
From: Chelsea Blyth
Sent: Tuesday, 9 January 2024 4:39 PM
To: Justin Simons
Subject: FW: Submission to Exhibition of Zoning for 95 Gees Marsh Rd Bellingham
Attachments: Site visit Summary Report - Bowring - 17 November 2022.pdf; Cons Plan official doc Bowring LittlePipersRiver NCPNov2012.pdf; submission to TPC RE 95 GEES MARSH RD.docx

From: BRIAN BOWRING [<mailto:bowringhome2@gmail.com>]
Sent: Tuesday, 9 January 2024 9:14 AM
To: council <council@georgetown.tas.gov.au>; Helen Bowring <habowring@gmail.com>; BRIAN BOWRING <bowringhome2@gmail.com>; Joanne Stubbs <stubbs.joanne@gmail.com>
Subject: Submission to Exhibition of Zoning for 95 Gees Marsh Rd Bellingham

Dear Planning Department

Please find attached our final submission and two attached environmental reports quoted in this submission.

Please contact with any issues re the above.

Please contact as soon as date of any hearing is known. We are interstate from 21/2/24 till the 11/3/24.

kind regards

Helan and Dr Brian Bowring AM FRACGP

SUBMISSION

We intend to provide evidence that the criteria for a Landscape Conservation Zone applies most appropriately to our property at 95 Gees Marsh Road Bellingham, and that the criteria for a Rural Zone does not.

The Local Planning Scheme Zone Application Guidelines point 3.4 states that “*the primary objective in applying a zone should be to achieve the zone objective to the greatest extent possible.*”

By examining the Landscape Conservation Zone criteria as defined by the TPC (Tasmanian Planning Commission) and then comparing it to the guidelines set out in our Conservation Covenant, we will seek to demonstrate irrefutably that this is definitively the most appropriate zone for our property.

LOCAL PLANNING SCHEME ZONE CRITERIA (LPSZC) 22 LCZ1 7 LCZ2

To begin with, we would firstly like to take this opportunity to question and refute comments made at the previous hearing in April 2023 (which we were unfortunately unable to attend due to being overseas at the time). Specifically points 140 and 141 made in the Commission Consideration; “*The Commission is not satisfied the land has landscape values that are consistent with or at a level that is related to the purpose of the Landscape Conservation Zone*’ and “*The zone purpose is reflected in the principles of Guideline No 1, which states the Landscape Conservation Zone should be applied to land with landscape values identified for protection and conservation*”.

While we have been unable to find a TPC definition of Landscape Values, and while our property has not had an extensive scientific assessment of the flora and fauna existing upon it, we believe that the evidence that we do have demonstrates clearly that the property is protected by at least three pieces of state and commonwealth Environmental legislation based upon scientifically identified flora and fauna deemed to be in need of protection and that the most appropriate way to reinforce those protections is to Zone the property as Landscape Conservation.

In 2012 we entered into a legal agreement with the Tasmanian government (represented by Brian Wightman as the Minister for the Environment) to establish a Conservation Covenant over our property at 95 Gees Marsh Rd, Bellingham. Our intent in establishing the Covenant was to protect the natural values of the property in a way that gave certainty into the future beyond what we had been doing ourselves since we purchased the property in March 1996. Our understanding at the time of signing the document was that it was a legally binding document that could only be changed by legislation and agreement by both parties; ie us as the owners and the Tasmanian government of the day. To quote from The Department of Natural Resources and Environment Tasmania re Conservation Covenants: *The Private Land Conservation Program was established in 2006 to provide a single point of management for all the Departments conservation programs that focus on private land. The program works with landowners to sustainably manage and conserve natural values (eg native flora and fauna, natural wetlands, geo conservation areas) on Private land. We are committed to helping landowners look after these values now and into the future.*”

Covenants are legally binding under the Nature Conservation Act 2002 and are registered on the Land Title....Covenants in perpetuity give peace of mind that natural values, such as native flora and fauna, natural wetlands and geo conservation areas, will persist for generations. They also contribute to Australia’s network of protected areas, the National Reserve System.”

And from a Land for Wildlife dPIPWE Co-Ordinator at the time the Covenant was applied “ You have a beautiful area of remnant wetland, coastal heath and woodland and valuable wildlife habitat in excellent condition. Your desire to maintain, protect and enhance your property for wildlife and to increase awareness locally is highly commendable and great to see. Together with your neighbours you are contributing to a much greater area of wildlife species and habitat protection which is good to see in an area which is under threat from development.”

The Conservation Covenant on our property applies to approximately 140 hectares (with a small exclusion area for a three bedroom dwelling-No other infrastructure exists on the property) and consists of an approximate 2 km riparian strip of worewater/Little Pipers River on its Eastern border and approximately a 500 metre coastal frontage to the Bass Strait on its northern border. It is a combination of native vegetation communities including coastal heath, eucalyptus woodland and coastal scrub. The property has a stunning aspect looking towards Bass Strait and can be viewed in its entirety for several kilometres from the beach frontage from Bellingham to Double Sandy Point- a part of what is now a Gazetted Traverse road along the beach from Bellingham to Bridport and frequented by locals and interstate visitors on a regular basis. The juxtaposition of native bush land along this coastal route is visually pleasing and is an important part of the visitor experience. We contend that these properties are a visual, front of mind experience of what 'wild Tasmania' looks like for people in the Bellingham area and those doing the traverse to Bridport. Our property's scenic value is certainly something we treasure dearly. (addressing Commission consideration 143 and 146).

We have written documentation from the Private Land Conservation Program (under the auspices of Dept Primary Industries, Parks, Water and Environment: Resource Management and Conservation) that states "Your property meets the criteria for Covenanting under Tasmania's Nature Conservation Act 2002 and the group (Private Land Conservation Program's Property Assessment Group or PAG) noted that " the conservation values on the property will make a valuable contribution to the National Reserve System".

A survey of the property by Tasmanian Land Conservancy at the time of the implementation of the Covenant had this description:

"Habitat on the Bowring's property at Bellingham is diverse and in excellent condition. It contains threatened vegetation communities, excellent coastal, riparian and aquatic habitat, wetland habitat, threatened species habitat, and excellent fauna habitat."

During the half day visit, the survey found stands of Eucalyptus Ovata Woodland (endangered) Juniper Wattle (rare) and Soft Pea Bush (vulnerable)The property also has Melaleuca ericafolia swamp forest and riparian wetlands including freshwater and salt marsh. The Tasmanian Nature Conservation Act 2002 lists Eucalyptus ovata forest and woodland and Melalleuca ericafolia swamp forest as threatened vegetation communities. Under the Commonwealth Environmental Protection and Biodiversity Conservation Act 1999, Eucalyptus ovata forest and woodland is listed as critically endangered and Temperate Coastal Saltmarsh is listed as Vulnerable.

Fauna photographed on site includes: Spotted Tailed Quoll (rare/vulnerable), Tasmanian Devil (Endangered), Green and Gold frog (vulnerable). White Bellied Sea Eagles (vulnerable),and Wedge Tailed Eagles (endangered)are commonly seen and use the property for foraging and hunting. Tasmanian Threatened Species Protection Act 1995

The richly diverse habitat of the property was also deemed to be potential habitat for a further 20 plus rare and endangered animals and plants. (addresses Commission consideration point 148).

A Land for Wildlife Property Report prepared after a visit in January 2023 also describes the property as being in 'excellent condition with almost total coverage of native vegetation' providing important habitat for the above mentioned threatened species.

Mention in this report is also made of the significant Aboriginal heritage site, where Mannalargenna, chief of the Plangermaireener clan, gathered tribes before Robinson took them to Flinders Island. The area has since been gazetted and has dual naming. (addresses Commission consideration point 143).

Also mentioned is the the Geo heritage site on the South Eastern corner of the property which is part of the Northeast Tasmania Pleistocene Aeolian System. This is of State significance- "Terrestrial remnants of the largest Pleistocene desert dune complex in Tasmania that formerly covered Bass Strait, and includes a range of aeolian landforms such as extensive sandsheets and longitudinal dunes".

We decided to apply a Conservation Covenant to our property with the explicit intention of formalising the care we have been providing the land since its purchase

The Management Objectives of our Nature Conservation Plan (which informs our Covenant) are:

- . 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.
- . To protect the habitat of threatened and/or priority species.

We contend that these objectives perfectly align with the TPC guidelines for a Landscape Conservation Zone which state:

" The purpose of The Landscape Conservation Zone is 22.1.1 To provide for the protection, conservation and management of landscape values" and 22.1.2 "To provide for compatible use or development that does not adversely impact on the protection, conservation and management of the landscape values".

" The main purpose of the zone is for the protection, conservation and management of landscape values , such as large areas of bush land, or areas of important scenic value which have been identified for protection or conservation".

The Tasmanian Planning Scheme-Natural Assets fact sheet also outlines how it adds additional clarity around natural values and assets in conjunction with other legislation such as the Nature Conservation Act 2002 and the Threatened Species Act 2002. It states "The Natural Assets Code seeks to protect the ecological function of waterways, shorelines, wetlands, lakes, sand dunes, saltmarshes and their Refugio areas. The code also applies to areas "identified as comprising priority vegetation, protecting the habitats of important flora and fauna."

We believe our property qualifies for the additional protection that this scheme offers across several natural values, being: 'waterway and coastal protection areas'; 'priority vegetation areas' providing protection of

- 1) Threatened native vegetation communities listed under the Nature Conservation Act 2002 and

- 2) threatened flora species and
- 3) Native vegetation of local importance, including habitat for native fauna.

Why a Rural Zone is not appropriate for our Property

It has become very apparent that both State Growth and Mineral Resources Tasmania want the Rural zone to be applied in order that they can potentially extract sand from the property. Representatives from State Growth and Mineral Resources Tasmania commented that:

“The zone (Landscape Conservation Zone) would prevent future extraction of important mineral resources (sand) from the land”

“the supply of sand in southern Tasmania would be exhausted in the foreseeable future”

And “the area had the most accessible future sand resources in the State”

On this basis, they proposed that the property should be zoned as Rural.

We note in the Commission Consideration of the August meeting at point 154: *“the Commission is not persuaded the Rural Zone should be applied to the land primarily on the basis of the significance of the sand resources of the site.” Therefore to clarify we interpret this to mean that the Landscape Conservation zone being applied is not disadvantaged by the MRT submission.*

Sand extraction would by its nature be incredibly destructive to vegetation and habitat.

We strongly believe the descriptors for a Rural Zone do not describe our property and its use, and additionally, none of the activities listed as being possible in a Rural Zone are legally permissible under the terms of our Conservation Covenant.

The descriptor states that the rural zone should be applied to land that “is not more appropriately included within the Landscape Conservation Zone or the Environmental Management Zone for the protection of specific values.”

“The rural zone is applied to rural land with limited or no potential for agriculture, and which has not been identified for the protection of specific values such as landscape conservation or environmental management.”

“The rural zone provides for a broader range of use or development requiring a rural location, including those which are not allowable in the Landscape Conservation Zone such as extractive industry, custodial facility and certain manufacturing and processing, storage, bulky goods sales, service industry, transport depot and distribution uses.”

(State Planning Office Information sheet LCV versus Rural Zone)

None of these activities is allowable under our Conservation Covenant. Among the “Management Prescriptions, Authorisations and Recommendations” of our Nature Conservation Plan, point 6.22 is the most relevant to this case and refers to Deleterious Activities- it states:

“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”.

