Appendix F
Natural Values Assessment

Cimitiere Plains Solar Farm

ENVIRONMENTAL CONSULTANCY

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Natural Values Assessment

Cimitiere Plains Solar Farm

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Contents

1 Introduction

Enviro-dynamics has been contracted to undertake this natural values assessment by Envoca on behalf of the proponents, Sun Spot 9 Pty Ltd. This 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 provides maps of weed infestations and identifies other threats which are present. Any potential impacts to natural values posed by the development are then analysed against the requirements of the relevant legislation.

2 Background

2.1 Site Description

The study area covers approximately 550 ha and is located roughly 5 km east of George Town (Figure 1). The northern half of the site where the proposed solar farm will be located is predominantly agricultural land. The southern half, where the proposed transmission line is planned, is covered mostly by native vegetation.

The land is relatively flat in the northern part with moderate undulations occurring within the middle and southern parts. Elevations range from 30–200 m a.s.l. There is a mixed geology throughout the site including Jurassic dolerite, coastal sands, sandstones, and mudstones.

Located within the George Town municipality, zoning throughout the site includes Agriculture, Rural, General Industrial, Utilities and Open Space. Land tenure is predominantly private freehold, with the proposed transmission line crossing a section of Crown Land classified as Future Potential Production Land and terminating at a Conservation Area.

The following overlays under the Tasmanian Planning Scheme cover parts of the site:

- Priority Vegetation Area
- Scenic Road Corridor
- Scenic Protection Area
- Waterway and Coastal Protection Area.

The entire site is mapped as a Bushfire Prone Area.

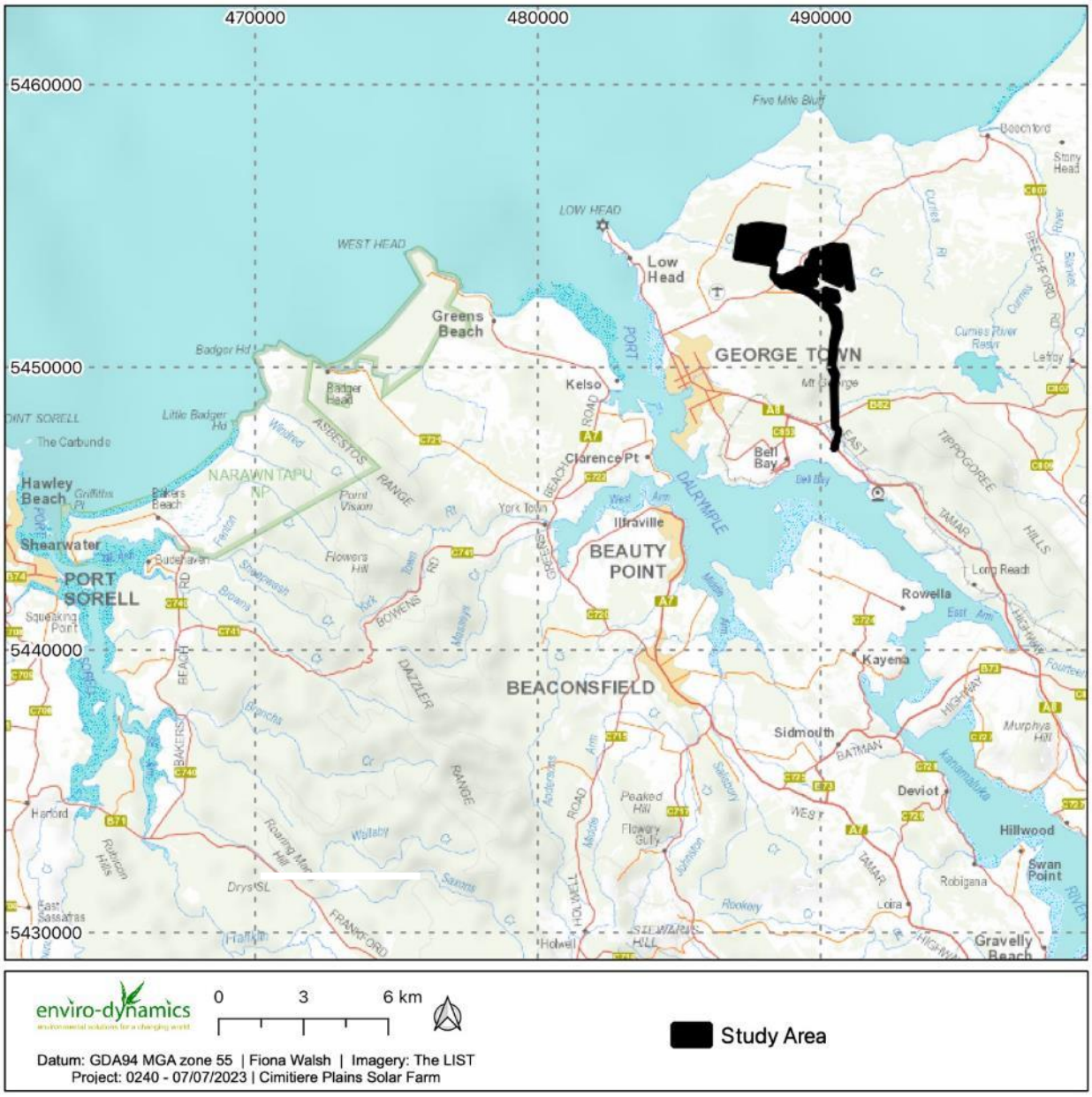

Figure 1: Site Location

2.2 Development Proposal

The development consists of a proposal for a solar farm and a transmission line corridor (**Figure 2**). The proposed solar farm is within agricultural land to the north of Musk Vale Road, with the proposed transmission line running south toward the East Tamar Highway and the George Town power substation. The location of the proposed transmission line planning corridor runs through predominantly native vegetation communities and varies in width between 100 and 300 m.

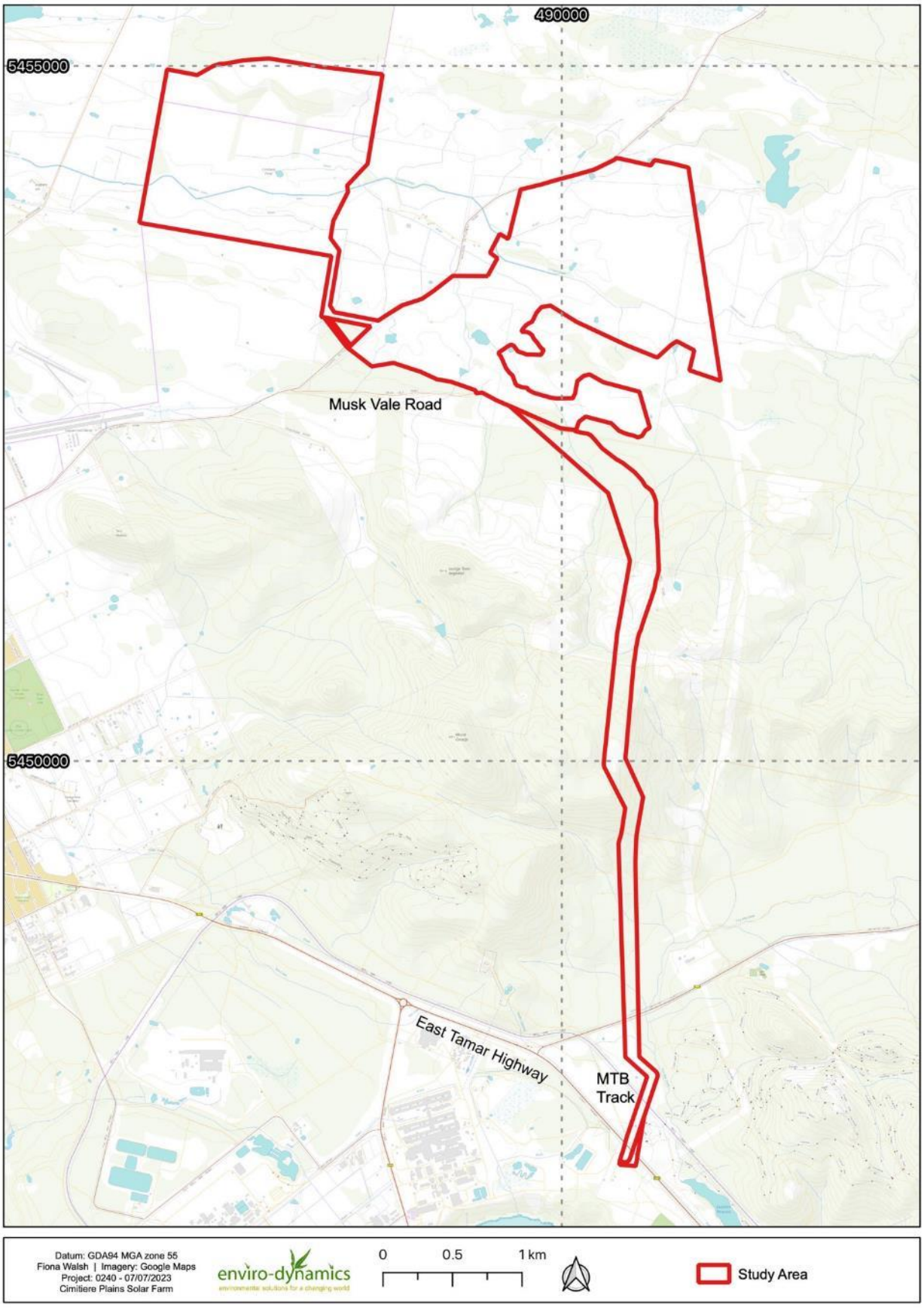

Figure 2: Study Area

2.3 Site selection

The transmission line route is constrained between the Basslink interconnector in the east and George Town in the west. Several potential routes were investigated with consideration of threatened vegetation communities, threatened species, visual impact, private landholders, and Aboriginal cultural heritage.

A route beside the existing Basslink transmission line (Figure 3) was investigated in the first instance, to mitigate environmental impacts such as edge effects and fragmentation. The impacts of this eastern route were determined to be greater than the route assessed by this report because it:

- was approximately 620 m longer thereby requiring additional 3.1 ha of vegetation clearing
- would impinge on a small private lifestyle property, and
- would likely require construction of more new access roads than the preferred route.

The easement width of this route would not be reduced since the two parallel easements cannot overlap and, the proposed extent of vegetation clearing would be greater due to the longer route. Finally, the two easements would be parallel for a distance of only 1.1 km in order to avoid three threatened vegetation communities:

- *Eucalyptus ovata* forest (NCA, EPBCA)
- *E. viminalis* wet forest (NCA, EPBCA)
- *Melaleuca ericifolia* forest (NCA)

Transmission line route selection is described in some more detail in the Development Application for the project but is not discussed further as the focus of this report is the preferred alignment. Vegetation mapping of alternative routes is shown in Figure 3.

