Raptor nests and sightings within 5000 metres

Verified Records

Nest Id/Location Foreign Id	Species	Common Name	Obs Type	Observation Count	Last Recorded
1554	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	Nest	1	18-Sep-2009
1554	Haliaeetus leucogaster	white-bellied sea-eagle	Nest	2	20-May-2017
2821	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	Nest	3	20-Feb-2024
3113	Haliaeetus leucogaster	white-bellied sea-eagle	Nest	2	10-Dec-2021
552	Tyto novaehollandiae subsp. castanops	masked owl (Tasmanian)	Nest	1	01-Jan-1985
	Accipiter novaehollandiae	grey goshawk	Not Recorded	1	28-Jul-2007
	Accipiter novaehollandiae	grey goshawk	Sighting	1	04-Apr-2023
	Aquila audax	wedge-tailed eagle	Not Recorded	16	21-Jun-2018
	Aquila audax	wedge-tailed eagle	Sighting	8	31-Mar-2021
	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	Roost site	2	06-Dec-2022
	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	Sighting	10	01-Nov-2023
	Falco cenchroides	nankeen kestrel	Not Recorded	1	07-Sep-2017
	Falco longipennis	australian hobby	Sighting	2	24-Mar-2019
	Falco peregrinus	peregrine falcon	Not Recorded	4	13-Apr-2018
	Falco peregrinus	peregrine falcon	Sighting	6	21-Nov-2019
	Haliaeetus leucogaster	white-bellied sea-eagle	Not Recorded	26	10-Mar-2018
	Haliaeetus leucogaster	white-bellied sea-eagle	Sighting	23	16-Aug-2023
	Tyto novaehollandiae	masked owl	Audible	1	13-Sep-2015
	Tyto novaehollandiae	masked owl	Not Recorded	3	18-Oct-2016
	Tyto novaehollandiae	masked owl	Sighting	6	28-Aug-1993

Unverified Records

No unverified records were found!

Raptor nests and sightings within 5000 metres

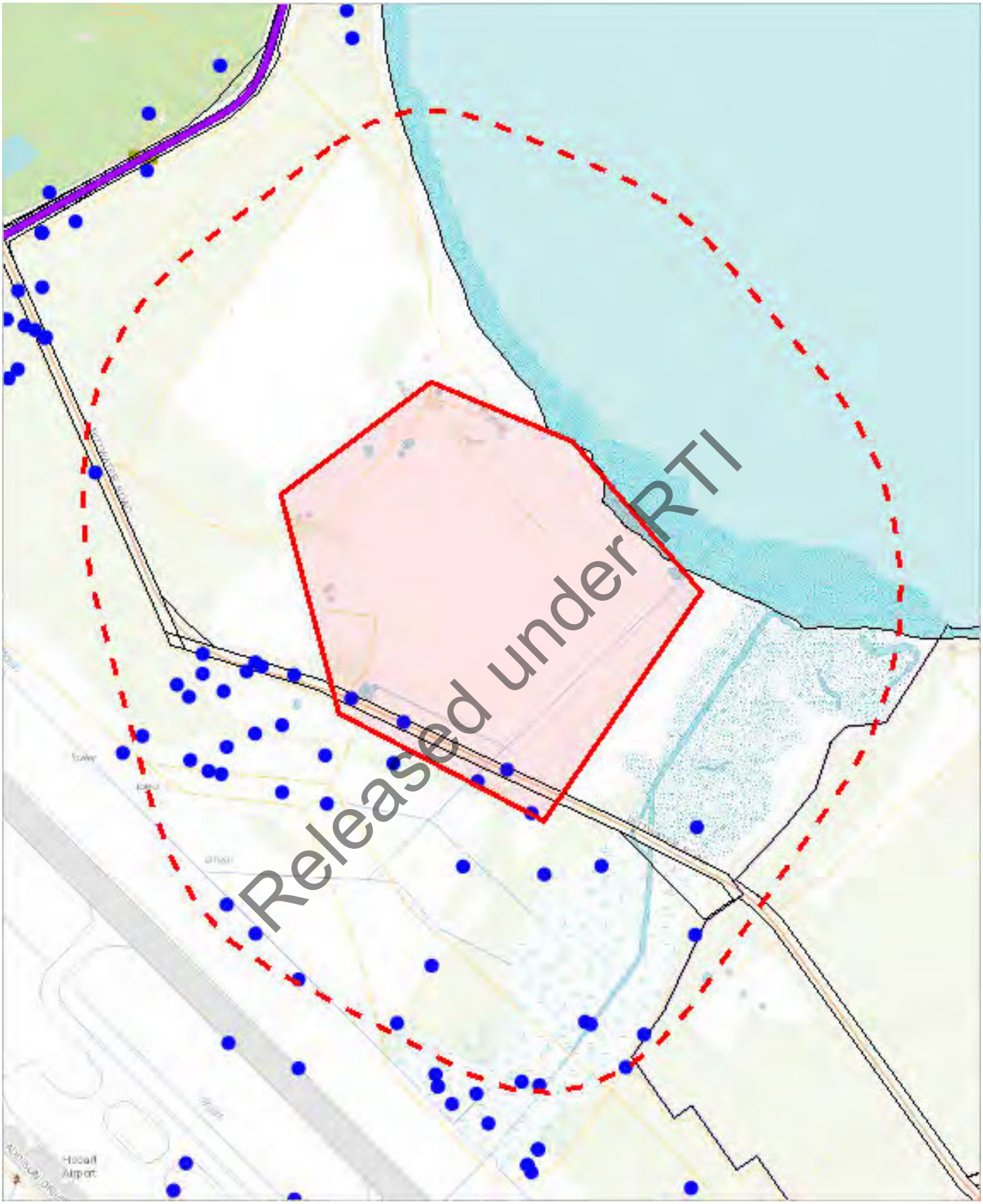
(based on Range Boundaries)

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		2	0	0

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

Tas Management Act Weeds within 500 m

543045, 5259307



541228, 5257093

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
Carduus pycnocephalus	slender thistle	1	01-Nov-2010
Cirsium arvense var. arvense	creeping thistle	8	01-Nov-2010
Erica lusitanica	spanish heath	12	18-May-2015
Foeniculum vulgare	fennel	2	10-May-2009
Lycium ferocissimum	african boxthorn	18	01-Nov-2010
Solanum triflorum	cutleaf nightshade	1	03-Apr-2000
Ulex europaeus	gorse	1	01-Dec-2003

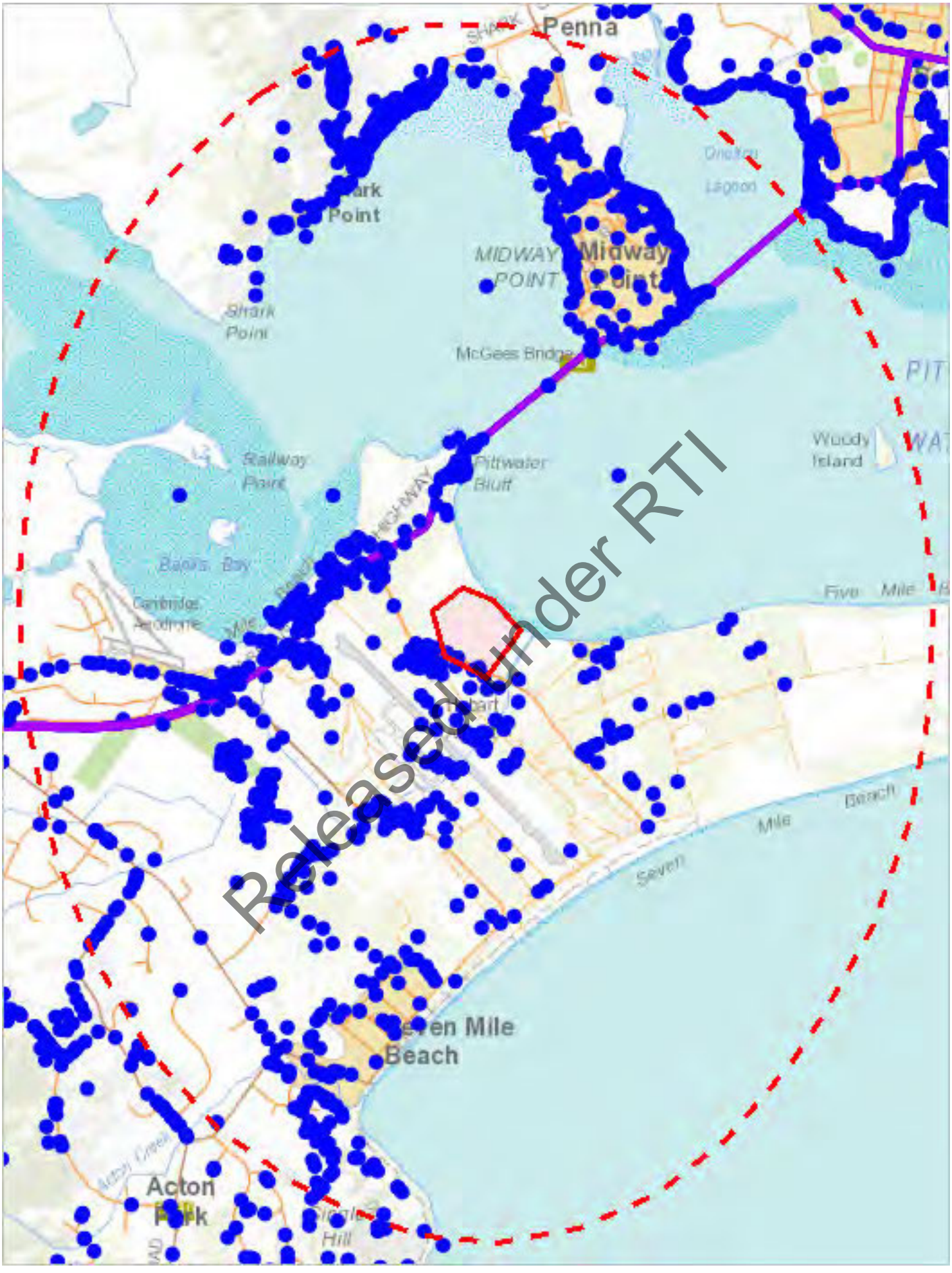
Unverified Records

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

https://www.nre.tas.gov.au/invasive-species/weeds

Tas Management Act Weeds within 5000 m

546382, 5263801



537897, 5252575

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
Allium vineale	crow garlic	75	23-Dec-2020
Amsinckia calycina	hairy fiddleneck	6	12-Jul-2020
Asparagus asparagoides	bridal creeper	35	11-Nov-2009
Asparagus scandens	asparagus fern	3	11-May-2022
Carduus nutans	nodding thistle	1	01-Jan-1993
Carduus pycnocephalus	slender thistle	7	16-May-2019
Carduus tenuiflorus	winged thistle	2	08-Jan-2009
Carthamus lanatus	saffron thistle	1	01-Jan-1929
Cenchrus longisetus	feathertop	9	06-Apr-2018
Chrysanthemoides monilifera subsp. monilifera	boneseed	829	12-May-2022
Cirsium arvense var. arvense	creeping thistle	35	11-May-2022
Cortaderia selloana	silver pampasgrass	17	11-Mar-2020
Cortaderia sp.	pampas grass	1	01-Jan-1900
Cytisus scoparius	english broom	10	30-Mar-2021
Datura ferox	longspine thornapple	1	20-Apr-2007
Echium vulgare	vipers bugloss	6	27-Dec-2020
Eragrostis curvula	african lovegrass	45	24-May-2022
Erica lusitanica	spanish heath	36	11-Mar-2020
Foeniculum vulgare	fennel	98	22-Feb-2022
Genista monspessulana	montpellier broom or canary broom	24	25-Jan-2022
Hypericum perforatum subsp. veronense	perforated st johns-wort	1	07-Feb-2000
Lepidium draba	hoary cress	8	27-Nov-2018
Lycium ferocissimum	african boxthorn	639	22-Feb-2022
Marrubium vulgare	white horehound	6	05-Feb-2021
Nassella neesiana	chilean needlegrass	2	17-Nov-2019
Nassella trichotoma	serrated tussock	95	15-Feb-2022
Orobanche sp.	broomrape	1	01-Nov-2010
Rubus anglocandicans	blackberry	1	16-Feb-2007
Rubus fruticosus	blackberry	33	25-Jan-2022
Salix caprea	goat willow	1	12-Mar-2004
Salix x fragilis nothovar. fragilis	crack willow	2	15-Apr-2016
Salix x rubens	basket willow	1	10-Feb-2016
Solanum triflorum	cutleaf nightshade	50	15-Feb-2022
Tamarix aphylla	athel pine or tamarisk	1	01-Nov-2010
Ulex europaeus	gorse	27	22-Feb-2022
Urospermum dalechampii	false dandelion	1	08-Nov-2016

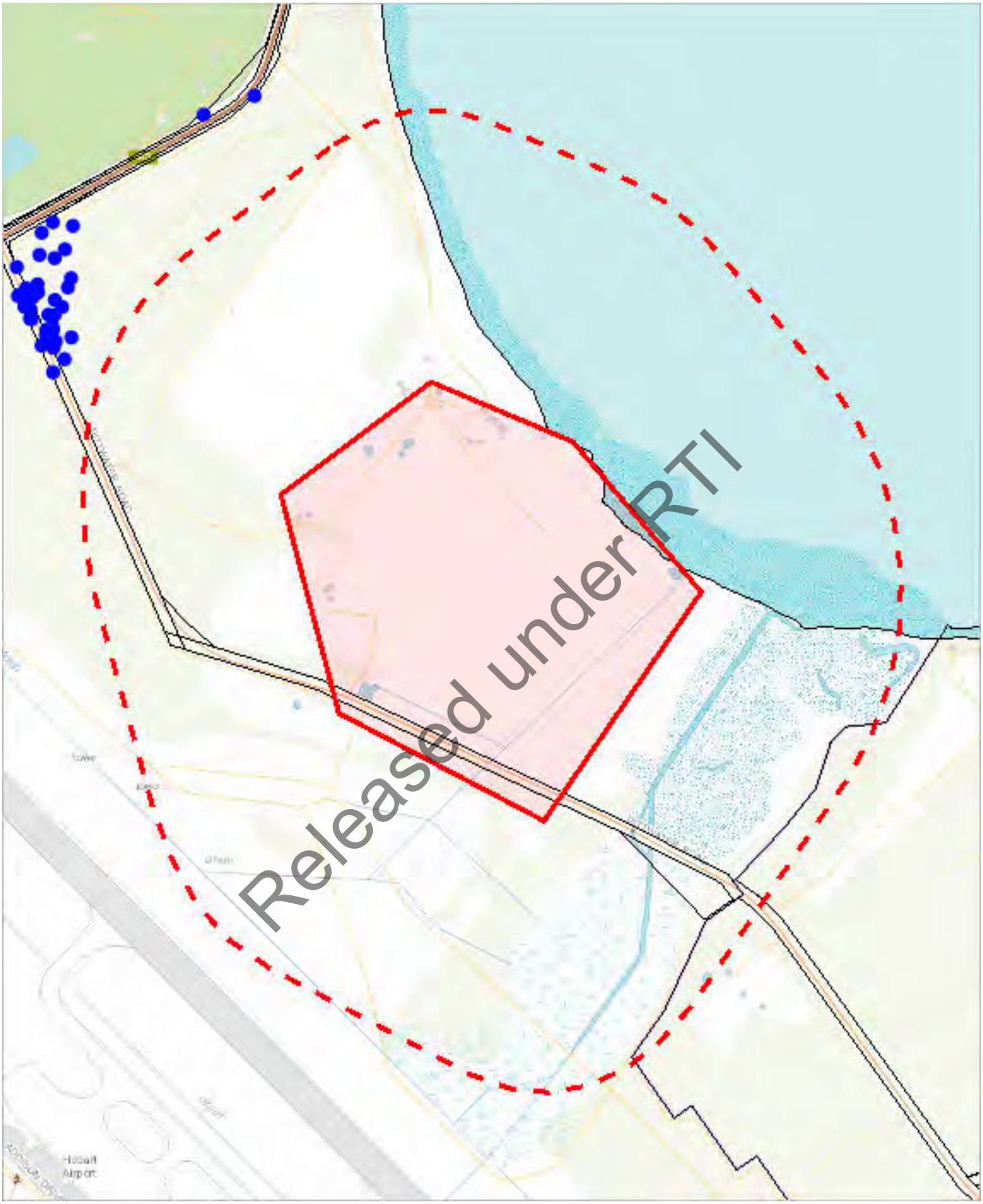
Unverified Records

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

https://www.nre.tas.gov.au/invasive-species/weeds

Priority Weeds within 500 m

543045, 5259307



541228, 5257093

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	4	27-Nov-2018

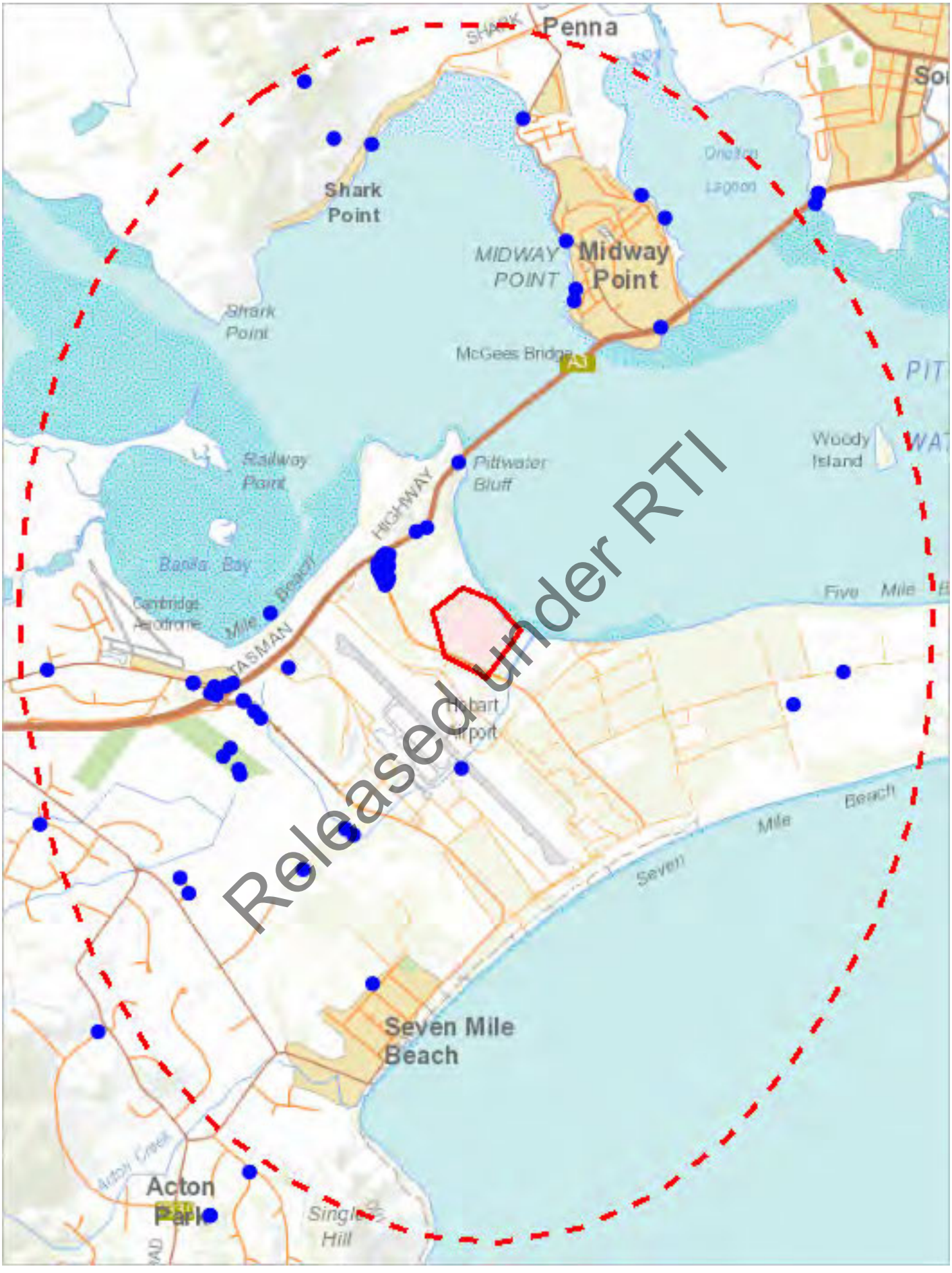
Unverified Records

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

https://www.nre.tas.gov.au/invasive-species/weeds

Priority Weeds within 5000 m

546382, 5263801



537897, 5252575

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
Acacia baileyana	cootamundra wattle	8	30-Mar-2021
Achillea millefolium	yarrow	1	22-May-2001
Billardiera heterophylla	bluebell creeper	45	27-Nov-2018
Cenchrus clandestinus	kikuyu grass	1	11-Jan-2020
Echium candicans	pride-of-madeira	6	12-Jul-2020
Gomphocarpus fruticosus subsp. fruticosus	swanplant	4	30-Mar-2021
Pittosporum undulatum	sweet pittosporum	3	13-Jan-2019
Polygala myrtifolia	myrtleleaf milkwort	3	03-Oct-2021
Reseda luteola	weld	12	07-Oct-2021
Verbascum thapsus	great mullein	1	01-Jan-1993

Unverified Records

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

https://www.nre.tas.gov.au/invasive-species/weeds

Geoconservation sites within 1000 metres

543416, 5259806

540858, 5256591

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

Geoconservation sites within 1000 metres

Legend: Geoconservation (NVA)

Legend: Cadastral Parcels

Geoconservation sites within 1000 metres

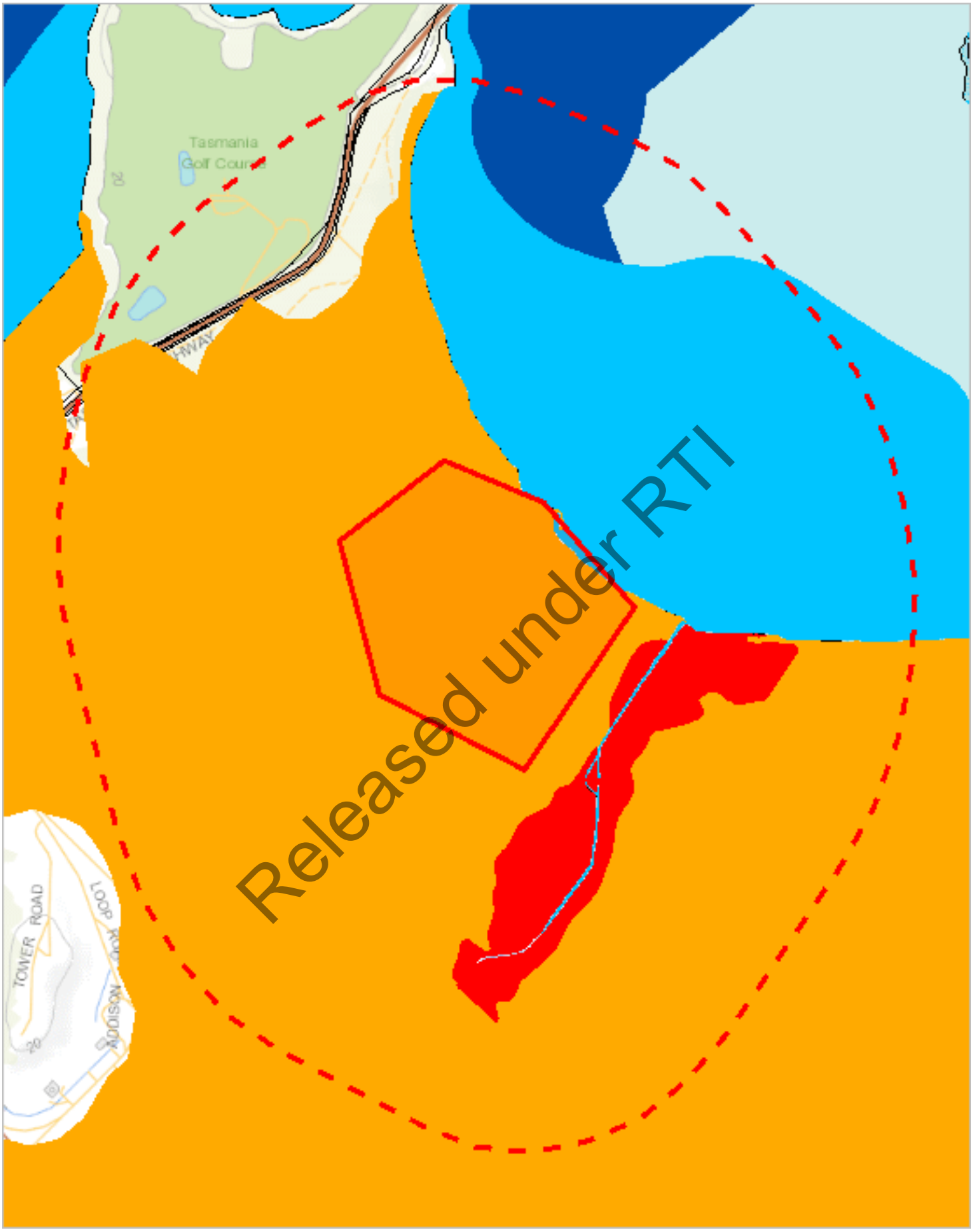
Id	Name	Statement of Significance	Significance Level	Status
3168	Llanherne Pleistocene Aeolian Deposit	This outcrop is significant due to the preserved suite of well developed sedimentary structures; trace fossil burrows; and a palaeosol which give important scientific insight into the palaeoenvironment of the Coal River Basin. Possibly the most significant earth-features within this site include the 8-10 m artificial section which exposes a suite of aeolian sedimentary structures within the basal sequence of the dune. Although exposures of colder climate aeolian deposits in the forms of calcareous aeolianites have been noted along the Victorian and South Australian coastline, aeolian exposures of this quality are considerably less common in siliceous dunes.	State	Listed
2779	Seven Mile Beach Spit	Notable example of type.	State	Listed

For more information about the Geoconservation Database, please visit the website: https://www.nre.tas.gov.au/conservation/geoconservation
or contact the Geoconservation Officer:

Telephone: (03) 6165 4401
Email: Geoconservation.Enquiries@nre.tas.gov.au
Address: GPO Box 44, Hobart, Tasmania, Australia, 7000

Acid Sulfate Soils within 1000 metres

543416, 5259806



540858, 5256591

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	High	Ac(p2)	High probability of occurance (>70% chance of occurrence in mapping unit). Supratidal flats, ASS generally within upper 1m. Halophytes (mainly samphire), salt marsh, salt pans. 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	High	Ac(p3)	High probability of occurance (>70% chance of occurrence in mapping unit). Supratidal flats, ASS generally within upper 1m. Halophytes (mainly samphire), salt marsh, salt pans. 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	High	Ae(p3)	High probability of occurance (>70% chance of occurrence in mapping unit). Floodplains <2m AHD, ASS generally within upper 1m. Grasslands, reedlands and wetland forests. (e.g Melaleuca, Casuarina). Includes backplains. 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	Bc(p3)	Low probability of occurance (6-70% chance of occurrence in mapping unit). Supratidal flats, ASS generally within upper 1m. Halophytes (mainly samphire), salt marsh, salt pans. 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(p3)	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). 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	Bu(p3)	Low probability of occurance (6-70% chance of occurrence in 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.
Marine Subaqueous and Intertidal Acid Sulfate Soils	High	Aa(p2)	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). 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	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.

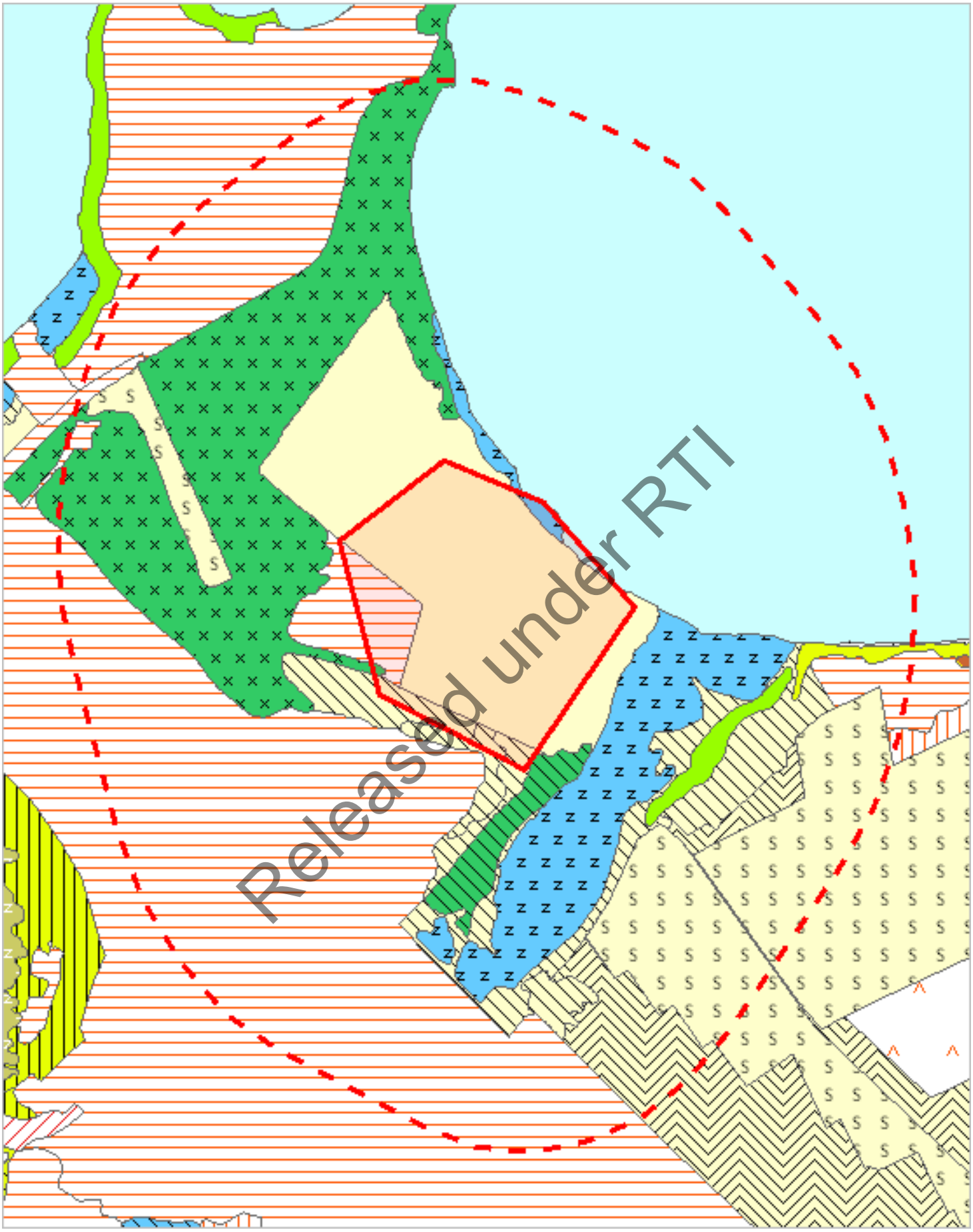
Telephone: (03) 6777 2227

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

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

TASVEG 4.0 Communities within 1000 metres

543416, 5259806



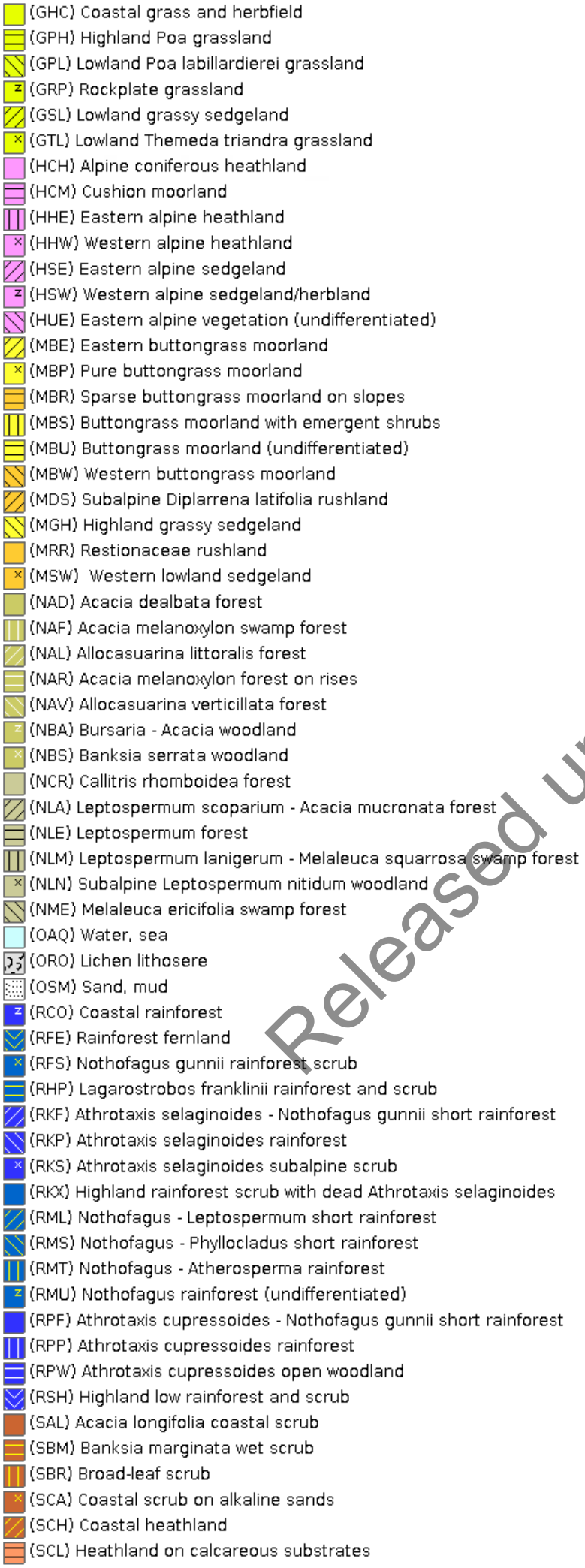
540858, 5256591

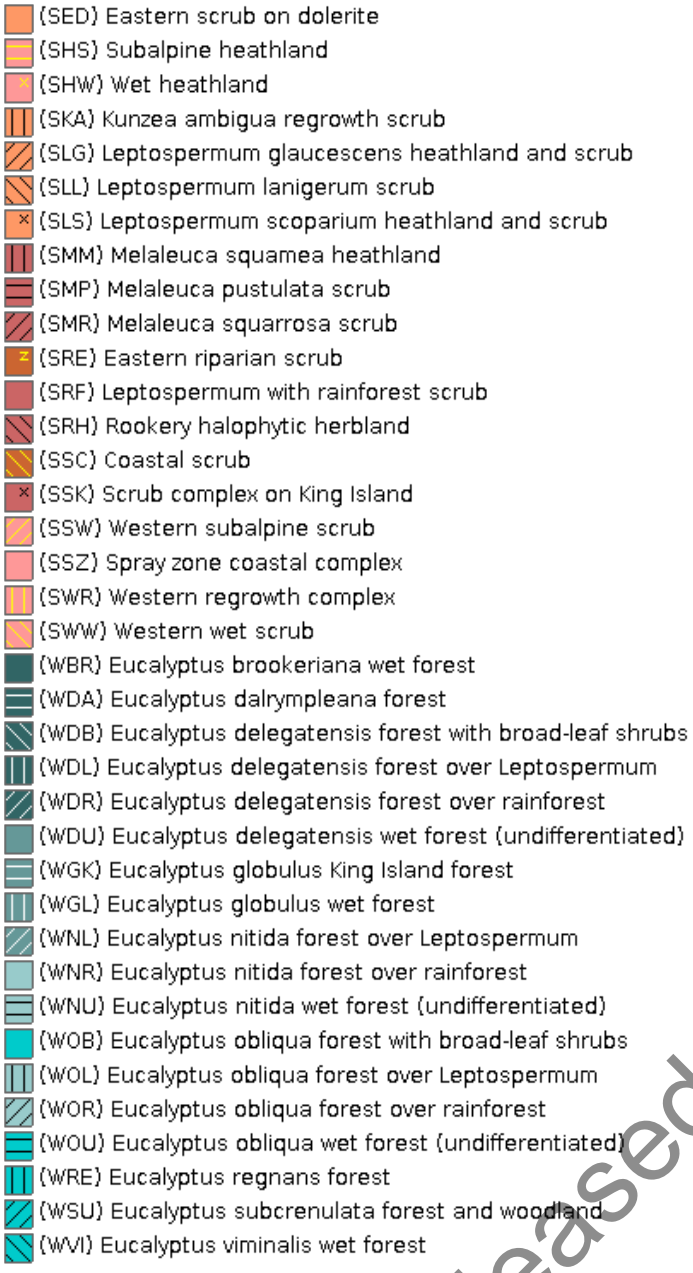
Please note that some layers may not display at all requested map scales