Specifically mentioned as being disallowed in our Nature Conservation plan is the making of new roads- this would be necessary for sand mining and would be detrimental from a habitat clearing perspective and would also risk the introduction of weeds and spread of Phytophthora (a root rot water mould)

Roads would also potentially fragment waterways which provide essential breeding grounds for the endangered Green and Gold Frog. Fragmentation of habitat is known to be one of the greatest threats. (Threatened Species Unit, DPIWE, 2001)

In Conclusion

We believe that it is imperative to protect our property's natural values, and we are legally bound by our Conservation Covenant to do so. We believe that as the other signatory to the Covenant, so is the Tasmanian Government also bound.

Among the 'Management Prescriptions, Authorisations and Recommendations' of our Nature Conservation Plan, point 6.22 is the most relevant to this case and refers to Deleterious Activities- it states "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."

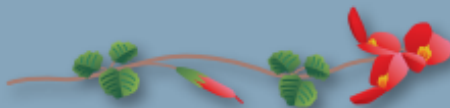
It would seem contradictory to the very intent of the Conservation Covenant to apply a Rural Zoning that would potentially allow activities such as sand mining to occur. We believe the best and only way to protect the intent of the legislated Land Covenant on 95 Gees Marsh Rd Bellingham is to zone it as Landscape Conservation.

In preparing this information, I read that properties could be assessed for zoning on a case by case basis. "The guidelines contain 'should' statements for the zoning of land and in doing so recognises that there will be circumstances whereby sustained outcomes are not achieved without variation in zone type or the inclusion of overriding local provisions" and in regard to Site Specific Zone Changes I read that "where the zoning of a property was ambiguous and did not suit the use and development on the site, but where a zone change aligned with the Zone Application Guidelines, a change has been recommended"

I take this to mean that because we have demonstrated that our property most accurately meets the criteria for a Landscape Conservation Zone, that it is possible for the zone to be changed accordingly.

Thank you for your time and attention,

Helen and Dr Brian Bowring AM FRACGP



**“WOREWOTERPEENDER/FORDINGTON”
95 GEES MARSH ROAD, BELLINGHAM
PROTECTED AREAS ON PRIVATE LAND
SITE VISIT SUMMARY
(17 NOVEMBER 2022)**

Department of Natural Resources and Environment Tasmania
Private Land Conservation Program
PO Box 46, KINGS MEADOWS, TAS 7249
Enquiries : Lauren Bird
Phone : 0499 759 958
Email : PrivateLandConservation.Enquiries@nre.tas.gov.au



SITE MAP



Figure 1. Location of the covenant at 95 Gees Marsh Road, Bellingham, Tasmania.

SITE VISIT SUMMARY:

A map of the covenant is provided in Figure 1. To view the electronic (LISTmap) map of the property and covenant, click [here](#) (you may need to create a free LISTmap account if you don't already have one).

Condition

The site visit focussed on the eastern side of the covenant in the area north-east of the house and along the Little Pipers River. The areas visited were diverse in community transitions from dry black peppermint (*Eucalyptus amygdalina*), to coastal heathland, to scented paperbark (*Melaleuca squarrosa*) scrub, and coastal silver banksia (*Bankisa marginata*) forest. Each community appeared to be in good condition, noting that the visit was undertaken in an ATV and there was not sufficient time to look at them in detail. There were some areas of dieback in mature trees, possibly from coastal winds, however there is good recruitment of younger tree species occurring

Weeds

The landowners have done a fantastic job at eradicating an infestation of gorse from an area by the Little Pipers River (Figure 3). This area is recovering well and is showing signs of natural regeneration with native species. Over time, the surrounding coastal wattle (*Acacia longifolia*) scrub should naturally establish within the cleared area. Being situated next to a significant river, these areas of the covenant will always have weeds establishing but the landowners are incredibly vigilant in regularly monitoring areas for weeds and controlling them. There are some areas with a few thistles, mainly in disturbed areas such as the existing tracks, and along the river there are small areas of Spanish heath and blackberry that the landholders have under control.

Fire management

The area burnt by the escaped fire (December 2021) is regenerating very well. A bulldozer had to push in an emergency firebreak along the fenceline to prevent the fire spreading further into Scott Bell's property. The landholders have been doing a fantastic job at undertaking very small scale, cool, mosaic, cultural burns within areas of the covenant with engagement with the Tasmanian Aboriginal community. The burns have reduced understorey competition and the vegetation and regeneration looks very healthy and diverse. Preparing a burn plan for the covenant will further assist with communication for burn approvals, monitoring and providing timely authorisations as per the covenant requirements. It will also serve as a great way of documenting the fire management regime for the covenant and could be useful as a case study for best-practice ecological burn management in the future.

The landholders held a cermeony for having their property renamed to *worewaterpeender* to reflect the local *palawa kani* (Aboriginal language) for the area. Elders that attended the ceremony remarked how pleased they were to see the vegetation reflecting *palawa* land management practices and appearing in such good health.



Figure 2. A large mature *Eucalyptus viminalis* (white gum) near Little Pipers River



Figure 3. An area next to Little Pipers River that was previously infested with gorse is showing signs of native regernation and recovery.



Figure 4. An area burnt by an escaped planned burn in December 2021 is showing good signs of recovery and regeneration.

NATURE CONSERVATION PLAN
FOR
GEES MARSH ROAD
BELLINGHAM
November 2012



Photo: Helen Morgan (Tasmanian Land Conservancy Inc.)

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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 titles. In this Plan, all definitions follow those described in Clause 3.1 of the Covenant.

The Covenant lists in Clause 4.2 and 4.4 those activities that are prohibited from the Land. Clause 4.2 and 4.4 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 and 4.4 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 4.5.

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.

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
Private Land Conservation Program
GPO Box 44
HOBART TASMANIA 7001

OR

Facsimile number (03) 6223 8603

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 Bellingham as shown on the map below. The Land is shown on the attached Land Map (see page 25). The vegetation that occurs on the Land is outlined on the attached Vegetation Map (see page 26).

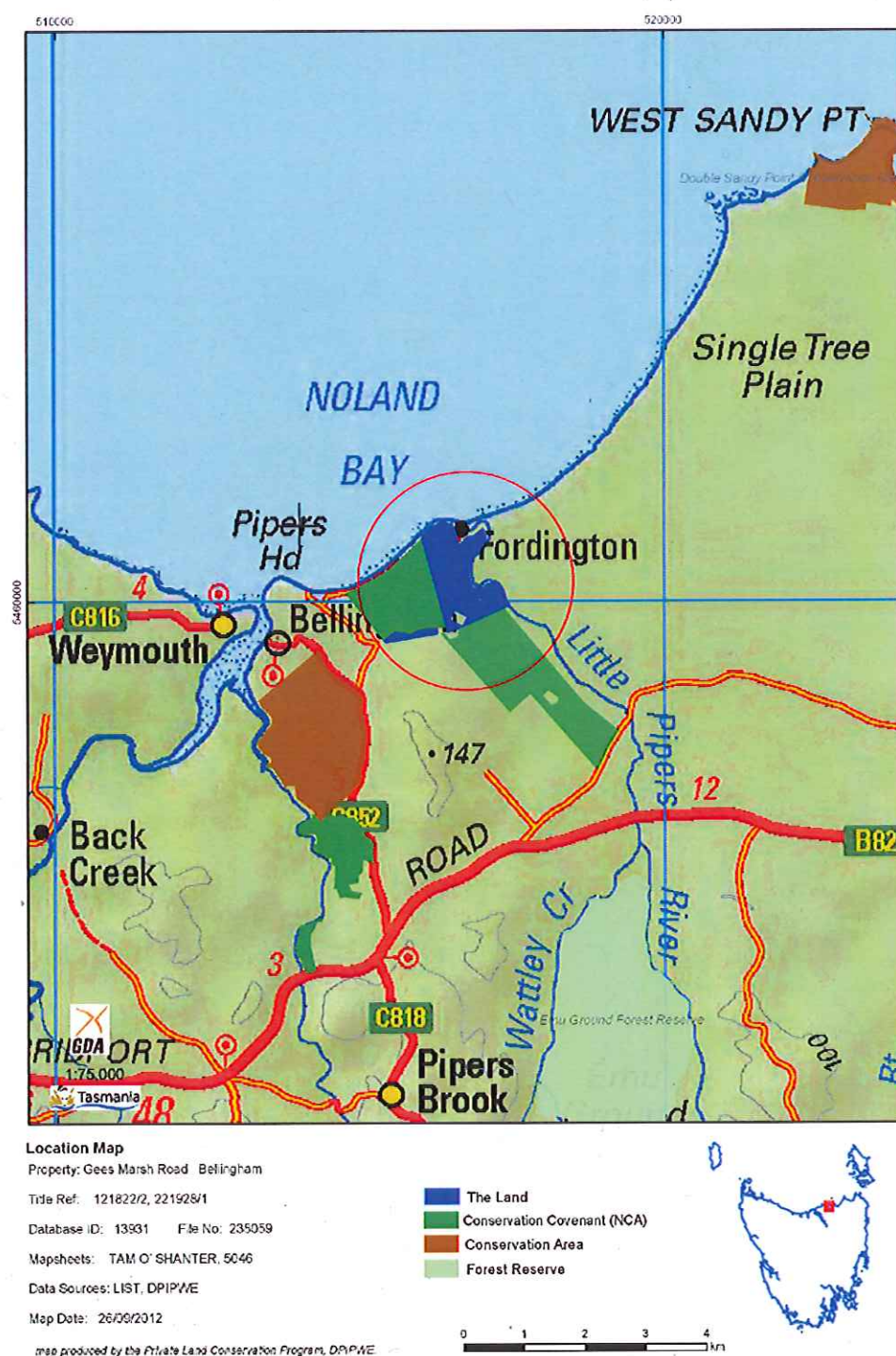


Figure 1 Location of Land near Bellingham

4 Background information

The property has not been grazed for approximately 60 years and was partially burnt by wildfire in January 2008. Prior to this the owners had undertaken patch burning of the coastal heath and dry woodland over time, which ensured that the 2008 bushfire was less severe than it otherwise may have been.

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 NCA* and/or EPBCA^	Area (hectares)
<i>Eucalyptus amygdalina</i> coastal woodland	DAC	Not listed	40.4
<i>Eucalyptus ovata</i> woodland	DOV	Endangered	1
<i>Acacia longifolia</i> coastal scrub	SAC	Not listed	73.92
<i>Melaleuca squarrosa</i> scrub	SMR	Not listed	4
Coastal heath	SCH	Not listed	14
Wet heathland	SHW	Not listed	3
Regenerating cleared land	FRG	Not listed	1.6
Total area (hectares):			137.92

*Tasmanian Nature Conservation Act 2002

^Commonwealth Environment Protection Biodiversity Conservation Act 1999

***Eucalyptus amygdalina* (black peppermint) coastal woodland (DAC)**

This community covers a large proportion of the property on the gravelly slopes, gullies and higher land approximately 1km south of the foreshore. *Eucalyptus amygdalina* (black peppermint) is dominant with *Eucalyptus ovata* (black gum) and *Eucalyptus viminalis* (white gum) present. The understorey is very diverse, largely heathy and open with low shrubs, sedges and grasses. There is a notable diversity of *Acacia* species with *Acacia myrtifolia* (red stem wattle), *Acacia terminalis* (sunshine wattle) and *Acacia suaveolens* (sweet wattle) commonly present throughout and some individuals of the threatened species *Acacia ulicifolia* (juniper wattle). Wetter areas contain *Melaleuca ericifolia* (swamp paperbark), *Leptospermum scoparium* (prickly tea tree), *Juncus pallidus* (pale rush), *Hypolaena fastigiata* (tassel roperush), *Leptocarpus tenax* (slender twinerush) and *Empodisma minus* (spreading roperush). Drier areas support a diverse range of native peas, lilies and grasses with *Exocarpos cupressiformis* (native cherry), *Bursaria spinosa* (prickly box) and grasstrees. A plant list of species recorded during site visits is in the Appendix.



