NATURAL VALUES ASSESSMENT

1122 HUON ROAD & 40 WOLFES ROAD, NEIKA

For

R. & H. S. OSTLER

25th MAY 2025

Lark and Creese Pty Ltd
D. Summers (BAppsc)

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

Table of Contents

Citation

This report can be cited as: *Lark & Creese Pty Ltd (2025). Natural Values Assessment for R. & H. S. Ostler, 1122 Huon Road & 40 Wolfes Road, Neika, Tasmania. 25th May 2025 #30967_52834_01.*

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

1. Summary

The following report is an assessment of natural values within the properties 1122 Huon Road (C. T. 187630/1) & 40 Wolfes Road, Neika (C.T 161408/3). Currently the property is zoned Environmental Living under the Kingborough Interim Planning Scheme 2015 (KIPS2015). This report assesses the potential impacts associated with the construction of a proposed extension to the existing dwelling (Class 1A) on the natural values and the planning codes within the KIPS2015 to assist local, State and Commonwealth agencies during the approval process.

Legislative Implications

Threatened Flora and vegetation types

- No threatened plant species listed under Tasmania's *Threatened Species Conservation Act 1995* or the Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999* have previously been recorded on site or at the time of assessment,
- Assessment indicates previous land use and current management of the site, have diminished the potential habitat suitability and persistence level for threatened species recorded within 5km of the study site.
- Assessment found the proposed development site is consistent with significantly disturbed / modified wet *Eucalyptus regnans* forest (WRE) classification. The Associated Bushfire Attack Level (BAL) 29 bushfire hazard management area will impact approx. 625m^2 of significantly disturbed native vegetation. WRE vegetation is not listed as threatened under Schedule 3A under the Tasmanian *Nature Conservation Act 2002* or *Land Use Planning and Approvals Act 1993*.

Threatened Fauna

- The Natural Values Atlas indicates the Tasmanian Wedge-tailed eagle has previously been recorded within 500m of the site however, records show this was an observation only. Site assessment indicates the study site represents a Nil to Low likelihood of suitable nesting habitat for the Tasmanian Wedge-tailed eagle, White-bellied sea eagle and Grey Goshawk. Natural Values Database indicates no known Tasmanian Wedge-tailed eagle, White-bellied sea eagle nests have previously been recorded within 500m or 1km line of sight. A Grey Goshawk has previously been recorded approx. 1.2km to the south but observation only. Assessment indicates it is unlikely the proposal will result in disturbance to breeding or nesting activities for these raptor 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*.
- The Natural Values Atlas indicates the Tasmanian Devil and Eastern-barred bandicoot have previously been recorded within 500m of the site and numerous sightings within 1km. The proposed development site is also within range boundaries for the Eastern Quoll with WRE vegetation community representing suitable habitat values for the Spotted-tailed Quoll. Assessment indicates the proposal will impact potential foraging habitat values for the Eastern-barred bandicoot and Tasmanian Devil however, it is expected the scale of future development will result in disturbance only and unlikely to result in significant loss of potential foraging or denning habitat for these species and will not trigger Significant Impact thresholds as described in the Commonwealth's *Environmental Protection Biodiversity Conservation Act 1999* for this species. 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*.
- Swift parrots have been previously recorked 500m to the east. The site is within Swift Parrott Important Breeding Area (SPIBA). The large *Eucalyptus obliqua* and *E. regnans* exceeding 100cm diameter at breast height represent potential nesting habitat although no visible hollows were recorded. Given the proposed development will not impact potential foraging or nesting habitat values, it is anticipated no further assessment or permit under Section 51 of Tasmania's *Threatened Species*

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

Protection Act 1995. No formal referral to the Commonwealth's Department of Environment under *Significant Impact Guidelines*.

- The large eucalypts (>80cm dbh) recorded within the study site constitute potential Masked Owl nesting habitat. Given the trees identified for removal will not impact the potential nesting habitat values 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*.

Introduced plant species

- Holly and Blackberry recorded within the study site are listed as Declared weed species under the Tasmanian *Biosecurity Act 2019,*
- In accordance with the Statutory Weed Management Plan for Holly, Kingborough Municipality is classified as Zone B, with control and contain / Zone A with eradication the management objective. Blackberry is classified as Zone B with control and containment considered appropriate management objectives.
- Radiata pine recorded within the study site is listed as an Environmental weed within the Kingborough municipality with recommendations to remove over a 10 year period. Sweet pittosporum, Cotoneaster and English ivy also recorded have become established within the study site. Recommended these invasive weed species are controlled and removed from the site in accordance with Department of Natural Resources and Environment guidelines.
- In addition, ensure hygiene management mechanisms are implemented prior to commencement of works, such as ensuring machinery and vehicles are clean to mitigate against accidental introduction of additional Declared weed seeds and plant pathogens such as *Phytophthora cinnamomi*.

Planning

The study site is within Kingborough Council's Biodiversity Protection Area and proximity to recorded threatened species classifies the site as supporting 'Moderate' priority biodiversity values. Assessment indicants approx. 625m^2 of WRE vegetation will require removal. No biodiversity values trees will require removal. Given the proposal is likely to trigger Council's Biodiversity Code, in accordance with Kingborough Council's Biodiversity Offset Policy 6.10 V2.1, it is my recommendation the resulting biodiversity offset is a financial mechanism (calculated at approx. 1875m^2). Assessment indicates a Part 5 Agreement would be ineffective at 0.188ha in size and not contiguous with other covenants or high priority vegetation communities. 1122 Huon Road will be able to support an in-situ biodiversity off set at a 3:1 ratio (1875m^2) that contains same for same vegetation type and potential threatened species habitat values.

Providing the proposed development is consistent with the provided plans and the recommended land and vegetation management mechanisms are implemented, site assessment indicates the proposed development footprint including access, will not detrimentally impact natural values or ecological functions within the property. 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.

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

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.*

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

2. Proposal

Purpose

R. & H. S. Ostler have engaged Lark and Creese Pty Ltd to detail the natural values supported within 1122 Huon Road, Neika (C. T. 187630/1) and 40 Wolfes Road, Neika (C.T. 161408/3), specifically within the proposed development site, as part of a development application to the Kingborough Council for the construction of an extension to the existing dwelling to assist local, State and Commonwealth agencies during the assessment process. The study site was assessed by Doug Summers 13th May 2025.

Scope

The survey focuses on impacts within the proposed development footprint, including establishment of the bushfire hazard management area within 40 Wolfes Road and 1122 Huon Road assessing the capacity of the site to accommodate proposed development including, but not limited to:

- Potential threatened flora and fauna habitat values present, including species of conservation significance and determining possible implications regarding the Tasmanian *Threatened Species Protection Act 1995* and the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999*,
- Vegetation types within the study site including descriptions on the condition, distribution, and conservation status under Local, State and Commonwealth policy and legislation.

Site description

1122 Huon Road, Neika (C. T. 187630/1) is approx. 1.71ha with 40 Wolfes Road, Neika (C.T. 161408/3) is approx. 0.28ha. Both allotments are currently zoned Environmental Living under the KIPS2015 with similarly zoned land surrounding the site except to the east. 40 Wolfes Road is dominated by typical style development with majority of the vegetation managed to comply with the bushfire regulations. Native vegetation dominates 1122 Huon Road site and does not support development. The allotment has a southerly aspect with gradients in the order of 15-25°.

Aboriginal Cultural heritage

A desktop assessment of the Tasmanian Aboriginal Heritage Register indicates no Aboriginal or cultural heritage sites have been identified or documented within the study site (PS0387656).

Geology

A desk top assessment (LISTmap Geology units 250K) indicates the study site supports two types of underlying geology. The northern third is describes as Tasmanian Dolerite with locally developed granophyre. The southern third is described as Upper glaciomarine sequences of pebbly mudstone, pebbly sandstone and limestone. A survey found no geomorphic conservation features or geoconservation sites within the property. An Aboriginal heritage desktop assessment review failed to find documented Aboriginal heritage sites within or close to the proposed development site. Research also indicted no documented cases of *Phytophthora cinnamomi* (Pc) were found within the property.

