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Patrick Beveridge
51 Reef View Road
Murdunna TAS 7178

5 December 2020

Dear Patrick

RE: 4015 Arthur Highway, Murdunna (PID 9474428; C.T. 169808/1; LPI FAC02
Possible future rezoning and/or subdivision

I have assessed the natural values of 4015 Arthur Highway, Murdunna (PID 9474428; C.T. 169808/1; LPI FAC02), which was reported in:

> ECO*tas* (2020). *Natural Values Assessment of 4015 Arthur Highway, Murdunna, Tasmania*. Report by Environmental Consulting Options Tasmania (ECO*tas*) for Patrick Beveridge, 5 December 2020.

As part of our discussions, you made me aware of a potential proposal to rezone and/or subdivide the subject parcel into two lots.

A usual requirement for such proposals is a detailed natural values assessment and statement that identifies any potential constraints to such a proposal. While my recent assessment and report was principally undertaken to assist with a specific development proposal (single residential dwelling), I deliberately assessed the entirety of the title and ECO*tas* (2020) refers to this. That is, there should be no requirement to undertake a new assessment (I also believe that my assessment should remain valid for several years).

While TASVEG vegetation mapping identifies the site as supporting *Eucalyptus ovata* forest and woodland (TASVEG code: DOV), which is listed as a threatened vegetation community under Schedule 3A of the Tasmanian *Nature Conservation Act 2002* (and equates to an EPBCA-listed threatened ecological community and provides potential habitat for the TSPA/EPBCA-listed swift parrot), a natural value that would notionally constrain rezoning and future development, site assessment clearly indicated that the whole title supports *Eucalyptus pulchella* forest and woodland (TASVEG code: DPU), a non-threatened, widespread and well-reserved vegetation type.

Site assessment indicated that the subject title supports ubiquitous but marginal potential habitat for fauna species listed as threatened on the Tasmanian *Threatened Species Protection Act 1995* and/or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, specifically not supporting significant potential foraging and/or nesting habitat for the swift parrot.

Site assessment indicated that the subject title supports an extensive and abundant population of a flora species listed as threatened on the Tasmanian *Threatened Species Protection Act 1995*, viz. *Pimelea flava* subsp. *flava* (yellow riceflower), listed as rare (Schedule 5). ECOtas concluded that the subject title supports a minimum of 1,100 individuals, that the species extends on to

all adjacent titles in similar abundance, thrives on disturbance, and that small-scale development within a lot will have a negligible impact on the species at all reasonable scales. Subdivision inevitably results in fencing around and between lots: to date, this species has proliferated along the fences already present, under and along slashed powerline easements and along recently constructed access roads into various titles in the area. That is, routine management and occupation of a lot supporting *Pimelea flava* is likely to manifestly benefit the species. In my opinion, this species should not be viewed as a critical constraint to any rezoning and/or subdivision proposal. While I believe the formal conservation status of the species warrants review (for delisting), while the species remains listed, there will be formal requirements for any works that will result in specimens of the species being "taken" i.e. a permit under Section 51 of the Tasmanian *Threatened Species Protection Act 1995* will be required. However, the administrative act of rezoning and/or subdivision need not be constrained by this: this would become a requirement for any future owners (should the species remain listed).

Note that this statement does not constitute legal advice, and provides my interpretation of the provisions of the current *Tasman Interim Planning Scheme 2015*, which may not represent the views of Tasman Council. I also note that the *Statewide Planning Scheme* and Local Provisions Schedules are imminent and this may affect the above information. It is recommended that formal advice be sought from the relevant agency prior to acting on any aspect of this report.

Please do not hesitate to contact me further if additional information is required.

Kind regards

Mark Wapstra
Senior Scientist/Manager

Australian Government

Department of Agriculture, Water and the Environment

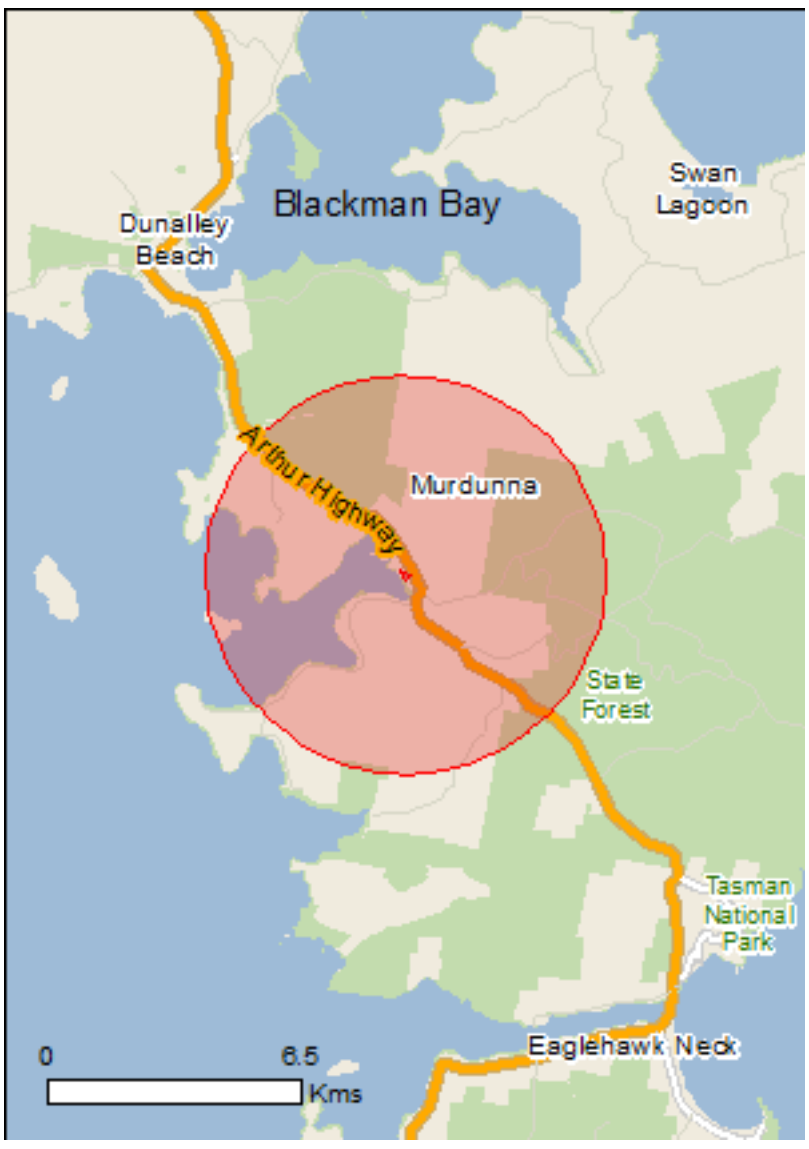
EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

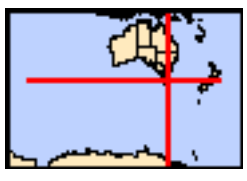
Information is available about Environment Assessments and the EPBC Act including significance guidelines, forms and application process details.

Report created: 30/11/20 16:53:08



Coordinates

Buffer: 5.0Km



Summary

Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	2
Listed Threatened Species:	51
Listed Migratory Species:	35

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at http://www.environment.gov.au/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Land:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	52
Whales and Other Cetaceans:	9
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have nominated.

State and Territory Reserves:	7
Regional Forest Agreements:	1
Invasive Species:	30
Nationally Important Wetlands:	None
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Name	Status	Type of Presence
Giant Kelp Marine Forests of South East Australia	Endangered	Community may occur within area
Tasmanian Forests and Woodlands dominated by black gum or Brookers gum (Eucalyptus ovata / E. brookeriana)	Critically Endangered	Community likely to occur within area

Listed Threatened Species [Resource Information]

Name	Status	Type of Presence
Birds		
Aquila audax fleayi Tasmanian Wedge-tailed Eagle, Wedge-tailed Eagle (Tasmanian) [64435]	Endangered	Breeding likely to occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat likely to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat likely to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Ceyx azureus diemenensis Tasmanian Azure Kingfisher [25977]	Endangered	Species or species habitat likely to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea antipodensis gibsoni Gibson's Albatross [82270]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area

Name	Status	Type of Presence
Fregetta grallaria grallaria White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian) [64438]	Vulnerable	Species or species habitat likely to occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Breeding known to occur within area
Limosa lapponica baueri Bar-tailed Godwit (baueri), Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat known to occur within area
Limosa lapponica menzbieri Northern Siberian Bar-tailed Godwit, Bar-tailed Godwit (menzbieri) [86432]	Critically Endangered	Species or species habitat may occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Breeding likely to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour likely

Name	Status	Type of Presence
		to occur within area
Thinornis cucullatus cucullatus Hooded Plover (eastern), Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat likely to occur within area
Tyto novaehollandiae castanops (Tasmanian population) Masked Owl (Tasmanian) [67051]	Vulnerable	Breeding known to occur within area
Fish		
Brachionichthys hirsutus Spotted Handfish [64418]	Critically Endangered	Species or species habitat may occur within area
Prototroctes maraena Australian Grayling [26179]	Vulnerable	Species or species habitat likely to occur within area
Thymichthys politus Red Handfish [83756]	Critically Endangered	Species or species habitat may occur within area
Frogs		
Litoria raniformis Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog [1828]	Vulnerable	Species or species habitat likely to occur within area
Mammals		
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
Dasyurus maculatus maculatus (Tasmanian population) Spotted-tail Quoll, Spot-tailed Quoll, Tiger Quoll (Tasmanian population) [75183]	Vulnerable	Species or species habitat known to occur within area
Dasyurus viverrinus Eastern Quoll, Luaner [333]	Endangered	Species or species habitat known to occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Perameles gunnii gunnii Eastern Barred Bandicoot (Tasmania) [66651]	Vulnerable	Species or species habitat known to occur within area
Sarcophilus harrisii Tasmanian Devil [299]	Endangered	Species or species habitat likely to occur within area
Other		
Parvulastra vivipara Tasmanian Live-bearing Seastar [85451]	Vulnerable	Species or species habitat may occur within area
Plants		
Caladenia caudata Tailed Spider-orchid [17067]	Vulnerable	Species or species habitat likely to occur within area
Epacris virgata Pretty Heath, Dan Hill Heath [20375]	Endangered	Species or species habitat known to occur within area
Glycine latrobeana Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat likely to occur

Name	Status	Type of Presence
		within area
Lepidium hyssopifolium Basalt Pepper-cress, Peppercress, Rubble Pepper-cress, Pepperweed [16542]	Endangered	Species or species habitat likely to occur within area
Prasophyllum apoxychilum Tapered Leek-orchid [64947]	Endangered	Species or species habitat known to occur within area
Senecio psilocarpus Swamp Fireweed, Smooth-fruited Groundsel [64976]	Vulnerable	Species or species habitat may occur within area
Thelymitra jonesii Sky-blue Sun-orchid [76352]	Endangered	Species or species habitat known to occur within area
Sharks		
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area

Listed Migratory Species

[Resource Information]

* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
Migratory Marine Birds		
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardenna carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area
Ardenna grisea Sooty Shearwater [82651]		Species or species habitat likely to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Sternula albifrons Little Tern [82849]		Species or species habitat may occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Name	Threatened	Type of Presence
Thalassarche cauta		
Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma		
Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche impavida		
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris		
Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini		
Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Migratory Marine Species		
Balaena glacialis australis		
Southern Right Whale [75529]	Endangered*	Species or species habitat known to occur within area
Balaenoptera musculus		
Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
Caperea marginata		
Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area
Carcharodon carcharias		
White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area
Lagenorhynchus obscurus		
Dusky Dolphin [43]		Species or species habitat may occur within area
Lamna nasus		
Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area
Megaptera novaeangliae		
Humpback Whale [38]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Migratory Terrestrial Species		
Hirundapus caudacutus		
White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area
Myiagra cyanoleuca		
Satin Flycatcher [612]		Species or species habitat known to occur within area
Migratory Wetlands Species		
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat may occur within area
Calidris acuminata		
Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
Calidris canutus		
Red Knot, Knot [855]	Endangered	Species or species

Name	Threatened	Type of Presence
		habitat likely to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat likely to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat may occur within area

Other Matters Protected by the EPBC Act

Listed Marine Species		[Resource Information]
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
Birds		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardea alba Great Egret, White Egret [59541]		Species or species habitat likely to occur within area
Ardea ibis Cattle Egret [59542]		Species or species habitat may occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat likely to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat likely to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely

Name	Threatened	Type of Presence
		to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea gibsoni Gibson's Albatross [64466]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Breeding known to occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Breeding known to occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat known to occur within area
Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [1043]		Foraging, feeding or related behaviour likely to occur within area
Puffinus griseus Sooty Shearwater [1024]		Species or species habitat likely to occur within area
Sterna albifrons Little Tern [813]		Species or species habitat may occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or

Name	Threatened	Type of Presence
		related behaviour likely to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche sp. nov. Pacific Albatross [66511]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thinornis rubricollis Hooded Plover [59510]		Species or species habitat likely to occur within area
Thinornis rubricollis rubricollis Hooded Plover (eastern) [66726]	Vulnerable*	Species or species habitat likely to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat may occur within area
Fish		
Hippocampus abdominalis Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area
Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area
Mitotichthys mollisoni Mollison's Pipefish [66260]		Species or species habitat may occur within area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse		Species or species

Name	Threatened	Type of Presence
[66275]		habitat may occur within area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area
Mammals		
Arctocephalus forsteri Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area
Arctocephalus pusillus Australian Fur-seal, Australo-African Fur-seal [21]		Species or species habitat may occur within area

Whales and other Cetaceans

[Resource Information]

Name	Status	Type of Presence
Mammals		
Balaenoptera acutorostrata Minke Whale [33]		Species or species habitat may occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area
Delphinus delphis Common Dophin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat may occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area

Extra Information

State and Territory Reserves [Resource Information]

Name	State
Bangor	TAS
Bangor - Bobs Gully	TAS
Bangor - Jacks Gully	TAS
Bellettes Bay	TAS
Chronicle Point	TAS
Eaglehawk Bay-Flinders Bay	TAS
King George Island	TAS

Regional Forest Agreements [Resource Information]

Note that all areas with completed RFAs have been included.

Name	State
Tasmania RFA	Tasmania

Invasive Species [Resource Information]

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resouces Audit, 2001.

Name	Status	Type of Presence
Birds		
Acridotheres tristis Common Myna, Indian Myna [387]		Species or species habitat likely to occur within area
Alauda arvensis Skylark [656]		Species or species habitat likely to occur within area
Anas platyrhynchos Mallard [974]		Species or species habitat likely to occur within area
Carduelis carduelis European Goldfinch [403]		Species or species habitat likely to occur within area
Carduelis chloris European Greenfinch [404]		Species or species habitat likely to occur within area
Columba livia Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Passer domesticus House Sparrow [405]		Species or species habitat likely to occur within area

Name	Status	Type of Presence
Streptopelia chinensis Spotted Turtle-Dove [780]		Species or species habitat likely to occur within area
Sturnus vulgaris Common Starling [389]		Species or species habitat likely to occur within area
Turdus merula Common Blackbird, Eurasian Blackbird [596]		Species or species habitat likely to occur within area
Mammals		
Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Capra hircus Goat [2]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Lepus capensis Brown Hare [127]		Species or species habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Rattus norvegicus Brown Rat, Norway Rat [83]		Species or species habitat likely to occur within area
Rattus rattus Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
Asparagus asparagoides Bridal Creeper, Bridal Veil Creeper, Smilax, Florist's Smilax, Smilax Asparagus [22473]		Species or species habitat likely to occur within area
Asparagus scandens Asparagus Fern, Climbing Asparagus Fern [23255]		Species or species habitat likely to occur within area
Chrysanthemoides monilifera Bitou Bush, Boneseed [18983]		Species or species habitat likely to occur within area
Chrysanthemoides monilifera subsp. monilifera Boneseed [16905]		Species or species habitat likely to occur within area
Cytisus scoparius Broom, English Broom, Scotch Broom, Common Broom, Scottish Broom, Spanish Broom [5934]		Species or species habitat likely to occur within area
Genista monspessulana Montpellier Broom, Cape Broom, Canary Broom, Common Broom, French Broom, Soft Broom		Species or species habitat likely to occur

Name	Status	Type of Presence
[20126]		within area
Lycium ferocissimum African Boxthorn, Boxthorn [19235]		Species or species habitat likely to occur within area
Nassella trichotoma Serrated Tussock, Yass River Tussock, Yass Tussock, Nassella Tussock (NZ) [18884]		Species or species habitat likely to occur within area
Rubus fruticosus aggregate Blackberry, European Blackberry [68406]		Species or species habitat likely to occur within area
Salix spp. except S.babylonica, S.x calodendron & S.x reichardtii Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497]		Species or species habitat likely to occur within area
Ulex europaeus Gorse, Furze [7693]		Species or species habitat likely to occur within area

Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World and National Heritage properties, Wetlands of International and National Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the qualifications below and may need to seek and consider other information sources.

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species distributions have been derived through a variety of methods. Where distributions are well known and if time permits, maps are derived using either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc) together with point locations and described habitat; or environmental modelling (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where very little information is available for species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc). In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More reliable distribution mapping methods are used to update these distributions as time permits.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

The following groups have been mapped, but may not cover the complete distribution of the species:

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

Such breeding sites may be important for the protection of the Commonwealth Marine environment.

Coordinates

-42.942303 147.863187,-42.942381 147.864153,-42.943014 147.865537,-42.943654 147.864362,-42.943123 147.863707,-42.942507 147.863348,-42.942303 147.863187

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact Us page.

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NATURAL VALUES ASSESSMENT OF 4015 ARTHUR HIGHWAY, MURDUNNA, TASMANIA

Environmental Consulting Options Tasmania (ECO*tas*) for Patrick Beveridge

5 December 2020

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CITATION

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AUTHORSHIP

Field assessment: Mark Wapstra

Report production: Mark Wapstra

Habitat and vegetation mapping: Mark Wapstra

Base data for mapping: LISTmap

Digital and aerial photography: Mark Wapstra, GoogleEarth, LISTmap

ACKNOWLEDGEMENTS

Patrick Beveridge (owner) provided background information on the proposed land use within the subject title.

COVER ILLUSTRATION

Looking towards the west from the higher part of the title.

Please note: the blank pages in this document are deliberate to facilitate double-sided printing.

CONTENTS

SUMMARY

General

Patrick Beveridge (owner) engaged Environmental Consulting Options Tasmania (ECO*tas*) to undertake a natural values assessment of 4015 Arthur Highway, Murdunna, Tasmania, primarily to ensure that the requirements of the identified ecological values are appropriately considered during any further project planning under local, State and Commonwealth government approval protocols.

Site assessment

A natural values assessment of the study area was undertaken by Mark Wapstra (ECO*tas*) on 2 December 2020.

Summary of key findings

Threatened flora

- No plant species listed as threatened on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA) were detected, or are known from database information, from the study area.
- One plant species listed as threatened on the Tasmanian *Threatened Species Protection Act 1995* (TSPA) was recorded from the study area, as follows:
  - *Pimelea flava* subsp. *flava* (yellow riceflower) [TSPA: rare]: locally abundant throughout study area and extending on to adjacent titles, represented by low 1,000s of individuals of various ages.

Threatened fauna

- No fauna species listed as threatened on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA) and/or the Tasmanian *Threatened Species Protection Act 1995* (TSPA) were detected, or are known from database information, from the study area.

Vegetation types

- The study area supports the following TASVEG mapping unit:
  - *Eucalyptus pulchella* forest and woodland (TASVEG code: DPU).
- DPU is not listed as threatened on Schedule 3A of the Tasmanian *Nature Conservation Act 2002*, does not equate to a threatened ecological community under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, and is classified as a low priority biodiversity value (as a vegetation type) under Table E10.1 of the Biodiversity Code of the *Tasman Interim Planning Scheme 2015*.

Weeds

- Two plant species classified as declared weeds within the meaning of the Tasmanian *Weed Management Act 1999* were detected from the study area, as follows:

- *Erica lusitanica* (spanish heath): scattered individuals, mainly associated with the powerline clearing along the western fenceline; and
- *Rubus* spp. (blackberry): single plant (non-fertile) associated with the powerline clearing along the western fenceline.

Plant disease

- No evidence of *Phytophthora cinnamomi* (PC, rootrot) was recorded within the study area.
- No evidence of myrtle wilt was recorded from within the study area.
- No evidence of myrtle rust was recorded from within the study area.

Animal disease (chytrid)

- The study area does not support particular habitats conducive to frog chytrid disease.

Recommendations

The recommendations provided below are a summary of those provided in relation to each of the ecological features described in the main report. The main text of the report provides the relevant context for the recommendations.

Vegetation types

In general terms, minimising the extent of "clearance and conversion" and/or "disturbance" to native vegetation is recommended (but recognising the title's zoning status and its configuration, size, and topography, limiting practical application).

Threatened flora

While the site (including the proposed development area) supports a population of threatened flora (*Pimelea flava* subsp. *flava*, yellow riceflower), no specific special management is recommended (but refer to legislative requirements).

Threatened fauna

Apart from the generic recommendation to minimise the extent of "clearance and conversion" and/or "disturbance" to native vegetation, specific management in relation to threatened fauna is not recommended.

Weed and disease management

Care should be taken to dispose of vegetation debris and topsoil created as part of works due to localised plants of spanish heath (*Erica lusitanica*) and blackberry (*Rubus* sp.). Beyond these measures, owner-occupation is considered the most effective future and longer-term means of achieving weed management (i.e. vigilance and control as needed).

Legislative and policy implications

A permit under the Tasmanian *Threatened Species Protection Act 1995* will be required for the works in relation to *Pimelea flava* subsp*. flava* (yellow riceflower).

A formal referral to the Commonwealth Department of Agriculture, Water and the Environment under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA) is not considered required.

Development will require a planning permit pursuant to the provisions of the *Tasman Interim Planning Scheme 2015*. A review of the provisions of the Biodiversity Code indicates likely compliance with E10.7.1 without the need for specific planning permit conditions.

PURPOSE, SCOPE, LIMITATIONS AND QUALIFICATIONS OF THE SURVEY

Purpose

Patrick Beveridge (owner) engaged Environmental Consulting Options Tasmania (ECO*tas*) to undertake a natural values assessment of 4015 Arthur Highway, Murdunna, Tasmania, primarily to ensure that the requirements of the identified ecological values are appropriately considered during any further project planning under local, State and Commonwealth government approval protocols.

Scope

This report relates to:

- flora and fauna species of conservation significance, including a discussion of listed threatened species (under the Tasmanian *Threatened Species Protection Act 1995* and/or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*) potentially present, and other species of conservation significance/interest;
- vegetation types (forest and non-forest, native and exotic) present, including a discussion of the distribution, condition, extent, composition and conservation significance of each community;
- plant and animal disease management issues;
- weed management issues; and
- a discussion of some of the policy and legislative implications of the identified ecological values.

This report follows the government-produced *Guidelines for Natural Values Surveys – Terrestrial Development Proposals* (DPIPWE 2015) in anticipation that the report (or extracts of it) may be required as part of various approval processes.

The report format should also be applicable to other assessment protocols as required by the Commonwealth Department of Agriculture, Water and the Environment(for any referral/approval that may be required under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*), which is unlikely to be required in this case.

More specifically, this assessment and report have been prepared to address specific provisions of the *Tasman Interim Planning Scheme 2015*, with particular reference to the natural values/biodiversity provisions of the Biodiversity Code.

Limitations

The ecological assessment was undertaken on 2 December 2020. Many plant species have ephemeral or seasonal growth or flowering habits, or patchy distributions (at varying scales), and it is possible that some species were not recorded for this reason. However, every effort was made to sample the range of habitats present in the survey area to maximise the opportunity of recording most species present (particularly those of conservation significance). Late spring and into summer is usually regarded as the most suitable period to undertake most botanical assessments. While some species have more restricted flowering periods, a discussion of the potential for the site to

support these is presented. In this case, I believe that the survey was appropriately timed to detect the species with a highest priority for conservation management in this part of the State.

The survey was also limited to vascular species: species of mosses, lichens and liverworts were not recorded. However, a consideration is made of threatened species (vascular and non-vascular) likely to be present (based on habitat information and database records) and reasons presented for their apparent absence.

Surveys for threatened fauna were largely limited to an examination of "potential habitat" (i.e. comparison of on-site habitat features to habitat descriptions for threatened fauna), and detection of tracks, scats and other signs.

Qualifications

Except where otherwise stated, the opinions and interpretations of legislation and policy expressed in this report are made by the author and do not necessarily reflect those of the relevant agency. The client should confirm management prescriptions with the relevant agency before acting on the content of this report. This report and associated documents do not constitute legal advice.

Permit

Any plant material was collected under DPIPWE permit TFL 20167 (in the name of Mark Wapstra). Relevant data will be entered into DPIPWE's *Natural Values Atlas* database by the author (point locations of weeds). Some plant material may be lodged at the Tasmanian Herbarium by the author.

No vertebrate or invertebrate material was collected.

STUDY AREA & LAND USE PROPOSAL

The study area (Figures 1-3) comprises the private title of 4015 Arthur Highway, Murdunna, Tasmania (Figures 1-3), with the following cadastral details:

- PID 9474428; C.T. 169808/1; LPI FAC02 (13,980 m^2).

Land tenure and other categorisations relevant to natural values management of the study area are as follows:

- Tasman municipality, with the subject title zoned as Rural Resource pursuant to the *Tasman Interim Planning Scheme 2015* (Figure 4) and wholly subject to the Biodiversity Protection Area overlay (Figure 5), this coinciding entirely with the TASVEG 3.0 mapping of *Eucalyptus ovata* forest and woodland (TASVEG code: DOV);
- South East bioregion, according to the IBRA 7 bioregions used by most government agencies); and
- NRM South Natural Resource Management (NRM) region.

The subject title is bound to the north, east and south by private titles and to the west by the Arthur Highway. The whole of the title supports dry sclerophyll forest with a regrowth structure (Plates 1 & 2), affected by the "Inala Road – Forcett" fire of Jan. 2013 (Plates 3-5; Figure 6), although there is some evidence of older fire events in the form of deeper basal scars on the larger trees (Plate 5).

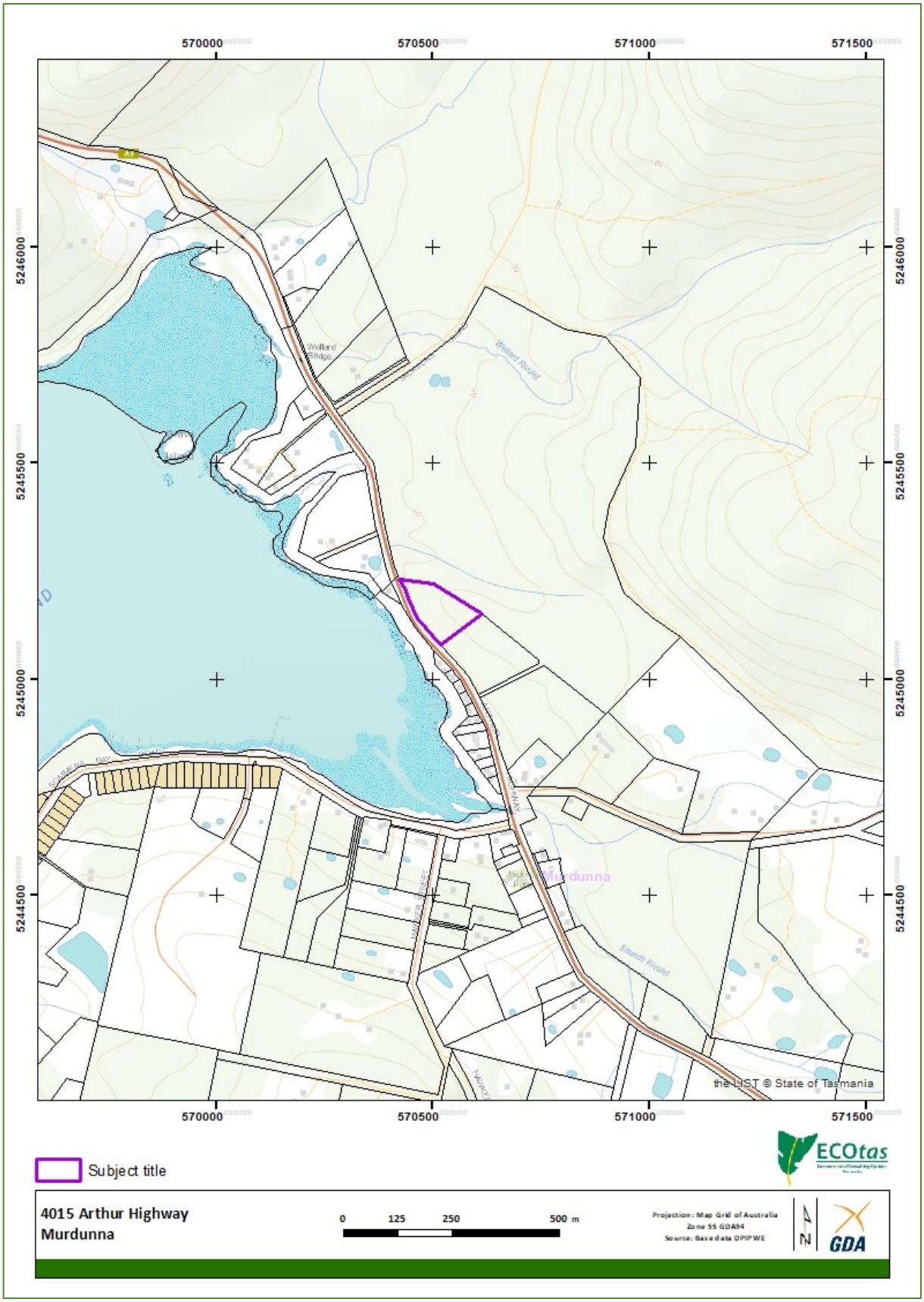

Figure 1. General location of the study area

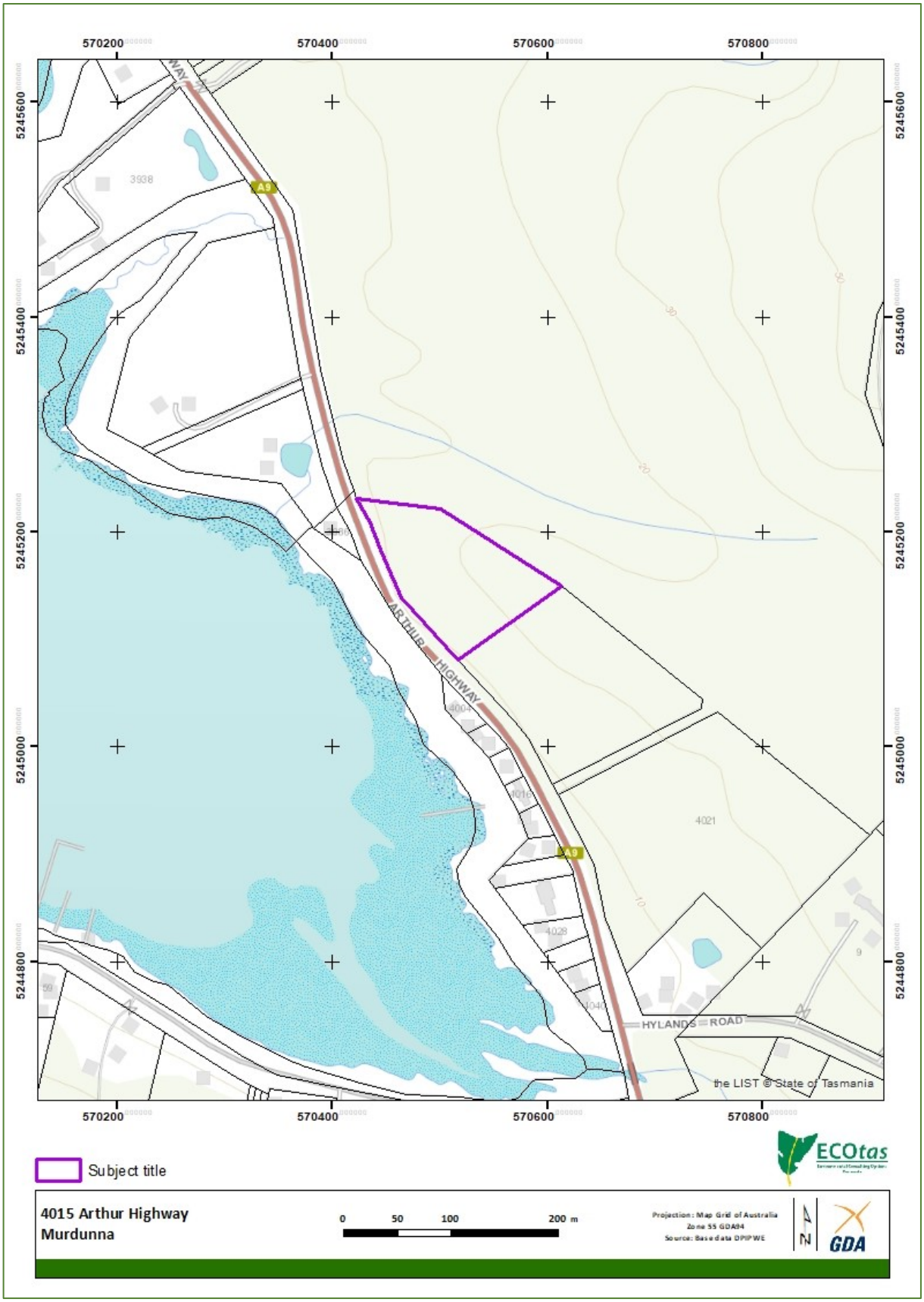

Figure 2. Detailed location of the study area showing general topographic and cadastral features