TASVEG 4.0 Communities within 1000 metres

Legend: TASVEG 4.0

TASVEG 4.0 Communities within 1000 metres





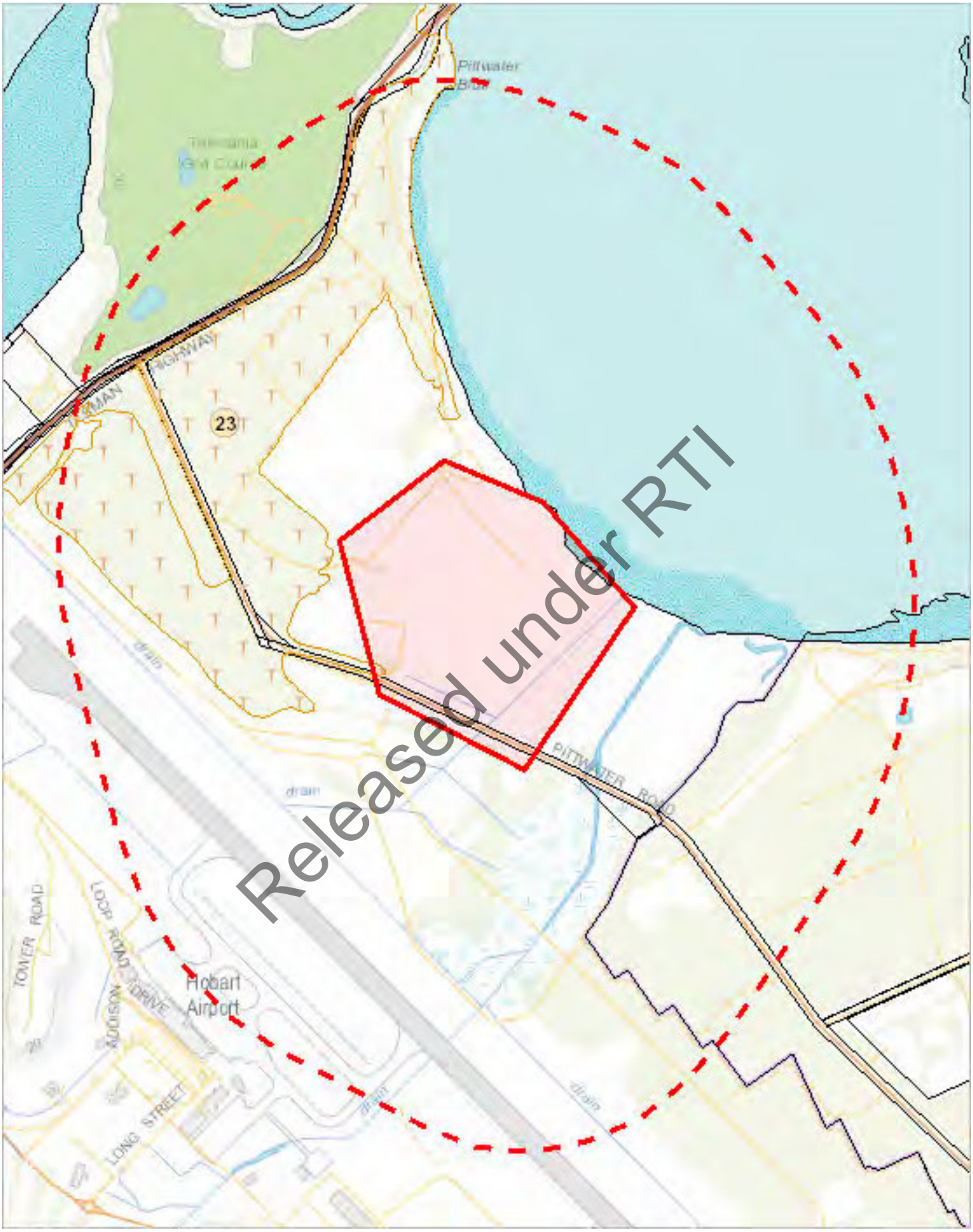
TASVEG 4.0 Communities within 1000 metres

Code	Community	Canopy Tree
ASS	(ASS) Succulent saline herbland	
DAC	(DAC) Eucalyptus amygdalina coastal forest and woodland	
DVC	(DVC) Eucalyptus viminalis - Eucalyptus globulus coastal forest and woodland	
DVG	(DVG) Eucalyptus viminalis grassy forest and woodland	
FAG	(FAG) Agricultural land	
FPS	(FPS) Plantations for silviculture - softwood	
FPU	(FPU) Unverified plantations for silviculture	
FRG	(FRG) Regenerating cleared land	EV
FRG	(FRG) Regenerating cleared land	
FUM	(FUM) Extra-urban miscellaneous	
FUR	(FUR) Urban areas	
FWU	(FWU) Weed infestation	
GHC	(GHC) Coastal grass and herbfield	
OAQ	(OAQ) Water, sea	
OSM	(OSM) Sand, mud	

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

Threatened Communities (TNVC 2020) within 1000 metres

543416, 5259806



540858, 5256591

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

Threatened Communities (TNVC 2020) 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 gunnii 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

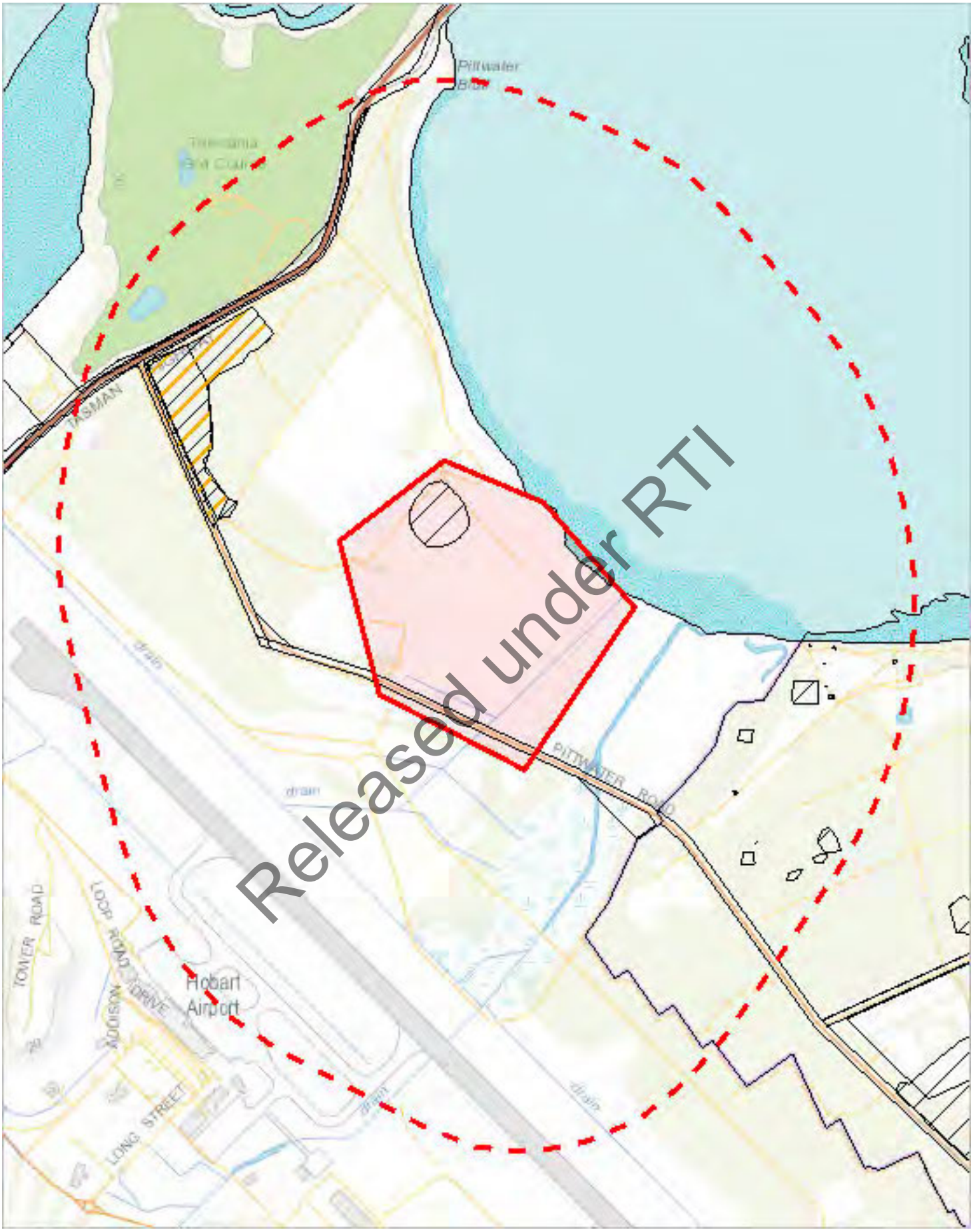
Threatened Communities (TNVC 2020) within 1000 metres

Scheduled Community Id	Scheduled Community Name
23	Eucalyptus viminalis - Eucalyptus globulus coastal forest and woodland

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

Fire History (All) within 1000 metres

543416, 5259806



540858, 5256591

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

Bushfire

Completed Planned Burn

Legend: Cadastral Parcels

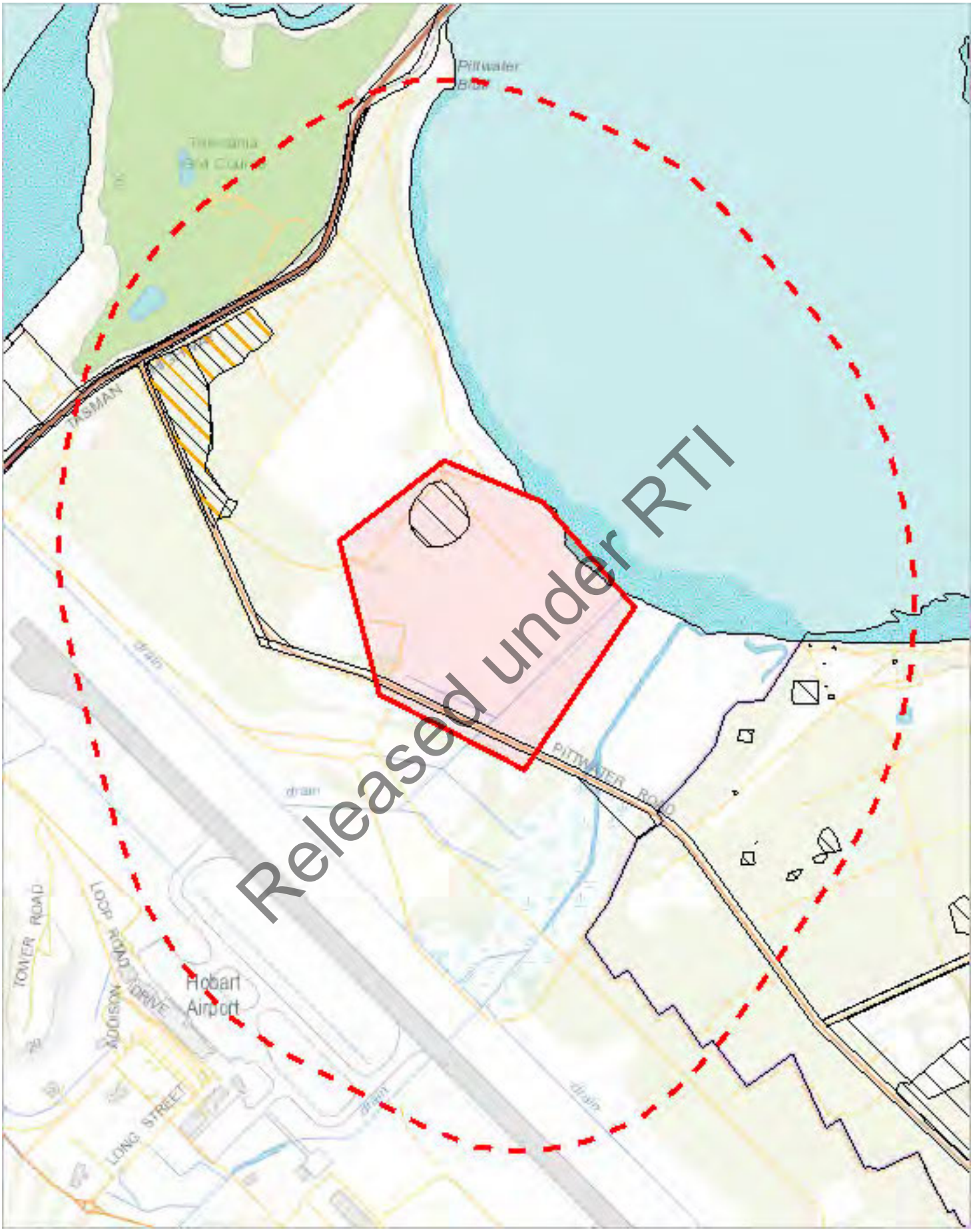
Fire History (All) within 1000 metres

Incident Number	Fire Name	Ignition Date	Fire Type	Ignition Cause	Fire Area (HA)
128474	Five Mile Beach Toilets	29-Nov-2006	Bushfire	Undetermined	0.39265602
139045	Pittwater Road #1	18-Oct-2007	Bushfire	Undetermined	0.12623585
139142	Pittwater Road #2	20-Oct-2007	Bushfire	Undetermined	0.25725026
146567	Five Mile Beach	14-Aug-2007	Bushfire	Deliberate	0.09137862
1600	Five Mile Beach	05-Apr-2000	Bushfire	Undetermined	0.10649284
168432	Sloping Island	25-Feb-2010	Bushfire	Accidental	0.00273138
198349	Five Mile Beach Campfire	01-Oct-2012	Bushfire	Accidental	0.00735204
21019250	Seven Mile Beach Public Reserve campfire	02-Jan-2021	Bushfire	Accidental	4.202E-5
22009975	Tasman Highway	12-Mar-2022	Bushfire	Undetermined	1.94168046
236059	Five Mile Rd, Pittwater	15-Jan-2016	Bushfire	Accidental	0.00664179
258561	Pittwater Rd, Seven Mile Beach	15-Jan-2018	Bushfire	Deliberate	1.5201E-4
600358	Seven Mile Beach Car Fire	27-May-2012	Bushfire	Deliberate	0.00105209
600359	Seven Mile Beach	11-Jun-2012	Bushfire	Accidental	0.00129971
600368	Five Mile Beach	28-Sep-2012	Bushfire	Deliberate	0.00110187
600423	5 Mile Beach Carpark	23-Jun-2013	Bushfire	Deliberate	0.01013942
600439	5 Mile Beach	07-Apr-2014	Bushfire	Deliberate	3.0E-8
600452	Seven Mile Beach - Pine Plantation	27-Jun-2014	Bushfire	Accidental	0.00133232
600545	5 Mile Beach Carpark	29-Nov-2015	Bushfire	Accidental	4.462E-5
	Cambridge	28-Apr-2015	Planned Burn	Planned Burn	4.15099197
	Milford Planned Burn	21-Apr-2009	Planned Burn	Planned Burn	5.84659346

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

543416, 5259806



540858, 5256591

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

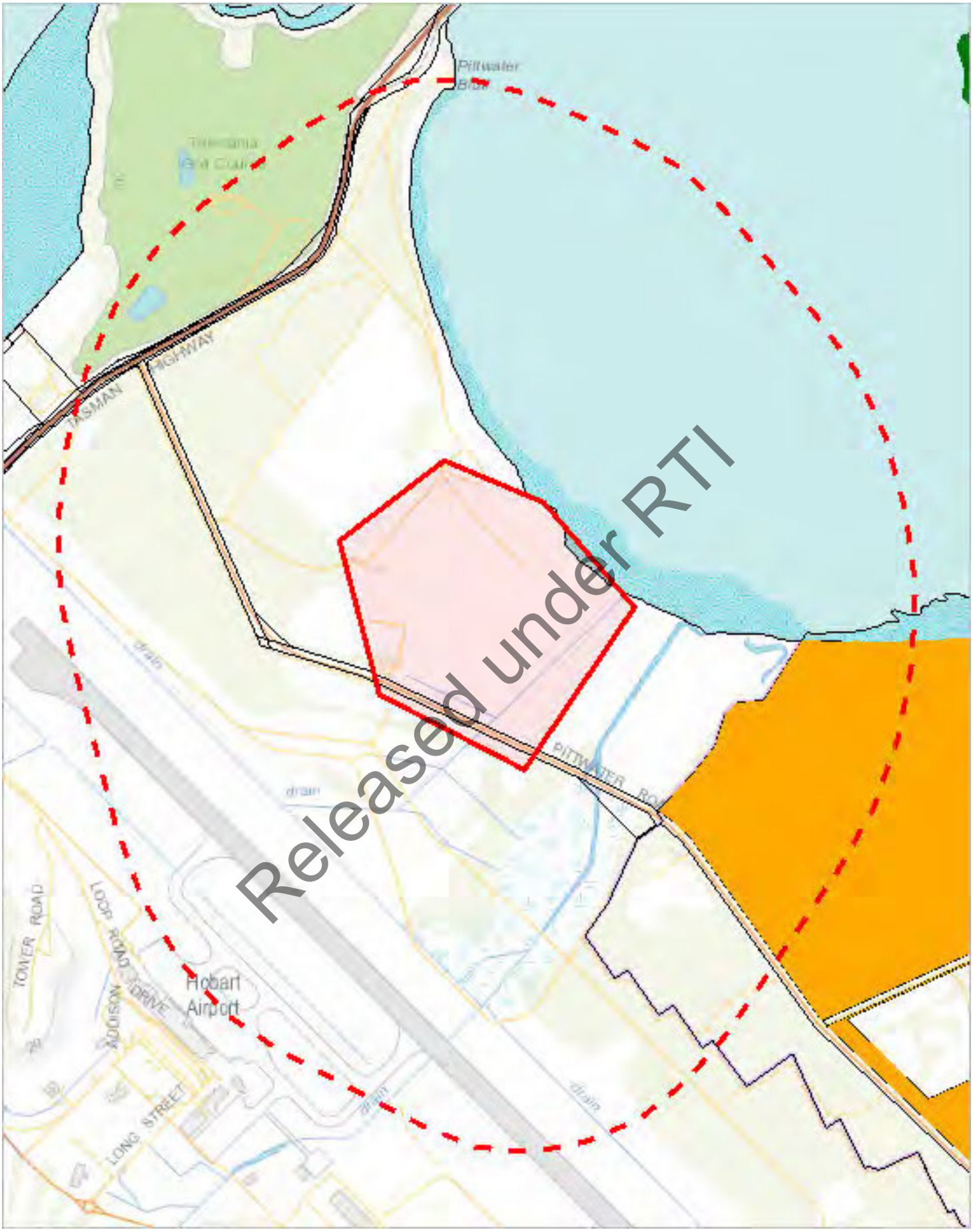
Fire History (Last Burnt) within 1000 metres

Incident Number	Fire Name	Ignition Date	Fire Type	Ignition Cause	Fire Area (HA)
128474	Five Mile Beach Toilets	29-Nov-2006	Bushfire	Undetermined	0.39265602
139045	Pittwater Road #1	18-Oct-2007	Bushfire	Undetermined	0.12623585
139142	Pittwater Road #2	20-Oct-2007	Bushfire	Undetermined	0.25725026
146567	Five Mile Beach	14-Aug-2007	Bushfire	Deliberate	0.09137862
1600	Five Mile Beach	05-Apr-2000	Bushfire	Undetermined	0.10649284
168432	Sloping Island	25-Feb-2010	Bushfire	Accidental	0.00273138
198349	Five Mile Beach Campfire	01-Oct-2012	Bushfire	Accidental	0.00735204
21019250	Seven Mile Beach Public Reserve campfire	02-Jan-2021	Bushfire	Accidental	4.202E-5
22009975	Tasman Highway	12-Mar-2022	Bushfire	Undetermined	1.94168046
236059	Five Mile Rd, Pittwater	15-Jan-2016	Bushfire	Accidental	0.00664179
258561	Pittwater Rd, Seven Mile Beach	15-Jan-2018	Bushfire	Deliberate	1.5201E-4
600358	Seven Mile Beach Car Fire	27-May-2012	Bushfire	Deliberate	0.00105209
600359	Seven Mile Beach	11-Jun-2012	Bushfire	Accidental	0.00129971
600368	Five Mile Beach	28-Sep-2012	Bushfire	Deliberate	0.00110187
600423	5 Mile Beach Carpark	23-Jun-2013	Bushfire	Deliberate	0.01013942
600452	Seven Mile Beach - Pine Plantation	27-Jun-2014	Bushfire	Accidental	0.00133232
600545	5 Mile Beach Carpark	29-Nov-2015	Bushfire	Accidental	4.462E-5
	Cambridge	28-Apr-2015	Planned Burn	Planned Burn	4.15099197
	Milford Planned Burn	21-Apr-2009	Planned Burn	Planned Burn	5.84659346

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

543416, 5259806



540858, 5256591

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
- Roadside Conservation Site
- Conservation Covenant (NCA)
- Private Nature Reserve and Conservation Covenant (NCA)
- Private Sanctuary and Conservation Covenant (NCA)
- Private Sanctuary
- Private land within WHA
- Management Agreement
- Stewardship Agreement
- Part 5 Agreement (Meander Dam Offset)
- Other Private Reserve

Legend: Cadastral Parcels

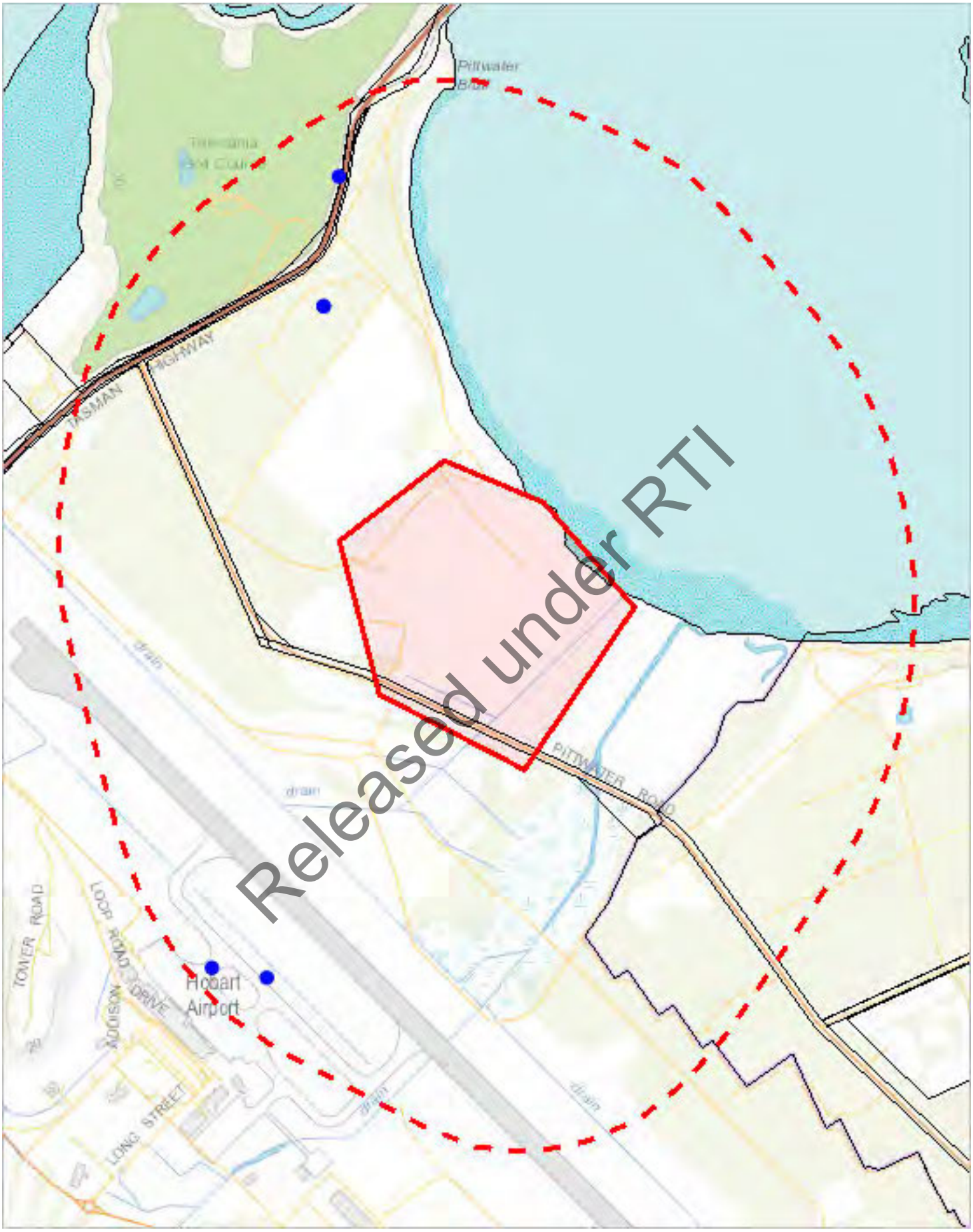
Reserves within 1000 metres

Name	Classification	Status	Area (HA)
	Informal Reserve on other public land	Informal Reserve	159.373918855

For more information about the Tasmanian Reserve Estate, please contact the Natural Values Science Services Branch.
Email: LandManagement.Enquiries@nre.tas.gov.au
Address: GPO Box 44, Hobart, Tasmania, Australia, 7000

Known biosecurity risks within 1000 meters

543416, 5259806



540858, 5256591

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

Species Name	Common Name	Prescription	Observation Count	Last Recorded
Batrachochytrium dendrobatidis	chytrid fungus		1	01-Jan-1932
Physcomitrium pyriforme	common bladder-moss		2	27-Sep-1986
Phytophthora cinnamomi	root rot or water mould		1	15-Nov-1977
Rattus rattus	black rat		1	05-Dec-1986

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 https://www.nre.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 https://www.nre.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 https://www.nre.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

ATTACHMENT B. EPBC ACT PROTECTED MATTERS SEARCH TOOL (PMST) REPORT

Australian Government

Department of Climate Change, Energy, the Environment and Water

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. Please see the caveat for interpretation of information provided here.