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

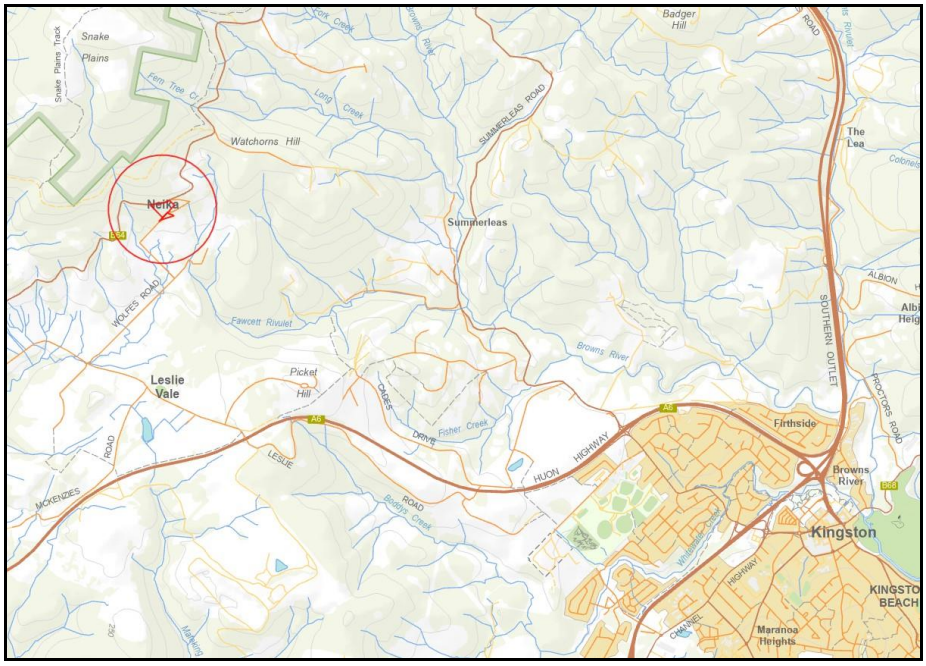

Figure 1 – Locality map, 40 Wolfes Road, Neika (red) (REF: LISTmap).

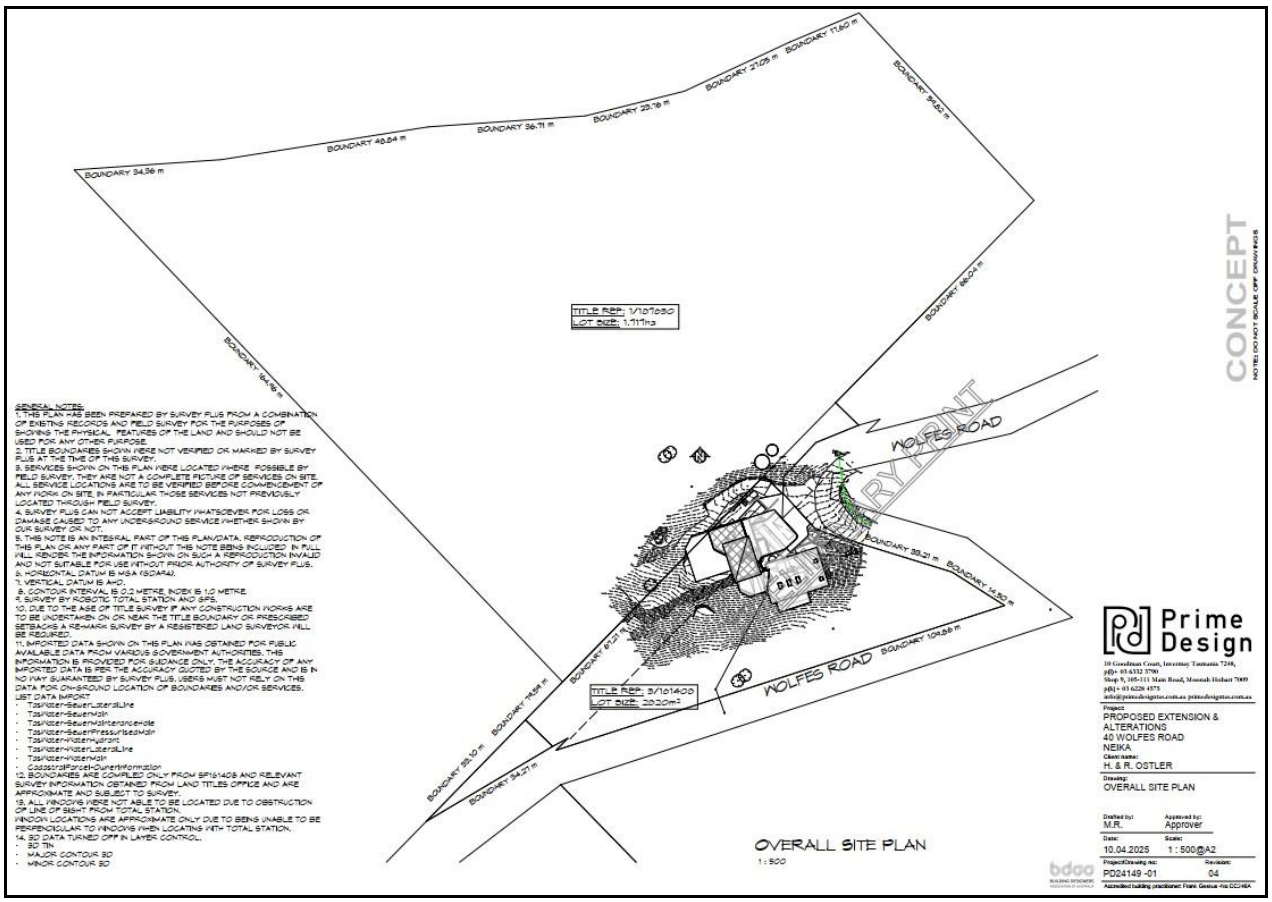

Figure 2 – Site plan showing proposed location of the development site (Ref: Prime Design, Proposed Extension & Alterations, 40 Wolfes Road, Neika, H. & R. Ostler PD24149 REV 04) .

Limitations

The natural values assessment of the proposed access and subdivision footprint identified by designers/proponents was undertaken on 13th May 2025. 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.

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

3. Native Vegetation

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 (KIPS2015) 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). Any features surveyed measured using Trimble R12(i) RTK GNSS, GDA94, MGA55.

Initial assessment

A desktop assessment of natural values data bases recording of flora and fauna listed as threatened under the *Threatened Species Protection Act 1995* and *Commonwealth Environment Protection & Biodiversity Conservation Act 1999,* vegetation communities listed under Tasmania's *Nature Conservation Act 2002* including additional conservation values. Remote assessment resources using:

- The LIST (Land Information Systems Tasmania), Department of Natural Resources and Environment, Tasmania,
- Department of Natural Resources and Environment's *Natural Values Atlas Report (40 Wolfes Road, Neika, 13th May 2025*) 5km search radius (E:519269, N:5244800. GDA2020, MGA55).
- TASVEG 4.0 vegetation classification, Land Information Systems Tasmania, Department of Natural Resources and Environment, Tasmania,

Site assessment

Site assessment was conducted on the 13th May 2025. No vascular plant species listed under Schedule 3, 4 or 5 of the *Threatened Species Protection Act 1995* or listed in the *Commonwealth Environment Protection & Biodiversity Conservation Act 1999* have previously been recorded on site. Assessment of the proposal impacts against the planning provisions in the Tasmanian Planning Scheme, *Threatened Species Protection Act 1995* and *Commonwealth Environment Protection & Biodiversity Conservation Act 1999*. Assessment of habitat values and vegetation type including small scale surveys of disturbed sites, differences due to geology, drainage, hilltops and ridgeline outcrops. Maps were generated from LISTmap & Google Earth. Vegetation mapping (LISTmap TASVEG 4.0 layer, Forestry Practices Authority Biodiversity Values Database & Department of Natural Resources and Environment *Natural Values Atlas*).

