronitida	blackhood sun-orchid	e		n	28	19-Nov-2018
Thelymitra malvina	mauvetuft sun-orchid	e		n	2	20-Nov-2010
Vittadinia muelleri	narrowleaf new-holland-daisy	r		n	2	12-Feb-2014
Xerochrysum bicolor	eastcoast paperdaisy	r		n	2	28-Feb-2018

Verified threatened fauna records within 5 km of the project area; SS = Tasmanian Threatened Species Protection Act 1995, NS = Commonwealth Environment Protection and Biodiversity Conservation Act 1999

Threatened fauna within 500 metres

Verified Records

Species	Common Name	SS	NS	Bio	Observation Count	Last Recorded
Antipodia chaostola subsp. leucophaea	chaostola skipper	e	EN	e	1	25-Nov-1952
Dasyurus maculatus	spotted-tailed quoll	r	VU	n	1	18-Jun-2023
Perameles gunnii	eastern barred bandicoot		VU	n	1	27-Nov-1992
Tyto novaehollandiae	masked owl	pe	PVU	n	3	16-May-1991

Threatened fauna within 5000 metres

Verified Records

Species	Common Name	SS	NS	Bio	Observation Count	Last Recorded
Accipiter novaehollandiae	grey goshawk	e		n	4	13-Oct-2017
Aquila audax	wedge-tailed eagle	pe	PEN	n	11	30-Jun-2020
Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	e	EN	e	19	15-Nov-2017
Arctocephalus forsteri	new zealand fur seal	r		n	1	03-Mar-2018
Arctocephalus tropicalis	sub-antarctic fur seal	e	VU	n	1	16-Jun-2021
Brachionichthys hirsutus	spotted handfish	e	CR	e	33	15-May-2022
Calidris ferruginea	curlew sandpiper		CR	n	2	01-Feb-1962
Caretta caretta	loggerhead turtle	e	EN	n	2	03-Nov-2012
Dasyurus viverrinus	eastern quoll		EN	n	7	17-Jan-2021
Eagle sp.	Eagle	e	EN	n	2	01-Nov-2005
Eubalaena australis	southern right whale	e	EN	m	8	14-Jun-2012
Haliaeetus leucogaster	white-bellied sea-eagle	v		n	6	13-Feb-2017
Hirundapus caudacutus	white-throated needletail		VU	n	2	24-Mar-2018
Lathamus discolor	swift parrot	e	CR	mbe	119	02-Dec-2019
Litoria raniformis	green and gold frog	v	VU	n	5	10-Oct-1985
Megaptera novaeangliae	humpback whale	e		m	3	13-Jun-2006
Mirounga leonina	southern elephant seal	e	VU	n	1	27-Jan-2017
Numenius madagascariensis	eastern curlew	e	CR	n	2	29-Jun-1892
Pardalotus quadragintus	forty-spotted pardalote	e	EN	e	1	21-Oct-1921
Perameles gunnii	eastern barred bandicoot		VU	n	41	08-Nov-2021
Perameles gunnii subsp. gunnii	eastern barred bandicoot		VU		1	30-Aug-2021
Procellaria cinerea	grey petrel	e		n	1	01-May-1976
Sarcophilus harrisii	tasmanian devil	e	EN	e	17	14-May-2022
Seriolella brama	Blue Warehou		CD	n	1	01-Jul-1982
Sterna nereis subsp. nereis	fairy tern	pv	PVU		5	01-Jan-1975
Theclinesthes serpentatus	chequered blue	pr		n	4	28-Mar-1996
Theclinesthes serpentatus lavara	Chequered Blue	r		e	8	19-Mar-2001
Thinornis cucullatus	hooded plover		PVU	ae	1	01-Jul-2017
Thinornis rubricollis	hooded plover		VU	n	2	25-Apr-1915
Tyto novaehollandiae	masked owl	pe	PVU	n	14	10-Jan-2017
Tyto novaehollandiae subsp. castanops	masked owl (Tasmanian)	e	VU	e	1	06-Aug-2016