NATURAL VALUES ASSESSMENT

3856 BRUNY ISLAND MAIN ROAD, ALONNAH

For

L. RASMUSSEN

November 2024

D. Summers (BAppSc)

LARK & CREESE
62 Channel Highway, Kingston 7050 Ph 6229 6563 info@larkandcreese.com.au

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LARK & CREESE
62 Channel Highway, Kingston 7050 Ph 6229 6563 info@larkandcreese.com.au

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LARK & CREESE
62 Channel Highway, Kingston 7050 Ph 6229 6563 info@larkandcreese.com.au

1. Summary

Luke Rasmussen engaged Lark and Creese to report on the natural values within 3856 Bruny Island Main Road, Alonnah (C.T. 209334/1). This report looks at the proposed development and assesses potential short and long term residual impacts on ecological functions within and surrounding the proposed site to assist local, State and Commonwealth agencies during the assessment and approval process. The study site was assessed by Doug Summers (Author) on 24 July 2024.

Legislative Implications
Threatened Flora

- No threatened plant species listed under Tasmania's *Threatened Species Protection Act 1995* or the Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999* had previously been recorded or within 500m of the study site, or at the time of assessment,
- At the time of assessment, existing development is limited to the south-eastern corner of the allotment. Previous and current land use and management practices have resulted in the removal of vegetation from the south-eastern corner of the study site with the remaining land occupied by native vegetation,
- Flora assessment found the dry sclerophyll vegetation community within the northern, elevated section of the allotment potentially represents suitable habitat values for the Wiry mitrewort (*Phyllangium divergens*) but not recorded at the time of survey,
- Given proposed development is limited to land classified as Agricultural / Modified in the south-eastern corner, it is unlikely the proposed access, development, power supply route and future ongoing vegetation management within the required hazard management area (HMA) will result in a loss of potential habitat for this species. No further assessment or permit under Section 51 of Tasmania's *Threatened Species Protection Act 1995*. No formal referral to the Commonwealth's Department of Environment under *Significant Impact Guidelines*.

Vegetation communities

- TASVEG 4.0 classify three different vegetation communities occupying the study site; dry *Eucalyptus pulchella* woodland/forest (DPU), dry *Eucalyptus tenuiramis* woodland/forest on sediments (DTO), dry *Eucalyptus ovata* woodland/forest (DOV) and land use Agricultural / Modified land (FAG) classification for the open area in the south-eastern corner,
- Site assessment indicates the vegetation communities within the allotment are consistent with TASVEG 4.0 classification for the exception that a flora survey found that DTO is the dominant vegetation community within the allotment, with DPU vegetation community absent,
- The proposed access, development site and associated BAL-29 hazard management area (HMA) is located within land classified as Agricultural / Modified (FAG) and clear of surrounding DOV and DTO native vegetation communities,
- DTO vegetation community recorded on site is listed as vulnerable with DOV vegetation listed as endangered under Schedule 3A of Tasmania's *Nature Conservation Act 1995*. Given the proposal and associated BAL- 29 HMA will not impact threatened vegetation communities, no further assessment or referral will be required under *Nature Conservation Act 2002* or *Land Use Planning and Approvals Act 1993*.

Threatened Fauna

- The Grey Goshawk been recorded within 500m of the site. Assessment indicates the DTO and DOV occupying the shallow gully represents potential nesting Suitability Category 3, indicating predominantly foraging habitat. Assessment recorded a possible nest / hollow 160m north of the proposed development site. Assessment found nesting site, type and material not consistent with typical Grey Goshawk nests however, occupancy and species not established. A desk-top assessment indicates no nests have been recorded within 500m or 1.5km line-of-sight of the proposed development site. Whilst it is possible the nest belongs to a Grey Goshawk, following discussions with wildlife biologist, Nick Mooney (personal comments, 2024) it is considered unlikely due to absence of overhead canopy and protective vegetation to the east of the site, most likely belonging to a Low land currawong or

Raven species. No further assessment required under Tasmania's *Threatened Species Protection Act 1995*,

- The site within South Bruny Island Swift Parrot Important Breeding Areas (SPIBA's). Dry *Eucalyptus ovata* vegetation community recorded within the study site represent potential core foraging habitat. DOV & DTO vegetation community supports sparse potential nesting eucalypt trees that exceeding 70cm diameter at breast height (dbh). Assessment indicates the proposed access, development site and associated HMA will not impact DOV or DTO vegetation communities. The proposed access and shed footprint will impact the tree protection zones of 3 'high' biodiversity values *Eucalyptus ovata* trees. Recommended Arborists assessment to determine level of impacts and if retention is viable. Not anticipated further assessment or referral is required under Tasmania's *Threatened Species Protection Act 1995* or a formal referral is required to the Commonwealth's Department of Environment under Significant Impact Guidelines,
- Site assessment indicates the proposed development site does not represent potential nesting habitat for the Tasmanian Wedge-tailed eagle or White-bellied sea eagle. A desk-top assessment indicates no eagle nests are located within 500m or 1km or line-of-sight of the proposed development site. No further assessment is required under Tasmania's *Threatened Species Protection Act 1995* or formal referral is required to the Commonwealth's Department of Environment under Significant Impact Guidelines.
- Large eucalypts with dbh exceeding 70-80cm represent potential nesting habitat for the nationally endangered Masked Owl. A desk-top assessment indicates no eagle nests are located within 500m or 1km or line-of-sight of the proposed development site. A nest / hollow was recorded within the shallow gully on the eastern boundary, approx. 160m north of the proposed development site. Following discussions with wildlife biologist (personal comments, 2024), this hollow / nest was discounted as potential Masked owl nest site. No further assessment is required under Tasmania's *Threatened Species Protection Act 1995* or formal referral is required to the Commonwealth's Department of Environment under Significant Impact Guidelines.
- Proposed development site is within range boundaries For the Eastern quoll and Eastern-barred bandicoot. Assessment indicates the proposed development in degraded Agricultural land will result in a minor loss of potential habitat for these species. However, it is likely the proposal and future occupation will be limited to disturbance only and will not result in a significant loss of foraging or denning habitat for these species. Post construction pressure such as domestic pets can potentially cause further disturbance or displacement. No further assessment is required under Tasmania's *Threatened Species Protection Act 1995* or formal referral is required to the Commonwealth's Department of Environment under Significant Impact Guidelines.

Weed Management

- Gorse and Blackberry were recorded within the study site. Both species are listed as 'Declared' weed species under Tasmania's *Weed Management Act 1999* (WMA).
- Assessment fund landowners have implemented the Statutory Weed Management Plans for these species and are achieving management objectives of control and contain.
- No further management prescriptions under the *Weed Management Act 1999*.

Planning implications

E10.7 Biodiversity Code – Building and Development Standards

The study site is within Kingborough Council's Biodiversity Protection Area. Whilst the development site is located within degraded land classified as Agricultural / Modified, in accordance with HVPS2015 E10. Table 1, the environs within the allotment zoned Rural Resource supports 'High' biodiversity priority values. Site plans show the proposed development and associated BAL-29 HMA will not impact adjacent threatened DTO or DOV however, the proposed access will impact a single low priority *Eucalyptus ovata*. Generally, any removal of vegetation within the Biodiversity Protection Area triggers provisions within the Biodiversity Code and requires offsetting in accordance with KC's Biodiversity Offset Policy GOV-DEV 008 V4.0 and *'Guidelines for the use of Biodiversity Offsets in the local planning approval process'*. It is

anticipated the loss of natural values can be offset financially in accordance with Tables 2 & 3 within Kinborough Council's Biodiversity Offset Policy 6.1, V2.1).

E7.0 Stormwater Management Code

The proposal does not comply with Acceptable Solutions E7.7.1 A1 however, it appears the proposal satisfies alternative solution Performance Criteria P1 in that:

'Stormwater from new impervious surfaces must be managed by any of the following'

b) *Collected for re-use on the site.* Site plans indicate the stormwater will be collected on-site for re-use in 225000L collection tanks. It is recommended the overflow point implement mechanisms to mitigate erosion and mobilisation of sediments.

E23.0 On-site Wastewater Management Code

Site plans indicate the land application area is of sufficient size to comply with the requirements of AS/NZ1547. It is not anticipated the output of tertiary treated wastewater will result in any long-term residual impacts on native vegetation down-slope from the facility or surface or groundwater quality.

Conclusions

Providing the proposed future development is consistent with the plans provided, site assessment indicates the proposed development footprint will not impact adjacent threatened DTO and DOV vegetation communities. An arborists assessment is likely to be required as site plans indicate the footprint of the access and shed will impact the tree protection zones of *Eucalyptus ovata* located on the eastern boundary. Significant Impact Guidelines issued by the Commonwealth Dept of the Environment to determine if referral to the department is required, indicates the proposal will not:

- impact native vegetation or a native vegetation community,
- directly impact potential threatened species habitat,
- lead to a long-term decrease in the size of populations, reduce area of occupancy of a significant population, fragment an existing population or destroy habitat critical to the survival of species,
- disrupt the breeding cycle of an important population,
- modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline,
- result in invasive species that are harmful to a threatened species becoming established I the threatened species habitat.

As such, it is unlikely the proposal will result in "significant impacts" as described in the EPBC Act. No further assessment or referral is required under Tasmania's *Threatened Species Protection Act 1995* or Commonwealth's *Environmental Protection Biodiversity Conservation Act 1999.*

2. Introduction, Scope, and Methodology

Purpose
The owner and proponent has engaged Lark and Creese to detail the natural values supported within 3856 Bruny Island Main Road, Alonnah (C.T. 209334/1) as part of a development application to the Kingborough Council to construct an access, Class 1A dwelling and shed.

Scope
The survey specifically focuses on:

- Assessment of the potential conservation significance within the study site including descriptions on the types, distribution, condition and composition of vegetation,
- Potential threatened flora and fauna habitat values within the proposed development footprint and study site and the possible implications regarding the Tasmanian *Threatened Species Protection Act 1995* and Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999*,
- Assess the short and long term impacts of the proposal on potential natural values and discuss the potential implications of development under Local, State and Commonwealth policy and legislation,

Aboriginal Cultural Heritage
A desktop assessment of the Aboriginal Heritage Register (PS0338761) for PID 5060686 did not identify and registered Aboriginal relics or apparent risk of impacting registered Aboriginal relics within the allotment. I do not anticipate further assessment is required.

Methodology
Survey methodology is based on '*Site Examination for Threatened and Endangered Plant Species*' supported by methodology outlined in "*Manual for Assessing Vegetation Condition in Tasmania*". The report also specifically addresses possible environmental issues that may arise under the Kingborough Interim Planning Scheme 2015 (HVIPS2015) particularly in relation to the Biodiversity Code.

Vegetation classification is in accordance with TASVEG 4.0, as described in '*From Forest to Fjaeldmark: Descriptions of Tasmania's vegetation* (Kitchener & Harris 2013). Vascular plant species nomenclature is consistent with de Salas & Baker (2014) for scientific names. Fauna species scientific and common names is in accordance with fauna listed in the *Natural Values Atlas* report for the site (NRE).