Assessment objectives

- Broad scale habitat value and vegetation type assessment,
- Tree survey,
- Small scale assessment such as disturbed sites, open areas, existing tracks, variations due to geology, elevated outcrops, and areas with poor drainage,
- Assessment of the proposal impacts against the planning provisions in the TPS, *Threatened Species Protection Act 1995* and *Commonwealth Environment Protection & Biodiversity Conservation Act 1999.*

Plant species

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

A desk top assessment of Department of Natural Resources and Environment's *Natural Values Atlas* and the Forest Practices Authority's *Biodiversity Values Database,* indicates no vascular plant species listed under Schedule 3, 4 or 5 of the *Threatened Species Protection Act 1995* or the *Commonwealth Environment Protection & Biodiversity Conservation Act 1999* have previously been recorded within 500m of the study site (typical buffer measurements usually used to discuss the potential of a particular study area to support various species listed in NVA and BVD databases). Some species not listed on databases but considered to have potential to occur within the study site are considered.

Figure 3 – Image of TASVEG 4.0 classification and distribution of vegetation communities surrounding the allotment; FAG - Agricultural land, WDU – wet *Eucalyptus delegatensis* forest, WRE – wet *Eucalyptus regnans* forest, WOU – wet *Eucalyptus obliqua* forest (undifferentiated) (REF: LISTmap TASVEG 4.0).

Site assessment found the vegetation occupying the larger northern allotment is consistent with TASVEG 4.0 wet *Eucalyptus regnans* forest (WRE). Canopy was dominated by *E. regnans* and Pinus radiata with *E. obliqua* subdominant. The tall understory comprised of typical species including *Olearia argophylla*, *Pittosporum bicolor*, *Bedfordia salicina*, *Pomaderris apetala*, *Coprosma quadrifida* and ground ferns *Histiopteris incisa and Polystichum proliferum*.

Pinus radiata were recorded widespread and assessed as codominant canopy species. *Iles aquifolium* were also recorded as dominating the tall understorey layer in two distinct locations but widespread throughout.

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

Figure 4 – Image of vegetation management with the existing bushfire hazard management area south of the existing development.

Figure 5 - Image of vegetation management with the existing bushfire hazard management area south of the existing development.

Figure 6 – Image looking north-east at proposed development site within existing bushfire hazard management area.

Figure 7 – Image looking north at proposed development site and wet *Eucalyptus regnans* forest to the west of the site.

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

Figure 8 – Image showing vegetation structure and species composition within WRE vegetation.

Figure 9 - Image showing vegetation structure and species composition within WRE vegetation.

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

Figure 10 - Image showing vegetation structure and species composition within WRE vegetation.

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

4. Introduced plants

A site assessment recorded declared weed species Holly and Blackberry within the study site. Both plant species are listed as Declared with Blackberry listed also as a Weed of National Significance (WoNS) under the Tasmanian *Biosecurity Act 2019*. Radiata pine (*Pinus radiata*) also recorded within the study site are listed as an environmental weed in Kingborough Council *Weed Management Strategy and Action Plan Kingborough Municipal Area 2017-2027*. 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 study site.

Given the study site is free of other common Declared weed species that are established in the area, it is recommended best hygiene practices are implemented prior to commencement of works. This includes washing down machinery and earthmoving equipment off-site in accordance with the *Tasmanian Washdown Guidelines for Weed and Disease Control: Machinery, Vehicles and Equipment (Edition 1, 2004)* to mitigate the accidental introduction of additional weed species during construction phase of the access and dwellings. In addition, it is recommended where possible, all imported materials used in construction and landscaping are certified weed free to mitigate the importation of weed propagules and pathogens such as *Phytophthora cinnamomi* (Pc).

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. Recent survey of the Natural Values Database indicated no Pc infestation within the property or within 1000m. Forestry Practice Authority, Technical Note No. 8 indicates the agricultural / rural environs within the study site does not support a native vegetation community that is susceptible to Pc. In addition, assessment found the study site does not support native species such as *Epacris* and *Pultenaea* species are moderately susceptible to Pc.

Recommendations
Holly (*Ilex aquifolium*) recorded within the study site is listed as 'Declared' weed species under the Tasmanian *Biosecurity Act 2019* and *Weed Management Act 1999*. In accordance with the Statutory Weed Management Plan and Kingborough Council, the municipality is classified Zone A where management objectives are to control and contain. Small plants can be physically removed ensuring all roots are removed. Chemical control (herbicide) recommended for larger plants using either a 'Drill and Fill' for large trees or cut and paint technique used where holes are drilled low down in the trunk and filled with herbicide and tree left in-situ to die.

Radiata pines (*Pinus* radiata) recorded within the study site are listed as a non-declared priority weed (priority 4) and an Environmental weed species under the Kingborough Council's Weed Management Strategy and Action Plan, Kingborough Municipal Area 2017-2027. Given the extent of the infestation, Council indicates control and containment. Target eradication of small infestations during term of the action plan (10 years) where in association with higher priorities or where practical through landowner partnerships/agreements.

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

Table 1– Weed species present on site. (Excludes exotic grass, century plant and Plantago species).

Species	Comments	Easting / Northing	Recommendations
Plant species listed as 'Declared' & Weeds of National Significance plant species under the Tasmanian *Biosecurity Act 2019 National Weeds Strategy*. Council municipality Zone ranking in accordance with the Statutory Weed Management Plan for Willow species and the Weed Management Strategy and Action Plan: Kingborough Municipal Area 2017-2027 (WMS&AP).			
Blackberry (*Rubus fruticosus)*	Declared weed, Weed of National Significance – WMA. Zone B: Mgt objective Control & containment	See Weed Plan	Implement Statutory Weed Mgt Plan. herbicide methodology prior to next flowering season. Monitor the site for minimum of 5 yrs. for new plants. Eradication is the management objective.
Holly (*Ilex aquifolium)*	Declared weed. Zone A: Eradication over 10 year period. B: Control & containment Mgt objective.	See Weed Plan	Implement Statutory Weed Mgt Plan. 'Drill & Fill' or 'Cut and Paint' herbicide methodology to kill plant. Monitor the site for minimum of 5 yrs. for new plants. Eradication is the management objective.
Radiata pine (*Pinus radiata*)	Environmental weed. Priority 4 (WMS&AP) Widespread occurrence. Control & contain.	See Weed Plan	Recommend removal 'Drill & Fill' herbicide methodology to kill plant. Monitor the site for new plants.
English ivy (*hedera helix*)	NRM List as an Environmental weed	See Weed Plan	Recommended removal. Cut sections roots attached to tree treating exposed cut with herbicide.
Sweet pittosporum (*Pittosporum undulatum*)	NRM List as an Environmental weed	See Weed Plan	Recommended removal. 'Drill & Fill' herbicide methodology to kill plant. Monitor the site. for new plants.
Cotoneaster (*Cotoneaster* sp)	NRM List as an Environmental weed	See Weed Plan	Recommended removal. 'Drill & Fill' herbicide methodology to kill plant. Monitor the site for new plants.

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

Figure 11 – Image of Blackberry infestation near the northern boundary.

Figure 12 – Image of Blackberry growing within disturbed land south of the existing dwelling.

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

Figure 13 – Image of Holly infestation on the margin of WRE vegetation.

