

# **Environment and Heritage Design and Construction Standard**

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## Authorisations

Action	Name and title	Date
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Review cycle	2.5 Years	

## Document control

Date	Version	Description	Author	Approved by
15/02/2016	1	Original Version	Dr Josie Kelman	Chris Arnold
30/09/2016	2	Refer to Record of revisions	Frank Pontes	Chris Arnold

## Record of revisions

Section number	Details
1 and 2	Updated nomenclature to include Commercial and Industrial subdivisions

## Responsibilities

This document is the responsibility of the HSEQ Team, Tasmanian Networks Pty Ltd, ABN 24 167 357 299 (hereafter referred to as "TasNetworks").

Please contact the HSEQ Team with any queries or suggestions.

- Implementation All TasNetworks staff and contractors.
- Compliance All group managers.

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## 1 Purpose

The purpose of this standard is to define the environmental requirements for design and construction in Underground Developments (UD). The standard describes TasNetworks' expectations and requirements in relation to environmental due diligence in design and construction for UD Subdivisions, as reflected through its legislative and regulatory obligations and strategic plans.

## 2 Scope

This document covers the environmental requirements for Developers and/or Accredited Electrical Constructors of Underground Developments in the design and construction of infrastructure.

## 3 Standard objectives

The environmental management standard objectives focus on:

- a) Zero Harm is the guiding principal for TasNetworks and is the primary objective of this standard. This can be achieved by minimising our effects on the environment by considering potential for impact on natural and cultural values in both design and construction phases of any new development or change in the footprint of a development.
- b) Achieving Environmental Due Diligence through a rigorous documentation process.
- c) Careful planning and site selection to avoid any risk of environmental harm through spillage of hazardous substances from assets and where risk exist, additional prevention measures are integrated into design and construction.
- d) Prevention of erosion and sedimentation in waterways and amelioration measures where required.
- e) Identification of Natural Values in design phases to ensure compliance and reduce risk of harm and amelioration measures where required.
- f) Identification of Aboriginal and Cultural Heritage at the design phase and careful mitigation measures to ensure the content and value of heritage is maintained if and where required.
- g) Mitigation to be implemented in accordance with the hierarchy of control. That is, elimination of the risk through the design process is always preferable.

## 4 General

The nature and extent of environmental effects will differ according to the type and scale of community infrastructure, whether it is linear or located on a single site, the surrounding land uses and the sensitivity or hazardous nature of the natural environment. The extent and complexity of the environmental assessment will also vary in response. This standard provides a minimum requirement and does not comprehensively address all potential options.

## 5 Responsibilities

It is the responsibility of the Developer and the Accredited Electrical Constructors to ensure that environmental due diligence is followed and all reasonable efforts are made to minimise impacts to the environment.

## 6 Key Pieces of Legislation

There are a number of key pieces of environmental legislation which may affect infrastructure development and will need to be considered in design and construction. Refer to Appendix I for more information. This information is provided as a guide and should not be taken as legal advice, nor should it be considered to be entirely comprehensive. It is assumed that all proper and appropriate approvals will be acquired by the Developer.

The following legislation must be considered in any electrical infrastructure development:

**\*more detail in APPENDIX 1**

*Environmental Management and Pollution Control Act 1994*

*Water Quality Management Act 1997*

*Forest Practices Act 1985*

*Historic Cultural Heritage Act 1995 and Aboriginal Relics Act 1975*

*Land Use Planning and Approvals Act 1993*

*Environment Protection and Biodiversity Conservation Act 1999*

*Nature Conservation Act 2002*

*Threatened Species Act 1995*

*Weed Management Act 1999*

*Crown Lands Act 1976*

*National Parks and Reserves Management Act 2002*

*Wellington Park Act 1999*

## 7 Environmental documentation

It is important to be able to demonstrate environmental due diligence. This requires adequate investigation in to the presence of environmental and heritage considerations. It also requires clear documentation of the investigation process and any environmental considerations that are incorporated into design or control mechanisms developed for the construction phase.

## 8 Methodology for Environment and Heritage Assessments

The following section outlines the requirements on any assessment of a site's natural and heritage Values. This must be considered at the design phase to allow for minimisation of environmental disturbance. A site description must include an Environment and Heritage Assessment. The Environment and Heritage Assessment must provide information and evidence of the process of site description and where the information was sourced to develop a comprehensive site description. For example an assessment of the natural values such as threatened species and communities would need to be evidenced by an accompanying Natural Values Report from the DPIPWE website.

Tools for making desktop site assessment are:

The Land Information System Tasmania (LIST) Map available at:

<http://maps.thelist.tas.gov.au/listmap/app/list/map>;

The Natural Values Atlas (NVA and associated reports available at:

<https://www.naturalvaluesatlas.tas.gov.au/#HomePage>;

Aboriginal Heritage Tasmanian (AHT) Desktop Assessment form available at:

<http://www.aboriginalheritage.tas.gov.au/forms-and-documents>;

The Tasmanian Heritage Register. (THR) available at: <http://www.heritage.tas.gov.au/thr.html>;

### 8.1 Requirements

The following series of questions are mandatory considerations to be included in the site description. Responses to the questions will support the decision of whether an on-ground Environmental Impact Assessment (EIA) is required. If the answer is yes to any of the following questions an on-ground EIA will be required unless the risk can be fully mitigated through the effective implementation of simple control measures. For example, altering the design to avoid clearing vegetation (elimination). In order to follow due diligence, evidence of how the decision was reached is required. A template of a site description is available in Appendix II which can form the basis of this.

In an instance where an EIA is required it must be undertaken by an appropriately qualified individual. To ensure best practice in the assessment of natural values the DPIPWE Guidelines for Natural Values Surveys - Terrestrial Development Proposals should be followed

(<http://dpiipwe.tas.gov.au/Documents/Guidelines-for-Natural-Values-Assessments.pdf>).

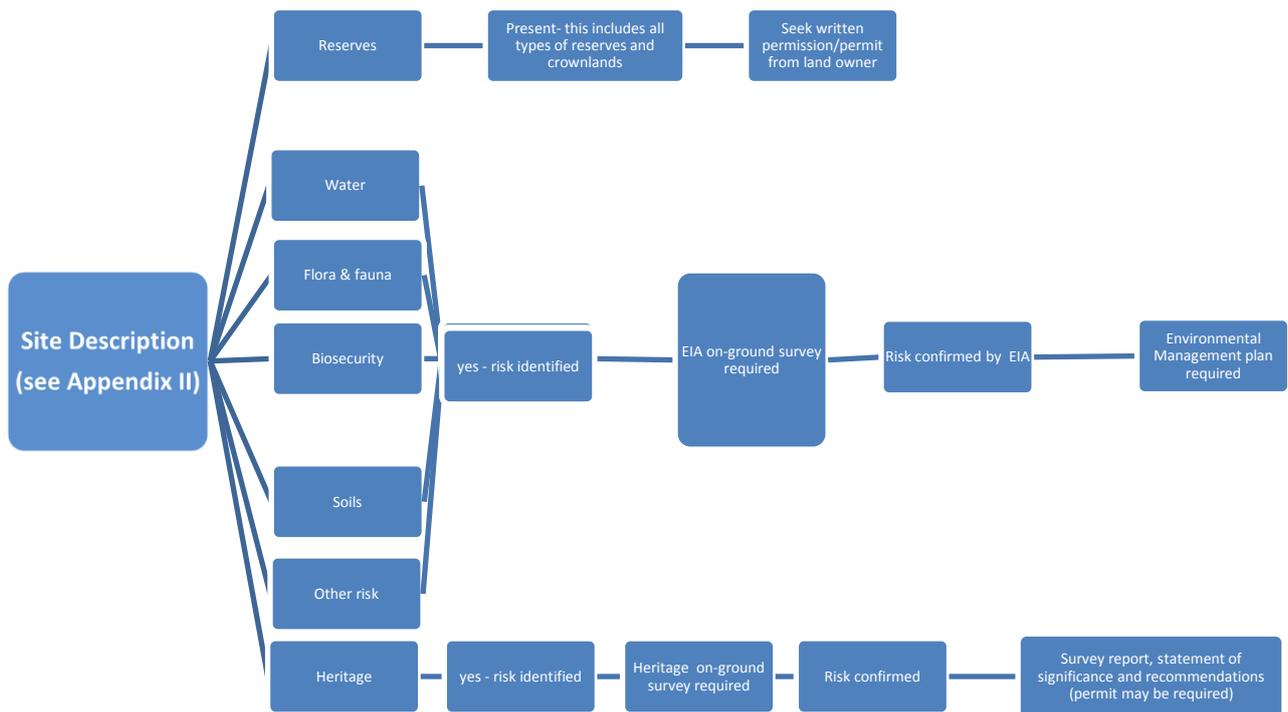


Figure 8-1 Process for Environmental and Heritage Assessments

## 8.2 Desktop Assessment questions for adequate site description:

### 1 **Land tenure and reservation status**

Is the proposed work area located in any protected area - including any Crown Land be it National Park, Nature Reserve or Conservation Area; Commonwealth Land (Airport, Defence); Private Conservation Reserve; World Heritage Area; RAMSAR Wetland; Council bushland reserve or DIER Roadside Conservation Site?

Decision support tool – NVA and/or LIST Map

### 2 **Erosion and sediment control**

Is the work area steeply sloped or highly erodible? Steeply sloped is defined as >20% (1m rise in 5m)

Does the work involve extensive disturbance of the ground? Extensive disturbance is defined as a total of more than 500m<sup>2</sup>

Are there any potential erosion or sediment control risks associated with the proposed work activity (e.g. excavation, trenching, clearing to bare ground)?

Does the work require soil disturbance within an area that has potential or known Acid Sulphate Soils?

Decision support tool – LIST Map and Geotechnical assessment associated with development

3 **Water quality consideration**

Does the work involve excavation / boring within 50m of a river, creek, lake, watercourse etc.?

Will accessing the site require heavy machinery to cross watercourses?

Does the work involve installing new oil filled equipment within 50m uphill of a river, creek, lake, watercourse etc., or within a flood zone?

Does the work occur less than 10m above sea level?

Decision support tool – LIST Map and/or 1:25,000 topographic map

4 **Biosecurity**

Are there any known plant or animal disease sites e.g. root rot (*Phytophthora cinnamomi*) within 50m of the proposed work area?

Are there any known priority weed sites within 50m of the proposed work area?

Decision support tool – NVA

5 **Vegetation and threatened species**

Will the work involve clearing >100 tonnes, or more than 1 ha of land in any one area? 100 tonnes is equivalent to approximately 20 mature trees or 100 small trees. 1 ha is 10,000 m<sup>2</sup> (12m easement x 830m long)

Are there any known threatened plants or vegetation communities within 100m of the proposed work area?

Are there any known threatened animals within 100m of the proposed work area?

Decision support tool – NVA

6 **Indigenous and non-indigenous heritage**

Are there any known or potential Aboriginal sites in or near the work area?

Higher potential areas for the presence of Aboriginal heritage include but are not limited to the following:

- Lake foreshores and wetland areas
- Shorelines and esplanades
- Sand sheets or bodies, including sand dunes
- Karst areas and where caves are likely
- Coastal areas
- Estuaries
- Declared Ramsar wetland area
- Silcrete outcrops, spongelite or chert sources

Decision support tool – AHT Desktop Assessment Results, LIST Map and/or 1:25,000 topographic map

Will any known or potential European / colonial heritage sites (e.g. trees, buildings, walls etc.) in or near the work area?

Decision support tool – THR and LIST Map

## 7 **Other environmental considerations**

Are there any other environmental considerations?

- Impact on visual qualities
- Contaminated land
- Noise impact
- Disposal of hazardous waste
- Potential for PCB contamination
- Organic farms, quarantine areas
- Other

Decision support tool – THR and LIST Map

## 8.3 Environmental Impact Assessments

In an instance where an EIA is required it must be undertaken by an appropriately qualified individual. To ensure best practice in the assessment of natural values the DPIPWE Guidelines for Natural Values Surveys - Terrestrial Development Proposals should be followed (<http://dPIPWE.tas.gov.au/Documents/Guidelines-for-Natural-Values-Assessments.pdf>). The Developer must also be aware that individual councils and planning schemes have varying requirements and that these need to be met.

The EIA should include on-ground survey and assessment of the development footprint which will include those areas where the infrastructure will be directly located, as well as other associated developments such as access roads and tracks. It will also include those areas that are likely to experience off-site impacts. The development footprint will need to be well defined by the Developer in order for the assessor/consultant to accurately determine the extent of potential impacts. If it is determined that natural values are likely to be impacted within the development footprint, then the surrounding areas should also be surveyed in order to identify the nature and extent of those values in the local area.