Report created: 29-Mar-2024

Summary

Matters of National Environment 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 (Ramsar	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	2
Listed Threatened Species:	68
Listed Migratory Species:	49

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 https://www.dcceew.gov.au/parks-heritage/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 Lands:	1
Commonwealth Heritage Places:	1
Listed Marine Species:	70
Whales and Other Cetaceans:	9
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

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

State and Territory Reserves:	None
Regional Forest Agreements:	1
Nationally Important Wetlands:	None
EPBC Act Referrals:	7
Key Ecological Features (Marine):	None
Biologically Important Areas:	6
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar Wetlands) [Resource Information]

Ramsar Site Name	Proximity	Buffer Status
Pitt water-orielton lagoon	Within Ramsar site	In feature area

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.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
Tasmanian Forests and Woodlands dominated by black gum or Brookers gum (Eucalyptus ovata / E. brookeriana)	Critically Endangered	Community likely to occur within area	In feature area
Tasmanian white gum (Eucalyptus viminalis) wet forest	Critically Endangered	Community may occur within area	In feature area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Aquila audax fleayi Tasmanian Wedge-tailed Eagle, Wedge-tailed Eagle (Tasmanian) [64435]	Endangered	Species or species habitat likely to occur within area	In feature area
Ardenna grisea Sooty Shearwater [82651]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Arenaria interpres Ruddy Turnstone [872]	Vulnerable	Species or species habitat known to occur within area	In feature area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Calidris canutus](#) Red Knot, Knot [855]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Calidris ferruginea](#) Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area	In feature area
[Calidris tenuirostris](#) Great Knot [862]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Charadrius mongolus](#) Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area	In feature area
[Diomedea antipodensis](#) Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Diomedea antipodensis gibsoni](#) Gibson's Albatross [82270]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Diomedea epomophora](#) Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Diomedea exulans](#) Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Diomedea sanfordi](#) Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
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	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Breeding known to occur within area	In feature area
Limosa lapponica baueri Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit [86380]	Endangered	Species or species habitat known to occur within area	In feature area
Limosa limosa Black-tailed Godwit [845]	Endangered	Species or species habitat known to occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pardalotus quadragintus Forty-spotted Pardalote [418]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Pluvialis squatarola Grey Plover [865]	Vulnerable	Species or species habitat known to occur within area	In feature area
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area	In feature area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Breeding likely to occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Thinornis cucullatus cucullatus Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered	Species or species habitat known to occur within area	In feature area
Tyto novaehollandiae castanops (Tasmanian population) Masked Owl (Tasmanian) [67051]	Vulnerable	Breeding known to occur within area	In feature area
Xenus cinereus Terek Sandpiper [59300]	Vulnerable	Species or species habitat known to occur within area	In feature area
FISH			
Brachionichthys hirsutus Spotted Handfish [64418]	Critically Endangered	Species or species habitat may occur within area	In feature area
Prototroctes maraena Australian Grayling [26179]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Seriolella brama Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area	In feature area
Thunnus maccoyii Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Thymichthys politus](#) Red Handfish [83756]	Critically Endangered	Species or species habitat known to occur within area	In feature area
FROG			
[Litoria raniformis](#) Southern Bell Frog,, Growling Grass Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog [1828]	Vulnerable	Species or species habitat likely to occur within area	In feature area
INSECT			
[Antipodia chaostola leucophaea](#) Tasmanian Chaostola Skipper, Heath-sand Skipper [77672]	Endangered	Species or species habitat may occur within area	In feature area
MAMMAL			
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In feature area
[Dasyurus maculatus maculatus (Tasmanian population)](#) Spotted-tail Quoll, Spot-tailed Quoll, Tiger Quoll (Tasmanian population) [75183]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Dasyurus viverrinus](#) Eastern Quoll, Luaner [333]	Endangered	Species or species habitat may occur within area	In buffer area only
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
[Perameles gunnii gunnii](#) Eastern Barred Bandicoot (Tasmania) [66651]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Sarcophilus harrisii](#) Tasmanian Devil [299]	Endangered	Species or species habitat likely to occur within area	In feature area
PLANT			
[Caladenia caudata](#) Tailed Spider-orchid [17067]	Vulnerable	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Caladenia saggicola](#) Sagg Spider-orchid [64859]	Critically Endangered	Species or species habitat known to occur within area	In feature area
[Dianella amoena](#) Matted Flax-lily [64886]	Endangered	Species or species habitat known to occur within area	In feature area
[Glycine latrobeana](#) Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Lepidium hyssopifolium](#) Basalt Pepper-cress, Peppercress, Rubble Pepper-cress, Pepperweed [16542]	Endangered	Species or species habitat likely to occur within area	In feature area
[Leucochrysum albicans subsp. tricolor](#) Hoary Sunray, Grassland Paper-daisy [89104]	Endangered	Species or species habitat may occur within area	In feature area
[Prasophyllum apoxychilum](#) Tapered Leek-orchid [64947]	Endangered	Species or species habitat may occur within area	In buffer area only
[Prasophyllum castaneum](#) Chestnut Leek-orchid [64948]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
[Prasophyllum milfordense](#) Milford Leek-orchid [64950]	Critically Endangered	Species or species habitat known to occur within area	In feature area
[Pterostylis ziegeleri](#) Grassland Greenhood, Cape Portland Greenhood [64971]	Vulnerable	Species or species habitat may occur within area	In feature area
[Xerochrysum palustre](#) Swamp Everlasting, Swamp Paper Daisy [76215]	Vulnerable	Species or species habitat known to occur within area	In feature area
SEASTAR			
[Parvulastra vivipara](#) Tasmanian Live-bearing Seastar [85451]	Vulnerable	Species or species habitat known to occur within area	In feature area
SHARK			

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Carcharodon carcharias](#) White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In feature area

Listed Migratory Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
[Apus pacificus](#) Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
[Ardenna carneipes](#) Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
[Ardenna grisea](#) Sooty Shearwater [82651]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Diomedea antipodensis](#) Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Diomedea epomophora](#) Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Diomedea exulans](#) Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Diomedea sanfordi](#) Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Macronectes giganteus](#) Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Macronectes halli](#) Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche bulleri](#) Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche carteri](#) Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Thalassarche cauta](#) Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche chrysostoma](#) Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
[Thalassarche impavida](#) Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche melanophris](#) Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche salvini](#) Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche steadi](#) White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Migratory Marine Species			
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Caperea marginata](#) Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
[Carcharodon carcharias](#) White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Eubalaena australis as Balaena glacialis australis](#) Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
[Lagenorhynchus obscurus](#) Dusky Dolphin [43]		Species or species habitat may occur within area	In feature area
[Lamna nasus](#) Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area	In feature area
[Megaptera novaeangliae](#) Humpback Whale [38]		Foraging, feeding or related behaviour known to occur within area	In buffer area only
Migratory Terrestrial Species			
[Hirundapus caudacutus](#) White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Myiagra cyanoleuca](#) Satin Flycatcher [612]		Species or species habitat known to occur within area	In feature area
Migratory Wetlands Species			
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
[Arenaria interpres](#) Ruddy Turnstone [872]	Vulnerable	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Calidris alba](#) Sanderling [875]		Species or species habitat known to occur within area	In feature area
[Calidris canutus](#) Red Knot, Knot [855]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Calidris ferruginea](#) Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area	In feature area
[Calidris melanotos](#) Pectoral Sandpiper [858]		Species or species habitat known to occur within area	In feature area
[Calidris ruficollis](#) Red-necked Stint [860]		Species or species habitat known to occur within area	In feature area
[Calidris tenuirostris](#) Great Knot [862]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Charadrius bicinctus](#) Double-banded Plover [895]		Species or species habitat known to occur within area	In feature area
[Charadrius mongolus](#) Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area	In feature area
[Charadrius veredus](#) Oriental Plover, Oriental Dotterel [882]		Species or species habitat known to occur within area	In feature area
[Gallinago hardwickii](#) Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In feature area
Limosa limosa Black-tailed Godwit [845]	Endangered	Species or species habitat known to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Numenius phaeopus Whimbrel [849]		Species or species habitat known to occur within area	In feature area
Philomachus pugnax Ruff (Reeve) [850]		Species or species habitat known to occur within area	In feature area
Pluvialis fulva Pacific Golden Plover [25545]		Species or species habitat known to occur within area	In feature area
Pluvialis squatarola Grey Plover [865]	Vulnerable	Species or species habitat known to occur within area	In feature area
Tringa brevipes Grey-tailed Tattler [851]		Species or species habitat known to occur within area	In feature area
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered	Species or species habitat known to occur within area	In feature area
Xenus cinereus Terek Sandpiper [59300]	Vulnerable	Species or species habitat known to occur within area	In feature area

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State	Buffer Status
Unknown		
Commonwealth Land - [60352]	TAS	In feature area

Commonwealth Heritage Places [Resource Information]

Name	State	Status	Buffer Status
Historic			
Hobart Airport Air Traffic Control Tower	TAS	Listed place	In buffer area only

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Ardenna carneipes as Puffinus carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea as Puffinus griseus			
Sooty Shearwater [82651]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Arenaria interpres			
Ruddy Turnstone [872]	Vulnerable	Species or species habitat known to occur within area	In feature area
Bubulcus ibis as Ardea ibis			
Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat known to occur within area	In feature area
Calidris alba Sanderling [875]		Species or species habitat known to occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area overfly marine area	In feature area
Calidris ruficollis Red-necked Stint [860]		Species or species habitat known to occur within area overfly marine area	In feature area
Calidris tenuirostris Great Knot [862]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
Charadrius bicinctus Double-banded Plover [895]		Species or species habitat known to occur within area overfly marine area	In feature area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area	In feature area
Charadrius ruficapillus Red-capped Plover [881]		Species or species habitat known to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat known to occur within area overfly marine area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea antipodensis gibsoni as Diomedea gibsoni Gibson's Albatross [82270]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat likely to occur within area overfly marine area	In feature area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area	In feature area
Himantopus himantopus Pied Stilt, Black-winged Stilt [870]		Species or species habitat known to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Breeding known to occur within area overfly marine area	In feature area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In feature area
Limosa limosa Black-tailed Godwit [845]	Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area overfly marine area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Numenius phaeopus Whimbrel [849]		Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Pachyptila turtur](#) Fairy Prion [1066]		Species or species habitat known to occur within area	In feature area
[Philomachus pugnax](#) Ruff (Reeve) [850]		Species or species habitat known to occur within area overfly marine area	In feature area
[Pluvialis fulva](#) Pacific Golden Plover [25545]		Species or species habitat known to occur within area	In feature area
[Pluvialis squatarola](#) Grey Plover [865]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
[Recurvirostra novaehollandiae](#) Red-necked Avocet [871]		Species or species habitat known to occur within area overfly marine area	In feature area
[Sterna striata](#) White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche bulleri](#) Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche bulleri platei as Thalassarche sp. nov.](#) Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche carteri](#) Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Thalassarche cauta](#) Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Thinornis cucullatus as Thinornis rubricollis Hooded Plover, Hooded Dotterel [87735]		Species or species habitat known to occur within area overfly marine area	In buffer area only
Thinornis cucullatus cucullatus as Thinornis rubricollis rubricollis Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In buffer area only
Tringa brevipes as Heteroscelus brevipes Grey-tailed Tattler [851]		Species or species habitat known to occur within area	In feature area
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
Xenus cinereus Terek Sandpiper [59300]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Fish			
Hippocampus abdominalis Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area	In feature area
Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area	In feature area
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area	In feature area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area	In feature area
Mitotichthys mollisoni Mollison's Pipefish [66260]		Species or species habitat may occur within area	In feature area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area	In feature area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area	In feature area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area	In feature area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area	In feature area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area	In feature area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Urocampus carinirostris](#) Hairy Pipefish [66282]		Species or species habitat may occur within area	In feature area
[Vanacampus phillipi](#) Port Phillip Pipefish [66284]		Species or species habitat may occur within area	In feature area
Mammal			
[Arctocephalus forsteri](#) Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area	In feature area
[Arctocephalus pusillus](#) Australian Fur-seal, Australo-African Fur-seal [21]		Species or species habitat may occur within area	In feature area

Whales and Other Cetaceans [Resource Information]

Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
[Balaenoptera acutorostrata](#) Minke Whale [33]		Species or species habitat may occur within area	In feature area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In feature area
[Caperea marginata](#) Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
[Delphinus delphis](#) Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In feature area
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
[Grampus griseus](#) Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat may occur within area	In feature area
Megaptera novaeangliae Humpback Whale [38]		Foraging, feeding or related behaviour known to occur within area	In buffer area only
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In feature area

Extra Information

Regional Forest Agreements [Resource Information]

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

RFA Name	State	Buffer Status
Tasmania RFA	Tasmania	In feature area

EPBC Act Referrals [Resource Information]

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
Sorell Causeway Bridge	2000/42	Controlled Action	Post-Approval	In buffer area only
Tasman Highway Upgrade ??? Hobart Airport to Sorell Causeway	2020/8805	Controlled Action	Further Information Request	In buffer area only
Not controlled action				
Construction of a new wastewater treatment plant	2006/3010	Not Controlled Action	Completed	In feature area
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area
Industry/commercial precinct between Kennedy Rd and Tasman Hwy	2006/2557	Not Controlled Action	Completed	In feature area
Relocation of Oyster Lease Areas	2003/1269	Not Controlled Action	Completed	In buffer area only
Not controlled action (particular manner)				

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
Coal River Valley water recycling scheme	2002/898	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only

Biologically Important Areas			[Resource Information]
Scientific Name	Behaviour	Presence	Buffer Status
Seabirds			
Ardenna grisea Sooty Shearwater [82651]	Foraging	Known to occur	In feature area
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Known to occur	In feature area
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur	In feature area
Pterodroma mollis Soft-plumaged Petrel [1036]	Foraging	Known to occur	In feature area
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur	In feature area
Whales			
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging	Likely to be present	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and 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

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

Where little information is available for a 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 detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

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

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

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

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

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.

Department of Climate Change, Energy, the Environment and Water
GPO Box 3090
Canberra ACT 2601 Australia
+61 2 6274 1111

ATTACHMENT C. ASSESSMENT OF FLORA AND FAUNA SPECIES IN SURVEY AREA

Table C.1 provides a listing of threatened flora identified in the NVA (**Attachment A)** with comments on whether potential habitat is present for the species, and possible reasons why a species was not recorded.

Table C.1. Threatened flora species assessed based on observations/predicted occurrences.

Species listed below are listed as rare (r), vulnerable (v), endangered (e), or extinct (x) on the Tasmanian *Threatened Species Protection Act 1995* (TSPA).

Species	Common Name	TSP Act	Comments
Aphelia gracilis	slender fanwort	r	Annual species, often persists after flowering, not observed.
Bolboschoenus caldwellii	sea clubsedge	r	Potential habitat near Pitt Water Road, perennial species, unlikely to have been overlooked.
Caladenia caudata	tailed spider-orchid	v	No suitable habitat present.
Caladenia patersonii	patersons spider-orchid	v	No suitable habitat present.
Caladenia saggicola	sagg spider-orchid	e	No suitable habitat present.
Calocephalus citreus	lemon beautyheads	r	Perennial groundcover, unlikely to have been overlooked.
Coronidium gunnianum	swamp everlasting	?e	No suitable habitat present.
Cotula vulgaris var. *australasica*	slender buttons	r	No suitable habitat present.
Craspedia paludicola	swamp billybuttons	?r	No suitable habitat present.
Dianella amoena	grassland flaxlily	r	Potential habitat near Pitt Water Road, perennial species, unlikely to have been overlooked.
Eutaxia microphylla	spiny bushpea	r	No suitable habitat present.
Haloragis heterophylla	variable raspwort	r	Potential habitat near Pitt Water Road, perennial species, unlikely to have been overlooked.
Juncus vaginatus	clustered rush	r	Potential habitat near Pitt Water Road, perennial species, unlikely to have been overlooked.
Lachnagrostis robusta	tall blowngrass	r	Potential habitat near Pitt Water Road, perennial species, unlikely to have been overlooked.
Lachnagrostis semibarbata var. *filifolia*	narrowleaf blowngrass	r	Potential habitat near Pitt Water Road, perennial species, unlikely to have been overlooked.
Limonium australe var. *australe*	yellow sea-lavender	r	No suitable habitat (saltmarsh or wetlands) present.
Lobelia pratioides	poison lobelia	v	No suitable habitat present.
Myriophyllum integrifolium	tiny watermilfoil	v	No suitable habitat (wetlands) present.
Prasophyllum milfordense	milford leek-orchid	e	No suitable habitat present.
Ranunculus pumilio var. *pumilio*	ferny buttercup	r	No suitable habitat (wetlands) present.

Senecio squarrosus	leafy fireweed	r	No suitable habitat present.
Stuckenia pectinata	fennel pondweed	r	No suitable habitat present.
Stylidium despectum	small triggerplant	r	No suitable habitat present.
Triglochin minutissima	tiny arrowgrass	r	No suitable habitat (wetlands) present.
Vittadinia cuneata var. *cuneata*	fuzzy new-holland-daisy	r	Marginal habitat is present in shelterbelt near Pitt Water Road. Annual (sometimes perennial) species. If present but has died back, old flowerheads are often present. Not observed.
Vittadinia gracilis	woolly new-holland-daisy	r	Marginal habitat is present in shelterbelt near Pitt Water Road. Annual (sometimes perennial) species. If present but has died back, old flowerheads are often present. Not observed.
Vittadinia muelleri	narrowleaf new-holland-daisy	r	Marginal habitat is present in shelterbelt near Pitt Water Road. Annual (sometimes perennial) species. If present but has died back, old flowerheads are often present. Not observed.
Vittadinia muelleri (broad sense)	narrow leaf new holland daisy	p	Marginal habitat is present in shelterbelt near Pitt Water Road. Annual (sometimes perennial) species. If present but has died back, old flowerheads are often present. Not observed.
Wilsonia humilis	silky wilsonia	r	Habitat present (in association with *W. rotundifolia*) unlikely to have been overlooked.
Wilsonia rotundifolia	roundleaf wilsonia	r	Observed in Survey Area.
Xerochrysum bicolor	eastcoast paperdaisy	r	No suitable habitat present.
Xerochrysum palustre	swamp paperdaisy	v	No suitable habitat present.

Table C.2 provides a listing of threatened fauna species identified in the NVA (**Attachment A)** with comments on whether potential habitat is present for the species.

Table C.2. Threatened fauna species assessed based on observations/predicted occurrences.

Species listed below are listed as rare (r), vulnerable (v), endangered (e), or extinct (x) on the Tasmanian *Threatened Species Protection Act 1995* (TSP Act).

Species	Common Name	TSP Act	Comments
Accipiter novaehollandiae	grey goshawk	e	No nesting or foraging habitat present.
Amelora acontistica	chevron looper moth	v	No native vegetation present.
Antechinus vandycki	Tasman Peninsula Dusky Antechinus	v	No suitable habitat present.
Aquila audax subsp. *fleayi*	tasmanian wedge-tailed eagle	e	No nests or nesting habitat present.
Arctocephalus forsteri subsp. *doriferus*	new zealand fur seal	r	Marine species, no habitat present.
Arctocephalus tropicalis	sub-antarctic fur seal	e	Marine species, no habitat present.
Brachionichthys hirsutus	spotted handfish	e	Marine species, no habitat present.
Dasybela achroa	saltmarsh looper moth	v	No saltmarsh or 'coastal vegetation' present.
Dasyurus maculatus maculatus	spotted-tailed quoll	r	No denning habitat present, foraging and movement habitat present.
Eubalaena australis	southern right whale	e	Marine species, no habitat present.
Gazameda gunnii	Gunn's screw shell	v	Marine species, no habitat present.
Haliaeetus leucogaster	white-bellied sea-eagle	v	No nests or nesting habitat present.
Lathamus discolor	swift parrot	e	No nesting or foraging habitat present.
Megaptera novaeangliae	humpback whale	e	Marine species, no habitat present.
Mirounga leonina	southern elephant seal	e	Marine species, no habitat present.
Numenius madagascariensis	eastern curlew	e	No wetland or saltmarsh habitat present.
Pardalotus quadragintus	forty-spotted pardalote	e	No forest or woodland habitat present.
Parvulastra vivipara	live-bearing seastar	e	Marine species, no habitat present.
Podiceps cristatus	great crested grebe	v	No wetland habitat present.
Pseudemoia pagenstecheri	tussock skink	v	No *Poa* grassland or forest/woodland with a *Poa* dominated understorey present.
Pterodroma lessonii	white-headed petrel	v	Pelagic species, no suitable habitat present.

Sarcophilus harrisii	tasmanian devil	e	No denning habitat present, foraging and movement habitat present.
Sternula nereis subsp. *nereis*	fairy tern	v	No habitat present.
Theclinesthes serpentatus lavara	Chequered Blue	r	Food plants (*Atriplex, Einadia, Rhagodia*) observed in a small area at Pitt Water Road.
Thymichthys politus	red handfish	e	Marine species, no habitat present.
Tyto novaehollandiae subsp. *castanops*	masked owl (Tasmanian)	e	No nesting habitat present. Foraging habitat present.

ATTACHMENT D: *WILSONIA ROTUNDIFOLIA* (ROUND-LEAF WILSONIA) NOTESHEET

Wilsonia rotundifolia

Wilsonia rotundifolia. H&A Wapstra.

FAMILY: CONVOLVULACEAE

BOTANICAL NAME: *Wilsonia rotundifolia*, Hook., *Icon. Pl.* 5: t.410 (1842)

COMMON NAME: Round leaf wilsonia

COMMONWEALTH STATUS: (*EPBC Act*) Not Listed

TASMANIAN STATUS: (*TSP Act*) rare

Description

A small, perennial shrub with low growing, branching and mat forming stems. **Leaves:** The leaves are arranged alternately along the stem and are round or ovate (between 1.5-4 mm long). They have short stalks and are thick and sparsely covered with hairs, which fall from the adult leaves. **Flowers:** The flowers are yellow or white and tubular with spreading lobes. Flowering is from spring to early summer. **Fruit:** The fruit is a single-celled capsule that is oval in shape and contains one black seed (description from Cunningham *et al.* 1992). Herbarium specimens have been collected from September to March.

Distribution and Habitat

On the mainland this species occurs in South Australia, New South Wales and Victoria. In Tasmania, *Wilsonia rotundifolia* is found in coastal and inland salt marshes in the eastern part of the State.

Key Sites and Populations

Key sites include Tregaron Lagoons, Freshwater Lagoon, Flyover Lagoon 1, Flyover Lagoon 2, Little Thirsty Lagoon, Stans Lagoon, Calverts Lagoon, Derwent River, Township Lagoon, and unnamed wetlands BEN009TA, BEN010TA, BEN011TA, BEN013TA and FUR013TA.

Known Reserves

Reserved in Calverts Lagoon Conservation Area, Cape Portland Private Sanctuary, Clarke Island Nature Reserve, Moulting Lagoon Game Reserve, Seven Mile Beach Protected Area, Township Lagoon Nature Reserve and the Waterhouse Conservation Area.

Ecology and Management

This species is naturally fire protected due to its salt marsh habitat.

Conservation Status Assessment

There is no immediate need for reassessment of *Wilsonia rotundifolia*.

Further Information

- Cunningham, GM, Mulham, W, Milthorpe, P & Leigh, J 1992, *Plants of Western New South Wales*, Inkata Press, Sydney.
- Kirkpatrick, JB, Barker, P, Brown, MJ, Harris, S & Mackie, R 1994, *The Reservation Status of Tasmanian Vascular Plant Communities*, Tasmanian Conservation Trust Incorporated, Hobart.

Tasmanian Distribution

(As per Threatened Species Unit records, June 2003)

1:25 000 Map Sheets

Bell Bay, Carlton, Communication, Conara, Cranbrook, Ellinthorp, Jacobs, Lyme Regis, Patriarchs, Preservation, Puncheon, Sellars, Tunbridge, Waterhouse.

Date last modified: 01/09/03

ATTACHMENT E: OVERVIEW ASSESSMENT OF MNES AND OTHER EPBC ACT PROTECTED MATTERS

ATTACHMENT E

Overview Assessment of MNES and Other EPBC Act Protected Matters

MNES (and other matters protected by the Act)	Description of MNES identified in PMST Report	Potential or Likely Significant Impact	Comments
World Heritage Properties			
0	Nil identified in PMST report	No	None identified.
National Heritage Places			
0	Nil identified in PMST report	No	None identified
Wetlands of International Importance (Ramsar)			
0	Nil identified in PMST report	No	None identified.
Great Barrier Reef Marine Park			
None	Nil identified in PMST report	No	None identified.
Commonwealth Marine Area			
None	Nil identified in PMST report	No	None identified.
Listed Threatened Ecological Communities			
2	▪ Tasmanian Forests and Woodlands dominated by black gum or Brooker's gum (*Eucalyptus ovata / E. brookeriana*) ▪ Tasmanian white gum (*Eucalyptus viminalis*) wet forest.	No	No native forest and woodland communities are present within the Survey Area.
Listed Threatened Species			
68	The following species were identified in the PMST Report. Those identified by blue highlight were specifically considered in the field assessments as habitat potentially suitable for their occupation and persistence may be present. Comments for those highlighted species are also provided in **Attachment F.** *Thunnus maccoyii* — Southern Bluefin Tuna *Seriolella brama* — Blue Warehou *Caladenia saggicola* — Sagg Spider-orchid *Numenius madagascariensis* — Eastern Curlew, Far Eastern Curlew *Prasophyllum castaneum* — Chestnut Leek-orchid *Prasophyllum milfordense* — Milford Leek-orchid *Brachionichthys hirsutus* — Spotted Handfish *Thymichthys politus* — Red Handfish *Lathamus discolor* — Swift Parrot	Further assessment is required for **some species** (those highlighted in blue). See **Attachment F**	Most listed species either have highly specialised habitat requirements which are absent from the Survey Area, are marine and/or terrestrial migratory, or are wetland species (wetlands are absent in the Survey Area, and the action is being taken inland of (and not within) the aquatic environment of the Pittwater – Orielton Lagoon RAMSAR site. There are no trees with hollows (of any form and size) in the area proposed for the action. The only trees present are planted (shelterbelt with mainly planted *E. viminalis*) and other coastal shrub species and trees including for example *Allocasuarina verticillata, Acacia mearnsii and A. sophorae*. There are no dens, nests or nesting and denning habitat for terrestrial mammals in the area proposed for the action. While the terrestrial mammal species may traverse the area, the intensity of use of the new property access is low, and simply replaces the existing use of the access to be decommissioned. There is no net increase in the number and type of vehicles that will enter the property. The additional traffic (for one residential property) that would occur on Pittwater Road is considered negligible to the existing use such that there would be no significant impact or risk to increased roadkill impacts.

	Calidris ferruginea	Curlew Sandpiper		
	Botaurus poiciloptilus	Australasian Bittern		
	Diomedea sanfordi	Northern Royal Albatross		
	Lepidium hyssopifolium	Basalt Pepper-cress		
	Tringa nebularia	Common Greenshank, Greenshank		
	Eubalaena australis	Southern Right Whale		
	Antipodia chaostola leucophaea	Tasmanian Chaostola Skipper		
	Pardalotus quadragintus	Forty-spotted Pardalote		
	Sarcophilus harrisii	Tasmanian Devil		
	Macronectes giganteus	Southern Giant-Petrel, Southern Giant Petrel		
	Thalassarche chrysostoma	Grey-headed Albatross		
	Prasophyllum apoxychilum	Tapered Leek-orchid		
	Limosa lapponica baueri	Nunivak Bar-tailed Godwit		
	Dianella amoena	Matted Flax-lily		
	Balaenoptera musculus	Blue Whale		
	Charadrius mongolus	Lesser Sand Plover, Mongolian Plover		
	Thalassarche cauta	Shy Albatross		
	Leucochrysum albicans subsp. *tricolor*	Hoary Sunray, Grassland Paper-daisy		
	Limosa limosa	Black-tailed Godwit		
	Pterodroma leucoptera leucoptera	Gould's Petrel, Australian Gould's Petrel		
	Dasyurus viverrinus	Eastern Quoll, Luaner		
	Aquila audax fleayi	Tasmanian Wedge-tailed Eagle		
	Perameles gunnii gunnii	Eastern Barred Bandicoot (Tasmania)		
	Thinornis cucullatus cucullatus	Eastern Hooded Plover		
	Thalassarche impavida	Campbell Albatross		
	Diomedea antipodensis	Antipodean Albatross		
	Glycine latrobeana	Clover Glycine, Purple Clover		
	Xenus cinereus	Terek Sandpiper		
	Pachyptila turtur subantarctica	Fairy Prion (southern)		
	Carcharodon carcharias	White Shark, Great White Shark		
	Prototroctes maraena	Australian Grayling		
	Pterostylis ziegeleri	Grassland Greenhood		
	Xerochrysum palustre	Swamp Everlasting, Swamp Paper Daisy		
	Thalassarche melanophris	Black-browed Albatross		
	Macronectes halli	Northern Giant Petrel		
	Litoria raniformis	Southern Bell Frog		
	Diomedea antipodensis gibsoni	Gibson's Albatross		
	Thalassarche carteri	Indian Yellow-nosed Albatross		
	Thalassarche steadi	White-capped Albatross		
	Thalassarche salvini	Salvin's Albatross		
	Thalassarche bulleri	Buller's Albatross, Pacific Albatross		
	Thalassarche bulleri platei	Northern Buller's Albatross, Pacific Albatross		
	Fregetta grallaria grallaria	White-bellied Storm-Petrel (Tasman Sea)		
	Hirundapus caudacutus	White-throated Needletail		
	Tyto novaehollandiae castanops	Masked Owl (Tasmanian)		

	(Tasmanian population)			
	Caladenia caudata	Tailed Spider-orchid		
	Arenaria interpres	Ruddy Turnstone		
	Calidris acuminata	Sharp-tailed Sandpiper		
	Parvulastra vivipara	Tasmanian Live-bearing Seastar		
	Diomedea exulans	Wandering Albatross		
	Ardenna grisea	Sooty Shearwater		
	Diomedea epomophora	Southern Royal Albatross		
	Gallinago hardwickii	Latham's Snipe, Japanese Snipe		
	Calidris tenuirostris	Great Knot		
	Pluvialis squatarola	Grey Plover		
	Neophema chrysostoma	Blue-winged Parrot		
	Dasyurus maculatus maculatus (Tasmanian population)	Spotted-tail Quoll		
	Sternula nereis nereis	Australian Fairy Tern		
	Calidris canutus	Red Knot, Knot		
Listed Migratory Species				
49	The following species were identified in the PMST Report. Those identified by blue highlight were specifically considered in the field assessments as habitat potentially suitable for their occupation and persistence may be present. Comments for those highlighted species are also provided in **Attachment F.**		No	The listed species either have highly specialised habitat requirements which are absent from the Survey Area, are marine and/or terrestrial migratory, or are wetland species (wetlands are absent in the Survey Area, and the action is being taken inland of (and not within) the aquatic environment of the Pittwater – Orielton Lagoon RAMSAR site.
	Caperea marginata	Pygmy Right Whale		
	Limosa lapponica	Bar-tailed Godwit		
	Thalassarche impavida	Campbell Albatross		
	Diomedea antipodensis	Antipodean Albatross		
	Diomedea sanfordi	Northern Royal Albatross		
	Tringa nebularia	Common Greenshank, Greenshank		
	Actitis hypoleucos	Common Sandpiper		
	Xenus cinereus	Terek Sandpiper		
	Eubalaena australis	Southern Right Whale		
	Carcharodon carcharias	White Shark, Great White Shark		
	Numenius madagascariensis	Eastern Curlew, Far Eastern Curlew		
	Apus pacificus	Fork-tailed Swift		
	Thalassarche melanophris	Black-browed Albatross		
	Macronectes halli	Northern Giant Petrel		
	Macronectes giganteus	Southern Giant-Petrel, Southern Giant Petrel		
	Pluvialis fulva	Pacific Golden Plover		
	Thalassarche chrysostoma	Grey-headed Albatross		
	Thalassarche carteri	Indian Yellow-nosed Albatross		
	Megaptera novaeangliae	Humpback Whale		
	Lamna nasus	Porbeagle, Mackerel Shark		
	Thalassarche steadi	White-capped Albatross		
	Thalassarche salvini	Salvin's Albatross		

	Thalassarche bulleri	Buller's Albatross, Pacific Albatross		
	Myiagra cyanoleuca	Satin Flycatcher		
	Charadrius bicinctus	Double-banded Plover		
	Balaenoptera musculus	Blue Whale		
	Hirundapus caudacutus	White-throated Needletail		
	Charadrius mongolus	Lesser Sand Plover, Mongolian Plover		
	Numenius phaeopus	Whimbrel		
	Arenaria interpres	Ruddy Turnstone		
	Lagenorhynchus obscurus	Dusky Dolphin		
	Calidris acuminata	Sharp-tailed Sandpiper		
	Calidris alba	Sanderling		
	Thalassarche cauta	Shy Albatross		
	Diomedea exulans	Wandering Albatross		
	Ardenna grisea	Sooty Shearwater		
	Diomedea epomophora	Southern Royal Albatross		
	Calidris ruficollis	Red-necked Stint		
	Gallinago hardwickii	Latham's Snipe, Japanese Snipe		
	Calidris tenuirostris	Great Knot		
	Pluvialis squatarola	Grey Plover		
	Charadrius veredus	Oriental Plover, Oriental Dotterel		
	Calidris melanotos	Pectoral Sandpiper		
	Ardenna carneipes	Flesh-footed Shearwater		
	Tringa brevipes	Grey-tailed Tattler		
	Philomachus pugnax	Ruff (Reeve)		
	Limosa limosa	Black-tailed Godwit		
	Calidris canutus	Red Knot, Knot		
	Calidris ferruginea	Curlew Sandpiper		
Commonwealth Land				
1	Unnamed site with the ID number 60352.		No	The location of these sites is not defined. The land is outside the assessed footprint and is in the PMST buffer area only, so any impact is unlikely to occur given the action is to simply install a new access road to a property.
Commonwealth Heritage Places				
1	One site identified by the PMST Report • Hobart Airport Air Traffic Control Tower		No	Historic heritage place at the Hobart International Airport. No impact is possible to the heritage place from the action.
Listed Marine Species				
70	The following species were identified in the PMST Report: *Limosa lapponica* — Bar-tailed Godwit *Thinornis cucullatus cucullatus* — Eastern Hooded Plover, Eastern Hooded Plover *Thalassarche impavida* — Campbell Albatross *Diomedea antipodensis* — Antipodean Albatross		No	The action is not taking place in the marine environment, nor is the action likely to cause any direct or indirect impacts to the marine (including habitat for terrestrial marine migratory species) environment. The scale and intensity of the action, which is simply to install a new access road across agricultural land, is very unlikely to cause any direct or indirect impact to any bord species that are listed as 'Marine Species'. There are already roads present, both on and off the private property including Pittwater Road.