Eucalyptus amygdalina (black peppermint) coastal woodland

Photo: Helen Morgan, Tasmanian Land Conservation Inc.

This community provides excellent fauna habitat for threatened and non-threatened fauna and contains the four species (*Xanthorrhoea australis*, *Lepidosperma concavum*, *Hypolaena fastigiata* and *Aotus ericoides*) that are indicative of habitat for the endangered New Holland Mouse. Other threatened species spotted tail quoll and Tasmanian devil are known to be here, having been recorded on a wildlife camera; sea eagles and wedge tails are regularly seen hunting here in pairs; many smaller birds are evident and traces of marsupials including wombat, possum, wallaby.

Some areas were burnt and are recovering well with regrowth well established and very little bare ground remaining. There are very few weeds; those present include occasional Spanish heath, patches of thistle, and a few clumps of blackberry.

***Eucalyptus ovata* woodland (DOV)**

A small area of *Eucalyptus ovata* woodland occurs at the base of the slope below the house. This area was the most severely burnt during the fires and is still recovering. It is likely that as regeneration progresses the area may be defined as larger than was mappable at the time of survey. *Eucalyptus ovata* is dominant over an understorey of *Melaleuca ericifolia* which is regenerating vigorously, *Pteridium esculentum* and *Lomandra longifolia* are also present.



Eucalyptus ovata woodland (DOV) regenerating well after the fire.

Photo: Helen Morgan, Tasmanian Land Conservancy Inc.

Acacia longifolia coastal scrub (SAC)

This community dominates the fore dunes and the longitudinal dunes and swales behind, and forms dense scrub dominated by *Acacia longifolia* (coast wattle) with other tall shrubs including *Bursaria spinosa* (prickly box), *Banksia marginata* (silver banksia), *Leucopogon parviflorus* (coast beardheath) and *Acacia melanoxylon* (blackwood). *Allocasuarina littoralis* (bull oak) and *Allocasuarina verticillata* (sheoak) are dominant on hill tops close to the coast.



Acacia longifolia scrub

Photo: Helen Morgan, Tasmanian Land Conservancy Inc.

Melaleuca squarrosa scrub (SMR)

This community is found in a small area along the river and forms a dense scrub with a mixture of dominant tall heath species including *Melaleuca squarrosa* (scented paperbark), *Melaleuca ericifolia* (swamp paperbark), *Banksia marginata* (silver banksia), *Acacia melanoxylon* (blackwood) and *Melaleuca gibbosa* (slender honeymyrtle).



Track covered in *Lepidosperma concavum* through *Melaleuca squarrosa* scrub.
Photo: Helen Morgan, Tasmanian Land Conservancy Inc.

Coastal heath (SCH)

This community intergrades with the black peppermint coastal woodland and contains the same species present in the understorey of that community. In the lowland wet areas there is a greater presence of lower shrubby heath plants, sedges and rushes with beaded glasswort present along the river. Peas, wattles and grass trees are dominant on the higher drier hills. There are signs of *Phytophthora cinnamomi* infection in places on the hills. These patches can be recognised by yellowing and dying back of affected species and some plants are more susceptible than others. Some of the grass trees appeared to be affected in places marked on the Management Map, page 27. This soil pathogen is highly transferable. Keeping out of these areas and practicing hygiene procedures if traffic through them is essential is recommended (see attached notesheet on *Phytophthora cinnamomi*).



Lowland representation of Coastal heath

Photo: Helen Morgan, Tasmanian Land Conservancy Inc.

Wet heathland (SHW)

Leptospermum scoparium (prickly tea tree), *Banksia marginata* (silver banksia), *Melaleuca gibbosa* (slender honeymyrtle) and *Restionaceae* and *Cyperaceae* species are found in this community which intergrades with *Eucalyptus amygdalina* (black peppermint) coastal woodland in the gullies on the road into the property.

Regenerating cleared land (FRG)

There is a small area of this community on the riparian area near the foreshore. It is slightly weedy with gorse, thistle and blackberry (being controlled at time of survey) and native grasses and shrubs regenerating well.

5.2 Threatened and/or priority species

The following threatened species are present on the Land:

Species	Status under TSPA**/ EPBCA^	Type and date of record	Comments
Flora:			
<i>Acacia ulicifolia</i> (Juniper wattle)	r/-	Within 500m and on site, sight 2001	Existing habitat in heathland and woodland
<i>Pultenaea mollis</i> (soft bush pea)	v/-	Within 500m and on site, sight 2009	Existing habitat in heathland and woodland
Fauna:			
<i>Dasyurus maculatus</i> subsp. <i>maculatus</i> (spotted tailed quoll)	r/VU	Photographed on site 2012. E517348 N5459894 NVA^^ record within 5000m – sight 1995	Potential den sites and hunting territory on site
<i>Sarcophilus harrisii</i> (Tasmanian devil)	e/EN	Photographed on site 2012. E516657 N5460896 NVA record within 5000m – sight 2008	Potential den sites and hunting territory on site
<i>Litoria raniformis</i> (green and gold frog)	v/VU	Heard on site 2010 E517345 N5459901 Habitat mapping NVA	Habitat in creek

**Tasmanian Threatened Species Protection Act 1995

^Commonwealth Environment Protection and Biodiversity Conservation Act 1999

^^Tasmanian Dept. Primary Industries Parks Water & Environment, Natural Values Atlas

Threatened species not observed in the proposal area but which may occur in the proposal area based on the presence of suitable habitat or other information:

Species	Status under TSPA**/ EPBCA^	Type and date of record	Comments
Flora:			
<i>Baumea articulate</i> (jointed twig sedge)	r/-	Within 5000m sight 1979	Potential habitat wetland and heath
<i>Caladenia caudata</i> (tailed spider orchid)	v/-	Within 5000m sight 2008	Potential habitat
<i>Caladenia patersonii</i> (Paterson's spider orchid)	v/-	Within 500m and 5000m sight 2008	Potential habitat
<i>Cyrtostylis robusta</i> (large gnat-orchid)	r/-	Within 5000m sight 2008	Potential habitat
<i>Calystegia soldanella</i> (sea bindweed)	r/-	Within 500m sight 1979	Potential habitat wet areas
<i>Lepidosperma forsythii</i> (stout rapiersedge)	r/-	Within 500m and 5000m sight 2009	Potential habitat in wetland, heathland and woodland
<i>Orthoceras strictum</i> (horned orchid)	r/	Within 500m 2009	Potential habitat throughout
<i>Microtidium atratum</i> (yellow onion-orchid)	r/-	Within 5000m sight 2009	Potential habitat
<i>Phyllangium divergens</i> (wiry miterwort)	v/-	Within 5000m sight 1960	Potential habitat
<i>Pimelea curviflora</i> var. <i>gracilis</i> (slender curved rice flower)	r/-	Within 5000m sight 2002	Potential habitat
<i>Prasophyllum secutum</i> (northern leek-orchid)	e/EN	Within 5000m sight 1990	Potential habitat
<i>Pultenaea sericea</i> (chaffy bushpea)	v/-	Within 5000m sight 2009	Potential habitat
<i>Sporobolus virginicus</i> (salt couch)	r/-	Within 5000m sight 1979	Potential habitat
<i>Stylidium despectum</i> Small trigger plant	r/-	Within 5000m sight 1960	Potential habitat
<i>Triglochin minutissimum</i> (tiny arrow grass)	r/-	Within 5000m sight 1987	Potential habitat
Cont.d ./.			

Flora			
<i>Xanthorrhoea arenaria</i> (sand grasstree)	v/VU	Within 5000m sight 1942	Potential habitat
<i>Xanthorrhoea bracteata</i> (shiny grasstree)	v/EN	Within 5000m sight 2010	Potential habitat
<i>Xerochrysum bicolor</i> (East coast everlasting)	r/-	Within 5000m sight	Potential habitat
Fauna			
<i>Aquila audax fleayi</i> (wedge-tailed eagle)	en/EN	Pair sighted overhead during survey for covenant 2012.NVA record within 5000m –nest 1980a	Potential nesting sites nearby, excellent hunting territory on site.
<i>Haliaeetus leucogaster</i> (white-bellied sea eagle)	v/-	Pair sighted overhead during survey for covenant 2012	Excellent habitat, potential nest sites
<i>Accipiter novae- hollandiae</i> (grey goshawk)	e/-	Within 5000 sight and NVA^^ habitat mapping	Potential foraging sites in riparian areas nearby (blackwoods)
<i>Lathamus discolor</i> (swift parrot)	e/EN	NVA habitat mapping	Potential habitat, foraging, not breeding
<i>Sarcophilus harrisii</i> (Tasmanian devil)	e/EN	NVA record within 5000m – sight 2008	Potential den sites and hunting territory
<i>Litoria raniformis</i> (green and gold frog)	v/VU	Habitat mapping NVA	Potential habitat - likely
<i>Perameles gunnii</i> (Eastern barred bandicoot)	-/VU	Habitat mapping NVA	Some potential habitat but limited grassy areas for foraging
<i>Prototroctes maraena</i> (Australian grayling)	e/VU	Habitat mapping NVA	Potential habitat. Likely in river
<i>Pseudomys novae- hollandiae</i> (New Holland mouse)	e/VU	Habitat mapping NVA	Potential habitat in heath and heath woodland
<i>Tyto novae-hollandiae</i> (masked owl)	Pe/PVU	Habitat mapping NVA	Potential habitat – likely. Some suitable tree hollows

**Tasmanian Threatened Species Protection Act 1995

^Commonwealth Environment Protection and Biodiversity Conservation Act 1999

^^Tasmanian Dept. Primary Industries Parks Water & Environment, Natural Values Atlas

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 and 4.4 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 4.5 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.

6.3 Domestic Zone (Part A Land, as described in the Covenant) & access route

- The size and location of all buildings within the Domestic Zone must be such that the recommended distance for vegetation clearance for fire protection can be achieved within the Domestic Zone and without encroaching on the remainder of the Land – marked 'Part B Land' on the Land Map, page 25. Guidelines on protecting buildings from fire are available from the Tasmanian Fire Service.
- Any construction or development within the Domestic Zone must comply with all laws and Legislative Requirements.
- Foreign Materials such as rock, gravel and/or soil used within the Domestic Zone and/or access carriageways must be sourced from sites that are free of root-rot fungus (*Phytophthora cinnamomi*), (seek advice from the Department regarding suitable sites). This will help prevent the introduction of the root-rot fungus into the habitat of susceptible species.

(Note: root-rot fungus is a plant pathogen that can devastate the ecology of many communities across Tasmania.)

- No invasive Exotic plant species must be knowingly introduced and established within the Domestic Zone (see section 6.15 *Exotic flora and fauna species*).
- Dogs must not cause harm to Native animals within the Domestic Zone (see section 6.15 *Exotic flora and fauna*).
- Sewage systems must comply with Local Government standards and any effluent produced must not significantly impact on the values of the Domestic Zone or the remainder of the Land.
- The access route must be kept to a minimum width that complies with fire safety recommendations (contact Tasmania Fire Service for advice) and Local Government standards. The access route must be constructed and maintained in a manner to minimise impacts on the Land (e.g. introduction of weeds, erosion, run-off etc.).

Particular management prescriptions may apply to the area immediately surrounding the Domestic Zone that should minimise any adverse impact on the rest of the Land (see sections 6.11 *Herbicides, pesticides, fertilisers and other chemicals*; 6.12 *Control of Exotic plant species*; 6.17 *Natural flow of water*; 6.19 *Effluent and irrigation*; and 6.20 *Vehicle use and tracks*).