The EIA must include an assessment of the potential environmental impacts or threats to the values. This assessment should consider the likely impact at a range of scales i.e. the Local impact, the Regional, the State and the National level. This information can then be used to develop an Environmental Management Plan if impacts are identified that will require mitigation.

## 8.4 Requirements for an environmental management plan

An environmental management plan (EMP) must:

- Adequately describe the environment - this includes a description of the physical environment, the climate, topography, any sensitive areas, rivers, waterways & wetlands, the vegetation community, plant species (with particular note of threatened species), threatened fauna and habitat, weeds. Air quality and noise may be included depending on the characteristics of the planned development. Cultural and Aboriginal Heritage should also be included in the site description information.
- Identify potential impacts –this process is informed by the Environment Impact Assessment and will incorporate impacts on both Natural and Heritage values and a risk assessment of both the consequences of occurrence and the likelihood of occurrence of each impact.
- Provide recommendation to mitigate impacts

## Appendix I:

# Explanation of the links between design and construction of electrical infrastructure and environmental and heritage legislation

### ***Environmental Management and Pollution Control Act 1994***

The design must ensure ‘best practice environmental management’ under this Act to achieve an ongoing minimization of the activity's environmental harm through cost-effective measures assessed against the current international and national standards applicable to the activity.

In determining the best practice environmental management of an activity, regard must be had to the strategic planning by the person carrying out, or proposing to carry out the activity. For example, in siting a Kiosk a person must take into consideration the risk of Environmental harm.

“Environmental harm” is any adverse effect on the environment (of whatever degree or duration) and includes an environmental nuisance. For example this applies to the oil-spill risk, PG54 and noise emissions.

Environmental audits can also occur under the Act. Relevant to the design component is that audits must consider the ability of management systems to adequately manage waste and control pollution, and the adequacy of safeguards in place to prevent their occurrence or limit their impact on the environment.

A General environmental duty is also prescribed in the Act:

- (1)** A person must take such steps as are practicable or reasonable to prevent or minimise environmental harm or environmental nuisance caused, or likely to be caused, by an activity conducted by that person.
- (2)** In determining whether a person has complied with the general environmental duty, regard must be had to all the circumstances of the conduct of the activity, including but not limited to:
  - (a)** the nature of the harm or nuisance or likely harm or nuisance; and
  - (b)** the sensitivity of the environment into which a pollutant is discharged
  - (c)** the current state of technical knowledge for the activity; and
  - (d)** the likelihood and degree of success in preventing or minimising the harm or nuisance of each of the measures that might be taken; and
  - (e)** the financial implications of taking each of those measures.

A person must not deposit a pollutant, or cause or allow a pollutant to be deposited, in a place or position where it could reasonably be expected to cause serious environmental harm. This falls into the site selection process in design.

## **Noise**

Noise regulations are also covered under the regulations for this Act and the Environment Protection Policy (Noise) 2009. An environmental nuisance by the emission of noise is an offence if it is taken to unreasonably interfere with a person's enjoyment of the environment, having regard to its volume, intensity or duration, the time, place and other circumstances in which it is emitted;

## **Controlled Waste**

Controlled waste is covered by Environmental Management and Pollution Control (Waste Management) Regulations 2010. Controlled waste is the most hazardous category of waste and includes those wastes that exhibit toxicity, chemical or biological reactivity, environmental persistence, or the ability to bio-accumulate or enter the food chain. These wastes may be produced in a gaseous, liquid or solid state.

### *Production, storage and treatment of controlled waste*

(1) A person must not cause or permit a controlled waste to be produced, received, stored, reused, recycled, reprocessed, salvaged, incinerated, treated, disposed of, or used for energy recovery, in such a manner that it is reasonably likely that the controlled waste will –

- (a) leak, spill or escape into the environment; or
- (b) cause serious environmental harm, material environmental harm or environmental nuisance.

## **Water Quality Management Act 1997**

The relevant objective of Water Quality Management Act: To ensure that diffuse source and point source pollution does not prejudice the achievement of water quality objectives and that pollutants discharged to waterways are reduced as far as is reasonable and practical by the use of best practice environmental management. This clearly links with the Environmental Management and Pollution Control Act and the requirement to avoid environmental harm.

## **Forest Practices Act 1985**

This covers clearing trees (for any purpose) and clearing and converting threatened native vegetation communities. In particular if more than 1 hectare requires clearing or more than 100 tonnes of timber is to be removed then a Forest Practices Plan (FPP) is required. So if infrastructure requires clearing covering more than 100 tonnes of timber or an area greater than 1 ha a FPP would be required. Threatened communities are covered under the Nature Conservation Act. A Forest Practices Plan cannot be issued for the 'clearance and conversion' of a threatened native vegetation community (listed under Schedule 3A of the Nature Conservation Act 2002) unless there are exceptional circumstances,

- the clearing and conversion will have an "overall environmental benefit" or will not detract from conservation of the vegetation community
- or conservation values in the vicinity of the vegetation community.

*Forest Practices Regulations 2007* prescribe when Forest Practices Plans are not required and the fees attached to FPPs.

## ***Historic Cultural Heritage Act 1995 and Aboriginal Relics Act 1975***

Covers areas and places registered on the Cultural Heritage Register under this Act. It does not cover Aboriginal Heritage. Aboriginal Heritage is covered by the *Aboriginal Relics Act 1975*. The Aboriginal Relics Act covers protection of a relic 'on or in' any land and is administered by the Aboriginal Relics Advisory Council. It is considered to be outdated and is currently under review. Under the *Aboriginal Relics Act 1975*, an Aboriginal heritage site is referred to as a 'relic', and defined as:

- a. any artefact, painting, carving, engraving, arrangement of stones, midden, or other object made or created by any of the original inhabitants of Australia or the descendants of any such inhabitants;
- b. any object, site, or place that bears signs of the activities of any such original inhabitants or their descendants; or
- c. the remains of the body of such an original inhabitant or of a descendant of such an inhabitant who died before the year 1876 that are not interred in :
  - i. any land that is or has been held, set aside, reserved, or used for the purposes of a burial ground or cemetery pursuant to any Act, deed, or other instrument; or
  - ii. a marked grave in any other land.

The Act provides specific protection for Aboriginal relics by establishing offences of harm. Harm is defined to mean destroying, damaging, defacing, concealing or interfering with a relic, moving a relic from the land or selling a relic.

This act would be triggered if a development occurred on a protected site or if any relicts were disturbed and or discovered. A request for information on a site can be made by contacting Aboriginal Heritage Tasmania who can undertake a desktop assessment and indicate whether an Aboriginal heritage Assessment will be required.

## ***8.5 Land Use Planning and Approvals Act 1993***

Regulates land use and development in Tasmania through the Planning Schemes, planning assessment processes and a permit system. Planning schemes regulate the use, development, protection or conservation of land throughout Tasmania. Every council has a duty to observe and enforce its planning scheme under the *Land Use Planning and Approvals Act 1993* (LUPAA). The planning scheme is binding on all members of the community, State Government agencies and public authorities (unless specifically excepted). Planning schemes can also cover Aboriginal Heritage conservation.

Most planning schemes specifically regulate land clearing and require a Natural Values Assessment for all land clearance, other councils only require assessments for areas greater than 1 ha but this is variable across the State. This also ties into the Forest Practice Planning system as mentioned above. It is essential to refer to the local Planning Scheme and ensure that all appropriate development approvals have been sort and approved. In terms of the infrastructure design this relates to site selection. It is best to base site selection on avoidance of vegetation particularly known threatened communities under both state and federal legislation. Broadly speaking LUPAA aims to meet the objectives of the Resource Management and Planning System. The objectives of the Resource Management and Planning System are:

- (a) To promote sustainable development and to maintain ecological processes and genetic diversity

- (b) To provide for the fair, orderly and sustainable use and development of air, land and water
- (c) To encourage public involvement in resource management and planning
- (d) To facilitate economic development in accordance with these objectives
- (e) To promote the sharing of responsibility for resource management and planning between the different spheres of government, the community and industry in the state.

This links also in with the State Nature Conservation Act 2002, Threatened Species Act 1995 and the Commonwealth Environment Protection and Biodiversity Conservation Act 1999.

### ***Environment Protection and Biodiversity Conservation Act 1999***

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC) is the Australian Government's central piece of environmental legislation. It provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places world heritage properties.

Any activity (such as new developments or an expansion of an existing development) which is likely to have a 'significant' impact on a nationally threatened species or ecological community, world heritage or national heritage must be referred to the federal Environment Minister. This Act will apply to any development that affects nationally listed threatened communities or species or those that occur in a world or national heritage area. The Act also covers environmental offsets against any negotiated permitted taking of species under EPBC Act environmental offsets policy. It is important to consider this in site selection as avoidance of harm can reduce initial and ongoing costs and obligations.

### ***Nature Conservation Act 2002***

The nature Conservation Act regulates the conservation and protection of flora, fauna and geological diversity within Tasmania; classifies reserved lands in Tasmania and establishes values & objectives for each reserve class and provides for conservation covenants and reservation of private lands. In relevance to any development requiring land clearance this Act lists all threatened communities and provides for their protection. Similarly this also prescribes the management prescriptions for protected areas under the different classifications of protection. This Act requires consideration in the design site selection process to minimise impact on threatened species and habitat. By running a Natural Values Atlas Report known threatened species and communities can be identified in the design stage.

### ***Threatened Species Act 1995***

This Threatened Species Act protects the State's Listed Threatened Flora and Fauna species and critical habitat, which are named in the Schedules of this Act. This Act will apply to any development that affects State listed threatened communities or species including permit requirements.

### ***Weed Management Act 1999***

The *Weed Management Act* covers all Declared Weeds – both their introduction and management. The objectives of the Act are to:

- (a) minimise negative effects of weeds on the sustainability of Tasmania's productive capacity and natural ecosystems; and

- (b) promote a strategic and sustainable approach to weed management; and
- (c) encourage community involvement in weed management; and
- (d) promote the sharing of responsibility for weed management between government, natural resource managers, the community and industry in Tasmania.

This is most relevant to construction however key issues may be pre-emptively identified in the site selection phase by running a Natural Values Atlas Report which may identify potential weed risks and management. This is particularly useful for highly invasive and high alert weeds which are as yet uncommon in the state. Regulations cover the sale, propagation, eradication and prevention of spread by land owners.

### ***Crown Lands Act 1976***

This will only apply when any development occurs on land managed or leased from Crownland Services. This frequently includes riparian (streamside) reserves. All such reserves are deemed to be reserved. All Crownland must fulfil the objectives of the Resource Management and Planning System.

Crown Land regulations 2001 – This applies in those instances where Crownland development may occur. Essentially unless an authority is granted under Division 5 (meaning written permission is granted), a person must not, in any public reserve –

- (a) take a growing or standing plant; or
- (b) dam up, divert or pollute any water on or under the surface; or
- (c) interfere with, dig up, cut up, collect or remove any sand, gravel, clay, rock, mineral or any timber, firewood, humus or other natural substance.

### ***National Parks and Reserves Management Act 2002***

This *National Parks and Reserves Management Act* would come into play for any development occurring within declared protected areas. If the proposed development occurs within a protected area it is likely to have a Reserve plan which outlines restrictions and activities which will need to be considered individually. This act links closely with the Nature Conservation Act and the Crownlands Act. Any activity in a Reserve will require a permit.

### ***Wellington Park Act 1999***

Wellington Park is set aside as a reserve for the following purposes:

- (a) the provision of recreational and tourism uses and opportunities consistent with the purposes specified in paragraphs (b) to (e);
- (b) the preservation or protection of the fauna or flora contained in or on the land;
- (c) the preservation or protection of the natural beauty of the land or of any features of the land of natural beauty or scenic interest;
- (d) the preservation or protection of any features of the land being features of historical, Aboriginal, archaeological, scientific, architectural or geomorphological interest;
- (e) the protection of the water catchment values of the land.

The Act is administered by Wellington Park Management Trust. Any development will need to be in line with Wellington Park Management Plan and be approved by the Trust.

## Appendix II:



# Environment & Heritage Site Description Template

## General

- This template provides a guide to the minimum requirements of meeting Environmental Due Diligence on Environment and Heritage assessment at the design phase;
- A site description is designed to highlight all the key potential environmental values and risks to values;
- All supporting documents used to complete the Site Description must be included as evidence.