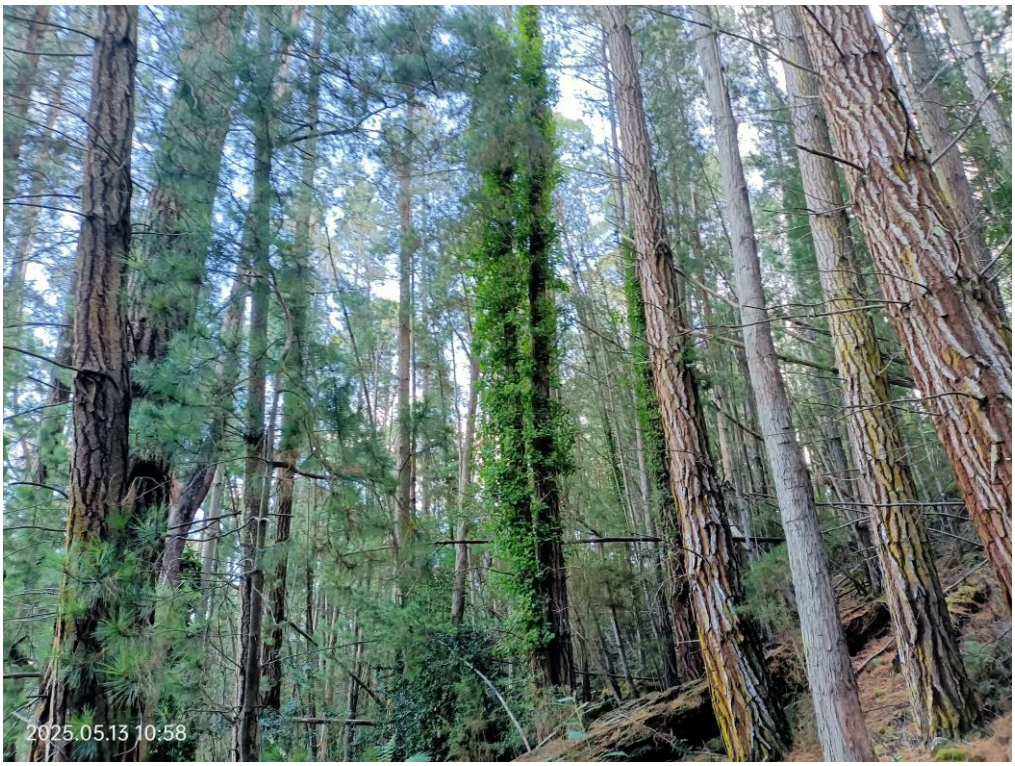

Figure 14 – Image of English Ivy growing on a eucalypt in amongst Radiata pine.

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

Figure 15 – Image of Sweet pittosporum near the western boundary.

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

5. Potential threatened fauna & flora habitat values

Flora

Assessment indicates previous disturbance, and ongoing management of vegetation to comply with the bushfire regulations has significantly diminished habitat suitability for some threatened flora species previously recorded within 5km of the site. Despite the ongoing management of the site, an assessment of potential threatened flora occurring on site is limited to species that do not mid disturbance and might persist along the fence line such as

Vegetation types and distribution

Assessment indicates the proposed development has been positioned within land previously disturbed to establish the bushfire hazard management area associated with the existing dwelling. The extension and associated BAL-29 bushfire hazard management area will impact approx. 625m2 of vegetation consistent with TASVEG 4.0 wet *Eucalyptus regnans* forest (WRE) classification. WRE vegetation community is not listed as threatened veg community under Tasmanian's *Nature Conservation Act 2002*.

Eastern-barred bandicoot

The Natural Values Atlas database indicates the Eastern-barred bandicoot has previously been recorded 6 times within 500m of the site in 2009. Eastern-barred bandicoot generally prefers a habitat comprising of a mosaic of bushland constituting potential refuse / foraging habitat juxtaposed to agricultural land where it forages for insects and agricultural pests like the cockchafer beetle and corbie grub. A survey of the site did not recorded the characteristic shaped diggings that can be associated with the Eastern-barred bandicoots however, the common Brown bandicoot also make similar shaped diggings.

Eastern quoll

The Eastern quoll has previously been recorded within 1km of the site. this quoll species also prefers a mosaic of agricultural and bushland where it hunts and scavenges feeding largely on insects, with agricultural pests like the cockchafer beetle and corbie grub. They use caves and hollows as refuge and dens for birthing. Numbers of Quolls and Bandicoots have been declining in Tasmanian, in large due to predation by cats.

Tasmanian Devil and Spotted-tailed quoll

Devils are recorded Statewide, but densities are higher in coastal scrub and range from coastal heath, open dry sclerophyll and mixed sclerophyll-rainforest where shelter and food are available and will hide in dens but at night it can roam up to 16 km and although not territorial, have a home range. In line with Forestry Practices Authority (Fauna Technical Note #10: *Identifying Tasmanian Devil and Spotted-tailed quoll habitat*), the surrounding mosaic of agricultural land juxtaposed to bushland constitutes potential refuse / foraging habitat for this species. For Devils to persist in the landscape they must have an adequate food supply, enough den sies for breeding and daily movements, and structural features for refuge and foraging (Jones *et al* 2006). Spotted-tailed quolls prefer wet sclerophyll habitat to sclerophyll-rainforest where they shelter actively hunt small prey.

Tasmanian Wedge-tailed eagle and White-bellied sea eagle

Modelling for potential Tasmanian Wedge-tailed eagle and White-bellied sea eagle nesting habitat indicates vegetation occupying the steep, south facing slope represents a #4 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 or White-bellied sea eagle have not been recorded within 500m, with no nests recorded within 1km line-of-sight.

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

Ground based assessment in accordance with Forestry Practice Authority Fauna Technical Note #1 and #6, indicates the south-east facing the site is only marginally protected from the prevailing strong westerly wind and whilst the trees exceeded 27m, the site is not considered suitable for nesting habitat for these species due to proximity of agricultural activity and the Huon Road. Searches indicate no WTE or WBSE nests have been documented within 500m or 1km line of sight.

Grey Goshawk

Ground based assessment in accordance with Forestry Practice Authority Fauna Technical Note #12: *Goshawk habitat categories*, found the WRE vegetation within the study site represent some nesting habitat values but not considered potential habitat. Exposure to strong prevailing westerly winds and disturbance from current land use and management practices within and surrounding the allotment have significantly reducing nesting suitability. No nests were recorded within this area. The Natural Values Atlas indicates a Grey Goshawk nest has been recorded approx. 1km south of the site (#3401) but not within line of sight.

Swift parrots

Swift parrot habitat values are normally assessed at roughly a one hectare scale, but small patches of potential habitat can still be important for this species. Assessment of the proposed development sites and wooded areas in accordance with Forestry Practice Authority Fauna Technical Note No. 3: *Identifying swift parrot breeding habitat assessment* did not record potential foraging habitat within the proposed development site or WRE vegetation to the west.

Potential nesting-habitat is considered to comprise of eucalypt forests that contain hollow-bearing eucalypt trees of any species. The likelihood of a tree containing a hollow useful for swift parrots increases with tree age and diameter with definitions based on tree diameter. However, it is understood that in some instances tree diameter may not reflect habitat value. Nest trees typically contain multiple hollows, have a large trunk diameter (mostly > 70 cm diameter at breast height) and have signs of advanced senescence (i.e. contain dead wood). A ground based assessment of vegetation surrounding the proposed access and development site for Lot 1 found:

- Study site assessed as ‘Nil’ potential foraging-habitat density class as no foraging identified,
- Study site represents ‘Low’ potential nesting habitat as there are trees greater than 100cm dbh but less than 8 trees per hectare.

Masked Owl

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), including isolated ‘paddock trees’. 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 large tree within WRE vegetation to the west and north support trees that exceed 70-80cm dbh and considered potential 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).