6.4 Timber harvesting

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

6.5 Domestic firewood

- No domestic firewood collecting is permitted on the Land.

6.6 Stock grazing

- Grazing by stock must not be undertaken because it is likely to have an adverse effect on the Natural Values.

6.7 Fencing

At present part of the boundaries of the Land are unfenced and given the current land use(s) on the adjoining properties there is no requirement for any further boundary fencing at this time.

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 either side of the fence.

- Wherever possible, clearing along fencelines should avoid soil disturbance in order to reduce the potential for weeds to establish.
- 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).
- The Owner must seek approval from the Minister if additional fences need to be constructed that are internal to the boundary of the Land.
- Any new fence(s) must allow Native wildlife access to water sources.

6.8 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:
 - (i) part of the weed management prescriptions (see section 6.12 *Control of Exotic plant species* for details);
 - (ii) for track maintenance or construction (see Management Map, page 27 for location of tracks; see section 6.20 *Vehicle use and tracks* for further information);
 - (iii) for fence maintenance or construction (see Management Map, page 27 for location of fences; see section 6.7 *Fencing* for further information);
 - (iv) for fire hazard reduction, fire-fighting, ecological burns and/or firebreaks (see section 6.9 *Fire* and 6.10 *Firebreaks* for further information);
 - (v) for infrastructure maintenance or construction (see section 6.24 *Additional issues* for further information);
 - (vi) for the purpose of clearing a building footprint (for dwellings and sheds), and to create and maintain gardens in the Domestic Zone only.
- Vegetation cleared during the process of “approved clearing” operations (such as shrubs, branches, trunks etc.) may be removed from the Land.
- Any approved vegetation clearing activities should be undertaken in a manner that minimises the risk of *Phytophthora cinnamomi* becoming established on the Land (see attachment for more information about *Phytophthora cinnamomi*).

6.9 Fire

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

Authorisation; small camp fires on the Land are permitted outside of the Fire Permit Period but only in established fireplaces (see 6.24 *Additional issues*) and subject to the following conditions:

- The Owner will ensure that the use of campfires do not cause depletion of the surrounding vegetation, including dead or fallen timber, from fuel gathering as the collection of firewood from the Land is a restricted activity.

- The Owner will ensure all necessary precautions are taken to prevent the escape of fire and to extinguish the fire before leaving.
- Except for campfires in an established fireplace, fire will be excluded from the Land, unless the Minister deems it necessary for management, or the Tasmania Fire Service deems it necessary for safety reasons.

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

Authorisation: The Owner may use fire to conduct ecological burns for management but only under the conditions outlined below.

- 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.
- The Owner must seek approval from the Minister prior to each fire hazard reduction burn or ecological burn.
- 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 between 10 – 15 year intervals. 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 spring); and/or allowing the burn to be more patchy (i.e. some areas remain unburnt). *Note: autumn fires are generally better for the maintenance of native plant species.*
- Burning during late spring and summer should generally be avoided, as this will affect many native species' ability to produce seeds and therefore their ability to regenerate. This period will often overlap with the Fire-Permit Period (see Tasmania Fire Service for further information).
- Burning should not occur if unseasonably dry conditions are predicted for the ensuing period or year (contact the Bureau of Meteorology regarding drought indicators and long-term rainfall predictions).
- 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.

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 the habitat of threatened species or threatened vegetation communities (see Vegetation Map, page 27).

- If a fire threatens the Land, the Owner will use best endeavours to inform those directing the fire-fighting that this site should be protected if it is possible.

6.10 Firebreaks

Permanent firebreaks:

- 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) the habitat of threatened species or threatened vegetation communities (see Vegetation Map, page 26).

6.11 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 6.12 *Control of Exotic plant species*).

- No fertilisers are to be applied on the Land, except for use on domestic gardens within the Domestic Zone. Fertilisers used within the Domestic Zone should be minimised in order to reduce any impact on the remainder of the Land.
- Pesticides may only be applied on the Land if required as part of the feral animal management program described in the section 6.13 *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.

6.12 Control of Exotic plant species (weeds)

The following weeds species are known to occur on the Land (see Management Map on page 27):

Issue	Comments <i>See map for recorded locations.</i>
Weeds:	Priority and management
Blackberry	High – present in scrub and on edges, target foliar spray asap, and follow up.
Gorse	High – present in scrub and on edges, present on property and coastal reserve, target foliar spray, leave to die in situ and follow up is required.
Ragwort	Medium – one plant noted during survey, remove by hand pulling when ground wet, bag and dispose carefully of all fertile material, can target spray rosettes in spring when they appear, annual monitoring required for ongoing control of this weed.
Sea spurge	High – present on coastal reserve, potentially high level of threat along tracks onto property, possible to control with diligent monitoring and hand pulling of individuals with gloves as sap is poisonous.
Spanish heath	Very high – few plants, highly invasive – very important to control as soon as possible with follow up, hand pull small plants, cut and paint larger plants, take care to bag, remove and dispose of any flowers or seed.
Thistles	Medium – scattered invasion, owners noticed increase since fire and are currently controlling them. Target with selective foliar herbicide.

- The Owner must control and (if possible) eradicate weed infestations on the Land.
- Those species considered a high priority (see table above) should be targeted first. As a general rule, control should start with any scattered infestations then progress to larger weed patches.
- Follow up spraying/control around 12 months after the infestation is initially sprayed is essential to control any regeneration.
- 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.
- The Owner must make regular inspections in and around the Domestic Zone and eradicate Exotic species (including species from mainland

Australia such as Cootamundra wattle) that have established outside of the designated garden areas.

6.13 Control of Exotic (feral) animal 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.

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

6.14 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.

6.15 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 and/or horses may enter upon the Part B Land for recreation but must not cause harm to Native animals or their habitat.

Authorisation: Companion dogs are permitted in the Domestic Zone but must be prevented from freely entering the rest of the Land.

- 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.
- Non-invasive Exotic species may be established in domestic gardens within the Domestic Zone only, though the Owner is encouraged to establish local Native species.

6.16 Native flora and fauna species

- Native plant species may be established in gardens within the Domestic Zone.
- 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).

Authorisation: The Land may be used by the Owner as a release site for rehabilitated Native fauna but only as part of a wildlife rehabilitation strategy approved by the Department's Wildlife Management Branch and only under the conditions outlined below:

- The release of rehabilitated animals should be in accordance with the Department's current policy; codes of practice and relevant legislation including rehabilitation permits issued pursuant to Wildlife Regulations 1999.
- Rehabilitated fauna must be released in accordance with the Department's current guidelines. The current guidelines are entitled: "general requirements for the care and rehabilitation of injured and orphaned wildlife in Tasmania" by Patsy Davies, Injured and Orphaned wildlife Program, Department of Primary Industries Parks Water and Environment (See Appendix).
- The release site will not become over populated.
- No wildlife should be released unless free from disease and displaying appropriate physical and psychological behavioural patterns.
- Releases into the wild must always be in the interest of the wildlife, the population and the ecosystem.
- The details of the process and facilities to be made available for the release of protected wildlife and the common wombat should be provided to the Wildlife Management Branch, DPIPWE prior to the release.

6.17 Natural flow of water

Authorisation: Minor interference with the natural flow of water is permitted where it is associated with existing and approved infrastructure and carriageways on the Land and dwellings and outbuildings within the Domestic Zone.

- 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.

6.18 Taking of water

- The taking of water from the Land is not permitted.
- Any changes to hydrology on the Land must not adversely affect the Natural Values.

6.19 Effluent and irrigation

Authorisation: The use of irrigation water is only authorised in the Domestic Zone (Part A Land).

- The use of irrigation water or effluent of any kind is prohibited on the Part B Land.
- Within the Part B Land, sewage systems must comply with Local Government standards and any effluent produced must not significantly impact on the values of the Part B Land or Part A 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.

6.20 Vehicle use and tracks

There are numerous vehicular carriageways (tracks) on the Land (see Management Map, page 27). The Owner may maintain existing tracks on the Land.

Authorisation: The Owner may establish an additional vehicular carriageway (track) for the purpose of establishing the access route within the Domestic Zone subject to:

- The Owner must consult with the Minister prior to construction of the vehicular carriageway to ensure the location will not affect the Natural Values of the Land and in particular the habitat of threatened species.

Authorisation: The Owner may construct walking tracks on the Land subject to the following:

- The Owner must consult with the Minister prior to construction of new walking tracks to ensure the location will not affect the Natural Values of the Land and particularly the habitat of threatened species.
- 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, to minimise the spread of pathogens or to reduce the risk of erosion (e.g. provision of minor drains, culverts, footbridges or duck boarding).

Authorisation: The Owner may introduce Foreign Materials (road base and gravel only) along existing and approved carriageways (vehicle and/or walking tracks) and Foreign Materials for the construction and maintenance of domestic gardens in the Domestic Zone, but only under the conditions listed below.

- Foreign Materials such as road base and gravel used to construct or maintain tracks, or soil and mulch for domestic gardens must be sourced from sites that are free of root-rot fungus, (*Phytophthora cinnamomi*). (Note: root-rot fungus is a plant pathogen that can devastate the ecology of many communities across Tasmania. This prescription will help prevent the introduction of the root-rot fungus into the habitat of susceptible species.)
- Vehicle use on the Part A Land must be confined to existing and approved vehicle tracks (see Management Map, page 27 for location of existing tracks) except for emergency situations (medical evacuations or bushfire) or to assist with the maintenance and construction of a dwelling, outbuildings, infrastructure, fences, carriageways or domestic gardens;
- Vehicle use on the Part B Land must be confined to existing vehicle tracks (see Management Map, page 27 for location of existing tracks) except for emergency situations (medical evacuations or bushfire) or to assist with the construction and maintenance of infrastructure, fences and carriageways and land management activities.
- Off road vehicle use on Part B Land for the purposes of construction and maintenance of infrastructure, fences and carriageways and for land management activities should only be undertaken in dry weather conditions and when the soil is dry. This prescription will assist in the management of root-rot fungus.
- 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 (especially areas with root rot fungus).

6.21 Recreational use

- Recreational activities that are not considered deleterious to the Natural Values (including bushwalking, bird watching) are permitted on the Land.
- No recreational activities (including but not confined to, trail bike riding, shooting which are or may be considered deleterious to the Natural Values are permitted on the Land unless approved by the Minister.

6.22 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.

6.23 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.