**General information**

<b>Property Tenure</b>	
<b>Land Owner</b>	
<b>Property Address</b>	
<b>PID</b>	
<b>Central coordinates (GDA 95)</b>	
<b>Date</b>	
<b>Prepared by</b>	
<b>Email</b>	
<b>Author’s business name and ABN</b>	

<p><b>Site Description</b></p> <p><i>This section must describe:</i></p> <ul style="list-style-type: none"> <li>• <i>The size of the site;</i></li> <li>• <i>Provide a general description of landforms, slope, aspect, soil type.</i></li> <li>• <i>Vegetation communities and distinguishing natural features such as habitat trees and any waterways;</i></li> <li>• <i>Any disturbance and or land degradation evident should also be included in this section.</i></li> </ul> <p><b>Maps</b> <i>A map or series of maps (as required) of the site: Information presented in the map must include: lot and plan location information and the development area.</i></p>
--

**Insert map/s here**

**Reserved Lands** e.g. all Crownlands, National Parks, Conservation Areas, Nature Reserve and Private Reserves

*Is the proposed work area located in (or within 50m of) any protected area - including any Crown Land be it National Park, Nature Reserve or Conservation Area; Commonwealth Land (Airport, Defence); Private Conservation Reserve; World Heritage Area; RAMSAR Wetland; Council bushland reserve or DIER Roadside Conservation Site?*

**Evidence** *insert Webmap printout or NVA report findings*

.

**Erosion and sediment control**

*Is the work area steeply sloped or highly erodible? Steeply sloped is defined as >20% (1m rise in 5m)*

*Does the work involve extensive disturbance of the ground? Extensive disturbance is defined as a total of more than 500m<sup>2</sup>*

*Are there any potential erosion or sediment control risks associated with the proposed work activity (e.g. excavation, trenching, clearing to bare ground)?*

*Does the work require soil disturbance within an area that has potential or known Acid Sulfate Soils?*

**Evidence** *insert Webmap Printout or geotechnical assessment*

## Aboriginal Heritage

*Are there any known or potential Aboriginal sites in or near the work area?*

*For example:*

- Lake foreshores and wetland areas*
- Shorelines and esplanades*
- Sand sheets or bodies, including sand dunes*
- Karst (limestone) areas and where caves are likely*
- Coastal areas*
- Estuaries*
- Declared Ramsar wetland area*
- Silcrete outcrops, spongelite or chert sources. Fine grained material such as chert, chalcedony, spongelite and silcrete was highly sought after as these types of highly siliceous material produced sharp edges and were easier to flake or 'knap'. Some quarries in Tasmania extend for hundreds of metres along the coast where silcrete outcrops are found, for example the silcrete quarry shown below, in Electrona.*

**Evidence** *insert Webmap Printout /location map or AHT desktop assessment*

**European/Colonial Heritage**

*Will any known or potential European / colonial heritage sites (eg trees, buildings, walls etc) in or near the work area?*

**Evidence** *insert Webmap Printout /location map or Heritage Register search*

**Vegetation**

*Will the work involve clearing >100 tonnes, or more than 1 ha of land in any one area?-  
100 tonnes is equivalent to approximately 20 mature trees or 100 small trees- 1 ha is  
10,000 m<sup>2</sup> (12m easement x 830m long)*

**Evidence** *insert NVA or LIST map of Tasveg*

**Threatened species or communities records**

*Are there any known threatened plants or vegetation communities within 50m of the proposed work area?*

*Are there any known threatened animals within 50m of the proposed work area?*

**Evidence** *insert Webmap Printout /location map and the NVA and associated information should be inserted here.*

**Insert map here**

**Water Quality Consideration and Sea level Rise**

*Does the work involve excavation / boring within 50m of a river, creek, lake, watercourse etc?*

*Does the work involve installing new oil filled equipment within 50m uphill of a river, creek, lake, watercourse etc, or within a flood zone?*

*Does the work occur less than 10m above sea level?*

**Evidence** *insert Webmap Printout /location map and LIST*

<b>Biosecurity</b>
<p><i>Are there any known plant or animal disease sites eg root rot (Phytophthora cinnamomi) within 50m of the proposed work area?</i></p> <p><i>Are there any known weed sites within 50m of the proposed work area?</i></p>
<b>Evidence</b> <i>insert Webmap Printout /location map and/or NVA</i>

**Other consideration**

*Are there any other environmental considerations?*

- *Impact on visual qualities*
- *Contaminated land*
- *Noise impact*
- *Disposal of hazardous waste*
- *Potential for PCB contamination*
- *Organic farms, quarantine areas*
- *Other*

**Evidence** *insert Webmap Printout /location map or other supporting evidence*

## 9 Appendix III:

### Examples of due diligence evidence required

# Natural Values Atlas Report

*Authoritative, comprehensive information on Tasmania's natural values.*

**Reference:** Example 2

**Requested For:** Tasnetworks Lauderdale

**Timestamp:** 02:24:54 PM Tuesday 08 December 2015

**Raptors:** buffers 500m and 1000m

**Threatened Flora:** buffers 500m and 1000m

**Threatened Fauna:** buffers 500m and 1000m

**Tasmanian Weed Management Act Weeds:** buffers 500m and 1000m

**Priority Weeds:** buffers 500m and 1000m

**TASVEG:** buffer 1000m

**Threatened Communities:** buffer 1000m

**Geoconservation:** buffer 1000m

**Tasmanian Reserve Estate:** buffer 1000m

**Biosecurity Risks:** buffer 1000m



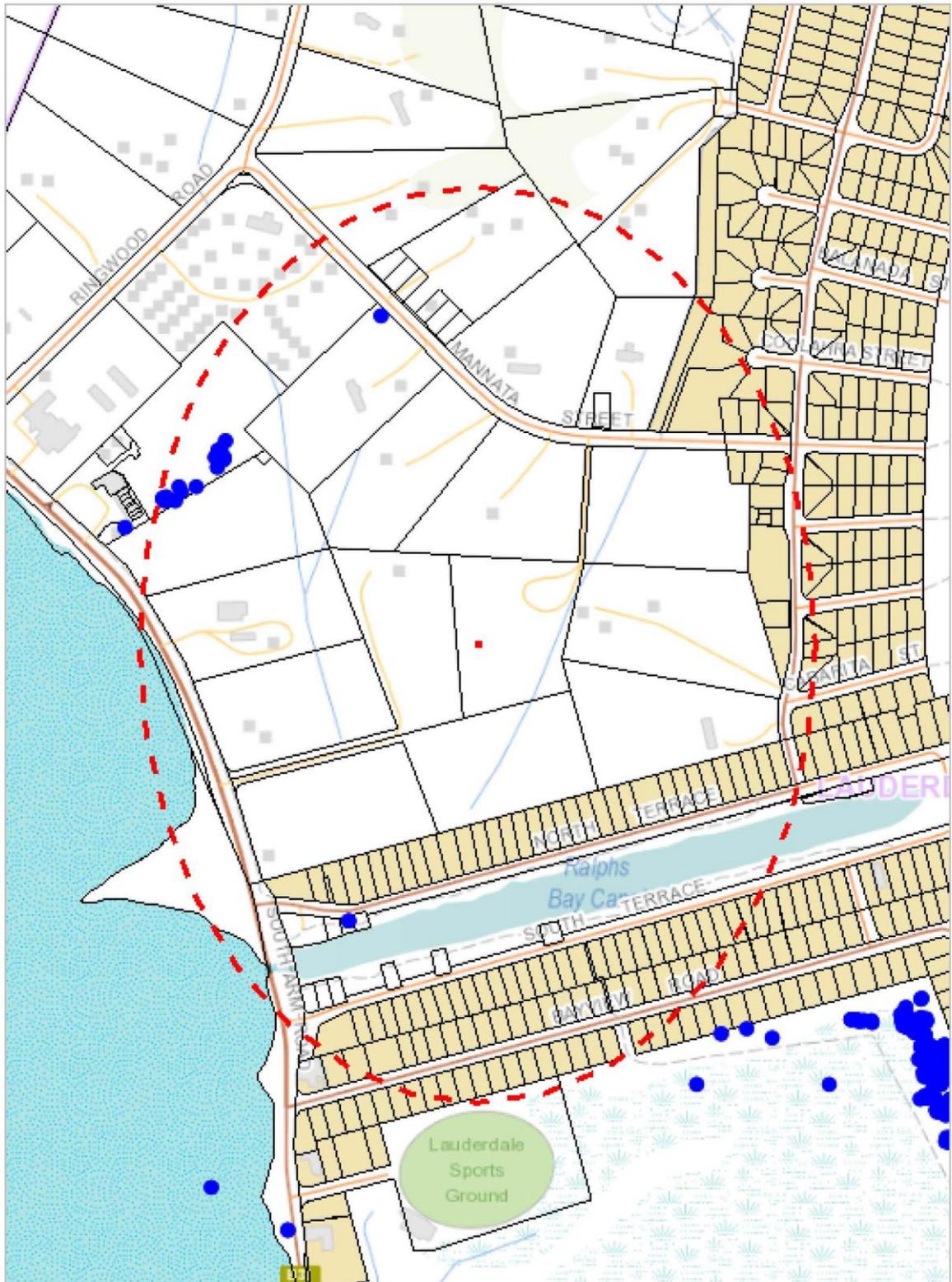
The centroid for this query GDA94: **539854.0, 5249084.0** falls within:

**I:25000 Map:** 5224 TAROONA

**Property:** 5218893 36 MANNATA ST LAUDERDALE  
TAS 7021

Threatened flora within 500 metres

540372, 5249787



539335, 5248381

## Threatened flora within 500 metres

### Verified Records

Id	Species	Common Name	SS	NS	Observers	Date	Obs Type	Easting/Northing GDA94 Zone 55
I088990	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539574, 5249291 +/- 5m
I088997	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539581, 5249308 +/- 5m
I088974	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539471, 5249214 +/- 5m
I088976	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539513, 5249246 +/- 5m
I088977	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539514, 5249244 +/- 5m
I088978	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539514, 5249242 +/- 5m
I088979	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539516, 5249247 +/- 5m
I088981	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539526, 5249242 +/- 5m
I088983	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539532, 5249252 +/- 5m
I088984	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539549, 5249258 +/- 5m
I088985	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539569, 5249290 +/- 5m
I088986	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539571, 5249291 +/- 5m
I088988	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539573, 5249298 +/- 5m
I306518	Cynoglossum australe	coast houndstongue	r-		Mark Wapstra (1621), B. French (23515)	30-Sep-2009	Sighting	539577, 5249286 +/- 5m
I088991	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539574, 5249289 +/- 5m
I088992	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539576, 5249299 +/- 5m
I088993	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539577, 5249286 +/- 5m
I088994	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539577, 5249291 +/- 5m
I088996	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539579, 5249290 +/- 5m
I159511	Cynoglossum australe	coast houndstongue	r-		Emma Jane Pharo (3241)	22-Jul-2008	Sighting	539751, 5249443 +/- 10m
I088987	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539572, 5249279 +/- 5m
I088995	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539579, 5249288 +/- 5m
I088975	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539512, 5249245 +/- 5m
I088980	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539517, 5249245 +/- 5m
I088982	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539530, 5249258 +/- 5m
I088989	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539574, 5249288 +/- 5m
229445	Lachnagrostis robusta	tall blowgrass	r		Winifred M. Curtis (5737)	12-Jan-1946	Sighting	539712, 5248783 +/- 1000m
229458	Limonium australe var. australe	yellow sea-lavender	r		Winifred M. Curtis (5737)	14-Feb-1966	Sighting	539712, 5248783 +/- 1000m

### Unverified Records

No unverified records were found!

For more information about threatened species, please contact the Manager, Threatened Species and Marine Section.