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

6. Discussion

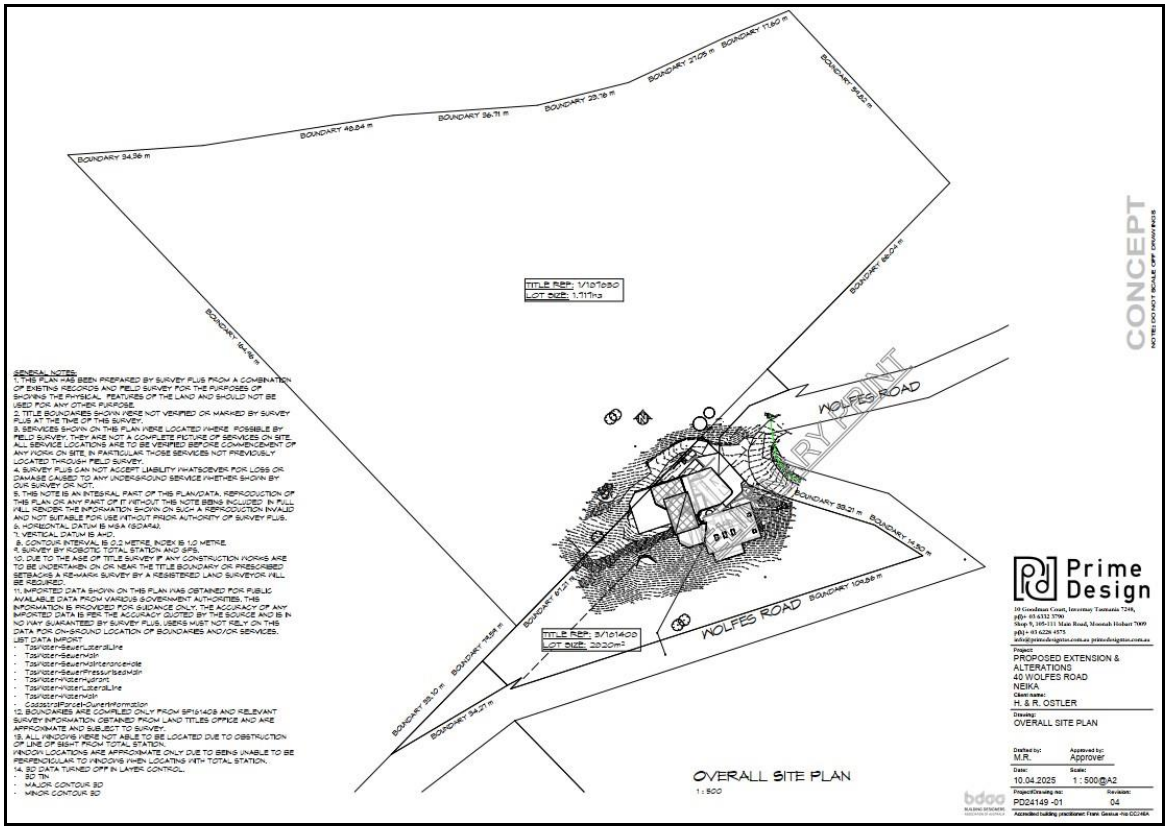

Figure 16 – Proposed extension to existing development 40 Wolfes Road & 1122 Huon Road, Neika (Ref: Prime Design, Proposed Extension & Alterations, 40 Wolfes Road, Neika, H. & R. Ostler PD24149 REV 04).

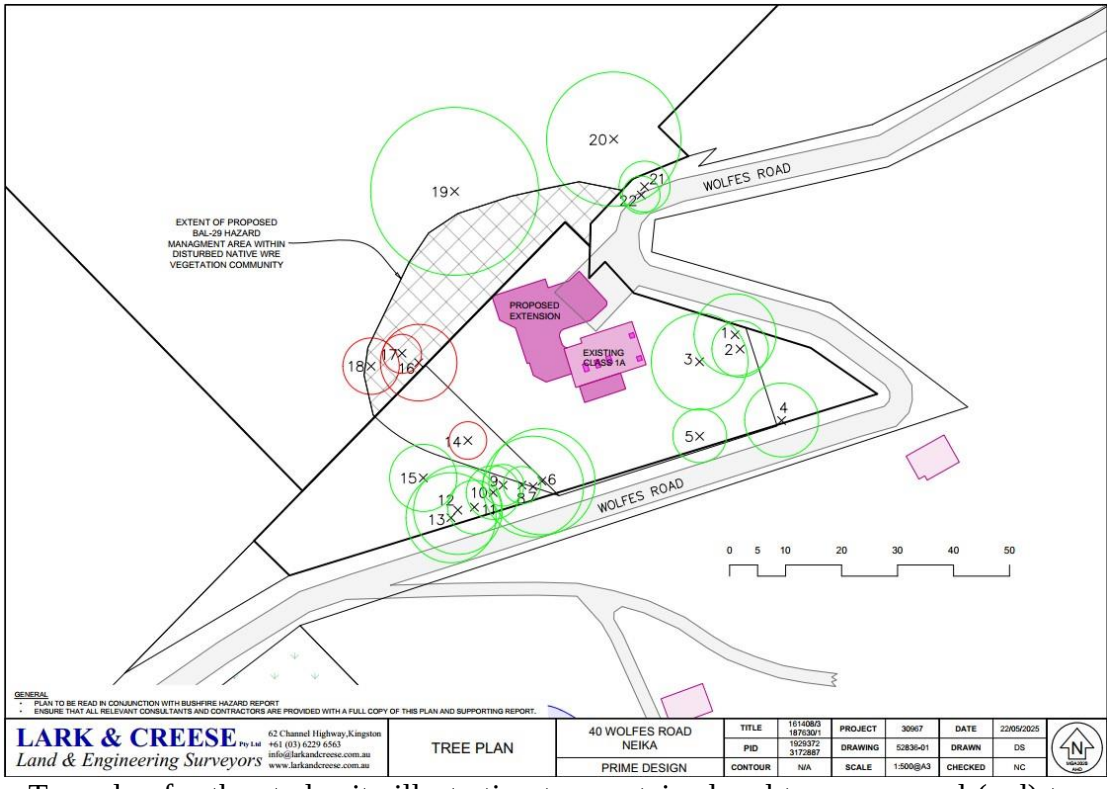

Figure 17 – Tree plan for the study site illustrating trees retained and trees removed (red) to comply with the BAL-29 construction standard bushfire hazard management area (Ref: Lark and Creese, 30967_52834_01 Tree Plan).

Fauna

The Eastern-barred bandicoot and Tasmanian Devil have previously been recorded within 500m of the site. this distance is the typical buffer measurements usually used to discuss the potential of a particular study area to support various species listed in NVA and BVD databases. Assessment indicates it is expected the proposal will impact potential habitat values however, it is anticipated the proposed works will result in disturbance only and not a significant loss of critical foraging and refuse habitat. Post construction occupation of the site and future potential introduction of domestic can place additional pressure these species. It is a legislative requirement owners manage pets responsibly so not place additional pressure on both threatened and non-threatened 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*. No further assessment or referral is required under Tasmania's *Threatened Species Protection Act 1995* or Commonwealth's *Environmental Protection Biodiversity Conservation Act 1999*.

Swift parrot & Masked Owl

Assessment indicates the proposed developments does not support potential foraging habitat for the Swift parrot. Site plans indicate the extent of the proposed the BAL-29 bushfire hazard management area will not impact potential nesting habitat values for the Swift parrot or the Masked Owl. No further assessment or referral is required under Tasmania's *Threatened Species Protection Act 1995* or Commonwealth's *Environmental Protection Biodiversity Conservation Act 1999*.

Tasmanian Wedge-tailed eagle, White-bellied sea eagle & Grey Goshawk

The previous recording of a WTE within 500m was an observation only. Modelling for potential nesting habitat values below 850m in elevation indicate the site supports a 'Moderate' (4/8) likelihood of suitable nesting habitat values. Ground assessment indicates the study site does support trees exceeding 27m in height, but the site is exposed to strong west winds and is in close proximity to existing disturbance in the form of agricultural use and land management and does not represent suitable nesting habitat for the Tasmanian Wedge-tailed eagle and White-bellied sea eagle.

Assessment found the proposed site is not within 500m of a known nest and not within a 1km line of sight and therefore it is considered unlikely the development will result in a disturbance to breeding or nesting activity. No further assessment or referral is required under Tasmania's *Threatened Species Protection Act 1995* or Commonwealth's *Environmental Protection Biodiversity Conservation Act 1999*. A Grey Goshawk has previously been recorded 1.2 km to the south but listed as observation only. No further assessment or referral is required under Tasmania's *Threatened Species Protection Act 1995*.

Table 2- 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* (TSPA), and the Commonwealth's *Environmental Protection, Biodiversity Conservation Act 1999* (EPBCA).

