

NATURE CONSERVATION PLAN

FOR

GREEN TIER CREEK

CERTIFICATE OF LAND TITLE

VOLUME 200596 FOLIO 1

November 2016



Photo: Jim Mulcahy (Tasmanian Land Conservancy Inc.)

Table of Contents

| | | |
|----------|---|-----------|
| 1 | INTRODUCTION TO THIS NATURE CONSERVATION PLAN..... | 3 |
| 2 | MANAGEMENT OBJECTIVES..... | 4 |
| 2.1 | GENERAL OBJECTIVES..... | 4 |
| 2.2 | SPECIFIC MANAGEMENT OBJECTIVES FOR NATURAL VALUES..... | 4 |
| 3 | BOUNDARIES OF THE LAND | 5 |
| 4 | BACKGROUND INFORMATION | 6 |
| 5 | NATURAL VALUES ON THE LAND | 6 |
| 5.1 | VEGETATION COMMUNITIES | 6 |
| 5.2 | THREATENED AND/OR PRIORITY SPECIES | 10 |
| 6 | MANAGEMENT PRESCRIPTIONS, AUTHORISATIONS & RECOMMENDATIONS | 12 |
| 6.1 | DEMARCATON | 13 |
| 6.2 | THREATENED AND/OR PRIORITY SPECIES | 13 |
| 6.3 | TIMBER HARVESTING | 14 |
| 6.4 | DOMESTIC FIREWOOD | 14 |
| 6.5 | STOCK GRAZING | 15 |
| 6.6 | FENCING | 15 |
| 6.7 | CLEARING OF VEGETATION..... | 15 |
| 6.8 | FIRE | 16 |
| 6.9 | FIREBREAKS..... | 17 |
| 6.10 | HERBICIDES, PESTICIDES, FERTILISERS AND OTHER CHEMICALS | 18 |
| 6.11 | CONTROL OF EXOTIC PLANT SPECIES (WEEDS) | 18 |
| 6.12 | CONTROL OF EXOTIC (FERAL) ANIMAL SPECIES..... | 19 |
| 6.13 | CONTROL OF NATIVE ANIMALS | 19 |
| 6.14 | EXOTIC (NON-NATIVE) FLORA OR FAUNA SPECIES..... | 19 |
| 6.15 | NATIVE FLORA AND FAUNA SPECIES | 20 |
| 6.16 | NATURAL FLOW OF WATER..... | 20 |
| 6.17 | EFFLUENT AND IRRIGATION..... | 20 |
| 6.18 | VEHICLE USE AND TRACKS | 20 |
| 6.19 | RECREATIONAL USE | 21 |
| 6.20 | DELETERIOUS ACTIVITIES..... | 21 |
| 6.21 | MONITORING, REPORTING AND REVIEW..... | 21 |
| 6.22 | ADDITIONAL ISSUES | 22 |
| | <i>Land</i> | <i>23</i> |
| | <i>Vegetation Map.....</i> | <i>24</i> |
| | <i>Management Map.....</i> | <i>25</i> |
| | <i>Appendix.....</i> | <i>27</i> |

1 Introduction to this Nature Conservation Plan

This Nature Conservation Plan ("Plan") must be read in conjunction with the Conservation Covenant ("Covenant") registered on the land title. In this Plan, all definitions follow those described in Clause 3.1 of the Covenant.

The Covenant lists in Clause 4.2 those activities that are prohibited from the Land. Clause 4.2 also details those activities that may only be undertaken with authorisation in writing by the Minister. This Nature Conservation Plan contains Authorisation(s) from the Minister, for the purposes of Clause 4.2 of the Covenant, and details the extent to which these activities are permitted in the Land. This Plan also contains the management prescriptions issued by the Minister which are referred to in Clause 4.3 of the Covenant.

All decisions, approvals, consents, recommendations, monitoring and other responsibilities of the Minister specified in this Nature Conservation Plan may be made, given or carried out by the Minister or a duly appointed delegate (or authorised person) of the Minister.

The Minister will provide succeeding owners of the Land a Nature Conservation Plan containing authorisations, management prescriptions, and/or recommendations that will facilitate the ongoing management of the Land. Before transferring the property, the Owner may direct any enquires from purchasers regarding the Conservation Covenant and Nature Conservation Plan to the Department of Primary Industries Parks Water & Environment, Private Land Conservation Program.

Any Management Prescriptions provided in this Nature Conservation Plan:

- (a) may be varied at any time by agreement between the parties;
- (b) will be reviewed jointly by the parties every 10 years (or as otherwise agreed) and if both parties agree, may be amended by the Minister pursuant to that review.

Any Authorisation(s) provided in this Nature Conservation Plan (in relation to the Covenant):

- (a) may be reviewed by the Minister and the Owner at any time;
- (b) will be reviewed by the Minister and the Owner at intervals no longer than 10 years (or as otherwise agreed);
- (c) may be amended by the Minister pursuant to that review.

All notices or other communications given by the Owner to the Minister under the terms of this Nature Conservation Plan must be in writing and sent to the following address:

The Minister,
C/- The Secretary,
Department of Primary Industries, Parks, Water and Environment
Natural & Cultural Heritage Division
Private Land Conservation Program
GPO Box 44
HOBART TASMANIA 7001

2 Management Objectives

2.1 General objectives

The following general objectives apply to the management of the Land:

- Protection and conservation of the natural systems and features in the Land, including the diversity of species, habitats and communities;
- Protection of significant vegetation communities and populations of threatened and/or priority plant and animal species; and
- Protection of the Land from damage by introduced plants and animals, disease and inappropriate management regimes.

2.2 Specific management objectives for Natural Values

The management objectives are:

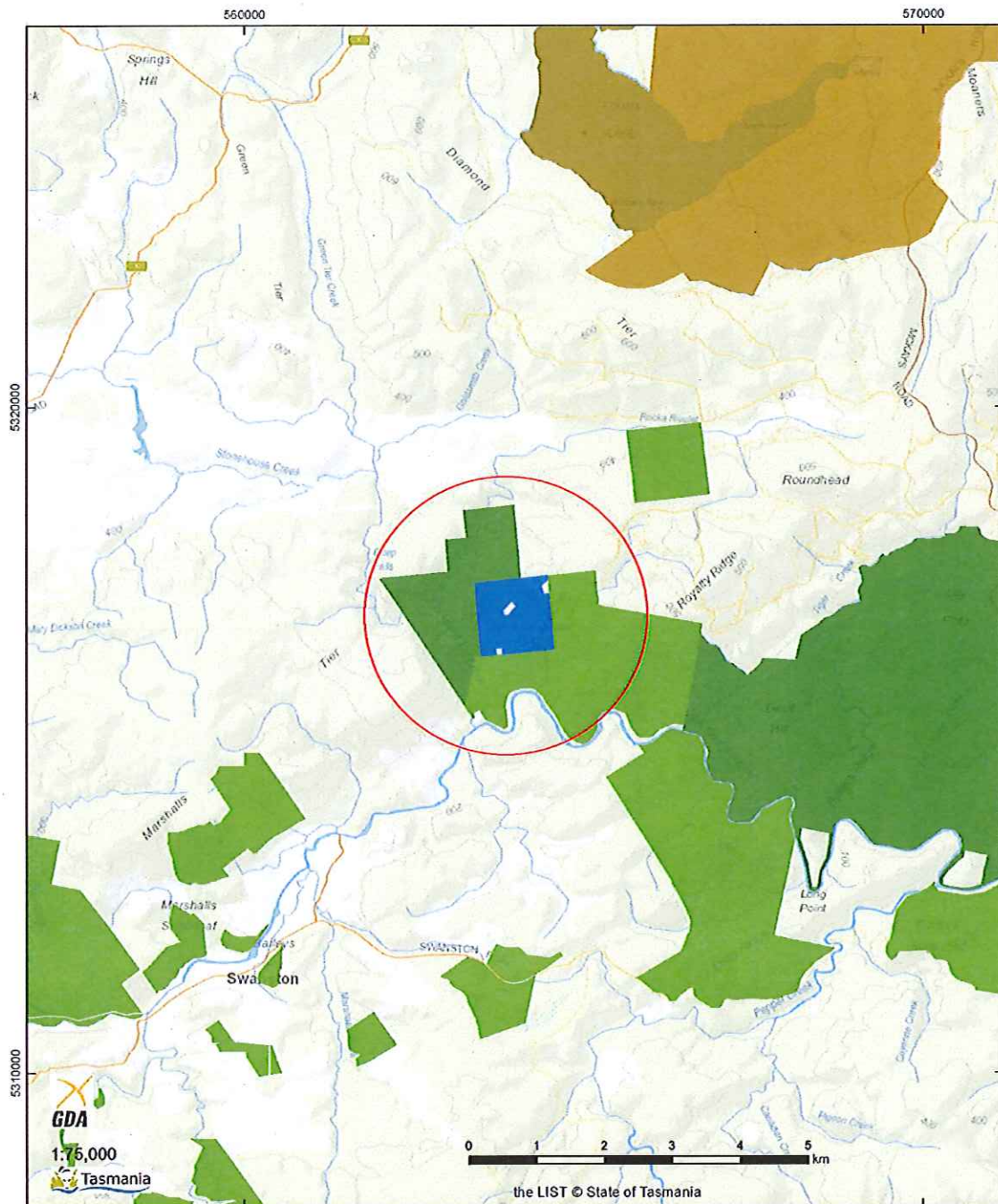
- To maintain the structure of vegetation community and allow for regeneration of native species under the proposed management regime;
- To implement appropriate fire regimes;
- To protect the habitat of threatened and/or priority species; and
- To eradicate or control weeds and feral animals and prevent any further introduction(s) of exotic species.