Site description
The 3.672ha property is currently zoned Rural Resource under the Kingborough Interim Planning Scheme 2015 (6.10 V2.02015). The study site has a varying aspects and gradients. The south-eastern corner is generally level (<5°). A ridgeline extends north with westerly aspects on the western bo9undary (8-12°) and south-easterly in the central (20°) and north-eastern corner >20°. Currently the property is accessed at the south-eastern corner via Bruny Island Main Road. At the time of assessment, existing development consisted of a rough track to a shed located in the northern corner of a 5710m^2 area largely clear of vegetation occupying the south-eastern corner of the study site. Beyond this cleared site, the remainder of the study is occupied by native vegetation. study site All grid references in this report are in GDA2020 MGA55 unless stated otherwise. (Centre coordinates 520083E, 5204002N, GDA2020, MGA55, PID 5060686).

Geology
A desktop assessment (Listmap geological layer – Geology Units 250K) indicates the allotment supports two different types of underlying geology. The southern third is classified as undifferentiated Quaternary sediments. The northern two third is classified as Dolerite (tholeiitic) with locally developed granophyre. A desktop assessment indicated no geomorphic conservation features or geoconservation sites within the property.

Biosecurity
A desktop search of the Natural Values Atlas found there were no known biosecurity risks found within the

study site or within 1000m of the site (Centre coordinates 520083E, 5204002N, GDA2020, MGA55, PID 5060686).

Figure 1 – Locality map, 3856 Bruny Island Main Road, Alonnah C.T. 209334/1 (Ref – LISTmap, Cadastral Parcels layer).

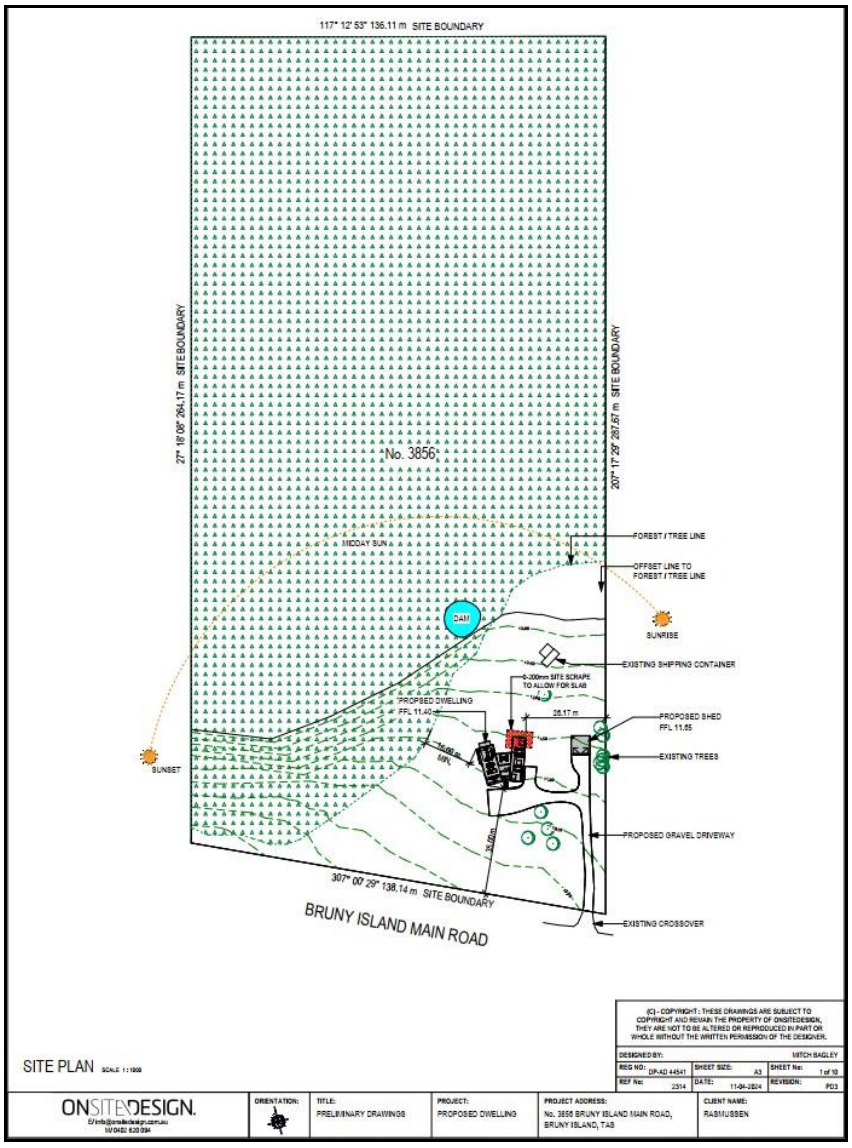

Figure 2 – Site plan, 3856 Bruny Island Main Road, Alonnah (Ref – Onsitedesign, L. Rasmussen, 3856 Bruny Island Main Road, Bruny Island, Tas. Ref No: 2314, Sheet No: 1/10, Rev: PD1).

Limitations

The natural values assessment of the proposed access and subdivision footprint identified by designers/proponents was undertaken July 24, 2024. Every effort was made to sample the range of habitats within the study site. Many plant species have seasonal growth and flowering, patchy distribution. During the flora and fauna survey it is possible some species were missed, particularly grass species, and not recorded at time of survey. Whilst every effort was made to survey the range of habitat to overlap likelihood occurrence. Optimum survey times are usually spring to summer, however their potential for occurrence is discussed. The survey was also limited to vascular plant species and did not include mosses, lichens and fungi. Surveys for threatened fauna were limited to the likelihood of species the study site represented potential range habitat and the identification of tracks, scats and other signs.

3. Native Vegetation

Vegetation types and distribution

TASVEG 4.0 vegetation mapping and classification is undertaken mainly using a desktop analysis based on aerial photography and can differ from site assessment vegetation mapping, particularly at a small scale and/or due to recent works impacting vegetation. LISTmap TASVEG 4.0 identifies 3 native vegetation communities within the allotment. A 5710m^2 area clear of vegetation communities in the south-eastern corner is classified Agricultural / modified (FAG). Vegetation occupying the southern and west facing slopes is classified as dry *Eucalyptus tenuiramis* woodland/forest on sediments (DTO). The northern section and central eastern half are classified as dry *Eucalyptus pulchella* woodland/forest (DPU) with a small pocket of dry *Eucalyptus ovata* woodland/forest (DOV) is identified on the eastern boundary.

At the time of assessment, land use and current management practices within the open area in the south-eastern corner clear of vegetation are consistent with Agricultural / Modified land classification. *Eucalyptus ovata* is the dominant tree species occupying the flatter, poorly drained areas located in the south-eastern corner of the allotment. Whilst the margins of the vegetation boundary have been maintained, the presences of saplings and young *Eucalyptus ovata* along the edges of the vegetation indicates typical levels of natural recruitment. *Eucalyptus ovata* also dominates the canopy within the southern section of a poorly drained, humid gully located on the eastern boundary, including sparse *Eucalyptus obliqua*.

Assessment found *Eucalyptus tenuiramis* is the dominant canopy species throughout the elevated, well-drained areas within the study site. Understorey structure and species composition varies from sedgy, dominated by a dense small and tall shrub understorey in the lower east facing slopes to a structure dominated by sagg/ graminoid ground cover with an open small / tall shrub layer in the more exposed sites. Noted that the Geology Units 205K overlay indicates the elevated northern two thirds of the allotment is classified as Dolerite. Technically, *Eucalyptus tenuiramis* occupying land with an underlying geology of Dolerite would be classified as TASVEG 4.0 dry *E. tenuiramis* woodland on Dolerite (DTD).

Figure 3 – TASVEG 4.0 classification of vegetation within the allotment. TASVEG 4.0 codes FAG – Agricultural / Modified land, DOV - dry *Eucalyptus ovata* woodland / forest, DPU - dry *Eucalyptus pulchella* woodland / forest, DTO - dry *Eucalyptus tenuiramis* woodland / forest on sediments, (Ref – LISTmap TASVEG 4.0, NRE).

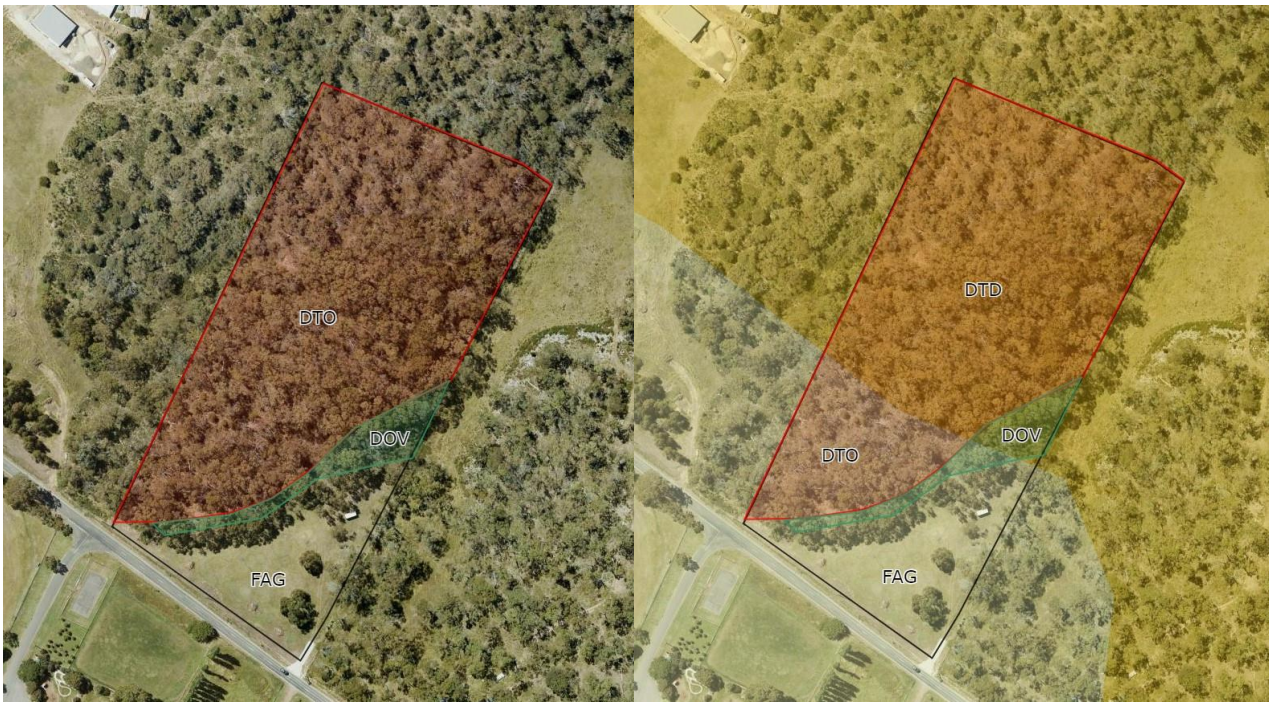

Figure 4 – LH image showing assessed land use and vegetation types within the allotment. RH image showing LISTmap Geology Unit 250K classification of Dolerite (shaded yellow) in northern 2/3 and Undifferentiated Quaternary sediments in the southern 1/3TASVEG 4.0 codes FAG – Agricultural / Modified land, DOV - dry *Eucalyptus ovata* woodland / forest, DPU - dry *Eucalyptus pulchella* woodland / forest, DTO - dry *Eucalyptus tenuiramis* woodland / forest on sediments, DTO - dry *Eucalyptus tenuiramis* woodland / forest on sediments, (Ref – LISTmap TASVEG 4.0, NRE).