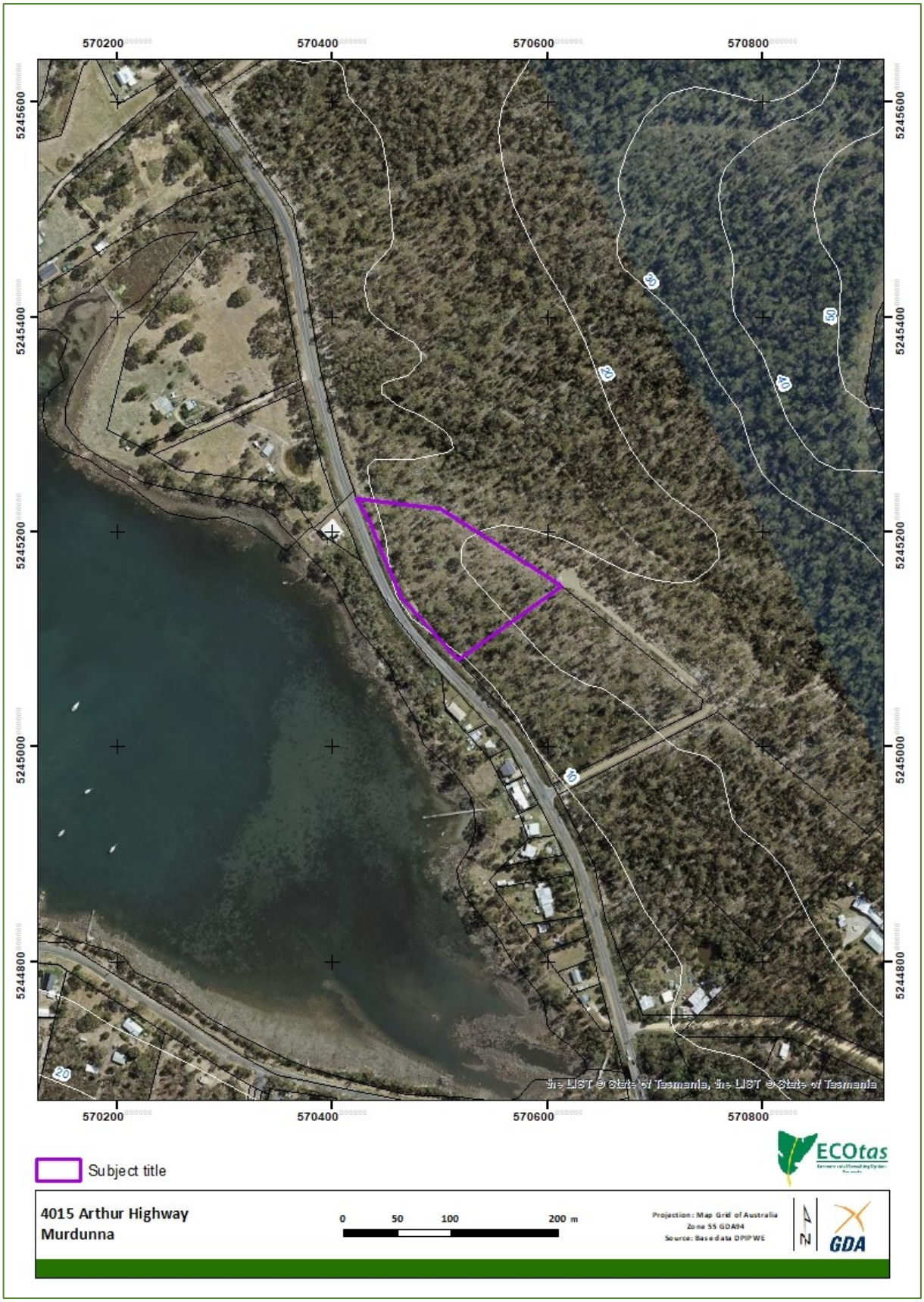

Figure 3. Detailed location of the study area – showing recent aerial imagery and cadastral boundaries

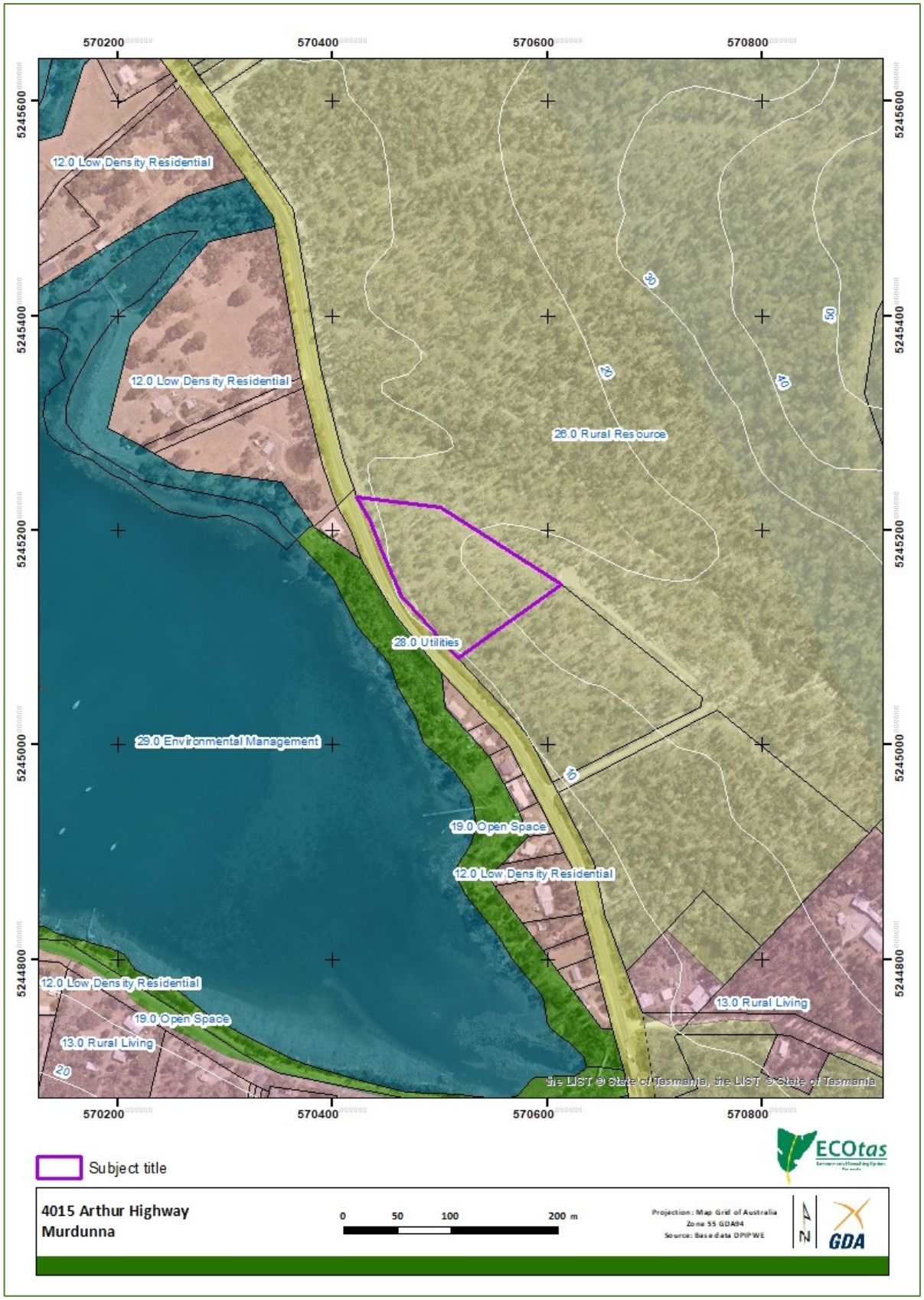

Figure 4. Zoning of subject title and surrounds pursuant to the *Tasman Interim Planning Scheme 2015* [source: LISTmap]

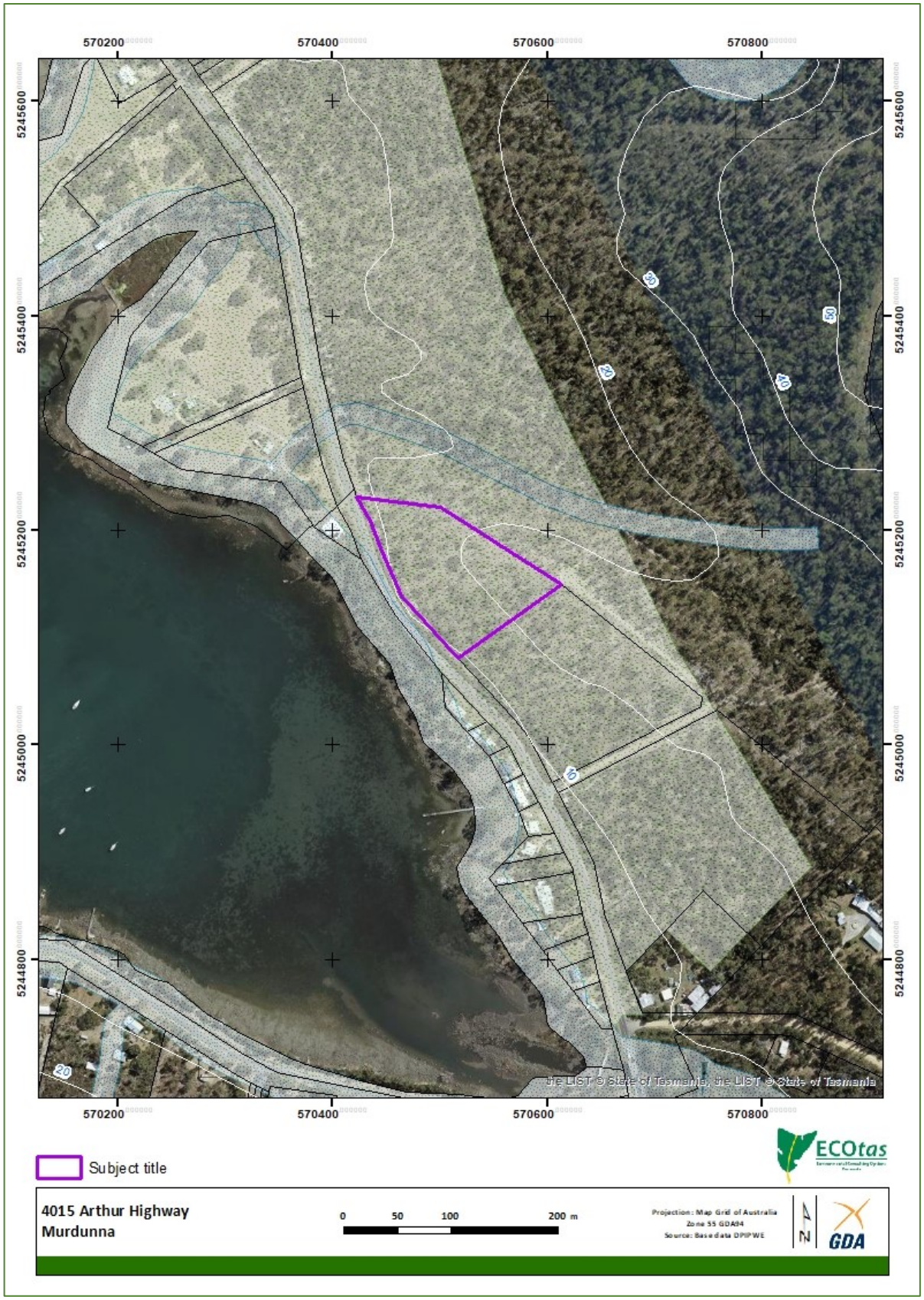

Figure 5. Extent of Biodiversity Protection Area overlay close to the title pursuant to the *Tasman Interim Planning Scheme 2015* [source: LISTmap]

Figure 6. Fire history of the subject title and surrounds

Figure 7. Geology of the subject title and surrounds (refer to text for codes)


Plates 1 & 2. Examples of native forest within subject title



Plates 3-5. Examples of recent fire scarring from 2013 fire (all plates) and both older and more recent fire scars (Plate 5, RHS)


Plates 6 & 7. Western boundary along the Arthur Highway showing informal track, fence and powerlines

The title is fully fenced on its boundary with the Arthur Highway and a powerline easement that is maintained by slashing and includes an informal track runs the length of this boundary (Plates 6 & 7). The boundary with the titles to the north and northeast are fully and partially-fenced, respectively. The balance of the northeastern boundary, and the whole of the southern boundary, is unfenced. The access is from the southeast via a right-of-way (wholly-developed), which has been extended along the southern part of the northeastern boundary to extent to just inside the title (Plates 8 & 9) to the part proposed for a residential dwelling (Plate 10).


Plates 8 & 9. Existing access on eastern/northeastern boundary

Plate 10. Approximate site proposed for residential dwelling

The title has a very gently sloping generally northwesterly to westerly aspect, with elevation varying from ca. 10 m a.s.l. (western boundary) to ca. 25 m a.s.l. (eastern corned of title on very gentle and undefined "ridge"). The title and immediate surrounds do not include any drainage features.

The geology of the title is mapped (Figure 7) as:

- Jurassic-age "dolerite (tholeiitic) with locally developed granophyre" (geocode: Jd)

  Mapped across the southern third of the title. However, site assessment indicated that dolerite outcrops across the whole title (Plates 11 & 12).

- Quaternary-age "sand gravel and mud of alluvial, lacustrine and littoral origin" (geocode: Qh)

  Mapped across the northern two-thirds of the title and extending to the north and east (again, site assessment indicated dolerite on both adjacent titles to the north and east).

The geology was confirmed informally by site assessment through examination of outcropping rocks (Plates 11 & 12), regolith and soil types. The geology is mentioned because it can have a strong influence on the classification of vegetation and the potential occurrence of threatened flora (and to a lesser extent, threatened fauna).

Plates 11 & 12. Examples of outcropping dolerite bedrock and regolith that forms the substrate of the whole title and surrounds

METHODS

Nomenclature

All grid references in this report are in GDA94, except where otherwise stated.

Vascular species nomenclature follows de Salas & Baker (2020) for scientific names and Wapstra et al. (2005+) for common names. Fauna species scientific and common names follow the listings in the cited *Natural Values Atlas* report (DPIPWE 2020).

Vegetation classification follows TASVEG 4.0, as described in *From Forest to Fjaeldmark: Descriptions of Tasmania's Vegetation (*Kitchener & Harris 2013+).

Preliminary investigation

Available sources of previous reports, threatened flora records, vegetation mapping and other potential environmental values were interrogated. These sources include:

- Tasmanian Department of Primary Industries, Parks, Water & Environment's *Natural Values Atlas* records for threatened flora and fauna (GIS coverage maintained by the author current as at date of report);
- Tasmanian Department of Primary Industries, Parks, Water & Environment's *Natural Values Atlas* report ECOtas_4015ArthurHighway for a polygon defining the subject title (centred on 570513mE 5245161mN), buffered by 5 km, dated 2 December 2020 (DPIPWE 2020) – Appendix E;
- Forest Practices Authority's *Biodiversity Values Database* report, specifically the species' information for grid reference centroid 570513mE 5245161mN (i.e. a point defining the approximate centre of the assessment area), buffered by 5 km and 2 km for threatened fauna and flora records, respectively, hyperlinked species' profiles and predicted range boundary maps, dated 2 December 2020 (FPA 2020) – Appendix F;
- Commonwealth Department of Agriculture, Water and the Environment's *Protected Matters Report* for a polygon defining the subject title, buffered by 5 km, dated 2 December 2020 (CofA 2020) – Appendix G;
- the TASVEG 4.0 vegetation coverages (as available through GIS coverage and via LISTmap);
- GoogleEarth and LISTmap aerial orthoimagery; and
- other sources listed in tables and text as indicated.

Field assessment

The assessment was undertaken by Mark Wapstra (ECO*tas*) on 2 December 2020. Cadastral data uploaded to the iGIS application guided the in-field assessment as some of the boundaries are not formally defined by fences or the like. Meandering transects were used to capture the greater range of aspects, slopes and site conditions. The survey was not limited by access due to the small title with simple configuration and relatively open understorey.

Vegetation classification

Vegetation was classified by waypointing vegetation transitions for later comparison to aerial imagery. The structure and composition of the vegetation types was described using nominal 30 m radius plots at a representative site within the vegetation types, and compiling "running" species lists between plots and vegetation types.

Threatened (and priority) flora

With reference to the threatened flora, the survey included consideration of the most likely habitats for such species. In practice, one species (Pimelea flava) was widespread throughout the title. Hand-held GPS (Garmin Ortegon 600) was used to waypoint the locations of as many individuals/patches of the species as practical. In practical terms, however, the species was so

abundant that any such mapping will only be indicative and is certain to have missed a minimum of 20% of the population (plants hidden amongst denser shrubby areas, inadvertent lack of overlapping survey, and small plants).

Threatened fauna

Surveys for threatened fauna were largely limited to an examination of "potential habitat" (i.e. comparison of on-site habitat features to habitat descriptions for threatened fauna), and detection of tracks, scats and other signs.

Weed and hygiene issues

The subject title was also assessed with respect to plant species classified as declared weeds under the Tasmanian *Weed Management Act 1999*, Weeds of National Significance (WoNS) or "environmental weeds" (author opinion and as included in *A Guide to Environmental and Agricultural Weeds of Southern Tasmania*, NRM South 2017). Where such species were recorded, hand-held GPS (Garmin Oregon 600) was used to waypoint locations.

The site was also assessed with respect to potential impacts of plant and animal pathogens, by reference to habitat types and field symptoms.

FINDINGS

Vegetation types

Comments on TASVEG mapping

This section, which comments on the existing TASVEG 4.0 mapping for the study area, is included to highlight the differences between existing mapping and the more recent mapping from the present study to ensure that any parties assessing land use proposals (via this report) do not rely on existing mapping. Note that TASVEG mapping, which was mainly a desktop mapping exercise based on aerial photography, is often substantially different to ground-truthed vegetation mapping, especially at a local scale. An examination of existing vegetation mapping is usually a useful pre-assessment exercise to gain an understanding of the range of habitat types likely to be present and the level of previous botanical surveys.

TASVEG 4.0 maps the title and surrounds as (Figure 8) Eucalyptus ovata forest and woodland (TASVEG code: DOV).

Vegetation types recorded as part of the present study

Vegetation types have been classified according to TASVEG 4.0, as described in *From Forest to Fjaeldmark: Descriptions of Tasmania's Vegetation* (Kitchener & Harris 2013+). Table 1 provides information on the vegetation type identified from the subject title. Refer to Figure 9 that provides a map of the revised vegetation type recorded from the subject title. Refer to Appendix A for a more detailed description of the native vegetation mapping unit identified from the subject title.

Figure 8. Study area and surrounds showing existing TASVEG 4.0 vegetation mapping (see text for codes)

Figure 9. Revised vegetation mapping for the subject title (refer to text for codes)

Table 1. Vegetation mapping unit present in the subject title

[conservation status: NCA – as per Schedule 3A of the Tasmanian *Nature Conservation Act 2002*, using units described by Kitchener & Harris (2013+), relating to TASVEG mapping units (DPIPWE 2020); EPBCA – as per the listing of ecological communities on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, relating to communities as described under that Act, but with equivalencies to TASVEG units]

TASVEG equivalent (Kitchener & Harris 2013+)	**Conservation priority** TASVEG *EPBCA*	**Comments**
Dry eucalypt forest and woodland		
Eucalyptus pulchella forest and woodland (DPU)	not threatened *not threatened*	The whole title is now mapped as DPU with no notion that any part of it has any affinities to DOV (as per TASVEG mapping). *Eucalyptus pulchella* dominates a low and open canopy, which is multi-aged. *Eucalyptus ovata* is present as scattered regrowth trees, saplings and seedlings but is present in far less than 5% of the canopy. The forest was burnt in the 2013 wildfire and all trees are significantly scarred/scorched. There is a moderate amount of burnt coarse woody debris but most of the ground is rocky (dolerite). The understorey is a mixture of low shrubs of variable density amongst a graminoid and grass layer with locally abundant herbs. Apart from minor occurrences of weeds, the vegetation is in excellent (albeit regrowth-structured) condition.

Conservation significance of identified vegetation type

The native vegetation community recorded from the subject title is not listed as threatened on Schedule 3A of the Tasmanian *Nature Conservation Act 2002*, does not equate to a threatened ecological community on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, and is classified as a low priority biodiversity value (as a vegetation type) under Table E10.1 of the Biodiversity Code of the *Tasman Interim Planning Scheme 2015*.

The subject title is within the South East bioregion. This is mentioned because the conservation significance of a vegetation community can also be examined by the estimated extent of the community at different scales (Table 2). The project will impact on an extremely minor proportion of this extent and will not affect the conservation status of the community at any reasonable scale.

Table 2. Spatial extent (and reservation levels) of DPU at different scales
[source: http://dpipwe.tas.gov.au/conservation/development-planning-conservation-assessment/planning-tools/tasmanian-reserve-estate-spatial-layer]

scale	**area (reservation level)**
Statewide	137,700 ha (37% reserved)
NRM South	137,100 ha (37% reserved)
South East bioregion	128,900 ha (38% reserved)
Tasman municipality	5,700 ha (32% reserved)

Plant species

General information

A total of 73 vascular plant species were recorded from the subject title (Appendix B), comprising 50 dicotyledons (including 3 endemic and 6 introduced species), 23 monocotyledons (including 2 introduced species), no gymnosperms and no pteridophytes. This species diversity (i.e. relatively high for a small area) is highly typical of this forest type in this part of the State.

Additional surveys at different times of the year may detect additional short-lived herbs and grasses but a follow-up survey is not considered warranted because of the small disturbance footprint and low likelihood of species with a high priority for conservation management being present.

Threatened flora species recorded from the study area

No flora species listed as threatened on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA) and/or the Tasmanian *Threatened Species Protection Act 1995* (TSPA) are known from database information (Figure 10) from the subject title.

One flora species listed as threatened on the Tasmanian *Threatened Species Protection Act 1995* (TSPA) was detected as a consequence of the field assessment, described below.

- *Pimelea flava* subsp. *flava* (yellow riceflower)

Pimelea flava subsp. *flava* (Plates 13 & 14) is listed on Schedule 5 (rare) on the Tasmanian *Threatened Species Protection Act 1995* (TSPA). This species was found to be widespread and locally abundant throughout the title (Figure 11), with 1,106 waypoints recorded. The map produced is indicative only with the apparent gaps representing either a localised part of the title without the species or unsurveyed patches (i.e. my overlap of meandering transects was incomplete). As a rough estimate, I suggest that my 1,106 waypoints represents ca. 20% more individuals as many were scattered amongst locally dense shrubs, many juvenile plants were not recorded and many waypoints represented at least five individuals.

Plate 13. (LHS) Whole plant of *Pimelea flava* subsp. *flava* [Long Reach area, 01 Nov. 2006]

Plate 14. (RHS) Flowering head of *Pimelea flava* subsp. *flava* [Long Reach area, 01 Nov. 2006]

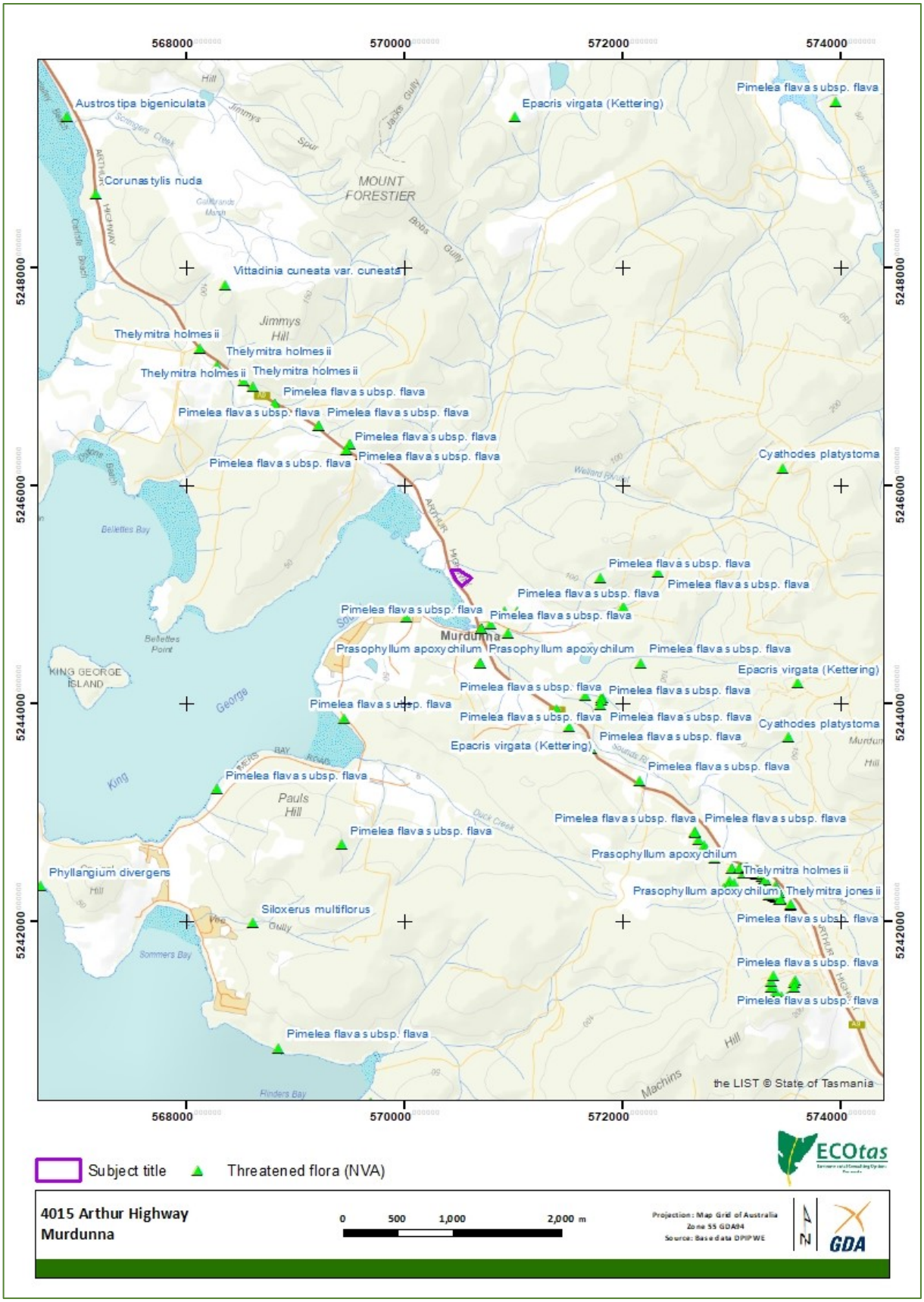

Figure 10a. Distribution of threatened flora close to the study area (overview)

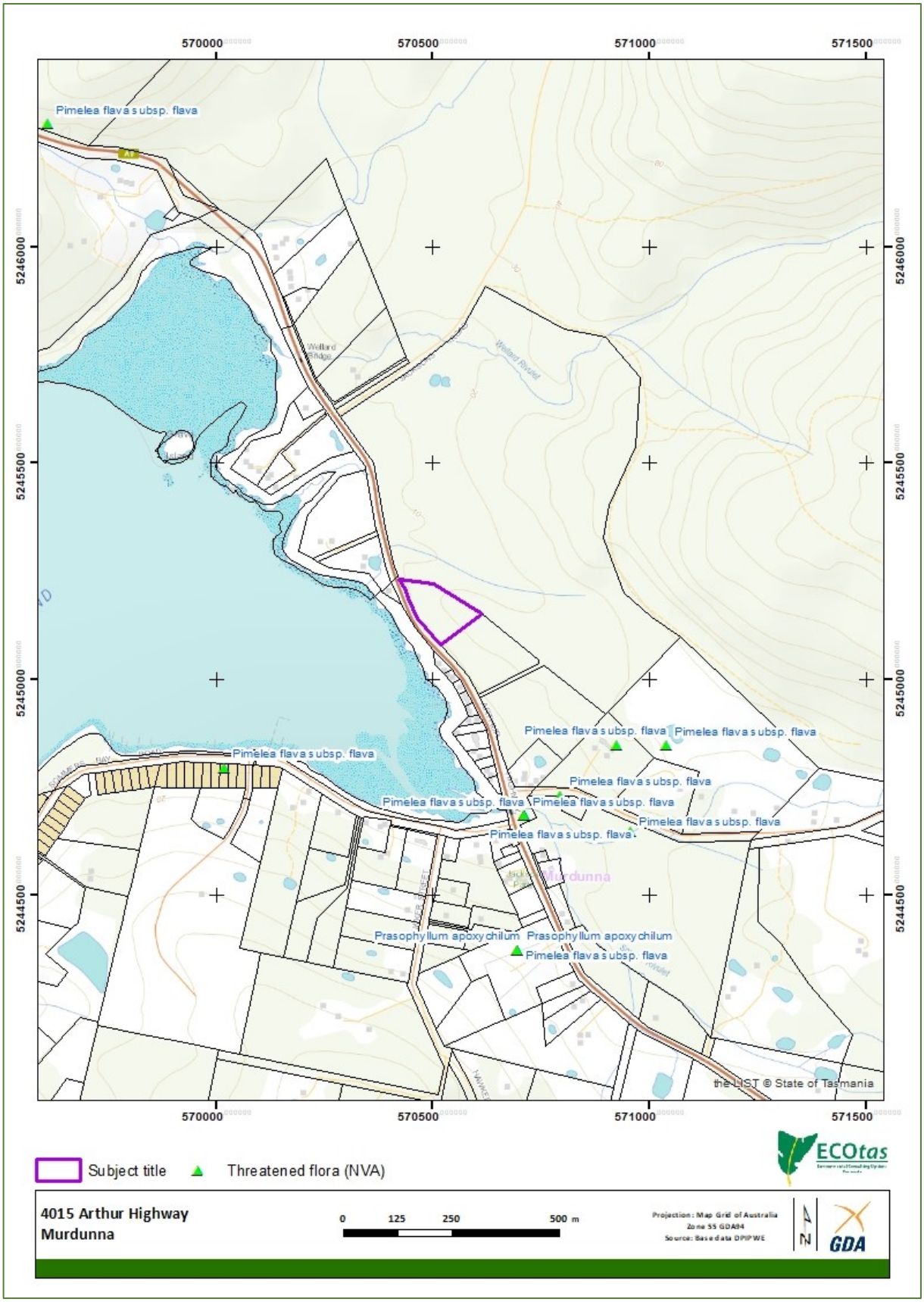

Figure 10b. Distribution of threatened flora close to the study area (closer)

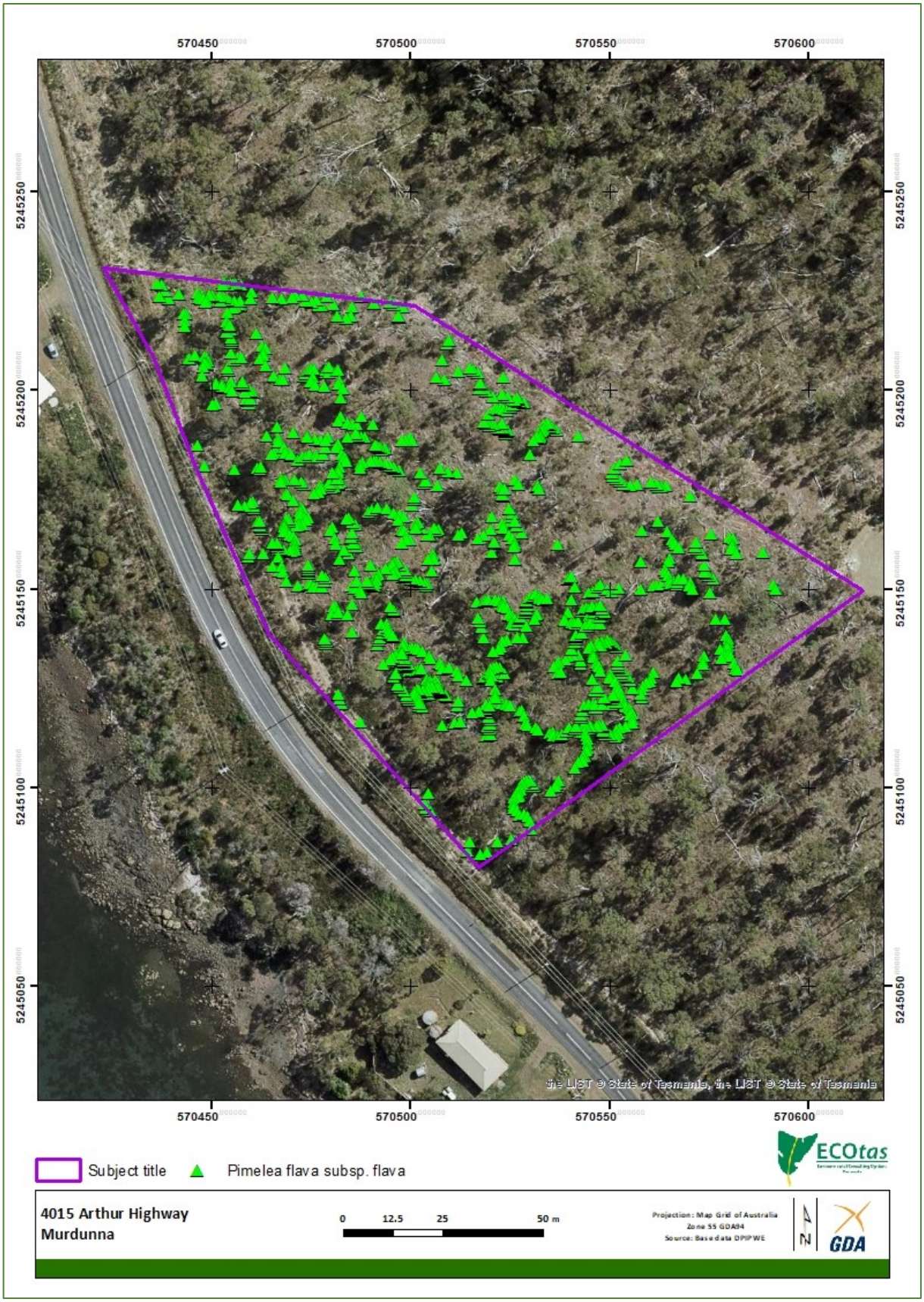

Figure 11. Distribution of *Pimelea flava* subsp. *flava* within subject title

The occurrence of the species at this site is within typical habitat i.e. dry forest dominated on dolerite. The site is of very low biogeographic significance, being within the recognised range of the species (i.e. the site is neither an outlier nor a notable infilling). The population is typical in being scattered to locally dense (Plates 15-18). "Over-the-fence" observations indicated that the specie sis equally abundant on titles to the southeast, northeast and north.