CONSERVATION STATUS			
No Threatened Fauna within 500 metres			
SPECEIES	**TSPA**	**EPBC**	**COMMENTS**
Aquila audax fleayi Tasmanian Wedge-tailed eagle	endangered	Endangered	Natural Values Atlas previously recorded within 500m to the south but listed as observation only and not a nest. Ground based assessment indicates the proposed development site supports trees >27m but exposed to strong west winds and represent nil-low likelihood of suitable nesting habitat. Nests recorded within 5 km, none within line-of-sight. Not expected the proposal will impact nesting or breeding activities. Anticipate no further assessment is required or referral

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

			under the TSPA or EPBCA.
Lathamus discolor Swift parrot	endangered	Critically Endangered	Not previously recorded within 500m. Site within Swift parrot Important Breeding Areas. No core potential foraging habitat recorded. Study site supports trees that represent potential nesting habitat (> 100cm dbh). Site plans indicate no potential foraging or nesting habitat will be impacted. No further assessment or referral is required under the TSPA or EPBCA.
Perameles gunnii Eastern-barred Bandicoot	-	Vulnerable	Previously recorded within 500m of the study site. Surrounding rural / agricultural mosaic of land represents potential habitat values. The proposal will impact potential habitat; however, it is expected development will result in disturbance only and not of a scale that will trigger the Significant Impact Guidelines for this species. No further assessment or referral is required under the EPBCA.
Sarcophilus harrisii Tas Devil	endangered	Endangered	Previously recorded within 500m of the study site. Not recorded at time of assessment. Proposed development site is within range boundaries. Anticipate the proposal will lead to minor impact to potential habitat for this species. However, it is likely works will lead to disturbance only and will not result in a significant loss of potential habitat. No further assessment or referral is required under the TSPA or EPBCA.
Threatened Fauna within 5000 metres			
SPECEIES	**TSPA**	**EPBC**	**COMMENTS**
Accipiter novaehollandiae Grey Goshawk	endangered	-	Documented nest recorded approx. 1km to the south but not within line of sight. Proposed development site does not represent suitable nesting habitat. Unlikely the proposal will disturb breeding or nesting activity to the south. No further assessment or referral required under TSPA 1995.
Aquila audax fleayi Tasmanian Wedge-tailed eagle	endangered	Endangered	Natural Values Atlas previously recorded within 500m to the south but listed as observation only and not a nest. Ground based assessment indicates the proposed development site supports trees >27m but exposed to strong west winds and represent nit-low likelihood of nesting habitat. Nests recorded within 5 km, none within line-of-sight. Not expected the proposal will impact nesting or breeding activities. Anticipate no further assessment is required or referral under the TSPA or EPBCA.
Dasyurus maculatus subsp *maculatus* Spotted-tailed Quoll	rare	Vulnerable	Not previously recorded within proposed development site. Proposed development site within potential range. Prefers wet sclerophyll forest such as WRE to the west of the site. Assessment indicates proposed extent of the required bushfire hazard management area will marginally encroach into WRE and potential core foraging and denning habitat. However, given the minimal impacts it is unlikely the proposal will result in a significant loss of potential priority habitat values. Anticipate no further assessment or referral is required under the TSPA or EPBCA.
Dasyurus viverrinus Eastern Quoll	-	Endangered	Not previously recorded within proposed development site. Proposed development site represents potential foraging habitat and likely to result in a minor loss of habitat. Anticipate proposal will not result in a significant loss of important foraging or denning habitat and unlikely to trigger the Significant Impact Guidelines for this species. Anticipate

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

			no further assessment or referral is required under the TSPA or EPBCA.
Haliaeetus leucaogaster White-bellied sea eagle	vulnerable	-	Natural Values Atlas previously recorded within 500m to the south but listed as observation only and not a nest. Ground based assessment indicates the proposed development site supports trees >27m but exposed to strong west winds and represent nit-low likelihood of nesting habitat. Nests recorded within 5 km, none within line-of-sight. Not expected the proposal will impact nesting or breeding activities. Anticipate no further assessment is required or referral under the TSPA.
Lathamus discolor Swift parrot	endangered	Critically Endangered	Not previously recorded within 500m. Site within Swift parrot Important Breeding Areas. No core potential foraging habitat recorded. Study site supports trees that represent potential nesting habitat (> 100cm dbh). Site plans indicate no potential foraging or nesting habitat will be impacted. No further assessment or referral is required under the TSPA or EPBCA.
Pardalotus quadragintus Forty-spotted pardalote	endangered	Endangered	Not previously recorded within study site or at time of assessment. No preferred / core habitat (*Eucalyptus viminalis*) recorded within study site. Proposal greater than 5km from known populations. No further assessment or referral is required under the TSPA or EPBCA.
Perameles gunnii Eastern-barred Bandicoot	-	Vulnerable	Previously recorded within 500m of the study site. Surrounding rural / agricultural mosaic of land represents potential habitat values. The proposal will impact potential habitat; however, it is expected development will result in disturbance only and not of a scale that will trigger the Significant Impact Guidelines for this species. No further assessment or referral is required under the EPBCA.
Sarcophilus harrisii Tas Devil	endangered	Endangered	Previously recorded within 500m of the study site. Not recorded at time of assessment. Proposed development site is within range boundaries. Anticipate the proposal will lead to minor impact to potential habitat for this species. However, it is likely works will lead to disturbance only and will not result in a significant loss of potential habitat. No further assessment or referral is required under the TSPA or EPBCA.
Tyto novaehollandiae	endangered	Vulnerable	Not previously recorded within study site or at time of assessment. The trees identified for removal do not represent potential nesting habitat. WRE impacted unlikely to result in a loss of potential roosting habitat. No further assessment or referral is required under the TSPA or EPBCA.

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.

Flora

The proposed development site is within modified / managed land. The extent of the proposed BAL-29 bushfire hazard management will require the clearance and conversion of 625m^2 of disturbed WRE vegetation. Assessment indicates both sites do not represent suitable habitat for threatened flora recorded within 5km and not expect development will result in a significant loss of potential habitat. No further assessment or permit is required under Tasmania's *Threatened Species Protection Act 1995* or Commonwealth's *Environmental Protection Biodiversity Conservation Act 1999*. Assessment indicates the

site does not support a native vegetation community.

Table 3 - Significant Plant species previously recorded within 5 km radius of the study area.
(Threatened species Unit, NP&WS, Tasmanian Threatened Species Protection Act 1995, Commonwealth Environmental Protection, Biodiversity Conservation Act 1999 and Tasmanian Nature Conservation Act 1999).

CONSERVATION STATUS			
SPECEIES	**TSPA**	**EPBC**	**COMMENTS**
Threatened flora recorded within 500 metres			
Westringia angustifolia Narrow-leaf westringia (Endemic to Tas)	rare	-	Previously recorded to the west within 500m. Not recorded at the time of assessment. Disturbance associated with previous development has significantly modified the site reducing suitability. WRE to the west is not considered favourable habitat. Unlikely the proposed development and establishment of the bushfire hazard management area will result in a significant loss of potential habitat. No further assessment or referral is required under TSPA.
Threatened flora recorded within 5000 metres			
SPECEIES	**TSPA**	**EPBC**	**COMMENTS**
Allocasuarina duncanii Duncan's sheoak (Endemic to Tas)	rare	-	Not previously recorded or at the time of assessment. Previous and ongoing management and land use reduced habitat suitability. WRE veg to the west does not constitute potential habitat values. Assessment indicates the proposal will not result in a loss of potential habitat. No further assessment or referral is required under TSPA.
Asperula scoparia subsp *scoparia* (Prickly woodruff)	rare	-	Not previously recorded or at the time of assessment. Assessment indicates the proposed development site does not represent potential habitat values for this species. No further assessment or referral is required under TSPA 1995.
Australina pusilla subsp. muelleri Shade nettle	rare	-	Not previously recorded or at the time of assessment. WRE vegetation to the west clear of proposed development footprint represents potential habitat values. Proposal will not result in a significant loss of habitat values. No further assessment or referral is required under TSPA.
Centropappus brunonis Tasmanian daisytree	rare	-	Not previously recorded or at the time of assessment. Occurs in amongst boulders and talus in sub-alpine vegetation. Unlikely the proposal will result in a loss of potential habitat. No further assessment or referral is required under TSPA.
Discaria pubescens Spiky anchorplant	rare	-	Not previously recorded or at the time of assessment. Distribution limited to Southern Midlands in grassland and woodland. The proposal will not result in a loss of potential habitat. No further assessment or referral is required under TSPA.
Eucalyptus obliqua x risdoni	*rare*	-	Not previously recorded or at the time of assessment. Occurs amongst foothills around the D'Entrecasteaux Channel and Tas Peninsula. Prefers dry sclerophyll forest on hilly on Jurassic dolerite. The proposal will not result in loss of potential habitat. No further assessment or referral is required under TSPA.