Figure 5 – Image showing recruitment of young *Eucalyptus ovata* & *E. tenuiramis* on the margin of vegetation assessed as DTO.

Figure 6 – Image of DTO vegetation community adjacent to regrowth.

Figure 7 - Image of DTO vegetation community near the southern boundary of the allotment.

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Figure 8 – DTO community occupying the central and northern section of the allotment.

Figure 9 – Image of DTO / DOV vegetation occupying the gully on the eastern boundary.

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4. Introduced Plants

Assessment indicates land management practices have successfully reduced a significant and Blackberry infestation in the south-western corner to a single plant. Both plant species are listed as Declared weed species under the Tasmanian *Weed Management Act 1995*. Gorse is also listed as a Weed of National Significance (WoNS). The Natural Values Atlas biosecurity database indicates no plant pathogens, such as *Phytophthora cinnamomi, Chytrid fungus* and fungal *Mucormycosis* have been recorded within 1km radius of the site.

Weed & hygiene management

The landowners have implemented the Statutory Weed Management Plans for Gorse and Blackberry within the property resulting achieving required management objectives, including a 5 year monitoring plan of the site. Given Gorse and Blackberry is limited the south-western corner, future works/development should implement best practice hygiene protocols prior to commencement of any works to prevent the accidental transportation of Gorse / Blackberry seeds and propagules within the allotment. To avoid the accidental importation of additional weeds, including plant pathogens such as *Phytophthora cinnamomi* (Pc), recommendations include that all vehicles, machinery and equipment must be washed down or shaken down offsite in accordance with '*Tasmanian Washdown Guidelines for Weed and Disease Control: Machinery, Vehicles and Equipment: Edition 1'*.

Phytophthora cinnamomi (Pc)

Pc is an introduced mould that attacks the roots of susceptible plant species causing the roots to rot. Dieback, caused by Pc and other factors, is a listed "Key Threatening Process" under both the Federal *Environment Protection and Biodiversity Conservation Act 1999* and Tasmanian *Threatened Species Protection Act 1995*. Pc cannot be eradicated from an area once it has become infested.

Forest Practices Authority Technical Note No. 8 indicates WOB and SHW vegetation communities present within the study site are not considered susceptible to *Phytophthora cinnamomi*. However, individual species present such as *Pultenaea spp., Leucopogon spp* and *Epacris* species are susceptible to Pc. Recent survey of the Natural Values Database indicated no *Pc* infestation within the EMZ or within 1km of the property.

Table 1 – Weed species recorded within the study site.

Species	Comments	Distribution	Recommendations
Plant species listed as 'Declared' weed species under the Tasmanian *Weed Management Act 1999* (WMA) & Priority and Zone ranking of Blackberry, Gorse classification from Statutory Weed Management Plans (SWMP)			
Blackberry (*Rubus fruticose*)	Declared weed, Weed of National Significance – WMA. Zone B: Containment Priority Rank 4	Appears all infestations have been managed. Limited to South-west corner.	Implement Statutory Weed Mgt Plan. Follow up surveys and mapping of new plants / infestations. Physical removal of seedlings & small plants. Targeted herbicide application of plants. Monitor the site for minimum of 5 yrs. for new plants.
Gorse *Ulex euorpeaus*	Declared weed, Weed of National Significance – WMA. Zone B: Containment Priority Rank 4	Single, mature plant recorded. Located within previous infestation. .	Implement Statutory Weed Mgt Plan. Likely a seed bank present. Physical removal of plant before flowering. Physical removal of seedlings. Targeted herbicide application of plants. Monitor the site for minimum of 5 yrs. for new plants.

Figure 10 – Weed plan showing location of single Gorse plant and remainder of Blackberry infestation.


Figure 11 – Image of single mature Gorse plant located int eh south-west corner of the allotment.

Figure 12 – Image showing treated Gorse and Blackberry infestation in the south-western corner.

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5. Potential threatened flora and fauna values

Flora

Plant species

A desktop assessment indicates no vascular plant species listed under Schedule 3, 4 or 5 of the *Threatened Species Protection Act 1995* has previously been recorded within 500m of the study site. None recorded at the time of assessment. A desk top assessment indicates the Wiry mitrewort (*Phyllangium divergens*) has been recorded in a coastal location approx. 130m to the north in dry sclerophyll vegetation communities.

The Threatened Species note sheet indicates in Tasmania, this species has a widespread distribution, occurring in mostly near-coastal situations where it grows on rock plates and a variety of substrates. Given the proximity to the north, the site is considered potential habitat. Assessment of the site found south facing slopes represent marginal habitat whereas the northern section of the allotment with a geology of Dolerite represents more suitable habitat, but not recorded.

Other threatened flora species recorded on the Island within vicinity of the site that should be considered for assessment are the orchids Daddy longlegs (*Caladenia filamentosa*) and Bluestar sun-orchid (*Thelymitra holmesii*). Daddy longlegs is generally recorded in lowland heathy and sedgy open eucalypt forest and woodland on sandy soils.

Species Note Sheet indicates flowers are needed for identification (Oct-Nov) but rosettes can be identified from Sept. The elevated east facing slopes occupied by open DTO vegetation is considered to represent potential habitat values for this species. Flora assessment found DTO and DOV occupying the poorly drained lower slopes and level areas within the allotment are considered potential but marginal habitat values for the Bluestar sun-orchid.

Vegetation types

A flora survey classified vegetation within the allotment as DTO and DOV communities. Changes in topography and aspect has resulted in variations to the understorey structure and canopy species within the DTO vegetation community. As indicated, TASVEG 4.0 provide 3 vegetation condition benchmarks for dry *Eucalyptus tenuiramis* according to the underlying geology of the site:

- Dry *Eucalyptus tenuiramis* woodland / forest vegetation on Dolerite (DTD),
- Dry *Eucalyptus tenuiramis* woodland / forest vegetation on Granite (DTG), and
- Dry *Eucalyptus tenuiramis* woodland / forest vegetation on Sediments (DTO)

Benchmarks derived (*From Forest to Fjaeldmark* - Kitchner & Harris 2013). DTO is listed as threatened under Schedule 3A of the Tasmanian *Nature Conservation Act 2002*. LISTmap Geology Unit 250K overlay indicates the northern 2/3 is classified as Dolerite (tholetiitic) with locally developed granophyre.

Figure 13 – Image showing the type and distribution of native vegetation communities within the allotment. TASVEG 4.0 codes FAG – Agricultural / Modified land, DOV - dry *Eucalyptus ovata* woodland / forest, DPU - dry *Eucalyptus pulchella* woodland / forest, DTO - dry *Eucalyptus tenuiramis* woodland / forest on sediments, (Ref – LISTmap TASVEG 4.0, NRE).

Fauna

Masked Owl

The Tasmanian Masked Owl is a subspecies that occurs only in Tasmania and listed under the Tasmanian *Threatened Species Protection Act 1995* and Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999* due to small population and ongoing habitat loss. Potential habitat is within undisturbed wet and dry sclerophyll forest, modified agricultural areas and urban environments below 600m ASL, and all areas that have mature trees capable of generating large hollows (15cm or greater). A desktop assessment found there have been no recorded observations or nests within 500m or 1km line of sight. In accordance with Fauna Technical Note #16: Identifying Masked owl habitat and #14: Nest Identification, a ground based assessment found the DTO and DOV vegetation supported sparse trees exceeding 70cm dbh. However, many trees showed evidence of wind damage and natural senescence with the capacity to generate suitable nesting hollows.

One potential hollow / nest was recorded in the top of a broken trunk within the gully on the eastern boundary (see images below- E:519996, N:5203944). Inspection found vegetative material in the hollow / that could be considered nesting material consisting mainly of foliage / leaves, bark and not necessarily twigs or sticks. No pellets or 'whitewash' was found around the base. A nest / hollow recorded within the shallow gully on the eastern boundary, approx. 160m north of the proposed development site. Following discussion with wildlife biologist (personal comments, 2024), his hollow / nest was discounted as potential Masked owl nest site. No further assessment is required under Tasmania's *Threatened Species Protection Act 1995* or formal referral is required to the Commonwealth's Department of Environment under Significant Impact Guidelines.

Figure 14 – Image of possible nest / hollow site recorded on the shallow gully on the eastern boundary.

Figure 15 – Image showing location of nest / hollow (E:519996, N:5203944) and approx. 160m separation from the proposed development site.

Grey Goshawk

The site is within range boundaries of the Grey Goshawk, listed a vulnerable under the Tasmanian *Threatened Species Protection Act 1995*. An interim technical note prepared by David Young (2020) provides guidance for Goshawk nesting habitat suitability categories. A desk top assessment found two recorded observations within 500m to the south, but no nest recorded. Ground based assessment in accordance with Forestry Practice Authority Fauna Technical Note #12: Goshawk habitat categories, found

the DOV and DTO vegetation communities occupying the shallow gully on the eastern boundary did not support a recognised watercourse or vegetation types that are consistent with suitable nesting habitat values (Note #12) indicating the site primarily represents foraging habitat but some nesting. Land use and management practices in the neighbouring allotment to the east has been removed vegetation up to the eastern boundary further exposing the site and significantly reducing suitability. As indicated above, a nest / hollow was recorded on the eastern boundary. The site has moderate protection from strong north-west wind, however, the type of and location of the nest / hollow and type nesting material is not typical. When combined with the absence of usual protective overhead canopy and screening vegetation to the east, the site is not consistent with favoured nesting habitat suitability categories. A nest / hollow recorded within the shallow gully on the eastern boundary, approx. 160m north of the proposed development site. Following discussion with wildlife biologist (personal comments, 2024), this hollow / nest was discounted as potential GG nest site. No further assessment is required under Tasmania's *Threatened Species Protection Act 1995* or formal referral is required to the Commonwealth's Department of Environment under Significant Impact Guidelines.

Figure 16 – Image showing location of recorded Grey Goshawk within 5km of the proposed development site (black star) (Ref: Natural Values Atlas, NRE)

Swift parrots

The proposed development envelope is with Swift Parrot Important Breed Areas (SPIBA) with Swift parrots recorded within 500m of the site. Dry *Eucalyptus ovata* woodland vegetation community recorded in the south-eastern corner and gully represent potential core foraging habitat. Assessment of the site only recorded a few eucalypt species with diameter at breast height (dbh) exceeding 70cm. Whilst *E. ovata* is the dominant canopy species of vegetation occupying the south-eastern corner, the vegetation community appears relatively young with only a small number of potential foraging tree exceeding 40cm DBH. In accordance with Forestry Authority Fauna Technical Note No. 3: Identifying swift parrot foraging and breeding habitat (Table 2 & 3 respectively) assessment indicates the dry sclerophyll vegetation occupying the proposed access and development site is:

- Classified as representing 'Medium' potential foraging-habitat as 20-49% of the stems over 40cm dbh in any one hectare patch are foraging trees (*Eucalyptus ovata*),
- Classified as representing 'Medium' potential nesting habitat as at least 8 tree/h are greater than 70cm dbh.