Plate 15. (LHS) Scattered *Pimelea flava* subsp. *flava* within open DPU in subject title

Plate 16. (LHS) Scattered *Pimelea flava* subsp. *flava* within open DPU in subject title (proposed development site)

Plate 17. (LHS) Scattered *Pimelea flava* subsp. *flava* along boundary with Arthur Highway

Plate 18. (LHS) Scattered *Pimelea flava* subsp. *flava* growing on disturbed edge of existing access

A small-scale development will have a minimal impact on the species. It will perhaps directly affect ca. 50 individuals directly (e.g. buildings, water tanks, etc.). A standard hazard management area will impact on additional individuals but this species thrives on periodic slashing and burning – it is usually most abundant on road batters, through burnt forests, and amongst hardwood and softwood plantations.

The species is widespread in Tasmania and very well-reserved (e.g. Coles Bay Conservation Area, Douglas-Apsley National Park, Freycinet National Park, Long Reach Conservation Area, Long Reach Private Sanctuary, Moulting Lagoon Game Reserve, Mount William National Park, Roaring Magg Hill Forest Reserve, Tippogoree Hills Forest Reserve, Wellington Park). In my opinion, *Pimelea flava* subsp. *flava* fails to meet the criteria for listing as rare (Schedule 5) but the delisting process takes some time (and a formal nomination to the scientific Advisory Committee). For the foreseeable

future, the species will remain listed and needs to be treated as such, at least from a technical legislative point of view.

There will be a requirement for a permit under Section 51 of the Tasmanian *Threatened Species Protection Act 1995* (refer to **DISCUSSION *Legislative and policy implications*** for more details). Based on the distribution within the title (and surrounds), finding a "better" location (i.e. one that impacts on notionally fewer individuals) is impractical and not warranted. I do not believe that the works represent a significant impact on the species and special conditions on a permit should not be required.

Threatened flora species potentially present (database analysis)

Figure 10 indicates threatened flora species near to the study area and Table C1 (Appendix C) provides a listing of threatened flora from within 5,000 m of the study area (nominal buffer width usually used to discuss the potential of a particular study area to support various species listed in databases), with comments on whether potential habitat is present for the species, and possible reasons why a species was not recorded. Note that wet sclerophyll forest is not strongly associated with threatened flora.

Fauna species

Threatened fauna species recorded from the study area

No fauna species listed as threatened on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA) and/or the Tasmanian *Threatened Species Protection Act 1995* (TSPA) are known from database information (Figure 12), or were detected as a consequence of the field survey, from the study area.

The vegetation types present have some association with threatened fauna (refer section below and Table D1).

Threatened fauna species potentially present (database analysis)

Figure 12 indicates threatened fauna species near to the study area and Table D1 (Appendix D) provides a listing of threatened fauna from within 5,000 m of the study area (nominal buffer width usually used to discuss the potential of a particular study area to support various species listed in databases), with comments on whether potential habitat is present for the species, and possible reasons why a species was not recorded.

Site assessment indicated that the subject title supports ubiquitous potential habitat for a suite of threatened fauna species. This includes potential habitat of species such as *Sarcophilus harrisii* (Tasmanian devil), *Dasyurus maculatus* subsp. *maculatus* (spotted-tailed quoll), *Dasyurus viverrinus* (eastern quoll), *Perameles gunnii* subsp. *gunnii* (eastern barred bandicoot), *Tyto novaehollandiae* (masked owl), *Accipiter novaehollandiae* (grey goshawk) and *Aquila audax* (wedge-tailed eagle). Small-scale development is not anticipated to have a significant deleterious impact on these species.

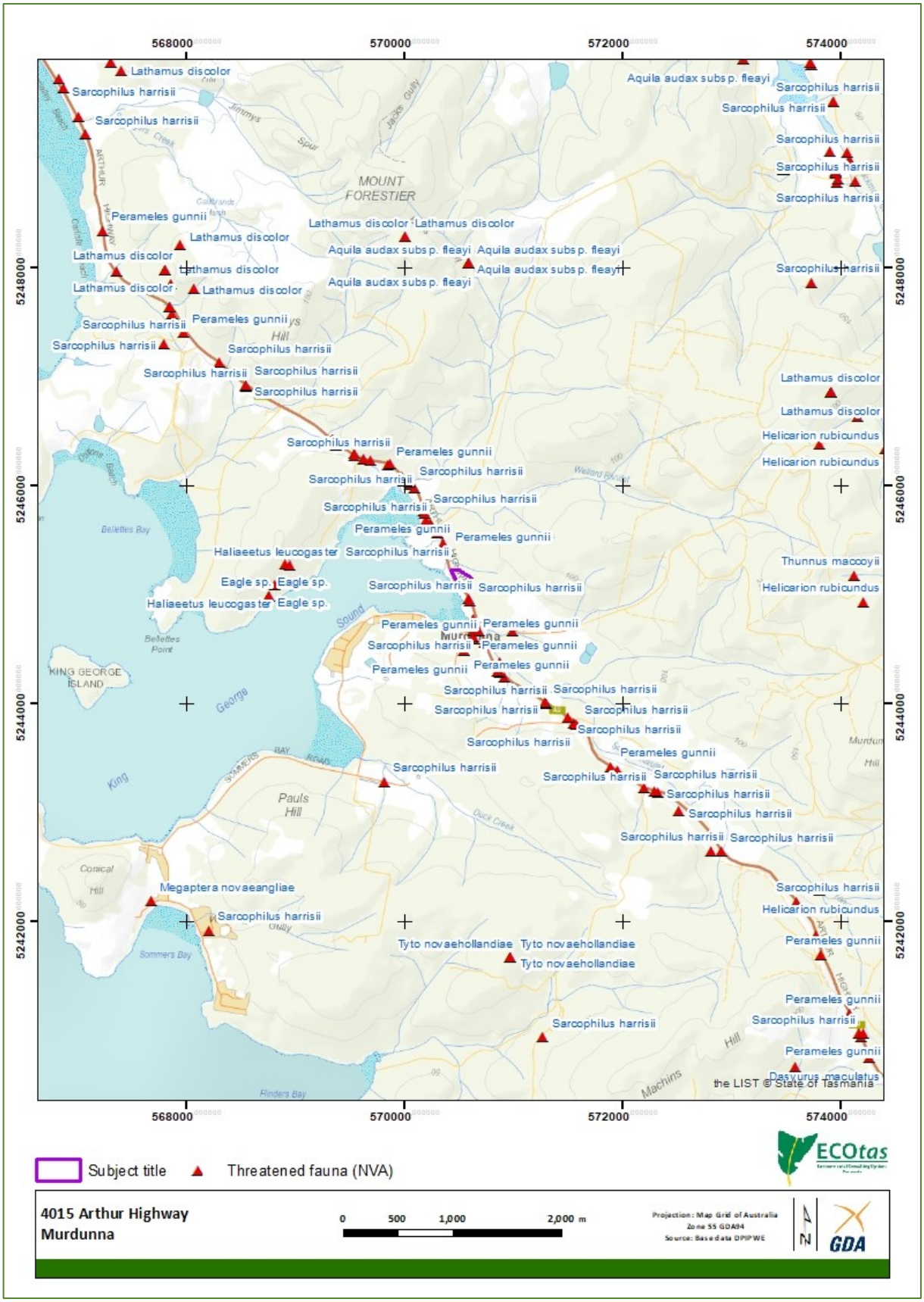

Figure 12a. Distribution of threatened fauna close to the study area (overview)

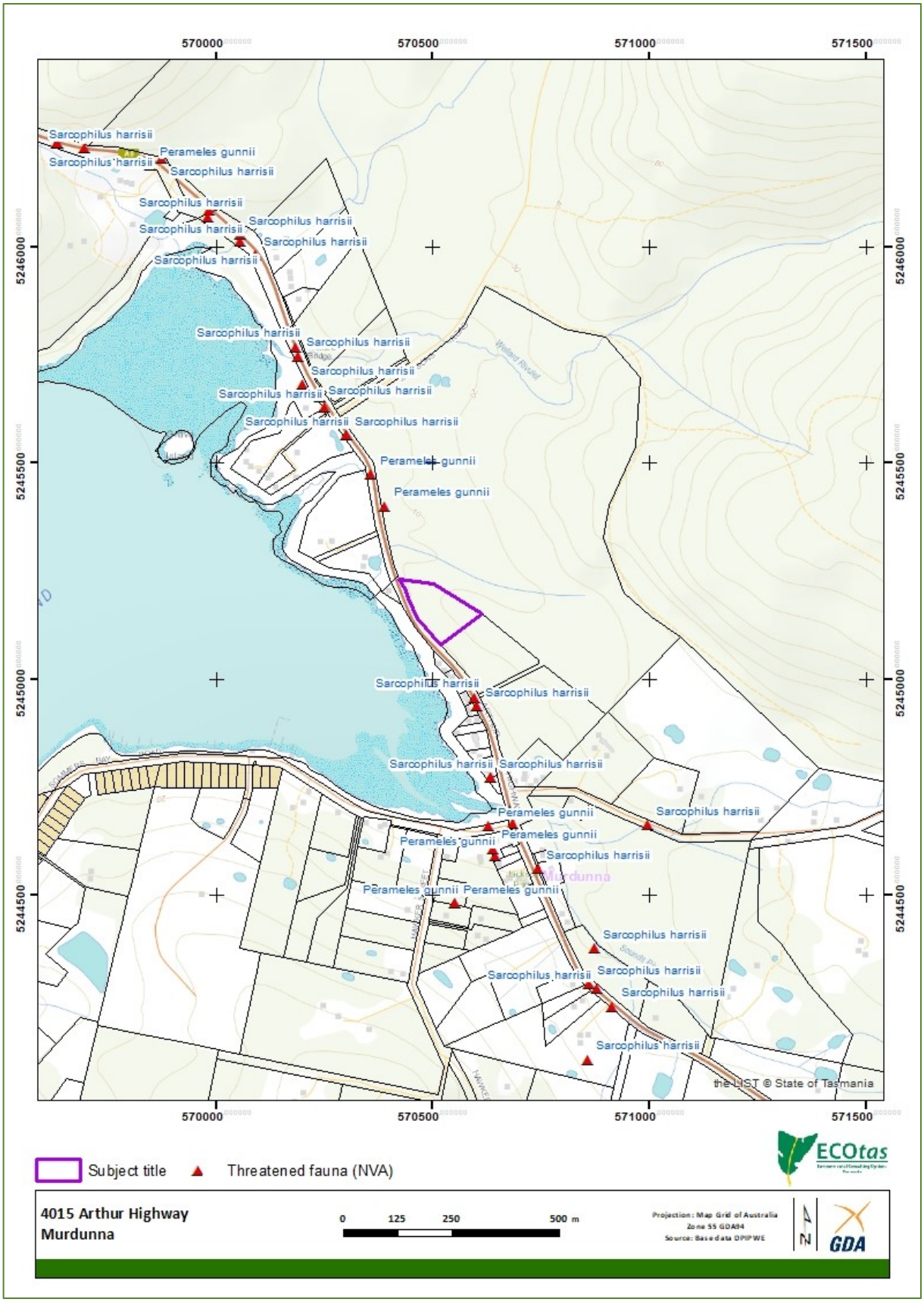

Figure 12b. Distribution of threatened fauna close to the study area (closer)

Other ecological values

Weed species

Two plant species classified as declared weeds within the meaning of the Tasmanian *Weed Management Act 1999* were detected from the subject title, as follows:

- *Erica lusitanica* (spanish heath): scattered individuals, mainly associated with the powerline clearing along the western fenceline; and
- *Rubus* spp. (blackberry): single plant (non-fertile) associated with the powerline clearing along the western fenceline.

Given that access to the title will be from the fully-formed, sealed and well-maintained Arthur Highway and then the well-formed and gravelled (weed-free) internal access, the risk of construction machinery and vehicles introducing weeds to the subject title is considered negligible.

In the case of titles with limited weeds present (or where such species are presented a relatively low risk of spread beyond the title boundaries or where the species are already known to be widespread in the greater area), owner-occupation is considered the most appropriate long-term management option, where vigilance and immediate control are practical. Further to the present title, it is recommended to consider vegetation debris and topsoil created during works to be "contaminated" with weed propagules. As such, this material should be disposed of carefully, either off-site at a registered municipal facility or on-site (e.g. burial beneath new access and/or building, for example).

Several planning manuals provide guidance on appropriate management actions, which can be referred to develop site-specific prescriptions for any proposed works in the study area. These manuals include:

- Allan, K. & Gartenstein, S. (2010). *Keeping It Clean: A Tasmanian Field Hygiene Manual to Prevent the Spread of Freshwater Pests and Pathogens*. NRM South, Hobart;
- Rudman T. (2005). *Interim* Phytophthora cinnamomi *Management Guidelines*. Nature Conservation Report 05/7, Biodiversity Conservation Branch, Department of Primary Industries, Water & Environment, Hobart;
- Rudman, T., Tucker, D. & French, D. (2004). *Washdown Procedures for Weed and Disease Control*. Edition 1. Department of Primary Industries, Water & Environment, Hobart; and
- DPIPWE (2015). *Weed and Disease Planning and Hygiene Guidelines – Preventing the Spread of Weeds and Diseases in Tasmania*. Department of Primary Industries, Parks, Water & Environment, Hobart.

Myrtle wilt

Myrtle wilt, caused by a wind-borne fungus (*Chalara australis*), occurs naturally in rainforest where myrtle beech (*Nothofagus cunninghamii*) is present. The fungus enters wounds in the tree, usually caused by damage from wood-boring insects, wind damage and forest clearing. The incidence of myrtle wilt often increases forest clearing events such as windthrow and wildfire.

The subject title does not support *Nothofagus cunninghamii*. No special management is required.

Rootrot pathogen, *Phytophthora cinnamomi*

Phytophthora cinnamomi (PC) is widespread in lowland areas of Tasmania, across all land tenures. However, disease will not develop when soils are too cold or too dry. For these reasons, PC is not a threat to susceptible plant species that grow at altitudes higher than about 700 m or where annual rainfall is less than about 600 mm (e.g. Midlands and Derwent Valley). Furthermore, disease is unlikely to develop beneath a dense canopy of vegetation because shading cools the soils to below the optimum temperature for the pathogen. A continuous canopy of vegetation taller than about 2 m is sufficient to suppress disease. Hence PC is not considered a threat to susceptible plant species growing in wet sclerophyll forests, rainforests (except disturbed rainforests on infertile soils) and scrub e.g. teatree scrub (Rudman 2005; FPA 2009).

The vegetation type identified from the study area is not recognised as particularly susceptible to PC. Site assessment did not record any field symptoms (dead and/or dying susceptible plant species). No special management should be required in relation to PC.

Myrtle rust

Myrtle rust is a disease limited to plants in the Myrtaceae family. This plant disease is a member of the guava rust complex caused by *Austropuccinia psidii*, a known significant pathogen of Myrtaceae plants outside Australia. Infestations are currently limited to NSW, Victoria, Queensland and Tasmania (DPIPWE 2015).

No evidence of myrtle rust was noted (several possible indicator species present). The longer-term management issue for the site is to ensure that any ornamental plantings source plants from a reputable nursery free from the pathogen (such businesses are already subject to strict biosecurity conditions).

Chytrid fungus and other freshwater pathogens

Native freshwater species and habitat are under threat from freshwater pests and pathogens including *Batrachochytrium dendrobatidis* (chytrid frog disease), *Mucor amphibiorum* (platypus mucor disease) and the freshwater algal pest *Didymosphenia geminata* (didymo) (Allan & Gartenstein 2010). Freshwater pests and pathogens are spread to new areas when contaminated water, mud, gravel, soil and plant material or infected animals are moved between sites. Contaminated materials and animals are commonly transported on boots, equipment, vehicles tyres and during road construction and maintenance activities. Once a pest pathogen is present in a water system it is usually impossible to eradicate. The manual *Keeping it Clean - A Tasmanian Field Hygiene Manual to Prevent the Spread of Freshwater Pests and Pathogens* (Allan & Gartenstein 2010) provides information on how to prevent the spread of freshwater pests and pathogens in Tasmanian waterways wetlands, swamps and boggy areas.

The subject title does not include any waterbodies, such that special management should not be warranted.

Additional "Matters of National Environmental Significance" – Threatened Ecological Communities

CofA (2020) indicates that the following threatened ecological communities listed on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA) may or are likely to occur within the area:

- Giant Kelp Marine Forests of South East Australia [Endangered]
- Tasmanian Forests and Woodlands dominated by Black Gum or Brookers Gum *(Eucalyptus ovata* / E*. brookeriana*) [Critically Endangered]

Existing vegetation mapping (Figure 8) suggests that the whole title and surrounds supports *Eucalyptus ovata* forest and woodland (TASVEG code: DOV), which usually equates to the EPBCA-listed Tasmanian Forests and Woodlands dominated by Black Gum or Brookers Gum *(Eucalyptus ovata* / E*. brookeriana*). However, site assessment (Figure 9) clearly indicated that the title (and in fact surrounding areas also mapped as DOV) are all *Eucalyptus pulchella* forest and woodland d(TASVEG code: DPU), a non-threatened, widespread and well-reserved vegetation community with no affinities to the EPBCA-listed entity. There are no implications under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* in relation to threatened ecological communities.

DISCUSSION

Summary of key findings

Threatened flora

- No plant species listed as threatened on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA) were detected, or are known from database information, from the study area.
- One plant species listed as threatened on the Tasmanian *Threatened Species Protection Act 1995* (TSPA) was recorded from the study area, as follows:
  - *Pimelea flava* subsp. *flava* (yellow riceflower) [TSPA: rare]: locally abundant throughout study area and extending on to adjacent titles, represented by low 1,000s of individuals of various ages.

Threatened fauna

- No fauna species listed as threatened on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA) and/or the Tasmanian *Threatened Species Protection Act 1995* (TSPA) were detected, or are known from database information, from the study area.

Vegetation types

- The study area supports the following TASVEG mapping unit:
  - *Eucalyptus pulchella* forest and woodland (TASVEG code: DPU).
- DPU is not listed as threatened on Schedule 3A of the Tasmanian *Nature Conservation Act 2002*, does not equate to a threatened ecological community under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, and is classified as a low priority biodiversity value (as a vegetation type) under Table E10.1 of the Biodiversity Code of the *Tasman Interim Planning Scheme 2015*.

Weeds

- Two plant species classified as declared weeds within the meaning of the Tasmanian *Weed Management Act 1999* were detected from the study area, as follows:
  - *Erica lusitanica* (spanish heath): scattered individuals, mainly associated with the powerline clearing along the western fenceline; and

- *Rubus* spp. (blackberry): single plant (non-fertile) associated with the powerline clearing along the western fenceline.

Plant disease

- No evidence of *Phytophthora cinnamomi* (PC, rootrot) was recorded within the study area.
- No evidence of myrtle wilt was recorded from within the study area.
- No evidence of myrtle rust was recorded from within the study area.

Animal disease (chytrid)

- The study area does not support particular habitats conducive to frog chytrid disease.

Legislative and policy implications

Some commentary is provided below with respect to the key threatened species, vegetation management and other relevant legislation. Note that there may be other relevant policy instruments in addition to those discussed. The following information does not constitute legal advice and it is recommended that independent advice is sought from the relevant agency/authority.

Tasmanian *Threatened Species Protection Act 1995*

Threatened flora and fauna on this Act are managed under Section 51, as follows:

51. Offences relating to listed taxa

(1) Subject to subsections (2) and (3), a person must not knowingly, without a permit –

(a) take, keep, trade in or process any specimen of a listed taxon of flora or fauna; or

(b) disturb any specimen of a listed taxon of flora or fauna found on land subject to an interim protection order; or

(c) disturb any specimen of a listed taxon of flora or fauna contrary to a land management agreement; or

(d) disturb any specimen of a listed taxon of flora or fauna that is subject to a conservation covenant entered into under Part 5 of the *Nature Conservation Act 2002*; or

(e) abandon or release any specimen of a listed taxon of flora or fauna into the wild.

(2) A person may take, keep or process, without a permit, a specimen of a listed taxon of flora in a domestic garden.

(3) A person acting in accordance with a certified forest practices plan or a public authority management agreement may take, without a permit, a specimen of a listed taxon of flora or fauna, unless the Secretary, by notice in writing, requires the person to obtain a permit.

(4) A person undertaking dam works in accordance with a Division 3 permit issued under the *Water Management Act 1999* may take, without a permit, a specimen of a listed taxon of flora or fauna.

The simplest interpretation of this is that any activity that results in a specimen (i.e. individual) of listed flora or fauna being "knowingly taken" would require a permit to be issued through the Policy & Conservation Advice Branch (PCAB, DPIPWE) through a formal application process. Note that the Act does not make reference to "potential habitat" such that activities that result in loss of/disturbance to potential habitat (but not known sites) – which mainly refers to threatened fauna – would not require a permit. The subject title does not support any known locations of threatened fauna such that the Act does not have application to these.

Avoiding "taking" of individuals of *Pimelea flava* subsp. *flava* (yellow riceflower), listed as rare (Schedule 5), will be impractical and is not considered warranted in the context of the species' wider distribution and the localised abundance. It is recommended that a permit be sought to "take" up to ca. 100 individuals from the proposed location of the residential dwelling. This is likely to be a reasonable estimate of the number in any particular location within the title. Note that particular attention was paid to the indicative development site so the indictive impact is also likely to be quite accurate.

PCAB can be in a difficult position to issue a permit prior to a development permit being issued under the relevant planning scheme because until such a permit is issued, the precise extent of disturbance to threatened species may not be known i.e. the threatened species permit is usually the last permit to be issued, which minimises the need for follow-up variations.

If a development permit is issued prior to a threatened species permit and it does not include any conditions related to the management of threatened flora, it does not provide an exemption from the requirements of a threatened species permit. Under the Tasmanian *Threatened Species Protection Act 1995*, a permit is required if threatened species will be "knowingly" taken (and clearly the present report has confirmed the presence of threatened flora species). This means that a development permit can be issued first and a threatened species permit applied for at a later stage if threatened flora will be "knowingly taken". Whether the development permit refers to this requirement directly or indirectly (e.g. in general terms only) or in fact does not make mention of it at all, the term "knowingly" effectively requires the person taking action that may affect threatened species to do so under a Section 51 permit.

The key question, therefore, at this stage of planning is whether PCAB would issue a permit to take threatened flora associated with the development application for the proposal. My experience indicates that it is unusual for a development of this scale involving the species detected to be constrained by a permit not being issued. The secondary question is then what permit conditions may be associated with the permit. In practice, there are limited options for mitigation and/or offsets I do not believe that any special conditions should be imposed on the permit. In terms of reporting the loss (after works are complete), it should be sufficient to simply report that ca. 100 individuals were taken from a notional grid reference.

All that said, it is not my role to provide legal advice nor "second guess" what PCAB may say through the permit application process such that there is a risk that a planning permit could be issued under the *Tasman Interim Planning Scheme 2015* and a permit to take threatened flora under Section 51 of the TSPA not be issued in concordance with the planning permit. The likelihood of this is very low because it is clear that the threatened species occurs across the entire title. To mitigate the risk of permit non-compatibility, this report could be used to apply for a permit to take threatened flora prior to submitting a development application. However, there is a similar risk that such a permit would then need to be varied (or reapplied for) if a planning permit was not granted under the *Tasman Interim Planning Scheme 2015.*

In summary, while the development will impact on a threatened species (*Pimelea flava*), this species is widespread and locally abundant through the whole title, extending to all adjacent titles, responds positively to virtually all forms of disturbance, and no part of the title is "better or worse" than another. That is, the proposal represents a negligible impact on the species at any reasonable scale and the species' presence should not be regarded as a constraint to development in any manner.

Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*

Under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* an action will require approval from the minister if the action has, will have, or is likely to have, a significant impact on a matter of national environmental significance.

Matters of national environmental significance considered under the EPBCA include:

- listed threatened species and communities
- listed migratory species;
- Ramsar wetlands of international importance;
- Commonwealth marine environment;
- world heritage properties;
- national heritage places;
- the Great Barrier Reef Marine Park;
- nuclear actions; and
- a water resource, in relation to coal seam gas development and large coal mining development.

The Commonwealth Department of Agriculture, Water and the Environment provides a policy statement titled *Matters of National Environmental Significance: Significant Impact Guidelines 1.1* (CofA 2013, herein the *Guidelines*), which provides overarching guidance on determining whether an action is likely to have a significant impact on a matter protected under the EPBCA.

The *Guidelines* define a **significant impact** as:

> *"…an impact which is important, notable, or of consequence, having regard to its context or intensity. Whether or not an action is likely to have a significant impact depends upon the sensitivity, value, and quality of the environment which is impacted, and upon the intensity, duration, magnitude and geographic extent of the impacts"*

and note that:

> *"…all of these factors [need to be considered] when determining whether an action is likely to have a significant impact on matters of national environmental significance".*

The *Guidelines* provide advice on when a significant impact may be likely:

> *"To be 'likely', it is not necessary for a significant impact to have a greater than 50% chance of happening; it is sufficient if a significant impact on the environment is a real or not remote chance or possibility.*
>
> *If there is scientific uncertainty about the impacts of your action and potential impacts are serious or irreversible, the precautionary principle is applicable. Accordingly, a lack of scientific certainty about the potential impacts of an action will not itself justify a decision that the action is not likely to have a significant impact on the environment".*

The *Guidelines* provide a set of Significant Impact Criteria (CofA 2013), which are "intended to assist…in determining whether the impacts of [the] proposed action on any matter of national environmental significance are likely to be significant impacts". It is noted that the criteria are "intended to provide general guidance on the types of actions that will require approval and the types of actions that will not require approval…[and]…not intended to be exhaustive or definitive".

Listed ecological communities

The subject title does not support any such communities. Existing vegetation mapping (Figure 8) suggests that the whole title and surrounds supports *Eucalyptus ovata* forest and woodland (TASVEG code: DOV), which usually equates to the EPBCA-listed Tasmanian Forests and Woodlands dominated by Black Gum or Brookers Gum *(Eucalyptus ovata* / E*. brookeriana*). However, site assessment (Figure 9) clearly indicated that the title (and in fact surrounding areas also mapped as DOV) are all *Eucalyptus pulchella* forest and woodland d(TASVEG code: DPU), a non-threatened, widespread and well-reserved vegetation community with no affinities to the EPBCA-listed entity.

There are no implications under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* in relation to threatened ecological communities.

Threatened flora

The subject title does not support populations of EPBCA-listed flora, nor significant potential habitat of such species.

Threatened fauna

The subject title may support populations of threatened fauna listed on the Act, most notably the Tasmanian devil, spotted-tailed quoll, eastern quoll, eastern barred bandicoot and swift parrot. Note that the study area is within the range of several other species listed on the Act but it is unlikely that any proposal will result in a significant impact on these species (this includes wide-ranging species such as the wedge-tailed eagle and masked owl).

The *Guidelines* consider a "significant impact" to comprise loss that is likely to lead to a long-term decrease in the size of an important population of a species; reduce the area of occupancy of an important population; fragment an existing important population into two or more populations (unlikely); adversely affect habitat critical to the survival of a species; disrupt the breeding cycle of an important population; modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline; result in invasive species that are harmful to a threatened species becoming established in the threatened species' habitat; introduce disease that may cause the species to decline; or interfere substantially with the recovery of the species.

With respect to the aforementioned species, it is difficult to anticipate a scenario in which a referral to the Commonwealth Department of Agriculture, Water and the Environment would be become necessary at the scale of the proposed activities.

Tasmanian *Forest Practices Act 1985* and associated *Forest Practices Regulations 2017*

The *Regulations* provide the following relevant circumstances in which a Forest Practices Plan is not required.

> 4. Circumstances in which forest practices plan, &c., not required
>
> For the purpose of section 17(6) of the Act, the following circumstances are prescribed:
>
> (a) the harvesting of timber or the clearing of trees, with the consent of the owner of the land, if the land is not vulnerable land and –
>
> (i) the volume of timber harvested or trees cleared is less than 100 tonnes for each area of applicable land per year; or
>
> (ii) the total area of land on which the harvesting or clearing occurs is less than one hectare for each area of applicable land per year –
>
> whichever is the lesser;
>
> (j) the harvesting of timber or the clearing of trees on any land, or the clearance and conversion of a threatened native vegetation community on any land, for the purpose of enabling –
>
> (i) the construction of a building within the meaning of the *Land Use Planning and Approvals Act 1993* or of a group of such buildings; or
>
> (ii) the carrying out of any associated development –
>
> if the construction of the buildings or carrying out of the associated development is authorised by a permit issued under that Act.

On this basis, the proposed development (residential dwelling) will not require a Forest Practices Plan.

Tasmanian *Nature Conservation Act 2002*

Schedule 3A of the Act lists vegetation types classified as threatened within Tasmania. The subject title does not support any such communities.

Tasmanian *Weed Management Act 1999*

Two plant species classified as declared weeds within the meaning of the Tasmanian *Weed Management Act 1999* was detected from the subject titles, viz, *Erica lusitanica* (spanish heath) and *Rubus* sp. (blackberry). Spanish heath does not seem to have a current Statutory Weed Management Plan but blackberry does (see www.dpipwe.tas.gov.au), which classifies Tasman municipality as a Zone B municipality for this species. I will assume that spanish heath may also be classified as Zone B (as it is known to be widespread in the municipality).

Containment is the most appropriate management objective for Zone B municipalities that have problematic infestations but no plan and/or resources to undertake control actions at a level required for eradication. The management outcome for Zone B municipalities is ongoing prevention of the spread of these species from existing infestations to areas free or in the process of becoming free of the species. In this case, owner-occupation is considered the most appropriate long-term management option, where vigilance and control are practical. Further to the present title, it is recommended to consider vegetation debris and topsoil created during works to be "contaminated" with weed propagules. As such, this material should be disposed of carefully, either off-site at a registered municipal facility or on-site (e.g. burial beneath new building, for example).

Tasmanian *Wildlife (General) Regulations 2010*

While the assessment of the study area indicated the presence of species listed on schedules of the *Regulations* (i.e. "specially protected wildlife", "protected wildlife", "partly protected wildlife"), no individuals, or products (e.g. nests, dens, etc.), of these species, are likely to be directly physically affected by the works.

Tasmanian *Land Use Planning and Approvals Act 1993*

Note that the following is my interpretation of the provisions of the *Tasman Interim Planning Scheme 2015* and may not necessarily represent the views of Tasman Council. The following does not constitute legal advice. It is recommended that formal advice be sought from the relevant agency prior to acting on any aspect of this statement.

The applicable planning scheme for the subject title is the *Tasman Interim Planning Scheme 2015*, zoned as Rural Resource (Figure 4) and wholly subject to the Biodiversity Protection Area overlay (Figure 5), this coinciding entirely with the erroneous TASVEG 3.0 mapping of *Eucalyptus ovata* forest and woodland (TASVEG code: DOV). I note, however, that the *Statewide Planning Scheme* (SPS) is close to being implemented, along with the Local Provision Schedule (LPS), which may be relevant depending on the timing of any planning application.