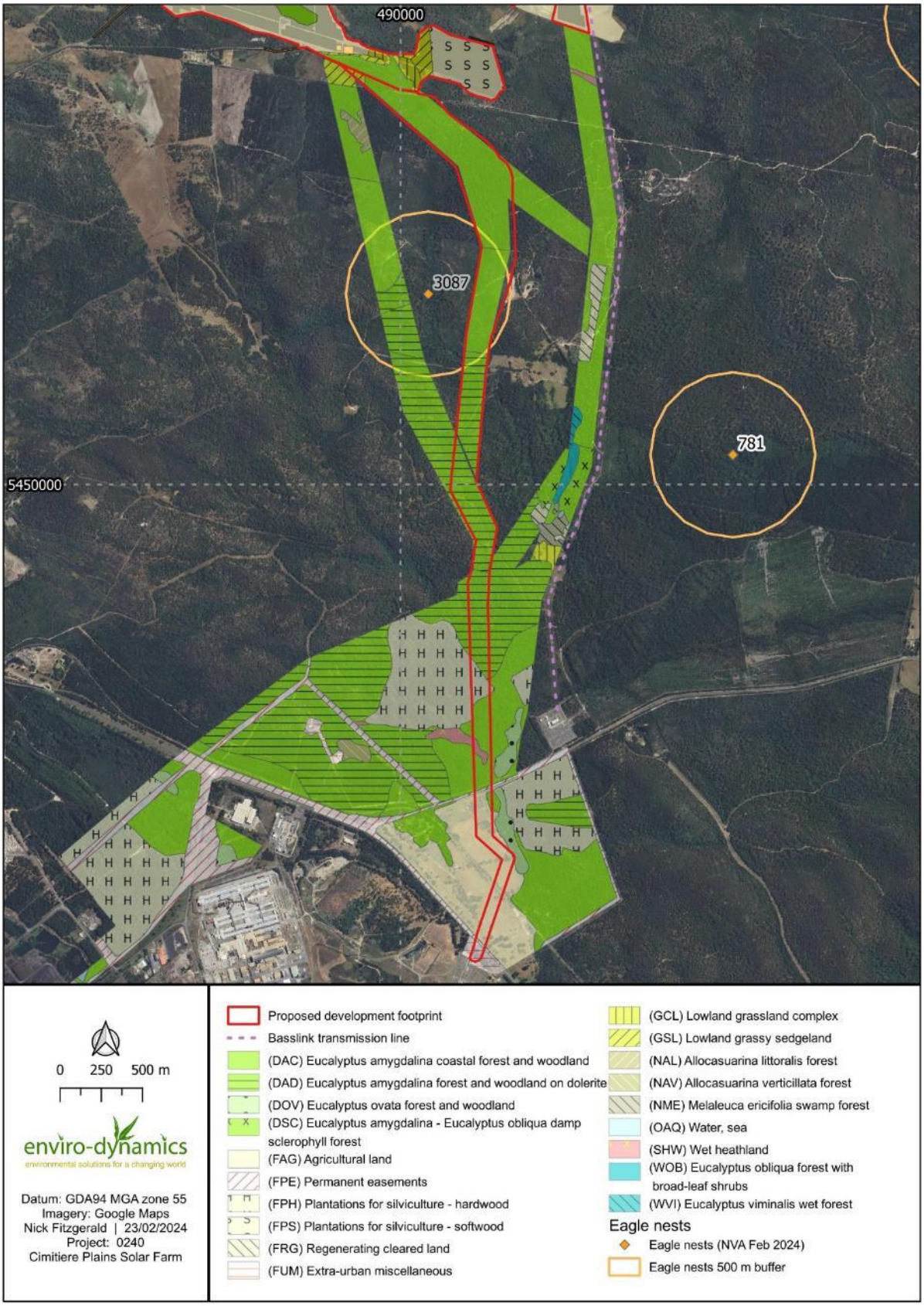

Figure 3: Field-verified vegetation mapping of alternative transmission line routes.

3 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 a variety of sources, including:

- Natural Values Atlas report, generated 15th July 2022 (NRE 2022)
- LISTmap

3.2 Field survey

Multiple field surveys were conducted by Enviro-dynamics staff:

- November 2020,
- July 2022,
- August 2022,
- November 2022,
- July 2023.

Earlier surveys investigated broader areas to inform final selection of the proposed solar farm footprint and transmission line alignment. An outline of the natural values, including mapping of threatened vegetation communities and threatened flora species, from these preliminary surveys was provided to the proponent to inform the design.

Vegetation communities on the site were assessed and classified according to TASVEG 4.0. Rare and threatened flora species were searched for, including potential habitat for these 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.

Locations of threatened flora, threatened fauna habitat and significant weeds were mapped with a handheld GPS and population data was captured e.g. numbers of individuals, area occupied etc. Geographic datum used was GDA94 Zone 55.

Taxonomic nomenclature for flora follows the latest Census of Vascular Plants of Tasmania (Baker & de Salas 2022). Classification of vegetation communities is in accordance with Kitchener and Harris (2013) and TASVEG 4.0.

3.3 Limitations of the surveys

Whilst every effort was made to detect species of significance with planned targeted surveys within the recommended time frames, it is unlikely to detect all species present. This is due to the unpredictable nature of flowering times or emergence of species such as annuals and ephemerals. Some plants cannot be identified to a species level and some species may have been overlooked due to their cryptic nature or a lack of fertile material.

4 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.

4.1 Vegetation Communities

Eight native and seven modified vegetation communities were mapped within the study area, as per the TASVEG 4.0 classification system (Figures 4-6).

Native vegetation communities present within the study area include:

- DAC - *Eucalyptus amygdalina* coastal forest and woodland
- DAD - *Eucalyptus amygdalina* forest and woodland on dolerite
- DOV - *Eucalyptus ovata* forest and woodland **, ≠
- GCL - Lowland grassland complex
- GSL - Lowland grassy sedgeland
- NBA - *Acacia-Bursaria* woodland and scrub
- NME – *Melaleuca ericifolia* swamp forest **
- SHW – Wet heathland

Modified vegetation communities include:

- FAG - Agriculture land
- FPE - Permanent easements
- FPF – *Pteridium esculentum* fernland
- FPH – Hardwood plantations for silviculture
- FPS – Softwood plantations for silviculture
- FRG - Regenerating cleared land
- FUM - Extra-urban miscellaneous

** Denotes vegetation communities listed as threatened under the *Nature Conservation Act 2005*

≠ Has potential to correspond to a threatened vegetation community listed under the *Environment Protection and Biodiversity Conservation Act 1999,* if thresholds are met.

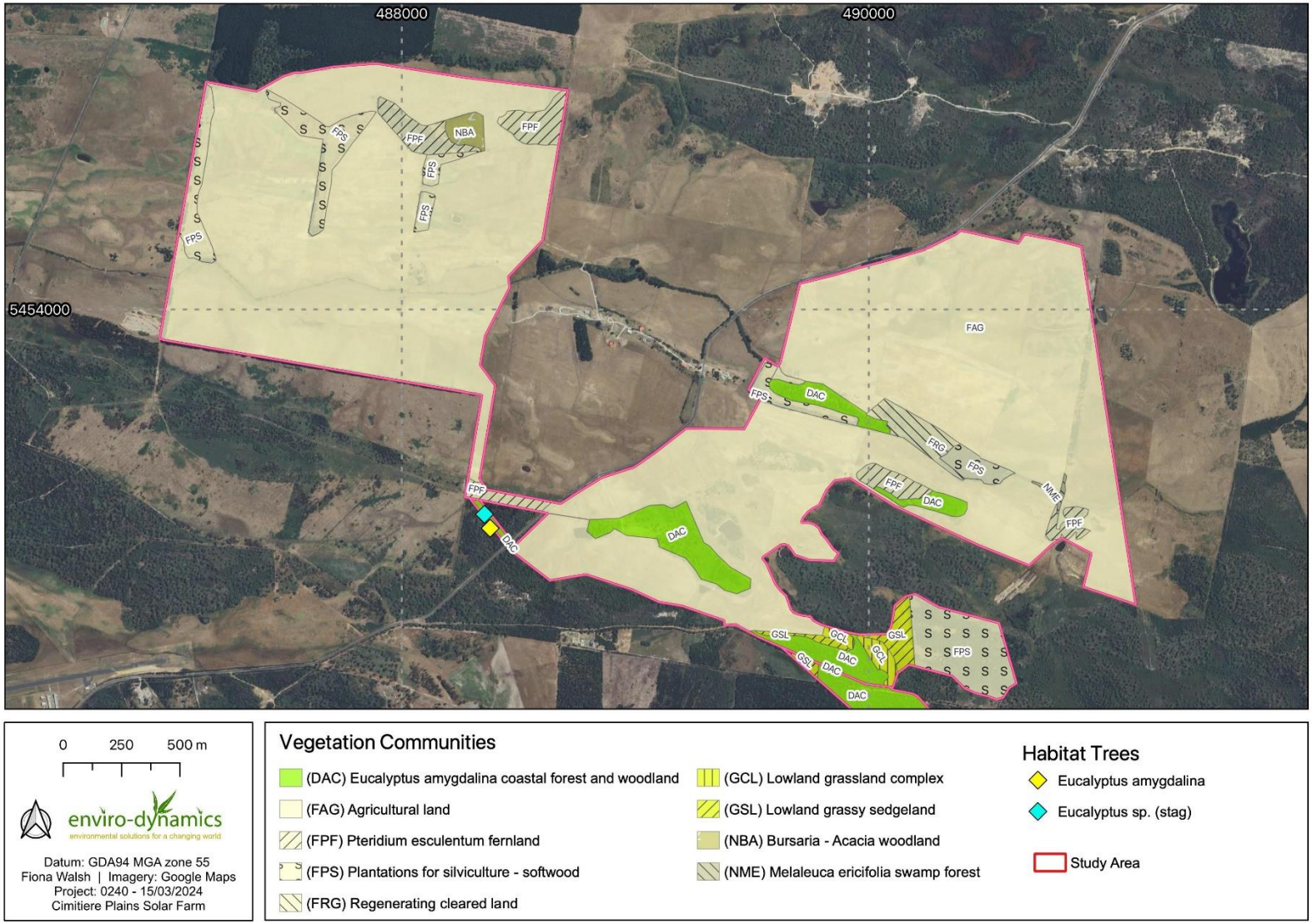

Figure 4: Vegetation communities within the proposed solar farm area

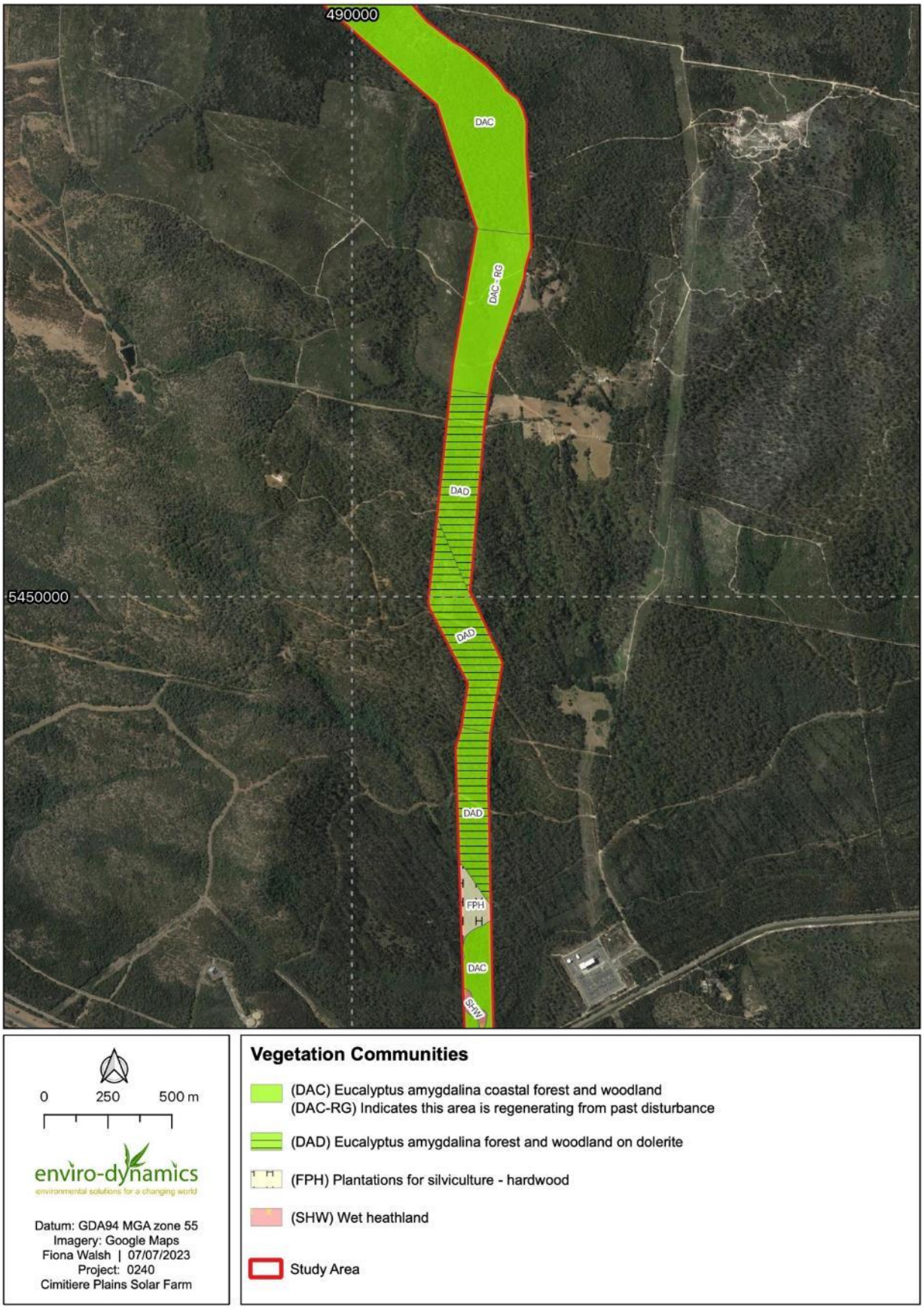

Figure 5: Vegetation communities within the northern portion of the proposed transmission easement

Figure 6: Vegetation communities within the southern portion of the proposed transmission easement

Eucalyptus amygdalina coastal forest and woodland (DAC)

Eucalyptus amygdalina coastal forests and woodlands are dry sclerophyll communities typically dominated by *E. amygdalina* (Plate 1). They vary from open forest to low open woodland. The community can form pure stands of scattered trees or mallee-form trees emerging from a heathy understorey. The trees rarely exceed 20 m in height and on many sites are less than 10 m tall (Harris and Kitchener, 2005).