Eastern Quoll and Eastern-barred bandicoot

The site is within range boundaries and represents potential habitat for Eastern quolls and the Eastern-barred bandicoot. Quolls inhabit a diverse range of habitats utilising hollow logs, caves, rock piles and disused

rabbit or wombat burrows. In accordance with Fauna Technical Note #10, the grassland, dry woodland / forest and agricultural land mosaics within the property, particularly if pasture grubs are common, are considered suitable habitat for the Eastern Quoll. have been recorded across the State, but densities are higher in coastal scrub and sclerophyll forest, especially in a mosaic of grazing land and open forest or woodland. A survey of the site recorded characteristic shaped diggings that can be associated with the Eastern-barred bandicoots however the common Brown bandicoot also make similar shaped diggings.

Forty-spotted pardalote

Bruny Island represents a population refuge for the endangered Forty-spotted pardalote and has been recorded within 500m of the site to the south with 38 recording within 5km. In accordance with FPA Biodiversity Values Database, potential habitat for this species is any forest and woodland supporting *Eucalyptus viminalis* (white gum) where the canopy cover of *E. viminalis* is greater than or equal to 10% or where *E. viminalis* occurs as a localised canopy dominant or codominant in patches exceeding 0.25ha. Significant habitat for the Forty-spotted pardalote is all potential habitat associated with known colonies and such habitat within 500m of know colonies. No core foraging habitat was recorded within the proposed development site or within the allotment. Given the proximity to known populations, assessment for potential nesting habitat found DTO vegetation supported a sparse cover of trees that exceed 70cm dbh considered suitable nesting habitat for this species.

Tasmanian Wedge-tailed eagle, White-bellied sea eagle

Modelling for potential Tasmanian Wedge-tailed eagle and White-bellied sea eagle nesting habitat indicates vegetation occupying the steep, east facing slope in the north-east corner represents a #3 on a 1-8 likelihood of suitable nesting habitat. This raptor species usually requires trees that exceed 27m in height and protected from strong prevailing north-west winds and prefers up to 8-10km of undisturbed mature forest to nest. A desk top assessment indicates the Wedge-tailed eagle has been recorded 4 times within 500m, but likely to be observations with no nests recorded. The White-bellied sea eagle has been recorded 18 times but likely to be limited to observations with no nests recorded with 500m and no nests within 1km line-of-sight. Ground based assessment in accordance with Forestry Practice Authority Fauna Technical Note #1 and #6, indicates the south-east facing the site is only represent marginal protected from the prevailing strong north-west wind and whilst the crown of one tree reached 27m, the site does not support trees considered suitable for nesting habitat.

Mt Mangana Stag Beetle

The site is within the range boundary of the Mt Mangana stag beetle. Habitat assessment did not record suitable logs within the study site considered large enough to represent suitable habitat for this species (FPA, Tech Note # 5).

6. Discussions & Conclusions

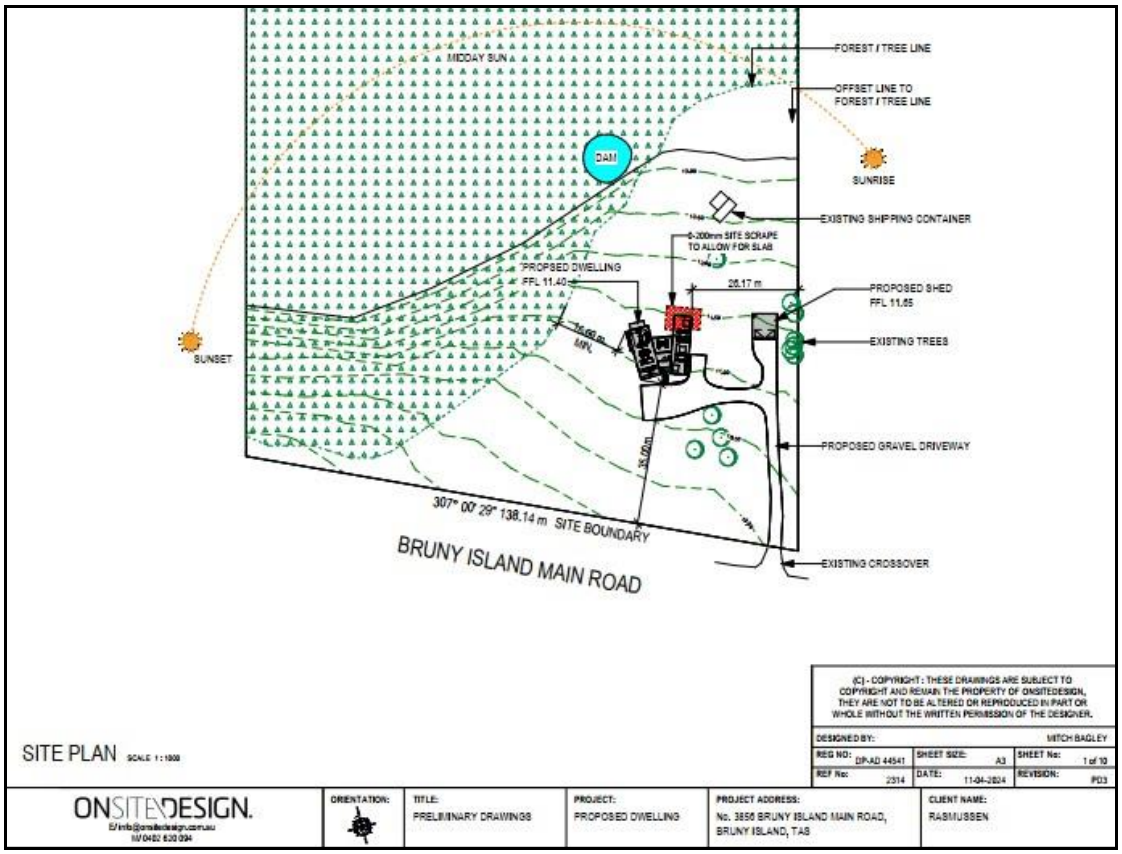

Figure 17 – Proposed site plan Ref – Onsitedesign, L. Rasmussen, 3856 Bruny Island Main Road, Bruny Island, Tas. Ref No: 2314, Sheet No: 1/10, Rev: PD1).

Figure 18 – Image looking south-east at proposed development site within land classified as degraded Agricultural / Modified land (FAG).

Threatened Flora and vegetation types

No threatened plant species listed under Tasmania's *Threatened Species Protection Act 1995* or the Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999* had previously been recorded on site, within 500m or at the time of assessment. Given the extent of previous clearance and modification within the proposed development site, it is unlikely the proposed development and establishment of the BAL-29 HMA will result in a loss of potential habitat for the Wiry Mitrewort recorded 1.3km to the north, listed as rare under Tasmania's *Threatened Species Protection Act 1995*. No further assessment or permit under Section 51 of Tasmania's *Threatened Species Protection Act 1995*.

Site assessment indicates the proposed development site, 1600m^2 BAL-29 HMA and wastewater system and land application area are located clear of DOV and DTO vegetation boundaries. DOV and DTO vegetation communities are listed as threatened vegetation community under Schedule 3A of Tasmania's *Nature Conservation Act 1995*. No further assessment or permit required under *Nature Conservation Act 2002* or *Land Use Planning and Approvals Act 1993*. The proposed / legal access for the site is in the south-east corner via Bruny Island Main Road.

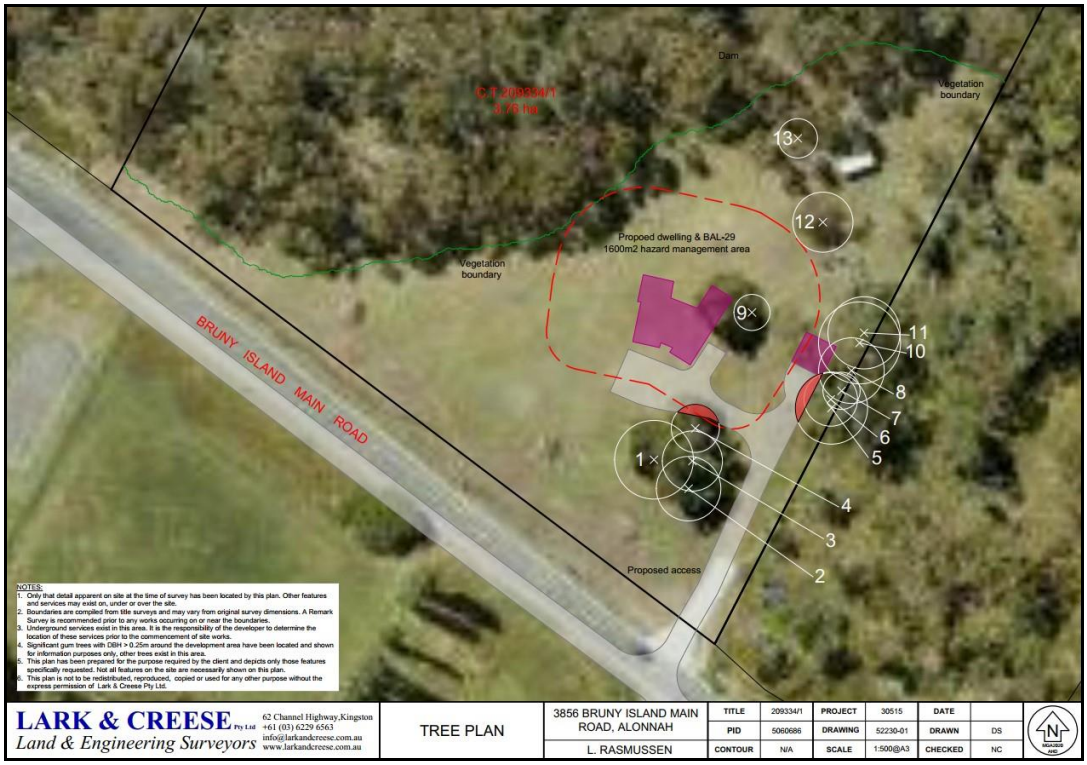

Figure 19 – Image showing proposed location of access and development site extent of proposed 1600m^2 BAL-29 Bushfire hazard management area within land classified as Agricultural / Modified, in proximity to threatened DOV & DTO vegetation communities to the west (see Appendix B for tree register).

Table 2 – Threatened plant species previously recorded within 5 km radius of the study area with discussion on likelihood of potential habitat within the study site and listed under the Tasmanian *Threatened Species Protection Act 1995* (TSP), and the Commonwealth's *Environmental Protection, Biodiversity Conservation Act 1999* (EPBC). Flora surveys was not limited to threatened flora species listed under TSP & EPBC but also included species considered within potential range and suitable habitat.