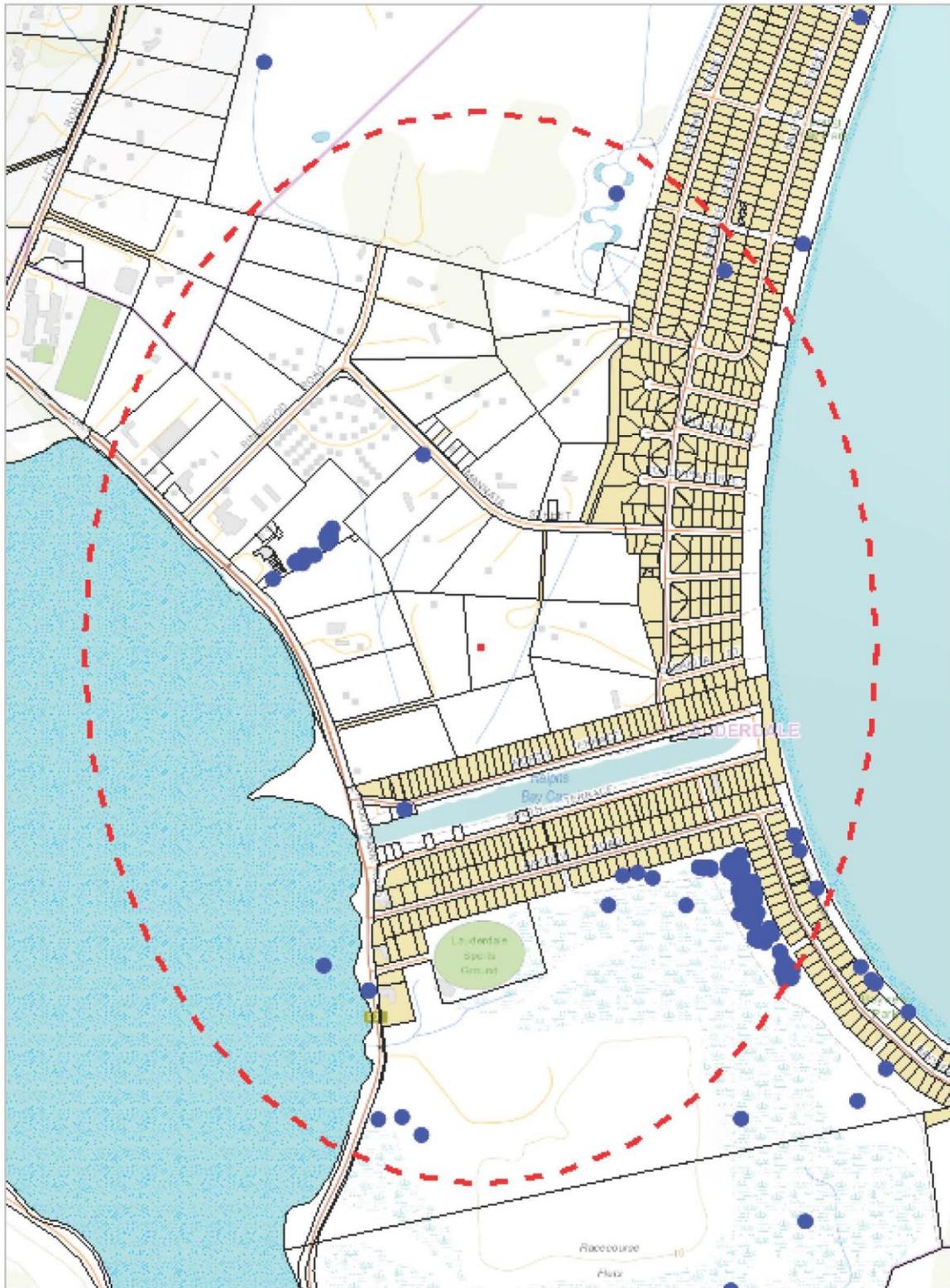
Telephone: (03) 6165 4340

Email: ThreatenedSpecies.Enquiries@dipwe.tas.gov.au

Address: GPO Box 44, Hobart, Tasmania, Australia, 7000

Threatened flora within 1000 metres

540743, 5250288



538965, 5247879

### Threatened flora within 1000 metres

Verified Records

Id	Species	Common Name	SS	NS	Observers	Date	Obs Type	Easting/Northing GDA94 Zone 55
I417656	Bolboschoenus caldwellii	sea clubsedge	r		M Wapstra (29009)	24-Jan-2013	Sighting	540112, 5249928 +/- 5m
I088974	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539471, 5249214 +/- 5m
I088976	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539513, 5249246 +/- 5m
I088977	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539514, 5249244 +/- 5m
I088978	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539514, 5249242 +/- 5m
I088979	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539516, 5249247 +/- 5m
I088981	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539526, 5249242 +/- 5m
I088983	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539532, 5249252 +/- 5m
I088984	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539549, 5249258 +/- 5m
I088985	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539569, 5249290 +/- 5m
I088986	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539571, 5249291 +/- 5m
I088988	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539573, 5249298 +/- 5m
I088990	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539574, 5249291 +/- 5m
I088991	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539574, 5249289 +/- 5m
I088992	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539576, 5249299 +/- 5m
I088993	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539577, 5249286 +/- 5m
I088994	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539577, 5249291 +/- 5m
I088996	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539579, 5249290 +/- 5m
I159510	Cynoglossum australe	coast houndstongue	r-		Emma Jane Pharo (3241)	22-Jul-2008	Sighting	540311, 5248677 +/- 10m
I159511	Cynoglossum australe	coast houndstongue	r-		Emma Jane Pharo (3241)	22-Jul-2008	Sighting	539751, 5249443 +/- 10m
I161950	Cynoglossum australe	coast houndstongue	r-		Andrew North (2500)	17-Jun-2010	Sighting	540457, 5249832 +/- 10m
I088987	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539572, 5249279 +/- 5m
I088995	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539579, 5249288 +/- 5m
I159558	Cynoglossum australe	coast houndstongue	r-		Emma Jane Pharo (3241)	22-Jul-2008	Sighting	540346, 5248590 +/- 10m
I088975	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539512, 5249245 +/- 5m
I088980	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539517, 5249245 +/- 5m
I088982	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539530, 5249258 +/- 5m
I088989	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539574, 5249288 +/- 5m
I088997	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	30-Sep-2009	Sighting	539581, 5249308 +/- 5m
I159557	Cynoglossum australe	coast houndstongue	r-		Emma Jane Pharo (3241)	22-Jul-2008	Sighting	540413, 5248470 +/- 10m
I306518	Cynoglossum australe	coast houndstongue	r-		Mark Wapstra (1621), B. French (23513)	30-Sep-2009	Sighting	539577, 5249286 +/- 5m
I310710	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	19-Sep-2012	Sighting	540344, 5248619 +/- 5m
I310711	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	19-Sep-2012	Sighting	540349, 5248621 +/- 5m
I310712	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	19-Sep-2012	Sighting	540349, 5248623 +/- 5m
I310575	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	19-Sep-2012	Sighting	540410, 5248483 +/- 5m
I310576	Cynoglossum australe	coast houndstongue	r-		Brian French (6551)	19-Sep-2012	Sighting	540409, 5248479 +/- 5m

Threatened fauna within 500 metres

540372, 5249787



539335, 5248381

### Threatened fauna within 500 metres

#### Verified Records

Id	Species	Common Name	SS	NS	Observers	Date	Obs Type	Easting/Northing GDA94 Zone 55
I308733	Calidris ferruginea	curlew sandpiper		CR	R B Mawbey (25888)	09-Oct-1963	Sighting	540180, 5249175 +/- 5000m
I312487	Litoria raniformis	green and gold frog	v	VU	Unknown Van der Water (26636)	27-Apr-1971	Sighting	540180, 5249175 +/- 5000m
I091301	Sarcophilus harrisii	tasmanian devil	e	EN	Ingrid Albion (18630)	01-Dec-2009	Sighting	540012, 5248794 +/- 5000m

#### Unverified Records

No unverified records were found!

### Threatened fauna within 500 metres

(based on Range Boundaries)

Species	Common Name	SS	NS	Potential	Known	Core
Aquila audax	wedge-tailed eagle	pe	PEN	I	0	0
Perameles gunnii	eastern barred bandicoot		VU	I	0	I
Dasyurus maculatus	spotted-tailed quoll	r	VU	I	0	0
Litoria raniformis	green and gold frog	v	VU	I	0	0
Antipodia chaostola	chaostola skipper	e	EN	I	0	0
Pseudemoia pagenstecheri	tussock skink	v		I	0	0
Chrysolarentia decisaria	tunbridge looper moth	e		I	0	I
Lathamus discolor	swift parrot	e	EN	I	0	I
Sarcophilus harrisii	tasmanian devil	e	EN	I	0	0
Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	e	EN	I	0	0
Tyto novaehollandiae	masked owl	pe	PVU	I	0	I
Dasybela achroa	saltmarsh looper moth	v		I	I	0
Pardalotus quadragintus	forty-spotted pardalote	e	EN	I	0	0
Accipiter novaehollandiae	grey goshawk	e		I	0	0
Haliaeetus leucogaster	white-bellied sea-eagle	v		2	0	0
Amelora acontistica	chevron looper moth	v		I	0	2

For more information about threatened species, please contact the Manager, Threatened Species and Marine Section.