DAC is found mainly within the northern and eastern parts of the study area within low-lying areas (Figures 4, 5 and 6). It is dominated by *E. amygdalina* with an understory comprising of *Banksia marginata*, *Melaleuca* species, *Olearia lirata* and *Allocasuarina* species. The ground layer is dominated by *Pteridium esculentum* and *Lepidosperma* species. There is roughly 57 ha of relatively intact forest and 12 ha regenerating from past clearance. Within the relatively intact sections of forest, there are signs of past disturbance in the form of old tracks and stumps.

The regenerating area (as indicated in Figure 5 by DAC - RG) is roughly 2 – 4 m high and containing dense regrowth dominated by *Eucalyptus amygdalina, E. obliqua, E. ovata, Pultenaea daphnoides*, *Leptospermum scoparium*, *Acacia verticillata*, *Olearia lirata*, *Goodenia ovata* and sedges such as *Gahnia grandis* and *Lepidosperma* species.

Plate 1: *Eucalyptus amygdalina* coastal forest and woodland (DAC)

Eucalyptus amygdalina forest and woodland on dolerite (DAD)

Eucalyptus amygdalina forests and woodlands on dolerite are dominated by uneven-aged *E. amygdalina* in an open forest structure with trees rarely exceeding 25 m. They are dry sclerophyll communities with variable understoreys ranging from grassy to shrubby. In some places, rock forms a cover (Harris and Kitchener, 2005).

DAD occurs mainly in the southern section of the study area and covers roughly 26 ha. There are quite a lot of tracks throughout the lower lying areas. There is evidence of selective wood harvesting throughout the area (Plate 2), including the areas up slope, however aside from this it is relatively intact with some healthy patches with diverse understorey.

Native species in this vegetation community include *Eucalyptus amygdalina, E. ovata, Notelaea ligustrina, Lomatia tinctoria, Pultenaea daphnoides* and *Acacia verticillata.* A lot of small herbs, ferns and grasses were also observed throughout, including *Lagenophora* species*, Veronica calycina, Acianthus* species*, Cheilanthes austrotenuifolia*, *Poa* and *Rytidosperm*a species.

Plate 2: *Eucalyptus amygdalina* forest and woodland on dolerite (DAD)

Eucalyptus ovata forest and woodland (DOV)

This community is listed as a threatened vegetation community under the *Nature Conservation Act 2005* (NCA) and the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBCA).

DOV is a community of *E. ovata* (and occasionally *E. viminalis*) dominated forest and woodland associated with drainage flats and moderate to poorly drained fertile soils. This community is most

typically characterised by shrubby or sedgy understoreys although grassy and even broad-leaved facies occur (Harris and Kitchener, 2005).

There is only one small patch of roughly 900 square metres occuring at the south end of the proposed transmission easement which is sufficient to be mapped as the threatened *Eucalyptus ovata* forest and woodland (DOV) Figure 6 and Plate 3. This patch meets the requirements of the threatened community under the NCA, although it does not meet the requirements to be classed as threatened under the EPBCA (see Section 5.1 for further details).

Eucalyptus ovata trees are also present within the *Eucalyptus amygdalina* forest throughout the site in places on damp ground but mostly do not occur in sufficient density or extent to be classified as a community within it's own right.

This patch will not be impacted by any works.

Plate 3: *Eucalyptus ovata* forest and woodland (DOV)

Lowland grassland complex (GCL) and Lowland grassy sedgeland (GSL)

The lowland grassland complex generally contains natural or disturbance-induced grasslands dominated by species of *Rytidosperma* or *Austrostipa*, but commonly also containing *Poa* species and *Themeda triandra*. Semi-improved pasture can revert to this community over time, especially where drought conditions favour the native species (Harris and Kitchener. 2005).

Within GSL, typically the ground layer is dominated by a sedgy sward of mainly *Lomandra longifolia*, *Diplarrena moraea* or *Lepidosperma* spp., with occasional patches of *Poa* spp. and *Themeda triandra*. The community may contain scattered eucalypts such as *Eucalyptus viminalis*, *E. pauciflora*, *E. ovata*, *E. rubida* and *E. amygdalina* with a density of < 5%. *Acacia dealbata, A. mearnsii, A. melanoxylon, Bursaria spinosa* and *Dodonaea viscosa* can form a scattered small-tree layer, especially on slopes (Harris and Kitchener. 2005).

GSL and GCL mapped within the site is present in a mosaic of roughly 8 ha within the solar farm study area north of Musk Vale Road and a small section of GSL to the south (Figure 4, Plate 4 and Plate 5). It is located between the softwood plantation and the agricultural paddocks to the west, with DAC surrounding it to the north and the south.

The GSL area is dominated by species such as *Lepidosperma filiforme, Lepidosperma longitudinale, Lomandra longifolia*, *Diplarrena moraea*, *Pteridium esculentum* and small herbs such as *Drosera* species.

GCL at the site is dominated by native grasses such as *Rytidosperma* and *Austrostipa* species.

Plate 4: Lowland grassy sedgeland (GSL) in the north

Plate 5: Lowland grassy sedgeland (GSL) and Lowland grassland complex (GCL) mosaic in the north

Acacia-Bursaria woodland and scrub (NBA)

This vegetation community is characterised by scattered small trees of prickly box (*Bursaria spinosa*), silver wattle (*Acacia dealbata*), black wattle (*Acacia mearnsii*), blackwood (*Acacia melanoxylon*), drooping she oak (*Allocasuarina verticillata*) and other small trees and shrubs. They form a sparse to dense layer over a grassy understory dominated by kangaroo grass (*Themeda triandra*) or wallaby grasses (*Rytidosperma* sp.). Species composition can vary between sites (Harris and Kitchener. 2005).

There is roughly 2 ha of NBA which is located within agricultural land in the northern part of the site (Figure 4). It occurs within a small, degraded patch of vegetation containing remnant pine plantation and a patch of FPF (*Pteridium esculentum* fernland). It is dominated by *Bursaria spinosa* with an understory comprised of exotic grasses from the surrounding farmland.

Melaleuca ericifolia swamp forest (NME)

Listed as a threatened vegetation community under the *Nature Conservation Act 2005*.

The community typically occurs as pure or almost pure stands of *Melaleuca ericifolia* with trees generally 10 – 12 m in height (but reaching 20 m) forming a dense canopy over a simple, sedgy understorey. It includes all successional growth stages (Harris and Kitchener 2005).

NME occupies a very small area (less than 1 ha) in the eastern part of the solar farm study area (Figure 4). It is in an area surrounded by agricultural land. This vegetation community will not be impacted, and a commitment has been made to protect this area.

Wet heathland (SHW)

The community is a sclerophyllous and floristically diverse wet heathland generally 1–2 (–3) m often containing *Melaleuca* spp. with a dense sedgy ground cover of Restionaceous and Cyperaceous species. Scattered emergent *Eucalyptus rodwayi* or *E. ovata* trees can be common. SHW generally lacks a clear dominant shrub species (Harris and Kitchener 2005).

There are two small patched of less than 1 ha, both occurring within the south of the study area (Figure 5 and Figure 6). One patch, which extends into the area of the proposed transmission easement, is part of a larger patch to the west of the site. Another small patch occurs close to the railway lines near the mountain bike track. This borders a small patch of DOV and is infested with spanish heath and degraded.

Softwood and hardwood plantations (FPS and FPH)

These categories include tree farms on a variety of land tenures. Common species in softwood plantations are *Pinus radiata*, with eucalypts such as *E. nitens* and *E. globulus* the main species within hardwood plantations.

Softwood (pine) plantations are present within the northern half of the study area (Figure 4), mainly within the agricultural lands. There is a small section of hardwood plantation (eucalypt) toward the southern end of the proposed transmission easement (Figure 5).

Agriculture land (FAG)

Agricultural land (FAG) includes exotic grassland pastures and croplands. The pastures are dominated by mixtures of exotic temperate grasses and clovers. Crops range from common temperate vegetables and orchard fruits and nuts through to crops such as *Tanacetum cinerariifolium* (pyrethrum) and *Papaver somniferum* (opium poppy). FAG can include exotic grassland pastures with scattered trees (less than 5% crown cover) (Harris and Kitchener, 2005).

There is roughly 374 ha of FAG throughout the site (Figures 4 and 6 and Plate 6), and are spread throughout the study area.

Plate 6: Agriculture land (FAG)

Pteridium esculentum fernland (FPF)

This community occurs on well–drained sites over a wide range of rock types and altitudes. *Pteridium esculentum* commonly invades unimproved cleared land or degraded pasture and may form a dominant cover particularly at the edges of forest where bracken dominates the understorey (partly due to high fire frequency). *Pteridium esculentum* may also dominate and replace heathland and shrubland communities on coastal dunes subject to very high fire-frequencies (Harris and Kitchener 2005).

These dense patches of *Pteridium esculentum* cover about 15 ha and are located within the FAG in the north (Figure 4).

Regenerating cleared land (FRG)

FRG is used to map abandoned farmland or other degraded land (e.g. abandoned mines, quarries etc.) where there has been significant natural recolonisation by native species of rushes and shrubs. Native restoration plantings are also included within FRG (Harris and Kitchener 2005).

There is an area of approximately 4 ha of FRG in the northern part of the site (Figure 4). It is situated between a small patch of *Eucalyptus amygdalina* coastal forest and woodland (DAC) to the west, Softwood plantation (FPS) to the east, and Agricultural land (FRG) to the north and south.

4.2 Flora

4.2.1 Threatened Flora

A search of the Natural Values Atlas (NVA, 2023) revealed dozens of threatened flora species had been recorded within 5 km of the site, four of which have been found within 500 m of the proposed development area. These are addressed in Table 1. Species which are unlikely to occur at the site, as there is no suitable habitat present (e.g. marine species) are listed in Appendix 1.

One threatened flora species listed under the *Threatened Species Protection Act 1995* (TSPA) was recorded within the transmission easement study area. The location of which can be seen in Figure 8.

Gratiola pubescens

This erect to procumbent perennial herb can be identified from vegetative characteristics, though the presence of flowers may confirm identification and aid detection. All observations from Tasmania have been made from December to March. The species flowers in late spring and summer. In Tasmania, the species is most commonly located in permanently or seasonally damp or swampy ground, including the margins of farm dams (TSS, 2023) It is listed as rare under the TSPA.

One small patch of *Gratiola pubescens,* roughly 4 m^2 was recorded within a small boggy area in the proposed transmission corridor (Figure 8 and Plate 7). The area appeared to have been disturbed in the past and was quite wet with a reasonably thick cover of low growing scrub. Due to the growth habit of this species and its tendency to root at the nodes, estimating plant numbers can be difficult. Approximately 100 ramets (stems) were counted within the patch, which is likely to represent between 3 and 10 individuals.