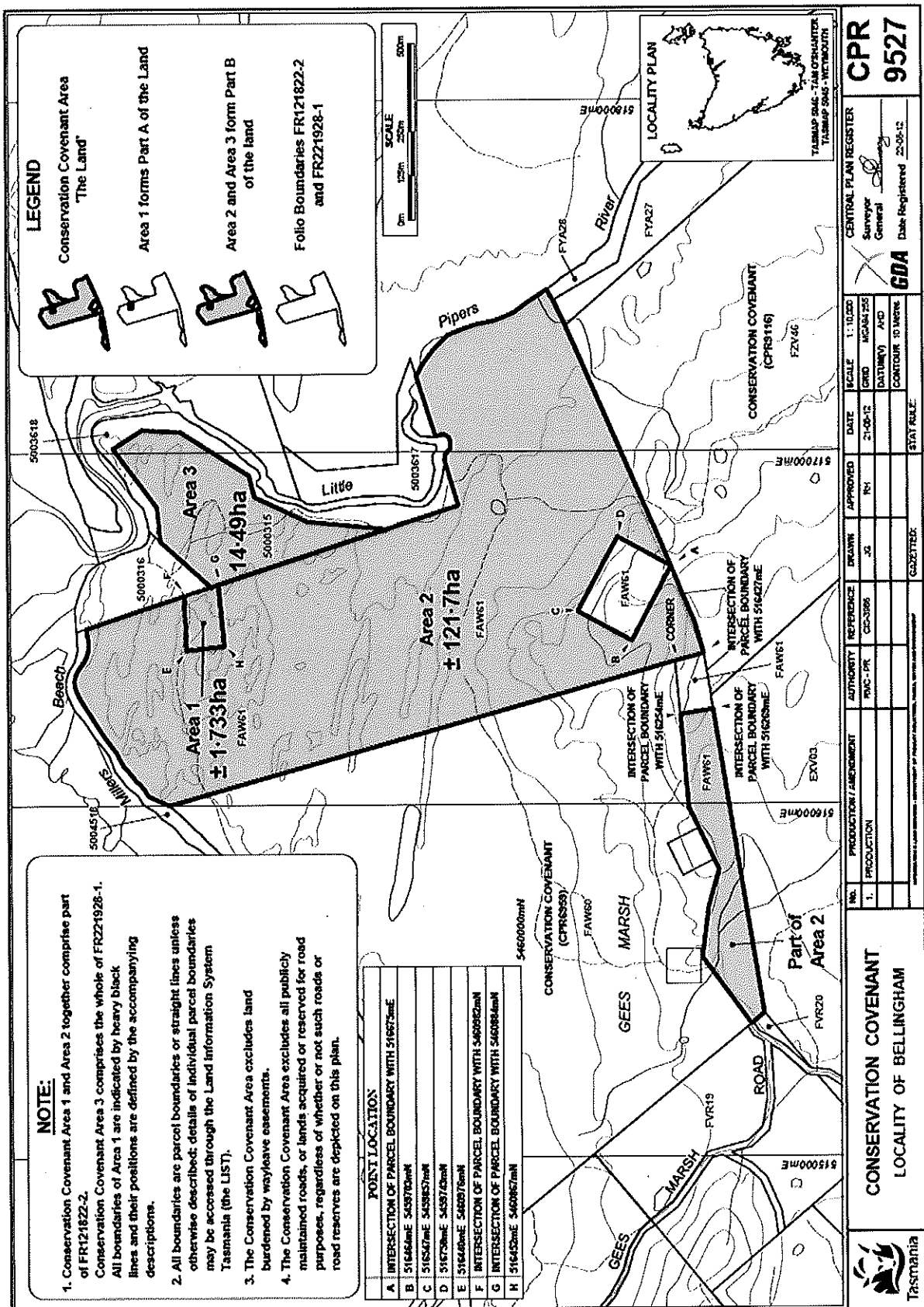
6.24 Additional Issues

Infrastructure:

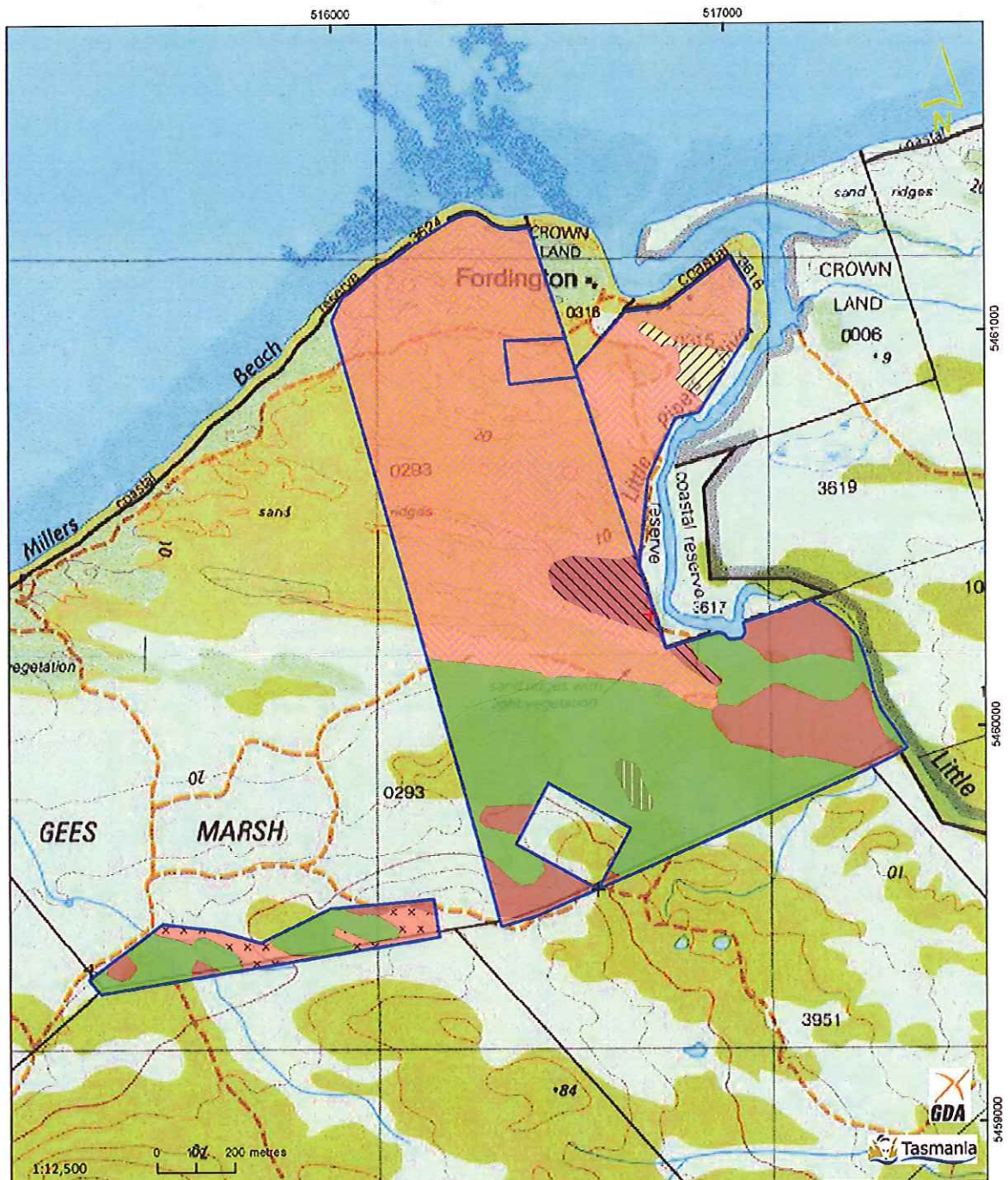
Authorisation: The Owner may construct and maintain fireplaces (see for locations see Management Map, page 27) and minor infrastructure (seats, table, signs) to support recreation on the Land but only under the conditions outlined below

- Infrastructure is to be located in areas that minimise the necessity for clearing of vegetation;
- Fireplaces to be used in periods of low fire danger only;
- This infrastructure is permitted on the Land where its establishment and use will not jeopardise the values for which the Land was established to protect.
- Deliberate vegetation clearance and soil disturbance should only be undertaken where essential for establishment and safe use of the infrastructure.
- Any tools and equipment used to clear or slash vegetation or for maintenance and construction of infrastructure must be free of the plant pathogen root-rot fungus (*Phytophthora cinnamomi*). Seek advice from the Department regarding suitable hygiene measures (see attached notesheet on *Phytophthora cinnamomi*).
- Following construction of approved infrastructure the site must be monitored to ensure weeds do not establish.

Land



Vegetation Map



Protected Areas on Private Land
Property: Gees Marsh Road Bellingham

Title Ref: 121822/2, 221928/1

Database ID: 13931 File No: 238059

Mapsheets: TAM O' SHANTER, 5046

Data Sources: LIST, DPIPWE
Tas Land Conservancy Inc.

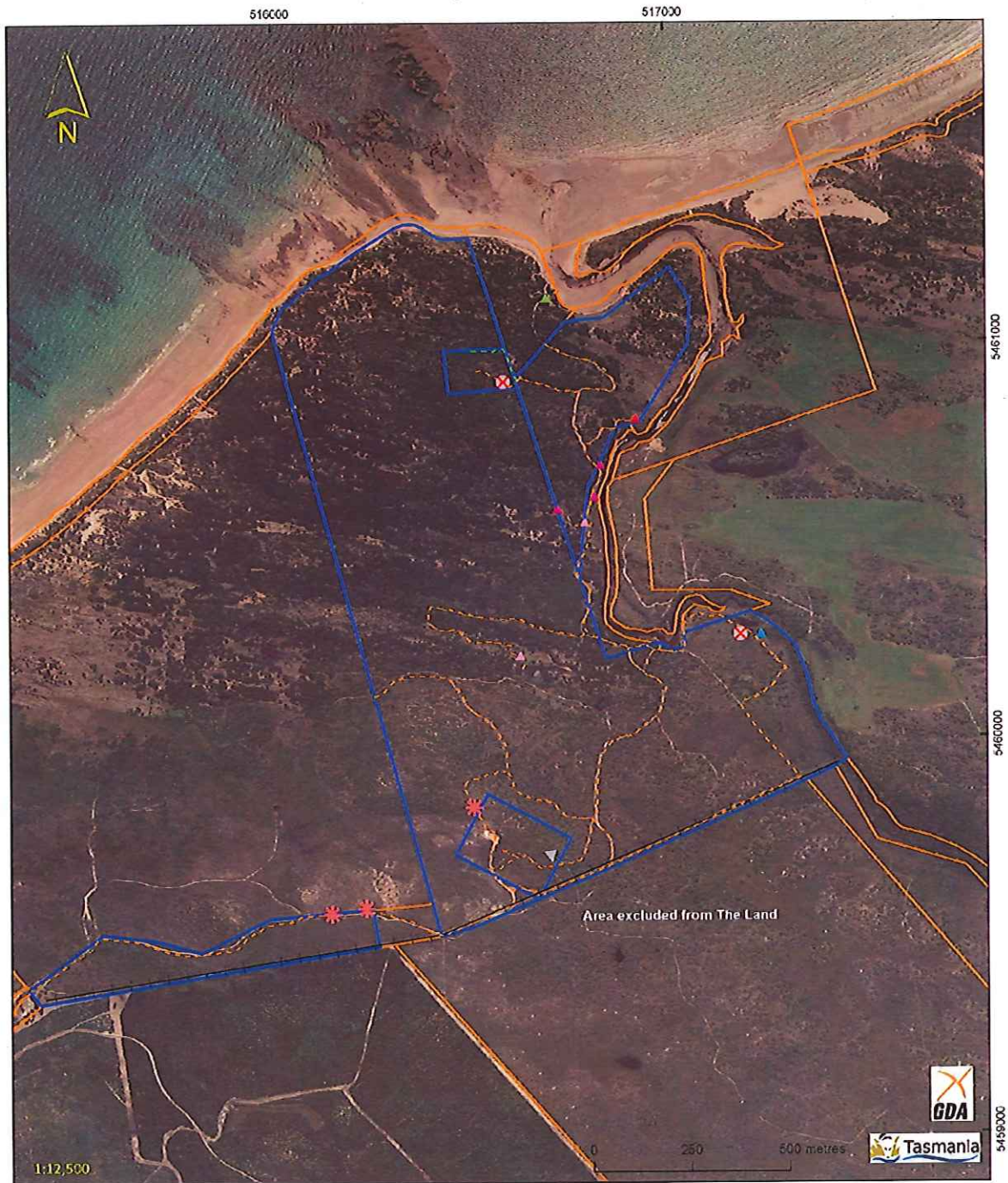
Map Date: 27/09/2012

map produced by the Private Land Conservation Program, DPIPWE

Vegetation & Threatened Species Map

- + *Acacia ulicifolia*
- + *Pultenaea mollis*
- The Land
- DAC *Eucalyptus amygdalina* coastal forest and woodland
- DOV *Eucalyptus ovata* forest and woodland
- SCH Coastal heathland
- SHW Wet heathland
- SMR *Melaleuca squarrosa* scrub
- SAC *Acacia longifolia* coastal scrub
- FRG Regenerating cleared land

Management Map



Protected Areas on Private Land

Management Map

Property: Gees Marsh Road Bellingham

Title Ref: 121822/2, 221928/1

Database ID: 13931 File No: 238059

Mapsheets: TAM O' SHANTER, 5046

Data Sources: LIST, DPIWE
Tas Land Conservancy Inc.