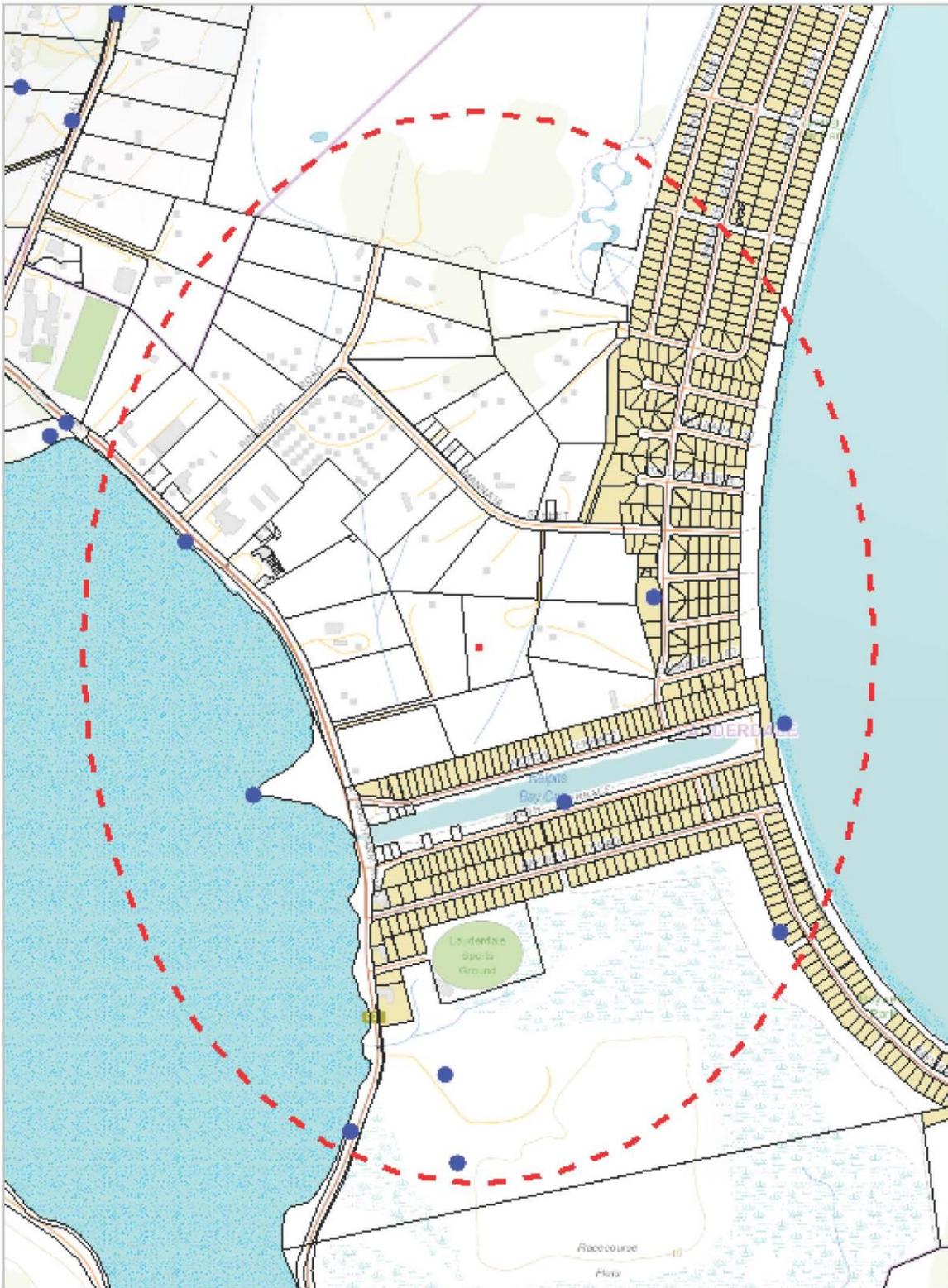
Telephone: (03) 6165 4340

Email: ThreatenedSpecies.Enquiries@dpipwe.tas.gov.au

Address: GPO Box 44, Hobart, Tasmania, Australia, 7000

Threatened fauna within 1000 metres

540743, 5250288



538965, 5247879

## Threatened fauna within 1000 metres

### Verified Records

Id	Species	Common Name	SS	NS	Observers	Date	Obs Type	Easting/Northing GDA94 Zone 55
1023933	Amelora acontistica	chevron looper moth	v		Raymond (Ray) Brereton (2095), Peter McQuillan (5813)	15-Feb-2007	Sighting	539788, 5248288 +/- 20m
845269	Amelora acontistica	chevron looper moth	v		Unknown Unknown (21598)	01-Jan-0001	Sighting	539612, 5248184 +/- 100m
1308733	Calidris ferruginea	curlew sandpiper		CR	R B Mawbey (25888)	09-Oct-1963	Sighting	540180, 5249175 +/- 5000m
1060135	Chrysolarentia decisaria	tunbridge looper moth	e		Raymond (Ray) Brereton (2095)	02-Apr-2009	Sighting	538935, 5249474 +/- 10m
853915	Dasybela achroa	saltmarsh looper moth	v		Unknown Unknown (21598)	01-Jan-1994	Sighting	539612, 5248184 +/- 100m
1307026	Gazameda gunnii	Gunn's screw shell	v		Margaret Richmond (25787)	17-Feb-1985	Shell	540421, 5248938 +/- 100m
1312487	Litoria raniformis	green and gold frog	v	VU	Unknown Van der Water (26636)	27-Apr-1971	Sighting	540180, 5249175 +/- 5000m
1298894	Mirounga leonina subsp. macquariensis	southern elephant seal	pe	PVU		16-Nov-1984	Sighting	540411, 5248550 +/- 100m
1298893	Mirounga leonina subsp. macquariensis	southern elephant seal	pe	PVU		16-Nov-1984	Initial sighting	540411, 5248550 +/- 100m
1374337	Numenius madagascariensis	eastern curlew	e	CR	Birds Tasmania (28468)	20-Feb-1999	Sighting	539435, 5248811 +/- 1000m
1375684	Numenius madagascariensis	eastern curlew	e	CR	Birds Tasmania (28468)	20-Feb-1999	Sighting	539435, 5248811 +/- 1000m
884412	Perameles gunnii	eastern barred bandicoot		VU	Priscilla Park (1968)	27-Sep-1993	Sighting	539312, 5249284 +/- 25m
1238839	Perameles gunnii	eastern barred bandicoot		VU	Dean Heinze (22683)	04-Oct-2008	Sighting	539092, 5249507 +/- 10m
886084	Perameles gunnii	eastern barred bandicoot		VU	Priscilla Park (1968)	07-Oct-1993	Sighting	539062, 5249483 +/- 25m
1091301	Sarcophilus harrisi	tasmanian devil	e	EN	Ingrid Albion (18630)	01-Dec-2009	Sighting	540012, 5248794 +/- 5000m
1308587	Theclinesthes serpentata subsp. lavara	Chequered Blue	r		Peter McQuillan (5813)	11-Feb-2013	Sighting	539810, 5248124 +/- 50m
1308589	Theclinesthes serpentata subsp. lavara	Chequered Blue	r		Peter McQuillan (5813)	02-Feb-2013	Sighting	539810, 5248124 +/- 50m

### Unverified Records

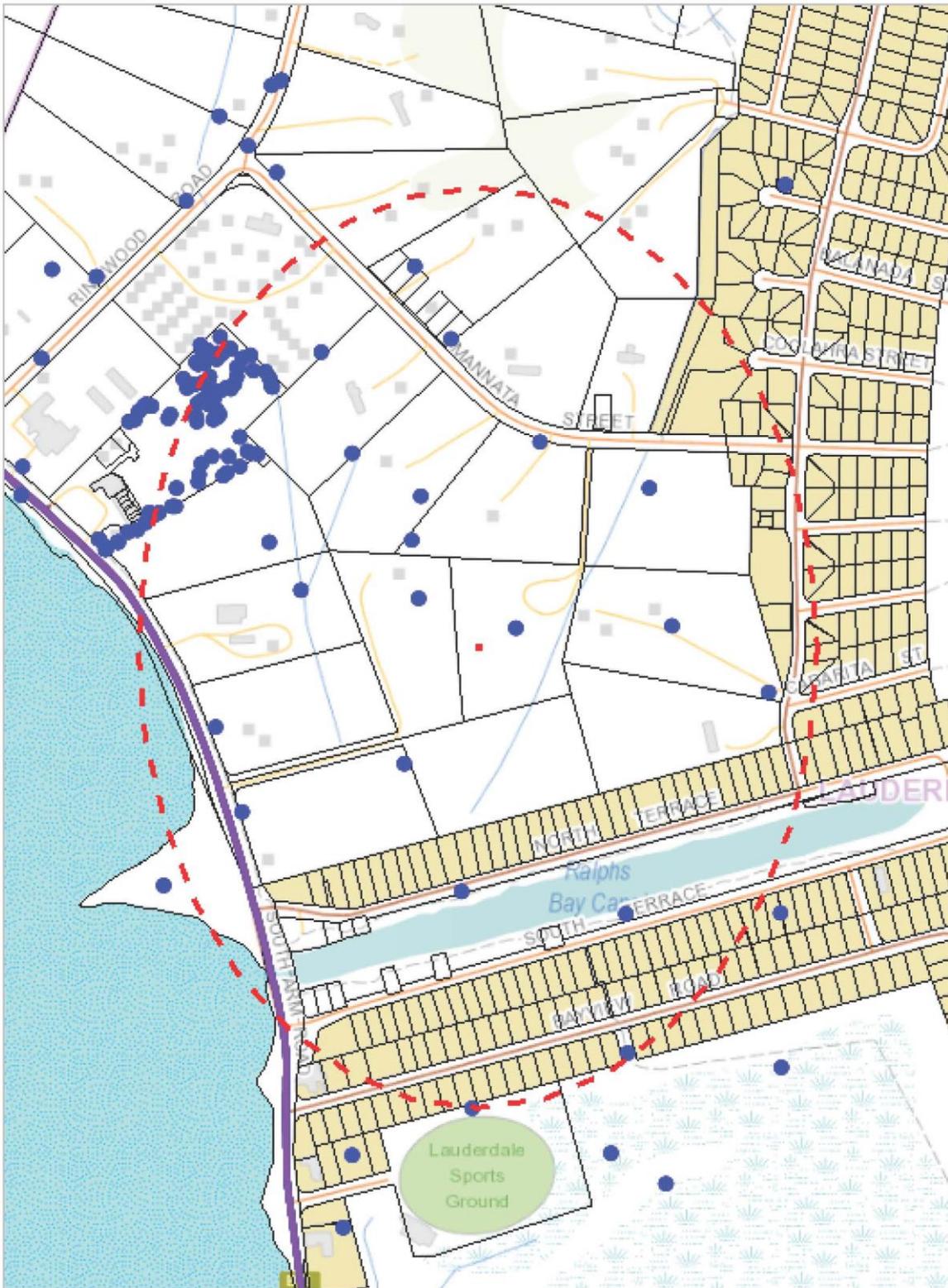
No unverified records were found!

## Threatened fauna within 1000 metres (based on Range Boundaries)

Species	Common Name	SS	NS	Potential	Known	Core
Aquila audax	wedge-tailed eagle	pe	PEN	2	0	0
Perameles gunnii	eastern barred bandicoot		VU	1	0	1
Dasyurus maculatus	spotted-tailed quoll	r	VU	1	0	0
Litoria raniformis	green and gold frog	v	VU	1	0	0
Antipodia chaostola	chaostola skipper	e	EN	1	0	0
Pseudemoia pagenstecheri	tussock skink	v		1	0	0
Chrysolarentia decisaria	tunbridge looper moth	e		1	0	1
Lathamus discolor	swift parrot	e	EN	1	0	1
Sarcophilus harrisi	tasmanian devil	e	EN	1	0	0
Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	e	EN	1	0	0
Tyto novaehollandiae	masked owl	pe	PVU	1	0	1
Dasybela achroa	saltmarsh looper moth	v		1	1	0
Pardalotus quadragintus	forty-spotted pardalote	e	EN	1	0	0
Haliaeetus leucogaster	white-bellied sea-eagle	v		3	0	0
Accipiter novaehollandiae	grey goshawk	e		1	0	0
Amelora acontistica	chevron looper moth	v		1	0	2

### Tas Management Act Weeds within 500 m

540372, 5249787



539335, 5248381

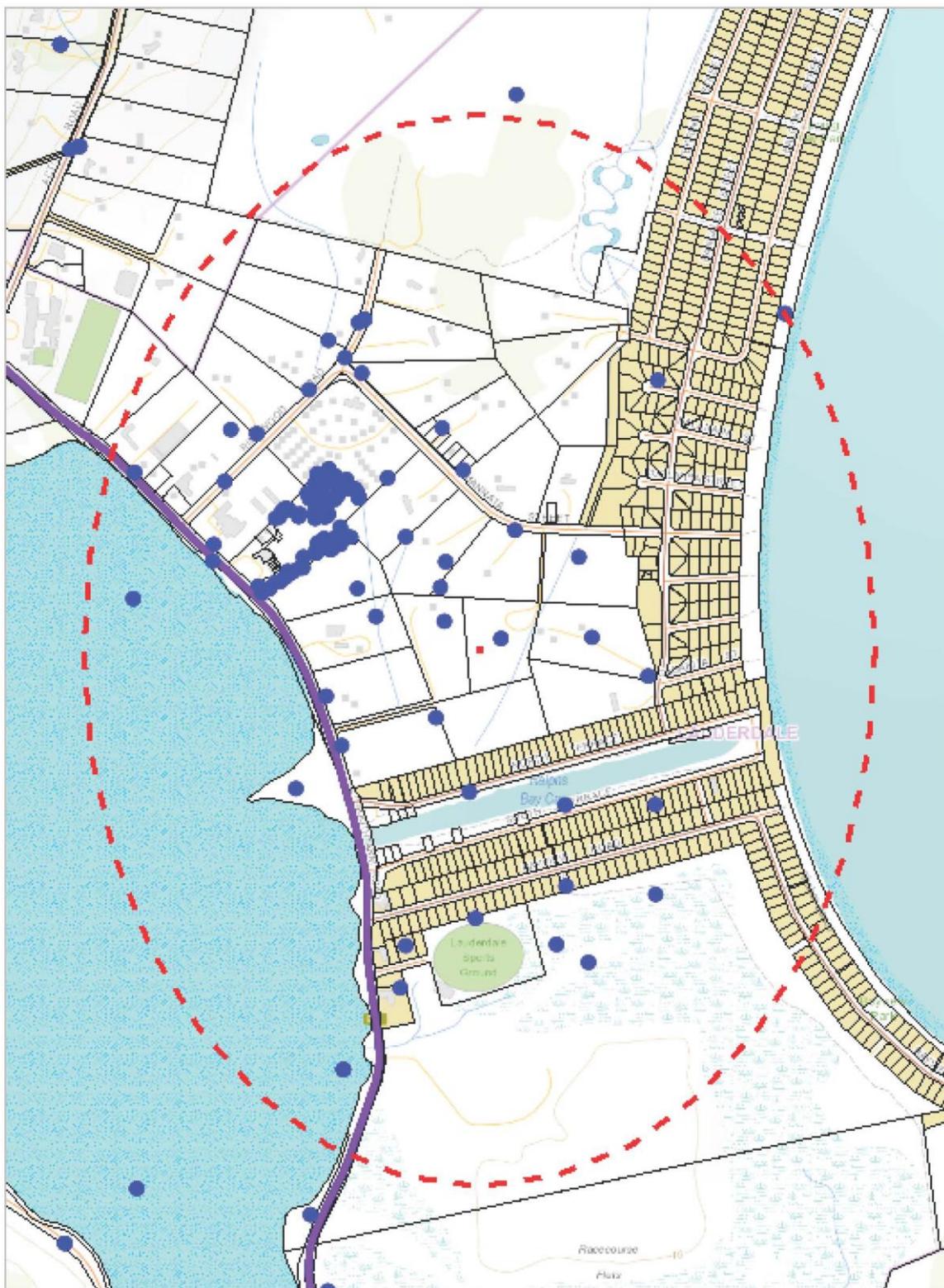
## Tas Management Act Weeds within 500 m