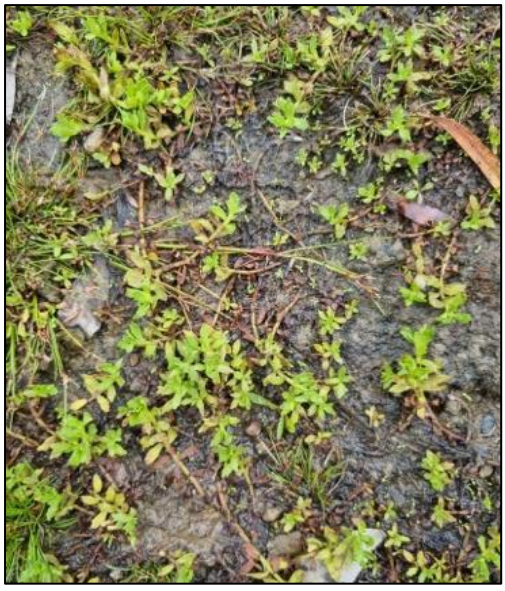

Plate 7: *Gratiola pubescens* from within the proposed transmission easement

Additional species

Extensive preliminary surveys were conducted in the broader area to help inform the location for the proposed development, as well as targeted spring surveys for threatened flora species known from NVA observations which had suitable habitat. During these surveys several threatened flora species were identified outside of the area of the final proposed development (Figure 7 and Figure 8). These species will not be impacted.

Table 1: Threatened species observation within 5 km from the Natural Values Atlas (2023). (EPBCA) CR = Critically Endangered, EN = Endangered, VU = Vulnerable (TSPA) e = endangered, v = vulnerable, r= rare

Species	Status TSPA / EPBCA	Records within 500m / 5km	Comments
Records within 500 m			
Acacia ulicifolia juniper wattle	r / -	1 / 26	*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). **Suitable habitat present, one plant was found outside of the final study area (Figure 8). No plants observed within.**
Caladenia patersonii Patersons spider-orchid	v / -	1 / 30	*Caladenia patersonii* favours coastal and near-coastal areas in northern Tasmania, growing in low shrubby heathland and heathy forest/woodland in moist to well-drained sandy and clay loam. **Suitable habitat present, however may have been overlooked due to the cryptic/small nature of species.**
Craspedia paludicola	r (unofficial)	1 / 4	A robust herb in the daisy family that grows in open wet swampy areas or at the edges of water bodies or courses. In Tasmania, the species is known from 12 locations scattered in mostly lowland areas in the eastern half of the State, and in montane areas in the Central Highlands. While rarely encountered, the

Species	Status TSPA / EPBCA	Records within 500m / 5km	Comments
			species can be abundant, but most occurrences are small. **Suitable habitat present although due to the distinctiveness of the species it is unlikely to have been overlooked.**
Veronica plebeia trailing speedwell	r/ -	1 / 17	*Veronica plebeia* typically occurs in dry to damp sclerophyll forest dominated by *Eucalyptus amygdalina* on dolerite or Tertiary sediments but can also occur in *Eucalyptus ovata* grassy woodland/forest and *Melaleuca ericifolia* swamp forest. **Suitable habitat present, however may have been overlooked due to the cryptic/small nature of species.**
Records within 5 km			
Aphelia gracilis slender fanwort	r / -	0 / 53	*Aphelia gracilis* inhabits damp sandy ground and wet places in the Midlands and north-east of the State. It may readily colonise sites after fire or other disturbance. **Suitable habitat present, and plants were found close to the study area, but none within. May have been overlooked due to the cryptic/small nature of species.**
Aphelia pumilio dwarf fanwort	r / -	0 / 28	*Aphelia pumilio* is found growing on damp flats, often with impeded drainage. The main vegetation types are lowland grassland (*Themeda triandra)* and dry sclerophyll forest and woodland dominated by *Eucalyptus viminalis*, *E. amygdalina* or *E. ovata*. **Suitable habitat present, however may have been overlooked due to the cryptic/small nature of species.**
Phyllangium distylis tiny mitrewort	r / -	0 / 21	*Phyllangium distylis* occurs in sandy humic heaths and open

Species	Status TSPA / EPBCA	Records within 500m / 5km	Comments
			shrublands, muddy soaks and the margins of ephemeral wetlands. **Suitable habitat present, and *P. divergens* was found close to the study area, but none within. May have been overlooked due to the cryptic/small nature of species.**
Phyllangium divergens wiry mitrewort	v / -	0 / 10	*Pyllangium 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.). **Suitable habitat present, and plants were found close to the study area, but none within. May have been overlooked due to the cryptic/small nature of species.**
Pimelea flava subsp. *flava* yellow riceflower	r / -	0 / 750	*Pimelea flava* subsp. *flava* occurs in wet and dry sclerophyll forest and woodland and extends into hardwood and softwood plantations. It often occurs abundantly on disturbed sites such as in logged forest, firebreaks, powerline easements and road batters. **Suitable habitat present, a few plants were found close to the study area, but none within. Large populations close by. Unlikely to be overlooked due to the distinctiveness of the species.**
Stylidium beaugleholei blushing triggerplant *Stylidium despectum* small triggerplant *Stylidium perpusillum* tiny triggerplant	r / -	0 / 3 0 / 48 0 / 3	Occurs in wet sandy heaths, moist depressions, soaks and hollows in similar environments to *Aphelia sp.* **Suitable habitat present, with NVA records close by. Large populations close by. May have been overlooked due to the cryptic/small nature of species.**

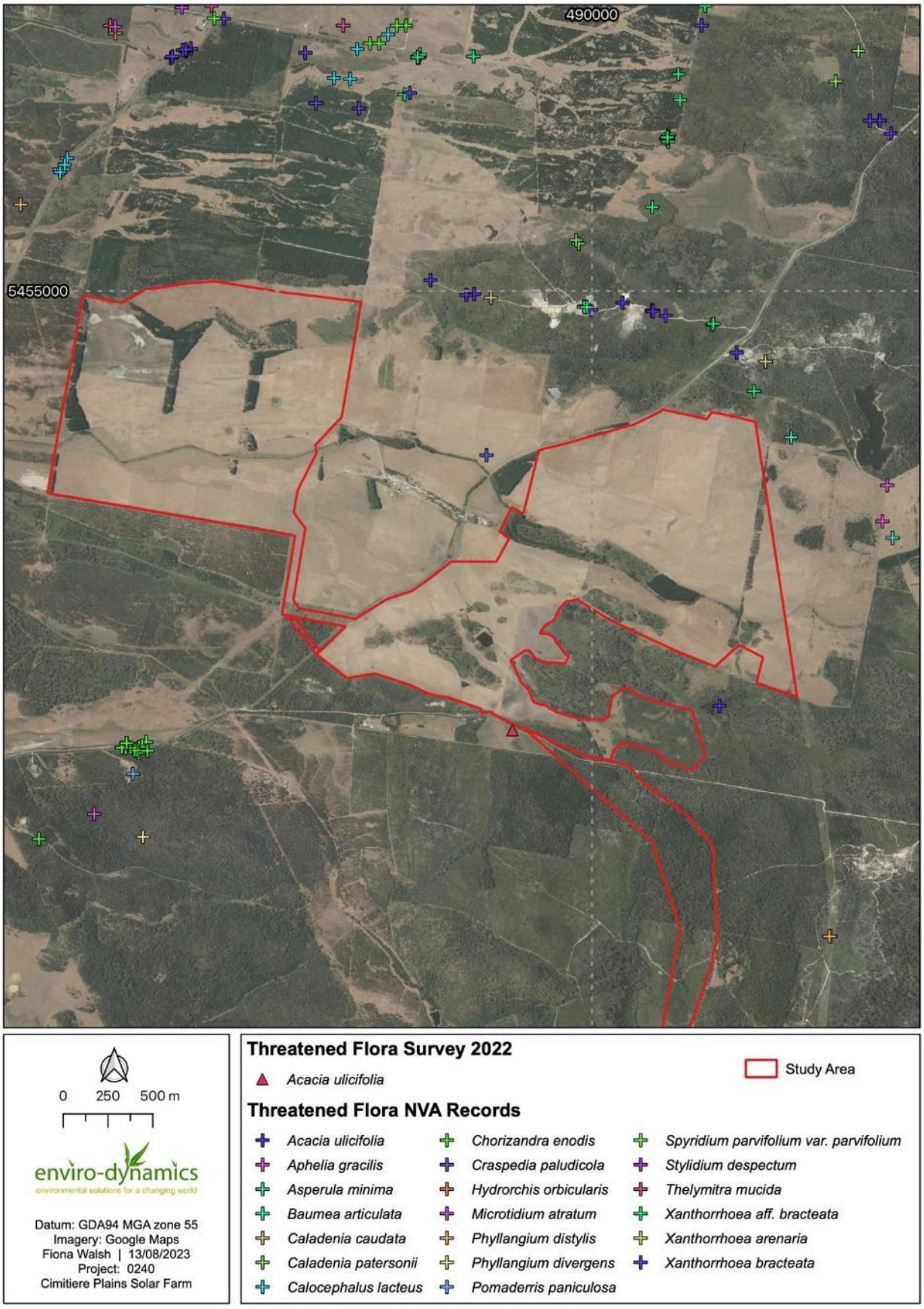

Figure 7: Threatened flora records from the broader area surrounding the proposed development, including NVA observations.

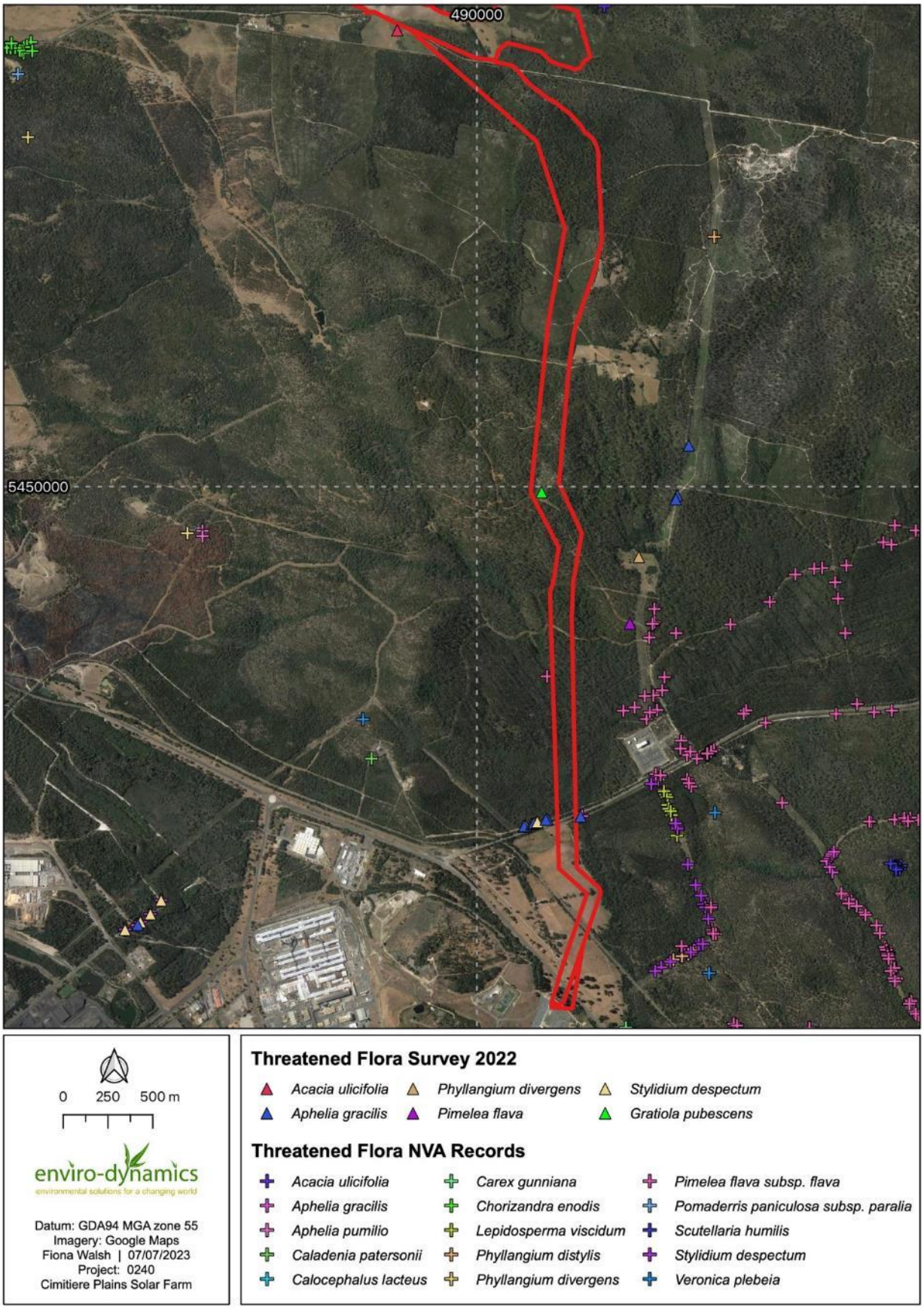

Figure 8: Threatened flora records from the broader area surrounding the proposed development, including NVA observations.