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

Euphrasia gibbsiae subsp. wellingtonensis Mt wellington eyebright	rare	-	Not previously recorded or at the time of assessment. Natural distribution in a variety of vegetation types on Mt Wellington, bolster heath and open montane shrubbery. Unlikely the proposal will result in a loss of potential habitat. No further assessment or referral is required under TSPA.
Isolepis Habra Wispy clubsedge	rare	-	Not previously recorded or at the time of assessment. Generally occurs in marshy, estuarine habitat and moist sandy flats. Proposal will not result in a loss of potential habitat. No further assessment or referral is required under TSPA.
Lepidosperma tortuosum Twisting rapiersedge	rare	-	Not previously recorded or at the time of assessment. Usually occurs in open heathland and eucalypt woodland in the south-eastern Tas. The study site does not constitute suitable habitat. No further assessment or referral is required under TSPA.
Pomaderris elachophylla Small-leaf dogwood	vulnerable	-	Not previously recorded or at the time of assessment. Generally confined to widely separated locations throughout the State occurring in wet sclerophyll forests. WRE vegetation to west represents potential habitat but not recorded. Unlikely the proposal will result in a loss of potential habitat. No further assessment or referral is required under TSPA.
Pomaderris intermedia Lemon dogwood	rare	-	Not previously recorded or at the time of assessment. Generally confined wet sclerophyll forests and shrubland. WRE vegetation to west represents potential habitat but not recorded. Unlikely the proposal will result in a loss of potential habitat. No further assessment or referral is required under TSPA.
Senecio squarrosus Leafy fireweed	rare	-	Not previously recorded or at the time of assessment. occurs mainly in dry forests (often grassy) but extends to wet forests and other vegetation types. The proposal may result in a loss of potential habitat however, not considered a significant loss of habitat. No further assessment or referral is required under TSPA.
Thelymitra inflata Inflated sun-orchid	endangered	-	Not previously recorded or at the time of assessment. Flowers are required for the identification undertaken during its peak flowering period, late September to early December, ideally in hot weather when its flowers are most likely to be open. Usually recorded in dry to moist woodlands and open forests, often in disturbed, winter-wet sites on clay loam soils. Unlikely the proposal will result in a loss of potential habitat. No further assessment or referral is required under TSPA.
Viola curtisiae Montane ivyleaf violet	rare	-	Not previously recorded or at the time of assessment. The taxon grows in subalpine *Eucalyptus coccifera* woodland. The proposal will not result in a loss of potential habitat. No further assessment or referral is required under TSPA.
Westringia angustifolia Narrow-leaf westringia (Endemic to Tas)	rare	-	Previously recorded to the west within 500m. Not recorded at the time of assessment. Disturbance associated with previous development has significantly modified the site reducing suitability. WRE to the west is not considered favourable habitat. Unlikely the proposed development and establishment of the bushfire hazard management area will result in a significant loss of potential habitat. No further assessment or referral is required under TSPA.

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.

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

Introduced plant species

Holly and Blackberry recorded within the study site are listed as 'Declared' weed species under the Tasmanian *Biosecurity Act 2019, Weed Management Act 1999* and National Weed Strategy. Radiata pine (*Pinus radiata*) recorded within the study site are listed as a non-declared priority weed (priority 4) and an Environmental weed species under the Kingborough Council's Weed Management Strategy and Action Plan, Kingborough Municipal Area 2017-2027.

Planning Implications

Kingborough Interim Planning Scheme 2015 - E10.0 Biodiversity Code

Assessment indicates the natural values within the study site are consistent TASVEG 4.0 wet *Eucalyptus regnans* forest (WRE) classification. In accordance with Table E10.1, the site represents 'Moderate' priority biodiversity values. Assessment indicates the proposal will require the removal of approx. 625m2 disturbed WRE native vegetation including 1 very high biodiversity value trees that represents potential threatened species habitat values. The proposal does not satisfy A1 Acceptable Solutions E10.7.1 Building and Works. 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 extension to an existing dwelling has been designed to minimise impacts on potential threatened species habitat. Site plans indicate the development footprint is positioned within disturbed land that is within the existing bushfire hazard management area.

(ii) *Impacts resulting from bushfire hazard management measures are minimised as far as reasonably practicable through siting and fire-resistant design of habitable buildings*. Site assessment found the extents of the new BAL-29 bushfire hazard management area is within the footprint of the previous BAL-19 HMA. Assessment indicates works will impact approx. 625m2 of significantly modified WRE vegetation community. Trees identified for removal do not represent potential threatened species habitat values.

(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.* The proposal was designed to minimise impacts to very high biodiversity values trees and adjacent WRE vegetation community. Where necessary, best practice includes implementation of AS4970-2009 mechanisms to protect retained trees, implementation of best practice hygiene protocols in conjunction with a soil and water management plan during and post construction phase,

(iv) *Residual adverse impacts on moderate priority biodiversity values not able to be avoided or satisfactorily mitigated are offset in accordance with the Guidelines for the use of Biodiversity Offsets in the local planning approval process, Southern Tasmanian Councils Authority, April 2013 and Kingborough Biodiversity Offset Policy 6.10, November 2016*. The proximity of potential threatened species habitat classifies the site as supporting 'Moderate' priority biodiversity habitat values. The bushfire hazard assessment recommendations will impact 625m2 of modified WRE. In accordance with Kingborough Council's Biodiversity Offset Policy 6.10 V2.1, assessment indicants impacts to 'Moderate' biodiversity values will trigger the requirement for a biodiversity offset in accordance Council's Biodiversity Offset Policy 6.10. In accordance with Kingborough Council's Biodiversity Offset Policy 6.10 V2.1, it is my recommendation the resulting biodiversity offset mechanism is financial (calculated at approx. 1875m^2). A Part 5 Agreement would be ineffective at 0.188ha in size and not contiguous with other covenants or high priority vegetation communities. 1122 Huon Road will be able to support an in-situ biodiversity off set at a 3:1 ratio (1875m^2) that contains same for same vegetation type and potential threatened species habitat values.

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

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'

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. Overflow point will implement mechanisms to mitigate erosion and mobilisation of sediments.

E23.0 On-site Wastewater Management Code

Site plans indicate the proposal will utilise the existing waste-water management system and absorption trenches. Assessment indicates all infrastructure will be contained entirely within the 40 Wolfes Road Title. Providing the wastewater system is designed to future loading and geotechnical specifications by approved manufactures and installed by certified operators, it is anticipated the systems will not result in any long-term residual impacts on native vegetation down-slope from the facility.

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

7. Conclusions

Flora
The proposal development footprint has been positioned within disturbed land currently maintained to comply with bushfire regulations. The extent of the new bushfire hazard management area will not result in a significant loss of potential habitat for threatened flora species recorded within 5 km. No further assessment or permit is required under Tasmania's *Threatened Species Protection Act 1995* or Commonwealth's *Environmental Protection Biodiversity Conservation Act 1999*.

Vegetation types
Assessment found the proposal will impact approx 625m^2 of disturbed wet *Eucalyptus regnans* forest (WRE) TASVEG 4.0 classification. WRE is not listed under Schedule 3A of Tasmania's *Nature Conservation Act 2002*. No further assessment or permit is required under this Act or *Land Use Planning and Approvals Act 1993*.

Fauna
The Eastern-barred bandicoot has been recorded within 500m of the site with assessment finding the surrounding mosaic of land classified as Agricultural / Modified land and bushland remnants represents potential foraging and refuse habitat values. The proposed development is likely to impact potential habitat however, it is expected impacts will result in disturbance only and will not result in a significant loss of potential foraging or denning habitat.

Tasmanian Devil
The proposed site is within range boundaries of Devils with WRE vegetation to the west considered potential habitat. Assessment indicates it is unlikely the clearance and conversion of 625m^2 of disturbed WRE and ongoing occupation of the site will trigger Significant Impact Guidelines for this species. No further management recommendations or referral is required under Tasmania's *Threatened Species Protection Act 1995* or Commonwealth's *Environmental Protection Biodiversity Conservation Act 1999*.

Assessment indicates impacts will not result in the loss of potential nesting habitat for the Swift parrot and Masked Owl. I anticipate no further assessment, or referral is required under Tasmania's *Threatened Species Protection Act 1995* or Commonwealth's *Environmental Protection Biodiversity Conservation Act 1999*. However, given the proximity of potential foraging and nesting habitat for the Swift parrot surrounding the proposed development site, the inclusion of collision avoidance mechanisms into the dwelling design should be considered.