	Diomedea sanfordi	Northern Royal Albatross		
	Tringa nebularia	Common Greenshank, Greenshank		
	Actitis hypoleucos	Common Sandpiper		
	Xenus cinereus	Terek Sandpiper		
	Sterna striata	White-fronted Tern		
	Stigmatopora argus	Spotted Pipefish, Gulf Pipefish, Peacock Pipefish		
	Arctocephalus forsteri	Long-nosed Fur-seal, New Zealand Fur-seal		
	Solegnathus spinosissimus	Spiny Pipehorse, Australian Spiny Pipehorse		
	Numenius madagascariensis	Eastern Curlew, Far Eastern Curlew		
	Stigmatopora nigra	Widebody Pipefish, Wide-bodied Pipefish		
	Arctocephalus pusillus	Australian Fur-seal, Australo-African Fur-seal		
	Apus pacificus	Fork-tailed Swift		
	Thalassarche melanophris	Black-browed Albatross		
	Histiogamphelus briggsii	Crested Pipefish, Briggs' Crested Pipefish		
	Pachyptila turtur	Fairy Prion		
	Macronectes halli	Northern Giant Petrel		
	Macronectes giganteus	Southern Giant-Petrel, Southern Giant Petrel		
	Pluvialis fulva	Pacific Golden Plover		
	Thalassarche chrysostoma	Grey-headed Albatross		
	Haliaeetus leucogaster	White-bellied Sea-Eagle		
	Phyllopteryx taeniolatus	Common Seadragon, Weedy Seadragon		
	Mitotichthys tuckeri	Tucker's Pipefish		
	Mitotichthys mollisoni	Mollison's Pipefish		
	Mitotichthys semistriatus	Halfbanded Pipefish		
	Diomedea antipodensis gibsoni	Gibson's Albatross		
	Thalassarche carteri	Indian Yellow-nosed Albatross		
	Thalassarche steadi	White-capped Albatross		
	Thalassarche salvini	Salvin's Albatross		
	Thalassarche bulleri	Buller's Albatross, Pacific Albatross		
	Myiagra cyanoleuca	Satin Flycatcher		
	Charadrius bicinctus	Double-banded Plover		
	Thalassarche bulleri platei	Northern Buller's Albatross, Pacific Albatross		
	Himantopus himantopus	Pied Stilt, Black-winged Stilt		
	Recurvirostra novaehollandiae	Red-necked Avocet		
	Charadrius ruficapillus	Red-capped Plover		
	Hirundapus caudacutus	White-throated Needletail		
	Maroubra perserrata	Sawtooth Pipefish		
	Charadrius mongolus	Lesser Sand Plover, Mongolian Plover		
	Numenius phaeopus	Whimbrel		
	Arenaria interpres	Ruddy Turnstone		
	Calidris acuminata	Sharp-tailed Sandpiper		
	Calidris alba	Sanderling		
	Thalassarche cauta	Shy Albatross		
	Diomedea exulans	Wandering Albatross		
	Ardenna grisea	Sooty Shearwater		

	Diomedea epomophora	Southern Royal Albatross		
	Calidris ruficollis	Red-necked Stint		
	Gallinago hardwickii	Latham's Snipe, Japanese Snipe		
	Calidris tenuirostris	Great Knot		
	Pluvialis squatarola	Grey Plover		
	Neophema chrysostoma	Blue-winged Parrot		
	Charadrius veredus	Oriental Plover, Oriental Dotterel		
	Hippocampus breviceps	Short-head Seahorse, Short-snouted Seahorse		
	Calidris melanotos	Pectoral Sandpiper		
	Ardenna carneipes	Flesh-footed Shearwater, Fleshy-footed Shearwater		
	Tringa brevipes	Grey-tailed Tattler		
	Philomachus pugnax	Ruff (Reeve)		
	Bubulcus ibis	Cattle Egret		
	Limosa limosa	Black-tailed Godwit		
	Hippocampus abdominalis	Big-belly Seahorse, Eastern Potbelly Seahorse		
	Urocampus carinirostris	Hairy Pipefish		
	Vanacampus phillipi	Port Phillip Pipefish		
	Thinornis cucullatus	Hooded Plover, Hooded Dotterel		
	Lathamus discolor	Swift Parrot		
	Calidris canutus	Red Knot, Knot		
	Calidris ferruginea	Curlew Sandpiper		
Whales and Other Cetaceans				
9	The following species were identified in the PMST Report: *Balaenoptera acutorostrata* — Minke Whale *Caperea marginata* — Pygmy Right Whale *Tursiops truncatus* s. str. — Bottlenose Dolphin *Eubalaena australis* — Southern Right Whale *Megaptera novaeangliae* — Humpback Whale *Balaenoptera musculus* — Blue Whale *Lagenorhynchus obscurus* — Dusky Dolphin *Delphinus delphis* — Common Dolphin, Short-beaked Common Dolphin *Grampus griseus* — Risso's Dolphin, Grampus	No	The action is not taking place in the marine (aquatic) environment, nor is the action likely to cause any direct or indirect impacts to the marine (including habitat for whale and other cetacean species) environment.
Critical Habitats				
None	Nil identified in PMST report	No	None identified.	
Commonwealth Reserves Terrestrial				
None	Nil identified in PMST report	No	None identified.	
Australian Marine Parks				
None	Nil identified in PMST report.	No	None identified.	
Habitat Critical to the Survival of Marine Turtles				

None	Nil identified in PMST report.	No	Nil identified in PMST report
State and Territory Reserves			
None	Nil identified in PMST report.	No	Nil identified in PMST report
Regional Forest Agreements			
1	Tasmanian RFA	Not relevant	The action has no requirement for a Forest Practices Plan, which is administered under the Tasmanian *Forest Practices Act 1985*.
Nationally Important Wetlands			
1	PITT WATER-ORIELTON LAGOON	No	The location of the action is not within the Pitt Water – Orielton Lagoon RAMSAR wetland site. The installation of a private access road into an existing property from Pittwater Road is not likely to cause any direct or indirect impacts to the RAMSAR wetland or its values.
EPBCA Act Referrals			
7	2000/42 Sorell Causeway Bridge 2003/1269 Relocation of Oyster Lease Areas 2015/7522 Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia 2006/3010 Construction of a new wastewater treatment plant 2002/898 Coal River Valley water recycling scheme 2020/8805 Tasman Highway Upgrade ??? Hobart Airport to Sorell Causeway 2006/2557 Industry/commercial precinct between Kennedy Rd and Tasman Hwy	Not relevant	-
Key Ecological Features (Marine)			
None	Nil identified in PMST report	No	None identified.
Biologically Important Areas			
6	The following species were identified in the PMST Report: *Ardenna grisea* Sooty Shearwater *Ardenna tenuirostris* Short-tailed Shearwater *Pelecanoides urinatrix* Common Diving-petrel *Pterodroma mollis* Soft-plumaged Petrel *Thalassarche cauta cauta* Shy Albatross *Balaenoptera musculus brevicauda* Pygmy Blue Whale	No	The PMST identified potential biologically important areas for some coastal seabirds and whales. However, the proposed works lie within agricultural land inland and there is no potential for significant impacts to any of these listed coastal and marine species.
Bioregional Assessments			
None	Nil identified in PMST report	No	None identified.

Geological and Bioregional Assessments			
None	Nil identified in PMST report	No	None identified.

ATTACHMENT F: MNES ASSESSMENT OF THREATENED SPECIES

TABLE F.1. ASSESSMENT OF OCCURRENCE AND POTENTIAL IMPACT TO LISTED THREATENED SPECIES

	Description and Habitat Notes[1]	Assessment of habitat in and adjacent to the Survey Area	Significant Impact Assessment Summary	SIA Required?
Invertebrates				
Antipodia chaostola leucophaea Tasmanian Chaostola Skipper Endangered	A medium-sized (32-35 mm), brown and yellow coloured butterfly. The Chaostola Skipper, in contrast to other skippers in Tasmania, has the entrance of the larval shelter located at the bottom with the larva resting head downwards. It is restricted to dry forest and woodland supporting sedges of the *Gahnia* genus and occurs in isolated populations in south-eastern and eastern Tasmania. The adults fly between October and December. Adults are rarely seen, but larval colonies can be detected by searching for the distinctive larval shelters.	No *Gahnia* species were observed within the Survey Area. No habitat for chaostola skipper is present.	There is no potential for a significant impact to this species because *Gahnia* species are absent. The species is therefore likely to be absent.	**No**
Birds				
Lathamus discolor Swift Parrot Critically Endangered	A small, largely nectar-feeding fast flying parrot which spends its winter in south-eastern mainland Australian before migrating to Tasmania in late winter/early spring to breed. During the breeding season, nectar from Tasmanian blue gum (*Eucalyptus globulus*) and black gum (*Eucalyptus ovata*) flowers is the primary food source for the species. These eucalypts are patchily distributed, and their flowering patterns are erratic and unpredictable, often leading to only a small proportion of Swift Parrot habitat being available for breeding in any one year. Swift Parrots breed in tree hollows in mature eucalypts within foraging range of a flower source. Birds can nest at low densities or sometimes in groups of >50 nests in <100 ha depending on the availability of flowers and tree hollows.	Swift parrots may fly through the area on their way to or from the south-eastern Tasmania breeding areas. They may also fly through the area to access foraging resources from nest sites, with the nearest known nesting area at Craigow Hill about 8.8kms north-west of the location of the proposed action. There are no Tasmanian blue gum (*Eucalyptus globulus*) and black gum (*Eucalyptus ovata*) trees immediately adjacent to the Survey Area, nor are there any trees with hollows for swift parrot breeding.	There is a low likelihood of occurrence in the Survey Area (simply for movement between foraging and breeding area, and during migration events) but there is no suitable habitat (eucalypt species for foraging or trees with hollows suitable for nesting) for this species to breed. There are no substantial structures proposed for the access road, such as chainmesh fences, or other features with which birds may collide. A standard rural gate will be installed on the front access from Pittwater Road, but this is small and not imposing, and is simply a component of the existing wire fence along Pittwater Road. On balance, the potential for a significant impact to this species is negligible.	**No**
Tyto novaehollandiae castanops (Tasmanian population) Masked Owl (Tasmanian) Vulnerable	A subspecies of Masked Owl which occurs only in Tasmania. Its population has been estimated to comprise approximately 500 breeding pairs. It is a large bird with a mask-like facial disc and distinctive husky, screeching call. The Tasmanian Masked Owl hunts at night for small mammals and birds in a range of habitats which contain some mature forest, usually below 600 m altitude - these include native forests and woodlands as well as agricultural areas with a mosaic of native vegetation and pasture. Habitat for the Tasmanian Masked Owl includes the following elements: foraging habitat - a diverse range of forest, woodland and non-forest vegetation including agricultural and forest mosaics; nesting habitat - eucalypt forests and woodlands containing old growth trees with suitable hollows for nesting/roosting but will also nest in isolated old growth trees with suitable hollows.	There are no trees with old-growth or mature characteristics or hollows suitable for masked owls to breed. Masked owls may use the area to forage or disperse/move throughout the landscape. However, there are no dense shrubs such as native cherry in the Survey Area, or immediately adjacent to it, to offer protected roost sites.	There is a low to moderate likelihood of occurrence in the Survey Area (simply for movement and/or foraging) but there is no suitable habitat for this species to breed in the Survey Area. No known nest trees or potential nest trees occur in the Survey Area. The installation and use of an access road into the private property is unlikely to have any effect on the foraging behaviour of masked owl. On balance, the potential for a significant impact to this species is negligible.	**No**

[1] Mainly comprised from SPRAT profile information, and relevant Conservation Advice, Recovery Plans, Listing Advice, EPBC Act Policy Statements, BirdLife databases, and State based information sources.

	Birds pair for life, occupying a permanent territory and relying on hollows in old-growth trees for nesting and roosting.			
Plants				
Caladenia saggicola Sagg Spider-orchid Critically Endangered	A terrestrial orchid endemic to southern Tasmania. It is known from two subpopulations, one near Cambridge (with up to 450 plants) and the other at Dodges Ferry (3 plants). The Dodges Ferry site is considered by NRE Tas to be locally extinct, but this needs further verification which is beyond the scope of this report. At the Cambridge site (which is located primarily on the 'Milford' property) the species grows in *Eucalyptus viminalis* (white gum) woodland on deep sands, with a ground layer dominated by the graminoid *Lomandra longifolia* (sagg). **Figure 5** displays the NVA held data records for this species, and other conservation significant orchid species (and putative hybrids) in the genera *Caladenia* and *Prasophyllum* (*Caladenia caudata, Prasophyllum milfordense*). The Survey Area is also shown in **Figure 5** to provide scale and context to the location of this orchid species.	The location proposed for the action does not support any native forest or woodland vegetation and is on acidic sands that appear to be saline based on the presence of salt tolerant grasses and herbs (including native and introduced species). The location was cleared very early in the land development of the Cambridge region and has been actively managed as pasture (fertiliser application, ploughing and harvesting of hay etc.) for agricultural use since. **Figure 5** shows the location of the Survey Area (which is proposed to include the Development) relative to the known occurrence of this species; noting that there are a few records that have a very high level of inaccuracy (e.g., records with a 2,000 m accuracy) the Development is neither adjacent to nor within habitat for this species.	Although the survey was conducted outside of the species flowering period, there is no habitat for the species in the Survey Area. Hence, it can be said with confidence that the species is not present irrespective of the timing of the survey. There is also no habitat present in the Survey Area that is 'critical to the survival of the species'. The Development is proposed to occur in the Survey Area which is not adjacent to the habitat occupied by this species on the property (i.e. it is not near nor adjacent to the *Eucalyptus viminalis* (white gum) woodland where this species inhabits). There is no potential for a significant impact to this species.	**No**
Lepidium hyssopifolium Basalt Pepper-cress Endangered	The native habitat of *Lepidium hyssopifolium* is the growth suppression zone beneath large trees in grassy woodlands and grasslands. In Tasmania, the species is now found primarily under large exotic trees on roadsides and home yards on farms. It occurs in the eastern part of Tasmania at an altitude of 40 to 500 metres in dry, warm, and fertile areas on flat ground on weakly acid to alkaline soils derived from a range of rock types.	The Survey Area includes a very small section of roadside vegetation comprised of *Acacia* and other shrub and small trees. The trees are primarily planted and otherwise the dense ground cover layer is formed by exotic grasses, sagg, pin rushes and thistles. The access road is proposed to connect to an existing road near the homestead which has an adjacent shelterbelt of large Pinus radiata trees. This location was searched, but *Lepidium hyssopifolium* was not found (the area is dominated by boxthorn, pine leaf litter, and native succulent ground covers).	Habitat is absent from the Project Area. There is no potential for a significant impact to this species.	**No**
Prasophyllum milfordense Milford Leek-orchid Critically Endangered	A terrestrial orchid endemic to southern Tasmania. It is known from a single site near Cambridge (which is located on the 'Milford' property), where it grows in *Eucalyptus viminalis* (white gum) woodland on deep sands, with a ground layer dominated by the *Lomandra longifolia* (sagg). **Figure 5** displays the NVA held data records for this species, and other conservation significant orchid species (and putative hybrids) in the genera *Caladenia* and *Prasophyllum* (*Caladenia caudata, Prasophyllum milfordense*). The Survey Area is also shown in **Figure 5** to provide scale and context to the location of this orchid species.	The location proposed for the action does not support any native forest or woodland vegetation and is on acidic sands that appear to be saline based on the presence of salt tolerant grasses and herbs (including native and introduced species). The location was cleared very early in the land development of the Cambridge region and has been actively managed as pasture (fertiliser application, ploughing and harvesting of hay etc.) for agricultural use since. **Figure 5** shows the location of the Survey Area (which is proposed to include the Development) relative to the known occurrence of this species; the Development is neither adjacent to nor within habitat for this species.	Although the survey was conducted outside of the species flowering period, there is no habitat for the species in the Survey Area. Hence, it can be said with confidence that the species is not present irrespective of the timing of the survey. There is also no habitat present in the Survey Area that is 'critical to the survival of the species'. The Development is proposed to occur in the Survey Area which is not adjacent to the habitat occupied by this species on the property (i.e. it is not near nor adjacent to the *Eucalyptus viminalis* (white gum) woodland where this species inhabits). There is no potential for a significant impact to this species.	**No**

ATTACHMENT G: FLORA SPECIES OBSERVED IN THE SURVEY AREA

INTRO	ENDEMIC	TASONLY	EXTINCT	SPNUMBER	FAMCLASS	FAMILY	FULLNAME
				6	Eudicots	Aizoaceae	Carpobrotus rossii (Haw.) Schwantes
				17	Eudicots	Aizoaceae	Tetragonia implexicoma (Miq.) Hook.f.
				18	Eudicots	Aizoaceae	Tetragonia tetragonoides (Pall.) Kuntze
				875	Eudicots	Amaranthaceae	Atriplex cinerea Poir.
i				887	Eudicots	Amaranthaceae	Chenopodium album L.
i				893	Eudicots	Amaranthaceae	Chenopodium murale L.
				899	Eudicots	Amaranthaceae	Einadia nutans (R.Br.) A.J.Scott subsp. nutans
				902	Eudicots	Amaranthaceae	Rhagodia candolleana Moq. subsp. candolleana
				205	Eudicots	Asteraceae	Centipeda elatinoides (Less.) Benth. & Hook.f. ex O.Hoffm.
i				217	Eudicots	Asteraceae	Cirsium arvense (L.) Scop. var. arvense
i				219	Eudicots	Asteraceae	Cirsium vulgare (Savi) Ten.
i				373	Eudicots	Asteraceae	Hypochaeris radicata L.
i				394	Eudicots	Asteraceae	Leontodon saxatilis Lam.
				549	Eudicots	Asteraceae	Senecio quadridentatus Labill.
i				557	Eudicots	Asteraceae	Senecio vulgaris L.
i				571	Eudicots	Asteraceae	Sonchus oleraceus L.
i				701	Eudicots	Brassicaceae	Lepidium africanum (Burm.f.) DC.
				945	Eudicots	Convolvulaceae	Wilsonia backhousei Hook.f.
				947	Eudicots	Convolvulaceae	Wilsonia rotundifolia Hook.
				968	Eudicots	Crassulaceae	Crassula sieberiana (Schult. & Schult.f.) Druce
				5633	Eudicots	Ericaceae	Styphelia humifusa (Cav.) Pers.
i				1199	Eudicots	Euphorbiaceae	Euphorbia peplus L.
				1621	Eudicots	Fabaceae	Acacia dealbata Link subsp. dealbata
				1633	Eudicots	Fabaceae	Acacia longifolia subsp. sophorae (Labill.) Court
				1635	Eudicots	Fabaceae	Acacia mearnsii De Wild.
i				1398	Eudicots	Gentianaceae	Centaurium erythraea Rafn
i				1433	Eudicots	Geraniaceae	Erodium moschatum (L.) L'Hér. ex Aiton
i				1435	Eudicots	Geraniaceae	Geranium dissectum L.
				1450	Eudicots	Geraniaceae	Pelargonium littorale Hugel
i				1531	Eudicots	Lamiaceae	Prunella vulgaris L.
i				1600	Eudicots	Malvaceae	Malva sylvestris L.
				1751	Eudicots	Myrtaceae	Eucalyptus viminalis Labill. subsp. viminalis
				1769	Eudicots	Myrtaceae	Leptospermum scoparium J.R.Forst. & G.Forst.
i				1879	Eudicots	Plantaginaceae	Plantago coronopus L. subsp. coronopus
i				1888	Eudicots	Plantaginaceae	Plantago lanceolata L.
i				1913	Eudicots	Polygonaceae	Acetosella vulgaris Fourr.
i				1946	Eudicots	Polygonaceae	Rumex crispus L.
				2149	Eudicots	Rosaceae	Acaena novae-zelandiae Kirk
i				2164	Eudicots	Rosaceae	Crataegus monogyna Jacq.
i				2182	Eudicots	Rosaceae	Rosa rubiginosa L.
				2332	Eudicots	Sapindaceae	Dodonaea viscosa subsp. spatulata (Sm.) J.G.West
				1688	Eudicots	Scrophulariaceae	Myoporum insulare R.Br.
i				2438	Eudicots	Solanaceae	Lycium ferocissimum Miers
i				2449	Eudicots	Solanaceae	Solanum nigrum L.
				4058	Monocots	Asparagaceae	Lomandra longifolia Labill.
				2894	Monocots	Juncaceae	Juncus kraussii subsp. australiensis (Buchenau) Snogerup
				2898	Monocots	Juncaceae	Juncus pallidus R.Br.
i				3467	Monocots	Poaceae	Agrostis capillaris L.
i				3482	Monocots	Poaceae	Agrostis stolonifera L.
				3550	Monocots	Poaceae	Austrostipa stipoides (Hook.f.) S.W.L.Jacobs & J.Everett
i				3563	Monocots	Poaceae	Briza minor L.
i				3569	Monocots	Poaceae	Bromus diandrus Roth
i				3599	Monocots	Poaceae	Dactylis glomerata L.
				3665	Monocots	Poaceae	Distichlis distichophylla (Labill.) Fassett
i				3738	Monocots	Poaceae	Holcus lanatus L.
				3868	Monocots	Poaceae	Poa labillardierei Steud. var. labillardierei
				3871	Monocots	Poaceae	Poa poiformis (Labill.) Druce var. poiformis
				3897	Monocots	Poaceae	Rytidosperma caespitosum (Gaudich.) Connor & Edgar
				3947	Monocots	Poaceae	Sporobolus virginicus (L.) Kunth
i				4098	Gymnosperms	Pinaceae	Pinus radiata D.Don

Attachment 2 NRE *Wilsonia rotundifolia* Listing Statement

Wilsonia rotundifolia

Wilsonia rotundifolia. H&A Wapstra.

FAMILY: CONVOLVULACEAE

BOTANICAL NAME: *Wilsonia rotundifolia*, Hook., *Icon. Pl.* 5: t.410 (1842)

COMMON NAME: Round leaf wilsonia

COMMONWEALTH STATUS: (*EPBC Act*) Not Listed

TASMANIAN STATUS: (*TSP Act*) rare

Description

A small, perennial shrub with low growing, branching and mat forming stems. **Leaves:** The leaves are arranged alternately along the stem and are round or ovate (between 1.5-4 mm long). They have short stalks and are thick and sparsely covered with hairs, which fall from the adult leaves. **Flowers:** The flowers are yellow or white and tubular with spreading lobes. Flowering is from spring to early summer. **Fruit:** The fruit is a single-celled capsule that is oval in shape and contains one black seed (description from Cunningham *et al.* 1992). Herbarium specimens have been collected from September to March.

Distribution and Habitat

On the mainland this species occurs in South Australia, New South Wales and Victoria. In Tasmania, *Wilsonia rotundifolia* is found in coastal and inland salt marshes in the eastern part of the State.

Key Sites and Populations

Key sites include Tregaron Lagoons, Freshwater Lagoon, Flyover Lagoon 1, Flyover Lagoon 2, Little Thirsty Lagoon, Stans Lagoon, Calverts Lagoon, Derwent River, Township Lagoon, and unnamed wetlands BEN009TA, BEN010TA, BEN011TA, BEN013TA and FUR013TA.

Known Reserves

Reserved in Calverts Lagoon Conservation Area, Cape Portland Private Sanctuary, Clarke Island Nature Reserve, Moulting Lagoon Game Reserve, Seven Mile Beach Protected Area, Township Lagoon Nature Reserve and the Waterhouse Conservation Area.

Ecology and Management

This species is naturally fire protected due to its salt marsh habitat.

Conservation Status Assessment

There is no immediate need for reassessment of *Wilsonia rotundifolia*.

Further Information

- Cunningham, GM, Mulham, W, Milthorpe, P & Leigh, J 1992, *Plants of Western New South Wales*, Inkata Press, Sydney.
- Kirkpatrick, JB, Barker, P, Brown, MJ, Harris, S & Mackie, R 1994, *The Reservation Status of Tasmanian Vascular Plant Communities*, Tasmanian Conservation Trust Incorporated, Hobart.

Tasmanian Distribution

(As per Threatened Species Unit records, June 2003)

1:25 000 Map Sheets

Bell Bay, Carlton, Communication, Conara, Cranbrook, Ellinthorp, Jacobs, Lyme Regis, Patriarchs, Preservation, Puncheon, Sellars, Tunbridge, Waterhouse.

Date last modified: 01/09/03

From: Out of scope @pittsh.com.au>
Sent: Wednesday, 8 January 2025 4:41 PM
To: Out of scope
Subject: FW: Request for Extension of time for Planning Permit PDPLANPMTD - 2021/017782

Hi Out of scope

Yes current access into Milford at ch 2340 – 620 metres east of Pittwater Road.

Regards

Out of scope

Mobile Out of scope | Out of scope @pittsh.com.au | Connect on LinkedIn

Hobart Office — Level 1, Surrey House, 199 Macquarie Street
PO Box 94 Hobart Tasmania 7001 | Phone +61 3 6210 1466

pittsh.com.au

From: Out of scope @stategrowth.tas.gov.au>
Sent: Wednesday, 8 January 2025 4:30 PM
To: Out of scope @pittsh.com.au>
Subject: RE: Request for Extension of time for Planning Permit PDPLANPMTD - 2021/017782

By that do you mean the current access into Milford?

Out of scope
State Roads | Department of State Growth
Level 2, 4 Salamanca Place, Hobart TAS 7000 | GPO Box 536, Hobart TAS 7001
Email: Out of scope @stategrowth.tas.gov.au / MB: Out of scope
www.stategrowth.tas.gov.au

Courage to make a difference through
TEAMWORK | INTEGRITY | EXCELLENCE | RESPECT
In recognition of the deep history and culture of this island, I acknowledge and pay my respects to all Tasmanian Aboriginal people; the past, and present custodians of the Land.

From: Out of scope @pittsh.com.au>
Sent: Wednesday, January 8, 2025 4:28 PM
To: Out of scope @stategrowth.tas.gov.au>
Subject: FW: Request for Extension of time for Planning Permit PDPLANPMTD - 2021/017782

Hi Out of scope

Further to this, I expect that we will still need Out of scope' approval as we are realigning the existing highway access inside the boundary.

Regards

Out of scope

Mobile Out of scope | Out of scope@pittsh.com.au | Connect on LinkedIn

Hobart Office — Level 1, Surrey House, 199 Macquarie Street
PO Box 94 Hobart Tasmania 7001 | Phone +61 3 6210 1466

pittsh.com.au

From: Out of scope @ccc.tas.gov.au>
Sent: Wednesday, 8 January 2025 2:27 PM
To: Out of scope @pittsh.com.au>
Cc: Out of scope @stategrowth.tas.gov.au>
Subject: RE: Request for Extension of time for Planning Permit PDPLANPMTD - 2021/017782

Hi Out of scope
Thank you for your application to extend the planning permits validity under s53 *Land Use Planning and Approvals Act 1993* (LUPAA).

The planning permit was issued on 1 March 2022 and unless the use and development was substantially commenced, the permit was valid for a two year period from the date of issue, in accordance with S53(5) LUPAA. A planning permit can be extended under S53(5A) if not substantially commenced within the first two years from the date of issue, provided the application to extend the planning permit is made within six months of the lapsed date. This is the same scenario for the further and subsequent extensions under S53(5B) and S53(5D).

It appears that your application to extend the planning permit has not been made within the six month period from the date the planning permit lapsed under S53(5), noting that the planning permit was issued on 1 March 2022. Therefore, the planning permit cannot be extended under S53 and you need to demonstrate to the planning authority that substantial commencement of the use and development approved under that planning permit has occurred if you intend to act on this planning permit. Otherwise, it is advised that a fresh planning application be made for the project that incorporates all variations/updates to the alignment that may have occurred to the design since the original planning permit was issued in 2022.

Given the above, please indicate via return email whether you intend to lodge a fresh planning application or choose to demonstrate substantial commencement of Planning Permit PDPLANPMTD - 2021/017782.

Whether or not commencement is substantial is a question of fact and degree. An application to demonstrate substantial commencement must include but not be limited to the following:

a) Demonstration of the commitment of resources of such proportions relative to the project approved under the planning permit as to carry the assurance that the work has meaningfully commenced;
b) Show what physical on-site works have been completed relative to the project approved under the planning permit;
c) Demonstrate what permit conditions have been complied with; and
d) Any preparatory work such as design or off-site work required via permit conditions and which are referrable to the planning permit, including related work performed on site.

Also, I recently met with Out of scope (Pitt and Sherry) to discuss whether the Midway Point Causeway and McGees Bridge Duplication project meets the planning scheme exemption to not require a planning permit, and we are still working through the complexities of what is exempt and what is not. If a fresh planning application is made for the Tasman Highway Upgrades including Pittwater Road Intersection Upgrades, the non-exempt works from the Midway Point Causeway and McGees Bridge Duplication project (excluding works on the Tasmanian Golf Club land) may be included into that fresh application.

I look forward to hearing from you soon.
Kind regards
Out of scope

Clarence... a brighter place

Out of scope

a 38 Bligh Street | PO Box 96 Rosny Park TAS 7018
p Out of scope **m** Out of scope
e Out of scope @ccc.tas.gov.au | **w** www.ccc.tas.gov.au

Clarence City Council pays respect to all First Peoples, including the Mumirimina (mu mee ree mee nah) People of the Oyster Bay Nation whose unceded lands, skies, and waterways we are privileged to conduct our business on. We pay respect to, and value the deep knowledge of Elders past and present, and we acknowledge the survival and deep spiritual connection of the Tasmanian Aboriginal People to their Country, a connection which has endured since the beginning of time. Our work reflects our ongoing commitment to truth-telling and respectful understanding.

From: Out of scope @pittsh.com.au>
Sent: Monday, January 6, 2025 2:28 PM
To: City Planning <cityplanning@ccc.tas.gov.au>
Cc: Out of scope @ccc.tas.gov.au>; Out of scope @stategrowth.tas.gov.au>
Subject: Request for Extension of time for Planning Permit PDPLANPMTD - 2021/017782

This Message Is From an External Sender
This message came from outside your organization.

Good afternoon
The Department of State Growth requests an extension of time for Planning Permit PDPLANPMTD – 2021/017782 Tasman Highway Upgrades including Pittwater Road Intersection Upgrades.
The Department of State Growth continues to work with the Department of Climate Change, Energy, the Environment and Water to obtain EPBC Approval for the project. It is the Department of State Growth's intention to submit a minor amendment to the permit in due course resulting from changes that will reduce the impact on nationally listed threatened species on the Milford property on the southern side of the highway near Pittwater Road. Landowner approval is being sought for the minor amendment.
Regards

Out of scope

Mobile Out of scope | Out of scope @pittsh.com.au | Connect on LinkedIn
Hobart Office — Level 1, Surrey House, 199 Macquarie Street
PO Box 94 Hobart Tasmania 7001 | Phone +61 3 6210 1466
pittsh.com.au

CONFIDENTIALITY NOTICE AND DISCLAIMER The information in this transmission may be confidential and/or protected by legal professional privilege and is intended only for the person or persons to whom it is addressed. If you are not such a person, you are warned that any disclosure, copying or dissemination of the information is unauthorised. If you have received this transmission in error, please immediately delete it and contact Council by telephone or email to inform us of the error. No liability is accepted for any unauthorised use of the information contained in this transmission.

CONFIDENTIALITY NOTICE AND DISCLAIMER
The information in this transmission may be confidential and/or protected by legal professional privilege, and is intended only for the person or persons to whom it is addressed. If you are not such a person, you are warned that any disclosure, copying or dissemination of the information is unauthorised. If you have received the transmission in error, please immediately contact this office by telephone, fax or email, to inform us of the error and to enable arrangements to be made for the destruction of the transmission, or its return at our cost. No liability is accepted for any unauthorised use of the information contained in this transmission.

From: Out of scope
Sent: Thursday, 29 August 2024 11:46 AM
To: Out of scope '; Out of scope '
Subject: FW: Request for Extension of Time for Planning Permit PDPLANPMTD-2021/017986 - Alts to Tasmania Golf Course - P.19.0406

Hi,

Just checking that the Highway permit was extended?.

We will be seeking a meeting with both Out of scope and the Golf course in the coming weeks and hoping to have the landholder approval forms signed.

Thanks, Out of scope

Out of scope
State Roads | Department of State Growth
Level 2, 4 Salamanca Place, Hobart TAS 7000 | GPO Box 536, Hobart TAS 7001
Email: Out of scope@stategrowth.tas.gov.au / MB: Out of scope
www.stategrowth.tas.gov.au

Courage to make a difference through
TEAMWORK | INTEGRITY | EXCELLENCE | RESPECT
In recognition of the deep history and culture of this island, I acknowledge and pay my respects to all Tasmanian Aboriginal people; the past, and present custodians of the Land.

From: Out of scope
Sent: Tuesday, January 16, 2024 10:15 AM
To: Out of scope
Subject: RE: Request for Extension of Time for Planning Permit PDPLANPMTD-2021/017986 - Alts to Tasmania Golf Course - P.19.0406

You're correct about the highway permit, which expires on 01 March 2024 – so we will need to substantially commence works by then or apply to extend it by 01 Sept 2024 at the latest.

From: Out of scope @stategrowth.tas.gov.au>
Sent: Tuesday, 16 January 2024 10:11 AM
To: Out of scope @pittsh.com.au>
Subject: RE: Request for Extension of Time for Planning Permit PDPLANPMTD-2021/017986 - Alts to Tasmania Golf Course - P.19.0406

Ah sorry, I meant the other permit for the highway remainder of the project

Out of scope

State Roads | Department of State Growth
Level 2, 4 Salamanca Place, Hobart TAS 7000 | GPO Box 536, Hobart TAS 7001
Email: Out of scope @stategrowth.tas.gov.au / MB: Out of scope
www.stategrowth.tas.gov.au

Courage to make a difference through
TEAMWORK | INTEGRITY | EXCELLENCE | RESPECT
In recognition of the deep history and culture of this island, I acknowledge and pay my respects to all Tasmanian Aboriginal people; the past, and present custodians of the Land.

From: Out of scope @pittsh.com.au>
Sent: Tuesday, 16 January 2024 10:10 AM
To: Out of scope @stategrowth.tas.gov.au>
Cc: Out of scope @pittsh.com.au>
Subject: RE: Request for Extension of Time for Planning Permit PDPLANPMTD-2021/017986 - Alts to Tasmania Golf Course - P.19.0406

Hi Out of scope

As stated in my email below, we have until 03 March to make the application for the extension (we've applied early but need to pay the invoice by this time at the latest).

Council will then consider the application and will likely extend it to 03 Sept 2025. This keeps the permit alive and allows us to amend it.

Extending a permit may be done up to two times, so it could be extended again up to 03 Sept 2027.

Kind regards
Out of scope

From: Out of scope @stategrowth.tas.gov.au>
Sent: Tuesday, 16 January 2024 10:02 AM
To: Out of scope @pittsh.com.au>
Cc: Out of scope @pittsh.com.au>
Subject: RE: Request for Extension of Time for Planning Permit PDPLANPMTD-2021/017986 - Alts to Tasmania Golf Course - P.19.0406

Thanks Out of scope, no problems. Do you have the latest date for extension of the Golf Course DA?, I think it was in March and do we need to do anything now to progress that?