The success, or otherwise, of the management regimes will be monitored by the Department of Primary Industries, Parks, Water and Environment ("the Department"). In general, the measures of success of the management regimes are:

- The maintenance or improvement in native species diversity, richness and abundance;
- Adequate and appropriate opportunities for recruitment or regeneration of native species;
- The maintenance or an improvement in the population(s) of threatened species and their habitat; and
- A reduction in infestations of environmental weed species (where present).

3 Boundaries of the Land

The property is located near Swanston as shown on the map below. The Land is shown on the attached Land Map (see page 23). The vegetation that occurs on the Land is outlined on the attached Vegetation Map (see page 24).



Location Map

Property: Green Tier Creek Swanston Rd Swanston

Title Ref: 200596/1

Database ID: 14213 File No: 248694.2

Mapsheets: ROYALTY, 5631

Data Sources: LIST DPIWE
Tas Land Conservancy Inc.

Map Date: 10/10/2016

map produced by the Private Land Conservation Program, DPIWE

- The Land
- Conservation
- Nature Reserve
- Conservation Covenant (NCA)
- Private Nature Reserve and Conservation Covenant (NCA)



Figure 1 Location of the Land near Swanston

4 Background information

The Tasmanian Land Conservancy Inc. (TLC) purchased the property as part of its Revolving Fund Program to permanently protect the property's Natural Values. Funding for the purchase of the property was provided by the Australian Government through the Forest Conservation Fund, as part of the Tasmanian Community Forest Agreement.

The monitoring and stewardship team with the Department's Private Land Conservation Program provides an ongoing monitoring and stewardship service to Owners of conservation covenants, including routine reviews of the Nature Conservation Plan and the provision of a range of general information and management advice.

The TLC may be able to provide additional assistance to owners of properties purchased, covenanted and re-sold through the Revolving Fund Program. Such assistance may include small amounts of financial support to assist with the management of the Natural Values (e.g. weed control) and/or volunteers to assist with such activities on the Land.

5 Natural Values on the Land

5.1 Vegetation communities

The following vegetation communities are present on the Land:

| Plant community | TASVEG code | Status under EPBCA*/NCA** | Area (ha.s) |
|---|-------------|---------------------------|-------------|
| <i>Eucalyptus pulchella</i> / <i>E. viminalis</i> / <i>E. globulus</i> dry forest | DPU | -/- | 55.50 |
| <i>Eucalyptus amygdalina</i> dry forest on dolerite | DAD | -/- | 54.80 |
| <i>Eucalyptus obliqua</i> dry forest | DOB | -/- | 4.00 |
| Total area (hectares): | | | 114.30 |

*Australian Government Environment Protection & Biodiversity Conservation Act 1999

**Tasmanian Nature Conservation Act 2002

***Eucalyptus pulchella*/*E. viminalis*/*E. globulus* dry forest (TASVEG code DPU)**

Forest dominated by white peppermint (*E. pulchella*) occurs over about half of the Land, typically on shallow, rocky soils on the exposed ridge-line and associated rocky spurs. In most areas the canopy is comprised almost entirely of white peppermint. Where DPU intergrades with adjoining *Eucalyptus amygdalina* dry forest on dolerite (DAD) and on some south-facing slopes there is a mixed canopy of the two peppermint species (*E. pulchella* and *E. amygdalina*), while blue gum (*E. globulus*) and brown-topped stringy bark (*E. obliqua*) are present in the canopy on south-facing slopes at the western and southern margins of the Land. Arguably there are sites where there is sufficient blue gum in the canopy to map the community as *Eucalyptus globulus* dry forest and woodland (DGL), but these sites have been considered too small to map.

A mid-storey is generally absent in DPU forest on the ridges except for the occasional silver wattle (*A. dealbata*) sapling, narrow-leaved wattle (*Acacia mucronata*) or native cherry (*Exocarpos cupressiformis*). Small trees and tall shrubs are more common on south-facing slopes, with banksia (*Banksia marginata*) and narrow-leaved wattle common in places and a range of other species sometimes present, including blackwood (*Acacia melanoxylon*), bull-oak (*Allocasuarina littoralis*) and native box (*Bursaria spinosa*).

Most areas within DPU forest exhibit a very open ground cover with a high proportion of bare ground due to the rocky substrate and shallow soils. Prominent species include silver tussock (*Poa labillardieri*), velvet tussock grass (*P. rodwayi*), saggs (*Lomandra longifolia*) and fan sedge (*Lepidosperma inops*). Although small shrubs are relatively uncommon on the ridges, species such as peachberry heath (*Lissanthe strigosa*) and native cranberry (*Astroloma humifusum*) are locally prominent. A range of small herbs are present in inter-tussock spaces including kidney weed (*Dichondra repens*), common raspwort (*Gonocarpus tetragynus*) and seasonally prominent species like orchids (*Caladenia* spp.) and cut-leaf daisy (*Brachyscome* sp.).



Typical DPU forest

Photos: Jim Mulcahy (Tasmanian Land Conservancy Inc.)

On very shallow soil profiles on the ridges and spurs there are small areas of rock-plate grassland within the DPU which are dominated by wallaby grass (*Austrodanthonia* sp.), with soft velvet grass (*Poa rodwayi*) common around the margins and rock fern (*Cheilanthes* sp.) sometimes present. Locally damp sites within the DPU, like the heads of gullies or drainage depressions, may be dominated by sword sedges (*Lepidosperma* spp.).

On south-facing slopes there is a higher diversity of small shrubs and sedges in the ground cover, with pink mountain berry (*Leptecophylla juniperina*) locally dominant on rocky scree slopes. In addition to the common species found elsewhere in the DPU forest, other prominent species at various south-facing sites include guitar plant (*Lomatia tinctoria*), prickly beauty (*Pultenaea juniperina*) and flax lily (*Dianella revoluta*).

***Eucalyptus amygdalina* dry forest on dolerite (TASVEG code DAD)**

Forest dominated by black peppermint (*E. amygdalina*) on dolerite occurs at the less exposed sites on the ridge-line (the more exposed and rocky sites being occupied by DPU) and on some south-facing slopes. The canopy is generally composed almost entirely of black peppermint, but other eucalypt species are present where the DAD intergrades with adjoining communities, including white peppermint (*E. pulchella*) and brown-topped stringybark (*E. obliqua*).

The understorey in DAD forest typically has a sparse mid-storey of narrow-leaved wattle (*Acacia mucronata*) and banksia (*Banksia marginata*), with black wood (*A. melanoxylon*) also present at some more sheltered sites.

The ground cover in DAD forest varies with aspect and topography. In places there is an open ground cover similar to adjoining DPU forest, with native grasses and sedges such as silver tussock (*Poa labillardieri*), velvet tussock grass (*P. rodwayi*), saggs (*Lomandra longifolia*) and sword sedges (*Lepidosperma* spp.) dominant. On rocky south-facing slopes there is a very sparse shrubby ground cover, with prominent species including pink mountain berry (*Leptecophylla juniperina*), guitar plant (*Lomatia tinctoria*) and flax lily (*Dianella revoluta*).



DAD on rocky south-facing slopes
Photo: Jim Mulcahy (Tasmanian Land Conservancy Inc.)

At more sheltered or poorly drained sites on the ridge-line the ground cover is dominated by low manuka (*Leptospermum scoparium*) at varying densities, with guitar plant (*Lomatia tinctoria*) common throughout. A range of other species are locally prominent, including silver tussock, sword sedges (*Lepidosperma* spp.), prickly beauty (*Pultenaea juniperina*), pale fruit ballart (*Exocarpos strictus*) and common heath (*Epacris impressa*).



Typical shrubby DAD forest

Photo: Jim Mulcahy (Tasmanian Land Conservancy Inc.)

***Eucalyptus obliqua* dry forest (TASVEG code DOB)**

Forest dominated by brown-topped stringy-bark (*E. obliqua*) occurs on relatively steep slopes in the south-east of the Land. Despite the fact that typical wet forest shrubs occur within the community, there are few places where these shrubs dominate and most of the stringy-bark forest is better described as a wet facies of DOB than as wet forest.

The canopy in the DOB is dominated by brown-topped stringybark, but where the DOB intergrades with other communities there is often a mixed canopy that includes black peppermint (*E. amygdalina*), blue gum (*E. globulus*) and occasional white gum (*E. viminalis*).

There is typically a sparse but diverse mid-storey of tall shrubs and small trees that may include silver wattle (*Acacia dealbata*), blackwood (*A. melanoxylon*), varnished wattle (*A. leprosa*), native olive (*Notelaea ligustrina*), satin wood (*P. bicolor*), stinkwood (*Zieria arborescens*), dusty daisy bush (*Olearia phlogopappa*) prickly moses (*Acacia verticillata*) and dolly bush (*Cassinia aculeata*). At wetter sites on the lower slopes dogwood (*Pomaderris apetala*), musk (*Olearia argophylla*), pinkwood (*Beyeria viscosa*) and blanket bush (*Bedfordia salicina*) may be found, while banksia (*B. marginata*), native cherry (*Exocarpos cupressiformis*) and Oyster Bay Pine (*Callitris rhomboidea*) occur on the upper slopes. Some patches of Oyster Bay Pine which extend into the Land have been mapped as NCR on the adjoining title, but the areas of pine on the Land itself are too small to map separately.