Map Date: 27/09/2012 Imagery: Orthophoto ILS 11/12/2005

map produced by the Private Land Conservation Program, DPIWE

- | | | | |
|-----|------------------------------------|-------|---------------|
| ✕ | Camp site with fireplace | weeds | |
| ✱ | Evidence of Phytophthora infection | ▲ | Blackberry |
| --- | existing vehicle track | ▲ | Gorse |
| --- | proposed track | ▲ | Sea spurge |
| + | existing fence | ▲ | Spanish heath |
| □ | The Land | ▲ | Thistles |
| □ | Title boundaries | | |

This Nature Conservation Plan has been signed as follows on the 28th of
November 2012

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



.....

SIGNED by BRIAN DAVID BOWRING)
being the current owner of the abovementioned)
property to indicate that the terms of this)
Nature Conservation Plan have been read,)
understood and accepted)



.....
Owner

SIGNED by HELEN ANN BOWRING)
being the current owner of the abovementioned)
property to indicate that the terms of this)
Nature Conservation Plan have been read,)
understood and accepted)



.....
Owner

Appendices and/or attachments

Species List - Vascular plants recorded during the survey April 2012

Notesheets :-

- Minimising the risk of introducing *Phytophthora cinnamomi* (root rot) disease into protected areas on private land
- General requirements for the care and rehabilitation of injured and orphaned wildlife in Tasmania
- Code of Practice for wildlife rehabilitators

Vascular plants recorded during the survey April 2012

Threatened species recorded on site (NVA January 2012) are highlighted in yellow

i - introduced

e - endemic

Family	Species name	Common name	Status
Dicotyledonae – broad leaf plants			
AIZOACEAE	<i>Tetragonia implexicoma</i>	bower spinach	
APIACEAE	<i>Xanthosia pilosa</i>	woolly crossherb	
ASTERACEAE	<i>Actites megalocarpa</i>	dune thistle	
	<i>Cassinia aculeata</i>	dollybush	
	<i>Cirsium vulgare</i>	spear thistle	i
	<i>Euchiton collinus</i>	common cottonleaf	
	<i>Hypochoeris radicata</i>	rough catsear	i
	<i>Senecio linearifolius</i>	common fireweed groundsel	
CASUARINACEAE	<i>Allocasuarina littoralis</i>	black sheoak	
	<i>Allocasuarina verticillata</i>	drooping sheoak	
	<i>Allocasuarina monilifera</i>	necklace sheoak	e
CHENOPODIACEAE	<i>Rhagodia candolleana</i>	coastal saltbush	
CONVOLVULACEAE	<i>Dichondra repens</i>	kidneyweed	
DILLENIACEAE	<i>Hibbertia procumbens</i>	spreading guineaflower	
	<i>Hibbertia prostrata</i>	prostrate guineaflower	
	<i>Hibbertia riparia</i>	erect guineaflower	
	<i>Hibbertia sericea</i>	silky guineaflower	
EPACRIDACEAE	<i>Acrotriche serrulata</i>	ants delight	
	<i>Astroloma humifusum</i>	native cranberry	
	<i>Epacris impressa</i>	common heath	
	<i>Leucopogon australis</i>	spike beardheath	
	<i>Leucopogon parviflorus</i>	coast beardheath	
	<i>Monotoca glauca</i>	goldey wood	
	<i>Sprengelia incarnata</i>	pink swamp heath	
ERICACEAE	<i>Erica lusitanica</i>	spanish heath	i
EUPHORBIACEAE	<i>Euphorbia paralias</i>	sea spurge	i
FABACEAE	<i>Aotus ericoides</i>	golden pea	
	<i>Bossiaea cinerea</i>	showy bossia	
	<i>Dillwynia glaberrima</i>	smooth parrotpea	
	<i>Goodia lotifolia</i>	smooth goldentip	
	<i>Kennedia prostrata</i>	running postman	
	<i>Platylobium triangulare</i>	arrow flatpea	
	<i>Pultenaea daphnoides</i>	heartleaf bushpea	
	<i>Pultenaea mollis</i>	soft bushpea	

Family	Species name	Common name	Status
	<i>Ulex europaeus</i>	gorse	i
GOODENIACEAE	<i>Goodenia lanata</i>	trailing native-primrose	
HALORAGACEAE	<i>Gonocarpus tetragynus</i>	common raspwort	
LAURACEAE	<i>Cassytha glabella</i>	slender dodderlaurel	
	<i>Cassytha melantha</i>	large dodderlaurel	
MIMOSACEAE	<i>Acacia dealbata</i>	silver wattle	
	<i>Acacia longifolia</i> subsp. <i>sophorae</i>	coast wattle	
	<i>Acacia melanoxylon</i>	blackwood	
	<i>Acacia myrtifolia</i>	redstem wattle	
	<i>Acacia suaveolens</i>	sweet wattle	
	<i>Acacia terminalis</i>	sunshine wattle	
	<i>Acacia ulicifolia</i>	juniper wattle	
MYRTACEAE	<i>Eucalyptus amygdalina</i>	black peppermint	e
	<i>Eucalyptus ovata</i>	black gum	
	<i>Eucalyptus viminalis</i>	white gum	
MYRTACEAE	<i>Leptospermum laevigatum</i>	coast teatree	
	<i>Leptospermum lanigerum</i>	woolly teatree	
	<i>Leptospermum scoparium</i>	common teatree	
	<i>Melaleuca ericifolia</i>	coast paperbark	
	<i>Melaleuca gibbosa</i>	slender honeymyrtle	
	<i>Melaleuca squamea</i>	swamp honeymyrtle	
	<i>Melaleuca squarrosa</i>	scented paperbark	
OXALIDACEAE	<i>Oxalis perennans</i>	grassland woodsorrel	
PITTOSPORACEAE	<i>Bursaria spinosa</i>	prickly box	
PROTEACEAE	<i>Banksia marginata</i>	silver banksia	
RANUNCULACEAE	<i>Clematis microphylla</i>	small-leaf clematis	
RHAMNACEAE	<i>Pomaderris pilifera</i>	hairy dogwood	
ROSACEAE	<i>Rubus fruticosus</i>	blackberry	i
SANTALACEAE	<i>Exocarpos cupressiformis</i>	common native-cherry	
	Monocotyledonae – narrow leaf plants		
CYPERACEAE	<i>Ficinia nodosa</i>	knobby clubsedge	
	<i>Lepidosperma concavum</i>	sand swordedge	
IRIDACEAE	<i>Diplarrena moraea</i>	white flag-iris	
JUNCACEAE	<i>Juncus kraussii</i>	sea rush	
JUNCACEAE	<i>Juncus pallidus</i>	pale rush	
LILIACEAE	<i>Chamaescilla corymbosa</i>	blue stars	
	<i>Dianella revoluta</i>	spreading flaxlily	
ORCHIDACEAE	<i>Sarcochilus australis</i>	gunns tree-orchid	

Family	Species name	Common name	Status
POACEAE	<i>Austrodanthonia</i> spp.	wallaby grass	
	<i>Distichlis distichophylla</i>	australian saltgrass	
	<i>Phragmites australis</i>	southern reed	
POACEAE	<i>Poa labillardierei</i>	silver tussockgrass	
	<i>Themeda triandra</i>	kangaroo grass	
RESTIONACEAE	<i>Empodisma minus</i>	spreading roperush	
	<i>Hypolaena fastigiata</i>	tassel roperush	
	<i>Leptocarpus tenax</i>	slender twinerush	
XANTHORRHOEACEAE	<i>Lomandra longifolia</i>	sagg	
	<i>Xanthorrhoea australis</i>	southern grasstree	
	Pteridophyta - ferns		
DENNSTAEDTIACEAE	<i>Pteridium esculentum</i>	bracken	
DRYOPTERIDACEAE	<i>Polystichum proliferum</i>	mother shieldfern	

Minimising the risk of introducing *Phytophthora cinnamomi* (root rot) disease into protected areas on private land

General information:

- *Phytophthora cinnamomi* (*Pc*) is an introduced plant pathogen (disease causing organism) that can cause disease and plant death in native Tasmanian vegetation.
- *Pc* requires warm moist soils if it is to reproduce and spread. This limits its distribution in Tasmania to areas that are generally below about 700 m in altitude.
- Its food source is the root and basal stem tissue of living plants. The fungus grows as microscopic sized filaments (mycelium) within susceptible host plants. The fungus consumes the host plant causing lesions (areas that appear rotten). This weakens or kills the plants by reducing or stopping the movement of water and nutrients within the plant.
- In Tasmania, *Pc* causes severe disease in the shrub and ground layers of the vegetation. It is considered to be a major threatening process which could lead to loss of plant diversity in Tasmania.
- *Pc* is not known to be a significant cause of disease in Eucalyptus species in Tasmania.

What are the signs?

Good indicators for recent or active *Pc* include:

- Death or disease in known susceptible species (note: not all individual plants will be attacked at the one time in a diseased area)
- Diseased plants show discolouration in the foliage, most commonly reds and yellows
- Known resistant species remain healthy
- There is a temporal sequence of disease (oldest death in the centre or towards the uphill end of infections on slopes)
- Sharp disease fronts or boundaries between healthy and diseased vegetation may be present

*Note. conclusive identification of *Pc* as the cause of disease requires analysis of soil or root samples in a laboratory.*

The susceptible species in Tasmania tend to come from the shrub and herbaceous families Dilleniaceae, Epacridaceae, Fabaceae, Proteaceae and Rutaceae. Resistant species generally belong to the grass and sedge families (though there are some notable exceptions). As a result, grasses or sedges become a more prominent component of the vegetation in *Pc* infested areas.

Guidelines to follow if *Pc* occurs on or near to a protected area (or if susceptible vegetation communities or threatened plant species are present):

Note. Any actions must be consistent with the terms of covenant and authorisations provided in the Nature Conservation Plan for the protected area. If in doubt, or if you have any questions, please contact your Stewardship Officer.

- Existing tracks that go through or close to *Pc* infected areas should (if possible) be closed, rerouted or hardened.
- No carriageways (roads or walking tracks) through or near to *Pc* infected areas should be constructed. If such a carriageway is required and has been authorised, contact your Stewardship Officer for advice.
- No vehicle access should be permitted through or near to *Pc* infected areas, unless unavoidable (e.g. emergency or safety situations).
- If accessing the protected area by vehicle (and if feasible), wash down vehicles (including underside of vehicle and tyres) to remove any soil before travelling through the protected area. Vehicles should be washed in an area where potentially infected soil does not contaminate the environment (e.g. car wash).
- Check boots, gaiters and equipment (etc) and remove any soil before entering the protected area.
- Source any materials (e.g. soil, gravel) to be used in works in the protected area from *Pc*-free stock
- Time management activities in the protected area to reduce the risk of *Pc* introduction (e.g. avoid wet weather)
- If essential management activities need to be undertaken in or near to a *Pc* infected area, any vehicles, footwear or equipment (etc) going into the area should be sprayed with disinfectant (such as Phytoclean) solution following wash down. The disinfectant should be left on for at least 5 minutes, and whenever possible, the disinfectant should be left to dry on the equipment (etc) to increase contact time and effectiveness.