Introduced plant species
Holly and Blackberry are listed as a 'Declared' weed species under the Tasmanian *Biosecurity Protection Act 2000*. Under this Act, landowners are obliged to implement the Statutory Weed Management Plans and appropriate management mechanisms. In accordance with guidelines, it is also recommended non-declared weed species identified are managed in line with the Department of Natural Resources and Environment management recommendations. In addition, ensure hygiene management mechanisms are implemented prior to commencement of works, such as ensuring machinery and vehicles are clean to mitigate against accidental introduction of additional Declared weed seeds and plant pathogens such as *Phytophthora cinnamomi*.

Planning
The study site is within Kingborough Council's Biodiversity Protection Area and proximity to recorded threatened species classifies the site as supporting 'Moderate' priority biodiversity values. Assessment indicants approx. 625m^2 of WRE vegetation will require removal. No biodiversity values trees will require removal. Given the proposal is likely to trigger Council's Biodiversity Code, in accordance with

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

Kingborough Council's Biodiversity Offset Policy 6.10 V2.1, it is my recommendation the resulting biodiversity offset is a financial mechanism (calculated at approx. 1875m^2). Assessment indicates a Part 5 Agreement would be ineffective at 0.188ha in size and not contiguous with other covenants or high priority vegetation communities. 1122 Huon Road will be able to support an in-situ biodiversity off set at a 3:1 ratio (1875m^2) that contains same for same vegetation type and potential threatened species habitat values.

Providing the proposed development is consistent with the provided plans and the recommended land and vegetation management mechanisms are implemented, site assessment indicates the proposed development footprint including access, will not detrimentally impact natural values or ecological functions within the property. 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.*

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

8. References

Department of Primary Industries, Parks, Water and Environment, 2000, TASVEG 2000 Manual, Department of Primary Industries, Parks, Water and Environment, Hobart.

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

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

Environmental Protection & Biodiversity Conservation Act 1999. Commonwealth Government, Office of Legislative Drafting and Publishing, Canberra.

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

Forest Practices Authority. 'Eagle Nest Searching, Activity Checking and Nest Management' Version 2.2 Fauna Technical Note No. 1, Forest Practices Authority, Hobart, Tasmania.

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

Forest Practices Authority. 'Identifying Tasmanian devil and Spotted-tail Quoll habitat', Fauna Technical Note No. 10. Forest Practices Authority, Hobart, Tasmania.

Forest Practices Authority. '*Phytophthora cinnamomi* in working forests', Flora Technical Note No. 8. Forest Practices Authority, Hobart, Tasmania.

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

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

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

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.

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.

Kingborough Council. *Kingborough Interim Planning Scheme 2015*.

Kingborough Council. *Kingborough Planning Scheme 2000*.

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.

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

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

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

'*National Recovery Plan for the Swift Parrot (Lathamus discolor)*, Commonwealth of Australia 2019'.

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

S. Pfennigwerth. 2007. 'Minimising the swift parrot collision threat, Guidelines and recommendations for parrot-safe building design. Melampus Media. WWF-Australia.

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.

Tasmanian State Government (1997). Tasmanian *Plant Quarantine Act*: Section 12 – Publications of pests and diseases. Government Printer, Hobart, Tasmania.

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

http://dpipwe.tas.gov.au/conservation/threatened-species/lists-of-threatened-species/threatenedspecies-vertebrates/wedge-tailed-eagle

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

Wapstra, M., Roberts, N., Wapstra, H. & Wapstra, A. (2010). Flowering Times of Tasmanian Orchids: A Practical Guide for Field Botanists. Self-published by the authors (September 2010 version).

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

9. Appendix 1 – Register of trees within and surrounding the site.

Table 4 – Register of trees potentially impacted by proposal

ID#	Species	Diameter at breast height (cm)	Tree Protection Zone (m)	Conservation Status (Offset Policy 6.10)	Action
1	*Eucalyptus regnans*	61	7.32		Retain
2	*Eucalyptus regnans*	42	5.04		Retain
3	*Eucalyptus regnans*	72	8.64	Very High	Retain
4	*Acacia melanoxylon*	55	6.6		Retain
5	*Acacia melanoxylon*	40	4.8		Retain
6	*Eucalyptus regnans*	79	9.48	Very High	Retain
7	*Eucalyptus regnans*	75	9	Very High	Retain
8	*Eucalyptus regnans*	28	3.36		Retain
9	*Eucalyptus regnans*	31	3.72		Retain
10	*Eucalyptus regnans*	40	4.8		Retain
11	*Eucalyptus obliqua*	40	4.8		Retain
12	*Eucalyptus obliqua*	66	7.92		Retain
13	*Eucalyptus obliqua*	67	8.04		Retain
14	*Eucalyptus regnans*	28	3.36		Remove to comply with BHMA
15	*Eucalyptus obliqua*	50	6		Retain
16	*Eucalyptus regnans*	57	6.84		Remove to comply with BHMA
17	*Eucalyptus regnans*	29	3.48		Remove to comply with BHMA
18	*Eucalyptus regnans*	42	5.04		Remove to comply with BHMA
19	*Eucalyptus regnans*	220	26.4	Very High	Retain
20	*Eucalyptus regnans*	100	12	Very High	Retain
21	*Acacia melanoxylon*	38	4.56		Retain
22	*Eucalyptus regnans*	28	3.36		Retain

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

10. Vascular plant species list – 40 Wolfes Road, Neika.

VASCULAR PLANT SPECIES LIST
40 Wolfes Road, Neika

I = Introduced; E = Endemic; D = Declared weed under Tas *Biosecurity Act 2019;* e = Environmental weed
WoNS = Weed of National Significance. Limited to locations in proximity of proposed development site.

DICOTYLEDON

ARALIACEAE			
I	*Hedera helix*	English ivy	e
ASTERACEAE			
	Bedfordia salicina	Blanket bush	
	Cassinia aculeata		
I	*Cirsium vulgaris*	Spear thistle	e
	Helichrysum spp		
	Lagenophora stipitata		
	Olearia argophylla		
	Senecio linearifolius	Fireweed	
	Senecio minimus		
AQUILILFOLIACEAE			
I	*Ilex aquifolium*	Holly	D
CAMPANULACEAE			
	Wahlenbergia gracilis	Bluebell	
CONVOLVULACEAE			
	Dichondra repens		
DICKSONIACEAE			
	Dicksonia antarctica	Soft tree fern	
ERICACEAE			
	Acrotriche serrulate		
	Astroloma humifusum		
	Monotoca glauca	Goldy wood	
EPACRIDOBEAE			
	Epacris impressa	Common heath	
FUMARIACEAE			
I	*Fumaria muralis*		
GOODENEACEAE			
	Goodenia ovata	Hop-Native primrose	
HEMEROCALLIDOBEAE			
	Dianella tasmanica		
HALORAGACEAE			
	Gonocarpus tetragynus		

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

MIMOSACEA			
	Acacia dealbata	Silver wattle	
	Acacia melanoxylon	Black wood	
	Acacia verticillata	Prickly moses	
MYRTACEAE			
	Eucalyptus obliqua		
	Eucalyptus regnans		
	Leptospermum scoparium	Common Teatree	
OLEACEAE			
	Notelaea ligustrina	Native olive	
PITTOSPORACEAE			
	Pittosporum bicolor	Cheesewood	
I	*Pittosporum undulatum*	Sweet pittosporum	e
ROSACEAE			
	Acaena novae-zelandiae	Buzzy	
I	*Cotoneaster simonsii*	Cotoneaster	e
I	*Rubus fruticosus*	Blackberry	D
RHAMNACEAE			
	Pomaderris apetala	Dog wood	
RUBIACEAE			
	Coprosma quadrifida	Native currant	
THYMELAEACEAE			
	Pimelea linifolia		

MONOCOTYLEDONAE

CYPERACEAE			
	Gahnia grandis	Native cutting bush	
	Lepidosperma spp	Sword sedge	
POACEAE			
	Agrostis spp		
	Agrostis capillaris		
	Anthoxanthum odoratum		
	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	
LOMANDRACEAE			

Lomandra longifolia	Sagg

JUNCACEAE

Juncus sp	Reed

PTERIDOPHYTA

BLECHNACEAE

Blechnum wattsii	Water fern

DEMMSTAEDTIACEAE

Histiopteris incisa	Batswing fern
Pteridium esculentum	Bracken

DRYOPTERIDACEAE

Polystichum proliferum	Mother shieldfern

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