At the heads of gullies where the DOB forest intergrades with adjoining DAD forest, the dense ground cover is variously shrubby or sedgy, with prominent species including prickly beauty (*Pultenaea juniperina*), manuka (*Leptospermum scoparium*), sword sedges (*Lepidosperma* spp.) and cutting grass (*Gahnia grandis*). On the steeper slopes within the DOB forest there is typically a relatively dense ground cover dominated by silver tussock (*Poa labillardieri*), bracken (*Pteridium esculentum*), native currant (*Coprosma quadrifida*) and flax lily (*Dianella revoluta*). At heavily shaded sites in gullies near the eastern boundary there is an open ground cover dominated by mosses and ferns, with kangaroo fern (*Microsorium pustulatum*) on exposed rock faces and occasional dense patches of mother shield fern (*Polystichum proliferum*).



Bluegum and Oyster Bay pine on the margins of DOB forest
Photo: Jim Mulcahy (Tasmanian Land Conservancy Inc.)

5.2 Threatened and/or priority species

The following threatened species are present on the Land:

| Species | Status under EPBCA*/TSPA^ | Type & date of record | Comments |
|--|---------------------------|------------------------|--|
| Fauna: | | | |
| <i>Aquila audax fleayi</i> (wedge-tailed eagle) | EN/e | Observation March 2013 | Birds observed above land. Nests on adjacent properties are within line of sight on the Land |
| <i>Sarcophilus harrisii</i> (Tasmanian devil) | EN/e | Evidence Aug 2015 | Scats observed on tracks |

*Australian Government Environment Protection & Biodiversity Conservation Act 1999

^Tasmanian Threatened Species Protection Act 1995

The following threatened species may occur on the Land based on the availability of suitable habitat:

| Species | Status under EPBCA*/TSPA^ | Type & date of record | Comments |
|--|---------------------------|-----------------------|----------|
| Flora: | | | |
| <i>Acacia siculiformis</i> (dagger wattle) | -/r | NVA5000;2000 | |
| <i>Asperula subsimplex</i> (water woodruff) | -/r | NVA5000;2002 | |
| <i>Baumea gunnii</i> (slender twigsedge) | -/r | NVA5000;1986 | |
| <i>Brachyscome rigidula</i> (cutleaf daisy) | -/v | NVA5000;2010 | |
| <i>Cyphanthera tasmanica</i> (Tas rayflower) | -/r | NVA5000;1987 | |
| <i>Eucalyptus barberi</i> (Barbers gum) | -/r | NVA5000;2010 | |
| <i>Euphrasia collina</i> subsp. <i>deflexifolia</i> (Eastern eyebright) | -/r | NVA5000;1989 | |
| <i>Glycine latrobeana</i> (clover glycine) | VU/v | NVA5000;2010 | |
| <i>Haloragis heterophylla</i> (variable raspwort) | -/r | NVA5000;2010 | |
| <i>Ozothamnus lycopodioides</i> (clubmoss everlasting) | -/r | NVA5000;1985 | |
| <i>Pellaea calidirupium</i> (hotrock fern) | -/r | NVA5000;2005 | |
| <i>Phyllangium divergens</i> (wiry miterwort) | -/v | NVA5000;1989 | |
| <i>Pimelea curviflora</i> var. <i>gracilis</i> (slender curved riceflower) | -/r | NVA5000;2005 | |
| Cont'd | | | |

| Species | Status under EPBCA*/TSPA^ | Type & date of record | Comments |
|--|---------------------------|-----------------------|------------------|
| <i>Poa mollis</i> (soft tussock grass) | -/r | NVA5000;2001 | |
| <i>Scleranthus fasciculatus</i> (spreading knawel) | -/v | NVA5000;2010 | |
| <i>Teucrium corymbosum</i> (forest germander) | -/r | NVa5000;2010 | |
| <i>Uncinia elegans</i> (handsome hooksedge) | -/r | NVA5000;2004 | |
| Fauna: | | | |
| <i>Lathamus discolor</i> (swift parrot) | EN/e | NVA5000;2009 | Suitable habitat |
| <i>Perameles gunnii gunnii</i> (Eastern barred bandicoot) | VU/- | NVA5000;1993 | Suitable habitat |
| <i>Tyto novaehollandiae castanops</i> (Tasmanian masked owl) | VU/e | | Suitable habitat |

*Australian Government *Environment Protection & Biodiversity Conservation Act 1999*

^Tasmanian *Threatened Species Protection Act 1995*

6 Management Prescriptions, Authorisations & Recommendations

This section of the Plan may contain the '**Authorisations**' from the Minister to the Owner as referred to in Clause 4.2 of the Conservation Covenant.

To achieve the objectives of this Plan, the Owner, the Minister and the Department must abide by the '**Management Prescriptions**' detailed in this section of the Plan. These Management Prescriptions (listed in dot-point throughout this section) are:

- The conditions under which an Authorisation is provided; and/or
- The prescriptions issued by the Minister which are referred to in Clause 4.3 of the Covenant.

This section may also contain '**Recommendations**' that the relevant parties should abide by.

6.1 Demarcation

- The Owner must inform everyone undertaking activities &/or development in or around the Land about the existence and purpose of the Conservation Covenant as well as the location of the Land, and inform them of any relevant prescriptions listed below.
- Signs will be supplied by the Department to indicate the location and significance of the Land and to recognise the efforts of the Owner. These signs should be placed at strategic points around the Land (e.g. gates that enter onto the Land).

6.2 Threatened and/or priority species

- The Minister, in conjunction with the Owner, will develop specific management prescriptions if required for threatened and/or priority species that are identified on the Land.

Wedge-tailed eagle:

The wedge-tailed eagle (*Aquila audax fleayi*) is listed as an endangered species under both the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and Schedule 4 of the Tasmanian *Threatened Species Protection Act 1995*.

Several nest sites for a wedge-tailed eagle pair are located on adjacent properties and are within line of sight from the Land. Those areas of the Land that are within a 500 metre line of sight of the nests will be managed as "Nest Management Zones" – see *Eagle Nest 500m buffer* on Management Map, page 25). The Nest Management Zones (NMZs) will be managed as intact forest, free from habitat modification and with no disturbance during the Breeding Season.

- **Wedge-tailed Breeding Season is 1st July to end of February, inclusive.**
- **Critical Breeding Season for wedge-tailed eagle is 1st August to 30th November inclusive.**
- The Owner will notify the Department of any proposed changes in land use on land adjacent to the NMZs so that management issues may be addressed.
- The Owner is encouraged to contact the Department's Threatened Species Section or Private Land Conservation Program to discuss any issues that relate to the management of the eagles nest or land managed for conservation. Attached to this Nature Conservation Plan is some background information on wedge-tailed eagles.

Nest Management Zones:

- No activity is permitted within the NMZs during the Breeding Season that may potentially threaten the activity and/or productivity of the nests. Such activities include, but are not confined to, firewood collection, shooting, vehicle use, lighting of fires, some recreational pursuits and construction works.
- In exceptional circumstances, such as wildfire, there may be a requirement to access the NMZs during the Breeding Season. In these

circumstances, the Owner or delegate will seek approval from the Department before undertaking any activity in the NMZs

- Outside the Breeding Season, the Owner may undertake recreational pursuits in the NMZs and the remainder of the Land.
- During the Breeding Season, the Owner must not conduct recreational pursuits in the NMZs but pursuits are permitted in the surrounding areas if noise levels are kept to a minimum and all human activity remains outside of the NMZs.
- To observe the nests during the Breeding Season, the Owner must only use practices that will not disturb the eagles. Direct observations of the nests are to be limited to two visits per Breeding Season after November.
- Land maintenance activities such as fence construction and maintenance and weed control must be undertaken outside of the Breeding Season.

6.3 Timber harvesting

- No timber harvesting is to take place on the Land.
- No commercial firewood collecting is permitted on the Land.

6.4 Domestic firewood

Authorisation: The Owner is permitted to collect firewood in the Land but only under the conditions outlined below:

- The maximum quantity of firewood that may be collected in any year (outside of the Nest Management Zones) is restricted to 10 tonnes and must only be for domestic use on the property.
- No firewood collection is permitted within the Nest Management Zones (see Management Map, page 25)
- Wherever possible, firewood collection should be limited to cutting of timber that is required for removal in the course of track and/or fence maintenance.
- Trees should be felled in areas with few or no habitat trees (i.e. habitat trees are those containing hollows and structural damage).
- Where possible, live trees should be selected, not just dead or dying trees. Decaying trees often provide excellent habitat for a range of Native animals.
- The collection of firewood is not permitted in sensitive sites such as creeklines, the Nest Management Zones (see Management Map, page 25) and the habitat of threatened species.
- Firewood collection must not target species preferentially or to such a degree that the mix of species is significantly changed in any given area.
- In multi-aged forests, tree felling must not target one particular age-class, however old-growth trees must be retained, as they are often habitat trees.
- Fallen logs/trees containing hollows must be left on the ground and must not be disturbed or cut for firewood.