Out of scope

Out of scope
State Roads | Department of State Growth
Level 2, 4 Salamanca Place, Hobart TAS 7000 | GPO Box 536, Hobart TAS 7001
Email: Out of scope @stategrowth.tas.gov.au / MB: Out of scope
www.stategrowth.tas.gov.au

Courage to make a difference through
TEAMWORK | INTEGRITY | EXCELLENCE | RESPECT
In recognition of the deep history and culture of this island, I acknowledge and pay my respects to all Tasmanian Aboriginal people; the past, and present custodians of the Land.

From: Out of scope @pittsh.com.au>
Sent: Tuesday, 16 January 2024 9:53 AM
To: Out of scope @stategrowth.tas.gov.au>
Cc: Out of scope @pittsh.com.au>
Subject: FW: Request for Extension of Time for Planning Permit PDPLANPMTD-2021/017986 - Alts to Tasmania Golf Course - P.19.0406

Hi Out of scope

Hope you can assist – Out of scope on leave.

The attached invoice is from Clarence council for an application to extend State Growth's planning permit for alterations to the Tasmania Golf Course (1420 Tasman Highway) – are you able to arrange payment?

The permit expired on 03 September 2023. We have until 03 March 2024 to make the application, so the invoice must be paid by then at the latest.

We have already been discussing this permit with Clarence, so don't anticipate any issues with getting the extension approved.

Kind regards
Out of scope

pitt&sherry

Out of scope

Out of scope

Direct Out of scope | Out of scope @pittsh.com.au | Connect on LinkedIn

Launceston Office — Level 4, 113 Cimitiere Street
PO Box 1409 Launceston Tasmania 7250 | Phone +61 3 6323 1900 | Mobile 0467 054 799
pittsh.com.au

From: City Planning <cityplanning@ccc.tas.gov.au>
Sent: Tuesday, 16 January 2024 8:49 AM
To: Out of scope @pittsh.com.au>
Subject: RE: Request for Extension of Time for Planning Permit PDPLANPMTD-2021/017986 - Alts to Tasmania Golf Course - P.19.0406

Good Morning,

I refer to the above application and wish to acknowledge receipt of your proposal.

Enclosed is an invoice detailing the relevant fees for the application. If you wish to make payment via the telephone please call Councils Finance department on (03) 6217 9500.

The proposal is currently being considered and it will be dealt with by Council as soon as possible. Should you have any queries, please contact Council's planning staff on (03) 6217 9550.

Kind Regards,

Out of scope

Clarence... a brighter place

Out of scope | Clarence City Council

a 38 Bligh Street | PO Box 96 Rosny Park TAS 7018
p Out of scope
e Out of scope@ccc.tas.gov.au | w www.ccc.tas.gov.au

From: Out of scope @pittsh.com.au>
Sent: Monday, 15 January 2024 11:26 AM
To: City Planning <cityplanning@ccc.tas.gov.au>
Cc: Out of scope @ccc.tas.gov.au>
Subject: Request for Extension of Time for Planning Permit PDPLANPMTD-2021/017986 - Alts to Tasmania Golf Course - P.19.0406

This Message Is From an External Sender
This message came from outside your organization.

Hello Planning Team

The Department of State Growth request an extension of time for Planning Permit PDPLANPMTD-2021/017986 - Alterations to the Tasmania Golf Course, which was approved on 03 Sept 2021.

If you have any queries, please do not hesitate to contact me on Out of scope.

Kind regards

Out of scope

pitt&sherry

Out of scope

Out of scope

Direct Out of scope | Out of scope@pittsh.com.au | Connect on LinkedIn

Launceston Office — Level 4, 113 Cimitiere Street
PO Box 1409 Launceston Tasmania 7250 | Phone +61 3 6323 1900 | Mobile 0467 054 799
pittsh.com.au

pitt&sherry acknowledge the Aboriginal and Torres Strait Islander people as the Traditional Custodians of country on which we live and work. We pay our respects to the Traditional Custodians and Elders past, present and emerging, and recognise their continuing connection to land, water and community.

COVID-19 guidance for our clients, guests, suppliers and contractors

CONFIDENTIALITY NOTICE AND DISCLAIMER The information in this transmission may be confidential and/or protected by legal professional privilege and is intended only for the person or persons to whom it is addressed. If you are not such a person, you are warned that any disclosure, copying or dissemination of the information is unauthorised. If you have received this transmission in error, please immediately delete it and contact Council by telephone or email to inform us of the error. No liability is accepted for any unauthorised use of the information contained in this transmission.
CONFIDENTIALITY NOTICE AND DISCLAIMER The information in this transmission may be confidential and/or protected by legal professional privilege and is intended only for the person or persons to whom it is addressed. If you are not such a person, you are warned that any disclosure, copying or dissemination of the information is unauthorised. If you have received this transmission in error, please immediately delete it and contact Council by telephone or email to inform us of the error. No liability is accepted for any unauthorised use of the information contained in this transmission.

CONFIDENTIALITY NOTICE AND DISCLAIMER
The information in this transmission may be confidential and/or protected by legal professional privilege, and is intended only for the person or persons to whom it is addressed. If you are not such a person, you are warned that any disclosure, copying or dissemination of the information is unauthorised. If you have received the transmission in error, please immediately contact this office by telephone, fax or email, to inform us of the error and to enable arrangements to be made for the destruction of the transmission, or its return at our cost. No liability is accepted for any unauthorised use of the information contained in this transmission.

From: Out of scope
To: Out of scope
Subject: FW: Revised Preliminary Documentation Received - EPBC 2020-8805- Tasman Highway Upgrade [SEC=OFFICIAL]
Date: Wednesday, 15 January 2025 3:31:28 PM
Attachments: image002.jpg
image003.jpg

Hi Out of scope

Refer below from DCCEEW, looks like they have done the assessment. We eagerly await the "outstanding comments".

Regards

Out of scope

Mobile Out of scope | Out of scope@pittsh.com.au | Connect on LinkedIn

Hobart Office — Level 1, Surrey House, 199 Macquarie Street
PO Box 94 Hobart Tasmania 7001 | Phone +61 3 6210 1466

pittsh.com.au

From: Out of scope @dcceew.gov.au>
Sent: Wednesday, 15 January 2025 3:28 PM
To: Out of scope @pittsh.com.au>
Cc: Out of scope @pittsh.com.au>; Out of scope @dcceew.gov.au>; Out of scope @dcceew.gov.au>
Subject: RE: Revised Preliminary Documentation Received - EPBC 2020-8805- Tasman Highway Upgrade [SEC=OFFICIAL]

OFFICIAL

Hi Out of scope,

The department has reviewed your revised Preliminary Documentation and identified some outstanding comments.

These are currently under review and will be provided shorty.

Kind regards,

Out of scope

Tasmania Assessments Section | Environment Assessments (Vic and Tas) and Post Approvals Branch | Nature Positive Regulation Division
Department of Climate Change, Energy, the Environment and Water
E: Out of scope **@dcceew.gov.au |**

DCCEEW.gov.au | ABN 63 573 932 849

OFFICIAL

From: Out of scope @dcceew.gov.au>
Sent: Thursday, 19 December 2024 10:58 AM
To: Out of scope @pittsh.com.au>
Cc: Out of scope @pittsh.com.au>; Out of scope @dcceew.gov.au>
Subject: Revised Preliminary Documentation Received - EPBC 2020-8805- Tasman Highway Upgrade [SEC=OFFICIAL]

Good morning Out of scope,

Thank you for submitting your revised Preliminary Documentation for the proposed action.

We can confirm we have received all the documents via the portal.

Please note that our Christmas shutdown period begins on 25 December with staff returning on 2 January 2025, and most of our team returning on 6 January 2025.

Our team endeavour to review your documents and provide any outstanding comments as soon as feasible.

Kindest,

Out of scope

Tasmania Assessments Section | Environment Assessments (Vic and Tas) and Post Approvals Branch | Nature Positive Regulation Division
Department of Climate Change, Energy, the Environment and Water

E: Out of scope @dcceew.gov.au |

DCCEEW.gov.au | ABN 63 573 932 849

From: Out of scope @pittsh.com.au>
Sent: Wednesday, 18 December 2024 1:45 PM
To: Out of scope @dcceew.gov.au>; Out of scope @dcceew.gov.au>
Cc: Out of scope @pittsh.com.au>
Subject: EPBC 2020-8805- Tasman Highway Upgrade [SEC=OFFICIAL]

OFFICIAL

Good afternoon Out of scope and Out of scope

We have completed the revised Preliminary Documentation and uploaded it to the portal.

Key changes from the Realignment Report that was issued to you are described below.

Stormwater

Stormwater drainage has been revised to include more grassed drains which significantly reduces discharge flows adjacent to Milford to more closely match pre-development flows and also reduce nutrient loading. Near Pittwater road the modelling indicates a 33% reduction in discharge flows and some 200 metres to the east a 5% increase for an overall reduction to discharge flows adjacent to orchid habitat of 8%. We advise that the road reserve has been made as narrow as possible in order to limit land acquisition and impacts to adjacent properties and this in turn limits the land area available for water treatment.
The annual variation in stormwater discharge flows from driest to wettest years now exceeds the change in flows as a result of the development.
The changes in modelled stormwater flows reduce the area of indirect impact to only 13 m^2 of the 17,240 m2 of prasophyllum milfordense habitat and 19,100 m2 of the caladenia saggicola and caladenia caudata habitat.
These changes, together with the reduced impact, have enabled us to reach more definitive conclusions about the extent of stormwater infiltration and flows, and this is reflected throughout the Preliminary Documentation report and Appendices. Given the very small size of the indirect impact area and the mitigation measures we will be implementing we are confident that there will not be a significant impact to any of the

listed species. We have reviewed the mitigation measures and made clearer statements about scope and intent.

Outlier Orchid Record
The outlier record , based on anecdotal accounts of its location and the limits of accuracy of handheld GPS (+/- 10m), is outside the area of indirect impact. This is described in more detail in Section 1.2.2.1 of the Orchid Habitat Significant Impact Assessment (Appendix D).

Pull off areas on Pittwater Road
The pull off areas on Pittwater road are to be modified and revegetated retaining only a narrow shoulder and preventing any parking. We have included a map in the Preliminary Documentation which shows the location of these areas and the reduction in impervious area, and hence source, of contaminated runoff.

New Milford access 1.47 km south of highway
The proposed new access to the Milford property on Pittwater Road 1.47 kilometres south of the highway is also included in the Preliminary Documentation as it is a key component of the project and importantly maintains the functionality of the existing access arrangements for the Milford property.

Thank you for the advice you have provided to date in the referral process and once you have had the opportunity to review the submission we would appreciate the opportunity to meet and discuss any issues that may require clarification. We look forward to your early response in anticipation of being able to publish the Preliminary Documentation for public comment.

Out of scope

Mobile Out of scope | Out of scope @pittsh.com.au | Connect on LinkedIn
Hobart Office — Level 1, Surrey House, 199 Macquarie Street
PO Box 94 Hobart Tasmania 7001 | Phone +61 3 6210 1466
pittsh.com.au

OFFICIAL

From: Out of scope @dcceew.gov.au>
Sent: Thursday, 18 July 2024 1:20 PM
To: Out of scope @pittsh.com.au>; Out of scope @stategrowth.tas.gov.au>; Out of scope @stategrowth.tas.gov.au>; Out of scope @pittsh.com.au
Cc: Out of scope @dcceew.gov.au>; Out of scope @dcceew.gov.au>
Subject: RE: Meeting summary- EPBC 2020-8805- Tasman Highway Upgrade [SEC=OFFICIAL]

[SEC=OFFICIAL]

Hi Out of scope and team,

We have conducted a high-level review of the attached document as discussed.

In regard to your conclusion that the varied project will not result in residual significant impacts we would like to see some additional information in the updated PD documentation before we can provide more guidance.

We note there is a risk of residual indirect impact to between 0.02ha-0.028ha of habitat critical to the survival of critically endangered orchid species. We would like to see the PD provide a very clear view on whether indirect residual impacts to these species are likely, and if so, if they are likely to be significant. This should include clear commitments to mitigation measures and robust justification of the effectiveness of these measures. In many cases the document refers to mitigation measures "being considered" and suggests both that residual impacts may occur, and could potentially be eliminated.

Any updated storm water modelling conducted to support the conclusion that increased flows are likely to soak into the soil before reaching orchid habitat with the new design should also be included. It would also be beneficial to understand why storm water design cannot prevent all overflow (and contaminants) from reaching critical habitat.

We appreciate the varied project will remove the risk of direct impacts but remain concerned that indirect impacts may affect habitat critical to the survival of Milford Leek-orchid in particular and could be considered a residually significant impact given the importance of this population.

We have not conducted a detailed review of the document however we do note the following comments we would like to see addressed in the final PD document

General (example table 5- Appendix B Threatened Orchid- Significant impact Assessment)	Please be sure to provide a clear view on whether indirect residual impacts are likely, and if so, if they are likely to be significant. For example table 5 suggests the action "does potentially (indirectly) affect some critical habitat", while also suggesting mitigation measures will "potentially eliminate any indirect impacts.
Appendix B- Threatened Orchid- Significant impact Assessment	The outlier *Prasophyllum milfordense* located in the north eastern corner does

Figures 6 and 7	not appear on these maps given their scale. Can you confirm if the proposed area of indirect impact will include the location of this outlier?
Appendix B- Threatened Orchid- Significant impact Assessment Table 4	Where 'Total Impact Critical habitat' is calculated on line 3 of the table, clarify this by amending to 'Total Indirect Impact'' or other wording to make it clear only indirect impacts are expected.
General (e.g page 17 and 22 of Appendix B Threatened Orchid- Significant impact Assessment)	When discussing mitigation measures such as those to manage stormwater run off please use clear language like "will" rather than 'could. If the implementation of a mitigation measure is dependant on another factor, such as the results of monitoring please state so. In the final PD please make it clear if pull-off areas will be closed, and if not, whether there is a risk overflow will create indirect impacts greater than the proposed 0.02ha for *P. milfordense*. Also note reference to this mitigation measure on page 13 of Appendix D

We are very happy to meet and talk through these comments.

As discussed, when you are ready you can submit your variation request through the EPBC Business Portal. If you let us know when you have done so we can raise an invoice for your payment.

We are also happy to review a draft of the updated PD at any time but request final versions are not submitted until the variation decision is made.

Kind regards,

Out of scope

Out of scope

Tasmania Assessments Section | Environment Assessments (Vic, Tas) and Post Approvals Branch | Nature Positive Regulation Division

Department of Climate Change, Energy, the Environment and Water

Ngunnawal Country, John Gorton Building, King Edward Terrace, Parkes ACT 2600 | GPO Box 3090

✉ Out of scope @dcceew.gov.au Phone: Out of scope

DCCEEW.gov.au | ABN 63 573 932 849
Out of scope .

From: Out of scope @stategrowth.tas.gov.au>
Sent: Thursday, July 4, 2024 9:32 AM
To: Out of scope @dcceew-migration.gov.au>
Subject: RE: Meeting summary- EPBC 2020-8805- Tasman Highway Upgrade [SEC=OFFICIAL]

Thanks Out of scope

Out of scope
State Roads | Department of State Growth
Level 2, 4 Salamanca Place, Hobart TAS 7000 | GPO Box 536, Hobart TAS 7001
Email: Out of scope @stategrowth.tas.gov.au / MB: Out of scope
www.stategrowth.tas.gov.au

Courage to make a difference through
TEAMWORK | INTEGRITY | EXCELLENCE | RESPECT
In recognition of the deep history and culture of this island, I acknowledge and pay my respects to all Tasmanian Aboriginal people; the past, and present custodians of the Land.

From: Out of scope @dcceew.gov.au>
Sent: Wednesday, July 3, 2024 4:34 PM
To: Out of scope @pittsh.com.au>
Cc: Out of scope @stategrowth.tas.gov.au>; Out of scope @stategrowth.tas.gov.au>; Out of scope @pittsh.com.au>; Out of scope @dcceew.gov.au>; Out of scope @dcceew.gov.au>
Subject: Meeting summary- EPBC 2020-8805- Tasman Highway Upgrade [SEC=OFFICIAL]

[SEC=OFFICIAL]

Hi Out of scope,

Thank you and your team for your time this afternoon.

To summarise our discussion

- DCCEEW will review and provide high level feedback on the document dated 14 June

2024 (Realignment of the Original Design Adjacent to the Milford Property). The focus will be the change in impacts and avoidance, mitigation and offset measures, and what information should be in the final PD. In particular, the conclusion the change in footprint removes any residual significant impact and the need for an offset.

- The variation can be submitted at anytime through the EPBC portal. Once a valid variation and the variation fee is received, a variation decision will be made within 20 business days.

- The draft PD documentation will need to be updated to reflect the varied project and footprint area, any new surveys and changes in avoidance, mitigation and offset proposals. We are happy to review draft PD documents whenever they are ready but request final versions are not submitted until the variation is processed.

- Once we are satisfied with the PD documentation we move on with the assessment process including the public comment process and assessment decision. We will keep you up to date with each step as we get there.

Please reach out if you have any questions.

Kind regards,

Out of scope

Out of scope

Tasmania Assessments Section | Environment Assessments (Vic, Tas) and Post Approvals Branch | Nature Positive Regulation Division
Department of Climate Change, Energy, the Environment and Water
Ngunnawal Country, John Gorton Building, King Edward Terrace, Parkes ACT 2600 | GPO Box 3090
✉Out of scope @dcceew.gov.au Phone: Out of scope

DCCEEW.gov.au | ABN 63 573 932 849

Out of scope

[SEC=OFFICIAL]

------ IMPORTANT - This email and any attachments have been issued by the Commonwealth of Australia (Commonwealth). The material transmitted is for the use of the intended recipient only and may contain confidential, legally privileged, copyright or personal information. You should not copy, use or disclose it without authorisation from the Commonwealth. It is your responsibility to check any attachments for viruses and defects before opening or forwarding them. If you are not an intended recipient, please contact the sender of this email at once by return email and then delete both messages. Unintended recipients must not copy, use, disclose, rely on or publish this email or attachments. The Commonwealth is not liable for any loss or damage resulting from unauthorised use or dissemination of, or any reliance on, this email or attachments. If you have received this e-mail as part of a valid mailing list and no longer want to receive a message such as this one, advise the sender by return e-mail accordingly. This notice should not be deleted or altered ------

------ IMPORTANT - This email and any attachments have been issued by the Commonwealth of Australia (Commonwealth). The material transmitted is for the use of the intended recipient only and may contain confidential, legally privileged, copyright or personal information. You should not copy, use or disclose it without authorisation from the Commonwealth. It is your responsibility to check any attachments for viruses and defects before opening or forwarding them. If you are not an intended recipient, please contact the sender of this email at once by return email and then delete both messages. Unintended recipients must not copy, use, disclose, rely on or publish this email or attachments. The Commonwealth is not liable for any loss or damage resulting from unauthorised use or dissemination of, or any reliance on, this email or attachments. If you have received this e-mail as part of a valid mailing list and no longer want to receive a message such as this one, advise the sender by return e-mail accordingly. This notice should not be deleted or altered ------

From: Out of scope
To: Out of scope
Cc: Out of scope
Subject: FW: Revised Preliminary Documentation Received - EPBC 2020-8805- Tasman Highway Upgrade [SEC=OFFICIAL]
Date: Monday, 10 March 2025 3:12:23 PM
Attachments: image001.jpg
image002.jpg

Good afternoon

Please refer below, Wednesday 26th March, 11 am for meeting with DCCEEW.

Regards

Out of scope

Mobile Out of scope | Out of scope@pittsh.com.au | Connect on LinkedIn

Hobart Office — Level 1, Surrey House, 199 Macquarie Street
PO Box 94 Hobart Tasmania 7001 | Phone +61 3 6210 1466

pittsh.com.au

From: Out of scope @dcceew.gov.au>
Sent: Wednesday, 5 March 2025 12:06 PM
To: Out of scope @pittsh.com.au>
Cc: Out of scope @dcceew.gov.au>
Subject: RE: Revised Preliminary Documentation Received - EPBC 2020-8805- Tasman Highway Upgrade [SEC=OFFICIAL]

OFFICIAL

Hi Out of scope,

Our team is available to meet and discuss the comments on Wednesday the 26th of March between 11am – 12.30pm.

Please let us know if a period in that window suits your team.

Kindest,

Out of scope

Tasmania Assessments Section | Environment Assessments (Vic and Tas) and Post Approvals Branch | Nature Positive Regulation Division
Department of Climate Change, Energy, the Environment and Water
E: Out of scope @dcceew.gov.au |
P: Out of scope

DCCEEW.gov.au | ABN 63 573 932 849

OFFICIAL

From: Out of scope @pittsh.com.au>
Sent: Monday, 3 March 2025 2:04 PM
To: Out of scope @dcceew.gov.au>
Subject: RE: Revised Preliminary Documentation Received - EPBC 2020-8805- Tasman Highway Upgrade [SEC=OFFICIAL]

OFFICIAL

Good afternoon Out of scope

We have reviewed your comments and seek some clarification from you. We would be available next Tuesday or Wednesday (11th/12th March) or Monday Tuesday or Wednesday (24th, 25th , 26th March)

Regards

Out of scope

Mobile Out of scope | Out of scope @pittsh.com.au | Connect on LinkedIn

Hobart Office — Level 1, Surrey House, 199 Macquarie Street
PO Box 94 Hobart Tasmania 7001 | Phone +61 3 6210 1466

pittsh.com.au

OFFICIAL

From: Out of scope @dcceew.gov.au>
Sent: Thursday, 20 February 2025 12:54 PM
To: Out of scope @pittsh.com.au>
Cc: Out of scope @dcceew.gov.au>
Subject: RE: Revised Preliminary Documentation Received - EPBC 2020-8805- Tasman Highway Upgrade [SEC=OFFICIAL]

OFFICIAL

Good morning Out of scope,

We apologise on the delay of the attached comments which relate to the Revised Preliminary Documentation for the Tasman Highway Upgrade (EPBC 2020/8805).

We endeavour to progress your assessment on receipt of the next draft.

Our team is happy to meet if you have any questions on the outstanding comments.

Kindest,

Out of scope

Tasmania Assessments Section | Environment Assessments (Vic and Tas) and Post Approvals Branch | Nature Positive Regulation Division
Department of Climate Change, Energy, the Environment and Water
E: Out of scope @dcceew.gov.au |
P: Out of scope

DCCEEW.gov.au | ABN 63 573 932 849

OFFICIAL

From: Out of scope @pittsh.com.au>
Sent: Wednesday, 19 February 2025 3:26 PM
To: Out of scope @dcceew.gov.au>
Subject: RE: Revised Preliminary Documentation Received - EPBC 2020-8805- Tasman Highway Upgrade [SEC=OFFICIAL]

OFFICIAL

Good afternoon Out of scope

We look forward to receiving your comments on the Preliminary Documentation. Can you please confirm when we will receive them.

Regards

Out of scope

Mobile Out of scope | Out of scope @pittsh.com.au | Connect on LinkedIn

Hobart Office — Level 1, Surrey House, 199 Macquarie Street
PO Box 94 Hobart Tasmania 7001 | Phone +61 3 6210 1466

pittsh.com.au

OFFICIAL

From: Out of scope @dcceew.gov.au>
Sent: Monday, 10 February 2025 11:06 AM
To: Out of scope @pittsh.com.au>
Cc: Out of scope @dcceew.gov.au>
Subject: RE: Revised Preliminary Documentation Received - EPBC 2020-8805- Tasman Highway Upgrade [SEC=OFFICIAL]

OFFICIAL

Morning Out of scope,

We apologise that these comments did not reach you in our intended timeframe.

Some complexities arose during our review process, however, endeavour we to have these with you as soon as possible.

Kindest,

Out of scope

Tasmania Assessments Section | Environment Assessments (Vic and Tas) and Post Approvals Branch | Nature Positive Regulation Division
Department of Climate Change, Energy, the Environment and Water
E: Out of scope **@dcceew.gov.au** |
P: Out of scope

DCCEEW.gov.au | ABN 63 573 932 849

OFFICIAL

From: Out of scope @pittsh.com.au>
Sent: Friday, 7 February 2025 8:39 AM
To: Out of scope @dcceew.gov.au>
Subject: RE: Revised Preliminary Documentation Received - EPBC 2020-8805- Tasman Highway Upgrade [SEC=OFFICIAL]

OFFICIAL

Good morning Out of scope

Any update on forwarding the comments on the Preliminary Documentation to us.

Regards

Out of scope

Mobile Out of scope | Out of scope @pittsh.com.au | Connect on LinkedIn

Hobart Office — Level 1, Surrey House, 199 Macquarie Street
PO Box 94 Hobart Tasmania 7001 | Phone +61 3 6210 1466
pittsh.com.au

OFFICIAL

From: Out of scope @dcceew.gov.au>
Sent: Thursday, 30 January 2025 10:49 AM
To: Out of scope @pittsh.com.au>
Cc: Out of scope @dcceew.gov.au>
Subject: RE: Revised Preliminary Documentation Received - EPBC 2020-8805- Tasman Highway Upgrade [SEC=OFFICIAL]

OFFICIAL

Good morning Out of scope,

We anticipate the comments to be back with you early next week.

Kindest,

Out of scope

Tasmania Assessments Section | Environment Assessments (Vic and Tas) and Post Approvals Branch | Nature Positive Regulation Division
Department of Climate Change, Energy, the Environment and Water
E: Out of scope **@dcceew.gov.au |**
P: Out of scope

DCCEEW.gov.au | ABN 63 573 932 849

OFFICIAL

From: Out of scope @pittsh.com.au>
Sent: Wednesday, 29 January 2025 12:26 PM
To: Out of scope @dcceew.gov.au>
Subject: RE: Revised Preliminary Documentation Received - EPBC 2020-8805- Tasman Highway Upgrade [SEC=OFFICIAL]

OFFICIAL

Good afternoon Out of scope

Can we expect your comments on the Preliminary Documentation in the near future.

Regards

Out of scope

Mobile Out of scope | Out of scope @pittsh.com.au | Connect on LinkedIn

Hobart Office — Level 1, Surrey House, 199 Macquarie Street
PO Box 94 Hobart Tasmania 7001 | Phone +61 3 6210 1466

pittsh.com.au

From: Out of scope
To: Out of scope@pittsh.com.au
Cc: Out of scope
Subject: FW: Tasman Highway design Files
Date: Wednesday, 18 September 2024 9:50:44 AM
Attachments: imgsig1.1_0008214f-fe82-4cef-99c5-e2a1c6e15e57.png

---

Hi Out of scope

Can you provide me with the below requested information.

Regards

Out of scope
State Roads | Department of State Growth
Level 2, 4 Salamanca Place, Hobart TAS 7000 | GPO Box 536, Hobart TAS 7001
PH: Out of scope | MB: Out of scope
www.stategrowth.tas.gov.au

Courage to make a difference through

TEAMWORK | INTEGRITY | EXCELLENCE | RESPECT

In recognition of the deep history and culture of this island, I acknowledge and pay my respects to all Tasmanian Aboriginal people; the past, and present custodians of the Land.

From: Out of scope
Sent: Tuesday, September 17, 2024 5:05 PM
To: Out of scope
Cc: Out of scope'
Subject: Tasman Highway design Files

Hi Out of scope,

In assisting Out of scope in the determination of the proposed amendments on her land, is it possible for you to provide the following additional information:

1. Drainage drawings and updated Stormwater Discharge Report
2. Drawings that are able to demonstrate vegetation clearing extents
3. Access track swept path drawings for: TFS, TasWater, Hobart Airport Emergency Response Unit vehicle, and TasNetworks service vehicles
4. Access gate and fencing details
5. Design drawings that include proposed boundaries for the land to be returned.

The last dot point may or may not be critical, drawing layer control has revealed linework in the area that we think is the boundary but not confirmed.

Many thanks,

Out of scope

117 Harrington St. Hobart TAS 7000
E: Out of scope@jmg.net.au
P: 03 6231 2555

Privacy Policy

From: Out of scope
To: "Out of scope"
Subject: FW: Tasman Highway: Hobart Airport to Midway Point Causeway - Detailed design for Review
Date: Monday, 5 August 2024 1:04:00 PM
Attachments: Tasman Hwy Pittwater Rd.pdf
image001.png
Pittwater Signals.pdf

Hi Out of scope,

Please note the comments on the previous design from ITS and the signal group. Can you please review and update the drawings and if necessary discuss any details to confirm the requirements.

Thanks,

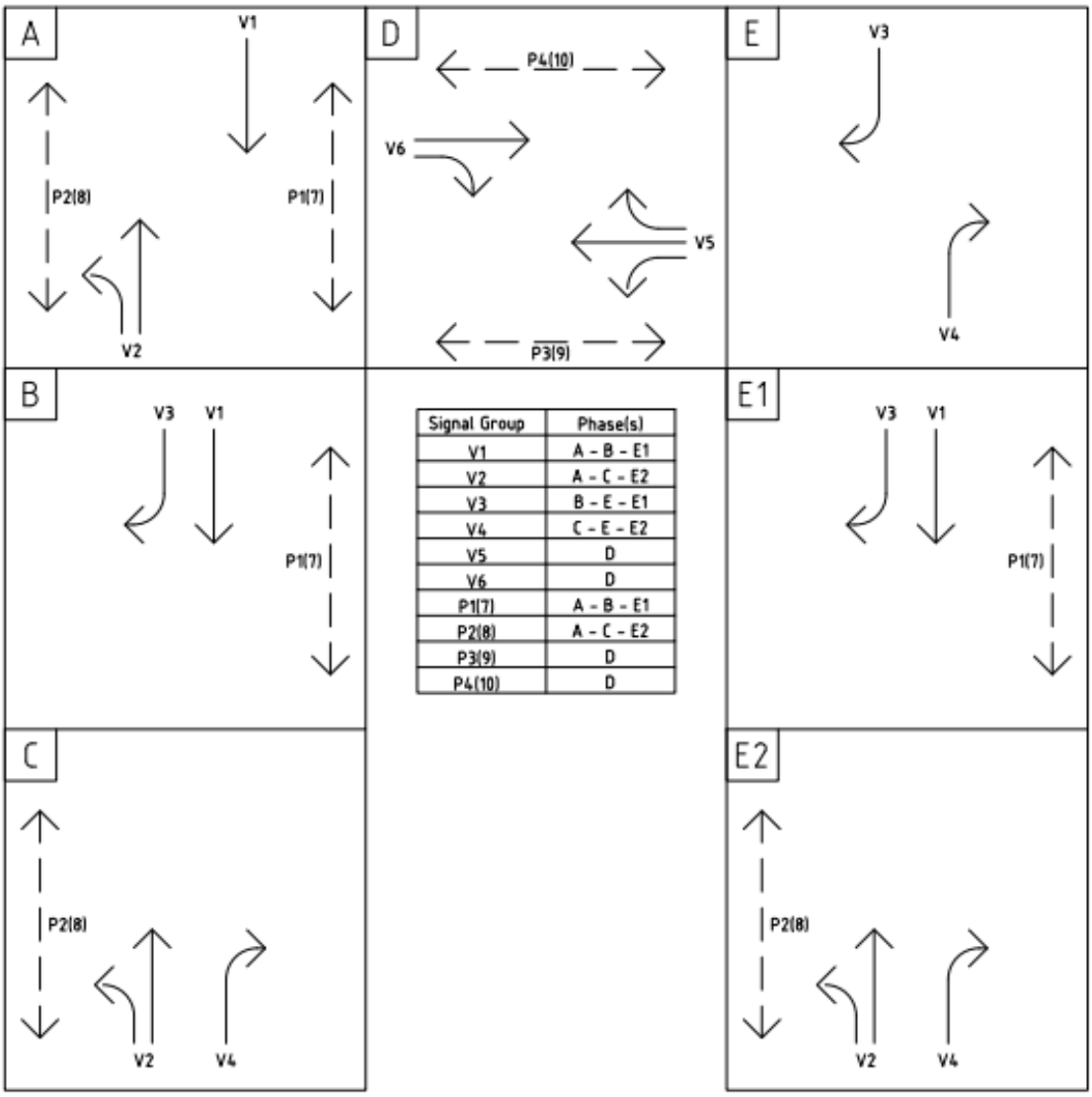
Out of scope
State Roads | Department of State Growth
Level 2, 4 Salamanca Place, Hobart TAS 7000 | GPO Box 536, Hobart TAS 7001
Email: Out of scope@stategrowth.tas.gov.au / MB: Out of scope
www.stategrowth.tas.gov.au
Courage to make a difference through
TEAMWORK | INTEGRITY | EXCELLENCE | RESPECT
In recognition of the deep history and culture of this island, I acknowledge and pay my respects to all Tasmanian Aboriginal people; the past, and present custodians of the Land.

From: Traffic Systems
Sent: Monday, August 5, 2024 12:57 PM
To: Out of scope
Cc: Traffic Systems
Subject: RE: Tasman Highway: Hobart Airport to Midway Point Causeway - Detailed design for Review

Hey All,

Not sure where this drawing initially came from, but there are a few changes needed on the drawing to accurately reflect the operational requirements – see attached.