Below the provisions of the current Biodiversity Code are examined.

The purpose of the Biodiversity Code is stated below:

> **E10.1 Purpose**
>
> E10.1.1 The purpose of this provision is to:
>
> (a) minimise loss of identified threatened native vegetation communities and threatened flora species;
>
> (b) conserve identified threatened fauna species by minimising clearance of important habitat and managing environmental impact;
>
> (c) minimise loss of other biodiversity values that are recognised as locally significant by the Planning Authority.
>
> where not otherwise regulated by the State or the Commonwealth.

The assessment has indicated that the subject title does not support a threatened native vegetation community (DPU is the only community present), such that E10.1.1(a) should not have application in relation to threatened native vegetation communities.

The assessment indicated the presence of threatened flora species (*Pimelea flava* subsp. *flava*) such that E10.1.1(a) will have direct application in relation to threatened flora.

The assessment has not indicated the presence of threatened fauna species, nor significant potential habitat of such species, such that E10.1.1(b) probably has limited direct application application, depending on the interpretation of "important habitat" (discussed later in this statement).

I am not aware of "other biodiversity values that are recognised as locally significant by the Planning Authority", such that E10.1.1(c) may not have direct application. However, the components of Table E10.1 are reviewed below.

The application of the Biodiversity Code is stated below:

> **E10.2 Application**
>
> E10.2.1 This code applies to development involving clearance and conversion or disturbance of native vegetation within a Biodiversity Protection Area.

My interpretation of this clause is that the Code applies because the whole title supports a native vegetation and is subject to the Biodiversity Protection Area overlay.

The Code defines "clearance and conversion" as:

> …the process of removing native vegetation from an area of land and: (a) leaving the area of land, on a permanent or extended basis, in a state predominantly unvegetated with native vegetation; or (b) replacing the native vegetation so removed, on a permanent or extended basis, with residential, commercial, mining, agriculture or other non-agricultural development.

The Code defines "disturbance" as:

> …the alteration of the structure and species composition of a native vegetation community through actions including cutting down, felling, thinning, logging, removing or destroying of a native vegetation community.

On this basis, works within the Biodiversity Protection Area overlay that result in the structural and compositional loss of vegetation (e.g. areas to be occupied by a residence, driveway, sheds, etc.) should be considered as "clearance and conversion". Other vegetation modification (e.g. overstorey and understorey modification that has retained most structural elements, albeit modified, and essentially all understorey elements) should be considered as "disturbance" (i.e. the outer parts of the hazard management area). However, I note that the definition of "disturbance" includes the "…alteration of the structure **and** the composition…" [my emphasis]. In my opinion, periodic

slashing and/or burning within DPU will not manifestly alter the species composition and may only marginally impact on the structure.

The application requirements under the Biodiversity Code are stated below:

E10.5 Application Requirements

E10.5.1 In addition to any other application requirements, the planning authority may require the applicant to provide a natural values determination if considered necessary to determine compliance with acceptable solutions.

E10.5.2 In addition to any other application requirements, the planning authority may require the applicant to provide any of the following information if considered necessary to determine compliance with performance criteria:

(a) a natural values determination;

(b) a natural values assessment;

(c) a report detailing how impacts on priority biodiversity values will be avoided, minimised, and/or mitigated;

(d) a special circumstances justification report;

(e) a biodiversity offsets plan.

A "natural values assessment" is defined as:

"an ecological assessment, generally consistent with the Guidelines for Natural Values Assessment, (DPIPWE July 2009, by a suitably qualified person (biodiversity) to identify and convey:

(a) the location of priority biodiversity values affecting the site;

(b) the significance of priority biodiversity values, with particular reference to Table E10.1;

(c) any likely impact on these priority biodiversity values including existing activities on the site, nearby land uses, weeds, pests, pathogens and the degree of connectivity with other land with natural values;

(d) the likely impact of the proposed development or use on these priority biodiversity values;

(e) recommendations for the design and siting of the proposed development or use to avoid or minimise the identified impacts;

(f) recommendations for the mitigation or management of any residual impacts.

The preceding report on the ecological values and this review of the Biodiversity Code are intended to meet the intent and specifics of a "natural values assessment" under the Biodiversity Code. A survey has been undertaken in accordance with the *Guidelines for Natural Values Assessments – Terrestrial Development Proposals* (DPIPWE 2015).

The Development Standards for Buildings and Works have the following objective:

E10.7 Development Standards

E10.7.1 Buildings and Works

Objective: To ensure that development for buildings and works that involves clearance and conversion or disturbance within a Biodiversity Protection Area does not result in unnecessary or unacceptable loss of priority biodiversity values.

The *Scheme* does not define concepts/terms such as "unnecessary" or "unacceptable" and presumably these need to be considered in the context of the zone provisions.

However, the Acceptable Solution effectively defines the concepts of "unnecessary or unacceptable loss of priority biodiversity values", and are stated as:

A1

Clearance and conversion or disturbance must comply with one of the following:

(a) be within a Building Area on a plan of subdivision approved under this planning scheme.

(b) The development is for a single dwelling on an existing lot within the Low Density Residential Zone, Rural Living Zone or Environmental Living Zone and:

(i) clearance and conversion or disturbance is confined to Low Priority Biodiversity Values;

(ii) the area of clearance and conversion is no more than 3,000 m^2;

(iii) the area of disturbance is no more than 6,000 m^2;

(c) The development is other than for a single dwelling on an existing lot within the Low Density Residential Zone, Rural Living Zone or Environmental Living Zone and:

(i) clearance and conversion or disturbance is confined to Low Priority Biodiversity Values;

(ii) the area of clearance and conversion is no more than 1,500 m^2;

(iii) the area of disturbance is no more than 3,000 m^2;

To the best of my knowledge, none of the Acceptable Solutions are met. This means that the Performance Criteria must be addressed. These rely on classifying the biodiversity values of the development site as high, moderate or low according to Table E10.1.

High priority biodiversity values are listed as [author review and commentary below each]:

Native vegetation communities listed as threatened under the *Nature Conservation Act 2002* (Tas)

Not present.

Important habitat for threatened species listed under the *Threatened Species Protection Act 1995* or the *Environment Protection and Biodiversity Conservation Act 1999*, including:

SRC – Seabird Rookery Complex

AHL – Lacustrine herbland

DTO – *Eucalyptus tenuramis* [sic] forest and woodland on sediments

DVC – *Eucalyptus viminalis – E. globulus* coastal forest and woodland

AWU – Wetland (undifferentiated)

DGL – *Eucalyptus globulus* dry forest and woodland

NAL – *Allocasurina* [sic] *littoralis* forest

DAS – *Eucalyptus amygdalina* forest and woodland on sandstone

DTO – *Eucalyptus tenuiramis* forest and woodlands on sediments

DOW – *Eucalyptus ovata* heathy woodland

DOV – *Eucalyptus ovata* forest and woodland

Lowland Native Grasslands of Tasmania

Not present – this category is clearly referring to threatened vegetation communities only.

Subtropical and Temperate Coastal Saltmarsh – including a buffer of 10m on land adjoining this community.

Not present.

> Critical habitat for threatened species listed under the *Threatened Species Protection Act 1995* or the *Environment Protection and Biodiversity Conservation Act 1999* (as listed in, but not limited to, the Tasman Catchment: Natural Values and threats report).

Not present. In no sense should this site be considered to be "critical habitat" for *Pimelea flava* subsp. *flava*. Note that "critical habitat" has a specific legal definition under both of the cited Acts and the site does not support such for any species.

Moderate priority biodiversity values are listed as [author review and commentary below each]:

> Other habitat for threatened species listed under the *Threatened Species Protection Act 1995* or the *Environment Protection and Biodiversity Conservation Act 1999*.

The site supports *Pimelea flava* subsp. *flava*, which is listed as rare (Schedule 5) of the TSPA so moderate priority biodiversity values are present.

Low priority biodiversity values are listed as [author review and commentary below each]:

> Other native vegetation communities.

The site supports the non-listed DPU so low priority biodiversity values are present.

The Performance Criteria (for moderate priority biodiversity values) are stated as:

> **P1**
>
> Clearance and conversion or disturbance must satisfy the following:
>
> (c) if moderate priority biodiversity values:
>
> (i) development is designed and located to minimise impacts, having regard to constraints such as topography or land hazard and the particular requirements of the development;
>
> (ii) impacts resulting from bushfire hazard management measures are minimised as far as reasonably practicable through fire-resistant design of habitable buildings;
>
> (iii) remaining moderate priority biodiversity values on the site are retained and improved through implementation of current best practice mitigation strategies and ongoing management measures designed to protect the integrity of these values;
>
> (v) residual adverse impacts on moderate priority biodiversity values not able to be avoided or satisfactorily mitigated are offset in accordance with the *Guidelines for the Use of Biodiversity Offsets in the Local Planning Approval Process, Southern Tasmanian Councils Authority 2013* and any relevant Council policy.

In relation to P1(b)(i), a modest single residential dwelling positioned in the most logical part of the title requiring a hazard management area and utilising an existing access should be reasonably considered as minimising the impact on any biodiversity values. In my opinion, the development has been designed and located to minimise impacts, such that P1(b)(i) should be satisfied.

In relation to P1(b)(ii), I would usually accept a bushfire hazard management plan from a suitably accredited bushfire hazard practitioner as meeting the intent of P1(b)(ii), provided that it has been designed with the objective of maximising the BAL rating to achieve the minimum area of clearance and conversion/disturbance of native vegetation. In reality, the contemporary bushfire hazard management directives constraint the practical application of this in relation to many sites. In my opinion, the required hazard management for this proposed development should not compromise P1(b)(ii).

In relation to P1(b)(iii), the balance of the title will remain subject to the provisions of the Biodiversity Code. I do not believe that additional permit conditions should be applied based on the identified vegetation type and species present i.e. these values do not require active and/or complex management to ensure their persistence and condition.

To satisfy subsection P1(c)(v), "residual impacts" would need to be quantified. Presumably this refers to the actual extent of clearance and conversion and disturbance of threatened vegetation. However, at the scale of clearance and conversion and disturbance likely to be undertaken, formal mitigation and offset options are limited by practical application. The *Guidelines for the Use of Biodiversity Offsets in the Local Planning Approval Process, Southern Tasmanian Councils Authority 2013* provide general guidance viz. "avoid, mitigate, offset" and "like for like" and suggest notional mitigation/offset ratios, which should be defined through the "relevant Council policy". However, I am not aware that this Council has such a policy, meaning any mitigation/offset will need to fall back to general principles and the presentation of a site plan that addresses such principles in a meaningful manner. In this case, given the title's zoning and that a single residential dwelling is an acceptable use, and the title's configuration and existing Biodiversity Protection Area overlay, I do not believe that formal mechanisms to satisfy P1(c)(v) are required.

Recommendations

The recommendations provided below are a summary of those provided in relation to each of the ecological features described in the main report. The main text of the report provides the relevant context for the recommendations.

Vegetation types

In general terms, minimising the extent of "clearance and conversion" and/or "disturbance" to native vegetation is recommended (but recognising the title's zoning status and its configuration, size, and topography, limiting practical application).

Threatened flora

While the site (including the proposed development area) supports a population of threatened flora (*Pimelea flava* subsp. *flava*, yellow riceflower), no specific special management is recommended (but refer to legislative requirements).

Threatened fauna

Apart from the generic recommendation to minimise the extent of "clearance and conversion" and/or "disturbance" to native vegetation, specific management in relation to threatened fauna is not recommended.

Weed and disease management

Care should be taken to dispose of vegetation debris and topsoil created as part of works due to localised plants of spanish heath (*Erica lusitanica*) and blackberry (*Rubus* sp.). Beyond these measures, owner-occupation is considered the most effective future and longer-term means of achieving weed management (i.e. vigilance and control as needed).

Legislative and policy implications

A permit under the Tasmanian *Threatened Species Protection Act 1995* will be required for the works in relation to *Pimelea flava* subsp*. flava* (yellow riceflower).

A formal referral to the Commonwealth Department of Agriculture, Water and the Environment under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA) is not considered required.

Development will require a planning permit pursuant to the provisions of the *Tasman Interim Planning Scheme 2015*. A review of the provisions of the Biodiversity Code indicates likely compliance with E10.7.1 without the need for specific planning permit conditions.

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APPENDIX A. Vegetation community structure and composition

The table below provides basic information on the structure and composition of the vegetation mapping unit identified from the study area.

Eucalyptus pulchella forest and woodland (TASVEG code: DPU)

The whole title is now mapped as DPU with no notion that any part of it has any affinities to DOV (as per TASVEG mapping). *Eucalyptus pulchella* dominates a low and open canopy, which is multi-aged. *Eucalyptus ovata* is present as scattered regrowth trees, saplings and seedlings but is present in far less than 5% of the canopy.

The forest was burnt in the 2013 wildfire and all trees are significantly scarred/scorched. There is a moderate amount of burnt coarse woody debris but most of the ground is rocky (dolerite). The understorey is a mixture of low shrubs of variable density amongst a graminoid and grass layer with locally abundant herbs.

Apart from minor occurrences of weeds, the vegetation is in excellent (albeit regrowth-structured) condition.

Stratum	**Height (m)** **Cover (%)**	**Species** (underline = dominant, parentheses = sparse)
Trees	30 m 5%	*Eucalyptus pulchella*
Trees	15-25 m 10%	*Eucalyptus pulchella*, *(Eucalyptus ovata)*
Tall shrubs	3-12 m 30%	*Eucalyptus* regeneration (dominated by *Eucalyptus pulchella*), *Allocasuarina littoralis, Dodonaea viscosa, Bursaria spinosa*
Low to medium shrubs	0.5-3 m 20%	*Exocarpos strictus, Leptospermum scoparium, Acacia genistifolia, Pimelea flava, Pimelea nivea, Daviesia ulicifolia, Pultenaea juniperina, Epacris impressa, Bedfordia salicina, Hibbertia riparia*
Low shrubs	<0.5 m 5-20%	*Lissanthe strigosa, Astroloma humifusum, Kennedia prostrata*
Grasses	5-20%	*Microlaena stipoides, Poa* spp., *Austrostipa stuposa, Tetrarrhena distichophylla, Rytidosperma* spp., *Themeda triandra*
Graminoids	40%	*Lomandra longifolia*, *Lepidosperma laterale, Dianella revoluta*
Herbs	5%	*Acaena* spp., *Gonocarpus tetragynus, Leptorhynchos squamatus, Hypericum gramineum, Stylidium graminifolium, Senecio glomeratus, Linum marginale, Drosera auriculata, Wahlenbergia stricta*
Climbers	+	*Cassytha pubescens*

APPENDIX B. Vascular plant species recorded from study area

Botanical nomenclature follows *A Census of the Vascular Plants of Tasmania* (de Salas & Baker 2020), with family placement updated to reflect the nomenclatural changes recognised in the *Flora of Tasmania Online* (de Salas 2019+) and APG (2016); common nomenclature follows *The Little Book of Common Names of Tasmanian Plants* (Wapstra et al. 2005+, updated online at www.dpipwe.tas.gov.au).

i = introduced/naturalised; e = endemic to Tasmania

TSPA = Tasmanian *Threatened Species Protection Act 1995* (status shown)

DW = declared weed under Tasmanian *Weed Management Act 1999*

Table B1. Summary of vascular species recorded from the subject title

	ORDER			
STATUS	**DICOTYLEDONAE**	**MONOCOTYLEDONAE**	**GYMNOSPERMAE**	**PTERIDOPHYTA**
	53	21	-	-
e	3	-	-	-
i	6	2	-	-
Sum	**50**	**23**	**0**	**0**
TOTAL	**73**			

	DICOTYLEDONAE		
	ASTERACEAE		
e	*Bedfordia salicina*	tasmanian blanketleaf	
i	*Cirsium vulgare*	spear thistle	
	Euchiton japonicus	common cottonleaf	
i	*Hypochaeris radicata*	rough catsear	
	Lagenophora stipitata	blue bottledaisy	
	Leptorhynchos squamatus subsp. *squamatus*	scaly buttons	
	Olearia floribunda	flowery daisybush	
	Senecio glomeratus subsp. *glomeratus*	shortfruit purple fireweed	
	Senecio quadridentatus	cotton fireweed	
	BORAGINACEAE		
	Hackelia suaveolens	sweet houndstongue	
	CAMPANULACEAE		
	Wahlenbergia stricta subsp. *stricta*	tall bluebell	
	CASUARINACEAE		
	Allocasuarina littoralis	black sheoak	
	Allocasuarina verticillata	drooping sheoak	
	CRASSULACEAE		
	Crassula sieberiana	rock stonecrop	
	DILLENIACEAE		
	Hibbertia riparia	erect guineaflower	
	DROSERACEAE		
	Drosera auriculata	tall sundew	
	ERICACEAE		
	Astroloma humifusum	native cranberry	
	Epacris impressa	common heath	
i	*Erica lusitanica*	spanish heath	DW
	Leucopogon parviflorus	coast beardheath	
	Lissanthe strigosa subsp. *subulata*	peachberry heath	
	FABACEAE		
	Acacia genistifolia	spreading wattle	
	Acacia melanoxylon	blackwood	
	Bossiaea prostrata	creeping bossia	
	Daviesia ulicifolia subsp. *ulicifolia*	yellow spiky bitterpea	
	Kennedia prostrata	running postman	
	Pultenaea juniperina	prickly beauty	
	GENTIANACEAE		
i	*Centaurium erythraea*	common centaury	

	GERANIACEAE		
	Geranium solanderi	southern cranesbill	
	GOODENIACEAE		
	Goodenia lanata	trailing native-primrose	
	HALORAGACEAE		
	Gonocarpus tetragynus	common raspwort	
	HYPERICACEAE		
	Hypericum gramineum	small st johns-wort	
	LINACEAE		
	Linum marginale	native flax	
	MYRTACEAE		
	Eucalyptus ovata var. *ovata*	black gum	
e	*Eucalyptus pulchella*	white peppermint	
	Leptospermum scoparium	common teatree	
	PITTOSPORACEAE		
	Bursaria spinosa subsp. *spinosa*	prickly box	
	PLANTAGINACEAE		
	Plantago varia	variable plantain	
	PRIMULACEAE		
i	*Lysimachia arvensis*	scarlet pimpernel	
	RANUNCULACEAE		
	Ranunculus lappaceus	woodland buttercup	
	ROSACEAE		
	Acaena echinata	spiny sheepsburr	
	Acaena novae-zelandiae	common buzzy	
i	*Rubus* sp.	blackberry	DW
	SANTALACEAE		
	Exocarpos strictus	pearly native-cherry	
	SAPINDACEAE		
	Dodonaea viscosa subsp. *spatulata*	broadleaf hopbush	
	STYLIDIACEAE		
	Stylidium graminifolium	narrowleaf triggerplant	
	THYMELAEACEAE		
	Pimelea flava subsp. *flava*	yellow riceflower	TSPA (rare)
	Pimelea humilis	dwarf riceflower	
e	*Pimelea nivea*	bushmans bootlace	
	MAGNOLIDS		
	LAURACEAE		
	Cassytha pubescens	downy dodderlaurel	
	MONOCOTYLEDONAE		
	AMARYLLIDACEAE		
	Dianella revoluta var. *revoluta*	spreading flaxlily	
	ASPARAGACEAE		
	Lomandra longifolia	sagg	
	CYPERACEAE		
	Carex breviculmis	shortstem sedge	
	Gahnia grandis	cutting grass	
	Lepidosperma laterale	variable swordsedge	
	Schoenus apogon	common bogsedge	
	IRIDACEAE		
	Diplarrena moraea	white flag-iris	
	JUNCACEAE		
	Juncus pallidus	pale rush	
	Juncus subsecundus	finger rush	
	POACEAE		
	Austrostipa semibarbata	fibrous speargrass	
	Austrostipa stuposa	corkscrew speargrass	
i	*Briza maxima*	greater quaking-grass	
i	*Briza minor*	lesser quaking-grass	
	Lachnagrostis aemula	tumbling blowngrass	
	Microlaena stipoides var. *stipoides*	weeping grass	
	Poa hookeri	hookers tussockgrass	
	Poa labillardierei var. *labillardierei*	silver tussockgrass	
	Poa rodwayi	velvet tussockgrass	
	Poa sieberiana var. *sieberiana*	grey tussockgrass	
	Rytidosperma penicillatum	slender wallabygrass	
	Rytidosperma setaceum	bristly wallabygrass	
	Tetrarrhena distichophylla	hairy ricegrass	
	Themeda triandra	kangaroo grass	

APPENDIX C. Analysis of database records of threatened flora

Table C1 provides a listing of threatened flora from within 5,000 m of the study area (nominal buffer width usually used to discuss the potential of a particular study area to support various species listed in databases), with comments on whether potential habitat is present for the species, and possible reasons why a species was not recorded.

Table C1. Threatened flora records from within 5,000 m of boundary of the study area

Species listed below are listed as rare (r), vulnerable (v), endangered (e), or extinct (x) on the Tasmanian *Threatened Species Protection Act 1995* (TSPA); vulnerable (VU), endangered (EN), critically endangered (CR) or extinct (EX) on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA). Information below is sourced from DPIPWE's *Natural Values Atlas* (DPIPWE 2020) and other sources where indicated. Habitat descriptions are taken from FPA (2016), FPA (2017) and TSS (2003+), except where otherwise indicated. Species marked with # are listed in CofA (2020).

Scientific name **Common name**	**Status** TSPA EPBCA	**Tasmanian habitat description (and distribution)**	**Comments on study area and database records**
Caladenia caudata tailed spider-orchid	v VU # only	*Caladenia caudata* has highly variable habitat, which includes the central north: *Eucalyptus obliqua* heathy forest on low undulating hills; the northeast: *E. globulus* grassy/heathy coastal forest, *E. amygdalina* heathy woodland and forest, *Allocasuarina* woodland; and the southeast: *E. amygdalina* forest and woodland on sandstone, coastal *E. viminalis* forest on deep sands. Substrates vary from dolerite to sandstone to granite, with soils ranging from deep windblown sands, sands derived from sandstone and well-developed clay loams developed from dolerite. A high degree of insolation is typical of many sites.	Potential habitat marginally present. The survey was conducted during the end of the peak flowering period of the species in southeast Tasmania (Wapstra 2018). This species was not detected from the subject title.
Corunastylis nuda tiny midge-orchid	r -	*Corunastylis nuda* occurs in a wide range of habitats from near sea level to 1,000 m a.s.l., on a range of different soil types and geologies. Vegetation types include scrub, subalpine grassland, open rock plates, heathy open forest, shrubby dry sclerophyll forest and wet sclerophyll forest.	Potential habitat marginally present. The survey was conducted during the start of the flowering period of the species in southeast Tasmania (Wapstra 2018). This species was not detected from the subject title.
Cyathodes platystoma tall cheeseberry	r -	*Cyathodes platystoma* occurs on dolerite, mainly in wet eucalypt forests dominated by *Eucalyptus obliqua, E. delegatensis* and *E. regnans*, but extends into drier shrubby forests. It is restricted to higher rainfall, coastal environments in southeast Tasmania (South Bruny Island, parts of the Southern Forests, and its stronghold on Tasman and Forestier peninsulas). The species has not been recorded from some areas of superficially suitable habitat (e.g. Wielangta area), but occurrence in such sites should not be discounted. It is capable of regenerating after disturbance.	Potential habitat marginally present. This shrub was not detected (no seasonal constraint on detection and/or identification).

Scientific name Common name	Status TSPA EPBCA	Tasmanian habitat description (and distribution)	Comments on study area and database records
Epacris virgata Beaconsfield twiggy heath	v EN #	*Epacris virgata* (Beaconsfield) is restricted to a small area of undulating terrain in the foothills of the Dazzler Range near Beaconsfield, where it occurs on serpentinite-derived soils in dry sclerophyll forest at an elevation of 40-80 m a.s.l.	While DPIPWE (2020) considers *Epacris virgata* to comprise the two entities, more recent thinking is that the two are not separable so are here treated as one entity. Potential habitat present. This shrub was not detected (no seasonal constraint on detection and/or identification).
Epacris virgata Kettering pretty heath	v EN #	*Epacris virgata* (Kettering) occurs among foothills in southeastern Tasmania in dry sclerophyll forest on hilly terrain at elevations of 10-300 m a.s.l., mainly on dolerite, though sometimes close to the geological boundary of dolerite and Permian mudstone. It is generally associated with grassy/heathy *Eucalyptus ovata* woodland/forest, but is also occasionally found in grassy/heathy *E. pulchella* woodland/forest.	
Euphrasia collina subsp. *deflexifolia* eastern eyebright	r -	*Euphrasia collina* subsp. *deflexifolia* occurs in open woodland or heath (sometimes extending to forest), often associated with road edges, tracks and depressions near the headwaters of creeks. Its habitat is associated with the availability of open patches of ground maintained by fire or other disturbance, the proximity of low vegetation and relatively high soil moisture in spring.	Potential habitat present. This perennial subshrub was not detected (no seasonal constraint on detection and/or identification).
Eutaxia microphylla spiny bushpea	r -	On Flinders Island, *Eutaxia microphylla* mainly occurs in windswept coastal heathland on calcarenite. On mainland Tasmania, the species usually occurs in low open coastal shrubbery and on cliff edges (various substrates). There is an apparently outlier that occurs in dense roadside grass (mainly *Themeda triandra*) and *Acacia dealbata* (silver wattle) heathy scrub along the Esk Main Road.	Potential habitat absent.
Glycine latrobeana clover glycine	v VU	*Glycine latrobeana* occurs in a range of habitats, geologies and vegetation types. Soils are usually fertile but can be sandy when adjacent to or overlaying fertile soils. The species mainly occurs on flats and undulating terrain over a wide geographical range, including near-coastal environments, the Midlands, and the Central Plateau. It mainly occurs in grassy/heathy forests and woodlands and native grasslands.	Potential habitat absent. The listing in CofA (2020) is considered erroneous (or at least extremely conservative) because this species is not known from the east coast region.
Lepidium hyssopifolium soft peppercress	e EN # only	The native habitat of *Lepidium hyssopifolium* is the growth suppression zone beneath large trees in grassy woodlands and grasslands (e.g. over-mature black wattles and isolated eucalypts in rough pasture).	Potential habitat absent.

Scientific name Common name	Status TSPA EPBCA	Tasmanian habitat description (and distribution)	Comments on study area and database records
		Lepidium hyssopifolium is now found primarily under large exotic trees on roadsides and home yards on farms. It occurs in the eastern part of Tasmania between sea-level to 500 m a.s.l. in dry, warm and fertile areas on flat ground on weakly acid to alkaline soils derived from a range of rock types.	
Phyllangium divergens wiry mitrewort	v -	*Phyllangium divergens* occurs in a wide variety of near-coastal habitats on a range of substrates, a common feature usually being bare ground (e.g. tracks) and rock exposures (e.g. outcrops, coastal cliffs, etc.).	Potential habitat present. The survey was conducted during the peak flowering period (FPA 2017). This species was not detected from the subject title.
Pimelea flava subsp. *flava* yellow riceflower	r -	*Pimelea flava* subsp. *flava* occurs in wet and dry sclerophyll forest and woodland, and extends into hardwood and softwood plantations. It often occurs abundantly on disturbed sites such as in logged forest, firebreaks, powerline easements and road batters.	Species detected. Refer to **FINDINGS** ***Plant species*** Threatened flora species recorded from the study area for more details.
Prasophyllum apoxychilum tapered leek-orchid	v EN #	*Prasophyllum apoxychilum* is restricted to eastern and northeastern Tasmania where it occurs in coastal heathland or grassy and scrubby open eucalypt forest on sandy and clay loams, often among rocks. It occurs at a range of elevations and seems to be strongly associated with dolerite in the east and southeast of its range.	Potential habitat present. The survey was conducted during the peak flowering period in southern Tasmania (Wapstra 2018). This species was not detected from the subject title.
Senecio psilocarpus swamp fireweed	e VU # only	*Senecio psilocarpus* is known from six widely scattered sites in the northern half of the State, including King and Flinders islands. It occurs in swampy habitats including broad valley floors associated with rivers, edges of farm dams amongst low-lying grazing/cropping ground, herb-rich native grassland in a broad swale between stable sand dunes, adjacent to wetlands in native grassland, herbaceous marshland and low-lying lagoon systems.	Potential habitat absent.
Siloxerus multiflorus small wrinklewort	r -	*Siloxerus multiflorus* occurs in a range of somewhat exposed lowland habitats, including bare soil and rocks amongst dense windswept coastal shrubbery to rock outcrops and bare ground associated with native grassland, grassy woodland and forest.	Potential habitat present. The survey was conducted during the peak flowering period (FPA 2017). This species was not detected from the subject title.
Thelymitra holmesii bluestar sun-orchid	r -	*Thelymitra holmesii* occurs in moist areas of grassland, heathy open forest and heathland in water-retentive soils such as clay loam and peaty loam, in soaks, beside streams and around swamp margins, usually below about 200 m a.s.l.	Potential habitat absent.

Scientific name Common name	Status TSPA EPBCA	Tasmanian habitat description (and distribution)	Comments on study area and database records
Thelymitra jonesii skyblue sun-orchid	e EN # only	*Thelymitra jonesii* occurs in moist coastal heath on sandy to peaty soils and in *Eucalyptus obliqua* forest in deep loam soil over dolerite.	Potential habitat marginally present. The survey was conducted during the peak flowering period in southern Tasmania (Wapstra 2018).
Vittadinia cuneata var. *cuneata* fuzzy new-holland-daisy	r -	*Vittadinia cuneata* var. *cuneata* occurs in native grassland and grassy woodland.	Potential habitat absent.

APPENDIX D. Analysis of database records of threatened fauna

Table D1 provides a listing of threatened fauna from within 5,000 m of the study area (nominal buffer width usually used to discuss the potential of a particular study area to support various species listed in databases), with comments on whether potential habitat is present for the species, and possible reasons why a species was not recorded.

Table D1. Threatened fauna records from 5,000 m of boundary of the study area

Species listed below are listed as rare (r), vulnerable (v), endangered (e), or extinct (x) on the Tasmanian *Threatened Species Protection Act 1995* (TSPA); vulnerable (VU), endangered (EN), critically endangered (CR) or extinct (EX) on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA). Information below is sourced from the DPIPWE's *Natural Values Atlas* (DPIPWE 2020), Bryant & Jackson (1999) and FPA (2020); marine, wholly pelagic and littoral species such as marine mammals, fish and offshore seabirds are excluded. Species marked with # are listed in CofA (2020).

Scientific name **Common name**	**Status** TSPA EPBCA	**Tasmanian habitat description (and distribution)**	**Comments on study area and database records**
Accipiter novaehollandiae grey goshawk	e -	Potential habitat is native forest with mature elements below 600 m altitude, particularly along watercourses. Significant habitat may be summarised as areas of wet forest, rainforest and damp forest patches in dry forest, with a relatively closed mature canopy, low stem density, and open understorey in close proximity to foraging habitat and a freshwater body (i.e. stream, river, lake, swamp, etc.).	Potential habitat absent (as described). The species may occasionally utilise the greater study area as part of a home range and for foraging but small-scale development should not have a significant impact on this aspect of the life history of the species.
Alcedo azurea subsp. *diemenensis* Tasmanian azure kingfisher	v EN # only	Potential habitat comprises potential foraging habitat and potential breeding habitat. Potential foraging habitat is primarily freshwater (occasionally estuarine) waterbodies such as large rivers and streams with well-developed overhanging vegetation suitable for perching and water deep enough for dive-feeding. Potential breeding habitat is usually steep banks of large rivers (a breeding site is a hole (burrow) drilled in the bank).	Potential habitat absent (the site and surrounds do not support any freshwater drainage features). Listed in CofA (2020) as *Ceyx azureus* subsp. *diemenensis*
Antipodia chaostola tax. *leucophaea* chaostola skipper	e EN #	Potential habitat is dry forest and woodland supporting *Gahnia radula* (usually on sandstone and other sedimentary rock types) or *Gahnia microstachya* (usually on granite-based substrates).	Potential habitat absent (both *Gahnia* species absent).
Apus pacificus fork-tailed swift	- - # only	Occasional non-breeding migrant to Tasmania only.	Potential habitat present. However, as this species rarely lands or roosts (and does not breed) on the Australian migration, any proposal should not have a deleterious impact on the species. Further consideration of this species should not be required.
Aquila audax subsp. *fleayi* tasmanian wedge-tailed eagle	e EN #	Potential habitat comprises potential nesting habitat and potential foraging habitat. Potential foraging habitat is a wide variety of forest (including areas	Potential nesting habitat absent (generally even-aged regrowth-structured forest). No known nests within 1,000 m of study area.