- Firewood must only be collected during dry conditions to reduce damage to the soil caused by vehicles.
- Only hand machinery (such as a chainsaw) may be used to collect firewood, so that there is minimal impact on the understorey species and soil structure.

6.5 Stock grazing

- Grazing by stock must not be undertaken on the Land.

6.6 Fencing

All the boundaries of the Land are currently unfenced. The Owner may establish fencing for the purpose of protecting the Land from activities on adjoining land or to meet property boundary fencing commitments to adjoining owners.

Authorisation: The Owner may clear along fencelines for maintenance purposes to a maximum of 3 metres.

- The Owner must maintain in a satisfactory condition all the fences that are required to protect the Land (e.g. stock-proof fences to control stock access).
- Wherever possible, clearing along fencelines should avoid soil disturbance in order to reduce the potential for weeds to establish.
- Construction and maintenance of fencelines within the Nest Management Zones must only take place outside of the Breeding Season.
- Any new fence(s) must allow Native wildlife access to water sources.

6.7 Clearing of vegetation

- No clearing (or slashing) of vegetation – including shrubs, grasses and other understorey species – is to occur in the Land unless it is:
- part of the weed management prescriptions (see section 6.11 *Control of Exotic plant species* for details);
- for track maintenance or construction (see Management Map, page 25 for location of tracks; see section 6.18 *Vehicle use and tracks* for further information);
- for fence maintenance or construction (see section 6.6 *Fencing* for further information);
- for fire hazard reduction, fire-fighting, ecological burns and/or firebreaks (see section 6.8 *Fire* and 6.9 *Firebreaks* for further information);
- for infrastructure maintenance or construction (see section 6.22 *Additional issues* for further information);
- for firewood collecting (see section 6.4 *Domestic firewood* for details).

6.8 Fire

Planned fire (campfires, fire hazard reduction &/or ecological burns):

Authorisation: Small camp fires are permitted on the Land but only in established fireplaces (see 6.23 *Additional issues*) and subject to the following conditions:

- The Owner will ensure that the use of campfires does not cause depletion of the surrounding vegetation (see section 6.4 *Domestic firewood*), including dead or fallen timber, from fuel gathering and all necessary precautions are taken to prevent the escape of fire and to extinguish the fire before leaving.
- All campfires must adhere to the Tasmanian *Fire Service Act 1979*, Environmental Regulations, Local Government By-Laws and Tasmanian Fire Service directions (including total fire bans)
- Clearance of vegetation for a minimum distance of 3 metres is required around campfires/fireplaces.

Authorisation: The Owner may use fire to achieve fire hazard reduction if and when the Owner and the Minister, or the Tasmania Fire Service deem it necessary for safety reasons but only under the conditions outlined below.

Authorisation: The Owner may use fire to conduct ecological burns for the management of biodiversity subject to the conditions outlined below.

- The Owner must consult with the Department and also obtain all necessary permits from the State Fire Service prior to each fire hazard reduction or ecological burn.
- It is the Owner's responsibility to comply with fire permit conditions.
- Any fire hazard reduction burn or ecological burn must take account of the ecological requirements of native plant and animal species, particularly species that are threatened and/or a priority. Burning must not take place within the Nest Management Zones during Breeding Season.
- The ideal frequency of fuel management burning is variable and dependant on vegetation type, landscape and climatic conditions. Monitor the fuel accumulation on your property and consult with the Department and/or the Tasmania Fire Service to determine the appropriate interval.
- Burning for ecological purposes is dependent on the requirements for the target species or vegetation community being managed.
- The Owner is responsible for ensuring that all planned burning is conducted in a safe manner and under conditions that will ensure that fires can be safely contained within the intended area on the Land. The Owner should refer to publications distributed by the Tasmania Fire Service or the State Fire Management Council e.g. *Planned Burning Manual – Guidelines to enable safe and effective planned burning on private land*
- (see <http://www.fire.tas.gov.au>; <http://www.sfmcc.tas.gov.au> and the DPIPWE private land conservation website [http://www.dpipwe.tas.gov.au/Conservation/Conservation on Private Land/Bush Information & Management/Planned Burning Management](http://www.dpipwe.tas.gov.au/Conservation/Conservation%20on%20Private%20Land/Bush%20Information%20&%20Management/Planned%20Burning%20Management)) .
- Burning should occur in a mosaic pattern so that different areas are burnt in different years. A mosaic pattern of burning should help vary the intensity of fire at different sites on the Land and its communities.

- The season and frequency at which the Land is burnt should be varied. Maintaining an unvaried fire regime may lead to the decline or local extinction of some species. The fire regime can be varied in a number of ways; burning in a different season (i.e. autumn versus early - mid spring); and/or allowing the burn to be more patchy (i.e. some areas remain unburnt).
- Burning during late spring and summer should generally be avoided, as there is a greater risk of the fire escaping and/or becoming uncontrollable.
- Machinery used for fire control must be cleaned prior to entering the Land (if practicable) to prevent the establishment or entrenchment of weeds or pathogens. For further information see "Washdown Guidelines for Weed and Disease Control – Edition 1" and "Keeping it clean – a Tasmanian field hygiene manual to prevent the spread of freshwater pests and pathogens".

In the event of wildfire:

- The Owner must inform the Tasmania Fire Service (TFS) of any fire that threatens the Land as soon as possible after the Owner becomes aware of the fire. The TFS is the responsible authority for fighting fires in Tasmania.
- The Owner must, as soon as possible after becoming aware of the fire, inform those directing the fire-fighting that TFS personnel should (wherever practicable) use existing firebreaks or access tracks and avoid creating new firebreaks through sensitive areas such as creeklines, the Nest Management Zones and the habitat of threatened species.
- The Nest Management Zones (see section 6.2 *Threatened and/or priority species*) should be protected from wildfire. If a fire threatens the Land, the Owner will use his best endeavours to inform those directing the fire-fighting that these sites should be protected if it is possible.

6.9 Firebreaks

Permanent firebreaks:

Authorisation: The Owner may create and maintain permanent firebreaks on the Land if and when the Owner and the Minister, or the Tasmania Fire Service deem it necessary but only under the conditions outlined below.

- The Department must be consulted prior to the creation of new permanent firebreaks to ensure that no firebreak has an adverse impact on areas with important Natural Values such as threatened species.
- The creation and maintenance of permanent firebreaks must be in accordance with guidelines obtained from the Tasmania Fire Service and the Department.
- Machinery used for firebreak construction or maintenance must be cleaned prior to entering the Land (if practicable) to prevent the establishment or entrenchment of weeds or pathogens.
- The Owner is responsible for creating and maintaining any firebreaks necessary to ensure the protection of high value assets (life and property).

Emergency firebreaks:

Authorisation: Emergency firebreaks will be permitted if there is an immediate threat to life or property but only under the conditions outlined below.

- The Owner will make all reasonable efforts to consult with the Tasmania Fire Service regarding the placement of emergency firebreaks before construction begins.
- The placement of emergency firebreaks must not disturb (unless unavoidable) creeklines, the Nest Management Zones or the habitat of threatened species.

6.10 Herbicides, pesticides, fertilisers and other chemicals

Authorisation: The Owner may use herbicides on the Land as part of a weed management program (refer to section 6.11 *Control of Exotic plant species*).

- No fertilisers are to be applied on the Land.
- Pesticides may only be applied on the Land if required as part of the feral animal management program described in the section 6.12 *Control of Exotic animal species*.

Recommendation: Wherever possible, the Owner must also ensure that the use of fertilisers, pesticides or herbicides on land adjacent to the Land will not impact on the Land.

6.11 Control of Exotic plant species (weeds)

There are currently no known environmental weed infestations on the Land.

- The Owner will make annual inspections of the Land and must control and (if possible) eradicate infestations of environmental weeds (such as, gorse, Spanish heath and broom).
- Particular attention should be paid to the margins of roads and tracks (particularly if used for recreational horse riding), and to any recently disturbed sites.
- Weed control actions in the Nest Management Zones (see Management Map, page 25) must only take place outside the Breeding Season (See section 6.2 *Threatened and/or priority species*).
- Only herbicides that are registered in Tasmania for the control of the target species are to be applied (see product label &/or contact the Department for advice). The Owner will apply and dispose of herbicides in accordance with the manufacturer's recommendations.
- The Owner will inform the Minister of any weed infestations or species that do not respond to standard control methods.
- If spraying Exotic plants with herbicide, then the spray-drift must avoid native species or it should be minimised.

6.12 Control of Exotic (feral) animal species

- No control of Exotic animal species is to occur within the Nest Management Zones during the Breeding Season (see section 6.2 *Threatened and/or priority species*).
- The Owner is responsible for the control or eradication (if feasible) of feral animals (including feral cats, goats, rabbits and hares) on the Land.
- Control of feral animals on the Land must be by shooting or trapping in accordance with current Codes of Practice, legal permits and conditions.
- The use of pesticides – including '1080' poison – for feral animal control is not permitted on the Land unless otherwise authorised by the Minister (e.g. for fox control).
- The Owner must inform the Minister of any feral animal population that does not respond to standard control methods.
- The Owner must keep Fallow Deer numbers on the Land at a level that minimises their impact on the Natural Values. The taking of deer is currently controlled under the Wildlife Regulations 1999 (section 25).