4.2.2 Habitat Trees

Two stags were recorded during the field surveys which have potential to contain hollows (Figure 4). They were found on the proposed solar farm in an area mapped as *Eucalyptus amygdalina* coastal forest (DAC) to the south and between the two large predominantly agricultural land (FAG) areas.

Due to the nature of the vegetation, there may be other large trees with hollows within the *Eucalyptus amygdalina* on dolerite (DAD) which have not been identified.

These potential hollow bearing trees can provide habitat for a range of fauna, and it is recommended to retain them if possible.

4.2.3 Weeds

A range of introduced species were recorded within the study area. None of these species are listed as declared pests under the *Biosecurity Act 2019 (BA)*.

Radiata pine (*Pinus radiata*) wildlings were recorded in one small section in the north of the site growing in an area of native vegetation. This species is considered to be an environmental weed as it germinates readily within the areas surrounding plantations. Although there are no legislative requirements to eradicate or control this species, it is recommended that they be removed.

The location of weeds observed in the study area are shown in Figure 9 and include observations of declared pests outside of the study area. Some weed observations are along roadsides, which highlights the importance of weed hygiene practices to reduce the risk of the proposed development spreading these species further within the site and surrounding areas.

Declared pests will need to be managed in accordance with the relevant Statutory Weed Management Plans following the best practice prescriptions outlined in the Weed and Disease Planning and Hygiene Guidelines - Preventing the spread of weeds and diseases in Tasmania (DPIPWE, Stewart and Askey-Doran, 2015).

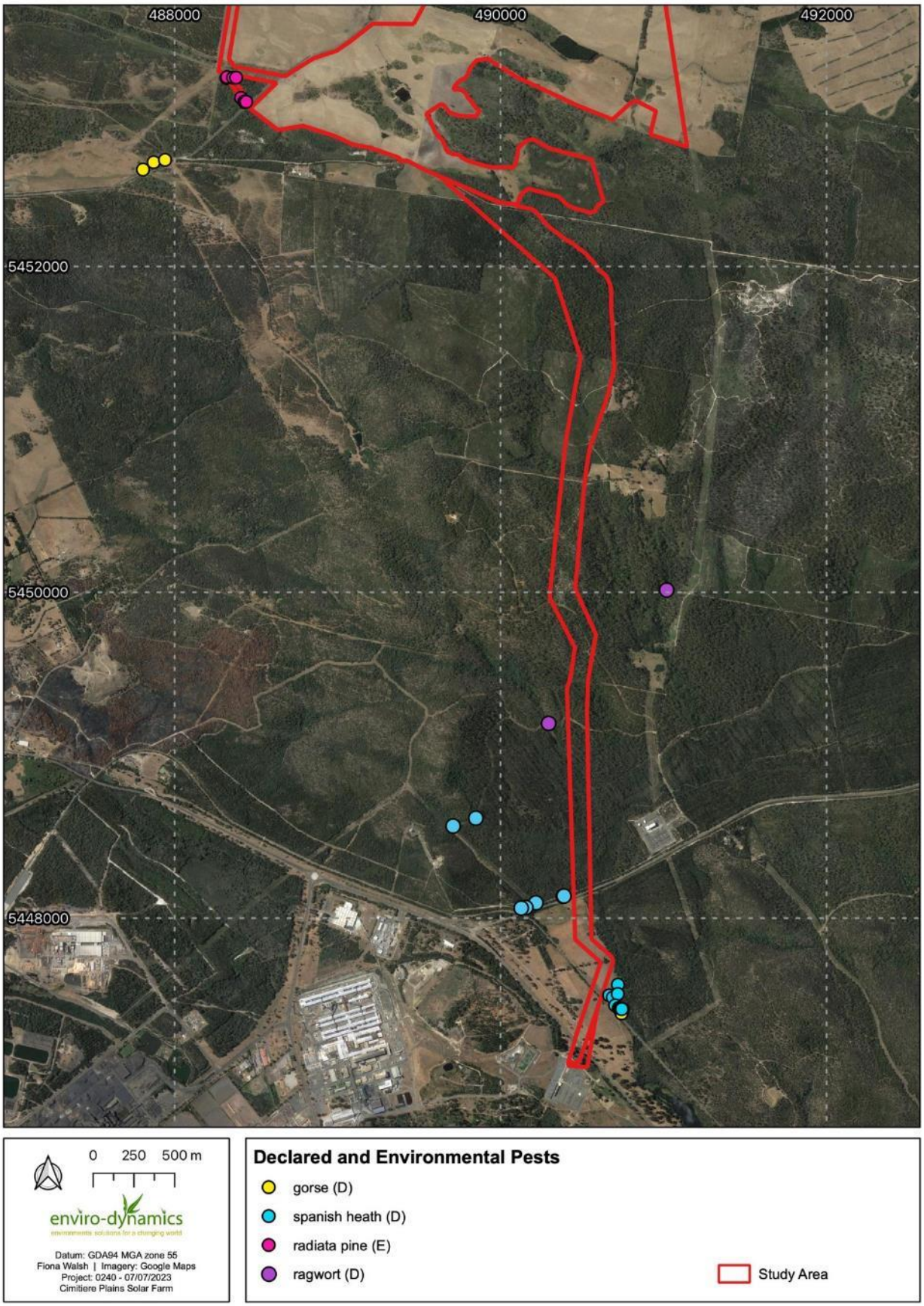

Figure 9: Weeds located within and surrounding the study area

4.3 Fauna

4.3.1 Threatened fauna

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

A search of the Natural Values Atlas (NVA, 2023) revealed that several threatened fauna species had been recorded within 5 km of the site. These are addressed in Table 2. Those with no suitable habitat and no conceivable chance are occurring (such as marine species) are listed in Appendix 1.

As no evidence of threatened fauna or significant habitat was found during the preliminary surveys, targeted surveys using acoustic monitors, camera traps or spotlighting are not warranted.

4.3.2 Threatened fauna habitat

There is wedge-tailed eagle (*Aquila audax* subsp. *fleayi)* habitat within the study area indicated by the presence of known nest sites within 1 km (Table 2). This species is listed as endangered under the TSPA and EPBCA.

There are historical records in the NVA (2009) of the eastern barred bandicoot within 500 m of the site (Table 2). This species is highly adaptable to modified landscapes. There is suitable habitat in the north, however there would be no impacts to the long-term survival of the species. This species is listed as threatened under the EPBCA.

Raptor nests

There are three known eagle nests within 1 km of the site. One is located 290 m west of the transmission easement (3087; Figure 11 and 11) with the other 950 m southwest of the northern solar farm area (3086, Figure 11 and 11). A third nest occurs close to nest 3118 and is 1,100 m from the northern solar farm area (3118, Figure 11 and 11).

Tasmanian wedge-tailed eagles are sensitive to disturbance, particularly during the breeding season. Eagle nest management in Tasmania focuses on limiting the proximity and timing of disturbance around known nest sites (FPA 2023).

Nest 3086, located in the north, is not within 500 m of the solar farm site boundary and although it is within 1 km of the boundary, it is not in line of sight from the project area. The nest is tucked behind a hill as illustrated by the 'Hillside Grey' basemap (Figure 10). Nest 3118 is on a low broad ridge with topographic features and trees preventing line of sight from the project area. Due to vegetation and topography visual disturbance from construction or operation of the proposed development is unlikely

and no specific management in relation to disturbance from the construction or maintenance of the solar farm is recommended.

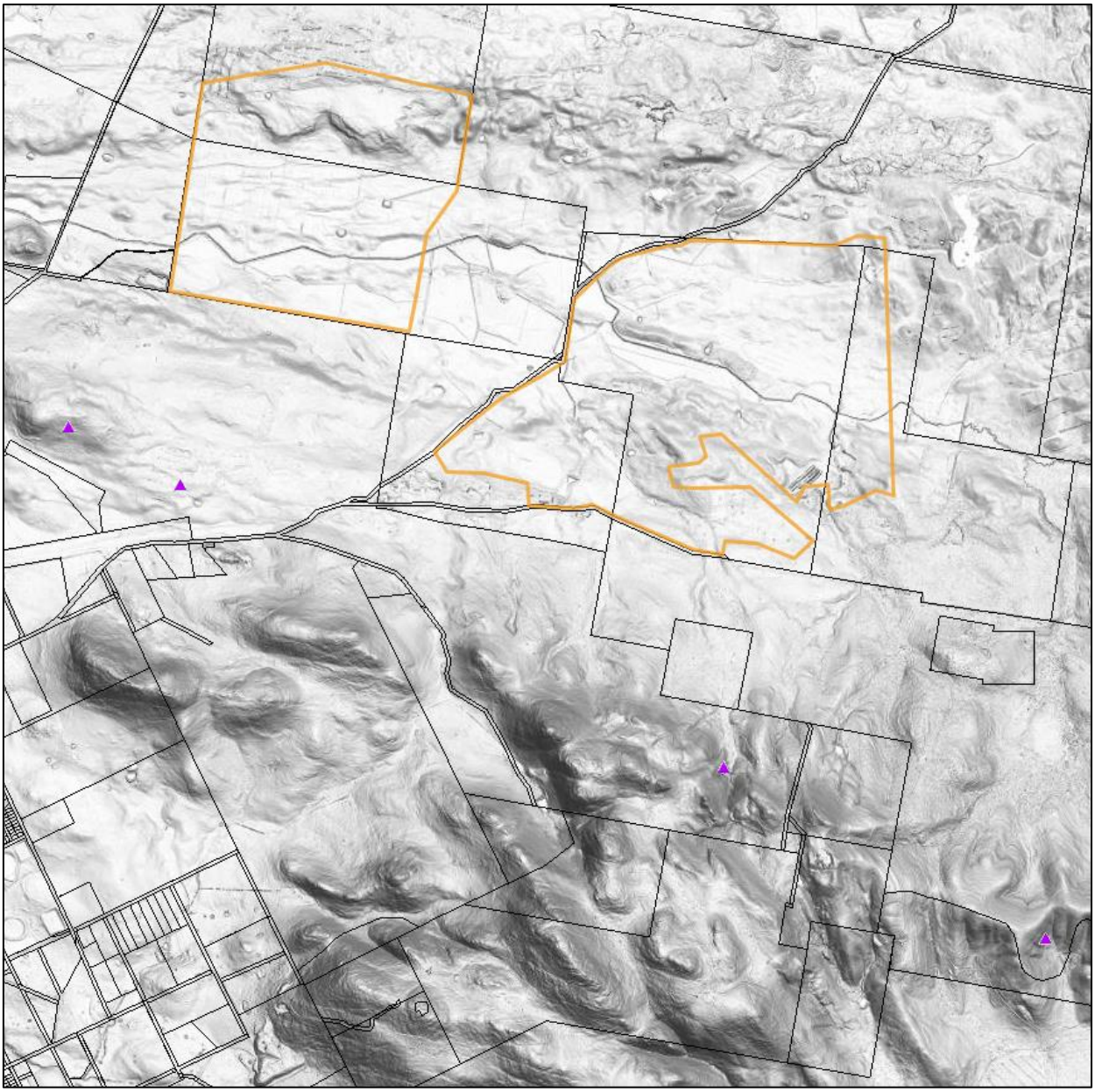

Figure 10: LISTmap 2024 extract showing hillside grey basemap, and raptor nests (purple triangles) within the vicinity of the solar farm (approximate orange outline) demonstrating nests are not within line of sight.