Verified Records

Id	Species	Common Name	Observers	Date	Easting/Northing GDA94 Zone 55	Location Description	WMA	Wons Density	Data Source
I171482	Chrysanthemoides monilifera subsp. monilifera	boneseed	Sam Smee (21801)	01-Jan-0001	540012, 5248793 +/- 1m		Present	Yes	Not known (or uncertain)
I171483	Chrysanthemoides monilifera subsp. monilifera	boneseed	Sam Smee (21801)	01-Jan-0001	540179, 5248793 +/- 1m		Present	Yes	Not known (or uncertain)
I369374	Chrysanthemoides monilifera subsp. monilifera	boneseed	Vicki Campbell (18421)	26-Jun-2012	539565, 5249380 +/- 10m	Lauderdale - 476 South Arm Rd (behind shopping centre)	Present	Yes	
I369375	Chrysanthemoides monilifera subsp. monilifera	boneseed	Vicki Campbell (18421)	25-Jun-2012	539453, 5249195 +/- 10m	Lauderdale - 476 South Arm Rd (?) - on fence cnr between 476 (shopping centre) & 488, close to footpath.	Present	Yes	
I369376	Chrysanthemoides monilifera subsp. monilifera	boneseed	Sandy Leighton (7048), Vicki Campbell (18421)	06-Jun-2012	539628, 5249200 +/- 20m	Lauderdale - 488 South Arm Hwy	Present	Yes	
I369377	Chrysanthemoides monilifera subsp. monilifera	boneseed	Sandy Leighton (7048), Axel Meiss (22424)	30-Aug-2011	539662, 5249147 +/- 10m	Lauderdale - Abundant Life Church, 490 S Arm H'way	Present	Yes	
I369378	Chrysanthemoides monilifera subsp. monilifera	boneseed	Sandy Leighton (7048), Axel Meiss (22424)	30-Aug-2011	539569, 5248999 +/- 10m	Lauderdale - 506 South Arm Hwy, mostly in front fence, but a few elsewhere on property	Present	Yes	
I369379	Chrysanthemoides monilifera subsp. monilifera	boneseed	Sandy Leighton (7048), Vicki Campbell (18421)	06-Jun-2012	539773, 5248958 +/- 10m	Lauderdale - Side road between 506 and 526 South Arm Hwy - approx 200m along on RHS	Present	Yes	
I369380	Chrysanthemoides monilifera subsp. monilifera	boneseed	Vicki Campbell (18421)	18-Jun-2012	539790, 5249138 +/- 20m	Lauderdale - 512 South Arm Hwy (internal - access via road between 506 - 526)	Present	Yes	
I369381	Chrysanthemoides monilifera subsp. monilifera	boneseed	Sandy Leighton (7048), Axel Meiss (22424)	30-Aug-2011	539597, 5248907 +/- 10m	Lauderdale - 526 South Arm Hwy (timber yard), just inside front fence	Present	Yes	
I369382	Chrysanthemoides monilifera subsp. monilifera	boneseed	Sandy Leighton (7048), Vicki Campbell (18421)	06-Jun-2012	539512, 5248827 +/- 20m	Lauderdale - Coastal Reserve opposite 526 South Arm Hwy - Nature Reserve sign. Halfway or more out on point.	Present	Yes	
I369388	Chrysanthemoides monilifera subsp. monilifera	boneseed	Sandy Leighton (7048), Axel Meiss (22424)	30-Aug-2011	540168, 5249033 +/- 10m	Lauderdale - 6 Bangalee st, near entrance gate lhs; along S and E boundary, and in shrubby patch behind house.	Present	Yes	
I369389	Chrysanthemoides monilifera subsp. monilifera	boneseed	Sandy Leighton (7048), Axel Meiss (22424)	30-Aug-2011	540040, 5249256 +/- 10m	Lauderdale - 26 Mannata St, open vacant block lhs of #46	Present	Yes	

Tas Management Act Weeds within 1000 m

540743, 5250288



538965, 5247879

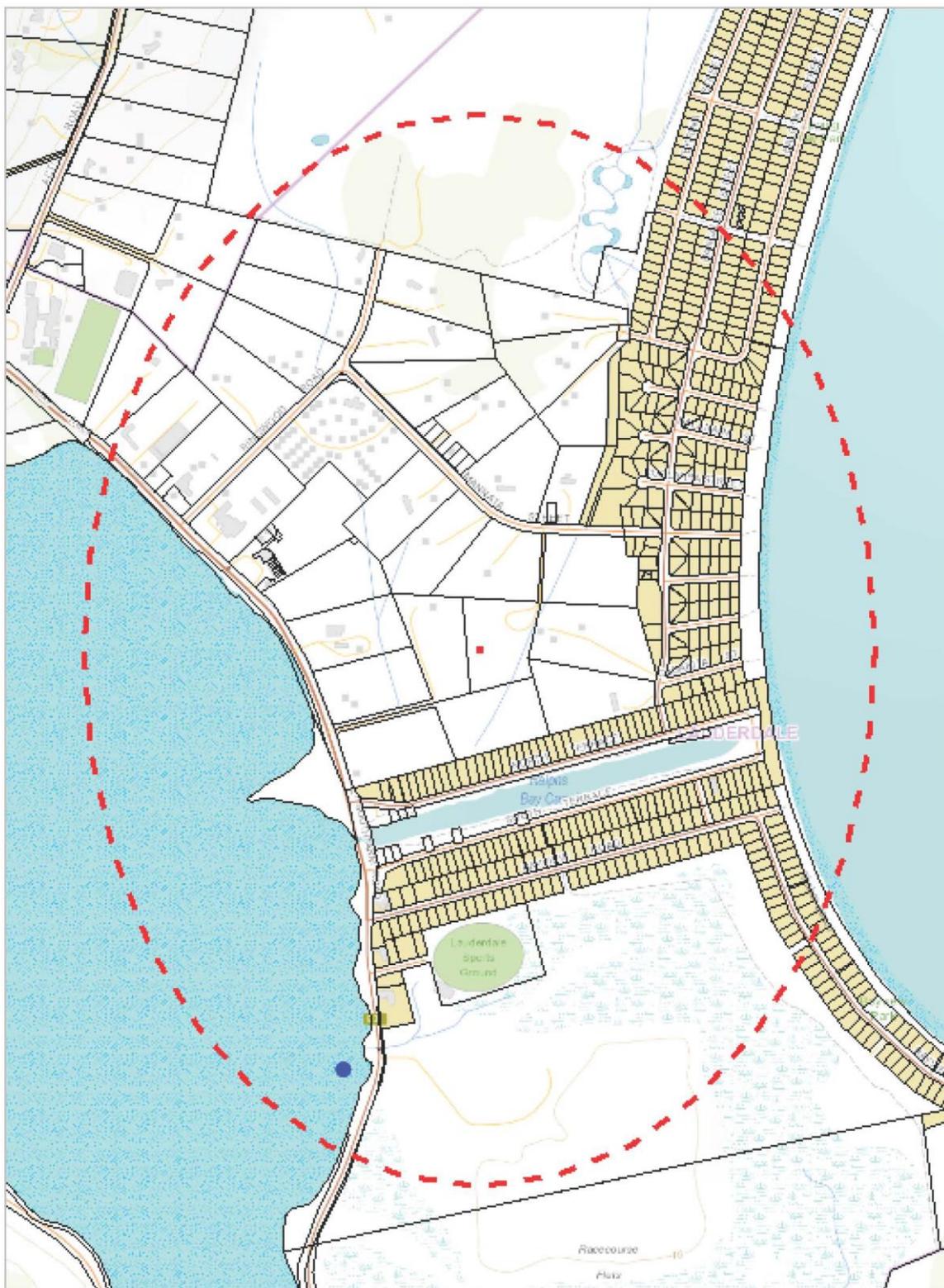
## Tas Management Act Weeds within 1000 m

Verified Records

Id	Species	Common Name	Observers	Date	Easting/Northing GDA94 Zone 55	Location Description	WMA	Wons Density	Data Source
I372251	Asparagus asparagoides	bridal creeper	Karen Bennett (28328)	03-Oct-2008	540426, 5249708 +/- 10m	Roches Beach (access via public laneway btw 116 & 118 Balook St on foreshore reserve at rear of 110, Lauderdale, Clarence	Present	Yes	
I372250	Asparagus asparagoides	bridal creeper	Karen Bennett (28328)	02-Jun-2007	540426, 5249708 +/- 10m	Roches Beach (access via public laneway btw 116 & 118 Balook St on foreshore reserve at rear of 110, Lauderdale, Clarence	Present	Yes	
I171482	Chrysanthemoides monilifera subsp. monilifera	boneseed	Sam Smee (21801)	01-Jan-0001	540012, 5248793 +/- 1m		Present	Yes	Not known (or uncertain)
I171483	Chrysanthemoides monilifera subsp. monilifera	boneseed	Sam Smee (21801)	01-Jan-0001	540179, 5248793 +/- 1m		Present	Yes	Not known (or uncertain)
I171484	Chrysanthemoides monilifera subsp. monilifera	boneseed	Sam Smee (21801)	01-Jan-0001	540054, 5248500 +/- 1m		Present	Yes	Not known (or uncertain)
I171485	Chrysanthemoides monilifera subsp. monilifera	boneseed	Sam Smee (21801)	01-Jan-0001	539844, 5248583 +/- 1m		Present	Yes	Not known (or uncertain)
I171486	Chrysanthemoides monilifera subsp. monilifera	boneseed	Sam Smee (21801)	01-Jan-0001	540179, 5248626 +/- 1m		Present	Yes	Not known (or uncertain)
I181558	Chrysanthemoides monilifera subsp. monilifera	boneseed	Unknown Unknown (21598)	05-Oct-2009	539644, 5249701 +/- 1m		Present	Yes	Not known (or uncertain)
I199485	Chrysanthemoides monilifera subsp. monilifera	boneseed	Jarrah Vercoe (6725), Oliver Timothy Strutt (8261)	05-Oct-2009	539644, 5249701 +/- 1m		Present	Yes	Not known (or uncertain)
I369371	Chrysanthemoides monilifera subsp. monilifera	boneseed	Sandy Leighton (7048), Axel Meiss (22424)	30-Aug-2011	539216, 5249418 +/- 10m	Lauderdale - 438 South Arm Highway, in Rd reserve (fenceline)	Present	Yes	
I369372	Chrysanthemoides monilifera subsp. monilifera	boneseed	Sandy Leighton (7048), Axel Meiss (22424)	30-Aug-2011	539395, 5249497 +/- 50m	Lauderdale - 450 South Arm Highway. Harmony Nursery	Present	Yes	
I369373	Chrysanthemoides monilifera subsp. monilifera	boneseed	Sandy Leighton (7048), Vicki Campbell (18421)	06-Jun-2012	539360, 5249252 +/- 10m	Lauderdale - Coastal Reserve opposite 438 - 490 South Arm Hwy	Present	Yes	
I369374	Chrysanthemoides monilifera subsp. monilifera	boneseed	Vicki Campbell (18421)	26-Jun-2012	539565, 5249380 +/- 10m	Lauderdale - 476 South Arm Rd (behind shopping centre)	Present	Yes	
I369375	Chrysanthemoides monilifera subsp. monilifera	boneseed	Vicki Campbell (18421)	25-Jun-2012	539453, 5249195 +/- 10m	Lauderdale - 476 South Arm Rd (?) - on fence cnr between 476 (shopping centre) & 488, close to footpath.	Present	Yes	
I369376	Chrysanthemoides monilifera subsp. monilifera	boneseed	Sandy Leighton (7048), Vicki Campbell (18421)	06-Jun-2012	539628, 5249200 +/- 20m	Lauderdale - 488 South Arm Hwy	Present	Yes	
I369377	Chrysanthemoides monilifera subsp. monilifera	boneseed	Sandy Leighton (7048), Axel Meiss (22424)	30-Aug-2011	539662, 5249147 +/- 10m	Lauderdale - Abundant Life Church, 490 S Arm H'way	Present	Yes	