Recommendation: The Owner must not, where other reasonable alternatives are available, lay poisons adjacent to the Land.

6.13 Control of Native animals

For the purpose of this Plan, 'Native species' means species occurring naturally on the Land or its immediate surrounds prior to the year 1788.

- Control of Native animals on the Land cannot be undertaken without the authorisation of the Minister in writing and is also subject to regulations and permits under the *Nature Conservation Act 2002*.

Recommendation: Where and when necessary, Native animal control should occur outside the Land.

6.14 Exotic (non-Native) flora or fauna species

For the purposes of this Plan 'Exotic Species' means all species not occurring naturally on the Land or its immediate surrounds prior to the year 1788.

Authorisation: Dogs may enter upon the Land for recreation but must remain under the effective control of their owner at all times and not cause harm to Native animals or their habitat.

Authorisation: Horses may enter upon the Land for recreation but must remain on established carriageways/tracks at all times.

- Exotic species may be deliberately established on the Land, if they are biological control organisms (as listed on the *Biological Control Act 1986*) that are specifically for the control of target weed &/or pest species that are present on or adjacent to the Land.

6.15 Native flora and fauna species

- No Native flora and/or fauna species are to be deliberately introduced to the Land unless approved by the Minister (for example, as part of a rehabilitation, revegetation or translocation strategy).

6.16 Natural flow of water

Authorisation: Minor interference with the natural flow of water is permitted where it is associated with existing or approved carriageways/tracks and infrastructure.

- The taking of water from the Land is not permitted.
- Changes to the natural flow of water (for example, dams and waterholes) are not permitted unless authorised in writing by the Minister.

Recommendation: Wherever possible, the Owner must also ensure that changes to the natural flow of water on land adjacent to the Land will not impact on the Land.

6.17 Effluent and irrigation

- The use of irrigation water or effluent of any kind is prohibited on the Land.

Recommendation: Wherever possible, the Owner must also ensure that the use of irrigation water and/or effluent of any kind on land adjacent to the Land will not impact on the Land.

6.18 Vehicle use and tracks

There are existing carriageways/tracks on the Land (See Management Map, page 25) that may be maintained by the Owner.

- Vehicle use on the Land must be confined to existing vehicle tracks (see Management Map, page 25) except for emergency situations (medical evacuations or bushfire).

Authorisation: The Owner may introduce Foreign Materials (road base and gravel only) along existing and approved carriageways (vehicle and/or walking tracks).

- The Owner may maintain any existing and/or approved tracks on the Land in accordance with Local Government standards.
- Vehicles must be washed prior to entering the Land (if practicable) if they have come from areas infested by weeds (especially those in seed) or disease.

Authorisation: The Owner may construct and maintain walking tracks on the Land subject to the following conditions.

- The Owner must seek written authorisation from the Minister prior to walking track construction to ensure the location will not affect the Natural Values of the Land or the wedge-tailed eagles and their nest sites on adjacent properties.
- Walking tracks are to be minimal in length, width and impact, with appropriate consideration given to erosion and transmission of weeds and disease.

- The Owner uses best endeavours to locate, construct and maintain tracks in a manner that does not threaten the Natural Values, including but not limited to:
 - (i) Where possible tracks should only be established and maintained through repetitive use (e.g. foot pads);
 - (ii) Deliberate vegetation clearance and soil disturbance should only be undertaken where essential for establishment and safe use of tracks;
 - (iii) Track hardening and building or placement of structures on walking tracks should only be undertaken where necessary for the safe operation of tracks or to assist in maintaining the integrity of tracks or to reduce the risk of erosion (e.g. provision of minor drains, culverts, footbridges or duck boarding).

6.19 Recreational use

- Outside the Breeding Season, the Owner may undertake recreational pursuits in the Nest Management Zones and the remainder of the Land that are not considered deleterious to the Natural Values (including bushwalking, bird watching).
- During the Breeding Season, the Owner must not conduct recreational pursuits in the Nest Management Zones (See Management Map, page 25) but pursuits are permitted in the surrounding areas if noise levels are kept to a minimum and all human activity remains outside of the Nest Management Zones.
- No recreational activities (including but not confined to, trail bike riding and shooting which are or may be considered deleterious to the Natural Values are permitted on the Land unless approved by the Minister.

6.20 Deleterious activities

- No activities (including, but not confined to, removal of natural resources, dumping of rubbish, general disturbance, etc) which are or may be considered deleterious to the Natural Values are permitted on the Land unless approved by the Minister.
- The Owner must notify the Minister of any proposed changes in land use on land adjacent to the Land in case any management issues need to be addressed.

6.21 Monitoring, reporting and review

- The Owner must notify the Minister of any actions by a third party that affect the Natural Values on the Land.
- The Owner and the Minister will advise each other of any proposed action that could adversely affect the Natural Values.
- The Minister and the Owner will respond promptly to all communications from each other relating to this Plan.
- Monitoring by the Department will continue as required so that management practices can be modified as necessary to achieve the conservation objectives.

- The Department may establish monitoring plots on the Land and revisit these sites from time to time.
- The Minister may undertake site inspections and will periodically contact the landowner to discuss the outcomes of any activities, or other issues affecting the Land and its Natural Values.

6.22 Additional issues

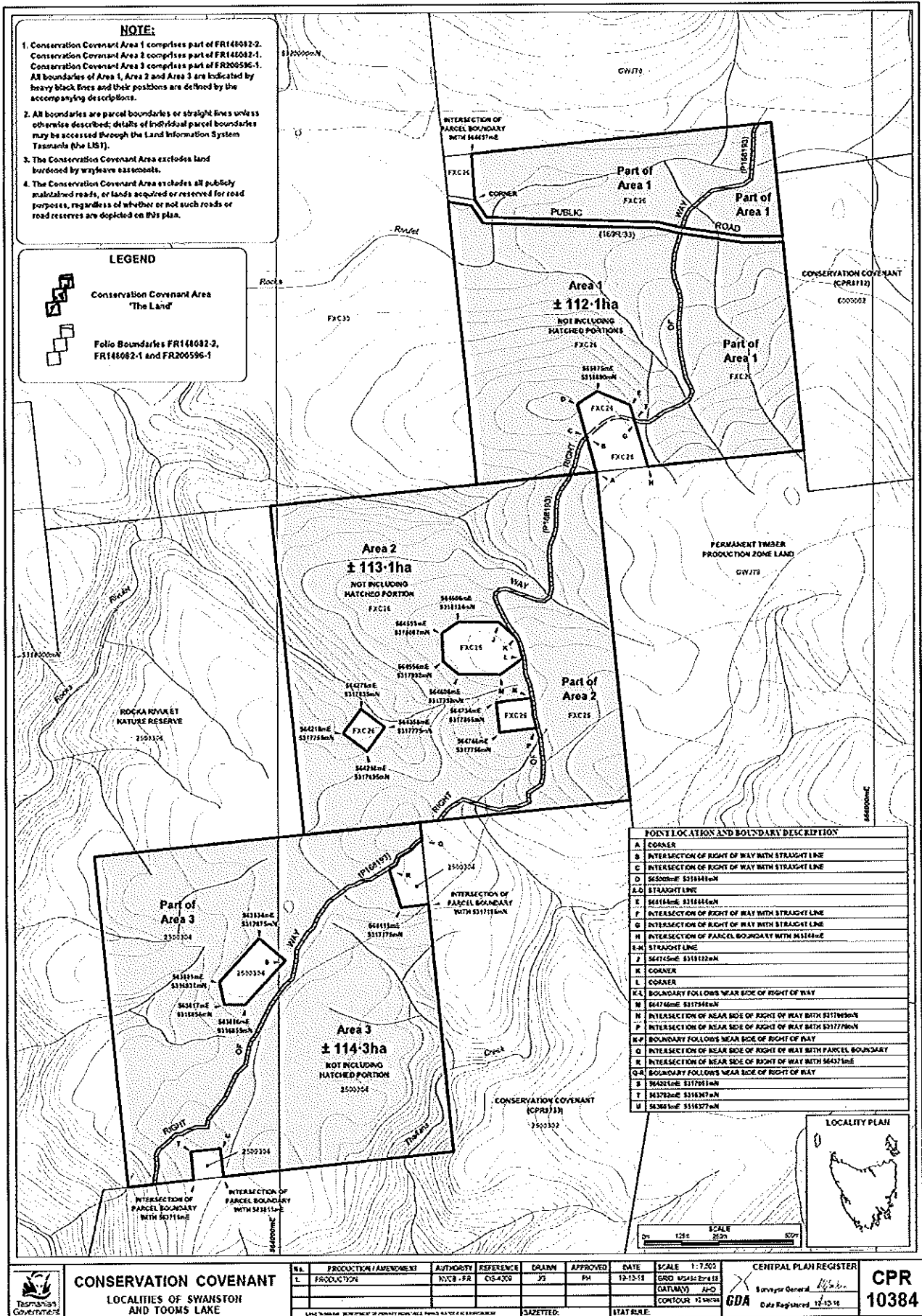
Infrastructure:

Authorisation: The Owner may construct and maintain minimal infrastructure to support recreation (e.g. picnic shelter, picnic table, benches, fireplace) on the Land but only under the conditions outlined below