The phase layout should be similar to below:



Signal Group	Phase(s)
V1	A - B - E1
V2	A - C - E2
V3	B - E - E1
V4	C - E - E2
V5	D
V6	D
P1(7)	A - B - E1
P2(8)	A - C - E2
P3(9)	D
P4(10)	D

Note that P2 (across the Tasman Hwy on the northern side) has a kerb-to-kerb distance of 28m, which will require a Clearance time of something like 20s. With the 5s Walk time and intergreen this will cause D-phase to run for more than 30s just to service the ped. Any pedestrian starting on the western side will quickly clear the conflict zone, but a ped starting on the eastern side will take about 15s to even reach the conflict zone – do we need to be providing any sort of pedestrian safety mitigation?

Out of scope
Traffic Operations |Network Management Branch | Department of State Growth
76 Federal St, Hobart, TAS 7000 | GPO Box 536, Hobart TAS 7001
Phone: Out of scope | Mobile: Out of scope
Traffic Operations: (03) 6166 3400 | traffic.operations@stategrowth.tas.gov.au

From: Out of scope @stategrowth.tas.gov.au>
Sent: Monday, August 5, 2024 11:57 AM
To: Out of scope @stategrowth.tas.gov.au>; Out of scope @stategrowth.tas.gov.au>
Cc: Traffic Systems <traffic.systems@stategrowth.tas.gov.au>
Subject: RE: Tasman Highway: Hobart Airport to Midway Point Causeway - Detailed design for Review

Hi Out of scope

I have had a close look at the traffic signal plan, please see attached all my comments.
From my initial look it seemed pretty good until, then I had a detailed look and have quite a few comments.

My apologies for being a few days late.
Regards

Out of scope
Asset Management Branch | Department of State Growth
76 Federal Street, North Hobart TAS 7000 | GPO Box 536, Hobart TAS 7001
Phone: Out of scope | Mobile: Out of scope
www.stategrowth.tas.gov.au

TRAFFIC SIGNAL FAULTS – 1300 139 933
Courage to make a difference through
TEAMWORK | INTEGRITY | RESPECT | EXCELLENCE

From: Out of scope @stategrowth.tas.gov.au>
Sent: Tuesday, July 2, 2024 1:37 PM
To: Out of scope @stategrowth.tas.gov.au>
Cc: Out of scope @stategrowth.tas.gov.au>
Subject: FW: Tasman Highway: Hobart Airport to Midway Point Causeway - Detailed design for Review
Have a look Out of scope, we have a month to comment.
Out of scope you may have some thoughts too.
Cheers
Out of scope

From: Out of scope @stategrowth.tas.gov.au>
Sent: Tuesday, July 2, 2024 11:58 AM
To: Out of scope @stategrowth.tas.gov.au>; Out of scope @stategrowth.tas.gov.au>; Out of scope @stategrowth.tas.gov.au>; Out of scope @stategrowth.tas.gov.au>
Cc: Intelligent Transport Systems <its.team@stategrowth.tas.gov.au>; Out of scope @pittsh.com.au>; Out of scope @stategrowth.tas.gov.au>
Subject: Tasman Highway: Hobart Airport to Midway Point Causeway - Detailed design for Review
Hi all,

The SETS Hobart Airport to Midway Point Causeway Project design was completed in 2021. Since then we have been working towards finding a solution that meets the EPBC and landholder requirements. The project team have now come up with a revision to the design that essentially moves the design near Pittwater road 10m North towards the Golf Course (see attached roll plan) with a few other minor adjustments.

Before we progress with work on updating the design documents I thought it worth while sending the project information around for a further review as some internal requirements may have changed since 2021.

This is your chance to advise of anything you think needs to be changed from the previous design.

If you have any comments can they please be provided to me by Monday 02 August.

Happy to discuss if needed

Thanks, [redacted]

------< Content Manager Record Information >------

https://im-dsg.stategrowth.tas.gov.au/WebClient/?uri=8223352&t=record

Record Number: D21/95250
Title: Tasman Highway to Midway Point Causeway-Detailed Design Road Safety Audit

------< Content Manager Record Information >------

https://im-dsg.stategrowth.tas.gov.au/WebClient/?uri=8223345&t=record

Record Number: 077942/4/1
Title: Airport to Midway Pt. Causeway Spec Appendices

------< Content Manager Record Information >------

https://im-dsg.stategrowth.tas.gov.au/WebClient/?uri=8223334&t=record

Record Number: D21/95243
Title: Airport to Midway Pt Causeway - Draft spec

------< Content Manager Record Information >------

https://im-dsg.stategrowth.tas.gov.au/WebClient/?uri=8183210&t=record

Record Number: D21/78180
Title: Hobart Airport to Midway Point Causeway Detailed design Report

------< Content Manager Record Information >------

https://im-dsg.stategrowth.tas.gov.au/WebClient/?uri=8183191&t=record

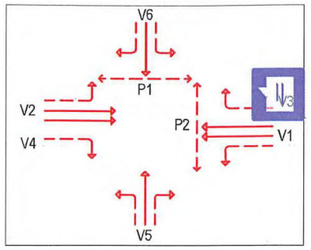
Record Number: D21/78172
Title: Airport to Midway Point Causeway Detailed Design Drawings

Attachment 32a

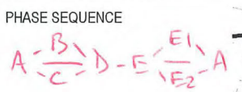
SIGNAL GROUP	PHASE
V1	A B E1
V2	A C E2
V3	B E E1
V4	C E E2
V5	D
V6	D

SIGNAL GROUP	PHASE
P1 (7)	A C E2
P2 (8)	D

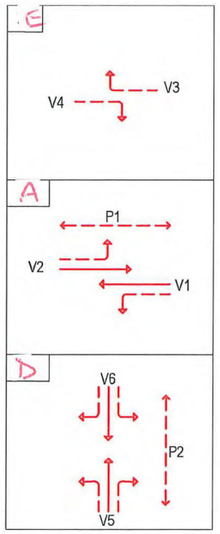
SIGNAL GROUP

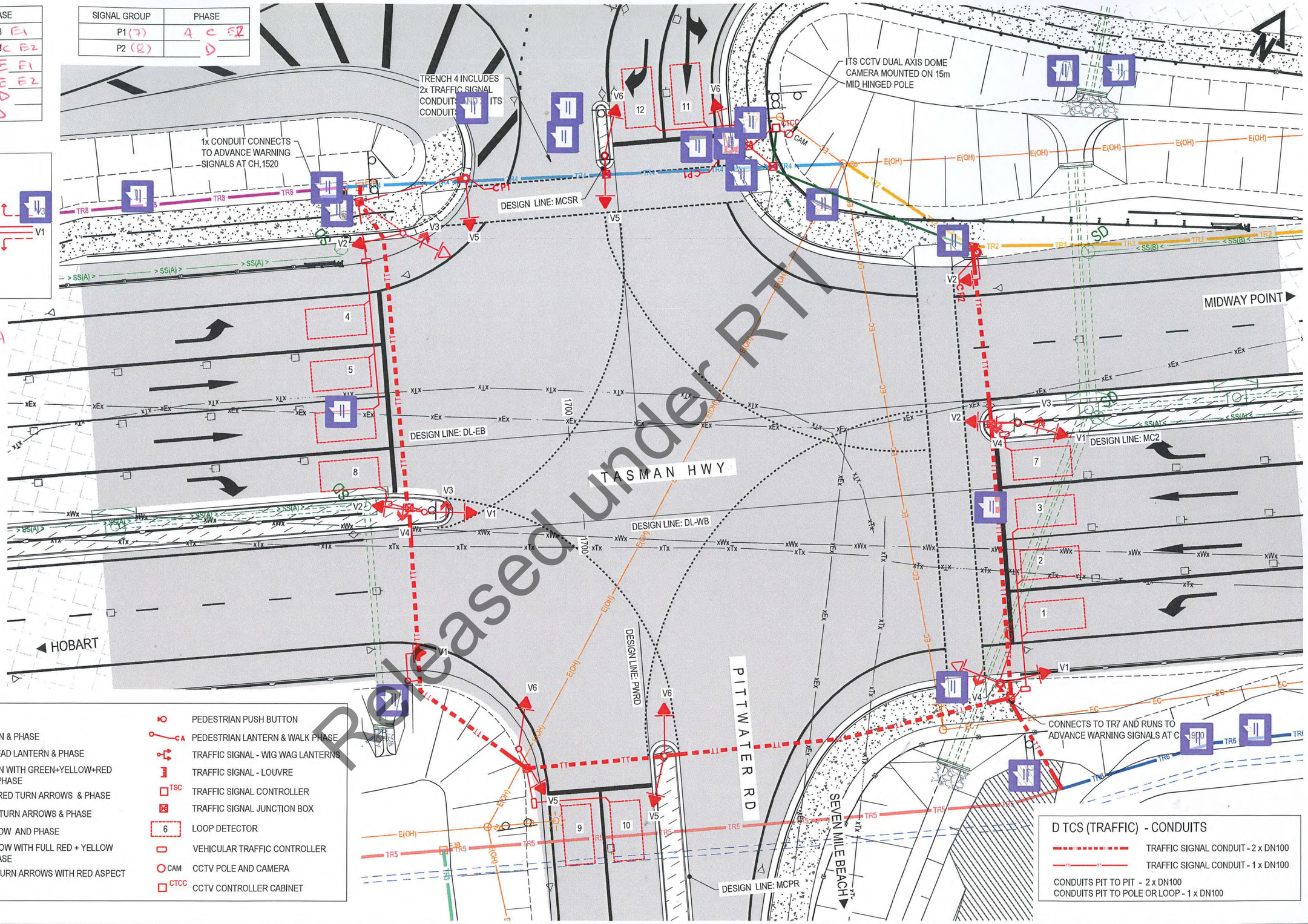


PHASE SEQUENCE



PHASE DIAGRAM





D TCS (TRAFFIC)

- 3 ASPECT LANTERN & PHASE
- 3 ASPECT OVERHEAD LANTERN & PHASE
- 3 ASPECT LANTERN WITH GREEN+YELLOW+RED TURN ARROWS & PHASE
- GREEN+YELLOW+RED TURN ARROWS & PHASE
- GREEN + YELLOW TURN ARROWS & PHASE
- GREEN TURN ARROW AND PHASE
- GREEN TURN ARROW WITH FULL RED + YELLOW ASPECTS AND PHASE
- GREEN+YELLOW TURN ARROWS WITH RED ASPECT & PHASE
- PEDESTRIAN PUSH BUTTON
- PEDESTRIAN LANTERN & WALK PHASE
- TRAFFIC SIGNAL - WIG WAG LANTERNS
- TRAFFIC SIGNAL - LOUVRE
- TSC TRAFFIC SIGNAL CONTROLLER
- TRAFFIC SIGNAL JUNCTION BOX
- 6 LOOP DETECTOR
- VEHICULAR TRAFFIC CONTROLLER
- CAM CCTV POLE AND CAMERA
- CTCC CCTV CONTROLLER CABINET

D TCS (TRAFFIC) - CONDUITS

- TRAFFIC SIGNAL CONDUIT - 2 x DN100
- TRAFFIC SIGNAL CONDUIT - 1 x DN100

CONDUITS PIT TO PIT - 2 x DN100
CONDUITS PIT TO POLE OR LOOP - 1 x DN100

No.	Amendment Description	Initials	Date
A	DETAILED DESIGN	Out of scope	17/03/2021

A3 original | This sheet may be prepared using colour and may be incomplete if copied

SCALES
1:250m (A3)
2.5 0 2.5 5 7.5 10
SCALE IN METRES - 1:250

Co-ordinate System: MGA ZONE 55 | Height Datum: A.H.D.

pitt&sherry

Tasmanian Government

DESIGNED . Out of scope . . . . . .
REVIEWED . Out of scope . . . . . .

Department of State Growth

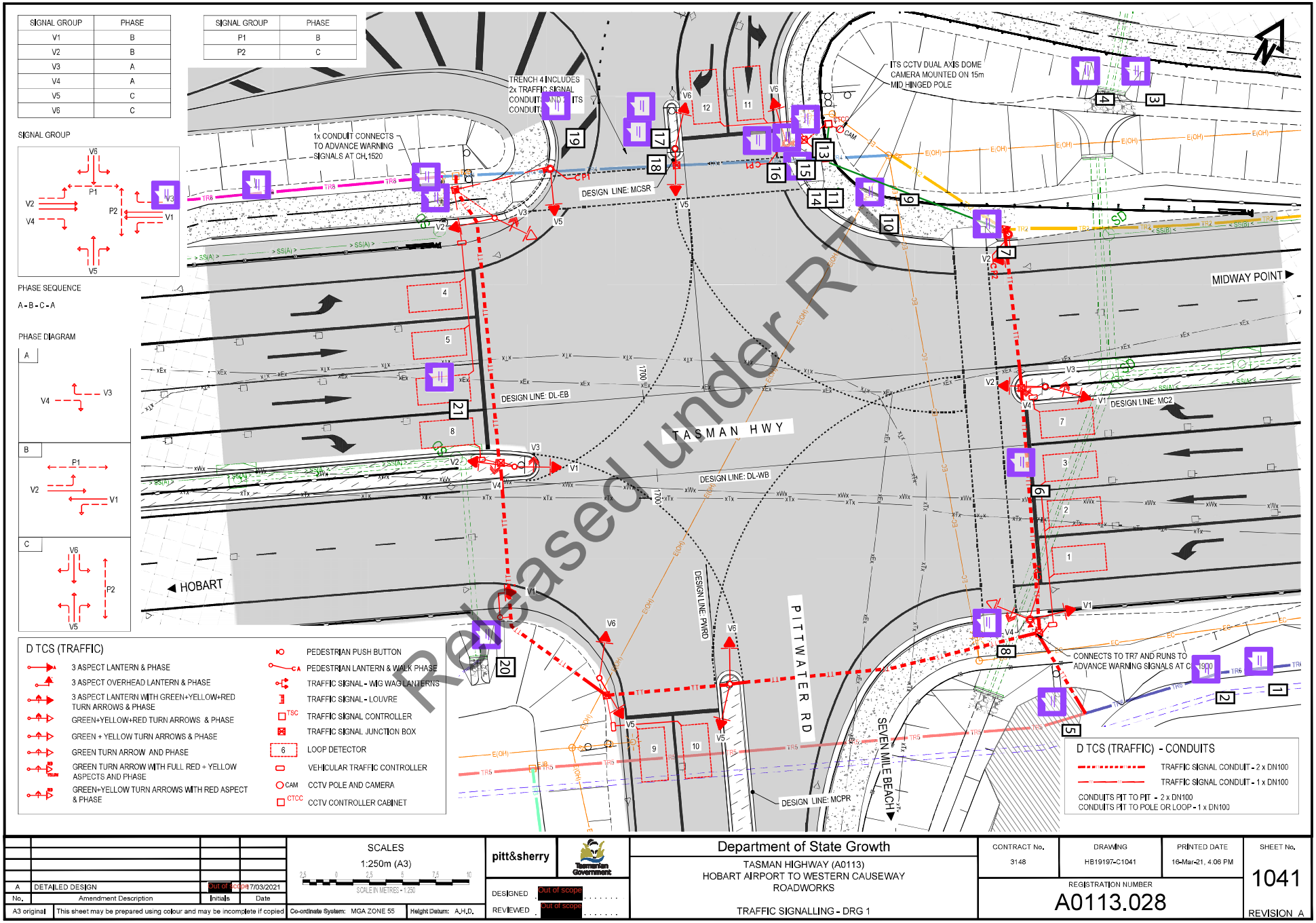
TASMAN HIGHWAY (A0113)
HOBART AIRPORT TO WESTERN CAUSEWAY
ROADWORKS

TRAFFIC SIGNALLING - DRG 1

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3148	HB19197-C1041	16-Mar-21, 4:06 PM	1041

REGISTRATION NUMBER
A0113.028

REVISION A



No.	Amendment Description	Initials	Date
A	DETAILED DESIGN	Out of scope	17/03/2021

A3 original | This sheet may be prepared using colour and may be incomplete if copied

SCALES
1:250m (A3)
SCALE IN METRES - 1:250

Co-ordinate System: MGA ZONE 55 | Height Datum: A.H.D.

pitt&sherry | Tasmanian Government

DESIGNED Out of scope
REVIEWED Out of scope

Department of State Growth
TASMAN HIGHWAY (A0113)
HOBART AIRPORT TO WESTERN CAUSEWAY
ROADWORKS
TRAFFIC SIGNALLING - DRG 1

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3148	HB19197-C1041	16-Mar-21, 4:06 PM	1041

REGISTRATION NUMBER
A0113.028

REVISION A

Summary of Comments on D21 78172 Airport to Midway Point Causeway Detailed Design Drawings.PDF

Page: 1

Number: 1 Author: Out of scope Subject: Sticky Note Date: 5/08/2024 11:46:08 AM
s35

Number: 2 Author: Out of scope Subject: Sticky Note Date: 5/08/2024 11:45:33 AM
s35

Number: 3 Author: Out of scope Subject: Sticky Note Date: 5/08/2024 11:51:14 AM
s35

Number: 4 Author: Out of scope Subject: Sticky Note Date: 5/08/2024 11:51:16 AM
s35

Number: 5 Author: Out of scope Subject: Sticky Note Date: 5/08/2024 11:23:36 AM
s35

Number: 6 Author: Out of scope Subject: Sticky Note Date: 5/08/2024 11:22:28 AM
s35

Number: 7 Author: Out of scope Subject: Sticky Note Date: 5/08/2024 11:49:10 AM
s35

Number: 8 Author: Out of scope Subject: Sticky Note Date: 5/08/2024 11:49:25 AM
s35

Number: 9 Author: Out of scope Subject: Line Date: 5/08/2024 11:29:50 AM

Number: 10 Author: Out of scope Subject: Sticky Note Date: 5/08/2024 11:29:27 AM
s35

Number: 11 Author: Out of scope Subject: Line Date: 5/08/2024 11:29:59 AM

Number: 12 Author: Out of scope Subject: Line Date: 5/08/2024 11:29:55 AM
s35

Number: 13 Author: Out of scope Subject: Sticky Note Date: 5/08/2024 11:34:13 AM
s35

Number: 14 Author: Out of scope Subject: Sticky Note Date: 5/08/2024 11:30:44 AM
s35

Number: 15 Author: Out of scope Subject: Sticky Note Date: 5/08/2024 11:29:20 AM
s35

Number: 16 Author: Out of scope Subject: Sticky Note Date: 5/08/2024 11:26:57 AM
s35

Number: 17 Author: Out of scope Subject: Sticky Note Date: 5/08/2024 11:50:57 AM
s35

Number: 18 Author: Out of scope Subject: Sticky Note Date: 5/08/2024 11:22:53 AM
s35

Number: 19 Author: Out of scope Subject: Sticky Note Date: 5/08/2024 11:26:12 AM
s35

Number: 20 Author: Out of scope Subject: Sticky Note Date: 5/08/2024 11:52:09 AM
s35

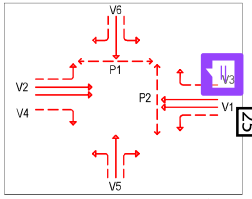
Number: 21 Author: Out of scope Subject: Sticky Note Date: 5/08/2024 11:21:52 AM
s35

Comments from page 1 continued on next page

SIGNAL GROUP	PHASE
V1	B
V2	B
V3	A
V4	A
V5	C
V6	C

SIGNAL GROUP	PHASE
P1	B
P2	C

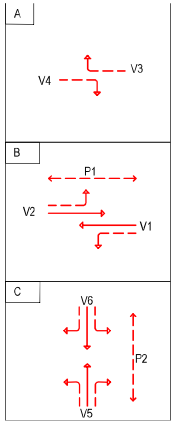
SIGNAL GROUP



PHASE SEQUENCE

A - B - C - A

PHASE DIAGRAM



TRENCH 4 INCLUDES 2x TRAFFIC SIGNAL CONDUITS, ITS CONDUIT

1x CONDUIT CONNECTS TO ADVANCE WARNING SIGNALS AT CH.1520

ITS CCTV DUAL AXIS DOME CAMERA MOUNTED ON 15m MID HINGED POLE

DESIGN LINE: MCSR

DESIGN LINE: DL-EB

DESIGN LINE: DL-WB

DESIGN LINE: MC2

DESIGN LINE: PWRD

DESIGN LINE: MCPR

TASMAN HWY

PITTWATER RD

SEVEN MILE BEACH

MIDWAY POINT

HOBART

CONNECTS TO TR7 AND RUNS TO ADVANCE WARNING SIGNALS AT CH.1900

D TCS (TRAFFIC)

- 3 ASPECT LANTERN & PHASE
- 3 ASPECT OVERHEAD LANTERN & PHASE
- 3 ASPECT LANTERN WITH GREEN+YELLOW+RED TURN ARROWS & PHASE
- GREEN+YELLOW+RED TURN ARROWS & PHASE
- GREEN + YELLOW TURN ARROWS & PHASE
- GREEN TURN ARROW AND PHASE
- GREEN TURN ARROW WITH FULL RED + YELLOW ASPECTS AND PHASE
- GREEN+YELLOW TURN ARROWS WITH RED ASPECT & PHASE
- PEDESTRIAN PUSH BUTTON
- PEDESTRIAN LANTERN & WALK PHASE
- TRAFFIC SIGNAL - WIG WAG LANTERNS
- TRAFFIC SIGNAL - LOUVRE
- TSC TRAFFIC SIGNAL CONTROLLER
- TRAFFIC SIGNAL JUNCTION BOX
- 6 LOOP DETECTOR
- VEHICULAR TRAFFIC CONTROLLER
- CAM CCTV POLE AND CAMERA
- CTCC CCTV CONTROLLER CABINET

D TCS (TRAFFIC) - CONDUITS

- TRAFFIC SIGNAL CONDUIT - 2 x DN100
- TRAFFIC SIGNAL CONDUIT - 1 x DN100

CONDUITS PIT TO PIT - 2 x DN100
CONDUITS PIT TO POLE OR LOOP - 1 x DN100

No.	Amendment Description	Initials	Date
A	DETAILED DESIGN	Out of scope	17/03/2021

A3 original | This sheet may be prepared using colour and may be incomplete if copied

SCALES
1:250m (A3)
SCALE IN METRES - 1:250

Co-ordinate System: MGA ZONE 55 | Height Datum: A.H.D.

pitt&sherry

DESIGNED Out of scope

REVIEWED Out of scope

Department of State Growth

TASMAN HIGHWAY (A0113)
HOBART AIRPORT TO WESTERN CAUSEWAY
ROADWORKS

TRAFFIC SIGNALLING - DRG 1

CONTRACT No.	DRAWING	PRINTED DATE	SHEET No.
3148	HB19197-C1041	16-Mar-21, 4:06 PM	1041

REGISTRATION NUMBER
A0113.028

REVISION A

Number: 22 Author: Out of scope Subject: Sticky Note Date: 5/08/2024 11:24:46 AM
s35

Number: 23 Author: Out of scope Subject: Sticky Note Date: 5/08/2024 11:46:53 AM
s35

Number: 24 Author: Out of scope Subject: Sticky Note Date: 5/08/2024 11:45:23 AM
s35

Number: 25 Author Out of scope Subject: Sticky Note Date: 5/08/2024 11:46:01 AM
s35

From: Out of scope
To: Out of scope
Subject: FW: Tasman Highway Minor Amendment NVAs
Date: Monday, 14 October 2024 3:01:11 PM
Attachments: image001.jpg
Duplicate
Airport_to_Pittwater Bluff_TasmanHwy_Minor Amendment_NVA_NBES_20241009.pdf
PAS150 A4P_Fig10_Milford_drainage_20241008.jpg

Hi Out of scope

Attached please find updated reports from North Barker reflecting the latest stormwater flows. The Golf Course NVA did not need to be changed.

Regards

Out of scope

Mobile Out of scope | Out of scope@pittsh.com.au | Connect on LinkedIn
Hobart Office — Level 1, Surrey House, 199 Macquarie Street
PO Box 94 Hobart Tasmania 7001 | Phone +61 3 6210 1466
pittsh.com.au

From: Out of scope @northbarker.com.au>
Sent: Wednesday, October 9, 2024 2:58 PM
To: Out of scope @pittsh.com.au>; Out of scope @northbarker.com.au>
Subject: RE: Tasman Highway Minor Amendment NVAs

Hi Out of scope,
Amended reports as discussed.
Plus a jpeg of the latest stormwater figure.
Cheer Out of scope

Out of scope
Mob. Out of scope

From: Out of scope @pittsh.com.au>
Sent: Monday, 7 October 2024 2:12 PM
To: Out of scope @northbarker.com.au>; Out of scope @northbarker.com.au>
Subject: Tasman Highway Minor Amendment NVAs

Hi Out of scope and Out of scope

I have reviewed the NVAs with respect to the changes to stormwater flows and provide the following comments.

Holyman Avenue to Pittwater Bluff NVA
Amend Section 3.4 and figure 7 to reflect the revised stormwater discharge flows. I note this looks relatively minor.

Tasmania Golf Club NVA
No change required

Regards

Out of scope

Mobile Out of scope | Out of scope@pittsh.com.au | Connect on LinkedIn

Hobart Office — Level 1, Surrey House, 199 Macquarie Street
PO Box 94 Hobart Tasmania 7001 | Phone +61 3 6210 1466

pittsh.com.au

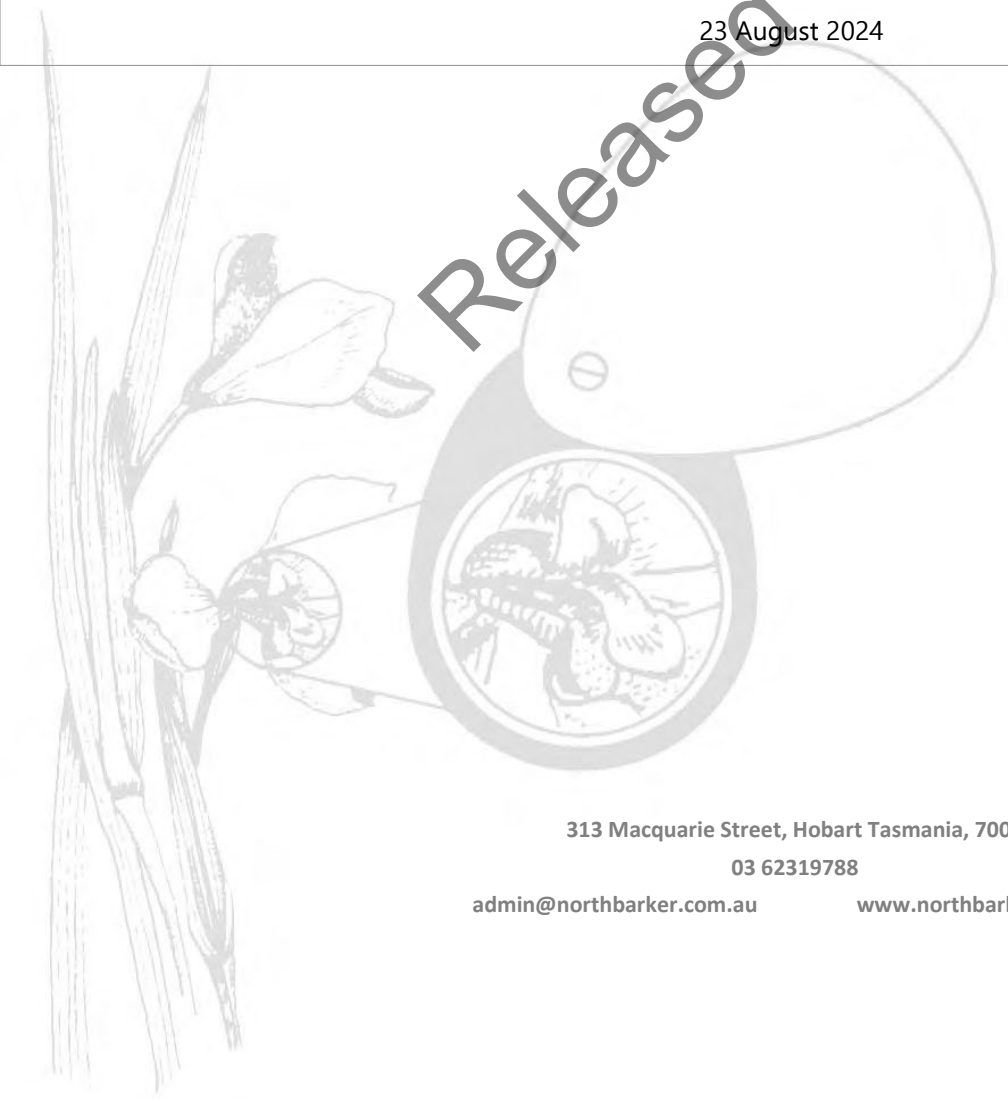
northbarker
ECOSYSTEM SERVICES

Tasman Highway Southeast Tasmania Transport Solution (SETS)
Holyman Avenue to Pittwater Bluff
changes to design

Natural Values Implications

For Pitt & Sherry obo Department of State Growth
PAS150

23 August 2024



313 Macquarie Street, Hobart Tasmania, 7000
03 62319788
admin@northbarker.com.au www.northbarker.com.au

Client contacts: Out of scope and Out of scope, Pitt & Sherry,

Contributors:

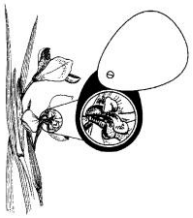
Project Management: Out of scope

Mapping: Out of scope

Photos: Out of scope

File Control

Version	Date	Author	Comment
V 1.0	4/4/2024	Out of scope	Response to Council RFI
V1.1	8/4/2024	Out of scope	Response to review by Out of scope
V1.2	2/5/2024	Out of scope	Response to review to Out of scope
V1.3	23/08/2024	Out of scope	Response to minor comment by Out of scope
V1.4	09/10/2024	Out of scope	Amendment to drainage map (Fig



Contents

1 Introduction

1.1 Background

The Department of State Growth (DSG) is proposing to duplicate the Tasman Highway between Hobart Airport Interchange and Pitt Water Bluff, which forms one stage in the Southeast Tasmania Traffic Solutions Project (SETS). SETS aims to help maintain the liveability of Sorell and the southern beaches by improving travel time reliability and safety through a more efficient and safer road network.

A planning permit with Clarence City Council is in place for a layout for the project (PDPLANPMTD-2021/017782).

DSG are proposing a minor amendment (PDPLIMPLN-2023/040386) to the design through the partial realignment of approximately 400 m section of the highway opposite Pittwater Road. This is intended to avoid any direct impact to habitat for threatened orchid species located within the Milford property on the south side of the Tasman Highway. This application included a report describing the natural values along the north side of the Tasman Highway extending into the additional footprint area:

- *Tasman Highway Road, South-East Tasmania Transport Solution (SETS). Tasmania Golf Club, Natural Values Assessment Summary. North Barker Ecosystem Services 28 September 2023.*

The report is included in full in as Attachment A. Council have completed a preliminary planning assessment (dated 16 January 2024) which has identified a need for further information:

> c) Concerning condition 7(a), provide an updated NVA 'Tasman Highway Holyman Avenue to Pittwater Bluff' prepared by North Barker, dated 30 September 2020 to show the revised project and the stormwater mitigation measures proposed to minimise any flow into the potential orchid habitat area described in figure 5 of the NVA report.

North Barker Ecosystem Services (NBES) previously completed a natural values assessment for the proposed highway in 2020:

- *Tasman Highway. Holyman Avenue to Pittwater Road, Natural Values Assessment. North Barker Ecosystem Services 30 September 2020.*

1.2 Purpose

The additional land incorporated in the amended layout has been investigated and the findings of the natural values assessment are reported (Attachment A). This report makes a comparison between the approved layout and the proposed amendment and at the same time responds to Council's preliminary planning assessment item c) above.

The additional land includes a portion of the Tasmania Golf Course that incorporates the 16th and 17th fairways and surrounding vegetation north of the Tasman Highway. The reduced development footprint south of the highway on the Milford property relies on the findings from previous surveys (Figure 1).