CONSERVATION STATUS			
No Threatened Flora within 500 metres			
Threatened Flora within 5000 metres			
SPECEIES	**TSP**	**EPBC**	**COMMENTS**
Caladenia filamentosa Daddy longlegs	rare	-	Not previously recorded or at time of survey. Mature inflorescences required for identification. (Oct-Nov). Inhabits lowland heathy and sedgy open eucalypt forest and woodland on sandy soils. WOB within the allotment and proposed access easement represents potential habitat however, no plants recorded. Proposal will not result in a loss of potential habitat. No further assessment or referral required under TSP.
Phyllangium divergens Wiry mitrewort	vulnerable	-	Not previously recorded or at time of survey. Widespread distribution in Tas. Recorded 1.3km to the north in coastal situations where it grows on rock plates on a variety of substrates. DTO occupying elevated sections represent potential habitat values. Site assessment indicates the proposal will not result in a loss of potential habitat values. No further assessment or referral required under TSP.
Thelymitra holmesii Bluestar sun-orchid	rare	-	Not previously recorded or at time of survey. Mature inflorescences required for identification (Nov-Dec). Generally recorded on hot sunny days. Inhabits moist areas of grassland, heathy open forest and heathland in water retentive soils such as clay loam and peaty loam, in soaks, besides streams and around swamp margins. Proposal will not result in a loss of potential habitat for this species. No further

			assessment or referral required under TSP.

Note: Information outlined above is derived from Department of Natural Resources and Environment (NRE) *Natural Values Atlas, Forestry Practices Authority* (FPA) *Biodiversity Values Database, Threatened Species Unit* for potential habitat values and descriptions and Author's experience.

Threatened Fauna

Swift Parrot

The site is within South Bruny Island Swift Parrot Important Breeding Area. *Eucalyptus ovata* recorded within the allotment are considered potential core foraging habitat with *E. ovata* and other eucalypt species exceeding 70cm DBH considered potential nesting habitat values for this species. Assessment indicates the proposed development will not impact native vegetation community supporting potential foraging or nesting habitat values.

Assessment found the scattered young *E. ovata* within the open area and adjacent to the proposed access, dwelling and shed are considered potential foraging habitat, but do not support potential nesting habitat values. Site plans indicate the proposed access route and shed footprint may impact the tree protection zones of *E. ovata* trees occupying the eastern boundary, 3 classified as 'high' biodiversity value (See below). Arborists assessment is likely to be required to determine the potential long term impacts to the tree trees overall health.

Site plans indicate the distance of the proposed dwelling / shed to adjacent potential Swift parrot foraging habitat is approximately 16m and whilst I cannot discount the chance of Swift parrot bird strike, it is considered the proposal will not significantly increase the risk of potential bird strike. Given the proposal will only result in the loss of 1 low biodiversity value tree and not result in a significant loss of potential foraging or nesting values, no further assessment or referral is required under Tasmania's *Threatened Species Protection Act 1995* or the Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999*.

Grey Goshawk

Natural Values Atlas database indicates 2 recorded observations of the Grey Goshawk within 500m of the site to the south-west. Site assessment found DOV and DTO vegetation community occupying the shallow gully on the eastern boundary appears consistent with nesting habitat suitability category 3, representing lower priority habitat values, primarily foraging habitat. The absence of protective vegetation to the east significantly increases the exposure to wind and avian predators impacting potential nesting suitability. No nests have been recorded within 500m and no nests within 1km line-of-sight. Whilst considered unlikely, the hollow / nest site could be a Grey Goshawk nest. Given the proposed development site is limited to the south-east corner, it is unlikely further assessment or referral is required under Tasmania's *Threatened Species Protection Act 1995*.

Wedge-tailed eagle & White-bellied sea eagle

Modelling predicted a Low – Moderate likelihood of potential nesting habitat for the Tasmanian Wedge-tailed eagle and White-bellied sea eagle. However, ground based assessment found the site was still moderately exposure to strong north and north-westerly winds, lacked suitable trees and likely that surrounding land use was not favourable. No nests have been recorded within 500m and no nests within 1km line-of-sight. It is unlikely further assessment or referral for future development in this location is required under Tasmania's *Threatened Species Protection Act 1995* or the Commonwealth's *Environmental Protection Biodiversity Conservation Act 1999.*

Masked Owl

Site assessment found DTO and DOV vegetation community supported a sparse coverage of trees exceeding 70cm dbh. However, many trees occupying the elevated ridgeline showed evidence of wind damage and natural senescence with the capacity to generate suitable nesting hollows. One potential hollow was recorded in the top of a broken tree (approx. 8-10 high) located in the gully near the eastern boundary. Assessment found vegetative material hanging over the edges of the site that could be associated with nesting material consisting mainly of vegetation that had browned off or dead material. Vegetation community occupying the gully could be considered potential roosting habitat. No pellets or 'whitewash' was found around the base. No recorded observations of Masked owls within 500m or nests within 1km line-of-sight. Given the nest was discounted as a Masked owl nest by N. Mooney (Personal comments, 2024), I do not consider further assessment or referral for future development in this location is required under Tasmania's *Threatened Species Protection Act 1995* or the Commonwealth's *Environmental Protection Biodiversity Conservation Act 1999.*

Eastern Quoll and Eastern-barred bandicoot

The mosaic of agricultural land and native vegetation within, and surrounding the site, represents potential foraging and refuge habitat for the Eastern-barred Bandicoot, recorded within 500m of the site, and the Eastern quoll. Assessment indicates the proposal will not impact potential refuge / denning habitat but is likely to result in the minor loss / modification of potential foraging habitat. However, it is expected these impacts will be limited to disturbance only and do not anticipate works and future occupation will result in a significant loss of core foraging or denning habitat for these species. Post construction pressure such as domestic pets can potentially cause further disturbance or displacement. Unlikely the proposal will trigger Significant Impact Guidelines issued by the Commonwealth for this species. No further assessment or permit required under Tasmania's *Threatened Species Protection Act 1995* or the *Commonwealth's Environment Protection and Biodiversity Conservation Act 1999.*

Forty-spotted pardalote

The proposed development site is within close proximity to documented populations of the critically endangered Forty-spotted Pardalote. Assessment found the site does not support potential core foraging habitat (*Eucalyptus viminalis*). However, given proximity to known populations, eucalypt species exceeding 70cm DBH represent potential nesting habitat values for this endangered species. The proposed and future development sites are clear of native vegetation and will not require the removal of potential foraging and nesting habitat or for the Forty-spotted pardalote. Unlikely further assessment or referral is required under the Tasmanian *Threatened Species Protection Act 1995* or the Commonwealth's *Environmental Protection Biodiversity Protection Act 1999*.

Individual trees

Assessment indicates the proposed BAL-29 HMA will not impact adjacent threatened native vegetation communities. Site plans indicate with the proposed access appears to impact the tree protection zones of *Eucalyptus ovata* trees classified as 'high' biodiversity value (Kinborough Council's Biodiversity Offset Policy 6.10 V2.1, Table 2: Conservation Value of Individual Trees (See below).

Description	Characteristics	Rationale	Conservation Value
Eucalyptus globulus or *E. ovata*	DBH >70cm	Significant or potential swift parrot foraging habitat	Very high
E. viminalis	DBH >25cm and within or directly adjacent to significant forty-spotted pardalote habitat	Significant forty-spotted pardalote habitat	Very high
Native trees with known or potential nesting hollows	Hollows present; and/or, DBH > 70cm in dry forests or cleared settings; or, DBH >100cm in wet forests	Potential or significant habitat for hollow dependent species	Very high
Eucalyptus globulus or *E. ovata*	DBH >40cm and <70cm	Potential swift parrot foraging habitat	High
E. viminalis[2]	DBH >25cm and: • on Bruny Island; or • within 5,000m of significant forty-spotted pardalote habitat or within potential forty-spotted pardalote habitat	Potential forty-spotted pardalote habitat	High
A species that is listed in the *Threatened Species Protection Act 1995* or the *Environment Protection and Biodiversity Conservation Act 1999 (C'th)*	N/A	Listed threatened species	High

Value	Definition	Replacement ratio*
Very high priority values	• Native vegetation/ecological communities listed as endangered or critically endangered under the *Nature Conservation Act 2002* or the *Environment Protection and Biodiversity Conservation Act 1999* • Significant habitat for and/or areas known to contain threatened species listed under the *Threatened Species Protection Act 1995* or the *Environment Protection and Biodiversity Conservation Act 1999* that are: a) Recognised as endangered or critically endangered; or b) Largely confined in their total distribution to the municipal area; or c) Have most of their range within the municipal area.	6:1
High priority biodiversity values	• Native vegetation communities listed as vulnerable under the *Nature Conservation Act 2002 and EPBC* • Significant habitat for and/or areas known to contain threatened species listed under the *Threatened Species Protection Act 1995* or the *Environment Protection and Biodiversity Conservation Act 1999* that are recognised as vulnerable. • Native vegetation communities with a distribution on a bioregional basis having contracted to less than 10% of its former area. • Native vegetation communities with a total area on a bio-regional basis generally being less than 1,000 ha. • Remnants occurring on land systems components which have been more than 90% cleared of their native vegetation.	5:1

Table 3 – LH Table 2: Kinborough Council's Biodiversity Offset Policy 6.10 V2.1, RH Table 3: Biodiversity Value and (Ref: Kinborough Council's Biodiversity Offset Policy 6.1, V2.1).

Table 4 - Threatened fauna previously recorded within 5 km radius of the study area with discussion on likelihood of potential habitat within the study site and listed under the Tasmanian *Threatened Species Protection Act 1995* (TSP), and the Commonwealth's *Environmental Protection, Biodiversity Conservation Act 1999* (EPBC). Flora surveys was not limited to threatened flora species listed under TSP & EPBC but also included species considered within potential range and suitable habitat.

CONSERVATION STATUS			
SPECEIES	**TSPA**	**EPBC**	**COMMENTS**
Threatened Fauna within 500 metres			
Accipiter novaehollandiae Grey Goshawk	endangered	-	No previously recorded or at time of assessment. Two recorded observations within 500m of the site. Ground based assessment found DTO & DOV veg occupying the east facing slope and shallow gully is consistent with suitability category 3: Primary foraging habitat. Proposal will not impact potential vegetation. Desk top assessment indicates no nest recorded within 500m or 1 km line-of-sight of known nest sites. It is unlikely the proposal will impact priority habitat, nesting or breeding activities. No further assessment or referral is required under the TSP.
Aquila audax fleayi Tasmanian Wedge-tailed eagle	endangered	Endangered	Not previously observed or at the time of assessment. Desk top assessment indicates no nest recorded within 500m or 1 km line-of-sight of known nest sites. Proposed site represents a low likelihood of supporting suitable habitat values for nesting due topography and proximity to existing development and rural activities. It is unlikely the proposal will impact priority habitat, nesting or breeding activities of nearby nesting. no further assessment or referral is required under the TSP or EPBC.
Haliaeetus leucogaster White-bellied sea	vulnerable	-	Not previously observed or at the time of assessment. Desk top assessment indicates no nest recorded within 500m or 1 km line-of-sight of known nest sites. Proposed site represents a low likelihood of supporting suitable habitat