Scientific name Common name	Status TSPA EPBCA	Tasmanian habitat description (and distribution)	Comments on study area and database records
		subject to native forest silviculture) and non-forest habitats. Potential nesting habitat is tall eucalypt trees in large tracts (usually more than 10 ha) of eucalypt or mixed forest. Nest trees are usually amongst the largest in a locality. They are generally in sheltered positions on leeward slopes, between the lower and mid sections of a slope and with the top of the tree usually lower than the ground level of the top of the ridge, although in some parts of the State topographic shelter is not always a significant factor (e.g. parts of the northwest and Central Highlands). Nests are usually not constructed close to sources of disturbance and nests close to disturbance are less productive. More than one nest may occur within a territory but only one is used for breeding in any one year. Breeding failure often promotes a change of nest in the next year.	The species may occasionally utilise the greater study area as part of a home range and for foraging but small-scale development should not have a significant impact on this aspect of the life history of the species.
Attenborougharion rubicundus burgundy snail	r -	Potential habitat is all wet forest, including regrowth, regardless of age, topography or management history.	Potential habitat absent (dry rocky forest).
Botaurus poiciloptilus Australasian bittern	- EN # only	Potential habitat is comprised of wetlands with tall dense vegetation, where it forages in still, shallow water up to 0.3 m deep, often at the edges of pools or waterways, or from platforms or mats of vegetation over deep water. It favours permanent and seasonal freshwater habitats, particularly those dominated by sedges, rushes and reeds (e.g. *Phragmites*, *Cyperus*, *Eleocharis*, *Juncus*, *Typha*, *Baumea*, *Bolboschoenus*) or cutting grass (*Gahnia*) growing over a muddy or peaty substrate (TSSC 2011).	Potential habitat absent (no wetlands).
Dasyurus maculatus subsp. *maculatus* spotted-tailed quoll	r VU #	Potential habitat is coastal scrub, riparian areas, rainforest, wet forest, damp forest, dry forest and blackwood swamp forest (mature and regrowth), particularly where structurally complex and steep rocky areas are present, and includes remnant patches in cleared agricultural land.	Potential habitat widespread. No evidence (e.g. scats, dens) of the species was observed. The species may occasionally utilise the greater study area as part of a home range and for foraging but small-scale development should not have a significant impact on this aspect of the life history of the species.
Dasyurus viverrinus eastern quoll	- EN #	Potential habitat is a variety of habitats including rainforest, heathland, alpine areas and scrub. However, it seems to prefer dry forest and native grassland mosaics which are bounded by agricultural land.	See comments under spotted-tailed quoll.
Haliaeetus leucogaster white-bellied sea-eagle	v -	Potential habitat comprises potential nesting habitat and potential foraging habitat. Potential foraging habitat is any large waterbody (including sea coasts, estuaries, wide rivers, lakes,	See comments under wedge-tailed eagle.

Scientific name Common name	Status TSPA EPBCA	Tasmanian habitat description (and distribution)	Comments on study area and database records
		impoundments and even large farm dams) supporting prey items (fish). Potential nesting habitat is tall eucalypt trees in large tracts (usually more than 10 ha) of eucalypt or mixed forest within 5 km of the coast (nearest coast including shores, bays, inlets and peninsulas), large rivers (class 1), lakes or complexes of large farm dams. Scattered trees along river banks or pasture land may also be used.	
Hirundapus caudacutus white-throated needletail	- VU # only	This species is mostly aerial, from heights of less than 1 m up to more than 1,000 m above the ground. Although they occur over most types of habitat, they are recorded most often above wooded areas, including open forest and rainforest.	Potential habitat present. However, as this species rarely lands or roosts (and does not breed) on the Australian migration, any proposal should not have a deleterious impact on the species. Further consideration of this species should not be required.
Lathamus discolor swift parrot	e CR #	Potential habitat comprises potential foraging habitat and potential nesting habitat. Potential foraging habitat comprises *Eucalyptus globulus* (blue gum) or *Eucalyptus ovata* (black gum) trees that are old enough to flower. For management purposes, potential nesting habitat is considered to comprise eucalypt forests that contain hollow-bearing trees.	The site does not support *Eucalyptus globulus* so this component of potential foraging habitat is absent. The site supports very occasional regrowth-form (low, < 10 m tall) individuals of *Eucalyptus ovata* but the site is highly atypical of know foraging habitat so this component of potential foraging habitat is considered absent. The forest is regrowth-structured (post-fire and probably previous clearing/intensive management that removed the larger trees – perhaps simply repeated fires) with no trees bearing significant hollow development so this component of potential nesting habitat is considered absent (highly atypical of known breeding sites on ridgelines/slopes with hollow-rich mature forest).
Lissotes menalcas Mt Mangana stag beetle	v -	Potential habitat is any eucalypt forest that contains rotting logs (often numerous, and usually greater than about 40 cm diameter at mid-log length) below about 650 m a.s.l. (generally moist habitats that have not been subject to high intensity or frequent fires in about the last 20 years). The species has a patchy distribution within areas of potential habitat.	Potential habitat absent (site is rocky dry forest).
Litoria raniformis green and golden frog	v VU #	Potential habitat is permanent and temporary waterbodies, usually with vegetation in or around them. Potential habitat includes features such as natural lagoons, permanently or seasonally inundated swamps and wetlands, farm dams, irrigation channels, artificial water-holding sites such as old quarries, slow-flowing stretches of streams and rivers and drainage features.	Potential habitat absent (the site and surrounds do not support any freshwater drainage features).

Scientific name Common name	Status TSPA EPBCA	Tasmanian habitat description (and distribution)	Comments on study area and database records
Myiagra cyanoleuca satin flycatcher	- - # only	Potential habitat is variable but mainly eucalypt-dominated forests, with a stronger association with wetter forest gullies.	Potential habitat present. This is a spring-summer migrant that may occasionally utilise the greater study area for foraging. No sightings were made on the single day of assessment in December, which was undertaken marginally within the species' resident period in Tasmania. Small-scale development should not have a significant impact on this species.
Pardalotus quadragintus forty-spotted pardalote	e EN	Potential habitat is any forest and woodland supporting *E. viminalis* (white gum) where the canopy cover of *E. viminalis* is ≥10% or where *E. viminalis* occurs as a localised canopy dominant or co-dominant in patches exceeding 0.25 ha.	Potential habitat absent (*Eucalyptus viminalis* is not present).
Perameles gunnii subsp. *gunnii* eastern barred bandicoot	- VU #	Potential habitat is open vegetation types including woodlands and open forests with a grassy understorey, native and exotic grasslands, particularly in landscapes with a mosaic of agricultural land and remnant bushland.	Potential habitat marginally present, although the species is not strongly associated with such rocky forests. The species may occasionally utilise the greater study area as part of a home range and for foraging but small-scale development should not have a significant impact on this aspect of the life history of the species.
Prototroctes maraena Australian grayling	v VU #	Potential habitat is all streams and rivers in their lower to middle reaches. Areas above permanent barriers (e.g. Prosser River dam, weirs) that prevent fish migration, are not potential habitat.	Potential habitat absent (the site and surrounds do not support any freshwater drainage features).
Pseudalmenus chlorinda tax. *myrsilus* Tasmanian hairstreak butterfly	r -	Potential habitat is dry forest and woodland with *Eucalyptus viminalis* (white gum) present (any amount) in close association (usually within 50 m) with *Acacia* species, including *A. dealbata* (silver wattle), *A. mearnsii* (black wattle) or *A. melanoxylon* (blackwood).	Potential habitat absent (atypical of all known sites, especially with respect to density of white gum (none, only occasional regrowth *Eucalyptus ovata*) and lack of associated wattle species).
Pseudemoia pagenstecheri tussock skink	v -	Potential habitat is grassland and grassy woodland (including rough pasture with paddock trees), generally with a greater than 20% cover of native grass species, especially where medium to tall tussocks are present.	Potential habitat absent. There are no areas with greater than 20% cover of tussock-forming grass species present.
Sarcophilus harrisii tasmanian devil	e EN #	Potential habitat is all terrestrial native habitats, forestry plantations and pasture. Devils require shelter (e.g. dense vegetation, hollow logs, burrows or caves) and hunting habitat (open understorey mixed with patches of dense vegetation) within their home range (427 km^2). Significant habitat is a patch of potential denning habitat where three or more entrances (large enough for a devil to pass through) may be found within 100 m of one another, and where no other potential	See comments under spotted-tailed quoll.

Scientific name Common name	Status TSPA EPBCA	Tasmanian habitat description (and distribution)	Comments on study area and database records
		denning habitat with three or more entrances may be found within a 1 km radius, being the approximate area of the smallest recorded devil home range. Potential denning habitat is areas of burrowable, well-drained soil, log piles or sheltered overhangs such as cliffs, rocky outcrops, knolls, caves and earth banks, free from risk of inundation and with at least one entrance through which a devil could pass.	
Tyto novaehollandiae subsp. *castanops* masked owl	e VU #	Potential habitat is all areas with trees with large hollows (≥15 cm entrance diameter). Remnants and paddock trees (in any dry or wet forest type) in agricultural areas may constitute potential habitat. Significant habitat is any areas within the core range of native dry forest with trees over 100 cm dbh with large hollows (≥15 cm entrance diameter).	Potential nesting habitat absent (large trees with large hollows are absent from the study area). The species may occasionally utilise the greater study area as part of a home range and for foraging but small-scale development should not have a significant impact on this aspect of the life history of the species.

APPENDIX E. DPIPWE's *Natural Values Atlas* report for the study area

Appended as pdf file.

APPENDIX F. Forest Practices Authority's *Biodiversity Values Atlas* report for the study area

Appended as pdf file.

APPENDIX G. CofA's *Protected Matters* report for the study area

Appended as pdf file.

ATTACHMENTS

- .shp file of revised vegetation mapping
- .shp file of point locations of threatened flora

Natural Values Atlas Report

Authoritative, comprehensive information on Tasmania's natural values.

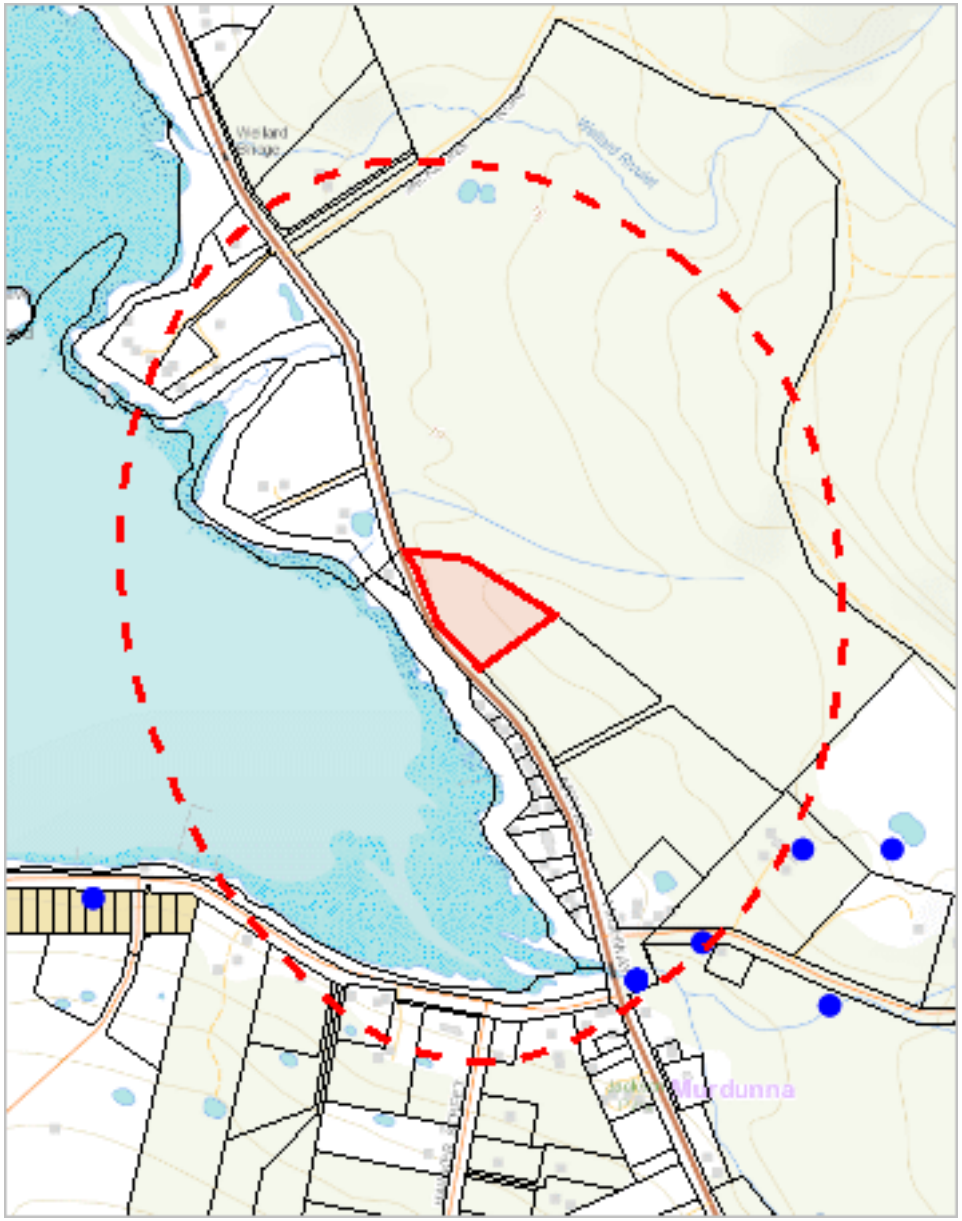
Reference:	ECOtas_4015ArthurHighway
Requested For:	MWapstra
Report Type:	Summary Report
Timestamp:	04:51:19 PM Monday 30 November 2020
Threatened Flora:	buffers Min: 500m Max: 5000m
Threatened Fauna:	buffers Min: 500m Max: 5000m
Raptors:	buffers Min: 500m Max: 5000m
Tasmanian Weed Management Act Weeds:	buffers Min: 500m Max: 5000m
Priority Weeds:	buffers Min: 500m Max: 5000m
Geoconservation:	buffer 1000m
Acid Sulfate Soils:	buffer 1000m
TASVEG:	buffer 1000m
Threatened Communities:	buffer 1000m
Fire History:	buffer 1000m
Tasmanian Reserve Estate:	buffer 1000m
Biosecurity Risks:	buffer 1000m

The centroid for this query GDA94: 570513.0, 5245161.0 falls within:

Property: 9474428

Threatened flora within 500 metres

571135, 5245935



569901, 5244376

Please note that some layers may not display at all requested map scales

Threatened flora within 500 metres

Legend: Verified and Unverified observations

- Point Verified
- Point Unverified
- Line Verified
- Line Unverified
- Polygon Verified
- Polygon Unverified

Legend: Cadastral Parcels

Threatened flora within 500 metres

Verified Records

Species	Common Name	SS	NS	Bio	Observation Count	Last Recorded
Pimelea flava subsp. flava	yellow riceflower	r		n	7	11-Jan-2008

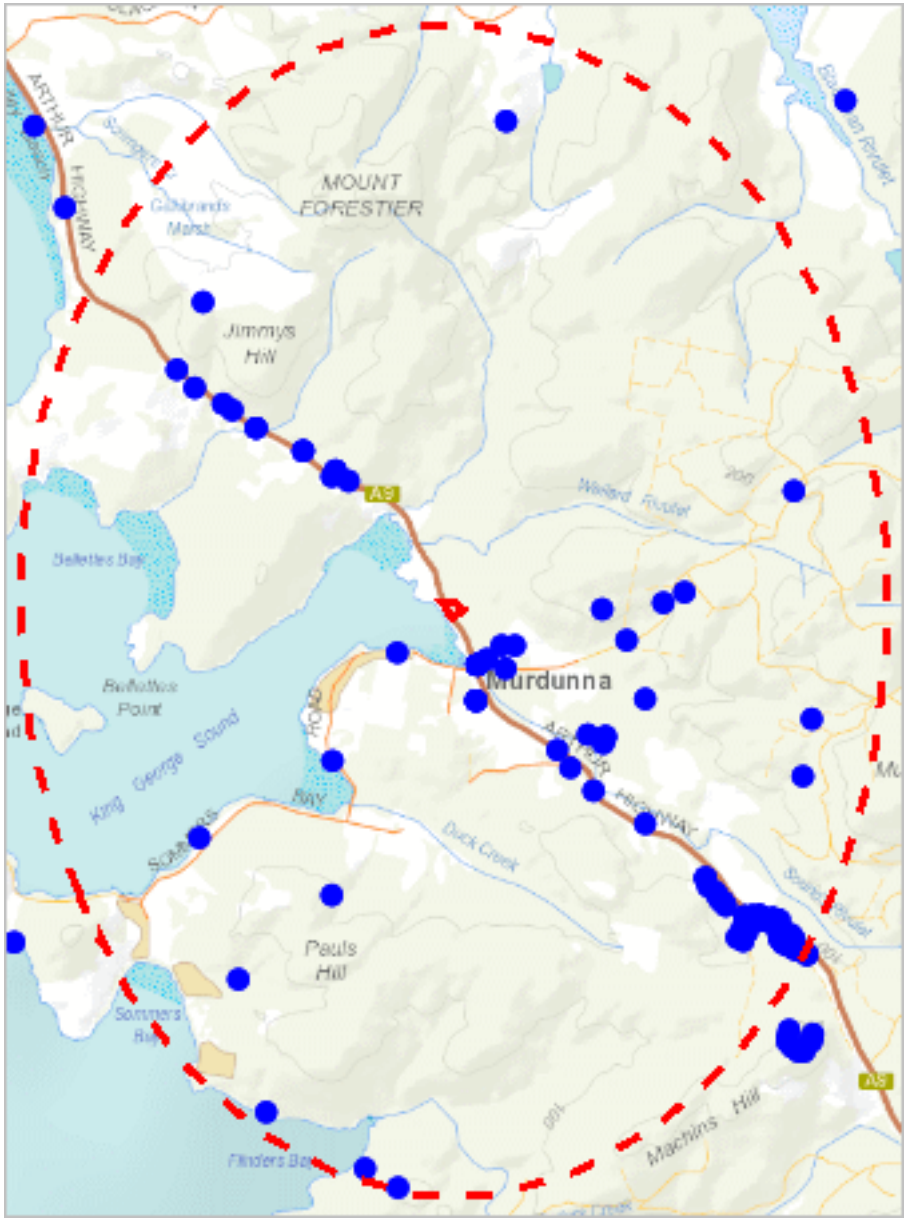
Unverified Records

No unverified records were found!

For more information about threatened species, please contact Threatened Species Enquiries.
Telephone: 1300 368 550
Email: ThreatenedSpecies.Enquiries@dpipwe.tas.gov.au
Address: GPO Box 44, Hobart, Tasmania, Australia, 7000

Threatened flora within 5000 metres

574480, 5250450



566558, 5239861

Please note that some layers may not display at all requested map scales

Threatened flora within 5000 metres

Legend: Verified and Unverified observations

- Point Verified
- Point Unverified
- Line Verified
- Line Unverified
- Polygon Verified
- Polygon Unverified

Legend: Cadastral Parcels

Threatened flora within 5000 metres

Verified Records

Species	Common Name	SS	NS	Bio	Observation Count	Last Recorded
Corunastylis nuda	tiny midge-orchid	r		n	1	01-Jan-1973
Cyathodes platystoma	tall cheeseberry	r		e	2	16-Oct-2009
Epacris virgata (Kettering)	pretty heath	pv		e	5	25-Sep-2008
Euphrasia collina subsp. deflexifolia	eastern eyebright	r		e	1	01-Nov-1970
Eutaxia microphylla	spiny bushpea	r		n	12	26-Oct-2012
Phyllangium divergens	wiry mitrewort	v		n	3	26-Oct-2012
Pimelea flava subsp. flava	yellow riceflower	r		n	79	17-Jul-2019
Prasophyllum apoxychilum	tapered leek-orchid	v	EN	e	24	16-Nov-2014
Siloxerus multiflorus	small wrinklewort	r		n	1	01-Jan-1992
Thelymitra holmesii	bluestar sun-orchid	r		n	5	11-Nov-2013
Thelymitra jonesii	skyblue sun-orchid	e	EN	e	1	22-Nov-2006
Vittadinia cuneata var. cuneata	fuzzy new-holland-daisy	r		n	1	20-Nov-2007

Unverified Records

No unverified records were found!

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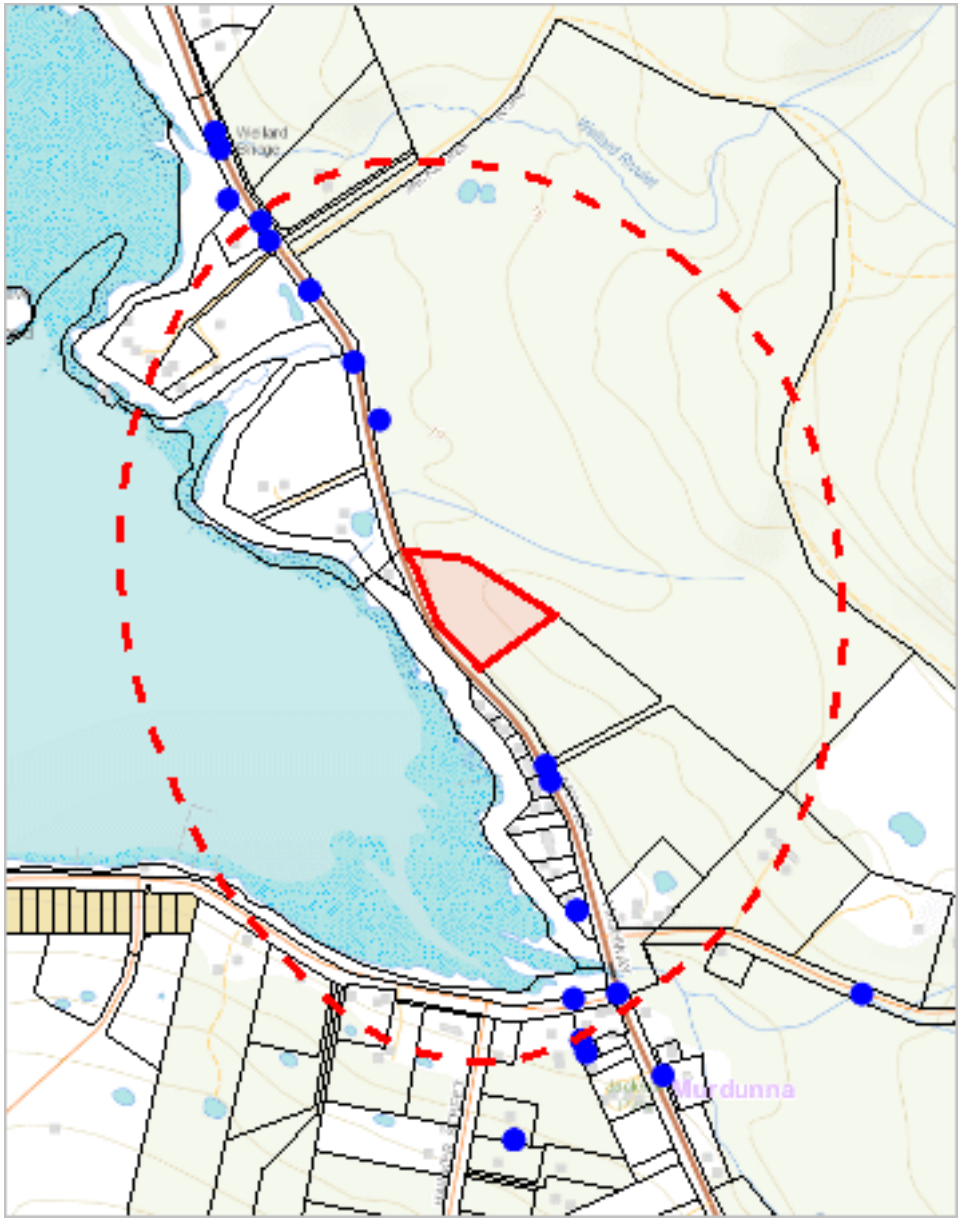
Threatened fauna within 500 metres

571135, 5245935



569901, 5244376

Please note that some layers may not display at all requested map scales

Threatened fauna within 500 metres

Legend: Verified and Unverified observations

- Point Verified
- Point Unverified
- Line Verified
- Line Unverified
- Polygon Verified
- Polygon Unverified

Legend: Cadastral Parcels

Threatened fauna within 500 metres

Verified Records

Species	Common Name	SS	NS	Bio	Observation Count	Last Recorded
Perameles gunnii	eastern barred bandicoot		VU	n	4	11-Jan-2007
Sarcophilus harrisii	tasmanian devil	e	EN	e	9	16-Dec-2017

Unverified Records

No unverified records were found!

Threatened fauna within 500 metres

(based on Range Boundaries)

Species	Common Name	SS	NS	BO	Potential	Known	Core
Lathamus discolor	swift parrot	e	CR	mbe	1	0	1
Dasyurus maculatus subsp. maculatus	spotted-tail quoll	r	VU	n	1	0	0
Litoria raniformis	green and gold frog	v	VU	n	1	0	0
Prototroctes maraena	australian grayling	v	VU	ae	1	0	0
Pseudemoia pagenstecheri	tussock skink	v		n	1	0	0
Antipodia chaostola	chaostola skipper	e	EN	ae	1	0	0
Tyto novaehollandiae subsp. castanops	masked owl (Tasmanian)	e	VU	e	1	0	1
Haliaeetus leucogaster	white-bellied sea-eagle	v		n	2	0	0
Pardalotus quadragintus	forty-spotted pardalote	e	EN	e	1	0	0
Sarcophilus harrisii	tasmanian devil	e	EN	e	1	0	0
Accipiter novaehollandiae	grey goshawk	e		n	1	0	0
Lissotes menalcas	mount mangana stag beetle	v		e	1	0	0
Perameles gunnii	eastern barred bandicoot		VU	n	1	0	1
Pseudalmenus chlorinda myrsilus	tasmanian hairstreak(butterfly)	r		eH	1	0	0
Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	e	EN	e	1	0	0
Brachionichthys hirsutus	spotted handfish	e	CR	e	1	0	0

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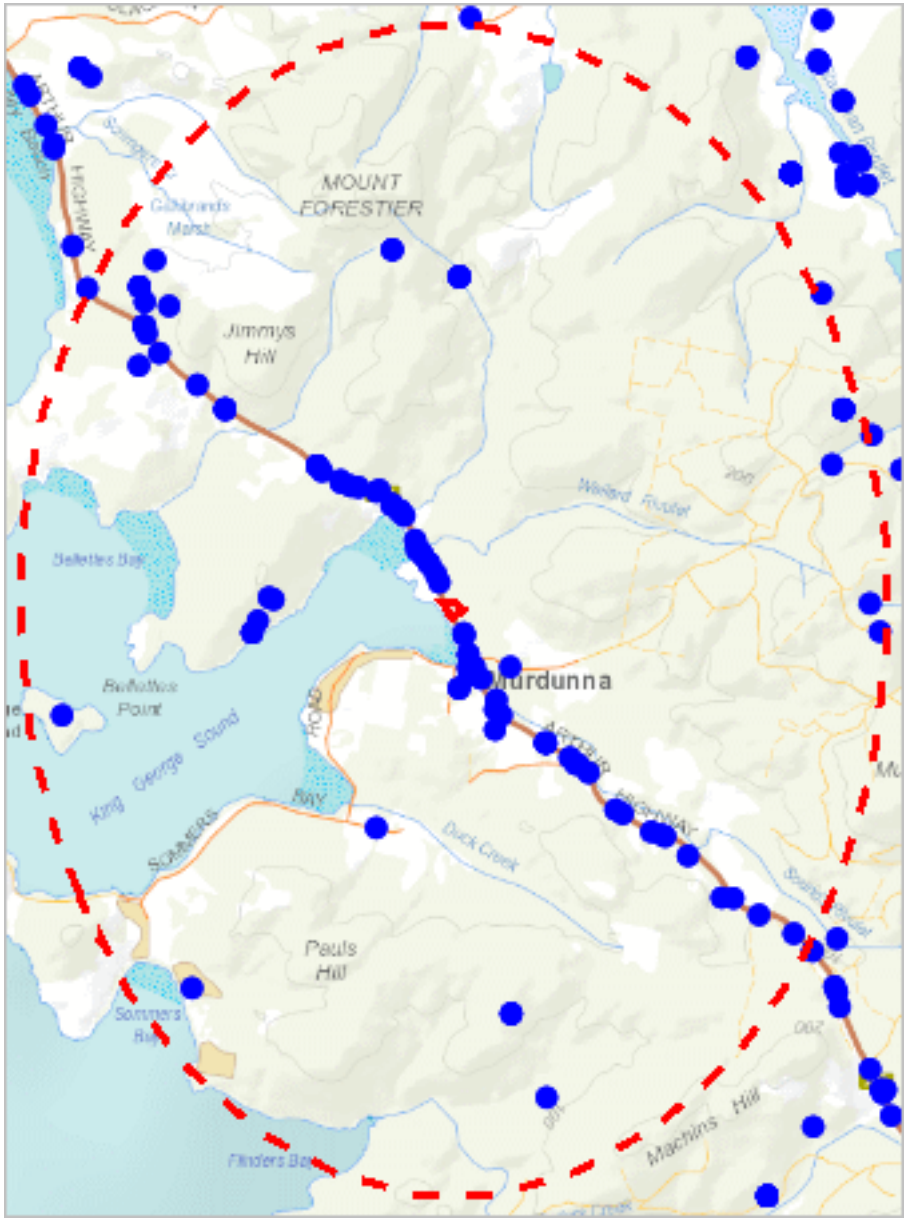
Threatened fauna within 5000 metres

574480, 5250450



566558, 5239861

Please note that some layers may not display at all requested map scales

Threatened fauna within 5000 metres

Legend: Verified and Unverified observations

- Point Verified
- Point Unverified
- Line Verified
- Line Unverified
- Polygon Verified
- Polygon Unverified

Legend: Cadastral Parcels

Threatened fauna within 5000 metres

Verified Records

Species	Common Name	SS	NS	Bio	Observation Count	Last Recorded
Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	e	EN	e	24	19-Dec-2018
Attenborougharion rubicundus	burgundy snail	r		e	21	12-Jun-1999
Eagle sp.	Eagle	e	EN	n	3	16-Jan-2011
Haliaeetus leucogaster	white-bellied sea-eagle	v		n	4	19-Aug-2019
Lathamus discolor	swift parrot	e	CR	mbe	14	01-Dec-2019
Megaptera novaeangliae	humpback whale	e	VU	m	1	20-Jul-1987
Perameles gunnii	eastern barred bandicoot		VU	n	12	12-Jan-2007
Sarcophilus harrisii	tasmanian devil	e	EN	e	98	06-Feb-2020
Thunnus maccoyii	southern bluefin tuna		CD	n	1	07-Apr-2019
Tyto castanops	masked owl (Tasmanian)	pe	PVU		1	08-Aug-2020
Tyto novaehollandiae	masked owl	pe	PVU	n	3	12-Dec-1992

Unverified Records

No unverified records were found!