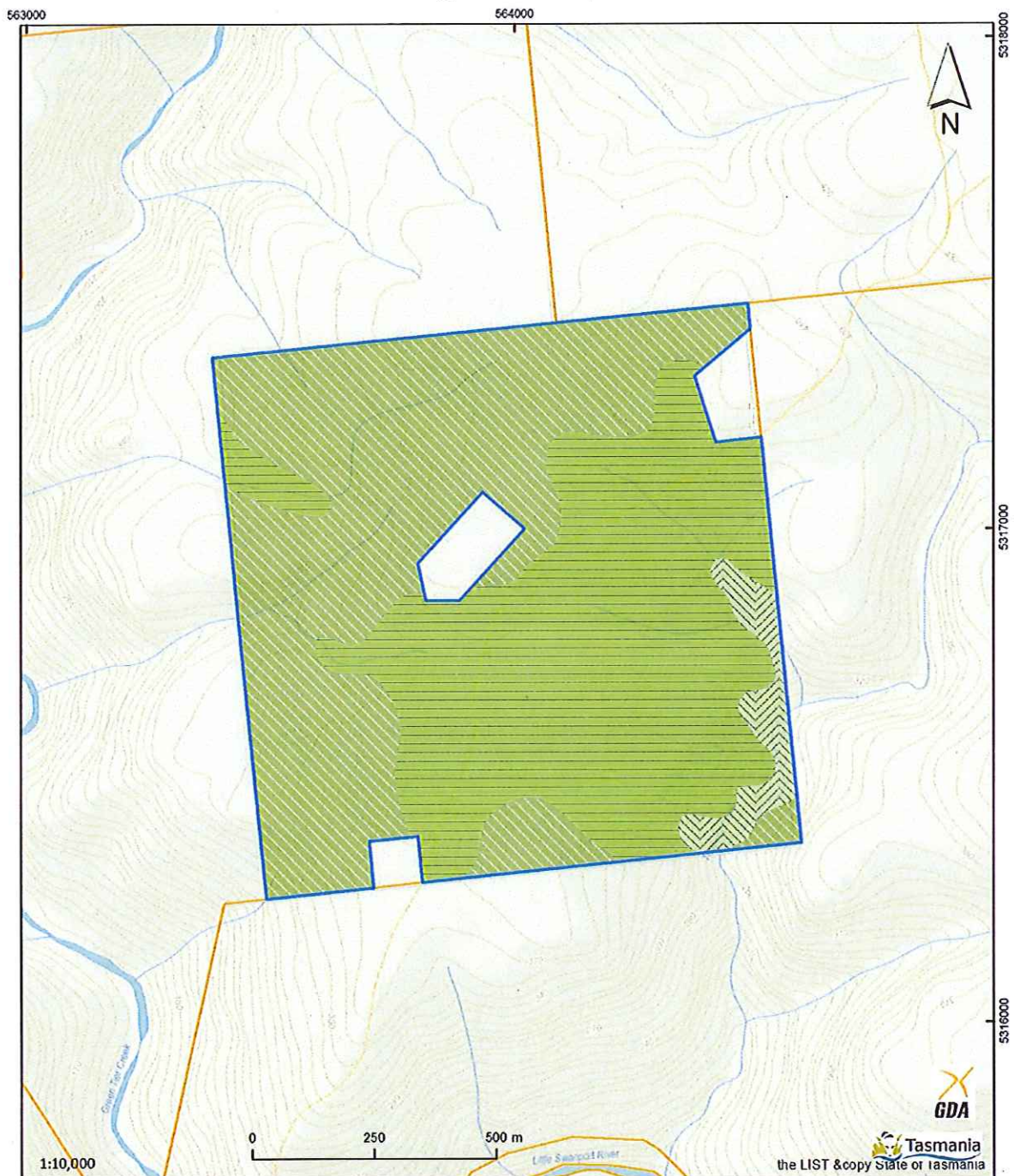
- The final location of the infrastructure being first approved by the Minister in writing.
- Infrastructure is to be located in areas that minimise the necessity for clearing of vegetation and do not disturb wedge-tailed eagles and their nest sites on adjacent properties.

Authorisation: The Owner may introduce Foreign Materials to the Land for the maintenance and construction of fences and approved infrastructure.

Land

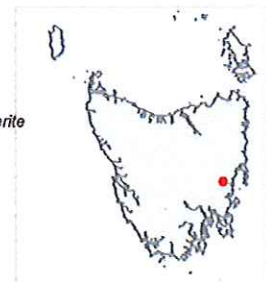


Vegetation Map



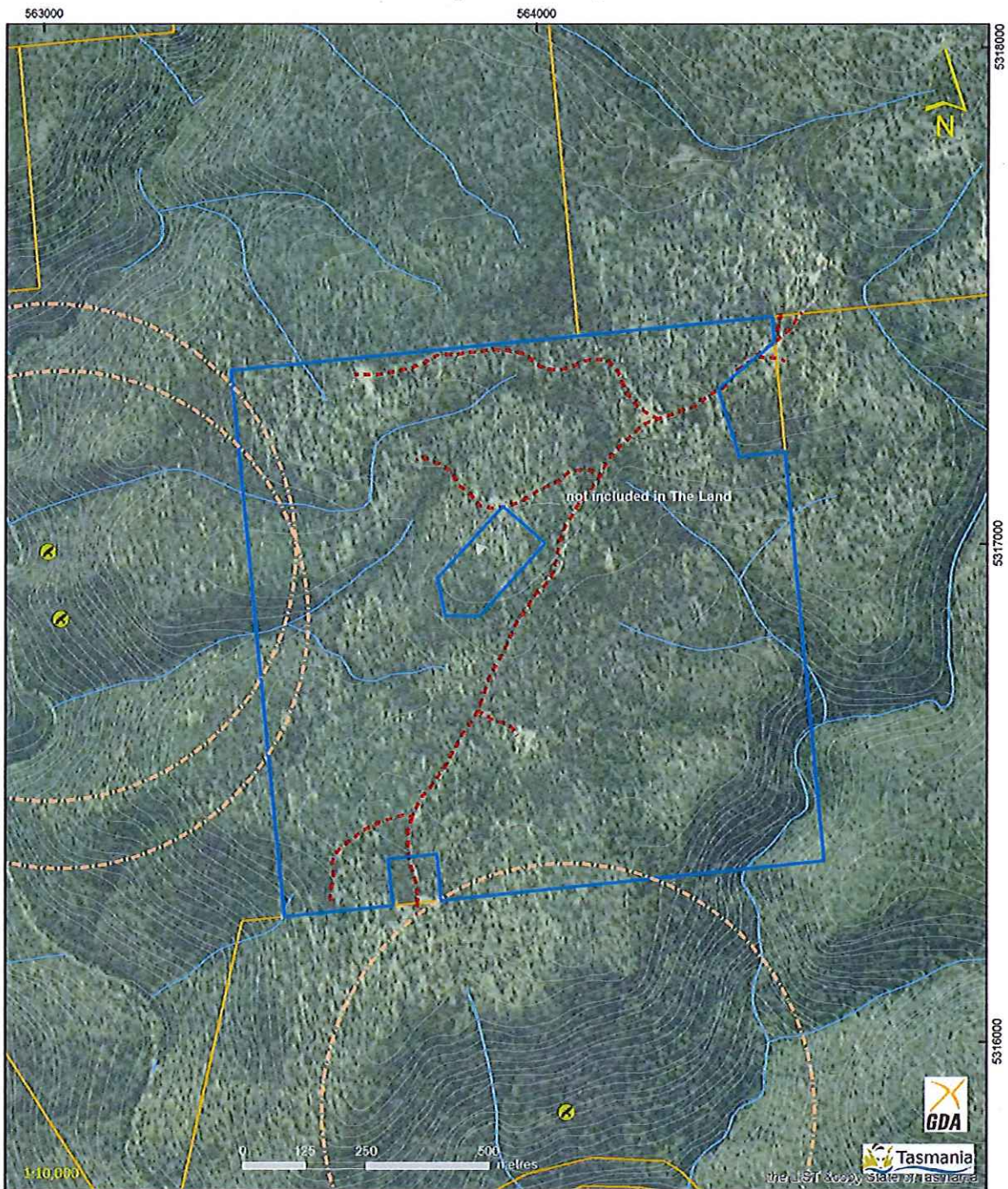
Conservation Covenant Vegetation Map
 Property: Green Tier Creek Swanston Rd Swanston
 Title Ref: 200596/1
 Database ID: 14213 File No: 248694.2
 Mapsheets: ROYALTY, 5631
 Data Sources: LIST DPIWWE
 Tas Land Conservancy Inc.
 Map Date: 15/11/2016

- The Land
- DAD *Eucalyptus amygdalina* forest and woodland on dolerite
- DOB *Eucalyptus obliqua* dry forest
- DPU *Eucalyptus pulchella* forest and woodland
- Title boundaries



map produced by the Private Land Conservation Program, DPIWWE

Management Map



Conservation Covenant Management Map
 Property: Green Tier Creek Swanston Rd Swanston
 Title Ref: 200596/1
 Database ID: 14213 File No: 248694.2
 Mapsheets: ROYALTY, 5631
 Data Sources: LIST DPIWWE
 Tas Land Conservancy Inc.
 Map Date: 15/11/2016
 Imagery: Orthophoto Land Tasmania 15/12/2005