For further information:

Further information on the biology, identification, susceptible and resistant species, impact, distribution and management of phytophthora is available on the Department's website:
www.dpipwe.tas.gov.au/inter.nsf/ThemeNodes/EGIL-53Y2ZC?open

Forest Practices Authority 2009, 'Management of *Phytophthora cinnamomi* in production forests', *Flora Technical Note No. 8*, Forest Practices Authority, Hobart.
www.fpa.tas.gov.au/fileadmin/user_upload/PDFs/Botany/Flora_Tech_Note_8_phytophthora_V_1_Nov_2006.pdf

**GENERAL REQUIREMENTS FOR
THE CARE AND REHABILITATION OF INJURED AND
ORPHANED WILDLIFE IN TASMANIA**

September 2005



**Patsy Davies
Injured and Orphaned Wildlife Program
Department of Primary Industries and Water**

INTRODUCTION

An ethical and legal obligation exists to assist wild animals found orphaned, injured, in pain or distress. The requirements laid down in this document provide for the welfare of injured and orphaned wildlife held by wildlife care volunteers pending the animal's release to the wild. They are based on knowledge of the biology, medicine, behaviour and the natural history of the animals concerned. The information is relevant to all people who rehabilitate wildlife, regardless of numbers and types of wildlife cared for or the location of the activity.

This document should be used as an initial foundation, as we learn more about enclosure sizes and materials, nutrition, species behaviour, wildlife medicine and other aspects of wildlife rehabilitation, methods will continually advance. Wildlife care volunteers are encouraged to constantly review and improve upon these general requirements as they strive to provide the best possible care. Future editions will reflect any advances as the field of wildlife rehabilitation grows and improves.

Rescue techniques have not been included in this document and will be addressed separately at a later time.



CODE OF ETHICS

A wildlife care volunteer should strive to achieve high standards of animal care through knowledge and an understanding of the biology of the animals in their care. Continuing efforts must be made to keep informed of advances in rehabilitation methods. Resources available include; species standards, current wildlife publications, wildlife veterinarians, wildlife authority's scientific staff, experienced mentors and personal experience, along with common sense and good judgement to make the best decisions for an individual animal.

A wildlife care volunteer should be aware of the responsibilities and demands that form part of this activity and should continually work toward improving the quality of care offered to native species undergoing rehabilitation.

A wildlife care volunteer must abide by any State or Commonwealth laws concerning wildlife, wildlife rehabilitation and associated activities.

A wildlife care volunteer should offer a high standard of care irrespective of species or the circumstance from which it came.

A wildlife care volunteer should seek assistance from a veterinarian, departmental officer or experienced wildlife care volunteer when appropriate.

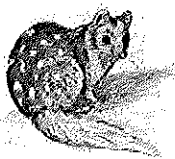
A wildlife care volunteer should respect other rehabilitators and persons in related fields, sharing skills and knowledge in the spirit of cooperation for the welfare of the animals.

A wildlife care volunteer should place optimum animal care above personal gain.

A wildlife care volunteer should strive to provide professional and humane care in all phases of wildlife rehabilitation.

A wildlife care volunteer should encourage community support, with the common goal of promoting a responsible concern for the welfare of wildlife and the environment.

A wildlife care volunteer should conduct their activities in a professional manner, with honesty, integrity, compassion and commitment, realising that an individual's conduct reflects on the entire field of wildlife rehabilitation.



DISPLAY

In general, wildlife under rehabilitation is not suitable for public display and may compromise the animal's well being. However, it is recognised that media access may in some cases encourage interest in native animals and their rehabilitation. Media access and displays should be conducted only at an appropriate time in the rehabilitation process and each case should be carefully considered.

Display of wildlife requires a permit to be issued with conditions including:

- the animal is to be held only by an experienced wildlife care volunteer or departmental officer in a manner that does not cause the wildlife undue discomfort, distress or physical harm.
- a secure enclosure for the confinement of the animal must be provided;
- the animal must not be released or allowed to escape;
- animals that are diseased or suffering from any wound are not to be displayed;
- the animal is not to be handled by the public;
- the animal is not to be subjected to actions that will cause it stress;
- the animal be withdrawn from public display if exhibiting signs of stress;
- the animal must be provided with adequate food and water;
- whilst the animal is being transported:
 - is not subject to excessive noise, exhaust fumes, heat or cold;
 - is provided with adequate ventilation;
- while the animal is not on display, it is to be kept in an appropriate enclosure that allows sufficient space for movement;
- any directions given by an authorised officer are complied with;
- appropriate public liability insurance must be held by a person conducting a public display of wildlife.

Where there is access to media opportunities it should be to promote:

- Conservation of a species and their habitat;
- Public awareness and consideration for the welfare of native animals.



VETERINARY CARE

Wildlife care volunteers should only administer first aid. Non veterinarians are precluded from practising veterinary surgery, veterinary procedures or administering restricted drugs without consultation. In cases where the veterinarian cannot examine the animal directly, every effort should be made to seek verbal veterinary advice before administering any advanced treatment or alternative therapies.

EUTHANASIA

Where euthanasia is indicated, barbiturate overdose is the preferred option, and must only be administered by a veterinarian. In extreme circumstances where a wildlife care volunteer is required to perform emergency euthanasia, a method appropriate for the species and circumstance should be employed to ensure minimum pain and suffering. Where the wildlife care volunteer is not familiar with suitable euthanasia techniques, every effort should be made to obtain expert advice from a veterinarian, experienced wildlife care volunteer or departmental officer.

Due to the risk of secondary poisoning, animals that have been euthanased by barbiturate overdose must not be fed to other animals. Advice should be sought from a veterinarian on safe disposal methods.



CASE ASSESSMENT

Initially, animals are frightened, stressed, disorientated, may be sick, injured or in pain. Catching and handling wildlife should be done quickly and expertly to avoid further stress and injury.

Once collected, the animal must be stabilised by first aid and then assessed accurately and swiftly to establish:

- identity of the species;
- viability of pouch young;
- degree of dehydration;
- overall body condition;
- presence of chronic, acute or infectious disease;
- severity of injury;
- prognosis and long term prospects for release;
- skill level required for ongoing care/treatment;
- requirement for consultation with departmental officers.

Wildlife care volunteers in the early learning stages of wildlife care, or any other wildlife care volunteer requiring assistance with case assessment, should contact a veterinarian, an experienced wildlife care volunteer or departmental officer.

- An animal suffering from extreme pain, trauma or disease that cannot be treated, must be promptly and humanely euthanased.
- An animal requiring extended treatment or major surgery with the likelihood of not recovering sufficiently to return to the wild or enjoy good quality of life should be humanely euthanased.
- Conditions that could exclude an animal from release are:
 - loss of limb or part thereof, including tails and wings;
 - loss of use of limb or part thereof;
 - dislocation of limb;
 - loss of hearing, sight or smell;
 - incurable infectious disease;
 - permanent damage to nervous system;
 - acute or chronic ill health;
 - imprinted behaviour;
 - jaw, tooth or beak damage;
 - inability to self feed;



ZOONOSES

All animal species can harbour infectious organisms which have the potential to cause disease in humans; diseases passed from animal to man are termed 'zoonotic'. It is important to realise that often such infections have no effect on their animal host, but can produce a serious zoonosis in humans. If a zoonotic disease is suspected, contact your medical practitioner as soon as possible for diagnosis and appropriate treatment. The range of zoonotic disease is not limited to the examples listed below.

Bat Lyssavirus – is a virus that is related to rabies. In Australia, the virus is carried by bats and is spread via saliva of infected animals to people through bites or scratches. Biting or scratching can transfer the virus into an exposed part of the body. Even though there have only been two cases of human infection recorded in Australia, both in Queensland, there is a requirement to report all incidents of bat bites to the Department of Public Health, freecall 1800 671 738.

Scabies – Sarcoptic mange is caused by a mite known as *Sarcoptes scabiei*, which burrows into the skin of mammalian hosts, such as wombats, koalas, brushtail possums, dogs, and humans. However, it is the major infectious disease known in wombats. The disease is transmitted to humans through unprotected handling and is most commonly seen on the torso and arms, but can readily spread to other parts of the body.

Psittacosis - also termed ornithosis or parrot fever, is an infectious form of pneumonia caused by the bacterium *Chlamydia psittaci*. The disease is transmitted by various species of the birds that harbour the bacteria in their body cells. When transmitted to humans, psittacosis can produce an infection without symptoms, a mild influenza-like illness, or a serious form of pneumonia. Psittacosis is usually acquired by breathing the dust from feathers or dried excreta of infected birds.

Rickettsial Spotted Fever - some zoonoses are spread by biting insects, ticks etc. These are referred to as arthropod-borne zoonoses. One such disease is Rickettsial Spotted Fever, also known as Tick Bite Fever, or Flinders Island Spotted Fever. This disease tends to occur in summer and autumn, when ticks are active. Symptoms include fever, headache, fatigue, skin rashes and joint pains. Infection is through exposure to "scrub ticks". Avoid sitting or lying on forest floors, especially during the warmer months. If exposed to a tick-prone environment check yourself nightly for ticks, both adult and larval.

Ringworm - Ringworm is a term used to encompass a range of fungal skin infections of animals and man. Ringworm is highly contagious and can be caught from any person or animal that has been infected. Skin lesions can appear as circular areas of hair loss anywhere on the body. If ringworm is suspected, prompt diagnosis and treatment should be sought.

Care should be taken to reduce the risk of zoonotic disease not only when handling animals, but also animal products, such as blood and excreta.

Disease can spread to humans by inhalation of infective dust or droplets, by ingestion, by contaminated food or water; or by penetration of skin by bites; or absorption through mucous membranes and uncovered cuts and abrasions.

There are some common sense steps that can be taken to lessen the risk of infection in general. Attention to personal hygiene which includes, not eating, drinking, smoking, applying sun screen, make up, or contact lenses around animals. Always wash hands thoroughly before and after contact with animals. The use of face masks, especially when cleaning aviaries, can reduce the risk of inhalation of infective dust.



NUTRITION

Nutrition must be provided that is suitable for the species and the its stage of development. Special diets may be required for convalescing animals, but the species natural diet should always form part of any feeding regime. Natural feeding behaviours must be allowed and encouraged as the animal's reliance on these skills are paramount for long term survival once released back into the wild.

- Infant mammals must be offered appropriate milk replacement formulas and must not be weaned prematurely.
- Infant marsupials must not be fed cows milk
- Supplementary food must be of high quality and any vegetation must be offered in a fresh condition.
- Dry foods must be placed in containers in a position suitable for the species and should never be fed directly from the ground.
- Food containers must be placed in suitable areas that are sheltered from sun and rain.
- Grains, pellets and milk formulas must be kept dry, and held in suitable storage containers to avoid contamination.
- Hay and straw should not be stored directly on the ground and must be kept dry and free of contaminates and pests.
- Clean freshwater must be available ad libitum.
- Sufficient feeding sites must be provided to cater for all wildlife held in an enclosure.



ENCLOSURES

Wildlife care volunteers should provide enclosures of appropriate size and containing suitable habitat for all stages of the species that they commonly treat. An understanding of a species behaviour and natural history allows proper choices to be made when providing suitable enclosures and habitat.

Assigning enclosures strictly by species may not always be realistic; many indoor and outdoor enclosures can be modified for multispecies use, but enclosures must be able to be adequately disinfected and adapted to meet the standard required for the species.

Alternative techniques for housing can be considered for special need individuals, so long as basic comfort, movement and hygiene needs are met. These areas should allow recovering animals the prescribed amount of self-imposed activity or supervised/forced activity to regain fitness and good health.