eagle			values for nesting due topography and proximity to existing development and rural activities. It is unlikely the proposal will impact priority habitat, nesting or breeding activities of nearby nesting. no further assessment or referral is required under the TSP or EPBC.
Lathamus discolor Swift parrot	endangered	Critically Endangered	Not previously recorded or at the time of assessment. Recorded within 500m. Site within Bruny Island Swift parrot Important Breeding Area. Core foraging habitat (*Eucalyptus ovata*). Assessment recorded potential nesting trees within allotment. The proposal will not result in the removal of potential foraging or nesting habitat (Pending Arborist's assessment of 3 high biodiversity value *E. ovata*). Not expected collision avoidance mechanisms required. It is not expected further assessment or referral is required under the TSP or EPBC.
Neophema chrysostoma Blue-winged parrot	-	Vulnerable	Not previously recorded or at the time of assessment. Recorded within 500m. Assessment recorded potential nesting trees within allotment. The proposal will not result in the removal of potential foraging or nesting habitat. It is not expected further assessment or referral is required under the EPBC.
Pardalotus quadragintus Forty-spotted pardalote	endangered	Endangered	Previously recorded within 500m. No core foraging habitat (*Eucalyptus viminalis*) recorded within the allotment. Assessment found potential nesting trees within allotment are clear of proposed development site. The proposal will not result in the removal of potential foraging or nesting habitat for this species. It is not expected further assessment or referral is required under the TSP or EPBC.
Parameles gunnii Eastern-barred bandicoot	-	Vulnerable	Previously recorded within 500m. No core foraging habitat (*Eucalyptus viminalis*) recorded within the allotment. Assessment found potential nesting trees within allotment are clear of proposed development site. The proposal will not result in the removal of potential foraging or nesting habitat for this species. It is not expected further assessment or referral is required under the EPBC.
Thalassarche cauta Shy albatross	vulnerable	Vulnerable	Previously recorded within 500m. Proposal will not impact potential habitat. No further assessment or referral is required under the TSP or EPBC.
Thinornis cucullatus Hooder plover		PVU	Previously recorded within 500m. Potential habitat limited to littoral zone. Proposal will not impact potential habitat. No further assessment or referral is required under the EPBC.
Threatened Fauna within 5000 metres			
Accipiter novaehollandiae Grey Goshawk	endangered	-	No previously recorded or at time of assessment. Two recorded observations within 500m of the site. Ground based assessment found DTO & DOV veg occupying the east facing slope and shallow gully is consistent with suitability category 3: Primary foraging habitat. Proposal will not impact potential vegetation. Desk top assessment indicates no nest recorded within 500m or 1 km line-of-sight of known nest sites. It is unlikely the proposal will impact priority habitat, nesting or breeding activities. No further assessment or referral is required under the TSP.
Aquila audax fleayi Tasmanian Wedge-tailed eagle	endangered	Endangered	Not previously observed or at the time of assessment. Desk top assessment indicates no nest recorded within 500m or 1 km line-of-sight of known nest sites. Proposed site represents a low likelihood of supporting suitable habitat values for nesting due topography and proximity to existing development and rural activities. It is unlikely the proposal will impact priority habitat, nesting or breeding activities of nearby nesting. no further assessment or referral is required under the TSP or EPBC.
Arctocephalus forsteri NZ fur seal	rare	-	Marine species. Proposal will not impact potential habitat. No further assessment or referral is required under the TSP or EPBC.
Dasyurus viverrinus Eastern Quoll	-	Endangered	No previously recorded within proposed development site. Proposed development and surrounding mosaic of bushland and agricultural land represents suitable habitat. Assessment indicates the proposal may impact potential foraging habitat for these species however, it is unlikely the proposal will result in a significant loss of habitat for this species. No further assessment or referral required under EPBC.
Eubalaena australis Southern right	endangered	Endangered	Marine species. Proposal will not impact potential habitat. No further assessment or referral is required under the TSP or EPBC.

whale			
Haliaeetus leucogaster White-bellied sea eagle	vulnerable	-	Not previously observed or at the time of assessment. Desk top assessment indicates no nest recorded within 500m or 1 km line-of-sight of known nest sites. Proposed site represents a low likelihood of supporting suitable habitat values for nesting due topography and proximity to existing development and rural activities. It is unlikely the proposal will impact priority habitat, nesting or breeding activities of nearby nesting. no further assessment or referral is required under the TSP.
Lathamus discolor Swift parrot	endangered	Critically Endangered	Not previously recorded or at the time of assessment. Recorded within 500m. Site within Bruny Island Swift parrot Important Breeding Area. Core foraging habitat (*Eucalyptus ovata*). Assessment recorded potential nesting trees within allotment. The proposal will not result in the removal of potential foraging or nesting habitat (Pending Arborist's assessment of 3 high biodiversity value *E. ovata*). Not expected collision avoidance mechanisms required. It is not expected further assessment or referral is required under the TSP or EPBC.
Lissotes menalcas Mt Mangana Stag beetle	vulnerable	-	Not previously recorded. The small pocket of forest occupying the shallow gully represents marginal potential habitat. No large logs in state of decay recorded. Not anticipated the proposal will result in a loss of habitat for this species. No further assessment or referral required under TSP.
Megaptera novaeangliae Humpback whale	endangered	-	Marine species. Proposal will not impact potential habitat. No further assessment or referral is required under the TSP.
Mirounga leonine Southern elephant seal	endangered	Vulnerable	Marine species. Proposal will not impact potential habitat. No further assessment or referral is required under the TSP or EPBC.
Neophema chrysostoma Blue-winged parrot	-	Vulnerable	Not previously recorded or at the time of assessment. Recorded within 500m. Assessment recorded potential nesting trees within allotment. The proposal will not result in the removal of potential foraging or nesting habitat. It is not expected further assessment or referral is required under the EPBC.
Parameles gunnii Eastern-barred bandicoot	-	Vulnerable	Previously recorded within 500m. No core foraging habitat (*Eucalyptus viminalis*) recorded within the allotment. Assessment found potential nesting trees within allotment are clear of proposed development site. The proposal will not result in the removal of potential foraging or nesting habitat for this species. It is not expected further assessment or referral is required under the EPB.
Parameles gunnii Eastern-barred bandicoot	-	Vulnerable	Previously recorded within 500m. No core foraging habitat (*Eucalyptus viminalis*) recorded within the allotment. Assessment found potential nesting trees within allotment are clear of proposed development site. The proposal will not result in the removal of potential foraging or nesting habitat for this species. It is not expected further assessment or referral is required under the EPBC.
Smilasterias tasmaniae Bruny island seastar	endangered	-	Marine species. Proposal will not impact potential habitat. No further assessment or referral is required under the TSP or EPBC.
Thalassarche cauta Shy albatross	vulnerable	Endangered	Marine species. Proposal will not impact potential habitat. No further assessment or referral is required under the TSP or EPB.
Thalassarche melanophris Black-browed albatross	endangered	Vulnerable	Marine species. Proposal will not impact potential habitat. No further assessment or referral is required under the TSP or EPBC.
Thinornis cucullatus Hooder plover		PVU	Previously recorded within 500m. Potential habitat limited to littoral zone. Proposal will not impact potential habitat. No further assessment or referral is required under the EPBC.
Tyto novaehollandiae Tas Masked Owl	endangered	Vulnerable	Not previously recorded within study site. Desk top assessment indicates no nest recorded within 500m or 1 km line-of-sight of known nest sites. Generally favours mature forests. A survey for potential nesting habitat recorded sparse trees exceeding 70cm DBH One possible hollow recorded in the gully on the eastern boundary. Discussion with N. Mooney indicates the nest is not consistent with typical Masked owl nesting. No further assessment or referral required under TSP or EPBC.

Note: Information outlined above is derived from Department of Natural Resources and Environment (NRE) *Natural Values Atlas, Forestry Practices Authority* (FPA) *Biodiversity Values Database, Threatened Species Unit* for potential habitat values and descriptions and Author's experience.

Planning

The site is within Kingborough Council's Biodiversity Protection Area overlay. At the time of assessment, a survey indicated the proposed development and BAL-29 HMA will not impact adjacent threatened DTO & DOV vegetation communities. An Arborists assessment of 3 high biodiversity trees impacted by the access and shed may trigger offset requirements in accordance with '*Guidelines for the use of Biodiversity Offsets in the local planning approval process*' under Tasmania's *Land Use Planning and Approvals Act 1993* and Kingborough Council's *Biodiversity Offset Policy 6.10 V2.0* If required, it is recommended a financial offset, in accordance with guidelines outlined in Table 1: Kingborough Council's *Biodiversity Offset Policy 6.10 V2.0*, is appropriate.

Planning implications

E10.7 Biodiversity Code – Building and Development Standards

The study site is within Kingborough Council's Biodiversity Protection Area and in accordance with KIPS2015 E10. Table 1, the environs within the study site zoned Rural Resource supports 'Moderate' biodiversity priority values. Site plans show the proposed development and associated BAL-29 HMA and shed will not impact threatened DTO or DOV vegetation communities. It is recommended an Arborist assess the potential impacts of the proposed access and shed footprint within the tree protection zones of 3 'high' biodiversity value *Eucalyptus ovata* located on the eastern boundary. Generally, any removal of vegetation within the Biodiversity Protection Area triggers provisions within the Biodiversity Code and requires offsetting in accordance with KC's Biodiversity Offset Policy 6.10 V2 and *'Guidelines for the use of Biodiversity Offsets in the local planning approval process'*.

The proposal does not satisfy A1 Acceptable Solutions E10.7.1 Building and Works. However, it appears the proposed works complies with alternative solution Performance Criteria P1 (b) 'Moderate' biodiversity values, in that:

(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*. The proposed access, development site, and wastewater infrastructure, have been positioned within existing disturbance on flat land classified as Agricultural / Modified to avoid impacting 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. The proposed development, and associated 1600m^2 BAL-29 HMA have been positioned within land classified as Agricultural / Modified to avoid impacting adjacent high priority and potential threatened species habitat DOV & DTO vegetation community,

(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. In accordance with best practice, the proposal has been positioned clear and will retain threatened DTO & DOV vegetation community. Best practice includes where necessary, implement tree protection measures for *Eucalyptus ovata* within the development site (AS4970-2009) during the access construction phase. Implement best practice hygiene protocols during the construction phase to mitigate accidental spread of weed seeds and propagules including management of the construction site and designing appropriate soil and water management plan, and managing post construction landscaping works,

(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 Council Biodiversity Offset Policy 6.10 V2.0, The proposed development site has been positioned clear of threatened vegetation communities DTO and DOV. Pending the Arborist's

assessment, offsets for the loss of trees are in accordance with guidelines outlined in Table 1: Kingborough Council's *Biodiversity Offset Policy 6.10 V2.0*.

E7.0 Stormwater Management Code

Stormwater quantity requirements must always comply with requirements of the local authority including catchment-specific standards. All stormwater flow management estimates should be prepared according to methodologies described in Australian Rainfall and Runoff (Engineering Australia 2004) or through catchment modelling completed by a suitably qualified person. The proposal does not comply with Acceptable Solutions E7.7.1 A1 however, it appears the proposal satisfies alternative solution Performance Criteria P1 in that:

'Stormwater from new impervious surfaces must be managed by any of the following'

c) *Collected for re-use on the site.* Site plans indicate the stormwater will be collected on-site for re-use in 225000L collection tanks. Overflow point will implement mechanisms to mitigate erosion and mobilisation of sediments.

E23.0 On-site Wastewater Management Code

Site plans indicate the proposed wastewater management system and 300m^2 subsurface irrigation area are contained within the allotment and land classified as Agricultural (FAG). Providing the system and infrastructure is appropriately designed to geotechnical specifications by approved manufactures and implemented by certified operators, it is not anticipated the wastewater will result in surface or groundwater quality down-slope from the facility. Site plans indicate the land application area is of sufficient size to comply with the requirements of AS/NZ1547: On-site domestic wastewater management. Therefore, it is not anticipated the wastewater design and infrastructure will result in any long-term residual impacts on native vegetation.