Priority Weeds within 1000 m

540743, 5250288



538965, 5247879

### Priority Weeds within 1000 m

#### Verified Records

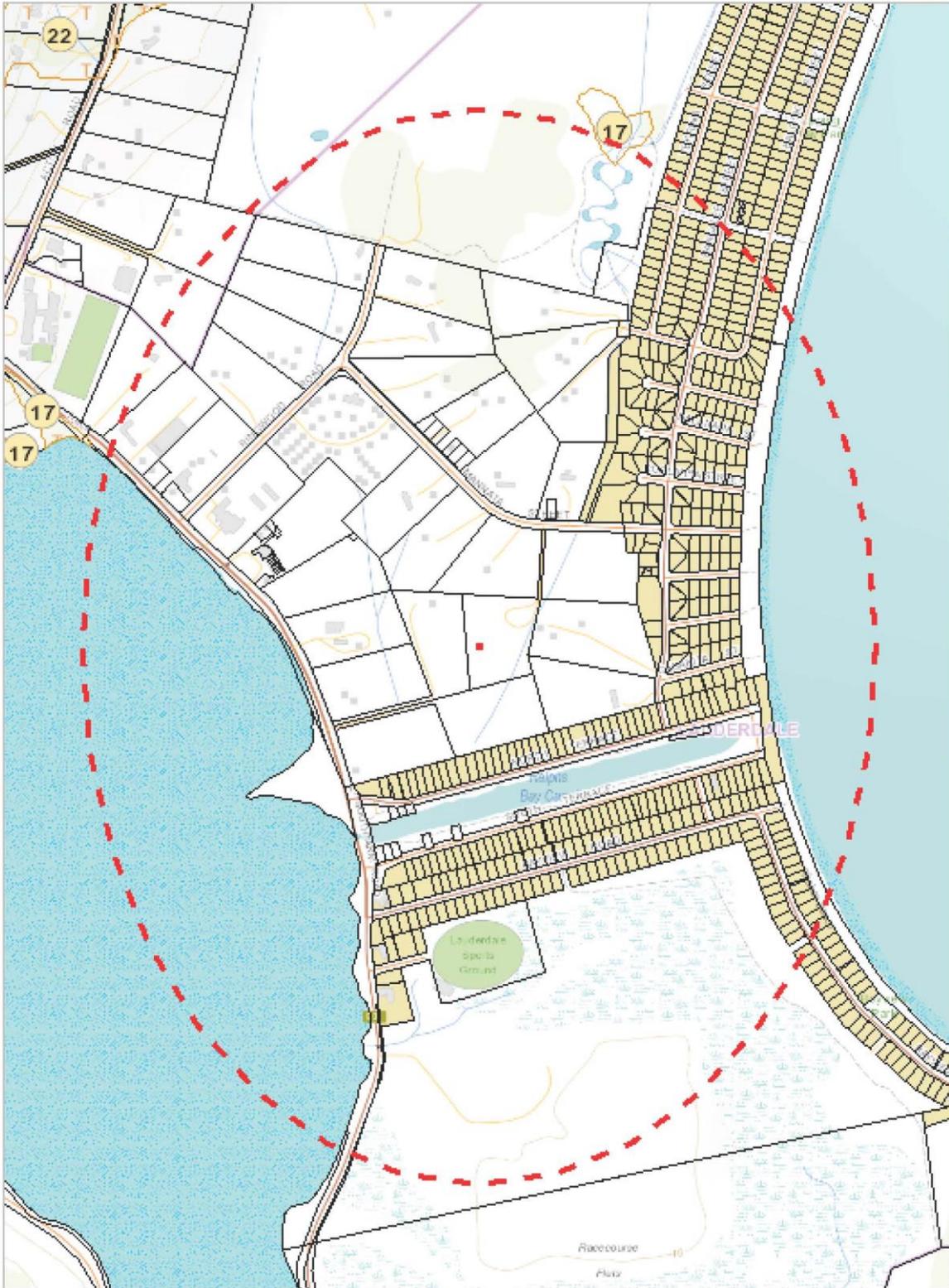
Id	Species	Common Name	Observers	Date	Easting/Northing GDA94 Zone 55	Location Description	WMA	Wons Density	Data Source
1071789	Cenchrus clandestinus	kikuyu grass	Damien Rathbone (7175)	13-Dec-2006	539597, 5248302 +/- 1000m	Lauderdale	Present	No	

#### Unverified Records

For more information about introduced weed species, please visit the following URL for contact details in your area.  
<http://www.dpipwe.tas.gov.au/inter.nsf/WebPages/TPRY-52J8Z3?open>

Threatened Communities (TNVC 2014) within 1000 metres

540743, 5250288



538965, 5247879

## Threatened Communities (TNVC 2014) within 1000 metres

### Legend: Threatened Communities

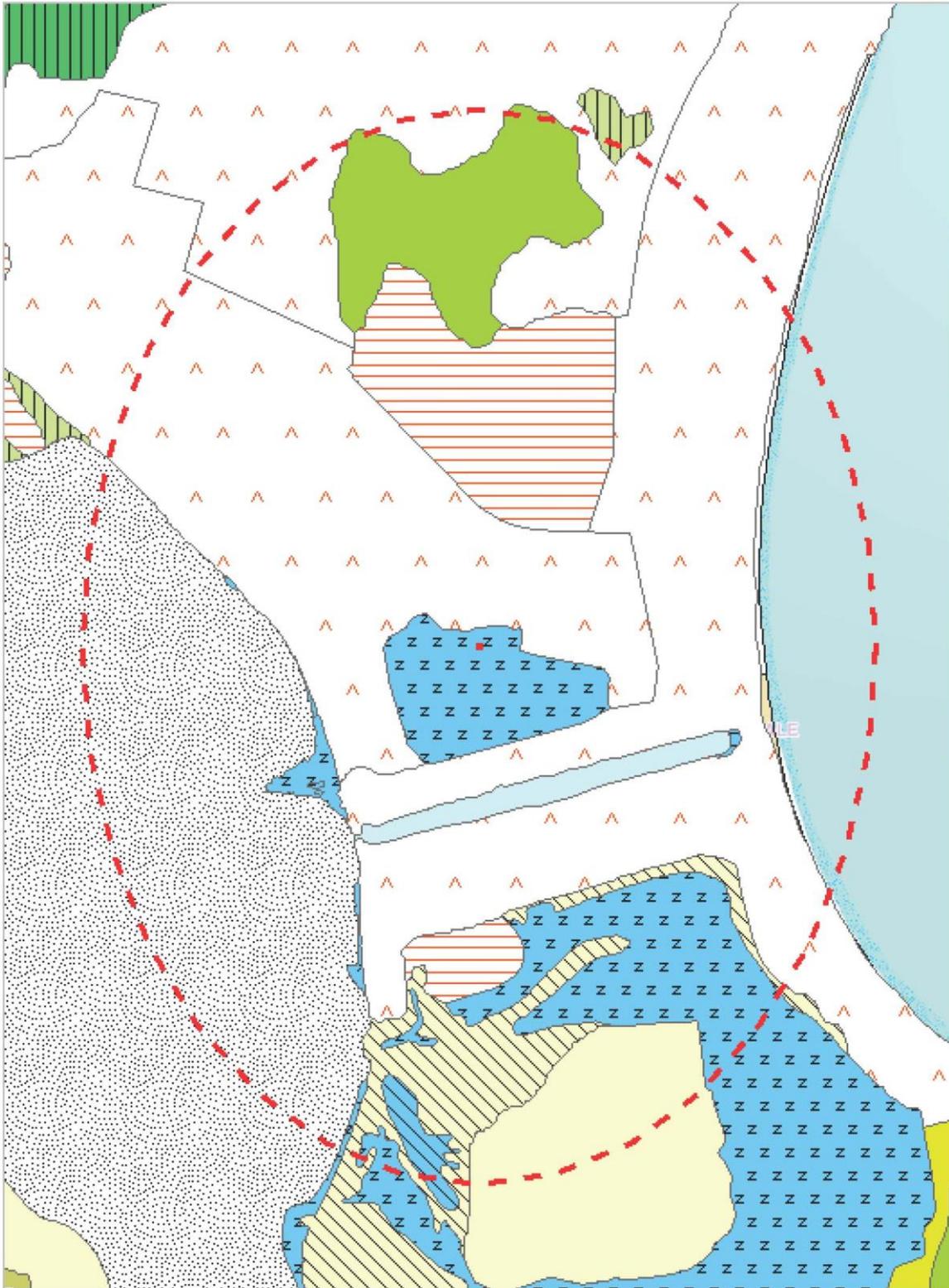
- 1 - Alkaline pans
- 2 - Allocasuarina littoralis forest
- 3 - Athrotaxis cupressoides/Nothofagus gunnii short rainforest
- 4 - Athrotaxis cupressoides open woodland
- 5 - Athrotaxis cupressoides rainforest
- 6 - Athrotaxis selaginoides/Nothofagus gunni short rainforest
- 7 - Athrotaxis selaginoides rainforest
- 8 - Athrotaxis selaginoides subalpine scrub
- 9 - Banksia marginata wet scrub
- 10 - Banksia serrata woodland
- 11 - Callitris rhomboidea forest
- 13 - Cushion moorland
- 14 - Eucalyptus amygdalina forest and woodland on sandstone
- 15 - Eucalyptus amygdalina inland forest and woodland on cainozoic deposits
- 16 - Eucalyptus brookeriana wet forest
- 17 - Eucalyptus globulus dry forest and woodland
- 18 - Eucalyptus globulus King Island forest
- 19 - Eucalyptus morrisbyi forest and woodland
- 20 - Eucalyptus ovata forest and woodland
- 21 - Eucalyptus risdonii forest and woodland
- 22 - Eucalyptus tenuiramis forest and woodland on sediments
- 23 - Eucalyptus viminalis - Eucalyptus globulus coastal forest and woodland
- 24 - Eucalyptus viminalis Furneaux forest and woodland
- 25 - Eucalyptus viminalis wet forest
- 26 - Heathland on calcareous substrates
- 27 - Heathland scrub complex at Wingaroo
- 28 - Highland grassy sedgeland
- 29 - Highland Poa grassland
- 30 - Melaleuca ericifolia swamp forest
- 31 - Melaleuca pustulata scrub
- 32 - Notelaea - Pomaderris - Beyeria forest
- 33 - Rainforest fernland
- 34 - Riparian scrub
- 35 - Seabird rookery complex
- 36 - Sphagnum peatland
- 36A - Spray zone coastal complex
- 37 - Subalpine Diplarrena latifolia rushland
- 38 - Subalpine Leptospermum nitidum woodland
- 39 - Wetlands