Threatened fauna within 5000 metres

(based on Range Boundaries)

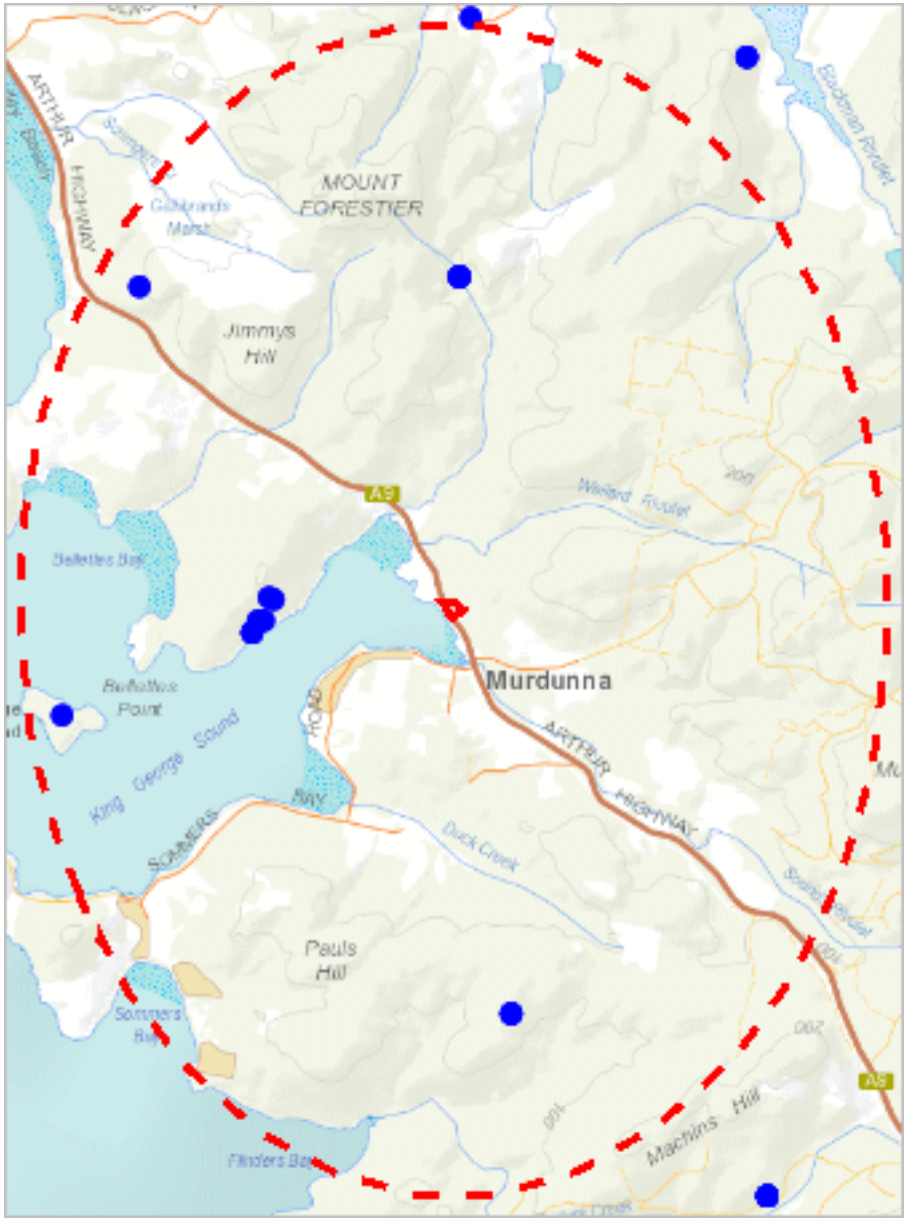
Species	Common Name	SS	NS	BO	Potential	Known	Core
Lathamus discolor	swift parrot	e	CR	mbe	1	0	1
Dasyurus maculatus subsp. maculatus	spotted-tail quoll	r	VU	n	1	0	0
Litoria raniformis	green and gold frog	v	VU	n	1	0	0
Prototroctes maraena	australian grayling	v	VU	ae	3	0	0
Attenborougharion rubicundus	burgundy snail	r		e	1	1	0
Pseudemoia pagenstecheri	tussock skink	v		n	1	0	0
Antipodia chaostola	chaostola skipper	e	EN	ae	1	0	0
Haliaeetus leucogaster	white-bellied sea-eagle	v		n	3	0	0
Tyto novaehollandiae subsp. castanops	masked owl (Tasmanian)	e	VU	e	1	0	1
Pardalotus quadragintus	forty-spotted pardalote	e	EN	e	2	0	0
Sarcophilus harrisii	tasmanian devil	e	EN	e	1	0	0
Accipiter novaehollandiae	grey goshawk	e		n	1	0	0
Lissotes menalcas	mount mangana stag beetle	v		e	1	0	0
Perameles gunnii	eastern barred bandicoot		VU	n	1	0	1
Pseudalmenus chlorinda myrsilus	tasmanian hairstreak(butterfly)	r		eH	1	0	0
Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	e	EN	e	1	0	0
Brachionichthys hirsutus	spotted handfish	e	CR	e	1	0	0

For more information about threatened species, please contact Threatened Species Enquiries.
Telephone: 1300 368 550
Email: ThreatenedSpecies.Enquiries@dpipwe.tas.gov.au
Address: GPO Box 44, Hobart, Tasmania, Australia, 7000

*** No Raptor nests or sightings found within 500 metres. ***

Raptor nests and sightings within 5000 metres

574480, 5250450



566558, 5239861

Please note that some layers may not display at all requested map scales

Raptor nests and sightings within 5000 metres

Legend: Verified and Unverified observations

- Point Verified
- Point Unverified
- Line Verified
- Line Unverified
- Polygon Verified
- Polygon Unverified

Legend: Cadastral Parcels

Raptor nests and sightings within 5000 metres

Verified Records

Nest Id/Location Foreign Id	Species	Common Name	Obs Type	Observation Count	Last Recorded
1233	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	Nest	10	12-Dec-2014
1234	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	Nest	7	19-Nov-2013
1350	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	Nest	4	19-Dec-2018
1961	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	Nest	1	25-Jul-2011
411	Haliaeetus leucogaster	white-bellied sea-eagle	Nest	1	01-Jan-1985
548	Tyto novaehollandiae	masked owl	Nest	1	01-Jan-1985
70	Falco peregrinus	peregrine falcon	Nest	1	01-Jan-1985
71	Eagle sp.	Eagle	Nest	3	16-Jan-2011
	Falco peregrinus	peregrine falcon	Sighting	1	19-Nov-1993
	Haliaeetus leucogaster	white-bellied sea-eagle	Sighting	3	19-Aug-2019
	Tyto novaehollandiae	masked owl	Sighting	2	12-Dec-1992

Unverified Records

No unverified records were found!

Raptor nests and sightings within 5000 metres

(based on Range Boundaries)

Species	Common Name	SS	NS	Potential	Known	Core
Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	e	EN	1	0	0
Accipiter novaehollandiae	grey goshawk	e		1	0	0
Haliaeetus leucogaster	white-bellied sea-eagle	v		3	0	0

For more information about raptor nests, please contact Threatened Species Enquiries.

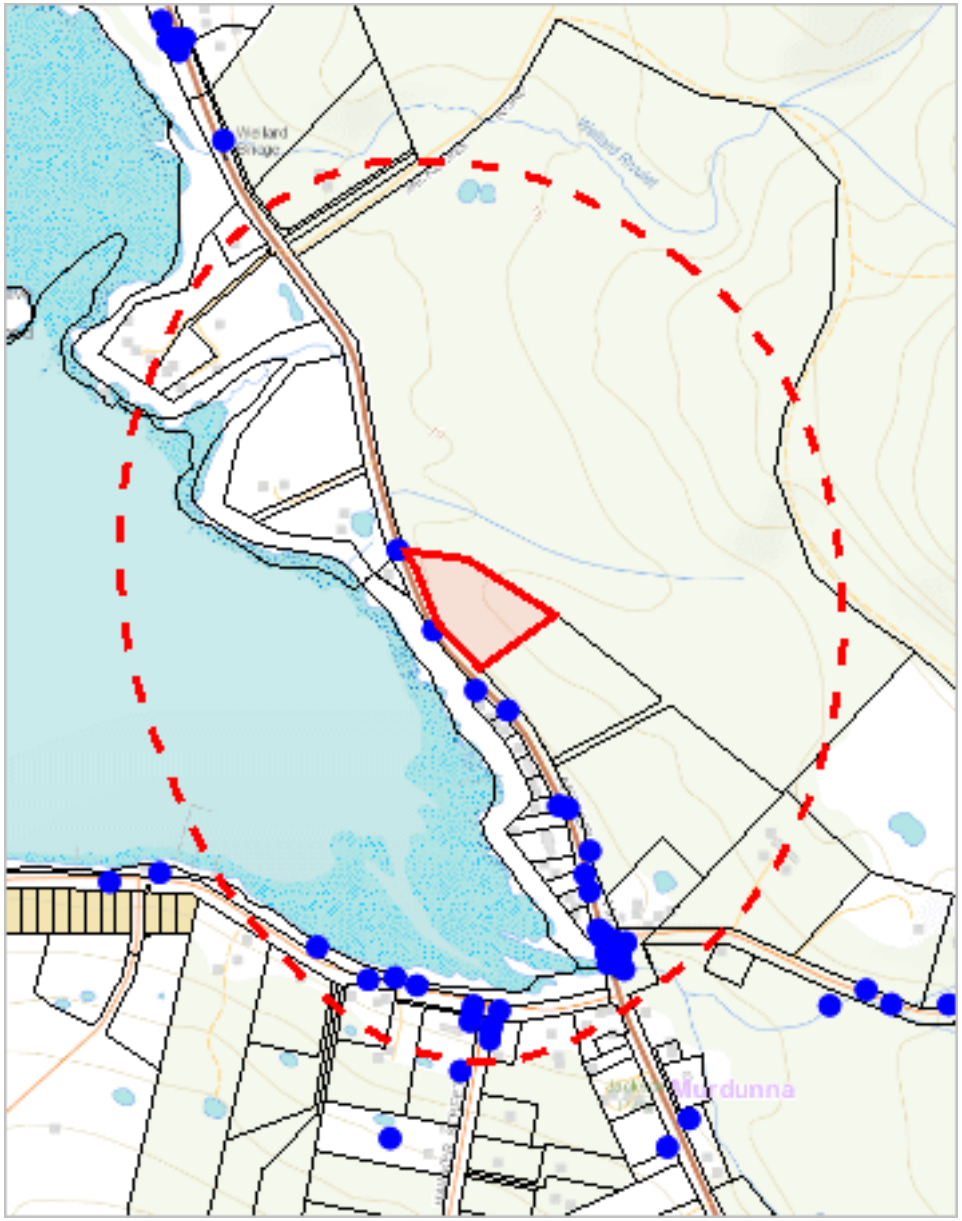
Telephone: 1300 368 550

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

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

Tas Management Act Weeds within 500 m

571135, 5245935



569901, 5244376

Please note that some layers may not display at all requested map scales

Tas Management Act Weeds within 500 m

Legend: Verified and Unverified observations

- Point Verified
- Point Unverified
- Line Verified
- Line Unverified
- Polygon Verified
- Polygon Unverified

Legend: Cadastral Parcels

Tas Management Act Weeds within 500 m

Verified Records

Species	Common Name	Observation Count	Last Recorded
Erica lusitanica	spanish heath	3	11-Jan-2018
Foeniculum vulgare	fennel	8	11-Jan-2018
Genista monspessulana	montpellier broom	8	01-Jan-2008
Rubus fruticosus	blackberry	10	11-Jan-2018
Salix x fragilis nothovar. fragilis	crack willow	1	11-Jan-2018
Ulex europaeus	gorse	4	01-Jan-2008

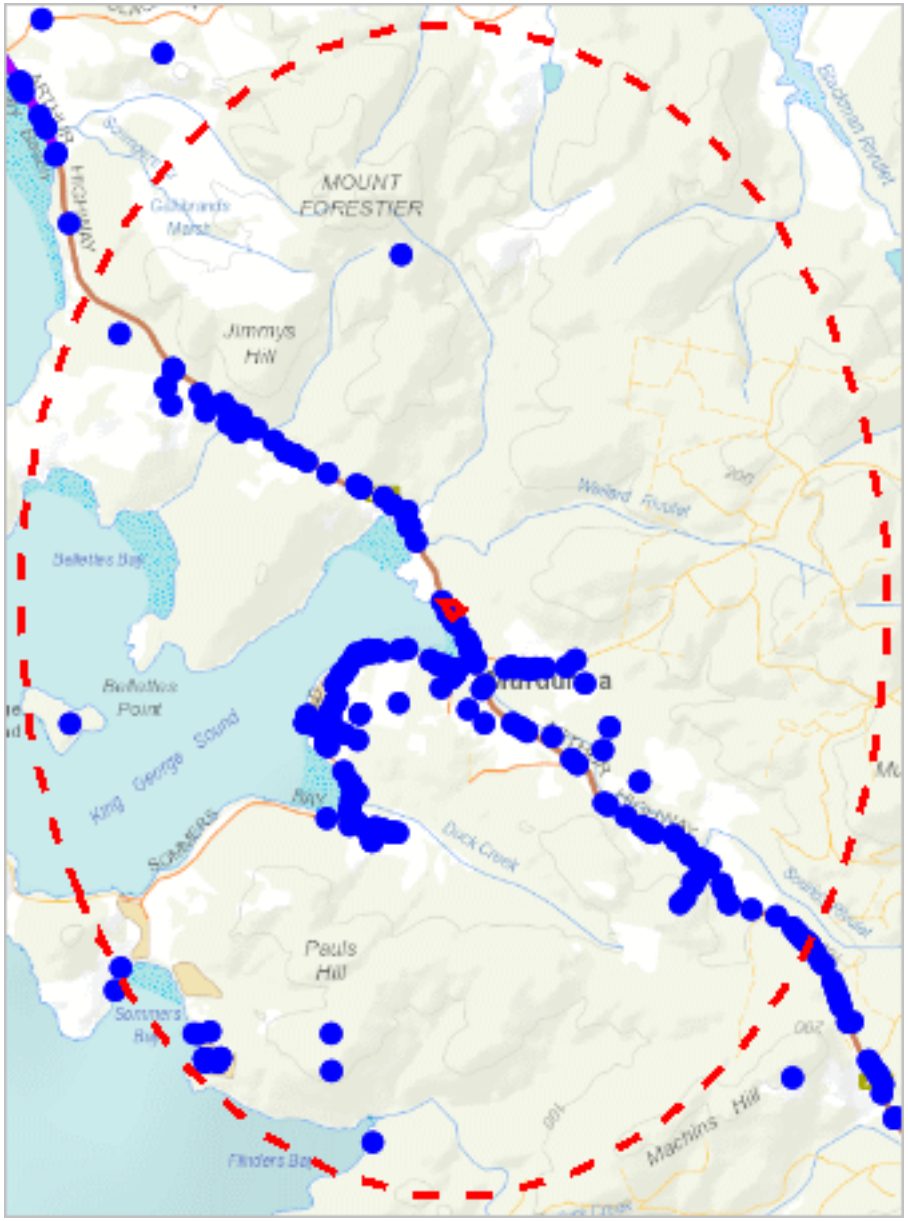
Unverified Records

For more information about introduced weed species, please visit the following URL for contact details in your area:

http://dpipwe.tas.gov.au/invasive-species/weeds

Tas Management Act Weeds within 5000 m

574480, 5250450



566558, 5239861

Please note that some layers may not display at all requested map scales

Tas Management Act Weeds within 5000 m

Legend: Verified and Unverified observations

- Point Verified
- Point Unverified
- Line Verified
- Line Unverified
- Polygon Verified
- Polygon Unverified

Legend: Cadastral Parcels

Tas Management Act Weeds within 5000 m

Verified Records

Species	Common Name	Observation Count	Last Recorded
Carduus tenuiflorus	winged thistle	2	01-Jan-2008
Chrysanthemoides monilifera subsp. monilifera	boneseed	17	11-Jan-2018
Cortaderia selloana	silver pampasgrass	2	13-May-2008
Cortaderia sp.	pampas grass	20	01-Jan-2015
Cytisus scoparius	english broom	1	11-Jan-2018
Echium plantagineum	patersons curse	9	01-Jan-2015
Erica lusitanica	spanish heath	46	21-Jul-2019
Foeniculum vulgare	fennel	16	11-Jan-2018
Genista monspessulana	montpellier broom	41	11-Jan-2018
Lycium ferocissimum	african boxthorn	7	01-Jan-2015
Rubus fruticosus	blackberry	51	11-Jan-2018
Salix x fragilis nothovar. fragilis	crack willow	1	11-Jan-2018
Ulex europaeus	gorse	31	11-Jan-2018

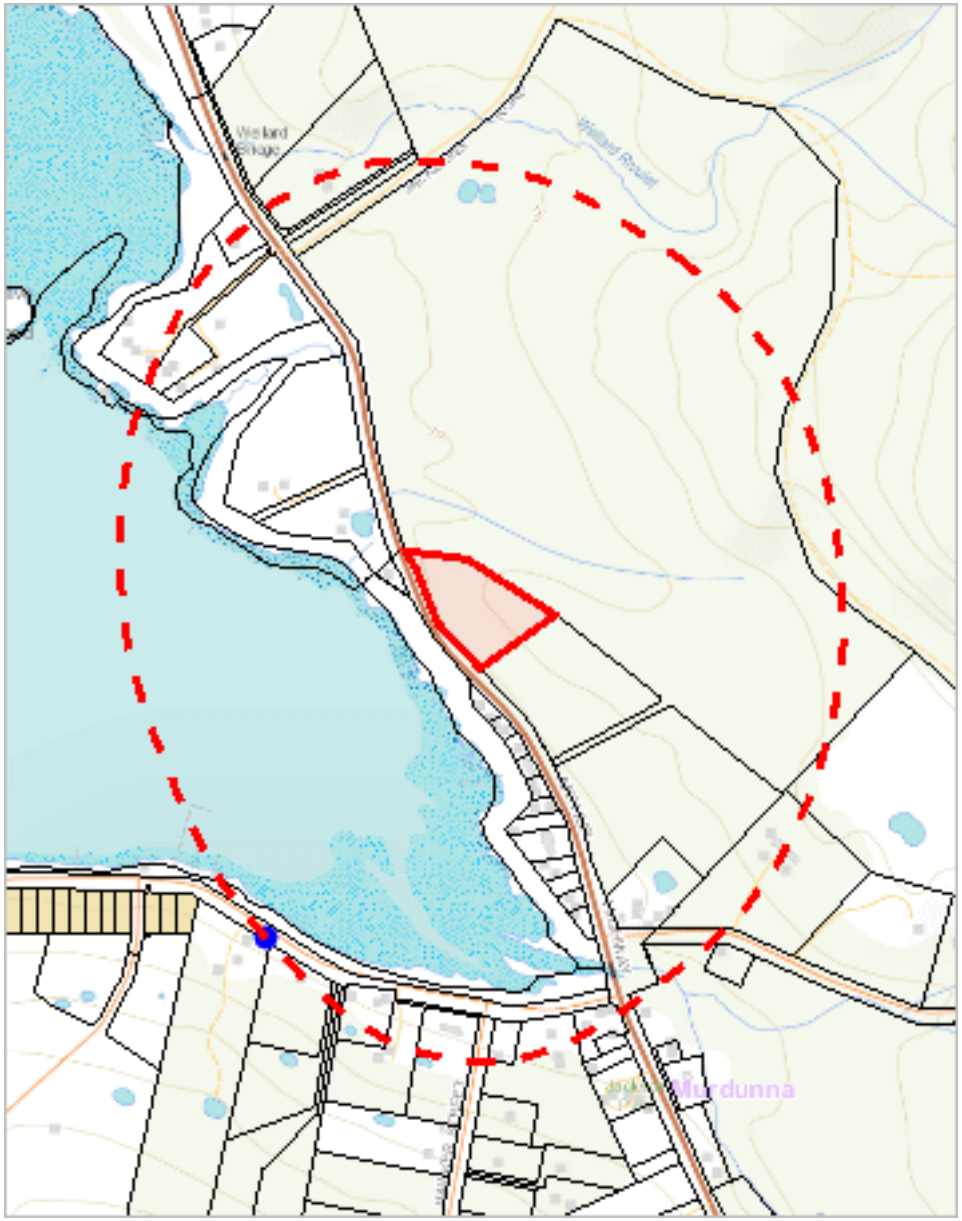
Unverified Records

For more information about introduced weed species, please visit the following URL for contact details in your area:

http://dpipwe.tas.gov.au/invasive-species/weeds

Priority Weeds within 500 m

571135, 5245935



569901, 5244376

Please note that some layers may not display at all requested map scales

Priority Weeds within 500 m

Legend: Verified and Unverified observations

- Point Verified
- Point Unverified
- Line Verified
- Line Unverified
- Polygon Verified
- Polygon Unverified

Legend: Cadastral Parcels

Priority Weeds within 500 m

Verified Records

Species	Common Name	Observation Count	Last Recorded
Billardiera heterophylla	bluebell creeper	1	11-Jan-2018

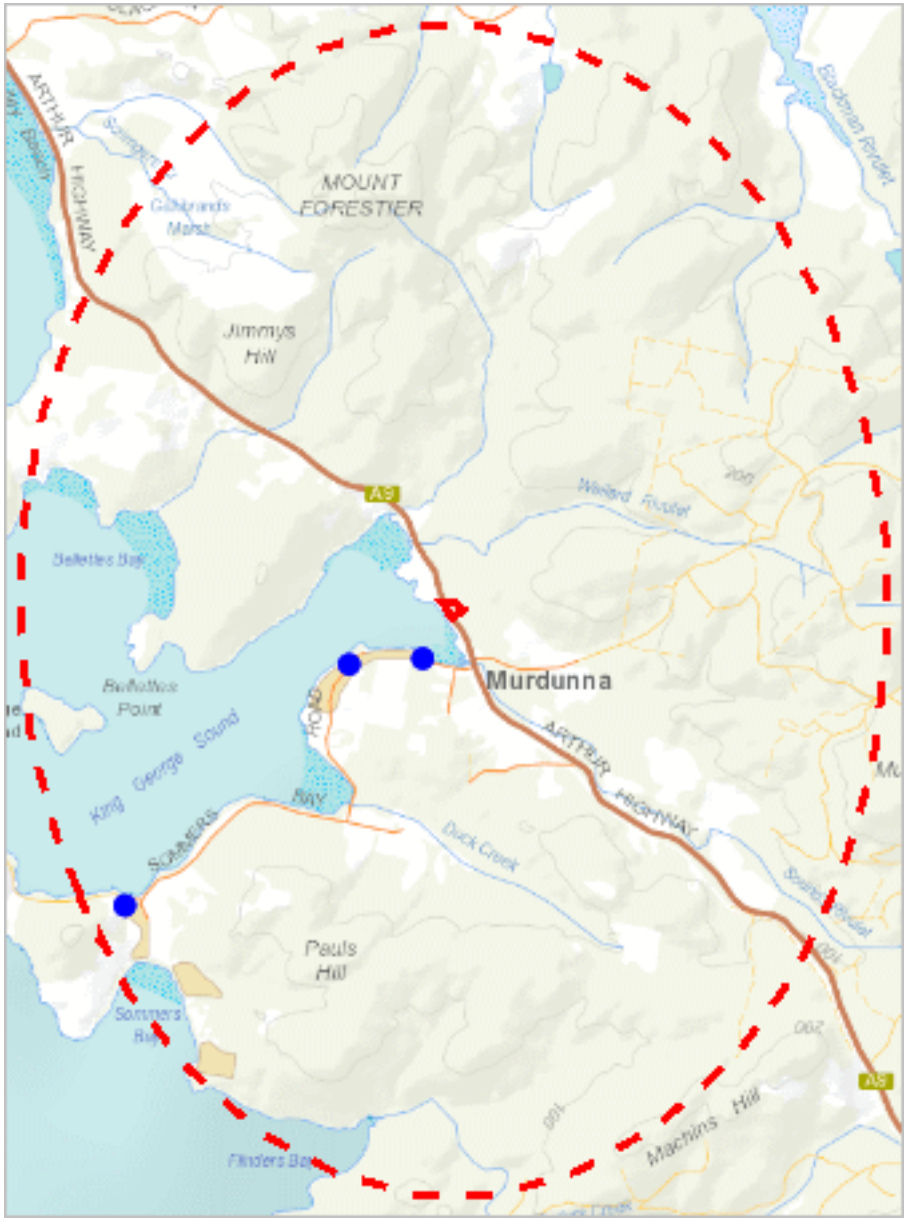
Unverified Records

For more information about introduced weed species, please visit the following URL for contact details in your area:

http://dpipwe.tas.gov.au/invasive-species/weeds

Priority Weeds within 5000 m

574480, 5250450



566558, 5239861

Please note that some layers may not display at all requested map scales

Priority Weeds within 5000 m

Legend: Verified and Unverified observations

- Point Verified
- Point Unverified
- Line Verified
- Line Unverified
- Polygon Verified
- Polygon Unverified

Legend: Cadastral Parcels

Priority Weeds within 5000 m

Verified Records

Species	Common Name	Observation Count	Last Recorded
Anredera cordifolia	madeira vine	1	01-Jan-2008
Billardiera heterophylla	bluebell creeper	1	11-Jan-2018
Watsonia meriana var. bulbillifera	bulbil watsonia	1	01-Jan-2008

Unverified Records

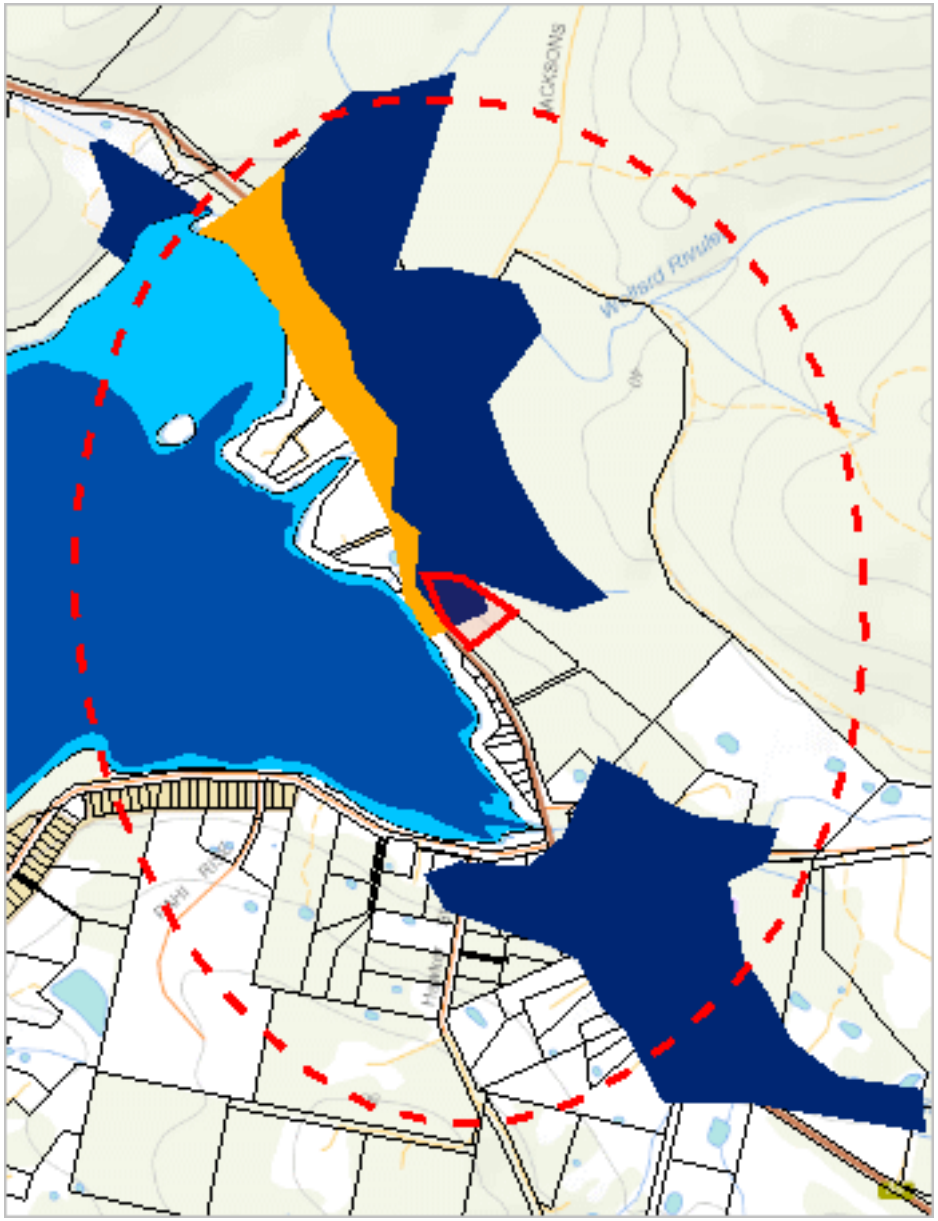
For more information about introduced weed species, please visit the following URL for contact details in your area:

http://dpipwe.tas.gov.au/invasive-species/weeds

*** No Geoconservation sites found within 1000 metres. ***

Acid Sulfate Soils within 1000 metres

571507, 5246436



569529, 5243875

Please note that some layers may not display at all requested map scales

Acid Sulfate Soils within 1000 metres

Legend: Coastal Acid Sulfate Soils (0 - 20m AHD)

High | Low | Extremely Low

Legend: Inland Acid Sulfate Soils (>20m AHD)

High | Low | Extremely Low

Legend: Marine Subaqueous/Intertidal Acid Sulfate Soil

High (Intertidal) | High (Subtidal)

Legend: Cadastral Parcels

Acid Sulfate Soils within 1000 metres

Dataset Name	Acid Sulfate Soil Probability	Acid Sulfate Soil Atlas	Description
Coastal Acid Sulfate Soils	Extremely Low	Ci(p3)	Extremely low probability of occurance (1-5% of mapping unit). with occurences in small areas. Sandplains and dunes 2-10m AHD, ASS generally below 1m from the surface. Heath, forests. Holocene or Pleistocene. Potential acid sulfate soil (PASS) = sulfidic material (Isbell 1996 p.122). No necessary analytical data are available but confidence is fair, based on a knowledge of similar soils in similar environments.
Coastal Acid Sulfate Soils	Extremely Low	Cj(p3)	Extremely low probability of occurance (1-5% of mapping unit). with occurences in small areas. Sandplains and dunes >10m AHD, ASS generally below 1m from the surface. Heath, forests. Mainly Pleistocene. Potential acid sulfate soil (PASS) = sulfidic material (Isbell 1996 p.122). No necessary analytical data are available but confidence is fair, based on a knowledge of similar soils in similar environments.
Coastal Acid Sulfate Soils	Extremely Low	Cu(p3)	Extremely low probability of occurance (1-5% of mapping unit). Unclassified - Insufficient landscape information available to classify map unit. Potential acid sulfate soil (PASS) = sulfidic material (Isbell 1996 p.122). No necessary analytical data are available but confidence is fair, based on a knowledge of similar soils in similar environments.
Coastal Acid Sulfate Soils	Low	Bh(p2)	Low probability of occurance (6-70% chance of occurrence in mapping unit). Sandplains and dunes <2m AHD, ASS generally within 1m of the surface. Often wet heath. Holocene or Pleistocene. Potential acid sulfate soil (PASS) = sulfidic material (Isbell 1996 p.122). Analytical data are incomplete but are sufficient to classify the soil with a reasonable degree of confidence.
Coastal Acid Sulfate Soils	Low	Bi(p2)	Low probability of occurance (6-70% chance of occurrence in mapping unit). Sandplains and dunes 2-10m AHD, ASS generally below 1m from the surface. Heath, forests. Holocene or Pleistocene. Potential acid sulfate soil (PASS) = sulfidic material (Isbell 1996 p.122). Analytical data are incomplete but are sufficient to classify the soil with a reasonable degree of confidence.
Marine Subaqueous and Intertidal Acid Sulfate Soils	High	Aa(p3)	High probability of occurance (>70% chance of occurrence in mapping unit). Subaqueous material in subtidal wetland, PASS material and/or MBO. Often seagrasses. Potential acid sulfate soil (PASS) = sulfidic material (Isbell 1996 p.122). No necessary analytical data are available but confidence is fair, based on a knowledge of similar soils in similar environments.
Marine Subaqueous and Intertidal Acid Sulfate Soils	High	Ab(p3)	High probability of occurance (>70% chance of occurrence in mapping unit). Intertidal flats, PASS generally within upper 1m. Potential acid sulfate soil (PASS) = sulfidic material (Isbell 1996 p.122). No necessary analytical data are available but confidence is fair, based on a knowledge of similar soils in similar environments.

For more information about Acid Sulfate Soils, please contact Land Management Enquiries.