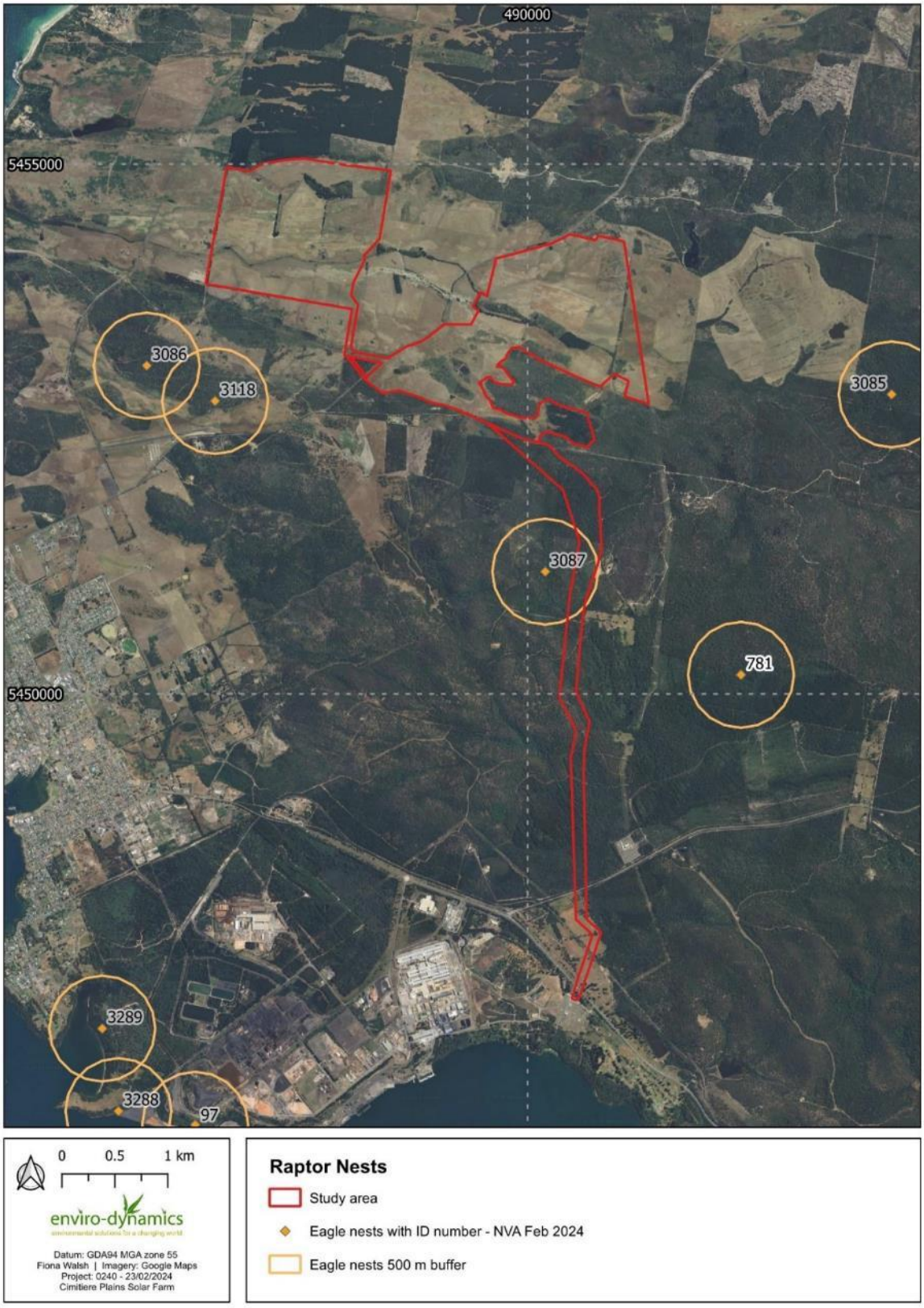

Figure 11: Raptor nests within the vicinity of the study area

The proposed transmission easement sits within the 500 m buffer for nest 3087 (Figure 11). This nest is listed in the NVA as an eagle nest. While the eagle species is not confirmed, the nest location suggests it

is likely to be wedge-tailed eagle and since both eagle species resident in Tasmania are listed under the TSPA the nest activity assessment and mitigation measures apply regardless of the species. If works including vehicle movements are planned to take place within the breeding season (July to January, inclusive) a nest activity assessment shall be carried out between mid-Oct and the end of December (see FPA Eagle Tech Note 1). Nest activity checks may only be performed by suitably qualified and experienced persons as approved by NRE Tasmania. No works will be permitted between 1st July and the nest activity assessment in October. If the nest is found to be inactive in any given year by an eagle nest activity assessment, then works can take place within the eagle residency period. If nest activity is confirmed, no works are permitted within 1000 m if there is line of sight, or within 500 m if there is no line of sight during the breeding season. Alternatively, if works are proposed within the active nest eagle residency period, then a works program should be submitted for approval to the Conservation Assessments Section (Department of Natural Resources and Environment).

Additional species

The following table summarises records of terrestrial threatened fauna records within 500 m and 5 km of the proposed development site and provides comment on the likelihood of the species using the site.

Table 2: Threatened fauna records within 500 m and 5 km

Species	Status TSPA / EPBCA	Records 500m / 5 km	Comment
Records within 500 m			
Eagle sp.	e / EN	1 / 3	One nest within 500 m of the site. Unidentified eagle species.
Perameles gunnii Eastern barred bandicoot	- / VU	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. Species may utilise the site, as adapts well to modified landscapes and occurs within the vicinity of agricultural or native landscapes

Species	Status TSPA / EPBCA	Records 500m / 5 km	Comment
Sarcophilus harrisii tasmanian devil	e / EN	3 /	This species lives in a wide range of habitats across Tasmania, especially in landscapes with a mosaic of pasture and woodland. **No suitable denning habitat observed, the species may move through the site.**
Records within 5 km			
Aquila audax subsp. *fleayi* wedge-tailed eagle	e / EN	0 / 37	Nests in a range of old growth native forests and is dependent on forest for nesting. Territories can contain up to five alternate nests usually close to each other but may be up to 1 km apart where habitat is locally restricted. This eagle preys and scavenges on a wide variety of fauna including fish, reptiles, birds, and mammals. **Three nests within 2 km of the site. Two known as wedge-tailed eagle nests, and one is of an unidentified eagle species.**
Dasyurus maculatus subsp. *maculatus* spotted-tailed quoll	r / VU	0 / 20	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 denning habitat, the species may move through the site**
Dasyurus viverrinus eastern quoll	- / EN	0 / 3	Habitat for the eastern quoll includes rainforest, heathland, alpine areas, and scrub. However, it seems to prefer dry forest and native grassland mosaics which are bounded by agricultural land. **No suitable denning habitat, the species may move through the site**

Species	Status TSPA / EPBCA	Records 500m / 5 km	Comment
Haliaeetus leucogaster white-belled sea-eagle	v / -	0 / 15	Found in coastal habitats (especially those close to the seashore) and around terrestrial wetlands in tropical and temperate regions of mainland Australia and its offshore islands. The habitats occupied by the sea-eagle are characterised by the presence of large areas of open water (larger rivers, swamps, lakes, the sea).The species is mostly recorded in coastal lowlands but can occupy habitats up to 800 m above sea level in Tasmania. **No suitable nesting habitat, the species may utilise the site for foraging.**
Hirundapus caudacutus white-throated needletail	- / VU	0 / 2	Aerial species which rarely alights.
Lathamus discolor swift parrot	e / CE	0 / 3	During the breeding season, nectar from Tasmanian blue gum (*Eucalyptus globulus*) and black gum (*Eucalyptus ovata*) flowers are the primary food source for the species. These eucalypts are patchily distributed, and their flowering patterns are erratic and unpredictable, often leading to only a small proportion of swift parrot habitat being available for breeding in any one year. Swift parrots breed in tree hollows in mature eucalypts within foraging range of a flower source. **No suitable nesting or foraging habitat.**
Limnodynastes peronii striped marsh frog	e /	0 / 2	Forests, wetlands, grasslands and woodlands that have still pools of water available. **No suitable habitat**
Litoria raniformis green and gold frog	v / VU	0 / 37	In Tasmania, this species is found in lowland areas, primarily coastal. They require permanent or temporary water bodies for survival and tend to inhabit ones containing emergent plants such as *Cycnogeton procera* or species of *Juncus* or sedge. They are rarely seen in open water and spend most of their time in vegetation at the water's edges. They depend upon permanent fresh water for breeding, which occurs in Spring and Summer. **No suitable habitat**

Species	Status TSPA / EPBCA	Records 500m / 5 km	Comment
Tyto novaehollandiae castanops tasmanian masked owl	e / VU	0 / 1	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

5 Impacts and Legislation

Vegetation

The proposed solar farm area in the north will have limited impacts on natural values. It is understood that there will be minimal vegetation clearance within this area, and the solar panels will predominantly be installed within the agricultural area. There is a small amount of GCL, GSL and DAC which may be impacted. NME (*Melaleuca ericifolia* swamp forest) is also present and is listed as a threatened vegetation community, however there will be no impact to this vegetation type.

Within the proposed transmission easement, the native communities of DAC (*Eucalyptus amygdalina* coastal forest) and DAD (*Eucalyptus amygdalina* forest on dolerite) will be the most impacted communities and a very small section of SHW (Wet heathland).

The small patch of DOV in the south of the transmission easement is listed as a threatened community under the NCA and corresponds with a threatened community under the EPBCA, however as there is only a small area on the edge of the study area, it is easily avoided, and no impacts will occur to this community.

The clearance of native vegetation within the transmission planning corridor will be confined to a 60 m wide easement. The final location of this easement will be placed to avoid the threatened community (DOV).

Table 3 shows the current area of each native community within the entire study area, including the full width of the transmission line planning corridor. The anticipated impacts to each community are calculated based on a 60 m wide easement cleared within the planning corridor. These numbers are not expected to increase, with the only potential change being the ratios of which communities are cleared. For example, there may be slightly less clearing f DAC and slightly more clearing of DAD.

Threatened Flora

Gratiola pubescens, which is listed as rare under the TSPA is the only threatened species found within the current study area (Figure 8). This small patch will not be impacted, an exclusion zone will be set up to prevent any accidental damage. This species thrives on disturbance, and any works occurring nearby will have no negative impact on the long term survival of the species.

No other threatened flora species were found within the study area.

Table 3: Native communities within study area with potential to be impacted and total in State and reserved taken from Tasmanian Reserve Estate report as of 30th June 2020

TASVEG Community	Area (ha) within the study area	Area (ha) anticipated to be impacted	Total in State	Total Reserved
Eucalyptus amygdalina coastal forest DAC	53	20	149,800	79,800
Eucalyptus amygdalina forest on dolerite DAD	26	12	156,100	47,700
Eucalyptus ovata forest DOV	< 1	0	16,400	4,900
Pteridium esculentum fernland FPF	15	5	unknown	unknown
Lowland grassland complex GCL	3	< 1	69,100	3,300
Lowland grassy sedgeland GSL	5	1	6,700	500
Bursaria – Acacia woodland NBA	2	<1	18,600	2,600
Melaleuca ericifolia swamp forest NME	1	0	9,800	3,900
Wet heathland SHW	1	<1	26,300	16,200

Raptor Nests

Due to the close proximity of an eagle nest to the proposed transmission easement (Figure 11), there is the potential for impact if works are carried out within the breeding season and the nest is active. A nest activity assessment will be carried out within October of the year the works are to occur to determine if the nest is active. No works, including vehicle traffic, will occur within the eagle nest buffer zone between 1st July and the completion of the nest activity assessment in October.

Construction of the entire transmission infrastructure is estimated to take 28 weeks.