### Legend: Cadastral Parcels



TASVEG 3.0 Communities within 1000 metres

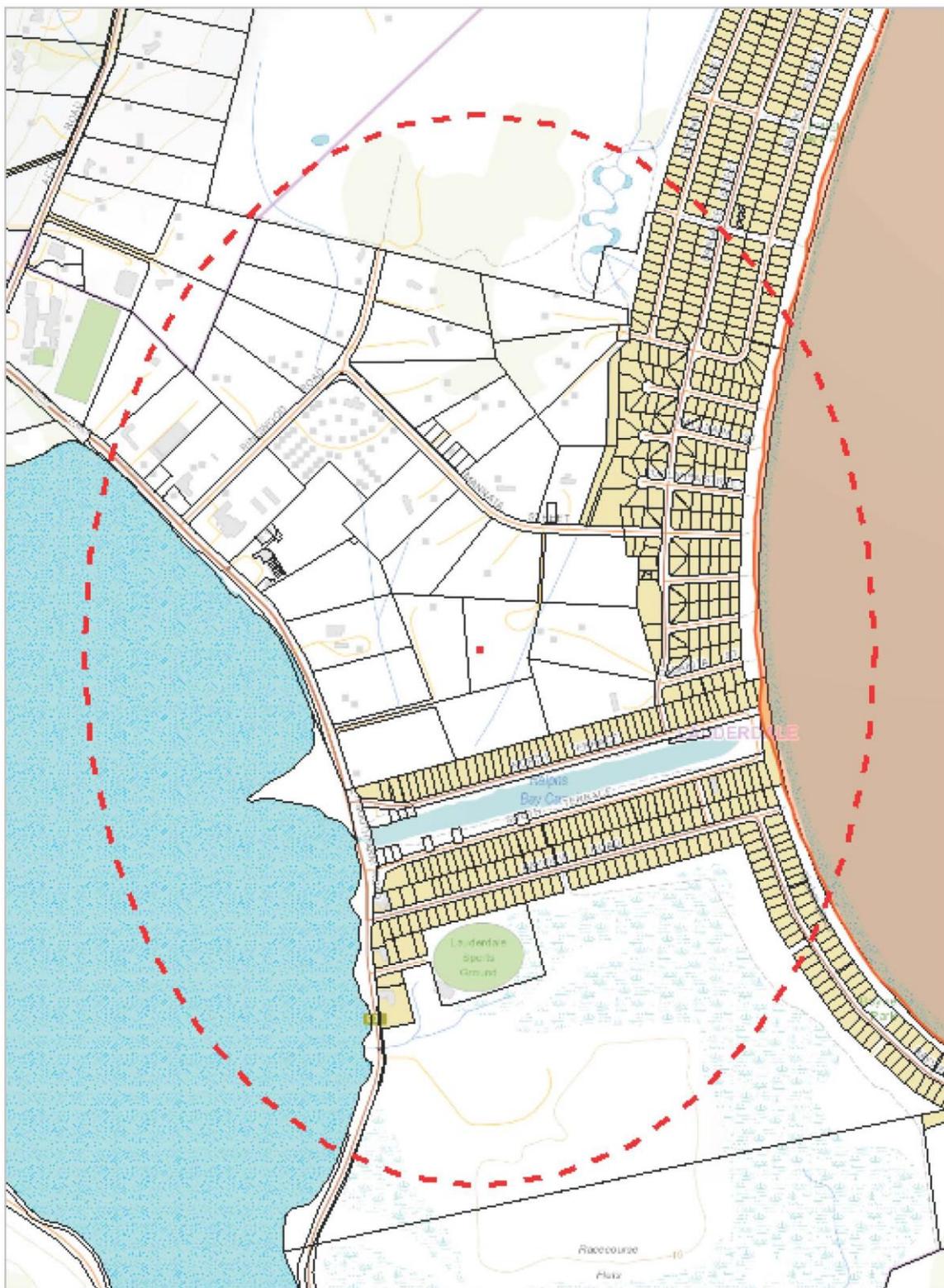
540743, 5250288



538965, 5247879

Geoconservation sites within 1000 metres

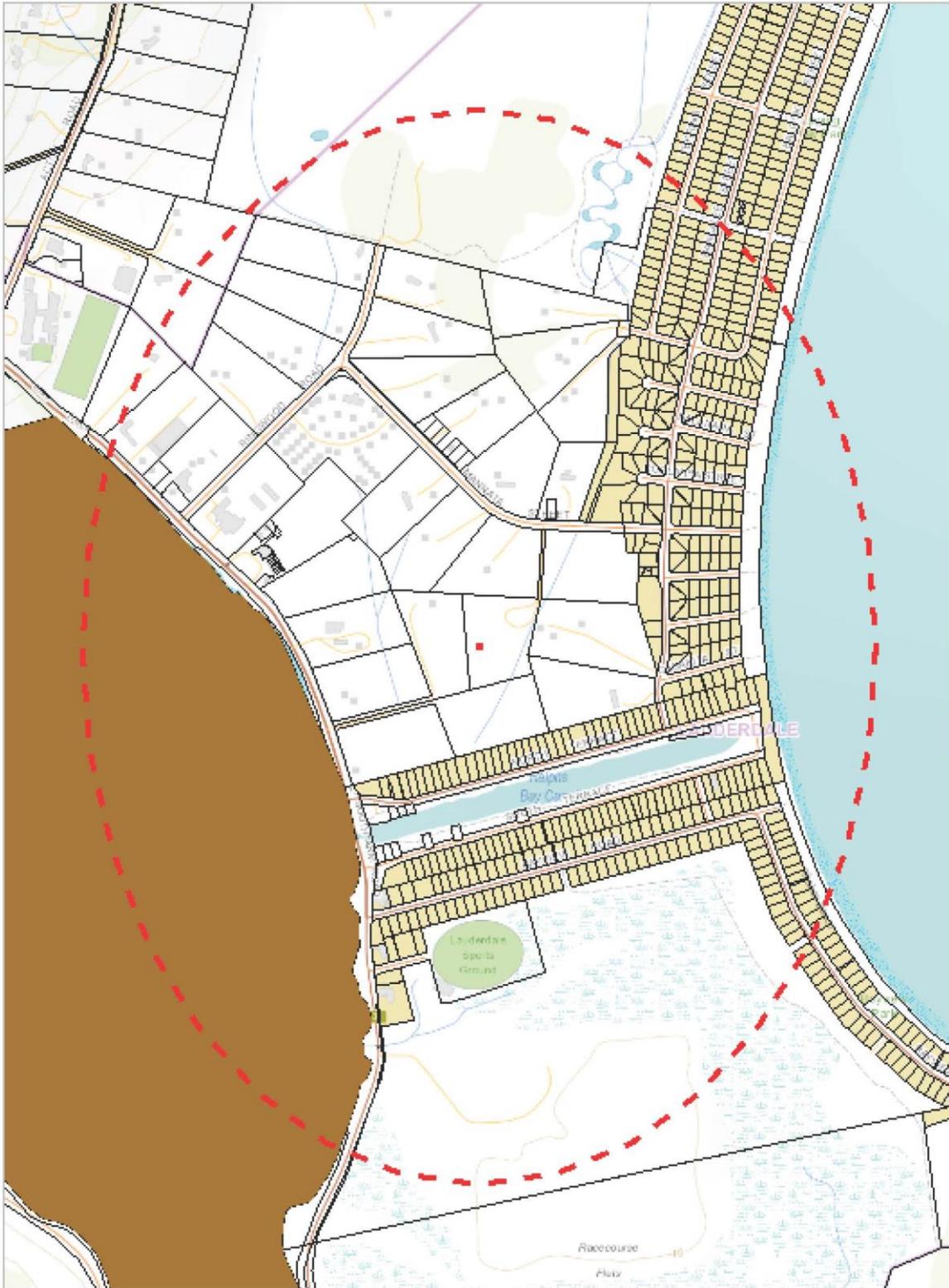
540743, 5250288



538965, 5247879

Reserves within 1000 metres

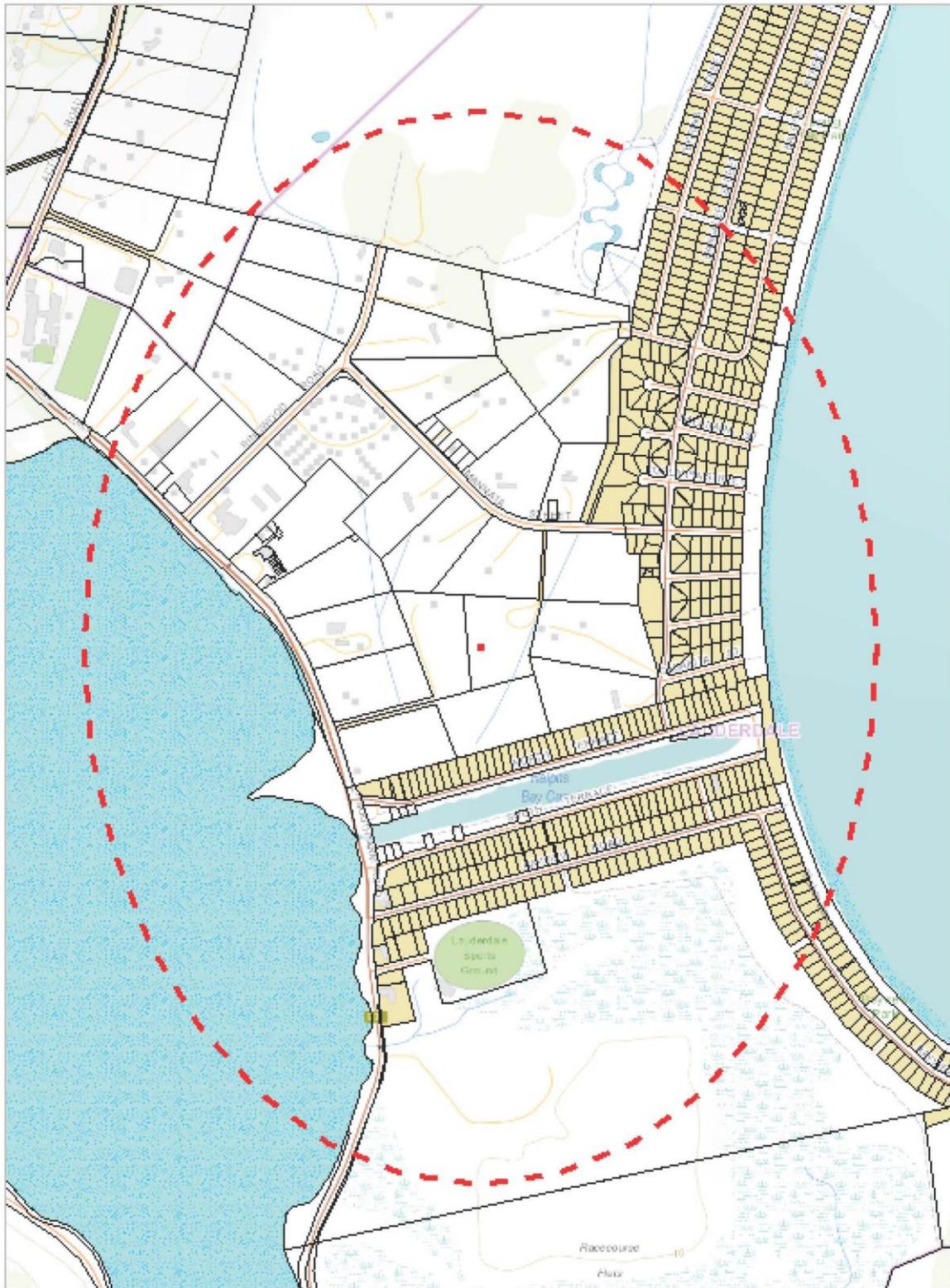
540743, 5250288



538965, 5247879

Known biosecurity risks within 1000 meters

540743, 5250288



538965, 5247879



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Legend

DPAC Projected Sea Level Rise V2

-  Mean High Tide 2010
-  Sea Level Rise 2050 (20 cm)
-  Sea Level Rise 2050 (80 cm)

DPAC Projected Storm Tide V2

-  Stormtide 1% AEP in 2010

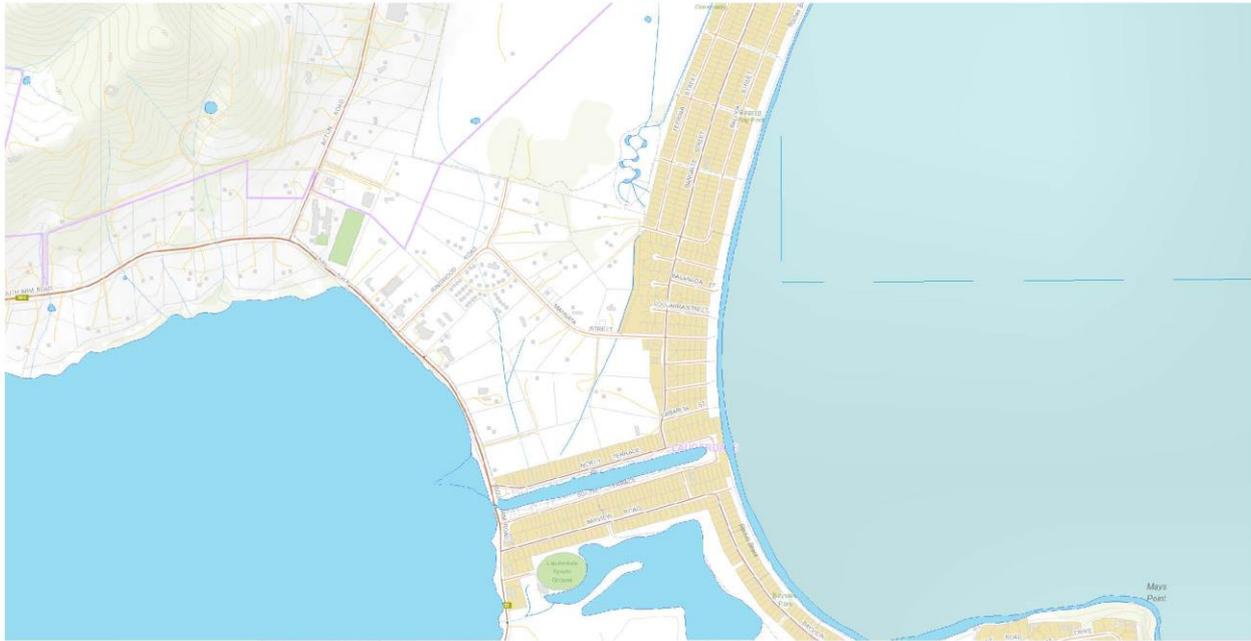
Topographic



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Legend

Rivers Streams and Creeks

Major River

Hydrographic Areas

Hydrographic Areas

Hydrographic Lines

CFEV Wetlands - Integrated Conservation Value

Very High

High

Medium

Low

Topographic



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