- Wedge-tailed Eagle nest sites
- Nest Management Zone 500m buffer
- vehicle tracks
- The Land
- Title boundaries



map produced by the Private Land Conservation Program, DPIWWE

This Nature Conservation Plan has been signed as follows on the 1st of
December 20.16

Benjamin Goodsir

SIGNED by LOUISE WILSON as a duly authorised)
agent of the Minister administering the *Nature*)
Conservation Act 2002 to indicate approval of the)
the terms of this Nature Conservation Plan)
Conservation Plan)

Blood

SIGNED for and on behalf of TASMANIAN LAND)
CONSERVANCY INC. being the current owner of)
the abovementioned property to indicate that the)
terms of this Nature Conservation Plan have been)
read, understood and accepted)



[Signature]
Owner

Appendix



Threatened Species Link

www.tas.gov.au

SPECIES MANAGEMENT PROFILE

Aquila audax subsp. fleayi Tasmanian Wedge-tailed Eagle

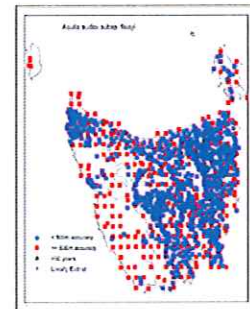
Group: Chordata (vertebrates), Aves (birds), Accipitriformes, Accipitridae

Status: *Threatened Species Protection Act 1995:* **endangered**
Environment Protection and Biodiversity Conservation Act 1999: **Endangered**

Endemic: Found only in Tasmania
Status:

The Wedge-tailed Eagle subspecies *Aquila audax fleayi* occurs only in Tasmania, and is distinguished by its size (being Australia's largest bird of prey) and wedge-shaped tail. It kills and scavenges on animals including reptiles, birds and mammals, across a wide range of habitats, from the coast to highland areas. It defends a large territory, nesting in patches of mature forests with sheltered aspects throughout Tasmania. The total adult population has been estimated as less than 1000 birds. Principal threats include loss of nesting habitat, nest disturbance, and mortality due to collisions with man-made structures, persecution and electrocution. While individual responses vary, disturbance occurring even many hundreds of metres away can cause breeding birds to temporarily leave eggs or chicks at risk, or even to desert their nest site for years, especially if people or helicopters are visible. Population numbers may increase if nest protection is more effective and unnatural mortality rates reduced.

A complete species management profile is not currently available for this species. Check for further information on this page and any relevant Activity Advice.



Key Points

- Important:** Is this species in your area? Do you need a permit? Ensure you've covered all the issues by checking the Planning Ahead page.
- Important:** Different threatened species may have different requirements. For any activity you are considering, read the Activity Advice pages for background information and important advice about managing around the needs of multiple threatened species.

Habitat

- 'Habitat' refers to both known habitat for the species (i.e. in or near habitat where the species has been recorded) and potential habitat (i.e. areas of habitat with appropriate characteristics for the species and within the species' potential range which have not yet been surveyed).
- If in doubt about whether a site represents potential habitat for this species, contact the Threatened Species Section for further advice.
- The known range of Tasmania's Wedge-tailed Eagle includes the whole of mainland Tasmania from the coast to the Central Highlands, and many of the larger offshore islands.
- Nesting habitat includes the following elements: patches of mature (including old-growth) forest, or forest with mature/old-growth elements, normally greater than 10 ha in area; nest trees usually tall (25-75 m), large and robust mature eucalypts, generally taller than the canopy; nests are often constructed in the tallest and largest tree at a site, and usually located within the canopy even when the nest tree is taller; nests typically occur on the lee (sheltered) aspect of the site (or where hills shelter an otherwise exposed site), with the nest situated below the ridge level for protection from prevailing winds.

What to avoid

- Disturbance (visible or audible) to a nesting eagle - this can result in the death of eggs or chicks, through exposure to cold, heat or predation while adults are absent - including:
 - people or loud machinery too near the nest during the breeding season ('too near' can be many hundreds of metres if in direct line of sight of the nest);
 - residential development near nesting habitat; and
 - investigating nests during the breeding season.
- Removal of nest trees or surrounding vegetation (the same nest may be used intermittently over decades)
- Risks of collisions with tall structures where the structure is difficult for an eagle to perceive in flight (e.g. power lines, horizontal axis wind turbines, guy wires).

Breeding season and levels of disturbance

- The majority of Wedge-tailed Eagle breeding activity typically occurs between August and January, but this varies between eagle pairs and from year to year. The breeding season includes the highly sensitive courting period, when birds are at or near the nest assessing levels of disturbance and nest suitability just prior to laying; this courting period most often occurs in July, but may begin with nest lining in June. In some years chicks will not fledge until as late as March, with disturbance prior to this event potentially causing young birds to attempt to fly before they are fully fledged.
- The Threatened Species Section may be able to advise on the timing of the current season.
- If a nesting eagle perceives a disturbance as a threat, even from hundreds of metres away, it may leave its eggs or chicks at risk of cold, heat and predation. It may desert its nest site for years and long after the disturbance has ceased.
- A disturbance is more likely to disrupt breeding if: visible; louder; more intense; closer (either vertically or horizontally); over a longer period; more frequent; across a larger area; earlier in the breeding season; above the nest; people are visible; people are looking towards the nest; during the day; helicopters are involved; during extreme weather.

- Eagles vary in their tolerance levels, and some may eventually nest in areas near certain levels of regular disturbance after some months or years spent assessing an area. However, a small additional disturbance may then be 'the straw that breaks the camel's back', i.e. enough to disrupt breeding, sometimes for years.
- Eagles are more tolerant of ongoing disturbance that began in an area before they started nesting, than they are of disturbance that is introduced once they are nesting.

Surveying

| Key | Survey reliability more info |
|-----|------------------------------|
| M | Peak survey period |
| M | Potential survey period |
| M | Non-survey period |

To ensure you follow the law - check whether your survey requires a permit. Always report any new records to the Natural Values Atlas, or send the information direct to the Threatened Species Section. Refer to the Activity Advice: Surveying page for background information.

| <i>Aquila audax fleayi</i> | Spring | | | | | | Summer | | | | | | Autumn | | | | | | Winter | | | | | |
|----------------------------|--------|---|---|---|---|---|--------|---|---|---|---|---|--------|---|---|---|---|---|--------|---|---|---|---|---|
| Wedge-tailed Eagle nests | S | S | O | O | N | N | D | D | J | J | F | F | M | M | A | A | M | M | J | J | J | J | A | A |

- The Natural Values Atlas holds location records for all known Wedge-tailed Eagle nests.
- Survey for Wedge-tailed Eagle nest sites requires targeted searching of potential nesting habitat, outside the breeding season, which may vary in timing. See Key Points: Breeding Season and Levels of Disturbance, above, for more information.
- An eagle nest is constructed of sticks and lined with bark, normally measuring 1 - 3 m across and 0.5 - 3 m deep. It is typically found in the tallest, largest tree in the area, in a robust fork close to the tree trunk, within the forest canopy and away from the ground slope.
- Even if a nest is in poor condition or can no longer be found, its use in the past indicates that the site contains the essential suitable elements and may be returned to in future years.
- Remember that a new nest site may be established at the start of a breeding season, so a survey needs to be timed carefully in relation to a scheduled activity. Results from previous surveys may not remain valid long-term.
- To accurately assess whether a nest is in line of sight of an activity - seek expert advice. For long-term activities, do not depend on objects such as trees (which may fall or burn) to block line of sight.
- Seek expert advice on whether a nest is being used during any one breeding season. An eagle nest may not be used for consecutive breeding seasons, and may be returned to even after many breeding seasons without use. A survey to check whether a nest is being used can easily disrupt breeding. Furthermore, eggs, chicks and other signs of nest activity can be difficult to detect by inexperienced surveyors.
- Important! Nest searches and surveys can easily disturb nesting birds, resulting in the death of eggs or chicks through cold or predation while adults are absent. To avoid this, nest searches and surveys must be carefully planned, and should only be carried out by personnel with appropriate training.
- Seek further advice from the Threatened Species Section.