Telephone: (03) 6777 2227

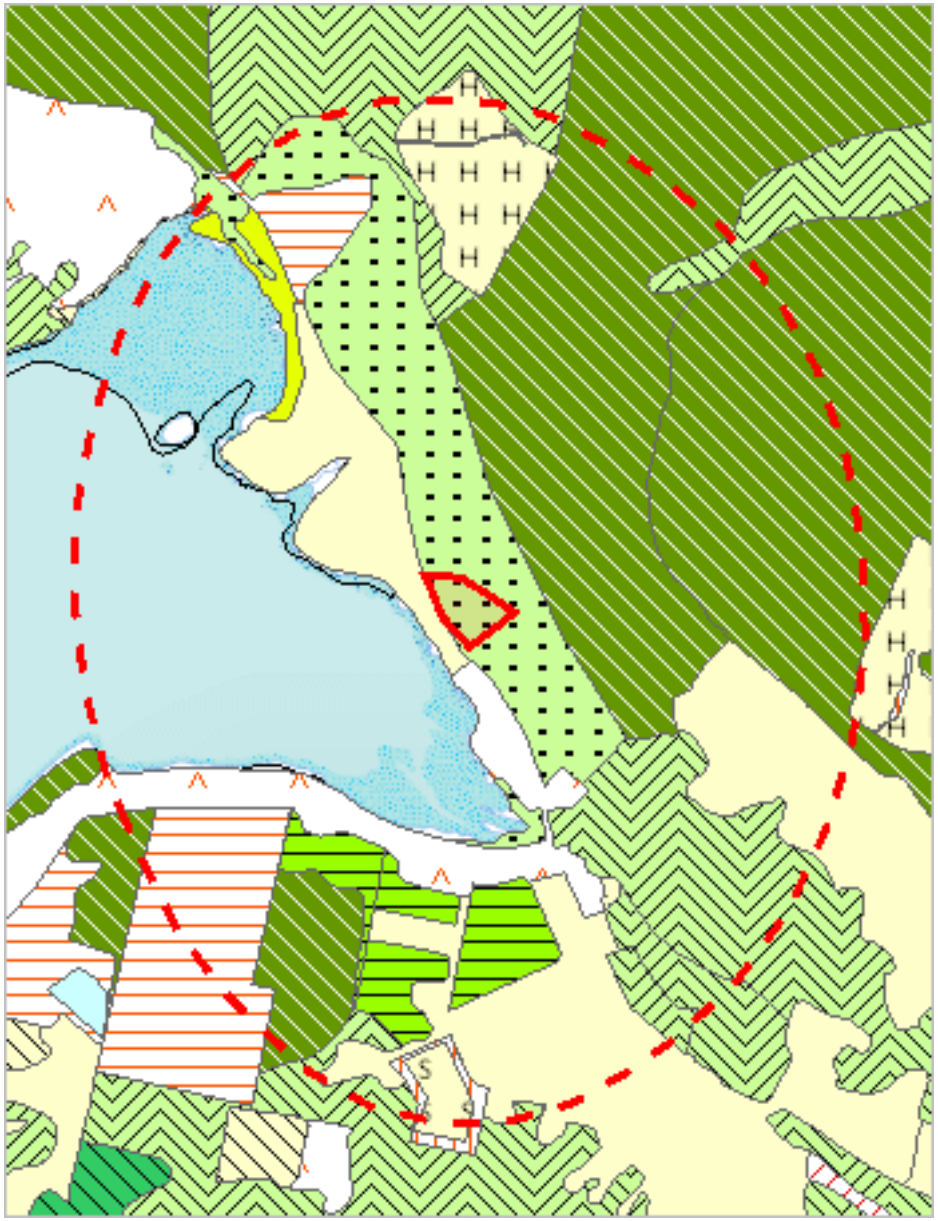
Fax: (03) 6336 5111

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

Address: 171 Westbury Road, Prospect, Tasmania, Australia, 7250

TASVEG 4.0 Communities within 1000 metres

571507, 5246436



569529, 5243875

Please note that some layers may not display at all requested map scales

TASVEG 4.0 Communities within 1000 metres

Legend: TASVEG 4.0

- (AAP) Alkaline pans
- (AHF) Freshwater aquatic herbland
- (AHL) Lacustrine herbland
- (AHS) Saline aquatic herbland
- (ARS) Saline sedgeland / rushland
- (ASF) Fresh water aquatic sedgeland and rushland
- (ASP) Sphagnum peatland
- (ASS) Succulent saline herbland
- (AUS) Saltmarsh (undifferentiated)
- (AWU) Wetland (undifferentiated)
- (DAC) Eucalyptus amygdalina coastal forest and woodland
- (DAD) Eucalyptus amygdalina forest and woodland on dolerite
- (DAM) Eucalyptus amygdalina forest on mudstone
- (DAS) Eucalyptus amygdalina forest and woodland on sandstone
- (DAZ) Eucalyptus amygdalina inland forest and woodland on Cainozoic deposits
- (DBA) Eucalyptus barberi forest and woodland
- (DCO) Eucalyptus coccifera forest and woodland
- (DCR) Eucalyptus cordata forest
- (DDE) Eucalyptus delegatensis dry forest and woodland
- (DDP) Eucalyptus dalrympleana - Eucalyptus pauciflora forest and woodland
- (DGL) Eucalyptus globulus dry forest and woodland
- (DGW) Eucalyptus gunnii woodland
- (DKW) King Island Eucalypt woodland
- (DMO) Eucalyptus morrisbyi forest and woodland
- (DMW) Midlands woodland complex
- (DNF) Eucalyptus nitida Furneaux forest
- (DNI) Eucalyptus nitida dry forest and woodland
- (DOB) Eucalyptus obliqua dry forest
- (DOV) Eucalyptus ovata forest and woodland
- (DOW) Eucalyptus ovata heathy woodland
- (DPD) Eucalyptus pauciflora forest and woodland on dolerite
- (DPE) Eucalyptus perriniana forest and woodland
- (DPO) Eucalyptus pauciflora forest and woodland not on dolerite
- (DPU) Eucalyptus pulchella forest and woodland
- (DRI) Eucalyptus risdonii forest and woodland
- (DRO) Eucalyptus rodwayi forest and woodland
- (DSC) Eucalyptus amygdalina - Eucalyptus obliqua damp sclerophyll forest
- (DSG) Eucalyptus sieberi forest and woodland on granite
- (DSO) Eucalyptus sieberi forest and woodland not on granite
- (DTD) Eucalyptus tenuiramis forest and woodland on dolerite
- (DTG) Eucalyptus tenuiramis forest and woodland on granite
- (DTO) Eucalyptus tenuiramis forest and woodland on sediments
- (DVC) Eucalyptus viminalis - Eucalyptus globulus coastal forest and woodland
- (DVF) Eucalyptus viminalis Furneaux forest and woodland
- (DVG) Eucalyptus viminalis grassy forest and woodland
- (FAC) Improved pasture with native tree canopy
- (FAG) Agricultural land
- (FMG) Marram grassland
- (FPE) Permanent easements
- (FPF) Pteridium esculentum fernland
- (FPH) Plantations for silviculture - hardwood
- (FPS) Plantations for silviculture - softwood
- (FPU) Unverified plantations for silviculture
- (FRG) Regenerating cleared land
- (FSM) Spartina marshland
- (FUM) Extra-urban miscellaneous
- (FUR) Urban areas
- (FWU) Weed infestation
- (GCL) Lowland grassland complex

TASVEG 4.0 Communities within 1000 metres

(GHC) Coastal grass and herbfield
(GPH) Highland Poa grassland
(GPL) Lowland Poa labillardierei grassland
(GRP) Rockplate grassland
(GSL) Lowland grassy sedgeland
(GTL) Lowland Themeda triandra grassland
(HCH) Alpine coniferous heathland
(HCM) Cushion moorland
(HHE) Eastern alpine heathland
(HHW) Western alpine heathland
(HSE) Eastern alpine sedgeland
(HSW) Western alpine sedgeland/herbland
(HUE) Eastern alpine vegetation (undifferentiated)
(MBE) Eastern buttongrass moorland
(MBP) Pure buttongrass moorland
(MBR) Sparse buttongrass moorland on slopes
(MBS) Buttongrass moorland with emergent shrubs
(MBU) Buttongrass moorland (undifferentiated)
(MBW) Western buttongrass moorland
(MDS) Subalpine Diplarrena latifolia rushland
(MGH) Highland grassy sedgeland
(MRR) Restionaceae rushland
(MSW) Western lowland sedgeland
(NAD) Acacia dealbata forest
(NAF) Acacia melanoxylon swamp forest
(NAL) Allocasuarina littoralis forest
(NAR) Acacia melanoxylon forest on rises
(NAV) Allocasuarina verticillata forest
(NBA) Bursaria - Acacia woodland
(NBS) Banksia serrata woodland
(NCR) Callitris rhomboidea forest
(NLA) Leptospermum scoparium - Acacia mucronata forest
(NLE) Leptospermum forest
(NLM) Leptospermum lanigerum - Melaleuca squarrosa swamp forest
(NLN) Subalpine Leptospermum nitidum woodland
(NME) Melaleuca ericifolia swamp forest
(OAQ) Water, sea
(ORO) Lichen lithosere
(OSM) Sand, mud
(RCO) Coastal rainforest
(RFE) Rainforest fernland
(RFS) Nothofagus gunnii rainforest scrub
(RHP) Lagarostrobos franklinii rainforest and scrub
(RKF) Athrotaxis selaginoides - Nothofagus gunnii short rainforest
(RKP) Athrotaxis selaginoides rainforest
(RKS) Athrotaxis selaginoides subalpine scrub
(RKX) Highland rainforest scrub with dead Athrotaxis selaginoides
(RML) Nothofagus - Leptospermum short rainforest
(RMS) Nothofagus - Phyllocladus short rainforest
(RMT) Nothofagus - Atherosperma rainforest
(RMU) Nothofagus rainforest (undifferentiated)
(RPF) Athrotaxis cupressoides - Nothofagus gunnii short rainforest
(RPP) Athrotaxis cupressoides rainforest
(RPW) Athrotaxis cupressoides open woodland
(RSH) Highland low rainforest and scrub
(SAL) Acacia longifolia coastal scrub
(SBM) Banksia marginata wet scrub
(SBR) Broad-leaf scrub
(SCA) Coastal scrub on alkaline sands
(SCH) Coastal heathland
(SCL) Heathland on calcareous substrates

TASVEG 4.0 Communities within 1000 metres

(SED) Eastern scrub on dolerite
(SHS) Subalpine heathland
(SHW) Wet heathland
(SKA) Kunzea ambigua regrowth scrub
(SLG) Leptospermum glaucescens heathland and scrub
(SLL) Leptospermum lanigerum scrub
(SLS) Leptospermum scoparium heathland and scrub
(SMM) Melaleuca squamea heathland
(SMP) Melaleuca pustulata scrub
(SMR) Melaleuca squarrosa scrub
(SRE) Eastern riparian scrub
(SRF) Leptospermum with rainforest scrub
(SRH) Rookery halophytic herbland
(SSC) Coastal scrub
(SSK) Scrub complex on King Island
(SSW) Western subalpine scrub
(SSZ) Spray zone coastal complex
(SWR) Western regrowth complex
(SWW) Western wet scrub
(WBR) Eucalyptus brookeriana wet forest
(WDA) Eucalyptus dalrympleana forest
(WDB) Eucalyptus delegatensis forest with broad-leaf shrubs
(WDL) Eucalyptus delegatensis forest over Leptospermum
(WDR) Eucalyptus delegatensis forest over rainforest
(WDU) Eucalyptus delegatensis wet forest (undifferentiated)
(WGK) Eucalyptus globulus King Island forest
(WGL) Eucalyptus globulus wet forest
(WNL) Eucalyptus nitida forest over Leptospermum
(WNR) Eucalyptus nitida forest over rainforest
(WNU) Eucalyptus nitida wet forest (undifferentiated)
(WOB) Eucalyptus obliqua forest with broad-leaf shrubs
(WOL) Eucalyptus obliqua forest over Leptospermum
(WOR) Eucalyptus obliqua forest over rainforest
(WOU) Eucalyptus obliqua wet forest (undifferentiated)
(WRE) Eucalyptus regnans forest
(WSU) Eucalyptus subcrenulata forest and woodland
(WVI) Eucalyptus viminalis wet forest

Legend: Cadastral Parcels

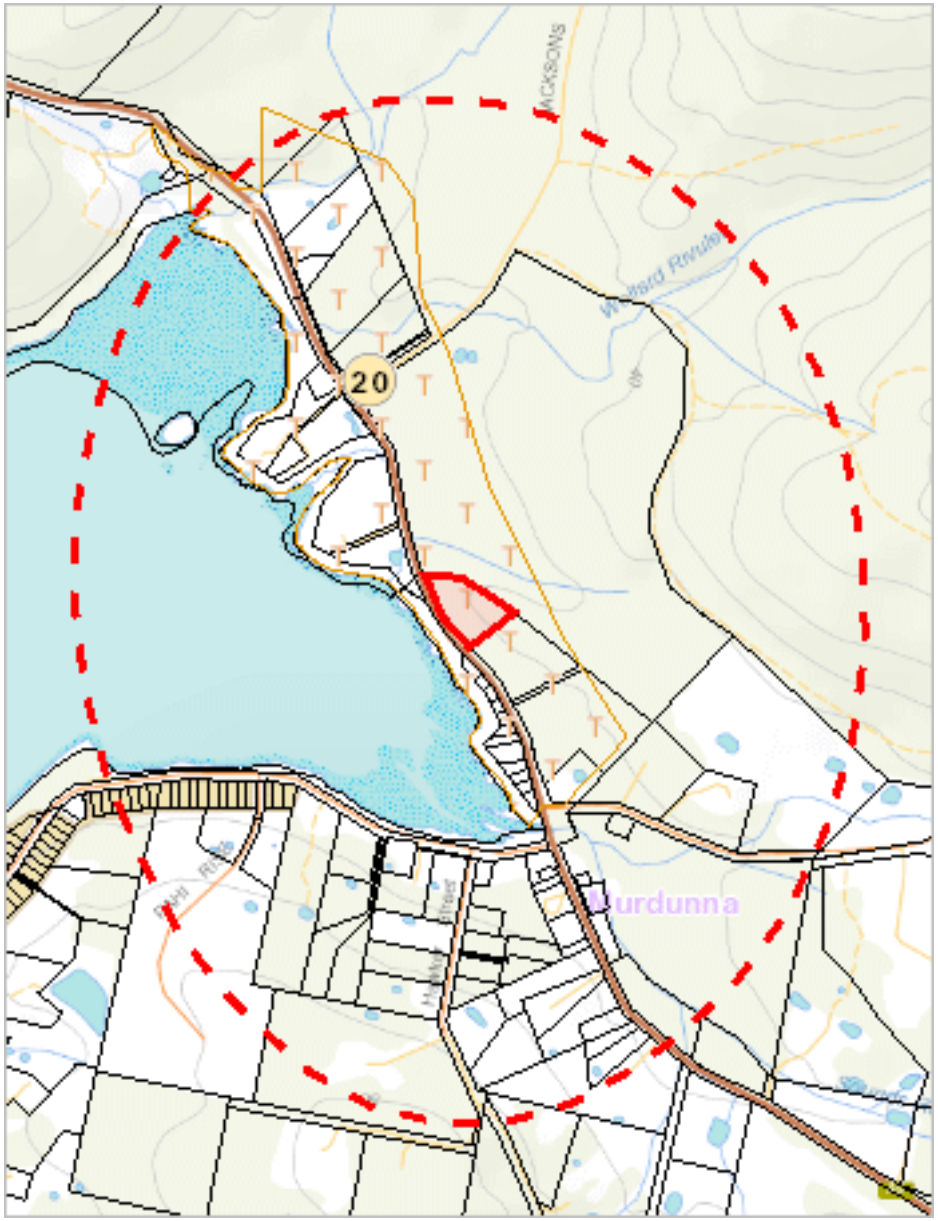
TASVEG 4.0 Communities within 1000 metres

Code	Community	Canopy Tree
DAD	(DAD) Eucalyptus amygdalina forest and woodland on dolerite	
DOB	(DOB) Eucalyptus obliqua dry forest	
DOV	(DOV) Eucalyptus ovata forest and woodland	EO
DOV	(DOV) Eucalyptus ovata forest and woodland	
DPU	(DPU) Eucalyptus pulchella forest and woodland	
FAG	(FAG) Agricultural land	EL
FAG	(FAG) Agricultural land	EO
FAG	(FAG) Agricultural land	
FPH	(FPH) Plantations for silviculture - hardwood	
FPS	(FPS) Plantations for silviculture - softwood	
FPU	(FPU) Unverified plantations for silviculture	
FUM	(FUM) Extra-urban miscellaneous	
FUR	(FUR) Urban areas	EO
GHC	(GHC) Coastal grass and herbfield	EO

For more information contact: Coordinator, Tasmanian Vegetation Monitoring and Mapping Program.
Telephone: (03) 6165 4320
Email: TVMMPSupport@dpipwe.tas.gov.au
Address: GPO Box 44, Hobart, Tasmania, Australia, 7000

Threatened Communities (TNVC 2014) within 1000 metres

571507, 5246436



569529, 5243875

Please note that some layers may not display at all requested map scales

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

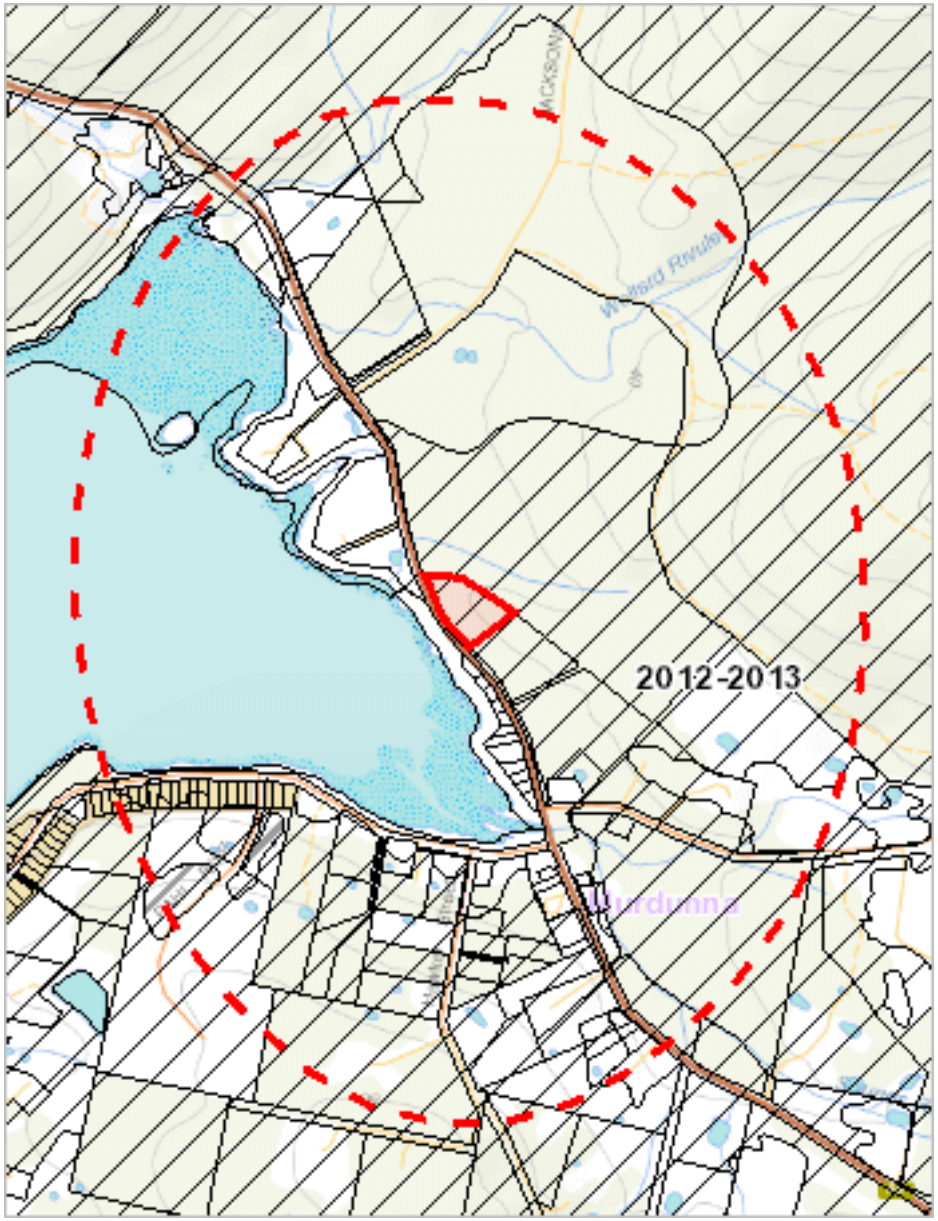
Threatened Communities (TNVC 2014) within 1000 metres

Scheduled Community Id	Scheduled Community Name
20	Eucalyptus ovata forest and woodland

For more information contact: Coordinator, Tasmanian Vegetation Monitoring and Mapping Program.
Telephone: (03) 6165 4320
Email: TVMMPSupport@dpipwe.tas.gov.au
Address: GPO Box 44, Hobart, Tasmania, Australia, 7000

Fire History (All) within 1000 metres

571507, 5246436



569529, 5243875

Please note that some layers may not display at all requested map scales

Fire History (All) within 1000 metres

Legend: Fire History All

- Bushfire-Unknown Category
- Completed Planned Burn
- Bushfire

Legend: Cadastral Parcels

Fire History (All) within 1000 metres

Incident Number	Fire Name	Ignition Date	Fire Type	Ignition Cause	Fire Area (HA)
201651	Inala Road - Forcett (TFS)	04-Jan-2013	Bushfire	Accidental	23362.25755497
		22-Sep-2017	Unknown	Undetermined	2.07261565

For more information about Fire History, please contact the Manager Community Protection Planning, Tasmania Fire Service.

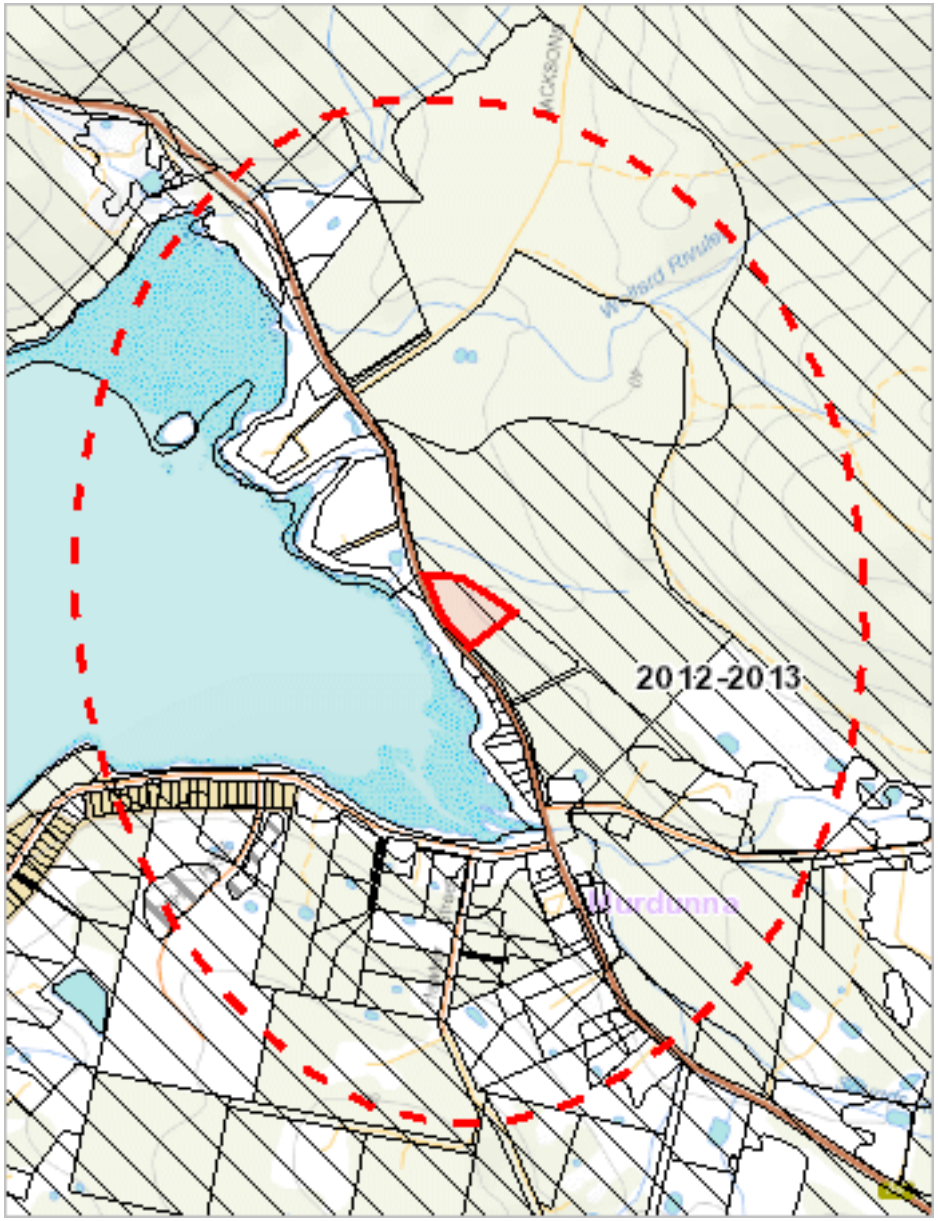
Telephone: 1800 000 699

Email: planning@fire.tas.gov.au

Address: cnr Argyle and Melville Streets, Hobart, Tasmania, Australia, 7000

Fire History (Last Burnt) within 1000 metres

571507, 5246436



569529, 5243875

Please note that some layers may not display at all requested map scales

Fire History (Last Burnt) within 1000 metres

Legend: Fire History Last

- Bushfire-Unknown category
- Bushfire
- Completed Planned Burn

Legend: Cadastral Parcels

Fire History (Last Burnt) within 1000 metres

Incident Number	Fire Name	Ignition Date	Fire Type	Ignition Cause	Fire Area (HA)
201651	Inala Road - Forcett (TFS)	04-Jan-2013	Bushfire	Accidental	23362.25755497
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For more information about Fire History, please contact the Manager Community Protection Planning, Tasmania Fire Service.

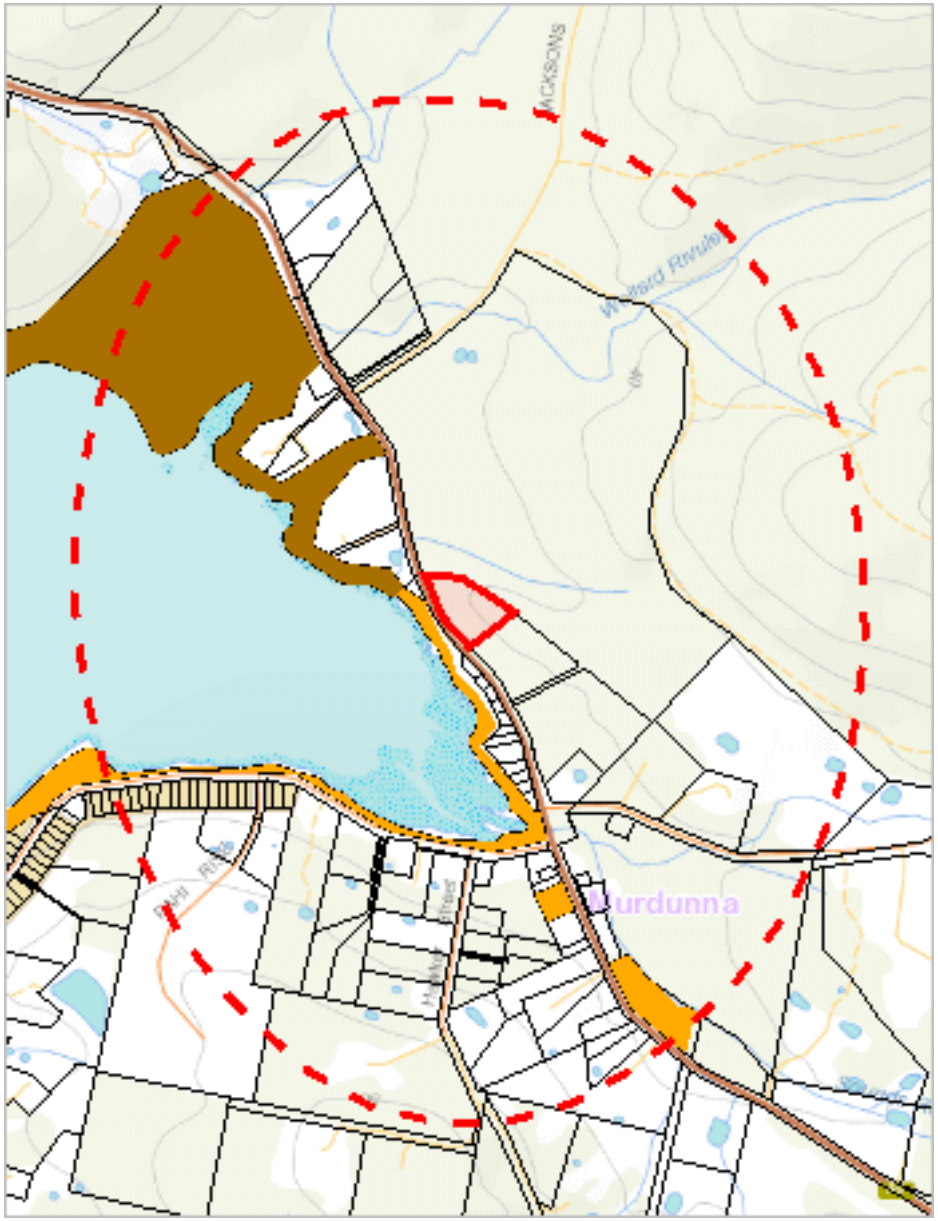
Telephone: 1800 000 699

Email: planning@fire.tas.gov.au

Address: cnr Argyle and Melville Streets, Hobart, Tasmania, Australia, 7000

Reserves within 1000 metres

571507, 5246436



569529, 5243875

Please note that some layers may not display at all requested map scales

Reserves within 1000 metres

Legend: Tasmanian Reserve Estate

- Conservation Area
- Conservation Area and Conservation Covenant (NCA)
- Game Reserve
- Historic Site
- Indigenous Protected Area
- National Park
- Nature Reserve
- Nature Recreation Area
- Regional Reserve
- State Reserve
- Wellington Park
- Public authority land within WHA
- Future Potential Production Forest
- Informal Reserve on Permanent Timber Production Zone Land or STT managed land
- Informal Reserve on other public land
- Conservation Covenant (NCA)
- Private Nature Reserve and Conservation Covenant (NCA)
- Private Sanctuary and Conservation Covenant (NCA)
- Private Sanctuary
- Private land within WHA
- Management Agreement
- Management Agreement and Stewardship Agreement
- Stewardship Agreement
- Part 5 Agreement (Meander Dam Offset)
- Other Private Reserve

Legend: Cadastral Parcels

Reserves within 1000 metres

Name	Classification	Status	Area (HA)
Bellettes Bay Conservation Area	Conservation Area	Other Formal Reserve	0.2822253
Bellettes Bay Conservation Area	Conservation Area	Other Formal Reserve	0.30469574
Bellettes Bay Conservation Area	Conservation Area	Other Formal Reserve	0.6407057
Bellettes Bay Conservation Area	Conservation Area	Other Formal Reserve	17.48026135
Bellettes Bay Conservation Area	Conservation Area	Other Formal Reserve	50.33509559
	Informal Reserve on other public land	Informal Reserve	0.01039467
	Informal Reserve on other public land	Informal Reserve	0.012267430 000000001
	Informal Reserve on other public land	Informal Reserve	0.018339190 000000002
	Informal Reserve on other public land	Informal Reserve	0.03687824
	Informal Reserve on other public land	Informal Reserve	0.03722744
	Informal Reserve on other public land	Informal Reserve	0.06351094
	Informal Reserve on other public land	Informal Reserve	0.40295603
	Informal Reserve on other public land	Informal Reserve	1.419308420 0000001
	Informal Reserve on other public land	Informal Reserve	1.43373835
	Informal Reserve on other public land	Informal Reserve	5.42013153

For more information about the Tasmanian Reserve Estate, please contact the Sustainable Land Use and Information Management Branch.

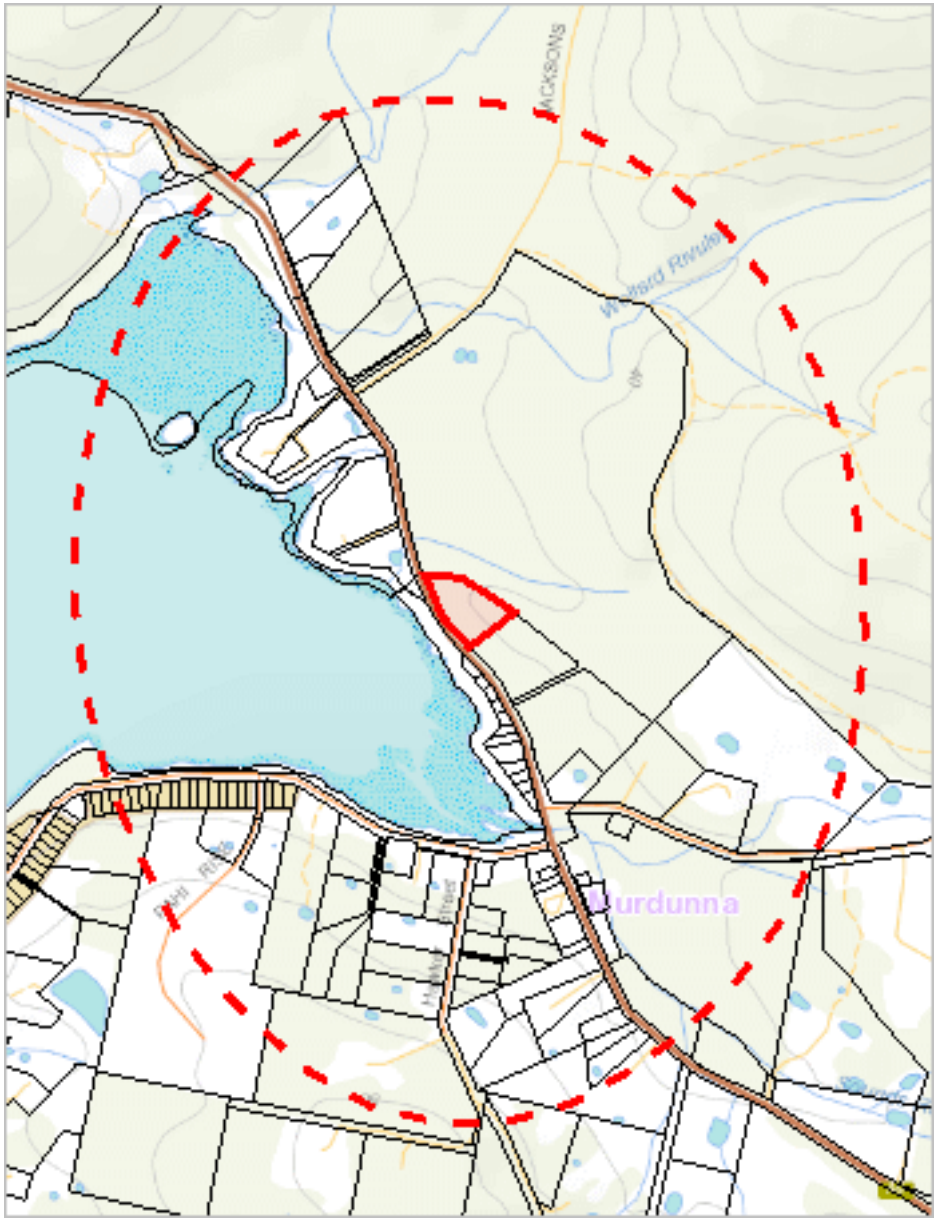
Telephone: (03) 6777 2224

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

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

Known biosecurity risks within 1000 meters

571507, 5246436



569529, 5243875

Please note that some layers may not display at all requested map scales

Known biosecurity risks within 1000 meters

Legend: Biosecurity Risk Species

- Point Verified
- Point Unverified
- Line Verified
- Line Unverified
- Polygon Verified
- Polygon Unverified

Legend: Hygiene infrastructure

- Location Point Verified
- Location Point Unverified
- Location Line Verified
- Location Line Unverified
- Location Polygon Verified
- Location Polygon Unverified

Legend: Cadastral Parcels

Known biosecurity risks within 1000 meters

Verified Species of biosecurity risk

No verified species of biosecurity risk found within 1000 metres

Unverified Species of biosecurity risk

No unverified species of biosecurity risk found within 1000 metres

Generic Biosecurity Guidelines

The level and type of hygiene protocols required will vary depending on the tenure, activity and land use of the area. In all cases adhere to the land manager's biosecurity (hygiene) protocols. As a minimum always Check / Clean / Dry (Disinfect) clothing and equipment before trips and between sites within a trip as needed http://dpipwe.tas.gov.au/invasive-species/weeds/weed-hygiene/keeping-it-clean-a-tasmanian-field-hygiene-manual

On Reserved land, the more remote, infrequently visited and undisturbed areas require tighter biosecurity measures.