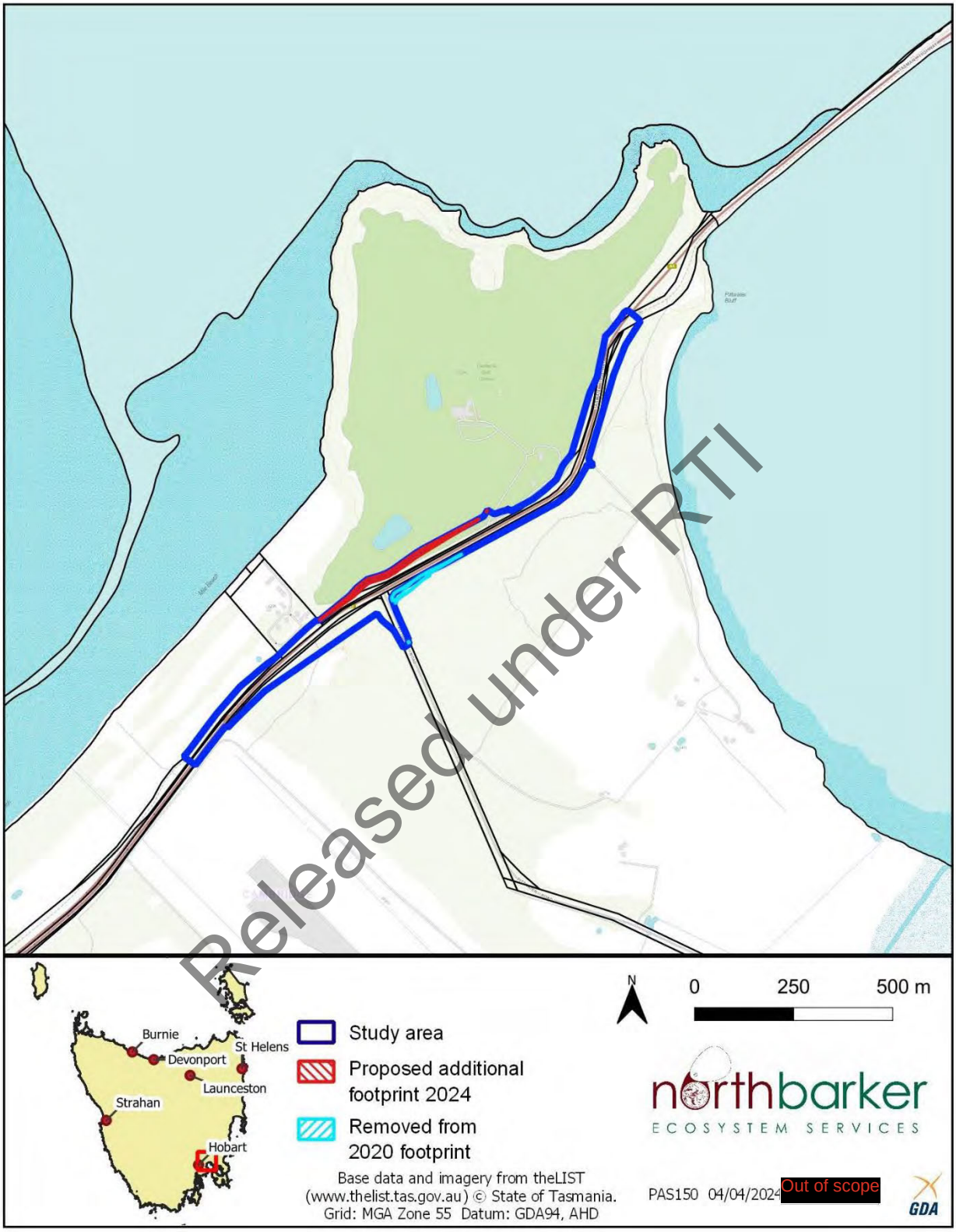


Figure 1. Study area location

2 Biological Values

The original surveys for the project were undertaken between 2018 and 2020. The extension footprint was surveyed by two ecologists on the 18th of September 2023 and was undertaken in accordance with the *Guidelines for Natural Values Surveys- Terrestrial Development Proposals*[1]. The full report is included as Attachment A.

2.1 Vegetation

The following native vegetation communities were recorded in the study area:

- *Eucalyptus viminalis- E. globulus* coastal forest and woodland (DVC)

DVC across the study area is described below. The remainder of the study area comprises the golf course fairway and access tracks and is mapped as the modified land community Extra-urban miscellaneous (FUM). The mapped distribution of vegetation communities within the study area is presented in Figure 4. A list of all flora species recorded is provided in Appendix A.

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

The community is dominated exclusively by *Eucalyptus viminalis* (white gum) that reach heights up to 30 m tall and is consistent with much of the native vegetation of the local surrounding areas including other areas on the golf course, airport land and the nearby Milford property. This woodland has been subject to clearance and degradation associated with the development and uptake of the adjacent golfing fairway. The understorey has been largely excluded through regular slashing. Overall, this DVC community is in moderate-poor ecological condition with no evidence of recruitment. Plate 2 shows how this area of vegetation is limited to ground cover and mature trees only with all other vegetation being removed.

The DVC community comprises a mature overstorey of *E. viminalis* including many large trees exceeding 100 cm DBH. Several large trees recorded within this vegetation community were observed to have potential for hollows that could support threatened fauna habitat.

Eucalyptus viminalis – E. globulus coastal forest and woodland is listed as threatened under the Tasmanian *Nature Conservation Act 2002* (NCA).

Plate 1. DVC west of the Tasman Highway.

[1] Department of Natural Resources and Environment (2019)

2.2 Threatened Flora

No threatened flora species was observed during field surveys of the study area. Threatened orchids including *Caladenia caudata* (TSPA vulnerable, EPBCA vulnerable), *Caladenia saggicola* (TSPA endangered, EPBCA critically endangered) and *Prasophyllum milfordense* (TSPA endangered, EPBCA critically endangered) have all been recorded at the adjacent Milford property.

No threatened flora species were recorded or thought likely to occur in the proposed amendment. There are no records of threatened flora from this and adjacent section of vegetation along the northern side of the Tasman Highway even though there have been multiple surveys, other than for one low accuracy (100 m) observation record of small shrub *Eutaxia microphylla* from 1985, collected from somewhere on the Tasmania Golf Club, most likely near clifftops.

Threatened orchids including *Caladenia caudata* (TSPA vulnerable, EPBCA vulnerable), *Caladenia saggicola* (TSPA endangered, EPBCA critically endangered) and *Prasophyllum milfordense* (TSPA endangered, EPBCA critically endangered) have all been recorded at the adjacent Milford property. There are historic records of just one (*C. caudata*) from the Tasmania Golf Club. There is no evidence of, nor is the habitat likely to be suitable for, any of these species in the amendment area.

2.3 Threatened Fauna and Threatened Fauna Habitat

Field surveys of the study area identified potential threatened fauna habitat, primarily large white gum trees offer potential habitat for the following threatened woodland bird species:

Tasmanian masked owl (*Tyto novaehollandiae* subsp. *castanops*)

Tasmanian masked owl (*Tyto novaehollandiae* subsp. *castanops* (TSPA endangered, EPBCA vulnerable)) has been observed at the adjacent Milford property and across the broader landscape[2]. The Forest Practices Authority (FPA) technical note for identifying masked owl habitat considers any tree with a large hollow (>15 cm diameter) as potential habitat. Trees with a DBH > 100 cm are considered to have the greatest likelihood to support hollows within the size ranged favoured by masked owls[3].

Trees were assessed from the ground and conditions of their potential to provide habitat noted.

Blue-winged parrot (*Neophema chrysostoma*)

The white-gums contained within the study area offer potential nesting habitat for the blue-winged parrot (*Neophema chrysostoma* (EPBCA vulnerable)). The blue-winged parrot migrates to and from Tasmania after breeding each year, leaving in March to April and returning in August to October. Blue-winged parrots nest in tree hollows, preferably with a vertical opening[4]. It is considered likely that the DVC bushland across the golf course and adjacent Milford property provides potential habitat for the blue-winged parrot.

Other hollow nesting birds including eastern rosella and galahs have been observed in our surveys to be utilising trees each side of the highway.

Considering the availability of habitat and competition species that are from more tolerant to disturbance, such as eastern rosella and galahs, blue-winged parrots are not expected to use trees close to the highway for nesting and so will not be impacted.

Swift parrot (*Lathamus discolor*)

The study area is within the potential breeding range of the swift parrot (*Lathamus discolor* (TSPA endangered, EPBCA critically endangered)). The study area is not within a delineated swift parrot important breeding area (SPIBA), but it is close to both the Wielangta and Meehan Range SPIBAs.

[2] Department of Natural Resources and Environment (2023)
[3] Forest Practices Authority (2014)
[4] Birdlife Australia (2023)

Similar to the blue-winged parrot, the mature white gums located in the DVC community at the golf course offer tree hollows that could support swift parrot breeding. However, considering the higher quality nearby and the absence of local patches of *Eucalyptus globulus* and *E. ovata*, which are the primary foraging resources for the swift parrot, it is considered unlikely that swift parrots would choose to utilise the habitat within the study area for breeding.

Although the study area may provide habitat as part of a home range of other threatened vertebrate fauna, there are no site-specific features that are of importance for these species.

Plate 2. Mature white gum (*Eucalyptus viminalis*)

2.4 Weeds

No declared weeds listed under the *Biosecurity Act 2019* or environmental weeds were recorded in the extension area.

Figure 2. Significant trees including TPZ's and threatened fauna habitat within the project

Figure 3. Significant trees including TPZ's and threatened fauna habitat within the project

3 Comparison of Impact with previous design

The realignment of the development will reduce the scale of vegetation clearance south of the Tasman Highway, in the vicinity of Pittwater Road, thus avoiding the most significant natural values associated with habitat for threatened orchids on the Milford property.

3.1 Vegetation

The native vegetation impacted by the realignment is *Eucalyptus viminalis - E. globulus* coastal forest and woodland (DVC) as represented in (Figure 4). DVC is listed as a threatened vegetation community under the NCA. The area avoided on Milford is also DVC but that is generally in better condition than the newly impacted patch. Our vegetation condition assessment (Figure 3, NBES 2020) characterised the northern DVC as 'poor' and the DVC south of the highway as 'excellent'. The amended design will result in an overall reduced impact to DVC especially that classed as being in excellent condition.

Table 1: Extent of *E. viminalis* coastal forest DVC

DVC condition	Increase north of highway	Reduction south of highway	Total impact project
Excellent	-	0.47 ha	0.40 ha
Good	-	0.05 ha	0.55 ha
Poor	0.27 ha	0.05 ha	2.32 ha
Total	0.27 ha	0.57 ha	3.27 ha

3.2 Threatened Flora

No threatened flora species listed either under the TSPA or the EPBCA will be impacted directly by the project.

Three threatened orchid species occur at the Milford property on the south side of the Tasman Highway.

The amended design provides increased buffer from the known records of orchids and the footprint is entirely outside the critical orchid habitat with a buffer of 8 m from edge of earthworks and 4 m from service track (Figure 5). The existing landowner service track which follows the edge of the orchid habitat will not need to be moved.

Table 2: Direct Impact to critical orchid habitat (hectares) and proximity to known plants

Species	Critical Habitat	Impact	Impact (Original Design)	Nearest plant to footprint	Nearest plant (original design)
Prasophyllum milfordense Milford leek orchid	**17.24**	**0.00**	0.078	15 m watermain	3 plants in footprint
Caladenia saggicola Sagg spider orchid	**19.10**	**0.00**	0.078	47 m from watermain	32 m from access road
Caladenia caudata Tailed spider orchid	**19.10**	**0.00**	0.078	55 m	55 m

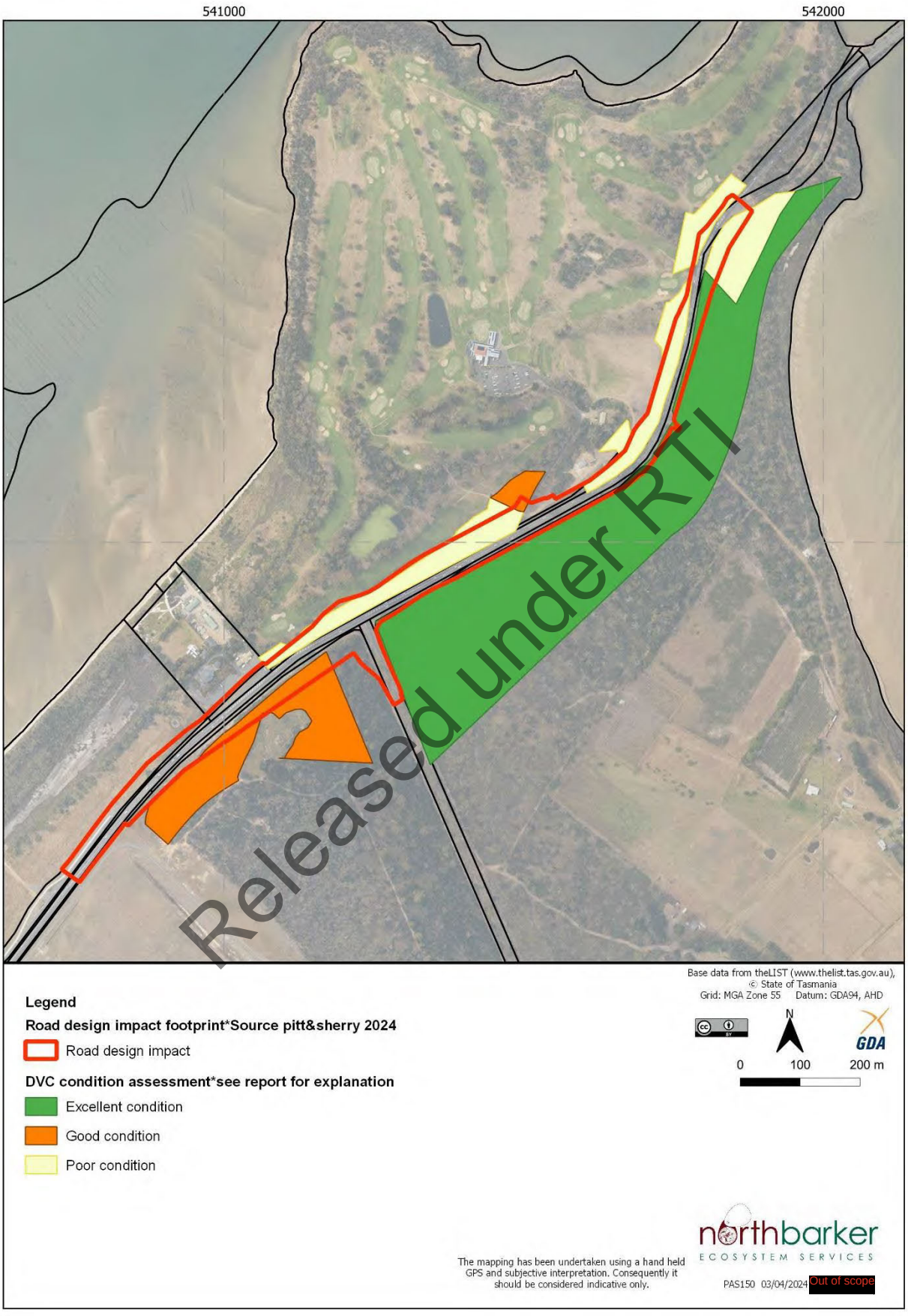


Figure 4: *Eucalyptus viminalis* coastal forest (DVC) in vicinity of project

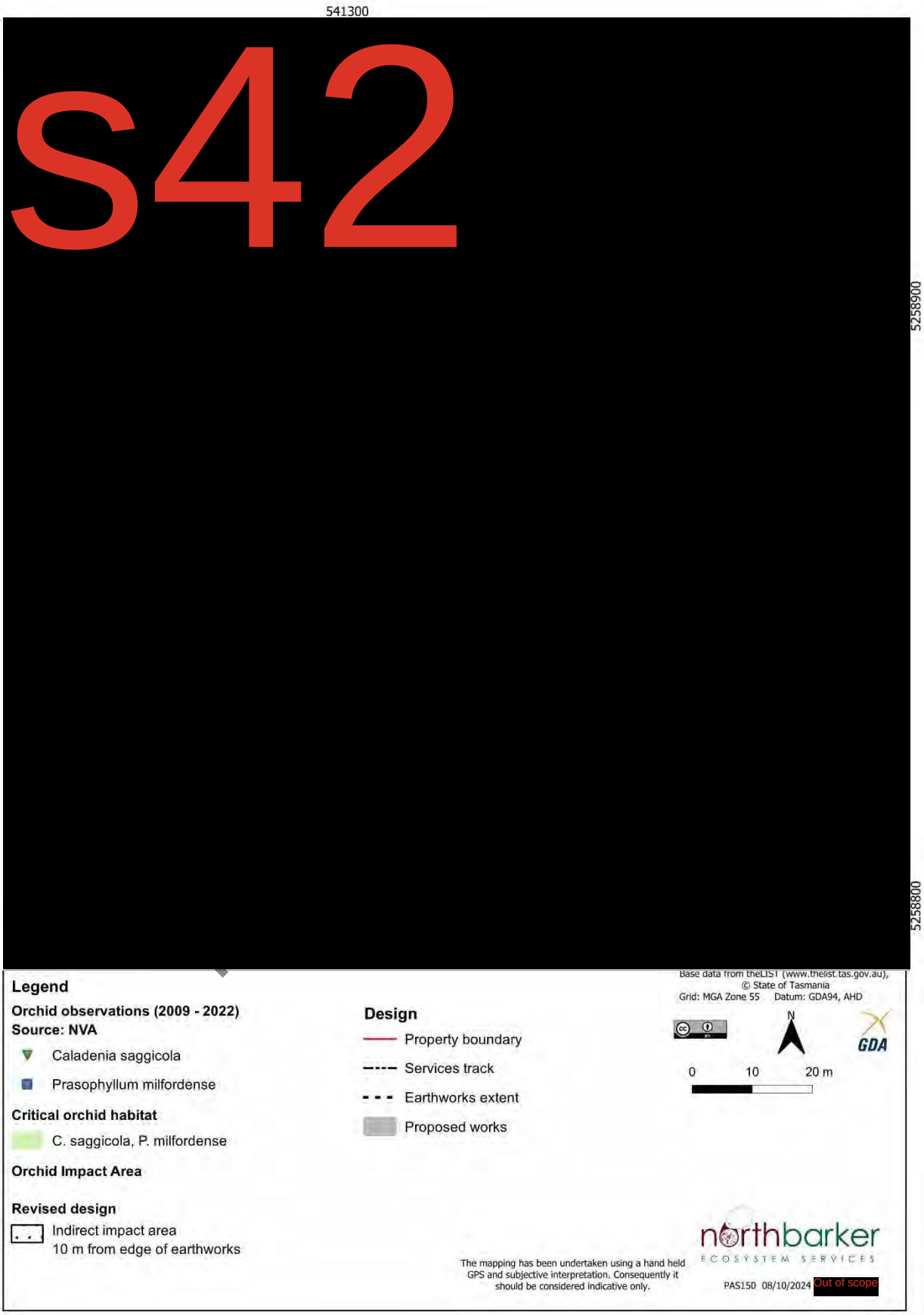


Figure 5: Improved buffer from known orchid sites and reduced impact to habitat

3.3 Threatened Fauna and Threatened Fauna Habitat

Six mature white gums *Eucalyptus viminalis* are located within the extended footprint north of the highway. In addition, the tree protection zones[5] of two others are significantly encroached and may be adversely impacted. The tree protection zone TPZ is a specified area above and below ground at a given distance from the trunk set aside for the protection of a tree's roots and crown to provide for the viability and stability of a tree to be retained where it is potentially subject to damage by development. The TPZ is calculated for each tree by multiplying its DBH by 12, with a minimum TPZ of 2 m and a maximum of 15 m as defined in the Australian Standard for Protection of trees on development sites.

It is likely that five of the trees within the extended footprint would have been adversely impacted due to the scale of encroachment into their root zones with the previous design. So net change to impact is small, being potentially no more than an additional three trees.

The realignment south of the highway should allow for the retention of three trees that were previously impacted. So overall the net increase to tree losses resulting from the realignment is potentially zero.

Changes to impact of trees is summarised in Table 3.

The overall impact to mature white gums is likely to be of the order of 50 trees, noting that several have died during the intervening years between the initial surveys and the current time due to likely climate change related stresses.

The location of significant trees with nesting potential within the area affected by the realignment is mapped in Figure 3.

Noise pollution near habitat trees could risk hollow abandonment if it is in use by the Tasmanian masked owl. However, this risk is considered low due to habitat trees proximity to the Tasman Highway and existing disturbance. It is unlikely that a masked owl would utilise trees in close proximity to the busy highway given the availability of suitable nesting trees in more remote sites nearby.

Table 3: Numbers of Impacted Fauna Habitat Trees

Size class	Extension Area footprint	Extension Area >10 % TPZ	Avoidance Area	Avoidance Area >10 % TPZ
70 cm – 100 cm	2	0	2	0
> 100 cm	4	3	1	2
Total	6	2	4	2

[5] The tree protection zone TPZ is a specified area above and below ground at a given distance from the trunk set aside for the protection of a tree's roots and crown to provide for the viability and stability of a tree to be retained where it is potentially subject to damage by development. The TPZ is calculated for each tree by multiplying its DBH by 12, with a minimum TPZ of 2 m and a maximum of 15 m as defined in the *Australian Standard for Protection of trees on development sites*.

3.4 Planning Assessment Report

Council's planning assessment report, item c refers to consideration of stormwater management. referencing condition 7 (a) of the planning Permit which states:

> (a) The road stormwater drainage plans must provide details of how the stormwater, from Tasman Highway, the Tasmania Golf Club, and the Tasman Highway-Pittwater Road intersection will be managed, to minimise any flow into the potential orchid habitat area described in Figure 5 of the Natural Values Assessment 'Tasman Highway Holyman Avenue to Pittwater Bluff' prepared by North Barker dated 30 September 2020.

The new road layout duplicates the current two lanes to four. It also involves an amended drainage plan with new larger format culverts to ensure water can pass under the highway in flood events. The increased hard surface will result in higher water flows during rain events. This could potentially impact on run off into the habitat for orchids which may alter the habitat suitability. Marked increase in moisture availability could also favour more aggressive plant species, both native and introduced, that could reduce habitat suitability for orchids. Runoff from the golf course on the north side of the highway can carry increased nutrients. Runoff from road surface can also carry trace metals and hydrocarbons dissolved in the water. Collectively these inputs could adversely impact on the delicate mycorrhizal associations in the soil which are so critical to viability of the orchids, especially for germination.

The stormwater Discharge Analysis report[6] describes the current and altered stormwater discharge regime. The current regime includes four culverts emptying into the southern side of the highway. Water from the two western most culverts discharges into a table drain which directs water down the side of Pitt Water Road. From there it pools in a shallow hardened roadside pull off approximately 100 m down Pittwater Road.

Two other culverts currently discharge into the southern roadside from where water percolates into the adjoining bushland. These discharge points are all identified in **Error! Reference source not found.**.

The locations of the new culverts discharge points are comparable to the current ones. The stormwater discharge modelling (Table 4) for the original design suggested there would be an annual increase in runoff of 21 % where the drainage flows in the vicinity of the critical habitat area for threatened orchids.

The more recent stormwater discharge assessment of the realigned highway proposal suggests that there will be an overall decrease of 7 % with modelled changes of -31 % and +7 % at each discharge points in proximity to the orchid habitat. The report concludes that "variability in annual rainfall has a significantly bigger impact on flow than the proposed development" and that "overall discharge volume directed towards the local depressions… from the site is slightly reduced as a result of the proposals"[7].

Analysis of the water flow into critical orchid habitat based on modelled infiltration rates suggest that any increased runoff will infiltrate into the natural surface. Consequently, moisture availability within the critical orchid habitat is likely to remain unchanged with any excess water runoff being readily taken up in the soil well before any water reaches the critical habitat for orchids.

The current water flow based on our own site assessment and interpretation of stormwater discharge report and road design cross sections is represented in Figure 9. This shows that runoff from the road and input from the broader catchment adjacent to the critical orchid habitat is directed down Pittwater Road. Our interpretation of runoff elsewhere from the highway is that little runoff extends beyond the existing service track and that much is directed away from critical orchid habitat.

[6] Pitt & Sherry (2024)
[7] Pitt & Sherry (2024) p 17

Our interpretation of water flows from the new design (Figure 10) is that drainage of the broader catchment and some of the highway surface will continue to be discharged down Pittwater Road. In major storm events this water will then overflow into the Milford (as currently happens) where it is likely, based on inflation rates analysis in Stormwater Discharge report, that the water will continue to percolate through the sand on the service track without dispersing into the critical orchid habitat beyond.

The latest design ensures south flowing surface runoff will continue to be picked up in a table drain and discharged into Pittwater Road. The increased runoff, predominantly from two west bound lanes will be allowed to discharge in a southerly direction. The infiltration rates analysis in Stormwater Discharge report suggests the water will continue to percolate through the sand and so not impact on the critical orchid habitat. The anticipated higher flows into the pull off 110 m down Pittwater Road could also be managed through removal of impervious hard stand and reinstatement of sandy substrate to better ensure seepage into the ground and reduce risk of infill into Milford.

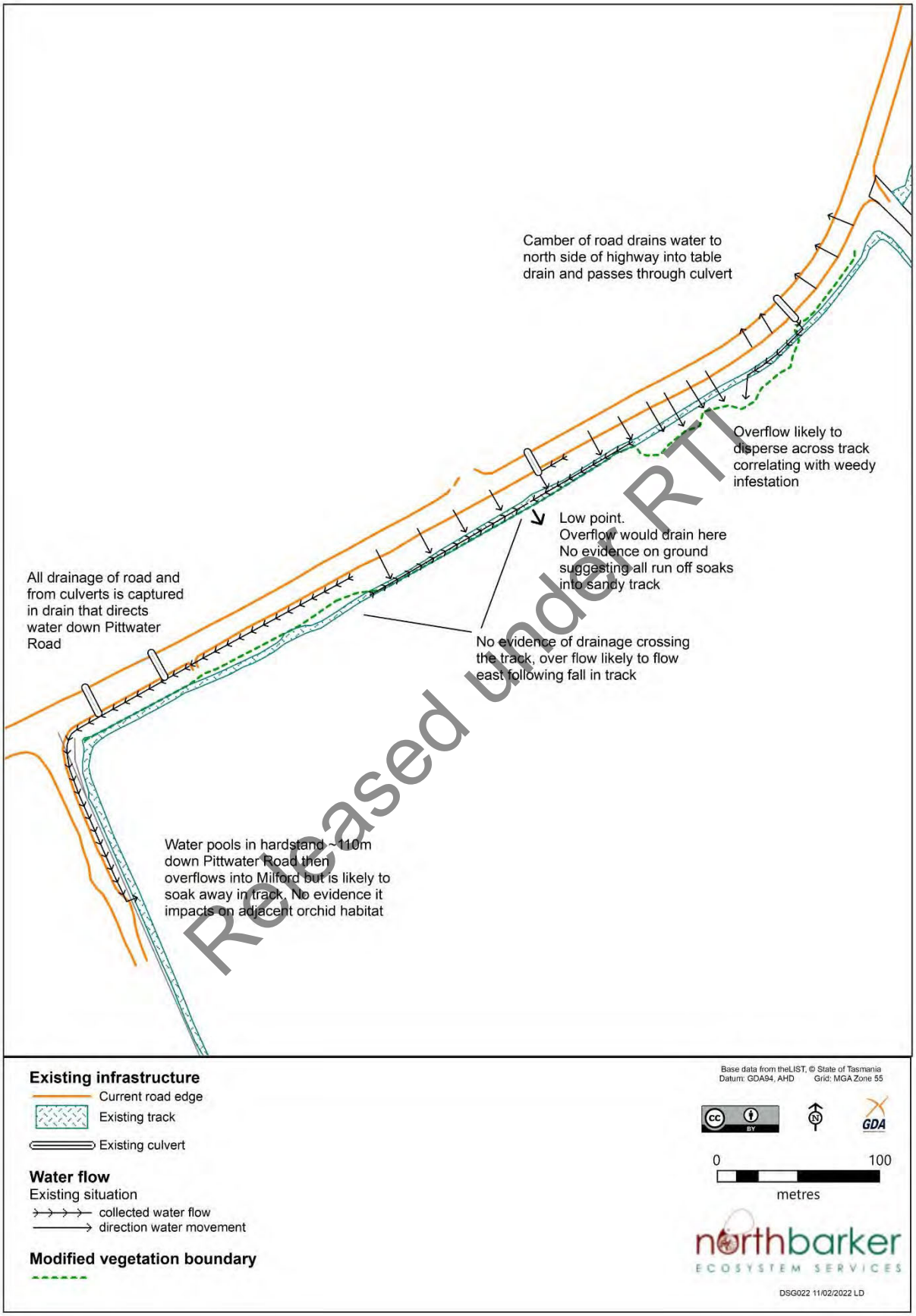


Figure 6: Stormwater – existing highway

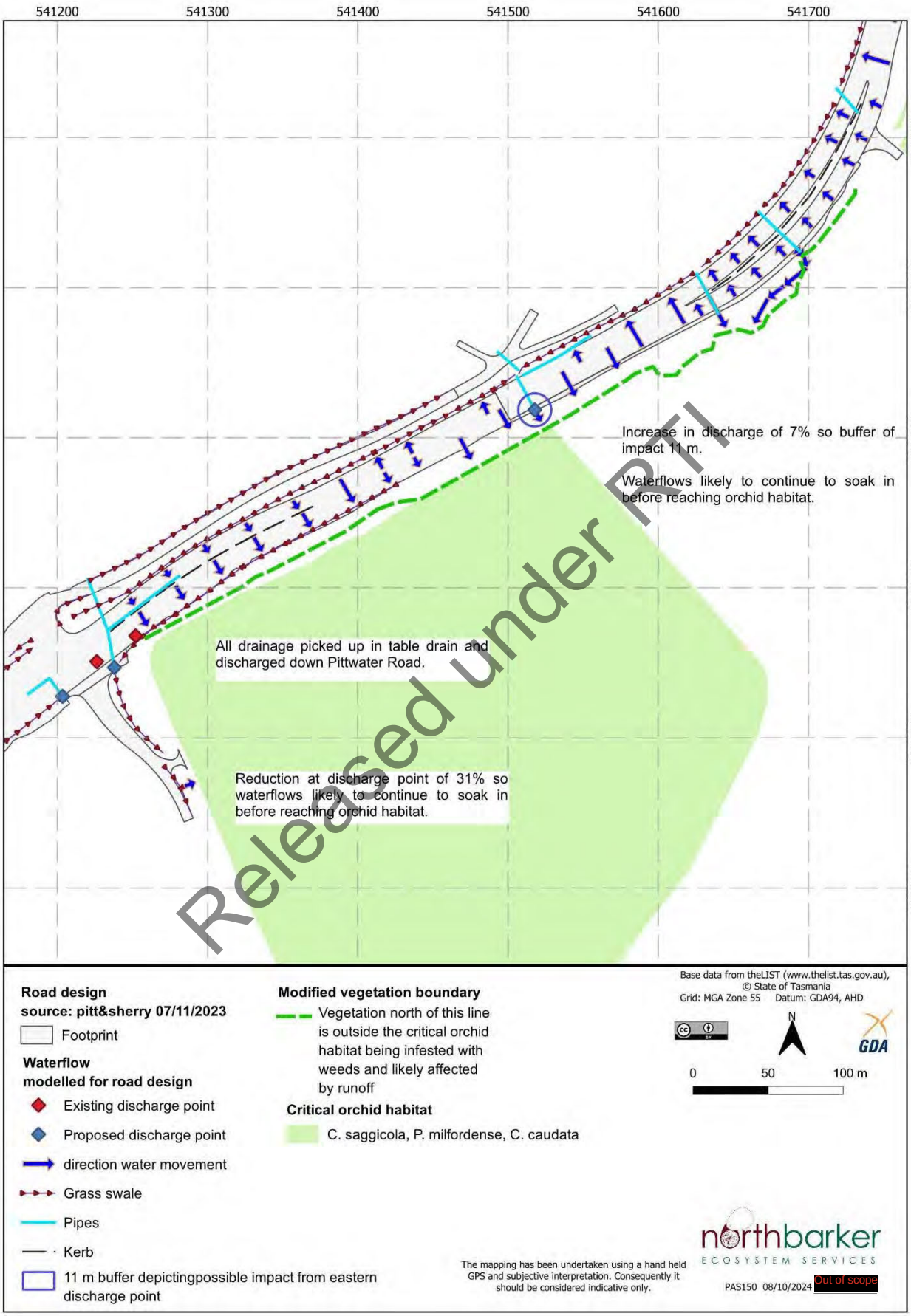


Figure 7: Stormwater – new highway

References

Birdlife Australia (2023). 'Blue-winged Parrot *Neophema chrysostoma*', Working list of Australian birds, Melbourne, Victoria.

Department of Natural Resources and Environment (2019). *Guidelines for Natural Values Survey – Terrestrial Development Proposals*. Version 1.1. 13th August 2019. Policy and Conservation Advice Branch. Department of Primary Industries, Parks, Water and Environment.

Department of Natural Resources and Environment (2023). *Land Information System Tasmania*, Tasmanian Government, Hobart, Tasmania.

de Salas, M.F. and Baker, M.L. (2023). A Census of the Vascular Plants of Tasmania, Including Macquarie Island. Tasmanian Herbarium, Tasmanian Museum and Art Gallery. Hobart, Tasmania.

Forest Practices Authority (2014), 'Identifying masked owl habitat', Fauna Technical Note No. 17, Forest Practices Authority, Hobart, Tasmania.

Goff, F.G., Dawson, G.A. and Rochow, J.J. (1982). Site examination for threatened and endangered plant species. *Environmental Management* 6 (4):307-316.

Kitchener, A. & Harris, S. (2013). From Forest to Fjaeldmark: Descriptions of Tasmania's Vegetation. Edition 2. Department of Primary Industries, Water and Environment, Tasmania.

North Barker Ecosystem Services (2020). Tasman Highway. Holyman Avenue to Pittwater Road, Natural Values Assessment. 30 September 2020.

Pitt & Sherry (2024). Tasman Highway Airport Interchange to Midway point causeway. Stormwater discharge. Report to Department of State Growth, 17 September 2024.