Ongoing maintenance of the infrastructure may pose a risk of disturbing breeding eagles. To mitigate this impact, the routine maintenance of easements and infrastructure that is within 500 m or 1000 m line of sight of known eagle nests (as per Natural Values Atlas records) will be undertaken outside the eagle residency period. Similarly, overhead line inspections using helicopters or drones will be conducted

outside the eagle residency period (July to January inclusive). If drones are to be used to inspect poles/lines within 3 km of an eagle nest, this work should only be performed in accordance with the FPA Eagle Tech Note 1 which includes guidelines for conducting unmanned aerial vehicle (UAV) work near eagle nests.

Assessment of collision and electrocution risk to birds

The proposed overhead transmission conductors pose a very low collision risk for birds because the large diameter of the conductors (wires) makes them readily visible to birds, unlike much smaller gauge distribution conductors which are also closer together. Risk of electrocution to birds in flight is negligible since the distance between transmission conductors (3.6 m vertically and 5.2 m horizontally) exceeds the wingspan of wedge-tailed eagles and other birds (Figure 12). The proposed pole design reduces electrocution risk to birds perching on crossarms since the conductors are underslung and the distance between the crossarm and the conductor above is at least 2.1 m (Figure 12).

Eagles are thought to be at a greater risk of striking conductors when they are foraging. Especially if visibility is low, the area is unfamiliar, or new infrastructure exists. Foraging typically occurs in open landscapes which are cleared of vegetation (e.g. FAG) or grassland areas in plains and valley floors. Foraging behaviour is correlated to prey availability which is dependent on water availability and often related to the proximity to forest edges and vegetation patches which act as cover for prey species.

In assessing the proposed development footprint there are areas of the transmission line infrastructure within potential foraging habitat and the new easement will create some fragmentation and associated edge effects. As such, there is potential for eagle collisions with transmission conductors at times of low visibility, particularly with the earth wire as it is strung at the highest point across spans and particularly in the southern section of the route near the East Tamar Highway, which passes through an open grassy area. It is noted that collision is very difficult to monitor as birds may be fatally injured but able to remove themselves from the collision site. The overall risk is low since the transmission line conductors are not considered a collision risk due to their large diameter (>26 mm) and the transmission conductors largely avoid preferred eagle foraging habitat of open country by being located almost entirely through forested areas.

Mitigation is not practiced on transmission conductors in Tasmania because the mortality rate remains unknown at this stage and mitigation measures used on distribution conductors are considered to be inappropriate for transmission conductors. Nonetheless, potential risks can be reduced during the transmission infrastructure design phase. During design, consideration should be given to:

- the type of towers to prevent perches for eagles, or bird spikes on towers to prevent perching

- whether measures can be safely installed and maintained (an example would be spiral diverters installed on the earth wire to potentially increase visibility, however this is not proven technology and may be impractical for installation/maintenance)
- transmission corridor has been located to avoid water bodies due to potential impact on waterbirds (including swans) and migratory birds.

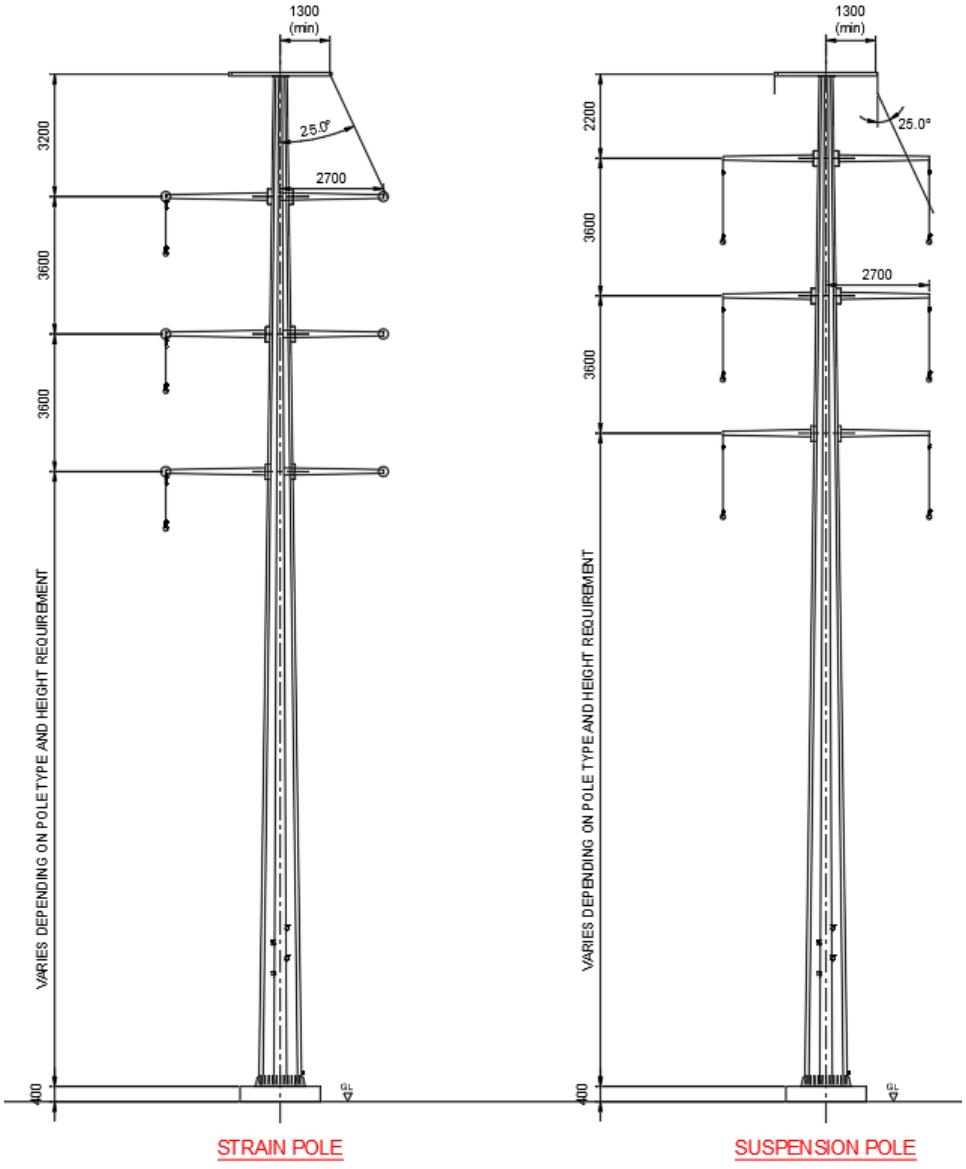

Figure 12: Proposed design of transmission poles and conductors (vertical cables supporting conductors below crossarms are 1500 mm long).

Weeds and Diseases

Declared and environmental weeds were recorded surrounding the study area (Figure 9). No declared weeds are within the study area. However, there is a risk of spreading these species during works. To

reduce this risk, it is advised that all works follow the best practice prescriptions as described in the *Weed and Disease Planning and Hygiene Guidelines - Preventing the spread of weeds and diseases in Tasmania* (DPIPWE, Stewart and Askey-Doran, 2015).

5.1 Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*

One threatened ecological community listed under the EPBC: Tasmanian forests and woodlands dominated by black gum or Brooker's gum (*Eucalyptus ovata / E. brookeriana*) corresponds to the *Eucalyptus ovata* forest (DOV) community mapped under the TASVEG scheme.

There is approximately 900 square metres of DOV present within the edge of the proposed transmission corridor, however this patch does not meet the requirements to be classed as threatened under the EPBCA. This area will be avoided and there will be no impacts to the community.

Eastern barred bandicoots are listed as Vulnerable under the EPBCA. If present, they may move through the site from time-to-time foraging and have potential to nest within the area. This species is highly adapted to modified environments. The proposal will have no significant impact to this species and its long-term survival.

5.2 Tasmanian *Threatened Species Protection Act 1995*

If works are planned to take place within the eagle breeding season (September to February) a nest activity assessment will take place in October of that year to determine if works may proceed or not.

Gratiola pubescens is present within the study area. This species is listed as rare under the TSPA. Prior to and during works an exclusion zone will be set up and maintained to avoid any impacts to this species.

5.3 *Nature Conservation Act 2002*

There is less than 1 ha of DOV (*Eucalyptus ovata* forest) and of NME (*Melaleuca ericifolia* swamp forest) that has been recorded on site. These communities are listed as threatened under the NCA.

Neither of these communities will be impacted.

The proposed transmission infrastructure will connect to the existing transmission substation on land (PID 2954844) owned and managed by TasNetworks. This property is a Conservation Area (CA) under the *Nature Conservation Act 2002*. The Act defines a CA as an area of land predominantly in a natural state and a CA aims to achieve *the conservation of the natural values of the area of land that are unique, important or have representative value, the conservation of the natural biological diversity or geological diversity of that area of land, or both, and the ecologically sustainable hunting of game species in that area of land. The protection and maintenance of the natural and cultural values of the area of land and*

the sustainable use of the natural resources of that area of land including special species timber harvesting (NCA 2002).

The proposed activity is in line with the existing use and development on the site. Nonetheless, NRE may require a reserve activity assessment (RAA) to determine whether the proposed development is acceptable. As noted above, the land is managed by TasNetworks and at least 84% of the area is occupied by a transmission substation and associated infrastructure.

5.4 Tasmanian *Biosecurity Act 2019*

No declared pests (weeds or diseases) were recorded within the study area.

Declared and environmental weeds have been recorded within the surrounding areas, which could pose a risk to further spreading or introducing them to areas where they do not occur. These will need to be managed in accordance with the relevant Statutory Weed Management Plans following the best practice 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 Tasmanian Planning Scheme

Parts of the proposed development are covered by a Priority Vegetation Area and or a Waterway and Coastal Protection Area. Works within these areas must meet the development standards of the Natural Assets Code (C7.0).

C7.6.1 Buildings and works within a waterway and coastal protection area or a future coastal refugia area

As the acceptable solutions cannot be met, the performance criteria within C7.6.1 Development Standards must be addressed. Section P1.1 is addressed below. Sections P1.2 to P5 are not relevant to the proposed works.

P1.1

Buildings and works within a waterway and coastal protection area must avoid or minimise adverse impacts on natural assets, having regard to:

(a) impacts caused by erosion, siltation, sedimentation and runoff;

(b) impacts on riparian or littoral vegetation;

(c) maintaining natural streambank and streambed condition, where it exists;

(d) impacts on in-stream natural habitat, such as fallen logs, bank overhangs, rocks and trailing vegetation;

(e) the need to avoid significantly impeding natural flow and drainage;

(f) the need to maintain fish passage, where known to exist;

(g) the need to avoid land filling of wetlands;

(h) the need to group new facilities with existing facilities, where reasonably practical;

(i) minimising cut and fill;

(j) building design that responds to the particular size, shape, contours or slope of the land;

(k) minimising impacts on coastal processes, including sand movement and wave action;

(l) minimising the need for future works for the protection of natural assets, infrastructure and property;

(m) the environmental best practice guidelines in the Wetlands and Waterways Works Manual; and

(n) the guidelines in the Tasmanian Coastal Works Manual.

Response: In relation to the proposed transmission easement, impacts within the waterway protection overlay will be limited to vegetation clearing to establish and maintain the transmission line easement and construction of access tracks within the easement, including creek crossings where necessary. Footings and poles will be located outside the waterway protection areas.

In relation to the solar farm, some infrastructure may be required within waterway protection areas, which include minor drainage lines in cleared paddocks and strips of remnant riparian vegetation.

Infrastructure will be designed to avoid or minimise impacts on streambed, streambank instream habitat and riparian vegetation. Works will be in accordance with a construction environmental management plan, following guidelines in the Wetlands and Waterways Works Manual ,to ensure controls are in place to minimise impacts including erosion and sedimentation. In addition, any access tracks will meet the Forest Practices Code for Class 4 tracks as a minimum.

C7.6.2 Clearance within a priority vegetation area

As the acceptable solutions cannot be met, the performance criteria within C7.6.2 Development Standards must be addressed.