Helping the species

- To recognise the Wedge-tailed Eagle - learn to identify it in flight, and to distinguish adult birds (dark sooty-brown plumage) from immature birds (lighter tawny brown with a blond nape to the neck).
- To improve the chances of detecting, and thereby avoiding disturbance to, nesting Wedge-tailed Eagles in an area - learn to identify the typical signs of a nesting pair: aerial courtship displays (beginning in June), calls, and frequent sightings of pairs of birds in a particular location.
- To confirm whether Wedge-tailed Eagles are nesting in an area, without causing disturbance - organise a formal survey at the appropriate time of year by someone with appropriate training.
- To avoid disturbing nesting birds, which can lead to death of eggs or chicks - do not approach a potential nest site during the breeding season.
- Important! Always report any observations of Wedge-tailed Eagle nests to the DPIWE Natural Values Atlas, or else provide the data direct to the Threatened Species Section. Records stored on the NVA are a permanent record and are accessible to other people interested in this species.
- Consider the needs of the whole habitat. Preserving a threatened species' habitat is the best way to manage both the species and the environment in which it lives.
- For advice if you find a dead or injured eagle - contact the DPIWE Orphaned and Injured Wildlife Hotline 03 6233 2520. Specialist carers and rehabilitation facilities are located around Tasmania. Extreme care must be taken to ensure your own safety from an injured eagle. Do not touch the talons as they can inflict serious injury. Injured birds should be kept quiet and safe. Cover the bird with a towel, blanket, etc.
- To reduce risk of repeated eagle deaths - report deaths of eagles (or of any other native birds, including waterfowl) found beneath power lines or poles, to Aurora Energy 1300 13 2007. Where other structures appear to be responsible, report this to the Threatened Species Section. Provide the date, time and location of the discovery (including the identification number of any nearby powerpole), with your contact details and photographs where possible. Special adaptors may be installed to prevent future incidents of electrocution and collision.
- Some eagles are still intentionally shot each year. To reduce future eagle deaths through illegal shooting and poisoning - if you have any information on persecutions, please contact the Threatened Species Section. Information can be kept confidential. Intentionally injuring or killing eagles can incur large fines.
- For long-term protection of eagles on private land - consider protection of nesting and other habitat through a vegetation management agreement or conservation covenant. A number of reserves and wildlife priority areas are in place for this species, which may be nearby or on your property boundary. These could be extended with your help. Linking properties to form large corridors of native bush and establishing Bushcare or Land for Wildlife networks can help reduce habitat fragmentation. See the DPIWE Private Land Conservation Program for more details.
- See the Wedge-tailed Eagle Recovery Plan for a full list of conservation management actions for this species.

Cutting or clearing trees or vegetation

- To reduce the potential for disrupting breeding - avoid noise or visual disturbance (e.g. removal of vegetation) within view or

earshot of an eagle nest or potential nesting habitat during the breeding season. See Key Points: Breeding Season and Levels of Disturbance, above, for more information.

- To avoid loss of the elements important for a nest site, e.g. windbreaks, buffers from disturbance and potential future nest trees - maintain a large patch of relatively undisturbed forest around a nest, or habitat potentially containing a nest. A forest buffer of at least several hundred metres is especially important for shelter from prevailing winds and this buffer should be wider on the uphill side. The larger the buffer, the greater the likely longevity of the nest and the more chicks are likely to be fledged there.
- Even if a nest is in poor condition or can no longer be found, its use in the past indicates that the site contains the essential elements for nesting and may be returned to in future years.
- To avoid additional loss of nesting habitat - do not cut or clear vegetation in or around a nest site even if the nest cannot be found.

Burning

- To avoid disruption to breeding - do not burn near a nest or potential nesting habitat during the breeding season. See Key Points: Breeding Season and Levels of Disturbance, above, for more information.

Agriculture

- To reduce the potential for disrupting breeding - do not create noise or visual disturbance (e.g. shooting, approaching on foot) within potential view or earshot of an eagle nest or potential nesting habitat during the breeding season. See Key Points: Breeding Season and Levels of Disturbance, above, for more information.
- A high proportion of Tasmania's Wedge-Tailed Eagles' nests are on private land.
- While all disturbance should be avoided, note that approaches within vehicles (especially if the vehicle does not stop) are less likely to disrupt breeding than approaches at similar distances where the vehicle stops and people are visible.
- If managing stock losses where eagles are involved, see Eagles on the Farm and/or contact the Threatened Species Section.
- To reduce future eagle deaths through illegal shooting and poisoning - if you have any information on persecutions please contact the Threatened Species Section. Information can be kept confidential. Intentionally injuring or killing eagles can incur large fines.

Construction

- To reduce the potential for disrupting breeding - do not create noise or visual disturbance (e.g. construction activities) within potential view or earshot of an eagle nest or potential nesting habitat during the breeding season (see above - Key Points: Breeding Season and Levels of Disturbance).
- To avoid disrupting breeding - do not construct developments which could result in future disturbance near a nest or potential nesting habitat during the breeding season.
- Wind turbines spinning on a horizontal axis, being difficult to see and moving deceptively fast, can cause death by collision to Wedge-tailed Eagles. Vertical axis turbines, being easier to see, may present less of a risk.
- To reduce risk of death by collision - do not place wind turbines and other difficult-to-see structures in areas where eagles commonly fly. Consider using vertical axis turbines.
- To reduce risk of death by collision - place markers or deterrents on difficult-to-see structures, especially where they may cross flight paths and where deaths have previously been reported. Aurora may install special devices to power lines to make them more visible in areas where deaths have previously been reported.
- To reduce risk of death by roadkill (when eagles are feeding on other roadkilled prey) - design roads to reduce roadkill risks (e.g. optimise chances for motorists to detect animals on the road in time to avoid them), and regularly remove other roadkill from roadsides.
- For further guidance on reducing risk of death by electrocution or collision - contact the Threatened Species Section or Aurora Energy on 1300 13 2007 and request to speak to an environmental advisor.
- To reduce risk of repeated deaths - report dead eagles or any dead native birds including waterfowl beneath power lines or poles to Aurora Energy on 1300 13 2007, or where other structures appear to be responsible, to the Threatened Species Section. Provide the date, time and location of the discovery, with your contact details and photographs where possible. Special adaptors may be installed to prevent future incidents of electrocution and collision.

Subdivision

- To reduce the potential for disrupting breeding - do not create noise or visual disturbance (e.g. construction activities) within potential view or earshot of an eagle nest, or habitat potentially containing an eagle nest, during the breeding season. See Key Points: Breeding Season and Levels of Disturbance, above, for more information.
- Remember - the consequences of subdivisions, including the activities of residents and their pets, can create potential disturbances to eagle breeding well beyond the footprint of the subdivided property.
- To avoid disrupting breeding - do not create subdivisions which could result in future disturbance near a nest or potential nesting habitat during the breeding season.
- To minimise risks to breeding associated with a subdivision - develop a nest management plan for potentially disturbing activities (e.g. walking, dirt-biking, wood-cutting) in the vicinity of nesting eagles.

Earthworks

- To reduce the potential for disruption to breeding - do not create noise or visual disturbance (e.g. earthworks, blasting) within potential view or earshot of an eagle nest or potential nesting habitat during the breeding season. See Key Points: Breeding Season and Levels of Disturbance, above, for more information.

Aircraft

- Breeding Wedge-tailed Eagles are particularly sensitive to aircraft approaching the nest, even if the aircraft remains many hundreds of metres away. Helicopters are perceived as a greater threat than fixed wing aircraft, and may be attacked by eagles, risking both eagle and aircraft. See Key Points: Breeding Season and Levels of Disturbance, above, for more information.
- To avoid disruptions to breeding and risks to aircraft - pilots can download eagle nest records from the Natural Values Atlas and avoid flying near these areas, especially during the breeding season.
- To effectively avoid disturbing eagle nests - operate aircraft off-shore and over other unsuitable nesting habitat as much as possible, and do not circle round or hover near eagles or potential nests. Note that some National Parks provide specific guidelines (e.g. Freycinet National Park Pilot Guidelines).

- To avoid collisions if flying over nesting habitat during the breeding season is unavoidable - fly as high, swiftly and directly over the area as possible, learn to recognise aggressive behaviour and be on the lookout for warning signs while flying.
- To avoid disrupting newly established nests - regularly update your eagle nest records from the Natural Values Atlas, and report any suspected nests observed when flying to the Threatened Species Section.
- For further guidance - contact the Threatened Species Section.

Use of chemicals

- Agricultural chemicals such as rodenticides, insecticides and herbicides can often kill eagles and other birds of prey, as it is difficult to control which animals take baits or feed on poisoned carcasses.
- To prevent direct poisoning of birds - do not use poisons to which eagles are sensitive, such as Pindone, in nesting and foraging habitat.
- To prevent secondary poisoning of birds - avoid using single-dose rat poisons in nesting and foraging habitat.

Recreation

- To reduce the potential for disrupting breeding - do not create noise or visual disturbance within potential view or earshot of an eagle nest or potential nesting habitat during the breeding season. Disturbances where people are visible are especially disruptive. See Key Points: Breeding Season and Levels of Disturbance, above, for more information.
 - To avoid disrupting breeding - if you observe a potential nest site, report the observation to the Threatened Species Section and, where possible, to the property owner or land manager. If the observation is during the breeding season, leave the area swiftly and quietly. Photography of nesting eagles can easily disturb the breeding birds.
 - To avoid disruption to nesting birds by bushwalkers and cyclists - plan tracks and campsites far from eagle nests and potential nesting habitat. Include features which discourage visitors from travelling off-road towards nests.
 - Racing in natural areas (e.g. cross-country running, cycling) has a high potential to disturb any eagles breeding near the route, due to the number and noise of race participants and observers (especially if including helicopters).
 - To avoid disruption to breeding from a race occurring during the breeding season - design the race route far from eagle nests and habitat potentially containing an eagle nest.

Further information

Recovery Plan
Eagle nest occupancy checks 2013

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Contact details: Threatened Species Section, Department of Primary Industries, Parks, Water and Environment, GPO Box 44, Hobart, Tasmania, Australia, 7001. Phone (03) 6233 6556; fax (03) 6233 3477.

Permit: A permit is required under the *Tasmanian Threatened Species Protection Act 1995* to 'take' (which includes kill, injure, catch, damage, destroy and collect), keep, trade in or process any specimen or products of a listed species. Additional permits may also be required under other Acts or regulations to take, disturb or interfere with any form of wildlife or its products, (e.g. dens, nests, bones). This may also depend on the tenure of the land and other agreements relating to its management.