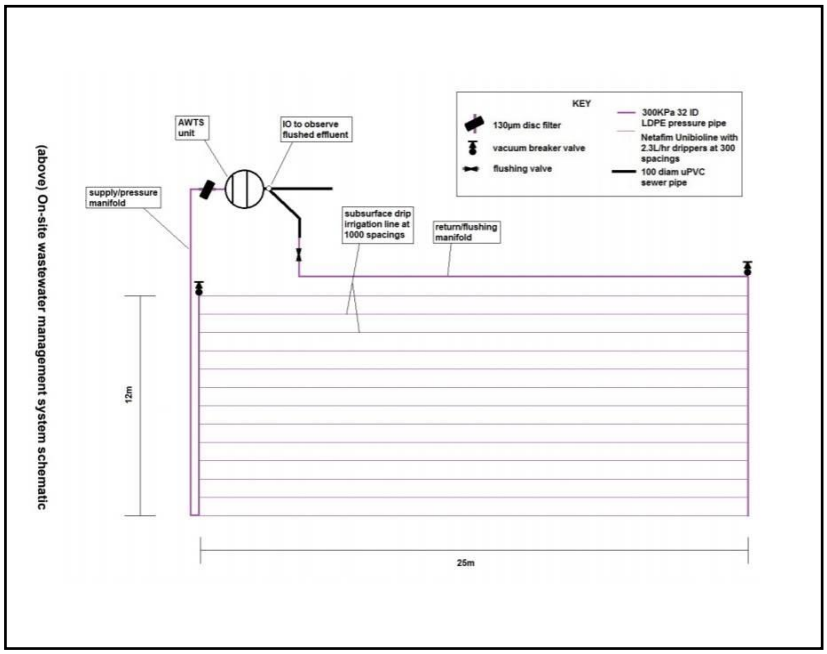

Figure 20 – Image of proposed wastewater system and 300m^2 land application area.

Conclusions

Threatened flora

Disturbance associated with the proposed development is unlikely to impact potential habitat values for threatened flora recorded within 5km of the site. No further assessment, or a permit is required under Section 51 of Tasmania's *Threatened Species Protection Act 1995*. No formal referral to the Commonwealth's Department of Environment under *Significant Impact Guidelines* is required.

Vegetation communities

Assessment indicates the proposed development will not impact adjacent DTO and DOV vegetation communities that are listed as threatened communities under Schedule 3A of Tasmania's *Nature Conservation Act 2002*. No further assessment or referral under Tasmania's Nature *Conservation Act 2002* or the *Land Use Planning and Approvals Act 1993*.

Threatened fauna

Swift parrot

This species has been recorded with 500m of the site with *Eucalyptus ovata* representing potential foraging habitat. The proposed access and shed footprint appear to impact the tree protection zones of 3 high biodiversity value *E. ovata* trees. Given the likely impacts, an Arborists assessment maybe required to determine the retention and long-term impacts to trees. No collision avoidance mechanisms necessary. Not expected further assessment or referral required under Tasmania's *Threatened Species Protection Act 1995* or the Commonwealth's Department of Environment under *Significant Impact Guidelines*.

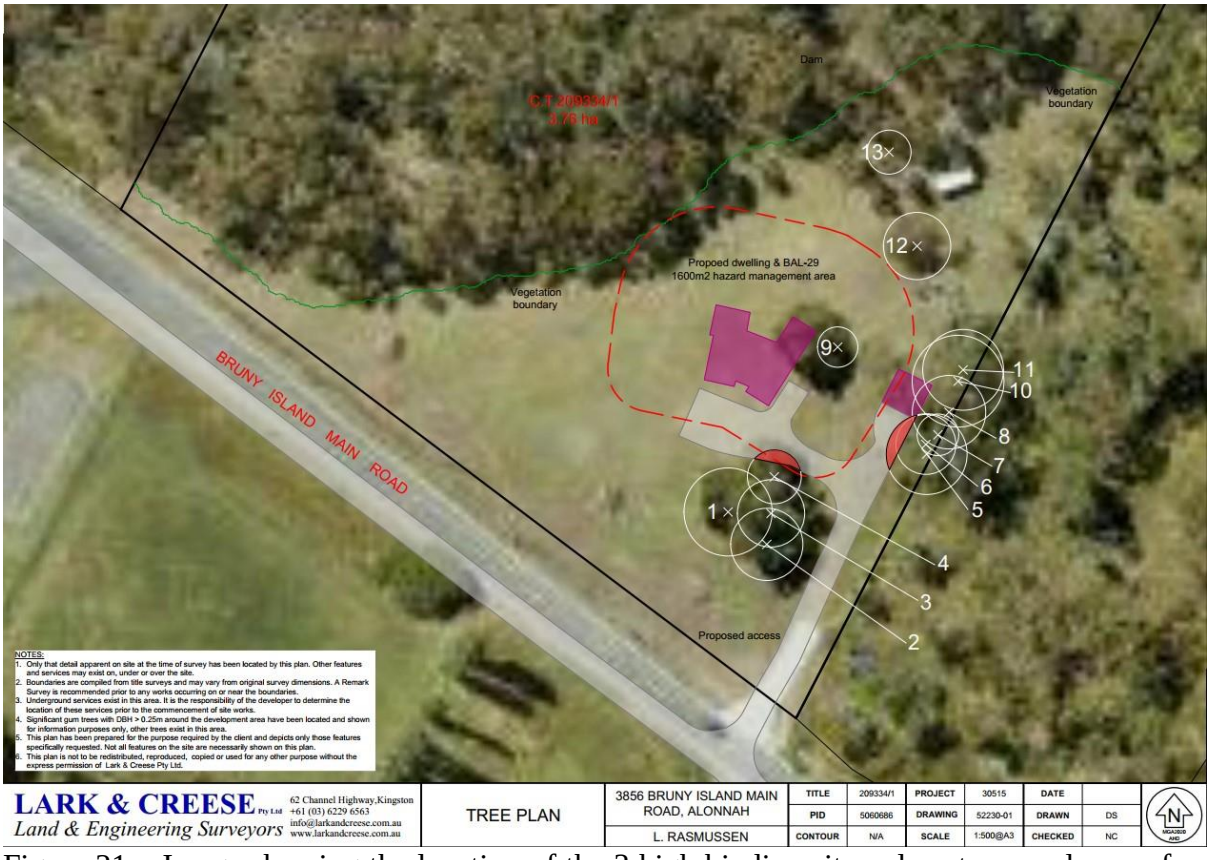

Figure 21 – Image showing the location of the 3 high biodiversity values trees and area of encroachment by the footprint of the access and shed (see Appendix B).

Masked owl

One potential hollow was recorded located in the gully near the eastern boundary. No recorded observations of Masked owls within 500m or nests within 1km line-of-sight. A nest / hollow recorded within the shallow gully on the eastern boundary, approx. 160m north of the proposed development site. Following discussion with wildlife biologist (personal comments, 2024), this hollow / nest was discounted as potential Masked

owl nest site. No further assessment is required under Tasmania's *Threatened Species Protection Act 1995* or formal referral is required to the Commonwealth's Department of Environment under Significant Impact Guidelines.

Grey Goshawk

The Grey Goshawk have previously been recorded 220m to the south-west. Whilst moderately protected from strong north-west wind, the type of and location of the nest and nesting material is not typical and when combined with the absence of protective overhead canopy and screening vegetation to the east, the site is not consistent with favoured nesting habitat suitability categories. A discussion with N. Mooney (personal comments, 2024) indicates the nest / hollow recorded is unlikely to be a Grey Goshawk nest. Proposal is not regard as threatening process under the Significant Impact Guidelines issued by the Commonwealth agency. Not expected further assessment or referral required under Tasmania's *Threatened Species Protection Act 1995* or the Commonwealth's Department of Environment under *Significant Impact Guidelines*.

Eastern-barred bandicoot & Eastern Quoll

The site is within range boundaries of the Eastern quoll and Eastern-barred bandicoot. Site assessment indicates the proposal will result in the minor loss of potential foraging habitat however, given the limited footprint, it is expected works will result in disturbance only and not considered a threatening process for these species under the Significant Impact Guidelines issued by the Commonwealth agency. No further assessment or referral required under Tasmania's *Threatened Species Protection Act 1995* or the Commonwealth's Department of Environment under *Significant Impact Guidelines*.

Forty-spotted pardalote

Site assessment found the proposed development site does not support potential core foraging habitat values for the endangered Forty-spotted pardalote. Proposal will not impact potential nesting habitat. No further assessment or referral required under Tasmania's *Threatened Species Protection Act 1995* or the Commonwealth's Department of Environment under *Significant Impact Guidelines*.

Tasmanian Wedge-tailed eagle, White-bellied sea eagle

Site assessment also indicates DTO and DOV vegetation occupying the north-east corner of the property is not considered to support potential nesting habitat values for these species. Not anticipated further assessment or referral required under Tasmania's *Threatened Species Protection Act 1995* or the Commonwealth's Department of Environment under *Significant Impact Guidelines*.

Introduced plant species

The landowners have implemented the Statutory weed Management Plans and undertaking a 5 year management plan to meet the management objectives for these weed species. No additional management prescriptions required under the *Weed Management Act 1995*.

Conclusion

Providing development is consistent with plans provided by Onsitedesign and management recommendations outlined are complied with, it is anticipated the proposed development will not result in a significant loss of potential threatened habitat values or compromise the existing ecological systems and functions within the vegetation communities and surrounding environs. Under Significant Impact Guidelines issued by the Commonwealth Dept of the Environment to determine if referral to the department is required, indicates the proposal will not:

- impact native vegetation or a native vegetation community,
- directly impact potential threatened species habitat,
- lead to a long-term decrease in the size of populations, reduce area of occupancy of a significant population, fragment an existing population or destroy habitat critical to the survival of species,
- disrupt the breeding cycle of an important population,
- modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline,

- result in invasive species that are harmful to a threatened species becoming established I the threatened species habitat.

As such, it is unlikely the proposal will result in "significant impacts" as described in the EPBC Act. No further assessment or referral is required under Tasmania's *Threatened Species Protection Act 1995* or Commonwealth's *Environmental Protection Biodiversity Conservation Act 1999.*

Management prescriptions to address the construction phase of the development and potential future works or land use should include:

- Engage an Arborist to determine levels of impacts to tree protection zones and long-term health,
- Prior to commencement of works implement a hygiene management plan including in accordance with *Tasmanian Washdown Guidelines for Weed and Disease Control: Machinery, Vehicles and Equipment (Edition 1, 2004*) ensuring contractors have washed down vehicles and machinery to prevent accidental importation of new weed species and *Phytophthora cinnamomi* and other plant pathogens during the construction phase,
- Limit movement of machinery and vehicles to the proposed development footprint and prohibit movement of vehicles where weeds have been identified to mitigate accidental transportation of weed seeds and plant propagules,
- Prior to commencement of works implement a Soil & Water management plan following guidelines set out in Environmental Best Practice Guidelines for all development detailing location for fencing, locations of temporary stockpile sites for waste material, construction material and parking,
- Retain excavated waste material on site.