In addition, where susceptible species and communities are known to occur, tighter biosecurity measures are required.

Apply controls relevant to the area / activity:

- Don't access sites infested with pathogen or weed species unless absolutely necessary. If it is necessary to visit, adopt high level hygiene protocols.
- Consider not accessing non-infested sites containing known susceptible species / communities. If it is necessary to visit, adopt high level hygiene protocols.
- Don't undertake activities that might spread pest / pathogen / weed species such as deliberately moving soil or water between areas.
- Modify / restrict activities to reduce the chance of spreading pest / pathogen / weed species e.g. avoid periods when weeds are seeding, avoid clothing/equipment that excessively collects soil and plant material e.g. Velcro, excessive tread on boots.
- Plan routes to visit clean (uninfested) sites prior to dirty (infested) sites. Do not travel through infested areas when moving between sites.
- Minimise the movement of soil, water, plant material and hitchhiking wildlife between areas by using the Check / Clean / Dry (Disinfect when drying is not possible) procedure for all clothing, footwear, equipment, hand tools and vehicles http://dpipwe.tas.gov.au/invasive-species/weeds/weed-hygiene
- Neoprene and netting can take 48 hours to dry, use non-porous gear wherever possible.
- Use walking track boot wash stations where available.
- Keep a hygiene kit in the vehicle that includes a scrubbing brush, boot pick, and disinfectant http://dpipwe.tas.gov.au/invasive-species/weeds/weed-hygiene/keeping-it-clean-a-tasmanian-field-hygiene-manual
- Dispose of all freshwater away from natural water bodies e.g. do not empty water into streams or ponds.
- Dispose of used disinfectant ideally in town though a treatment or septic system. Always keep disinfectant well away from natural water systems.
- Securely contain any high risk pest / pathogen / weed species that must be collected and moved e.g. biological samples.

Hygiene Infrastructure

No known hygiene infrastructure found within 1000 metres

Threatened Fauna Range Boundaries Boundaries

Search Point 570513E,5245161N is within the following fauna range boundaries as at Mon Nov 30 2020 16:53:21 GMT+1100 (Australian Eastern Daylight Time)

Common name	Species name	Range Class	Habitat Description
grey goshawk	Accipiter novaehollandiae	Potential Range	Potential habitat for the grey goshawk is native forest with mature elements below 600 m altitude, particularly along watercourses. FPA's Fauna Technical Note 12 can be used as a guide in the identification of grey goshawk habitat. Significant habitat for the grey goshawk may be summarised as areas of wet forest, rainforest and damp forest patches in dry forest, with a relatively closed mature canopy, low stem density, and open understorey in close proximity to foraging habitat and a freshwater body (i.e. stream, river, lake, swamp, etc.). FPA's Fauna Technical Note 12 can be used as a guide in the identification of grey goshawk habitat.
chaostola skipper	Antipodia chaostola	Potential Range	Potential habitat for the Chaostola Skipper is dry forest and woodland supporting Gahnia radula (usually on sandstone and other sedimentary rock types) or Gahnia microstachya (usually on granite-based substrates).
wedge-tailed eagle	Aquila audax subsp. fleayi	Potential Range	Potential habitat for the wedge-tailed eagle comprises potential nesting habitat and potential foraging habitat. Potential foraging habitat is a wide variety of forest (including areas subject to native forest silviculture) and non-forest habitats. Potential nesting habitat is tall eucalypt trees in large tracts (usually more than 10 ha) of eucalypt or mixed forest. Nest trees are usually amongst the largest in a locality. They are generally in sheltered positions on leeward slopes, between the lower and mid sections of a slope and with the top of the tree usually lower than the ground level of the top of the ridge, although in some parts of the State topographic shelter is not always a significant factor (e.g. parts of the northwest and Central Highlands). Nests are usually not constructed close to sources of disturbance and nests close to disturbance are less productive. More than one nest may occur within a territory but only one is used for breeding in any one year. Breeding failure often promotes a change of nest in the next year. [see FPA's Fauna Technical Note 1 and FPA's Fauna Technical Note 6 for more information] Significant habitat for the wedge-tailed eagle is all native forest and native non-forest vegetation within 500 m or 1 km line-of-sight of known nest sites (where the nest tree is still present).
spotted-tailed quoll	Dasyurus maculatus	Potential Range	Potential habitat for the spotted-tailed quoll is coastal scrub, riparian areas, rainforest, wet forest, damp forest, dry forest and blackwood swamp forest (mature and regrowth), particularly where structurally complex areas are present, and includes remnant patches in cleared agricultural land or plantation areas. Significant habitat for the spotted-tailed quoll is all potential denning habitat within the core range of the species. Potential denning habitat for the spotted-tailed quoll includes 1) any forest remnant (>0.5ha) in a cleared or plantation landscape that is structurally complex (high canopy, with dense understorey and ground vegetation cover), free from the risk of inundation, or 2) a rock outcrop, rock crevice, rock pile, burrow with a small entrance, hollow logs, large piles of coarse woody debris and caves. FPA's Fauna Technical Note 10 can be used as a guide in the identification of potential denning habitat.
eastern quoll	Dasyurus viverrinus	Potential Range	Potential habitat for the Eastern quoll includes rainforest, heathland, alpine areas and scrub. However, it seems to prefer dry forest and native grassland mosaics which are bounded by agricultural land. Potential range for the Eastern Quoll is the whole of mainland Tasmania and Bruny Island. Core range for the Eastern Quoll is a specialist-defined area based primarily on modelling work published in Fancourt et al 2015 and additional expert advice.
white-bellied sea-eagle	Haliaeetus leucogaster	Potential Range	Potential habitat for the White-Bellied Sea-eagle species comprises potential nesting habitat and potential foraging habitat. Potential foraging habitat is any large waterbody (including sea coasts, estuaries, wide rivers, lakes, impoundments and even large farm dams) supporting prey items (fish). Potential nesting habitat is tall eucalypt trees in large tracts (usually more than 10 ha) of eucalypt or mixed forest within 5 km of the coast (nearest coast including shores, bays, inlets and peninsulas), large rivers (Class 1), lakes or complexes of large farm dams. Scattered trees along river banks or pasture land may also be used. Significant habitat for the white-bellied sea-eagle is all native forest and native non-forest vegetation within 500 m or 1 km line-of-sight of known nest sites (where nest tree still present).
swift parrot	Lathamus discolor	Core Breeding Range	Potential breeding habitat for the Swift Parrot comprises potential foraging habitat and potential nesting habitat, and is based on definitions of foraging and nesting trees (see Table A in swift parrot habitat assessment Technical Note). Potential foraging habitat comprises E. globulus or E. ovata trees that are old enough to flower. The occurrence of foraging-habitat can be remotely assessed, although only to a limited extent, by using mapping layers such as GlobMap (DPIPWE 2010). Due to the scale and inadequacies in current foraging-habitat mapping, potential foraging-habitat density within operational areas may need to be largely identified by ground-based surveys as per Table B in the swift parrot habitat assessment Technical Note. For management purposes potential nesting habitat is considered to comprise eucalypt forests that contain hollow-bearing trees. The FPA mature habitat availability map (see Technical Note 2) predicts the availability of hollow-bearing trees using the relevant definitions of habitat provided in Table C of the swift parrot habitat assessment Technical Note. The mature habitat availability map is designed to be used to make landscape-scale assessments and may not be reliable for stand-level assessments required during the development of a Forest Practices Plan. At the stand-level the availability and distribution of hollow-bearing trees across a coupe or operation area is best determined from a ground-based assessment (see Table C in the swift parrot habitat assessment Technical Note). Significant habitat is all potential breeding habitat within the SE potential breeding range and the NW breeding areas.
swift parrot	Lathamus discolor SPIBA	SPIBA - Forestier Peninsula	Potential breeding habitat for the Swift Parrot comprises potential foraging habitat and potential nesting habitat, and is based on definitions of foraging and nesting trees (see Table A in swift parrot habitat assessment Technical Note). Potential foraging habitat comprises E. globulus or E. ovata trees that are old enough to flower. The occurrence of foraging-habitat can be remotely assessed, although only to a limited extent, by using mapping layers such as GlobMap (DPIPWE 2010). Due to the scale and inadequacies in current foraging-habitat mapping, potential foraging-habitat density within operational areas may need to be largely identified by ground-based surveys as per Table B in the swift parrot habitat assessment Technical Note. For management purposes potential nesting habitat is considered to comprise eucalypt forests that contain hollow-bearing trees. The FPA mature habitat availability map (see Technical Note 2) predicts the availability of hollow-bearing trees using the relevant definitions of habitat provided in Table C of the swift parrot habitat assessment Technical Note. The mature habitat availability map is designed to be used to make landscape-scale assessments and may not be reliable for stand-level assessments required during the development of a Forest Practices Plan. At the stand-level the availability and distribution of hollow-bearing trees across a coupe or operation area is best determined from a ground-based assessment (see Table C in the swift parrot habitat assessment Technical Note). Significant habitat is all potential breeding habitat within the SE potential breeding range and the NW breeding areas.
mt. mangana stag beetle	Lissotes menalcas	Potential Range	Potential habitat for the Mt Mangana stag beetle is any eucalypt forest that contains rotting logs (often numerous, and usually greater than about 40 cm diameter at mid-log length) below about 650 m a.s.l. (generally moist habitats that have not been subject to high intensity or frequent fires in about the last 20 years). The species has a patchy distribution within areas of potential habitat. Some rainforest will support the species, although in low densities as the species has an apparent preference for eucalypt logs. In terms of using mapping layers, potential habitat is all areas mapped as `wet forest' under TASVEG or another forest type that is within 50 m of a freshwater source (e.g. stream or wetland) and either high, medium or low mature habitat availability OR PI-type mature crown density class `a', `b', `c', `d' and `f'. Significant habitat for the Mt Mangana stag beetle is all potential habitat within the known range.

Common name	Species name	Range Class	Habitat Description
green and golden frog	Litoria raniformis	Potential Range	Potential habitat for the green and gold frog is permanent and temporary waterbodies, usually with vegetation in or around them. Potential habitat includes features such as natural lagoons, permanently or seasonally inundated swamps and wetlands, farm dams, irrigation channels, artificial water-holding sites such as old quarries, slow-flowing stretches of streams and rivers and drainage features. Significant habitat for the green and gold frog is still or very slow flowing water bodies, with at least some vegetation, and a lack of obvious pollutants (oils, chemicals, etc). See FPA Fauna Technical Note 18 for further guidance on assessing significant habitat for the green and gold frog.
forty-spotted pardalote	Pardalotus quadragintus	Potential Range	Potential habitat for the 40-spotted pardalote is any forest and woodland supporting Eucalyptus viminalis (white gum) where the canopy cover of E. viminalis is greater than or equal to 10% or where E. viminalis occurs as a localised canopy dominant or codominant in patches exceeding 0.25 ha. Significant habitat for the 40-spotted Pardalote is all potential habitat associated with known colonies and such habitat within 500 m of known colonies.
australian grayling	Prototroctes maraena	Potential Range	Potential habitat for the Australian Grayling is all streams and rivers in their lower to middle reaches. Areas above permanent barriers (e.g. Prosser River dam, weirs) that prevent fish migration, are not potential habitat.
tasmanian hairstreak(butterfly)	Pseudalmenus chlorinda tax. myrsilus	Potential Range	Potential habitat for the Tasmanian Hairstreak Butterfly is dry forest and woodland with Eucalyptus viminalis (white gum) present (any amount) in close association (usually within 50 m) with Acacia species, including A. dealbata (silver wattle), A. mearnsii (black wattle) or A. melanoxylon (blackwood).
tasmanian devil	Sarcophilus harrisii	Potential Range	Potential habitat for the Tasmanian devil is all terrestrial native habitats, forestry plantations and pasture. Devils require shelter (e.g. dense vegetation, hollow logs, burrows or caves) and hunting habitat (open understorey mixed with patches of dense vegetation) within their home range (4-27 km^2). Significant habitat for the Tasmanian devil is a patch of potential denning habitat where three or more entrances (large enough for a devil to pass through) may be found within 100 m of one another, and where no other potential denning habitat with three or more entrances may be found within a 1 km radius, being the approximate area of the smallest recorded devil home range (Pemberton 1990). Potential denning habitat for the Tasmanian devil is areas of burrowable, well-drained soil, log piles or sheltered overhangs such as cliffs, rocky outcrops, knolls, caves and earth banks, free from risk of inundation and with at least one entrance through which a devil could pass. FPA's Fauna Technical Note 10 can be used as a guide in the identification of potential denning habitat
masked owl	Tyto novaehollandiae	Core Range	Potential habitat for the masked owl is all areas with trees with large hollows (≥15 cm entrance diameter). Remnants and paddock trees (in any dry or wet forest type) in agricultural areas may also constitute potential habitat. Significant habitat for the masked owl is any area of native dry forest, within the core range, with trees with large hollows (≥15 cm entrance diameter). Remnants and paddock trees (in any dry or wet forest type) in agricultural areas may also constitute significant habitat. See FPA Fauna Technical Note 17 for guidance on assessing masked owl habitat using 'on-ground' and remote methods.

Showing 1 to 15 of 15 entries

Threatened Fauna Records

Fauna Records within 5000m of 570513E,5245161N at Mon Nov 30 2020 16:53:21 GMT+1100 (Australian Eastern Daylight Time)

Records with the project code 'rnd' and same foreign ID (nest ID) have been simplified to only show the newest observation.

Species name	Common name	Reported Position accuracy (m)	X	Y	Distance (m)	Obs. type	Obs. date	Date accuracy	Obs. state	Project code + Foreign id	NVA id
Tyto novaehollandiae	masked owl	1000	570977	5241663	3529	Sighting	1992-07-12	Unknown	Present	fos cra-rfa:fos:13643/1	NVA
Attenborougharion rubicundus	burgundy snail	25	573812	5242282	4379	Sighting	1991-01-01	Unknown	Present	heli-rubi cra-rfa:heli-rubi:2/1	NVA
Attenborougharion rubicundus	burgundy snail	25	575212	5245183	4699	Sighting	1991-01-01	Unknown	Present	heli-rubi cra-rfa:heli-rubi:6/1	NVA
Attenborougharion rubicundus	burgundy snail	25	575212	5245283	4701	Sighting	1991-01-01	Unknown	Present	heli-rubi cra-rfa:heli-rubi:7/1	NVA
Tyto novaehollandiae	masked owl	1000	570977	5241663	3529	Sighting	1992-12-12	Unknown	Present	fos cra-rfa:fos:13648/1	NVA
Attenborougharion rubicundus	burgundy snail	25	573812	5246383	3518	Sighting	1991-01-01	Unknown	Present	heli-rubi cra-rfa:heli-rubi:3/1	NVA
Attenborougharion rubicundus	burgundy snail	25	574912	5243383	4745	Sighting	1991-01-01	Unknown	Present	heli-rubi cra-rfa:heli-rubi:5/1	NVA
Perameles gunnii	eastern barred bandicoot	914	567978	5247406	3386	Sighting	1992-01-14	Day	Present	rk_ah roadkill:rk_AH:3772/1	NVA
Perameles gunnii	eastern barred bandicoot	413	569850	5246188	1222	Sighting	1985-12-06	Day	Present	rk_ah roadkill:rk_AH:3811/2	NVA
Perameles gunnii	eastern barred bandicoot	1510	567236	5248341	4566	Sighting	1989-05-04	Day	Present	rk_ah roadkill:rk_AH:3751/4	NVA
Perameles gunnii	eastern barred bandicoot	630	570359	5245473	348	Sighting	1986-12-05	Day	Present	rk_ah roadkill:rk_AH:3837/2	NVA
Perameles gunnii	eastern barred bandicoot	398	571901	5243416	2230	Sighting	1993-09-12	Day	Present	rk_ah roadkill:rk_AH:3919/3	NVA
Perameles gunnii	eastern barred bandicoot	101	573828	5241691	4799	Sighting	1986-09-18	Day	Present	rk_ah roadkill:rk_AH:3973/1	NVA
Attenborougharion rubicundus	burgundy snail	100	575312	5245183	4799	Sighting	1997-07-06	Day	Present	fpaf 257	NVA
Attenborougharion rubicundus	burgundy snail	100	575112	5244183	4702	Sighting	1998-04-13	Day	Present	fpaf 262	NVA
Attenborougharion rubicundus	burgundy snail	100	574862	5244783	4365	Sighting	1999-06-12	Day	Present	fpaf 263	NVA
Attenborougharion rubicundus	burgundy snail	100	575212	5245333	4702	Sighting	1999-04-15	Day	Present	fpaf 264	NVA
Attenborougharion rubicundus	burgundy snail	100	574162	5246633	3935	Sighting	1999-05-14	Day	Present	fpaf 265	NVA
Attenborougharion rubicundus	burgundy snail	100	574412	5246333	4071	Sighting	1999-04-15	Day	Present	fpaf 275	NVA
Attenborougharion rubicundus	burgundy snail	100	574762	5243533	4550	Sighting	1999-04-23	Day	Present	fpaf 278	NVA
Attenborougharion rubicundus	burgundy snail	100	574862	5243383	4698	Sighting	1999-06-12	Day	Present	fpaf 279	NVA
Attenborougharion rubicundus	burgundy snail	100	574887	5243582	4650	Sighting	1999-06-12	Day	Present	fpaf 280	NVA
Attenborougharion rubicundus	burgundy snail	100	575212	5245483	4710	Sighting	1999-04-15	Day	Present	fpaf 282	NVA
Attenborougharion rubicundus	burgundy snail	100	575137	5244258	4711	Sighting	1999-05-15	Day	Present	fpaf 285	NVA
Attenborougharion rubicundus	burgundy snail	100	575162	5244533	4691	Sighting	1999-05-15	Day	Present	fpaf 286	NVA
Attenborougharion rubicundus	burgundy snail	100	574212	5244933	3706	Sighting	1999-06-11	Day	Present	fpaf 290	NVA
Attenborougharion rubicundus	burgundy snail	100	574537	5244682	4052	Sighting	1999-06-12	Day	Present	fpaf 291	NVA
Attenborougharion rubicundus	burgundy snail	100	574712	5244333	4280	Sighting	1999-04-15	Day	Present	fpaf 292	NVA
Attenborougharion rubicundus	burgundy snail	100	575087	5243433	4890	Sighting	1999-06-12	Day	Present	fpaf 295	NVA
Perameles gunnii	eastern barred bandicoot	10	570553	5244481	681	Sighting	2006-12-12	Day	Present	dpiw-fauna	NVA
Perameles gunnii	eastern barred bandicoot	10	570391	5245399	267	Sighting	2007-01-11	Day	Present	dpiw-fauna	NVA
Perameles gunnii	eastern barred bandicoot	10	570553	5244481	681	Sighting	2007-01-12	Day	Present	dpiw-fauna	NVA
Perameles gunnii	eastern barred bandicoot	10	570631	5244660	515	Sighting	2006-12-13	Day	Present	dpiw-fauna	NVA
Perameles gunnii	eastern barred bandicoot	10	570647	5244591	586	Sighting	2006-12-13	Day	Present	dpiw-fauna	NVA

Species name	Common name	Reported Position accuracy (m)	X	Y	Distance (m)	Obs. type	Obs. date	Date accuracy	Obs. state	Project code + Foreign id	NVA id
Perameles gunnii	eastern barred bandicoot	10	570640	5244607	568	Sighting	2006-12-13	Day	Present	dpiw-fauna	NVA
Eagle sp.	Eagle	1000	568762	5244983	1760	Nest	1985-01-01	Decade	Present	rnd 71	NVA
Haliaeetus leucogaster	white-bellied sea-eagle	1000	568949	5245265	1567	Nest	1985-01-01	Decade	Present	rnd 411	NVA
Tyto novaehollandiae	masked owl	1000	570977	5241663	3529	Nest	1985-01-01	Decade	Present	rnd 548	NVA
Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	15	574680	5247105	4598	Nest	2011-07-25	Day	Present	rnd 1961	NVA
Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	10	574696	5247070	4598	Nest	2013-11-15	Month	Present	rnd 1233	NVA
Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	7	574636	5246988	4510	Nest	2013-11-15	Month	Present	rnd 1234	NVA
Lathamus discolor	swift parrot	5	573914	5246859	3801	Nest	2016-12-22	Day	Present	dsspr 36001246	NVA
Lathamus discolor	swift parrot	5	573914	5246859	3801	Nest	2016-12-22	Day	Present	dsspr 36001245	NVA
Lathamus discolor	swift parrot	5	573914	5246859	3801	Nest	2016-12-22	Day	Present	dsspr 36001247	NVA
Lathamus discolor	swift parrot	5	573914	5246859	3801	Nest	2016-12-22	Day	Present	dsspr 36001248	NVA
Lathamus discolor	swift parrot	5	573914	5246859	3801	Nest	2016-12-22	Day	Present	dsspr 36001249	NVA
Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	10	570592	5248042	2882	Nest	2018-12-19	Day	Present	rnd 1350	NVA
Tyto castanops	masked owl (Tasmanian)	200	573436	5242329	4070	Carcass	2020-08-08	Day	Present	rtar	NVA
Lathamus discolor	swift parrot	5	573914	5246860	3802	Nest Box	2019-12-01	3 Months	Present	dsspr BXRH95	NVA

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Threatened Flora Records

Flora Records within 2000m of 570513E, 5245161N at Mon Nov 30 2020 16:53:21 GMT+1100 (Australian Eastern Daylight Time)

Species name	Common name	Reported Position accuracy (m)	X	Y	Distance (m)	Obs. type	Obs. date	Date accuracy	Obs. state	NVA id
Pimelea flava subsp. flava	yellow riceflower	3000	570712	5244683	518	Sighting	1929-10-23	Day	Present	NVA
Pimelea flava subsp. flava	yellow riceflower	250	571712	5243583	1982	Sighting	1952-12-17	Day	Present	NVA
Pimelea flava subsp. flava	yellow riceflower	100	569612	5246283	1439	Sighting	1997-10-13	Day	Present	NVA
Pimelea flava subsp. flava	yellow riceflower	1500	570712	5244683	518	Sighting	1951-08-01	Month	Present	NVA
Pimelea flava subsp. flava	yellow riceflower	1500	570712	5244683	518	Sighting	1957-09-16	Day	Present	NVA
Pimelea flava subsp. flava	yellow riceflower	3000	570712	5244683	518	Sighting	1929-10-01	Month	Present	NVA
Prasophyllum apoxychilum	tapered leek-orchid	1000	570698	5244373	809	Sighting	1942-11-06	Day	Present	NVA
Prasophyllum apoxychilum	tapered leek-orchid	1000	570698	5244373	809	Sighting	1944-11-01	Month	Present	NVA
Pimelea flava subsp. flava	yellow riceflower	500	572012	5244883	1525	Sighting	2001-09-30	Day	Present	NVA
Pimelea flava subsp. flava	yellow riceflower	100	571666	5244068	1589	Sighting	2001-05-01	Month	Present	NVA
Pimelea flava subsp. flava	yellow riceflower	100	570926	5244847	519	Sighting	2001-05-01	Month	Present	NVA
Pimelea flava subsp. flava	yellow riceflower	100	572168	5244371	1834	Sighting	2001-05-01	Month	Present	NVA
Epacris virgata (Kettering)	pretty heath	50	571512	5243783	1702	Sighting	2000-03-14	Day	Present	NVA
Pimelea flava subsp. flava	yellow riceflower	100	570019	5244794	615	Sighting	2001-05-01	Month	Present	NVA
Pimelea flava subsp. flava	yellow riceflower	100	572335	5245202	1822	Sighting	2001-05-01	Month	Present	NVA
Pimelea flava subsp. flava	yellow riceflower	100	571040	5244846	614	Sighting	2001-05-01	Month	Present	NVA
Pimelea flava subsp. flava	yellow riceflower	50	569500	5246376	1582	Sighting	2004-10-29	Day	Present	NVA
Pimelea flava subsp. flava	yellow riceflower	20	571802	5245154	1289	Sighting	2004-09-26	Day	Present	NVA
Pimelea flava subsp. flava	yellow riceflower	50	569500	5246375	1581	Sighting	2004-10-29	Day	Present	NVA
Pimelea flava subsp. flava	yellow riceflower	10	569466	5246324	1565	Sighting	2008-01-11	Day	Present	NVA
Pimelea flava subsp. flava	yellow riceflower	10	570958	5244648	679	Sighting	2008-01-11	Day	Present	NVA
Pimelea flava subsp. flava	yellow riceflower	10	570797	5244730	516	Sighting	2008-01-11	Day	Present	NVA
Pimelea flava subsp. flava	yellow riceflower	10	569447	5243865	1678	Sighting	2008-01-11	Day	Present	NVA
Euphrasia collina subsp. deflexifolia	eastern eyebright	1000	571400	5243940	1509	Sighting	1970-11-01	Month	Present	NVA
Pimelea flava subsp. flava	yellow riceflower	1500	570712	5244683	518	Sighting	1951-09-12	Day	Present	NVA
Pimelea flava subsp. flava	yellow riceflower	1000	570698	5244372	810	Sighting	1974-09-25	Day	Present	NVA
Pimelea flava subsp. flava	yellow riceflower	10	571821	5244052	1715	Sighting	2017-03-20	Day	Present	NVA
Pimelea flava subsp. flava	yellow riceflower	10	571816	5244046	1715	Sighting	2017-03-20	Day	Present	NVA
Pimelea flava subsp. flava	yellow riceflower	10	571812	5244027	1724	Sighting	2017-03-20	Day	Present	NVA
Pimelea flava subsp. flava	yellow riceflower	10	571799	5243991	1739	Sighting	2017-03-20	Day	Present	NVA
Pimelea flava subsp. flava	yellow riceflower	5	569219	5246548	1897	Sighting	2018-10-30	Day	Present	NVA
Pimelea flava subsp. flava	yellow riceflower	5	569219	5246548	1897	Sighting	2018-10-30	Day	Present	NVA

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Threatened Flora Survey Notes

SURVEY SKILL LEVEL
Refer to Threatened Flora Species Survey Notes (FPA 2016) for more information.

Survey skill level:

1: highly distinctive species – an FPO or forest planner can undertake surveys

2: distinctive species – a flora-competent forest planner can undertake surveys

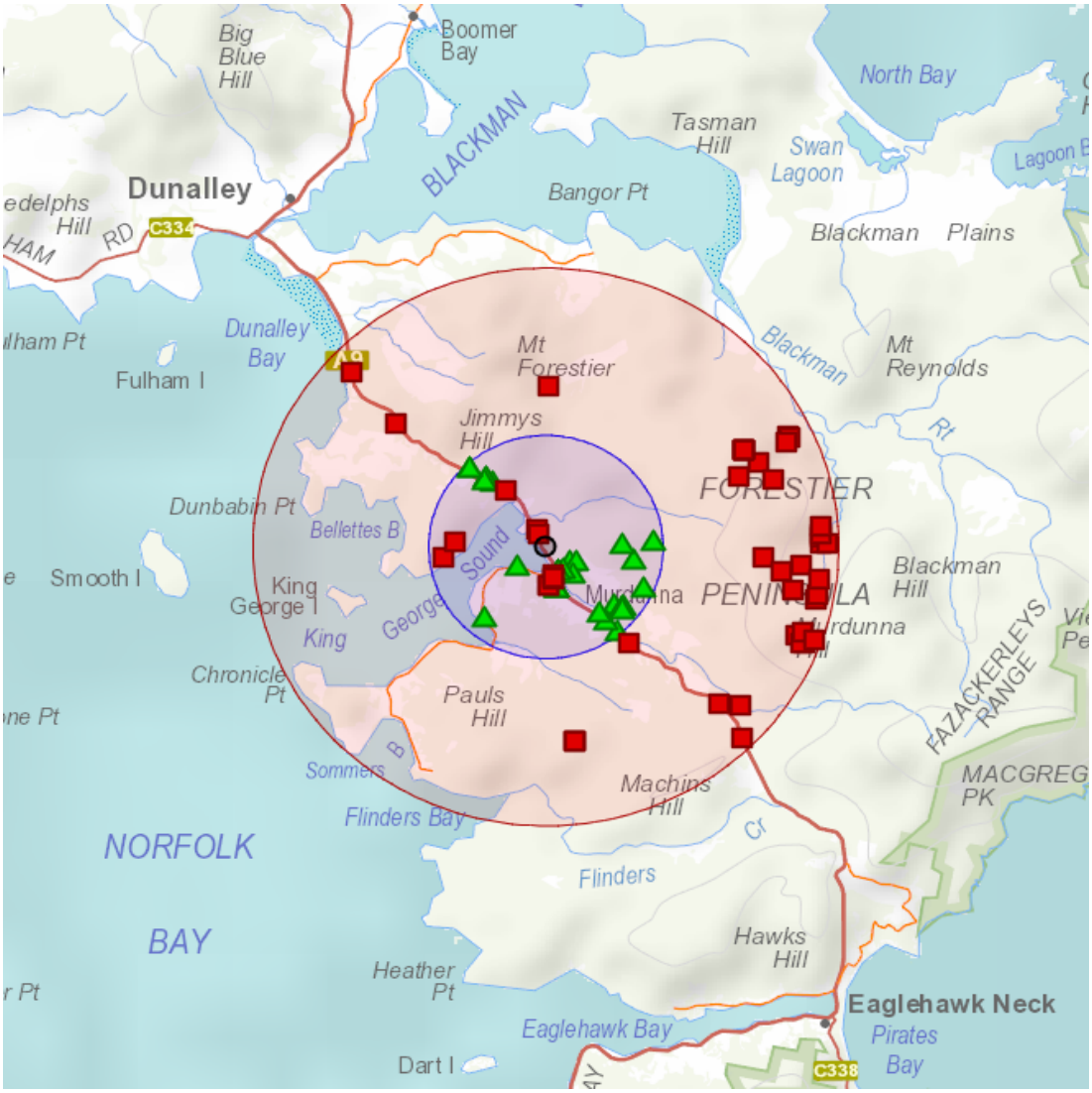
3: non-distinctive species and species occupying specialised niches – only experienced field botanists can undertake surveys

HABITAT DESCRIPTION

Refer to Habitat Descriptions of Threatened Flora in Tasmania (FPA 2016) for more information.

Species name	Common name	Life form	Status TSPA, EPBCA	Habitat description	Survey guidelines	Survey skill level
Prasophyllum apoxychilum	tapered leek-orchid	orchid	e (v pending), EN	Prasophyllum apoxychilum is restricted to eastern and northeastern Tasmania where it occurs in coastal heathland or grassy and scrubby open eucalypt forest on sandy and clay loams, often among rocks. It occurs at a range of elevations and seems to be strongly associated with dolerite in the east and southeast of its range.	Flowers are required for the identification of this ground orchid, which dies back to subterranean tubers after flowering. However, as the flowering period varies in different parts of the State, survey times should be guided by the time that local records have been collected. There appears to be a peak of flowering in late October to mid-November on the Tasman Peninsula and in the north, but subpopulations from South Bruny and Knocklofty (near Hobart) seem to peak later, in late December to early January, and late January, respectively. The survey window may be extended for a week or two as older flowers may still be identifiable. Any survey effort should focus on but not be restricted to disturbed, slashed or recently burnt areas, which the species appears to prefer, with surveys unlikely to be successful in long unburnt sites Specimens may require specialist confirmation. More information on survey time can be found in Flowering Times of Tasmanian Orchids: A Practical Guide for Field Botanists.	3

Showing 1 to 1 of 1 entries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North Bay
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Reynolds
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George I
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Murdunna
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Chronicle
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Pauls
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MACGREG
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Flinders Bay
NORFOLK
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