P1.1 Clearance of native vegetation within a priority vegetation area must be for:

(a) an existing use on the site, provided any clearance is contained within the minimum area necessary to be cleared to provide adequate bushfire protection, as recommended by the Tasmania Fire Service or an accredited person;

(b) buildings and works associated with the construction of a single dwelling or an associated outbuilding;

(c) subdivision in the General Residential Zone or Low Density Residential Zone;

(d) use or development that will result in significant long term social and economic benefits and there is no feasible alternative location or design;

(e) clearance of native vegetation where it is demonstrated that on-going pre-existing management cannot ensure the survival of the priority vegetation and there is little potential for long-term persistence; or

(f) the clearance of native vegetation that is of limited scale relative to the extent of priority vegetation on the site.

Response: The project meets criteria P1.1(d) and (f). The proposal is a major infrastructure project to provide renewable energy, which will have long-term economic benefits for the municipality and the State. The proposed transmission corridor intersects 2.1 km of priority vegetation area, totalling around 50 ha out of a priority vegetation area covering thousands of hectares. The actual footprint of the development will be smaller since it will be limited to an easement within the broader corridor.

P1.2 Clearance of native vegetation within a priority vegetation area must minimise adverse impacts on priority vegetation, having regard to:

(a) the design and location of buildings and works and any constraints such as topography or land hazards;

(b) any particular requirements for the buildings and works;

(c) minimising impacts resulting from bushfire hazard management measures through siting and fire-resistant design of habitable buildings;

(d) any mitigation measures implemented to minimise the residual impacts on priority vegetation;

(e) any on-site biodiversity offsets; and

(f) any existing cleared areas on the site.

Response: The proposed transmission easement is designed to avoid threatened vegetation communities and is the shortest practical alignment considering constraints of land tenure, existing infrastructure, and threatened vegetation. This design and location minimise impacts on priority vegetation.

The area which falls under the Priority Vegetation overlay was surveyed and was found to be comprised of regenerating DAC and DAD. Neither of these vegetation types are listed as threatened under the NCA. Around half of the footprint within the priority vegetation overlay is recently logged regrowth forest.

There were no threatened species or habitats (flora or fauna) identified within this overlay. The disturbance of the vegetation within these small areas would not have an undue impact on the surrounding area. There will be no impact to any threatened vegetation communities.

No habitable buildings (c) are included in the project area.

Works, including vegetation clearing, will be contained to within the easement footprint and in accordance with a construction environmental management plan to minimise adverse impacts, such as biosecurity measures to reduce weed invasion risk.

The proposed impacts do not warrant any on site biodiversity offsets. No cleared areas occur in or near the proposed route, so impacts on forest are unavoidable.

6 Conclusion and Recommendations

The natural values of the land within the proposed solar farm and transmission line corridor were assessed.

There are two vegetation communities on the site which are listed as threatened under the NCA: *Eucalyptus ovata* forest and *Melaleuca ericifolia* swamp forest (DOV and NME). Both these communities are very small patches and will not be impacted as the proponent has made a commitment to protect these areas. One threatened flora species was observed (*Gratiola pubescens*) and there is habitat for two threatened fauna species (wedge-tailed eagle and the bandicoot) within the study area.

The following recommendations are provided regarding the development:

- An additional eagle nest survey will be conducted prior to construction if determined necessary in consultation with NRE. If any new eagle nests are detected within 500 m or 1 km line of sight of the development proposal, an assessment of potential impacts of works on these nests will be undertaken.
- *Gratiola pubescens* (TSPA – rare) will avoid being impacted by exclusion zones which will be erected around the population.
- Large habitat trees should be retained where possible.
- Minimise vegetation clearance and disturbance as much as possible within the transmission easement.
- Works within waterway and coastal protection areas will follow guidelines in the NRE Wetlands and Waterways Works Manual.
- Any access tracks will be constructed or upgraded to Forest Practices Code 2020 Class 4 track requirements as a minimum.
- Weed hygiene should be undertaken as outlined in *Weed and Disease Planning and Hygiene Guidelines - Preventing the spread of weeds and diseases in Tasmania* (DPIPWE, Stewart and Askey-Doran, 2015).
- All declared weeds should be managed in accordance with the Tasmanian *Biosecurity Act 2019.*
- Any soil or gravel imported to the site for construction or landscaping purposes should be from a weed and disease free source to prevent the establishment of further introduced species or disease on the site.

7 References

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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 – Threatened flora and fauna records within 5km

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
Acacia ulicifolia	juniper wattle	r		n	26	11-Nov-2013
Aphelia gracilis	slender fanwort	r		n	53	01-Apr-2022
Aphelia pumilio	dwarf fanwort	r		n	28	05-Jan-2022
Asperula minima	mossy woodruff	r		n	11	02-Nov-2006
Baumea articulata	jointed twigsedge	r		n	2	15-Oct-1978
Bolboschoenus caldwellii	sea clubsedge	r		n	3	04-Apr-2023
Caladenia caudata	tailed spider-orchid	v	VU	e	49	23-Oct-2016
Caladenia congesta	blacktongue finger-orchid	e		n	1	01-Jan-1804
Caladenia lindleyana	lindleys spider-orchid	e	CR	e	1	01-Oct-1842
Caladenia patersonii	patersons spider-orchid	v		n	30	23-Oct-2016
Callitriche sonderi	matted waterstarwort	r		n	1	02-Feb-2008
Calocephalus lacteus	milky beautyheads	r		n	22	03-Aug-2022
Carex gunniana	mountain sedge	r		n	3	06-Dec-2021
Carex longebrachiata	drooping sedge	r		n	1	25-Feb-2008
Chorizandra enodis	black bristlesedge	e		n	89	03-Aug-2022
Craspedia paludicola	swamp billybuttons	?r		n	4	11-Oct-2001
Deyeuxia minor	small bentgrass	r		n	1	25-Dec-1970
Diuris lanceolata	large golden moths	e	EN	e	2	29-Sep-1992
Epacris virgata	pretty heath	v	EN	e	2	01-Nov-1951
Euphrasia scabra	yellow eyebright	e		n	2	01-Jan-1837
Glycine latrobeana	clover glycine	v	VU	n	2	21-Nov-2005
Glycine microphylla	small-leaf glycine	v		n	8	09-Dec-2020
Hibbertia virgata	twiggy guineaflower	r		n	2	11-Oct-2001
Hydrorchis orbicularis	swamp onion-orchid	r		n	6	13-Jan-2005
Isoetes drummondii subsp. drummondii	plain quillwort	r		n	1	19-Dec-1955
Isolepis stellata	star clubsedge	r		n	1	03-Jan-1955
Lepidosperma viscidum	sticky swordsedge	r		n	53	08-Dec-2021
Limonium australe var. australe	yellow sea-lavender	r		n	2	25-Sep-2000
Lythrum salicaria	purple loosestrife	v		n	1	01-Jan-1911
Microtidium atratum	yellow onion-orchid	r		n	12	13-Jan-2005
Myriophyllum integrifolium	tiny watermilfoil	v		n	7	21-Nov-2005
Phyllangium distylis	tiny mitrewort	r		n	21	01-Jun-2022
Phyllangium divergens	wiry mitrewort	v		n	10	11-Nov-2021
Phylloglossum drummondii	pygmy clubmoss	r		n	1	01-Jan-1990
Pimelea flava subsp. flava	yellow riceflower	r		n	750	24-Nov-2022
Pomaderris intermedia	lemon dogwood	r		n	1	01-Aug-2008
Pomaderris paniculosa subsp. paralia	shining dogwood	r		n	1	26-Feb-2007
Prasophyllum secutum	northern leek-orchid	e	EN	e	1	19-Nov-1971
Pterostylis cucullata subsp. cucullata	leafy greenhood	e	VU	n	2	23-Oct-1844
Pultenaea mollis	soft bushpea	v		n	3	21-Oct-1842
Rumex bidens	mud dock	v		n	1	19-Dec-1955
Schenkia australis	spike centaury	r		n	2	05-Mar-2001
Scutellaria humilis	dwarf skullcap	r		n	19	10-Dec-2020
Senecio squarrosus	leafy fireweed	r		n	1	24-Feb-2017
Siloxerus multiflorus	small wrinklewort	r		n	1	01-Dec-1897
Solanum opacum	greenberry nightshade	e		n	3	01-Jan-1861
Spyridium parvifolium var. parvifolium	coast dustymiller	r		n	31	26-Oct-2015
Stylidium beaugleholei	blushing triggerplant	r		n	3	27-Sep-2005
Stylidium despectum	small triggerplant	r		n	48	08-Dec-2021
Stylidium perpusillum	tiny triggerplant	r		n	3	06-Dec-1955
Tetratheca ciliata	northern pinkbells	r		n	1	20-Oct-1844
Thelymitra antennifera	rabbit ears	e		n	6	01-Jan-1912
Thelymitra bracteata	leafy sun-orchid	e		n	1	01-Nov-1987
Thelymitra mucida	plum sun-orchid	e		n	3	24-Nov-1992
Tricoryne elatior	yellow rushlily	v		n	1	03-Mar-2005
Triglochin minutissima	tiny arrowgrass	r		n	1	19-Dec-1955
Veronica plebeia	trailing speedwell	r		n	17	05-Jan-2022
Xanthorrhoea aff. bracteata	shiny grasstree	pv	PEN	e	29	11-Nov-2013
Xanthorrhoea arenaria	sand grasstree	v	VU	e	9	26-Oct-2005
Xanthorrhoea bracteata	shiny grasstree	v	EN	e	24	30-Jan-2008

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 5000 metres

Verified Records

Species	Common Name	SS	NS	Bio	Observation Count	Last Recorded
Aquila audax	wedge-tailed eagle	pe	PEN	n	16	23-Oct-2022
Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	e	EN	e	21	17-Jun-2022
Arctocephalus tropicalis	sub-antarctic fur seal	e	VU	n	1	15-Sep-2016
Calidris canutus	red knot		EN	n	2	13-Jan-1999
Calidris ferruginea	curlew sandpiper		CR	n	8	13-Feb-1999
Dasyurus maculatus	spotted-tail quoll	r	VU	n	7	03-Oct-2019
Dasyurus maculatus subsp. maculatus	spotted-tail quoll	r	VU	n	13	04-Aug-1996
Dasyurus viverrinus	eastern quoll		EN	n	3	23-Nov-2021
Diomedea melanophrys subsp. melanophrys	black-browed albatross	pe	PVU		1	31-May-1978
Eagle sp.	Eagle	e	EN	n	3	17-Jun-2022
Eubalaena australis	southern right whale	e	EN	m	8	12-Jun-2014
Haliaeetus leucogaster	white-bellied sea-eagle	v		n	15	04-May-2021
Hirundapus caudacutus	white-throated needletail		VU	n	2	06-Feb-1980
Lathamus discolor	swift parrot	e	CR	mbe	3	15-Feb-2022
Limnodynastes peronii	striped marsh frog	e		n	2	12-Dec-2004
Litoria raniformis	green and gold frog	v	VU	n	37	07-Jan-2022
Macronectes giganteus	southern giant-petrel	v	EN	n	1	30-Sep-1979
Macronectes halli	northern giant-petrel	r	VU	n	1	05-Jul-1994
Megaptera novaeangliae	humpback whale	e		m	10	28-Oct-2018
Numenius madagascariensis	eastern curlew	e	CR	n	18	02-Mar-2019
Pachyptila turtur subantarctica	southern fairy prion	e	VU		6	26-Oct-1979
Perameles gunnii	eastern barred bandicoot		VU	n	9	24-Apr-2021
Pseudemoia rawlinsoni	glossy grass skink	r		n	1	28-Dec-2007
Sarcophilus harrisii	tasmanian devil	e	EN	e	42	10-Mar-2023
Seriolella brama	Blue Warehou		CD	n	1	17-Dec-1979
Sternula albifrons subsp. sinensis	little tern	e		n	2	31-Dec-1998
Sternula nereis subsp. nereis	fairy tern	v	VU	n	16	13-Oct-2005
Thinornis cucullatus	hooded plover		PVU	ae	9	20-Apr-2020
Thinornis rubricollis	hooded plover		VU	n	19	12-Nov-1998
Tyto novaehollandiae	masked owl	pe	PVU	n	1	01-Jan-1950