7. References

Brereton, R and Mooney, NJ 1994, 'Conservation of the nesting habitat of the grey goshawk Accipiter novaehollandiae in Tasmanian State forests', Tasforests 6: 79-91.

Department of Primary Industries, Parks, Water and Environment. *Threatened Native Vegetation Communities 2014*, Released May 2015. Tasmanian Vegetation Monitoring and Mapping Program, Natural and Cultural Heritage Division.

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

de Salas, M.F & Schmidt-Lebuhn, A.N. (2018). Integrative approach resolves the taxonomy of the *Ozothamnus ledifolius* (Asteraceae: Gnaphaliae) species complex in Tasmania, Australia. *Phytotaxa* 358 (2): 117–138.

Duncan, F. (1996). 'A field key to Tasmanian species of Eucalyptus' Tasforests vol. 8, Forestry Tasmania. Tasmanian State Government, Government Printer, Hobart, Tasmania.

Forest Practices Authority 2023. *'Eagle Nest Searching, Activity Checking and Nest Management'* Fauna Technical Note No. 1, Forest Practices Authority, Hobart.

Forest Practices Authority 2014. 'Identifying swift parrot breeding Habitat', Fauna Technical Note No. 3 Forest Practices Authority, Hobart.

Forest Practices Authority 2014. *'Wedge-tailed Eagle Nesting habitat model'* Fauna Technical Note No. 6, Forest Practices Authority, Hobart.

Forest Practices Authority 2022. 'Management of *Phytophthora cinnamomi* in production forest', Flora Technical Note No. 8. Forest Practices Authority, Hobart.

Forest Practices Authority 2010, '*Goshawk habitat categories'*, Fauna Technical Note No. 12, Forest Practices Authority, Hobart.

Forest Practices Authority 2010.' *Nest identification*', Fauna Technical Note No. 14 'Forest Practices Authority, Hobart.

Forest Practices Authority (2005). Forest Botany Manual: Module 6 – D'Entrecasteaux Region. Forest Practices Authority.

Forest Practices Authority (2013), 'Wedge-tailed Eagle Nest Monitoring Project 2007–12: Nest site use, timing of breeding, and a review of the nesting habitat model', Report to Roaring 40s, Threatened Species and Marine Section (DPIPWE), April 2013, Forest Practices Authority Scientific Report.

Forest Practices Authority 2012, Biodiversity landscape planning guideline: a framework for managing biodiversity values, including RFA priority species, across the landscape in areas covered by the Tasmanian forest practices system - a report to the Commonwealth Government and the Forest Practices Authority, July 2012.

Forest Practices Authority (2010) Interim Species Habitat Planning Guideline for the conservation management of *Lathamus discolor* (Swift Parrot) in areas regulated under the Tasmanian Forest Practices System. Internal report to the Forest Practices Authority, Hobart, Tasmania.

Forest Practices Act (1985). Tasmanian State Government, Government Printer, Hobart, Tasmania.

Koch, A. 'Tree hollows in Tasmania: A Guide' FPA Hollows Project Officer
CRC for Forestry and the Forest Practices Authority, November 2009.

Goff, F.G, Dawson, G.A. and Rochow, J.J. (1982). 'Site Examination for Threatened and Endangered Plant Species'. Environmental Management 6 (4) pp 307-316.

Harris, S & Kitchener, A. eds (2005). From Forest to Fjaeldmark: Descriptions of Tasmania's Vegetation. Department of Primary Industries, Water and Environment, Printing Authority of Tasmania, Hobart.

Kingborough Council. *Kingborough Interim Planning Scheme, 2015.*

Kingborough Council (2022). *Biodiversity Offset Policy 6.10 V2.0*

Land Use Planning and Approvals Act (1993). Tasmanian State Government, No. 70 of 1993. Government printer, Hobart, Tasmania.

Mooney, N and Holdsworth, M 1988, Observations on the use of habitat by the grey goshawk in Tasmania, Tasmanian Bird Report 17: 1-12.

Nicolle, D. 2006, 'Eucalypts of Victoria and Tasmania' Blooming Books, Melbourne, Australia.

Schrammeyer, E., 2005. Southern Tasmanian Weed Strategy, Management Regional Committee (NRM South) NRM South, Hobart

Tasmanian State Government (1993). *Land Use Planning and Approvals Act 1993*. No. 70 of 1993. Government Printer, Hobart, Tasmania.

Tasmanian State Government (2002). *Nature Conservation Act 2002*. No. 63 of 2002. Government Printer, Hobart, Tasmania.

Tasmanian State Government (1995). *Threatened Species Protection Act 1995*. No. 83 of 1995. Government Printer, Hobart, Tasmania.

Tasmanian State Government (1999). *Tasmanian Weed Management Act 1999*. Government Printer, Hobart, Tasmania.

Threatened Species Unit; Threatened Flora of Tasmania. DPIPWE, 2003

HYPERLINK "http://www.dpiw.tas.gov.au/inter" http://www.dpiw.tas.gov.au/inter

Wapstra, M., Wapstra, A., Wapstra. H. 2010. 'Tasmanian Plant Names Unravelled' Fullers Books, Launceston, Tasmania.

Young, D. (2020) Conservation of the 'endangered' Grey Goshawk in south-east Tasmania. *Interim Nesting Habitat Technical Note*.

8. Appendix A – Vascular plant species list.

VASCULAR PLANT SPECIES LIST

3856 Bruny Island Main Road, Alonnah, Bruny Island

I = Introduced; E = Endemic; D = Declared weed under Tas *Weed Management Act 1999;* e = Environmental weed

DICOTYLEDON

ASTERACEAE			
	Cassina aculeata		
I	*Cirsium vulgaris*	Spear thistle	e
	Euchiton collinus		
	Lagenophora stipitata		
	Senecio minimus		
EPACRIDACEAE			
	Astroloma humifusum	Native cranberry	
	Epacris impressa	Common heath	
ERICACEAE			
	Sprengelia incarnata		
FABACEAE			
	Acacia dealbata	Silver wattle	
	Acacia melanoxylon	Blackwood	
	Acacia verticillata	Prickly moses	
	Acacia sauveolens		
	Oxylobium ellipticum		
	Pultenaea juniperina	Bush pea	
FUMARIACEAE			
I	*Fumaria muralis*		
GERANIACEAE			
	Pelargonium inodorum		
GENTIANACEAE			
I	*Centaurium erythraea*	Century plant	
GOODENEACEAE			
	Goodenia ovata	Hop-Native primrose	
HALORAGACEAE			
	Gonocarpus teucrioides	Raspwort	
LAURACEAE			
	Cassytha spp.	Dodderal	
MYRTACEAE			
	Eucalyptus obliqua		
	Eucalyptus ovata		
	Eucalyptus tenuiramis		
	Leptospermum scoparium	Common Teatree	

	Leptospermum lanigerum	Wooly teatree
	Melaleuca ericifolia	
	Melaleuca squamea	

PROTEACEAE

	Banksia marginata	Banksia

POLYGALACEAE

	Comesperma volubile	

RHAMNACEAE

	Pomaderris apetala	Dogwood

ROSACEAE

	Acaena novae-zelandiae	

RUBIACEAE

	Coprosma quadrifida	

RANUNCULACEAE

	Ranunculus spp	

SANTALACEAE

	Exocarpos cupressiformis	Native cherry

THYUMELAEACEAE

	Pimelea linifolia	

MONOCOTYLEDONAE

CYPERACEAE

	Facinia nodosa	
	Gahnia grandis	Cutting grass
	Lepidosperma elatius	Sword sedge

LOMANDRACEAE

	Lomandra longifolia	Sagg

POACEAE

	Agrostis spp	
	Agrostis capillaris	
	Anthoxanthum odoratum	
	Aira caryophyllea	
	Austrodanthonia caespitosa	Common wallaby grass
	Austrodanthonia setacea	Bristly wallaby grass
	Dactylis glomerata	Cocksfoot
	Deyeuxia quadriseta	Reed bentgrass
I	*Holcus lanatus*	Fog grass
	Poa labillarderei var. *labillardierei*	Silver tussock grass
	Poa sieberiana var *sieberiana*	Grey tussock grass

RESTIONACEAE

Baloskion tetraphyllum

PTERIDOPHYTA

DEMMSTAEDTIACEA

Pteridium esculentum	Bracken

9. Appendix B: Tree plan & register.

Table 5 – Tree register, 3856 Bruny Island Main Road, Alonnah. Conservation Value of Individual Trees Table 2: Kinborough Council's Biodiversity Offset Policy 6.10 V2.1.

#ID	Species	Diameter at breast height (m)	Tree protection zone (m)	Conservation status	Action
1	*Eucalyptus ovata*	58	6.96	High	Retain.
2	*Eucalyptus ovata*	49	5.88	High	Retain.
3	*Eucalyptus ovata*	46	5.54	High	Retain.
4	*Eucalyptus ovata*	37	4.45		Retain. Impacts within TPZ >10%. Arborists assessment required to determine retention.
5	*Eucalyptus ovata*	55	6.60	High	Retain. Impacts within TPZ >10%. Arborists assessment required to determine retention.
6	*Eucalyptus ovata*	41	4.90	High	Retain. Impacts within TPZ >10%. Arborists assessment required to determine retention.
7	*Eucalyptus ovata*	28	3.39		Retain.
8	*Eucalyptus ovata*	50	5.96	High	Retain.
9	*Eucalyptus ovata*	27	3.28		Retain.
10	*Eucalyptus ovata*	63	7.54	High	Retain.
11	*Eucalyptus ovata*	55	6.60	High	Retain.
12	*Eucalyptus ovata*	46	5.52	High	Retain.
13	*Eucalyptus pulchella*	30	3.60		Retain.

10. Appendix C - Supporting documentation.

Author	Description / Summary
Lark and Creese Pty Ltd	Bushfire Hazard Assessment Report & Bushfire Hazard Management Plan, 3856 Bruny Island Main Road, Alonnah, Dwg #51434-01
Onsitedesign	Proposed Dwelling, 3856 Bruny Island Main Road, Alonnah Ref #2314
	Wastewater designs.

Definitions of terms

Term / Acronym	Definition
BAL	Bushfire Attack Level
BHA	Bushfire Hazard Assessment
C.T.	Certificate of Title
DOV	Dry *Eucalyptus ovata* woodland/forest veg community
DTD	Dry *Eucalyptus tenuiramis* woodland/forest veg community
DTO	Dry *Eucalyptus tenuiramis* woodland/forest veg community
EPBC	Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*
FAG	Agricultural / Modified land
FPA	Forestry Practices Authority
FPP	Forestry Practices Plan
HMA	Hazard Management Area
KIPS2015	Kingborough Interim Planning Scheme 2015
LUPA	Tasmania *Land Use Planning and Approvals Act 1993*
NCA	Tasmanian *Nature Conservation Act 2002*
NRE	Department of Natural Resources and Environment
Pc	*Phytophthora cinnamomi*
TSPA	Tasmanian *Threatened Species Protection Act 1995*
WMA	Tasmanian *Weed Management Act 1995*
WCPA	Waterways & Coastal Protection Area

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