There are many ways of providing adequate and appropriate housing without huge expense; for example, enclosures can be constructed using recycled materials.

These general requirements do not provide for animals being kept beyond the normal scope of wildlife rehabilitation. Wildlife that is kept for education, display or captive breeding has different housing requirements. Those specific needs are not addressed in this document.

Indoor Enclosures

Minimising stress experienced by animals in rehabilitation is a key factor in the design of indoor enclosures. All indoor enclosures should be placed in an area that is quiet with minimal visual stimuli, away from high traffic areas and human activity.

- Enclosures must provide adequate ventilation to maintain the health of the animal and be designed to minimise drafts, odours and condensation.
- Indoor enclosures should not be subject to severe climatic change and should be kept away from direct sunlight.
- The design of indoor enclosures must be species specific and individual species standards must be adhered to if these are in place.
- Heating may need to be provided for some species and any installation must not endanger the animal nor should it be able to be damaged by the animal.
- Heat pads, hospital boxes or any other form of electrical heat source as well as adaptors and extension leads, should only be used if the product has been approved by and meets the Australian Standard.



Outdoor Enclosure Construction (Cont.)

- Predator and prey species should not be placed in adjacent enclosures.
- Enclosures must be of a design that excludes predators.
- Enclosure entrances must be easily accessible to allow servicing and maintenance.
- Entrance doors must be fitted with a secure closing device.
- Heating may need to be provided for some species and any installation must not endanger the animal nor should it be able to be damaged by the animal.
- Heat pads, hospital boxes or any other form of electrical heat source as well as adaptors and extension leads, should only be used if the product has been approved by and meets the Australian Standard and is safe for outdoor use.



RELEASE

Releasing wildlife is the most difficult part of the rehabilitation process but should be considered the most important. Release options and procedures should be of the highest priority and taken into consideration at the time of acquisition of any wildlife.

Return to the wild must be a considered, prepared release for the animal, not abandonment.

Prior to releasing back into the wild, animals must have been maintained in an environment closely resembling natural habitat conditions. They must have access to natural social structures, species specific behavioural patterns and natural feeding regimes.

An overall assessment of every animal and the intended release site should be carried out prior to any wildlife being placed back into the wild and should include the following considerations:

The Animal

- must be independent of its *natural* mother;
- must be healthy and be of normal body weight;
- must have been held in a large enough area to exercise appropriately;
- must have been held in habitat as close as possible to the wild;
- must have been able to dig, graze or browse, as it would in the wild;
- must be weaned off all unnatural foodstuffs. (The animal's digestive system must adjust to the more fibrous content of a natural diet to avoid digestive problems after release.)
- should not be familiar with family pets;
- should be independent of the carer, except for the supply of nutrition;
- if a social species, should be socialised prior to release;
- must be housed outdoors 24 hours a day;
- must be disease free.
- must be released prior to sexual maturity.



LEGISLATIVE REQUIREMENTS

Wildlife care volunteers require a possession or rehabilitation permit for any animal listed as specially protected or protected wildlife under the *Wildlife Regulations 1999*, as well as the partly protected Common Wombat (*Vombatus ursinus*).

- Conditions on rehabilitation permits include:
 - In the event of the death of any of the wildlife specified on the permit the Secretary should be advised within seven (7) days;
 - The Secretary must be notified prior to the intended release of any wildlife referred to on the permit.
 - Transfer of possession or offering to transfer, sell, exchange, or dispose of in any way, the wildlife specified on the permit is prohibited.
- Rehabilitation of animals listed under the *Threatened Species Protection Act 1995* requires prior approval from the Threatened Species Unit, Wildlife Management Branch, Department of Primary Industries and Water. Notification of possession on any of these species through injury or becoming orphaned is required at the earliest opportunity on the first day of business after receiving the animal. Information on species listed under this Act can be accessed via the DPIW website www.dpiw.tas.gov.au
- An authorised officer may, at any reasonable time inspect facilities and records to ensure that wildlife are properly maintained. Random checks may also occur.

WEBSITES

- **Tasmanian legislation:** www.thelaw.tas.gov.au
- **Department of Primary Industries and Water:**
www.dpiw.tas.gov.au, click on 'Natural Environment'
- **Parks and Wildlife Service:** www.parks.tas.gov.au



CODE OF PRACTICE FOR WILDLIFE REHABILITATORS

What the Code of Practice is

The Code is a document that aims to stimulate soul-searching by people wishing to rehabilitate wildlife. The Code intends to highlight the best interests of the animal and encourage people to deal with them in a way conducive to their return to the wild. It is not intended to overly restrict peoples access to and enjoyment of wildlife beyond what is consistent with the above. The public is an extremely valuable resource in the conservation of wildlife and that includes rescue and rehabilitation.

The Need for the Code

The need has arisen from repeated examples of wildlife being rescued in the best of faith but because of inappropriate treatment being unable to be released. That is, rescued animals have been made into pets, sometimes socially crippled by their dependency on humans. All too often the best interests of the animal are twisted into the best interests of the so-called rehabilitators. It is obvious that certain domestic contact with wildlife is not in the best interest of rehabilitation. Common examples of this involve Wombats and Forester Kangaroos (Eastern Grey Kangaroos) which have been genuinely rescued, but only lip service paid to rehabilitation and the animals become pets. If the spirit of the Code were followed this would not happen. Wildlife must be kept in conditions as natural as possible. With social species this may mean some social contact with others of the same species. Although marsupials may need intensive, 'hands on' care for considerable periods; the weaning process should be applied to social as well as nutritional factors.

Ultimately, animal welfare legislation exists which allows the removal of cruelly treated animals but this does not encompass inappropriate treatment; hence the need for the Code.

The Use of the Code

Current Department policy is that permits for rehabilitation of protected wildlife are temporary and issued on condition that rehabilitation is undertaken. Treatment that is not in the best interests of rehabilitation can result in cancellation of the permit and confiscation of the animal. We wish to use the Code as education and an explanation of this policy and its adoption should eliminate the need for such drastic action. It is intended that before rehabilitation permits for protected wildlife are issued the Department will require that the applicant agrees to abide by the Code.

However, most wildlife rehabilitation concerns species for which a permit is not needed but for which the same standards of rehabilitation are required. Obviously, it would be best if people rehabilitating this wildlife also agreed to abide by the Code. So, to be realistic, adherence to the Code can only be voluntary. Hopefully, peoples' ethics and goodwill can work well enough.

Decisions to be Made

It is important to distinguish wildlife *rescue* from wildlife *rehabilitation*.

Wildlife *rescuers* can be anyone helping distressed wildlife. The law accepts that anyone may find themselves in this position and accepts acts of good faith. In fact, the law requires that some effort should be made to relieve the suffering. Nobody who genuinely rescues wildlife and then makes the proper contacts for veterinary advice has run foul of the law.

Wildlife *rehabilitators* are those who aim to place the wildlife back in the wild with a chance of survival comparable to what it would have had in nature.

People who rehabilitate wildlife will often be called on to also rescue wildlife so it is best to consider the wider issues.

The main concern during the rescue of an animal is to minimise any additional distress experienced by the animal. Once the animal has been captured, urgency diminishes and considered decisions for its future must be made. Options at this point are as follows:

- immediate relocation/release
- euthanasia
- retain the animal with the intention of rehabilitation
- retain the animal without intention of rehabilitation

Except in cases of obvious great pain which cannot be quickly relieved euthanasia is rarely immediately necessary. Veterinarians, the police or wildlife authorities are an obvious choice for helping with euthanasia. However, transport to a vet may bring considerable additional pain and at times it may be best to be decisive and do it 'on the spot'. In these circumstances extreme trauma, such as by a very heavy blow to the head, is often the most humane method, even if distasteful to those present.

If protected wildlife is euthanased it is best to notify wildlife authorities as soon as possible. This at least gives the option of use of the specimen for scientific or education purposes. It may also circumvent misunderstandings generated by second-hand reports.

The next decision regards veterinary attention. This must be sought whenever possible even when experienced rescuers/rehabilitators are available. Veterinarians have their own Code of Practice and they should give at least emergency treatment or advice. Modern veterinary techniques mean many problems, which were previously untreatable, can nowadays be successfully dealt with. Once initial assessment/treatment has been carried out wildlife authorities must be contacted for permit issue if possession of the wildlife species requires such. Check with them.

Following initial treatment, a decision must be made on how the animal's husbandry should be organised to suit rehabilitation.

As soon as possible, a decision must be made as to whether the animal can be rehabilitated or not. This will largely depend on the original cause of distress and the type of animal concerned; an active predator such as a bat obviously needs to reach a higher standard than might a brush possum but the differences are not as great as many people believe. A prognosis can be made for most cases (e.g. orphans) at the time of initial treatment. However, for other cases (e.g. a bone break) there may be a 'wait and see' period. Once a decision has been made on the long-term future of the animal other decisions regarding husbandry naturally follow.

Communication and Records

It is important that the opinions of people who have previously dealt successfully with related wildlife problems be consulted. These may be veterinarians, wildlife authorities, wildlife rehabilitators, zoos or wildlife parks. Usually wildlife authorities (Nature Conservation Branch within the Department of Primary Industries Water & Environment or the Parks and Wildlife Service,) have the widest range of experience and contacts. Use them.

Keep a comprehensive diary and photo album. This helps you and others to learn and reduces mistakes and misunderstandings.

Protected wildlife that cannot be released will probably be dealt with directly by wildlife authorities. Only very rarely are permits given to private persons to keep such animals as pets.

Responsibility

The decision to rehabilitate an animal involves much responsibility. A Carer will have a great effect on the animal's chance of survival. It is vital to seek help if all is not well and to communicate with others to share successful techniques. Stress related to captivity can dramatically change metabolism, immunity, fitness and accident rates.

Carers will also be responsible for the safety of wildlife under their care. Contact with animals and objects that, if too familiar, could be dangerous once the wildlife is again in the wild should be minimised. This, of course, means people, pets and vehicles.

Most rescued wildlife can be rehabilitated with very little contact with people. People must sacrifice some enjoyment of contact for satisfaction of an animal well rehabilitated. A very tame animal has little future in most parts of Tasmania.

Simply put - if you are not prepared to put the interests of the animal first (or equal first) you probably should not be rehabilitating wildlife.

Wildlife as Pets

In recent years there have been suggestions that more wildlife should be allowed as pets, partly to replace dogs and cats. Many issues are involved, not the least the suitability of the native species as pets. Our traditional pets and livestock are social species that we can manipulate behaviorally to slot into our own systems. Even cats are manipulated to be social by petting and feeding which keeps them in their kitten stage. Only one Tasmanian land mammal, the Forester Kangaroo, is social and large individuals can be dangerous and they cannot be controlled by voice and action, as can dogs. Consider the problems we still have with dogs despite thousands of years of selective breeding.

It has been argued that native carnivores (usually the Eastern Quoll) are suitable for replacing cats. However quolls are nowhere as easily controlled, are strictly nocturnal and usually only live in captivity for 3 to 4 years, much less than cats. No Tasmanian wildlife is compatible with dogs and cats as a whole, so their adoption as pets would have to be preceded by removal of dogs and cats. No one can see this happening.

Without question the removal of cats would have great benefits for Tasmanian wildlife. However, we believe they would be best replaced by one or more of the many breeds of dog. At least they can be better controlled.

Experience with other wildlife has shown that once a pet trade is established depletion of wild stock is an inevitable consequence. Most wildlife has enough problems already.

Although there are some positive arguments for increasing the availability of wildlife as pets we believe it is unnecessary and would only result in a net increase in pressure on their wild populations. Far better to enjoy wild animals and cater to people's desires for close contact by responsible wildlife rehabilitation.

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