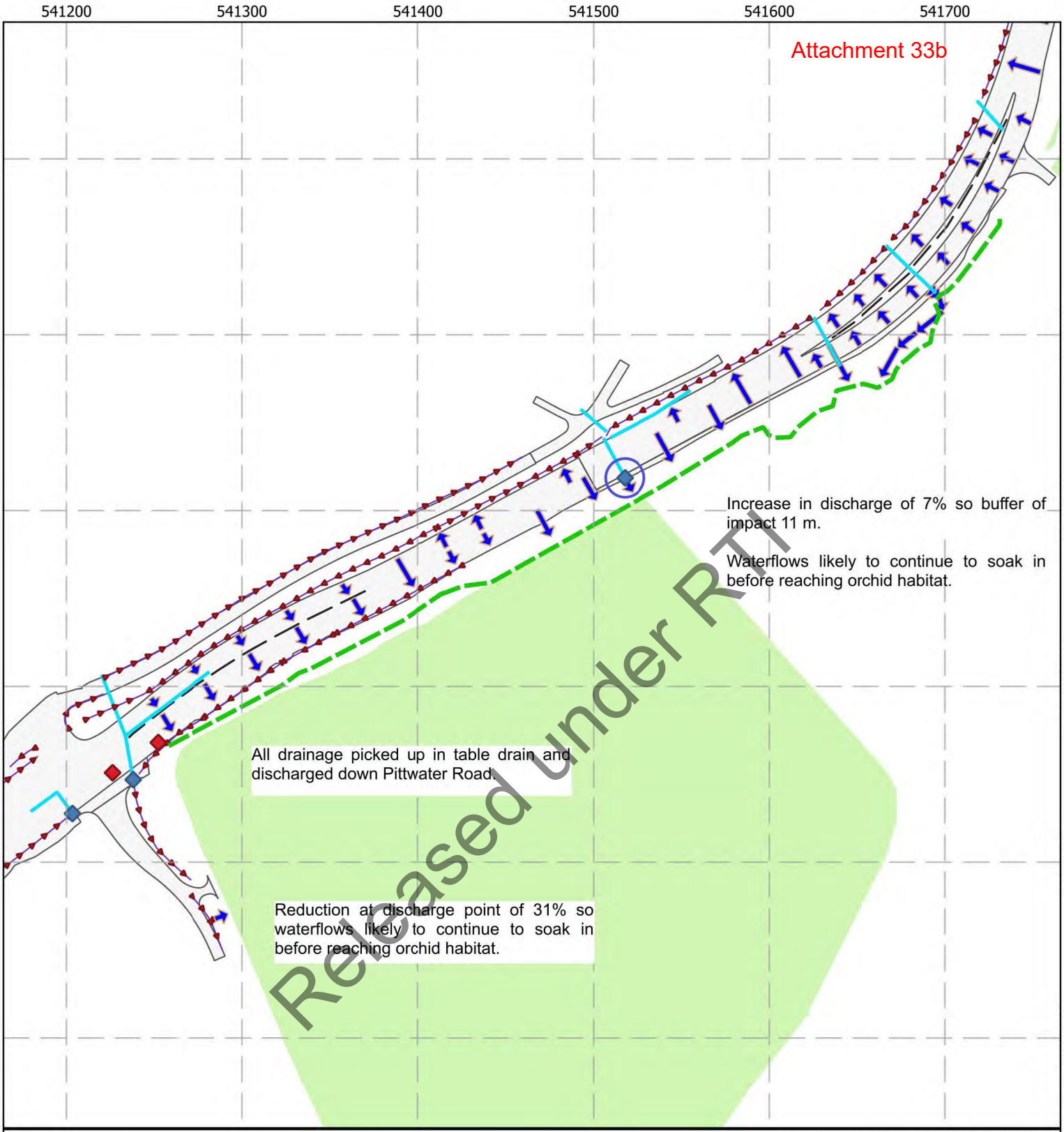
Standards Australia (2009). *Australian Standard Protection of Trees on development sites* AS 4970- 2009, *Council of Standards Australia*, Sydney, NSW.

Attachment A:

Tasman Highway
Southeast Tasmania Transport Solution (SETS)
Tasmania Golf Club
Natural Values Assessment Summary

North Barker Ecosystem Services

28 September 2023



Road design
source: pitt&sherry 07/11/2023

Footprint

Waterflow
modelled for road design

- Existing discharge point
- Proposed discharge point
- direction water movement
- Grass swale
- Pipes
- Kerb
- 11 m buffer depictingpossible impact from eastern discharge point

Modified vegetation boundary

Vegetation north of this line is outside the critical orchid habitat being infested with weeds and likely affected by runoff

Critical orchid habitat

C. saggicola, P. milfordense, C. caudata

Base data from theLIST (www.thelist.tas.gov.au), © State of Tasmania
Grid: MGA Zone 55 Datum: GDA94, AHD

N

GDA

0 50 100 m

The mapping has been undertaken using a hand held GPS and subjective interpretation. Consequently it should be considered indicative only.

northbarker ECOSYSTEM SERVICES

PAS150 08/10/2024 Out of scope

From: Out of scope
To: Out of scope
Subject: FW: Tasmania Golf Club
Date: Monday, 6 January 2025 12:45:19 PM
Attachments: EPBC Footprint.pdf

Hi Out of scope

Refer email below from Tasmania Golf Club. The last estimate we did was October 2022 - s38 for the Golf Course realignment (16th and 17th fairways, practice area,1st green, 2nd tee etc), s38 for the dam – Total s38 likely about s38 higher now. I have attached the EPBC footprint – this includes the 16th and 17th fairways, 1st green and 2nd tee and practice area. On face value that would mean no work in those areas. We may need to seek clarification from DCCEEW on what, if anything ,could be done but it might be best to wait until we see how they view our latest submission. Arguably modifying the 1st and 2nd holes might be possible, but the 16th and 17th fairway works are more extensive and involve tree clearing.
I will be away from 16th January until 29th, so could meet with the Golf Club early next week or after 29th .

Regards

Out of scope

Mobile Out of scope | Out of scope@pittsh.com.au | Connect on LinkedIn

Hobart Office — Level 1, Surrey House, 199 Macquarie Street
PO Box 94 Hobart Tasmania 7001 | Phone +61 3 6210 1466

pittsh.com.au

From: John Milbourne <president@tasmaniagolfclub.com.au>
Sent: Monday, 6 January 2025 8:12 AM
To: Out of scope @pittsh.com.au>
Cc: Out of scope <treasurer@tasmaniagolfclub.com.au>; Out of scope <Captain@tasmaniagolfclub.com.au>; Out of scope <secretary@tasmaniagolfclub.com.au>
Subject: Tasmania Golf Club

Dear Out of scope,

Trusting you are well and wishing you all the best for 2025.

The reason for reaching out is to seek you guidance. You would be aware, that with the stagnation of the course redevelopment resulting from the SETS, we have been

hamstrung in many of our planned activities.

In particular, is our plans to replace the existing irrigation system; a project largely reliant on the construction of the new dam. It is of extreme concern that since the conversation commenced, the cost of the irrigation system (including the State Government component) has increased by in excess of s38. This has cause rethin project should be managed, and with encouragement from Out of scope and Out of scope (Waterwise Consulting) the suggestion of us self managing the rede ctivities (excluding construction of the new dam) is being considered. While this is a dramatic switch from our previous position, we cannot sit back and watch our costs continue to blow out.

We have met with Denise McIntyre and Out of scope from State Growth to explore an in principle proposal for this to occur, an menable.

I would very much welcome the opportunity to meet with you to seek your views on how such a project should be managed (including how our risks could be minimised) and would be very appreciative if could get back to me with a date that would be suitable to you.

Cheers
John

Department of State Growth

Tasman Highway – Hobart Airport to Midway Point Causeway Project Area

pitt&sherry

N

0 70 140 280 Metres

Coordinate System: MGA94-55
1:8,529 When Printed at A4

MAP REF	P.19.0406
AUTHOR	s42
REVISION	RevA
DATE	16/12/2024

DATA SOURCES	Base data and map from The LIST Tasmanian Government Project specific data

Legend

- EPBC referral original
- EPBC referral varied

From: Out of scope
To: Out of scope
Subject: FW: TasNetworks - CN24-239909
Date: Tuesday, 10 December 2024 1:48:00 PM
Attachments: image001.png
image002.gif
image003.png

Hi Out of scope,

Can you please provide an update on design and advise when you can meet this requirement to TasNetworks?

Thanks, Out of scope

Out of scope
State Roads | Department of State Growth
Level 2, 4 Salamanca Place, Hobart TAS 7000 | GPO Box 536, Hobart TAS 7001
Email: Out of scope@stategrowth.tas.gov.au / MB: Out of scope
www.stategrowth.tas.gov.au

Courage to make a difference through
TEAMWORK | INTEGRITY | EXCELLENCE | RESPECT
In recognition of the deep history and culture of this island, I acknowledge and pay my respects to all Tasmanian Aboriginal people; the past, and present custodians of the Land.

From: Network Customer Supply <networkcustomersupply@tasnetworks.com.au>
Sent: Tuesday, December 3, 2024 8:29 AM
To: Out of scope@stategrowth.tas.gov.au>
Cc: Out of scope@pittsh.com.au
Subject: TasNetworks - CN24-239909

> You don't often get email from networkcustomersupply@tasnetworks.com.au. Learn why this is important

Morning, Out of scope.

Thank you for your application regarding the street light removal at 1388 Tasman Highway.

Could you kindly send through any CAD plans that would correspond to this application so I can add them to the case to progress through to the next stages?

Kind regards,

Out of scope
Connection Services

P Out of scope **|E networkcustomersupply@tasnetworks.com.au**
1 Australis Dr, Rocherlea 7248
PO Box 419, Launceston TAS 7250

www.tasnetworks.com.au
@TasNetworks
/TasNetworks

From: Out of scope
To: Out of scope
Cc: Out of scope @pittsh.com.au
Subject: Milford Conservation Area Management Plan - Final Report
Date: Tuesday, 17 December 2024 8:29:00 AM
Attachments: Milford Conservation Area Management Plan_Final_27112024_V1.1.pdf

---

Hi,

Please find attached the final conservation area report.

Thanks, Out of scope

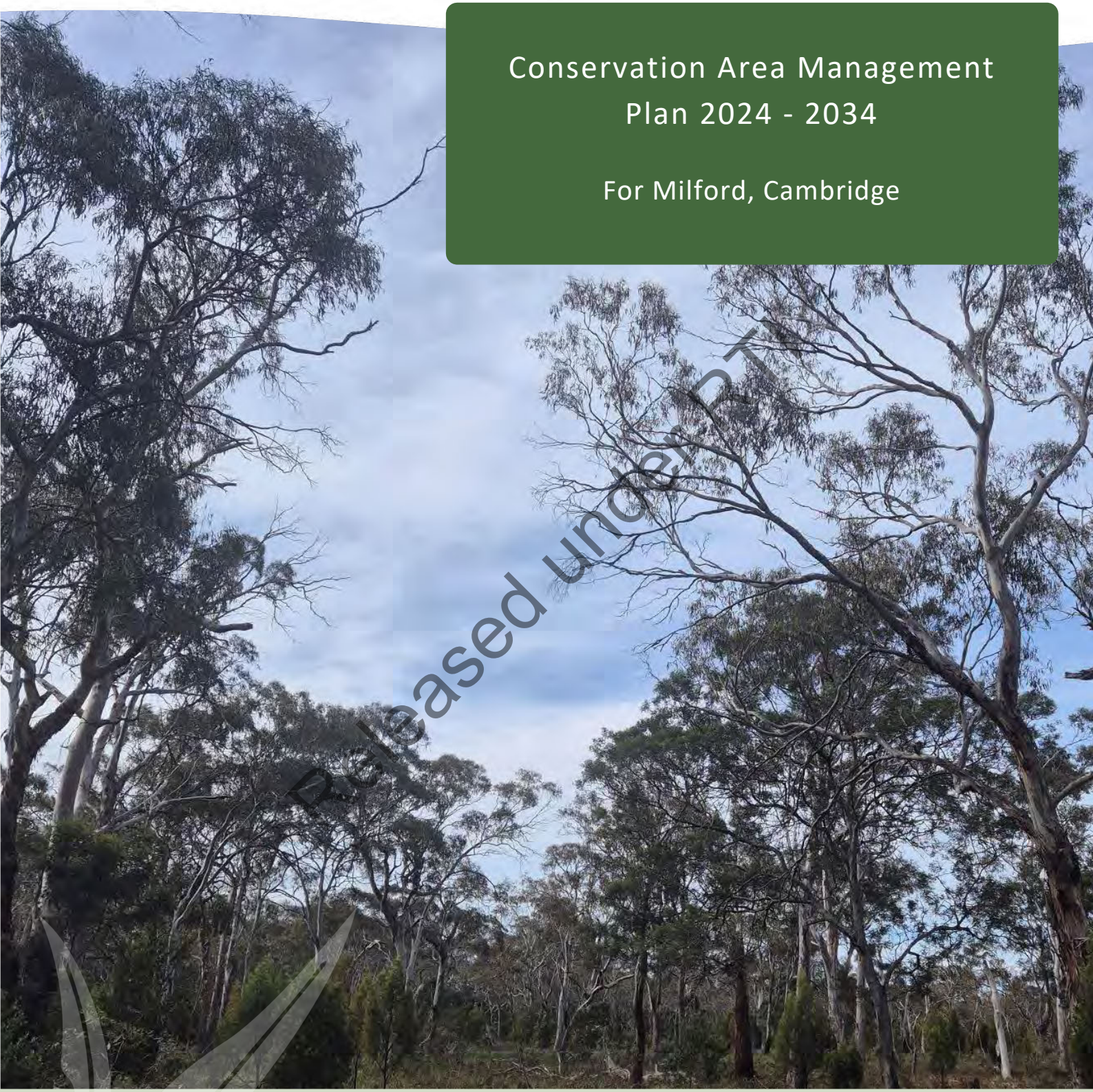
Out of scope
State Roads | Department of State Growth
Level 2, 4 Salamanca Place, Hobart TAS 7000 | GPO Box 536, Hobart TAS 7001
Email: Out of scope @stategrowth.tas.gov.au / MB: Out of scope
www.stategrowth.tas.gov.au

Courage to make a difference through
TEAMWORK | INTEGRITY | EXCELLENCE | RESPECT
In recognition of the deep history and culture of this island, I acknowledge and pay my respects to all Tasmanian Aboriginal people; the past, and present custodians of the Land.

enviro-dynamics
environmental solutions for a changing world

Conservation Area Management Plan 2024 - 2034

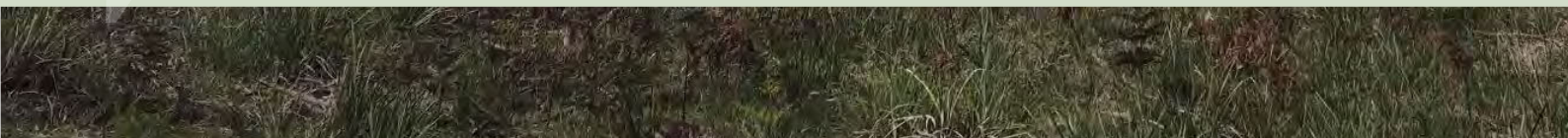
For Milford, Cambridge



Client: Department of State Growth for Out of scope

Prepared by: Out of scope

Final 27th November 2024



Document preparation information

Project	Conservation Area Management Plan, Milford
Site Address	MILFORD' - 1431 TASMAN HWY CAMBRIDGE TAS 7170
Project Manager	Out of scope, Enviro-dynamics
File Name	Milford Conservation Area Management Plan Final 21112024
Client	Department of State Growth
Landowner	Out of scope
Local Government Area	Clarence City Council

Version control table

Version	Date	Person responsible	Action/Revisions
V0.1	23/09/2024	Out of scope	Initial draft submitted to Out of scope for comment
V0.2	14/10/2024	Out of scope	Revised draft submitted to Out of scope for further comment
V1.0	7/11/2024	Out of scope	Draft plan submitted to DSG and Out of scope for comment
V1.1	27/11/20247	Out of scope	Costing and responsibility section removed at request of DSG. Document preparation table and version control table added.

Contents

1 PURPOSE OF PLAN

The purpose of this document is to provide a 10-year Management Plan, with objectives, specifications, schedules, budgets and deliverables, for the 1 ha Conservation Area located on Milford, Cambridge, Tasmania (see Figure 1). The management plan's ultimate aim is to preserve the genetic material of a potential new sub-species of Eucalyptus vimimalis, and to convert a planting of seedlings of this species into a self-sustaining *Eucalyptus viminalis* woodland with a native understorey.

2 BACKGROUND

The conservation planting which is the subject of this management plan was established on a 1 ha site on the Milford property in 2021 through an arrangement with the Department of State Growth (DSG). The conservation area (the site) was established to provide a location to plant seedlings from a *E. viminalis* tree removed as part of upgrade works to the Tasman Highway (Hobart Airport Interchange Project) on a site approximately 1.2km to the southwest of Milford (Figure 1). The planting at the site is not an offset for loss of habitat.

The tree removed was believed to be the only known example of *Eucalyptus viminalis* subsp. *pryoriana* naturally occurring in Tasmania. As such the conservation planting provided an opportunity to retain the genetic material from this tree.

The planting area was established in a cleared area of land on Milford approximately 400m from the Tasman Highway adjacent to intact remnant bushland which is known to contain highly significant orchid populations (Figure 2). The eucalypt seedlings were propagated by WildSeed from seed collected by North Barker Ecosystem Services in early 2021 and planted in the fenced area in August 2021. Additional shrub, sedge and groundcover species were also planted with all seed used of local provenance (refer to Appendix 1 for species list). Plantings were arranged in a random pattern to better replicate a natural forest.

A fence was constructed to exclude wallabies, rabbits and possums and included an electric 'hot' wire around the top of the fence. The fenced area was separated from the bushland by a buffer of 10m (Figure 2) which aimed to reduce possum incursion from any overhanging branches and to provide a managed grass area between the intact bush and the planting. Prior to planting, the ground within the site was slashed and de-compacted using a sub-surface ripper. An informal track within the conservation area was established to allow for maintenance activities (Figure 2).

2.1 Current Condition of the Conservation Area

The condition of the site was assessed in July 2024 to inform the development of this management plan. Many of the plantings are well established with some eucalypts having grown to a height of 3m. Broadly speaking the northern end of the site has established more successfully than the southern end. This is likely to be due to differences in soil type and waterlogging with the southern end subject to periodic flooding in the past 3 years (Pers comm, Out of scope). A review of the success of each species is provided in Appendix 1.

Weed growth is evident within the site with several species dominant. Rope twitch is the most common grass species occurring in the area with scattered cocksfoot, capeweed, sorrel and a range of flat weeds apparent. Many of these species have been able to dominate within the conservation area due to the lack of funding for understorey planting and maintenance, especially after a severe frost in winter 2022, plus lack of browsing from sheep and native mammals following the erection of the exclusion fence.

Some natural regeneration of Juncus species has occurred with most plants evident at the wetter southern end of the conservation area. Juncus has also established along the informal maintenance track within the conservation area (Figure 2). Other native species such as spear grass, coast houndstongue, rush species and bracken have naturally regenerated along the southwestern edge of the site and along the maintenance tracks.

A significant number of coastal saltbush, new zealand spinach and pigface plants were planted in the site initially with the idea that the species would spread out and supress exotic grasses that dominate the area. The majority of the coastal saltbush specimens planted were heavily impacted by frost events in 2022 before they could get established and need to be replaced.

Plate 1 - Coastal saltbush growing over vegetation along a fence line in remnant (adjacent to planted area).

Figure 1: Location map of the site.

Figure 2: Site map showing location of conservation area within the 'Milford' property.

3 OBJECTIVES FOR THE SITE

Primary Objectives

- To preserve the genetic material of a potential new sub-species of *Eucayptus viminlais (subsp. pryoriana)* and to facilitate its continued survival in Tasmania.
- Establishment of a protected, well-managed additional *E. viminalis* woodland on Milford adjacent to the existing Orchid Management Unit 1 may provide future buffering of Units 1 and 5 from southerly winds once the trees gain sufficient height (approx. 10 years, dependent on management and weather) and protect habitat and potential habitat for threatened fauna and flora species
- Provide an area where translocation of seedlings of the Critically Endangered orchid *Caladenia saggicola* (sagg spider orchid) from the Royal Botanic Gardens could occur, once canopy closure reaches approx. 20-30% coverage (estimated 10-15 years from initial establishment, dependent on management and climatic conditions) (Note: only northern end of site suitable for translocation due to soil conditions).
- Assist to counter the loss of mature *E.viminalis* in the general area, due to drought, disease (predominantly 'ginger dieback syndrome'), indirect impact of proposed highway works (eg increased desiccation due to additional wind and sunlight exposure), and direct loss of trees from proposed Tasman Highway widening, numbers as yet unspecified), or potential bushfires. This sub-species appears to be particularly drought tolerant.

4 MANAGEMENT ACTIONS

This Conservation Management Plan outlines management actions for a period of 10 year between Spring 2024 and Spring 2033. Management actions are to be undertaken as per the timing outlined in the implementation plan and success of actions will be measured against success indicators (Table 4).

4.1 Weed Management

The conservation area contains several introduced species which occurred on the site prior to fencing. The exclusion of browsing from stock and native mammals has enabled exotic grasses to become dominant. Ongoing management of the weed growth is required to ensure the planting is successful and to ensure that weeds do not spread from the conservation area into the adjacent remnant bushland which contains critical orchid populations. Weed species can degrade natural bushland by out-competing native flora species, increasing fire risk, and altering fauna habitat.

Weeds recorded within the conservation area are listed in Table 1. The list includes two declared weeds as classified under the *Biosecurity Act 2019* and several other widespread and common pasture weeds. No Weeds of National Significance (WoNS) were recorded on the site.

Table 1 – Weeds recorded in Conservation Area

Common Name	Scientific Name	Status under *Biosecurity Act 2019*	Classification under Statutory WMP	Extent
Buckshorn plantain	*Plantago coronopus*	Non-declared	Not listed Control methods on NRE website	Within and around conservation area
Capeweed	*Arctotheca calendula*	Non-declared	Not listed Control methods on NRE website	Within and around conservation area
Cocksfoot	*Dactylis glomerata*	Non-declared	Productive pasture species	Scattered plants within the site
Cut-leaf Nightshade	***Solanum triflorum***	**Declared weed**	**Zone A weed Control methods on NRE website**	**Outside conservation area**
English Couch Grass/ Rope Twitch	*Elytrigia repens*	Non-declared	Not listed Control methods on NRE website	Within and around conservation area
Freesia	*Freesia alba* x *Freesia leichtlinii*	Non-declared	Not listed No control guidelines on NRE website	Outside conservation area but within Milford property
General flat weeds including: cat's ear, hawkbit, dandelion etc.	*Hypochaeris radicata, Leontodon* spp. *Taraxacum* spp., *Picris* spp., *etc*	Non-declared	No control guidelines on NRE website.	Within and around conservation area

Common Name	Scientific Name	Status under *Biosecurity Act 2019*	Classification under Statutory WMP	Extent
Sheep Sorrel	*Rumex acetosella*	Non-declared	Not listed Control methods on NRE website	Within and around conservation area
Sowthistle	*Sonchus* sp.	Non-declared	No control guidelines on NRE website.	Scattered plants within and around conservation area
Yellow burrweed	***Amsinckia calycina***	**Declared weed**	**Zone B weed Control methods on NRE website**	**Isolated plants (<10) recorded in conservation area)**
Yorkshire fog	*Holcus lanatus*	Non-declared	Low value pasture species	Within and around conservation area

** Additional weed identification and control guidelines are provided in Appendix 2.*

4.1.1 Weed control Methods

Three weed control approaches will be used within the conservation area.

Suppression – the primary method to reduce competition from exotic species will be through the planting of spreading native ground cover species such as coastal saltbush, new zealand spinach and pigface and fast-growing, pioneer species such as kangaroo apple. Spreading species will be replanted around establishing eucalypts and shrub species to supress weed growth and improve growth rates, kangaroo apple can be planted anywhere on the site where suppression of weed species is required.

Manual control – the control of weeds through slashing (brush cutting) and hand removal will be undertaken across the site. Slashing will be targeted around establishing trees to reduce growth and allow for targeted herbicide use. The slashed areas will also allow for additional planting of spreading species to provide a more long-term weed suppression approach.

The maintenance access track through the site will be keep open by slashing on an annual basis.

Hand pulling of weeds will be undertaken on a quarterly or biannual basis around all plantings (refer to Table 2). Isolated yellow burweed plants are to be hand pulled when in flower (August to October/November). Additional hand removal may include the hand pulling of weeds such as capeweed, sorrel and flat weeds. The manual removal of weeds should aim to minimise soil disturbance as this create a seed bed for reinfestation with exotic species.

Herbicide use – limited use of herbicide is recommended for the site. Herbicide use in the conservation area or across the broader Milford property is carefully controlled and the use of residual chemicals and glyphosate is avoided.

Areas that are to be replanted around the eucalypts and other trees in clusters will be slashed initially to reduce the bulk of the weeds such as rope twitch. Slashed areas are to be treated with selected herbicide within 2 weeks of the slashing to further suppress weed species. Gluphosinate based herbicides can be used for foliage spraying of persistent weeds such as rope twitch although rate/frequency of application is likely to be greater as these herbicides are less effective that other products.

4.2 Replacement plantings

The conservation area was planted out between the winter and spring of 2021. An estimated 680 trees and shrubs were planted and approximately 3000 groundcovers at this time. This included 189 *E. viminalis* seedlings (refer to Appendix 1). Each plant was planted with water crystals and a fertiliser tablet and all *E. viminalis* plants marked with a wooden stake.

There is evidence that many of the species have established successfully however some species such as coastal saltbush where unsuccessful as hard frosts affected the survival of this species.

Replacement plantings are to be undertaken in Spring/early summer 2024 or Autumn 2025 and during subsequent spring periods as required to achieve key survival rates and benchmark canopy cover and percentage groundcover of native species (refer to Section 6 and Table 4).

Species to be used for the replacement plantings are outlined in Appendix 1. This includes groundcover species such as coastal saltbush, new zealand spinach, pig face and the fast-growing native shrub kangaroo apple which will act to suppress exotic weeds around the white gums and other shrubs.

Replanting of canopy species may be required in the southern portion of the site where the initial planting had a lower survival rate. It is important to replant species that are more likely to survive in wetter conditions such as blackwoods. Based on survival rates some species that were planting at the site initially may be deemed to be unsuitable for future plantings.

Planting of groundcover species should be clusters around well-established plants. The aim of this approach is to create weed supressing areas of ground covers which will over time expand across the site to reduce weed coverage and achieve a minimum percentage of native ground cover (refer to Section 6 of Plan).

Site preparation prior to plantings is as per section 4.1 and includes slashing and hand pulling of excess grass around white gums and other tall shrub species and application of selected herbicide.

4.3 Browsing Management

The site is fenced to prevent browsing from wallabies, rabbits and possums. The fencing is setback from the adjoining bush by a 10m buffer to prevent overhanging branches from provide access to the site and to allow for maintenance by grazing (sheep) or slashing to minimise weed spread into the bushland.

The site visit in July 2024 revealed evidence of browsing of many of the eucalypts and some of the sheoaks in the site by possums. Significant regrowth of browsed eucalypts was observed during an additional site visit in October 2024 following a renewed effort by the landholder to prevent access by possums (fence and electric wire maintenance). Widespread rabbit diggings were also noted during the recent site visit with at least 3 rabbit warrens discovered within the fenced area. Ongoing maintenance

of the fence is required to ensure that the electric wire remains operational. Rabbits within the site need to be controlled and any holes in or under the fence blocked to minimise damage to the plantings.

4.3.1 Use of browsing as a grass management tool

The exclusion of browsers from the site has contributed to the growth in weeds including rope twitch and cocksfoot. Allowing periodic grazing within the site by wallabies may be a future management option to assist with the suppression of exotic grasses. It is likely that this approach would require the installation of an additional gate to allow access to higher number and to assist with through traffic. This management approach would require close monitoring and would only be suitable for short periods (<2 weeks) once the plantings are well established. Grazing access to the site can be controlled via the gates (Figure 2).

5 IMPLEMENTATION PLANS

The Management Plan is to be implemented over a 10-year period for Spring/summer 2024 to Spring/summer 2033.

- All management actions to be undertaken by a suitably experienced revegetation contractor.

Table 2 – Implementation Action Plan 2024-2034

Task	Timing
Weed Control	
Slash/brushcut area around white gums and larger shrubs to create clustered areas for additional plantings. Apply Gluphosinate around slashed area to reduce grass growth around new plants	Spring 2024 or Autumn 2025
	Spring 2025- 2033 as required
Slashing and hand pulling weeds around individual plantings	Spring 2025 – 2033
Hand pulling of individual yellow burrweed plants	Spring- summer 2024 – 2033 as reqd
Slashing vehicle tracks to maintain access through conservation area	Annually in spring 2024-2033
Replacement Plantings	
Planting of groundcovers and kangaroo apple around white gums to suppress weed growth.	Spring 2024 or Autumn 2025
	Spring 2026 to 2033 (as required)
Replace dead trees and shrubs (number to ensure survival rate KPI met)	Spring 2024 or Autumn 2025
	Spring 2025-2029 as required to meet plant survival rate KPI
Water plantings in summer as required due to climatic conditions	Summer 2025 (unless planting occurs in Autumn 2025)
Browsing Management	
Control rabbits in site and remove/fill in any rabbit burrows/monitor fences and repair holes etc	Annually 2024-2034
Allow short term access to site for browsing mammals to browse on exotic grasses in site once plantings well established. Experiment with leaving gate open to assess the effects of some native mammal browsing of weed load and impacts to planting in the site.	After 2029. Following assessment to confirm plants are suitably advanced to withstand some browsing.
Trait Testing of Eucalypts	
Undertake visual inspection and/or genetic testing of the trees, to determine which/how many are true to the parent.	End of 2028

[#] *Not required if planting undertaken in autumn 2025*.

6 MONITORING AND MAINTENANCE

Ongoing monitoring and maintenance are required for the site to ensure the long-term success of the planting.

Monitoring of the site by the landowner and contractor is proposed with regular planned maintenance occurring as per the implementation table (Table 2). Maintenance in the years 1-5 will be more intensive than years 5- 10 however this will be dictated by measurable key performance indicators.

Table 3 – Monitoring Plan

Task	How monitored	Responsibility
Weed Control	Biannual inspections of weeds in spring and summer to determine level of weed control required to maintain plantings. Measure impacts by % of ground cover which is native as per KPI	Landowner/DSG /contractor
Replacement plantings	Monitor the survival rate of plants – undertake replacement plantings when survival rate is less than survival % KPI Monitor which species establish and which species have low survivability. Do not replant species with survivability % less than KPI.	Landowner/DSG /contractor
Browsing Management	Monitor fence around site to exclude browsing mammals. Monitor the growth of the native plantings to determine when they are of sufficient size to withstand some browsing.	Landowner/DSG /contractor
Testing of traits of planted eucalypts	Undertake visual inspection and/or genetic testing of the trees, to determine which/how many are true to the parent.	DSG

7 REVIEW OF PLAN and MANAGEMENT SUCCESS INDICATORS

The Conservation Management Area Plan is to be reviewed at the end of the 5-year period (2029) to maintain currency of the implementation plan and to adjust management regimes and costings as required.

Table 4 provides key performance indicators to measure the success of management actions after 5 years and 10 years. These success parameters are broadly based on TASVEG Vegetation Community Benchmarks for white gum woodland (DVC) (NRE, 2024). It is recognised however that a revegetation plot is unlikely to match benchmark conditions for an intact forest or woodland community without significant and long-term active management.

Key benchmark components that are used to assess the success of the planting include tree canopy cover (%) and native understorey species cover (%) and survival rate of plantings.

The following benchmarks have been set for the project:

- Benchmark canopy cover for DVC woodland is 30% cover. A benchmark of 20 - 30% canopy cover at end of 10 years has been set as the success indicator for this project. Replanting of trees across the initial 5-year period will need to be undertaken to ensure that this level of canopy cover is achievable at 10 years.
- Groundcover % has been simplified to minimum 70% native ground cover by the end of 10-year period with 30-50 % native cover by 5 years.
- Planting species survival rate – 70% survival rate at end of 5 years period and a 50-60%survival rate at the end of 10-year period provide the 10-20% canopy cover is achieved.

The aim of the management plan is to convert a native planting into a self-sustaining *Eucalyptus viminalis* woodland with a native understorey similar to the adjacent intact woodland. If these conditions can be replicated, the northern section of the conservation area may provide a suitable site for the translocation of orchids (in particular *Caladenia saggicola*) grown at the Royal Tasmanian Botanical Gardens (southern end of site unsuitable due to waterlogging).

Table 4 – Progress Plan 2024-2033

Task	**Progress period**	**Key Performance Indicator**
Weed Control	2028 (5 years)	30-50% of groundcover species are native Yellow fiddleback is removed from conservation area.

	2033 (10 years)	70% of groundcover species are native
Replacement plantings	2028 (5 years)	70% survival of plantings Canopy cover – NA at year 5
	2033 (10 years)	50 -60% plant survival rate Canopy cover of 10 -20%
Canopy species (eucalypts)	2028 (5 years)	10-15% canopy cover
	2033 (10 years)	20-30% canopy cover

APPENDIX 1 – REVEGETATION LIST

Scientific Name	Common Name	Planting notes 2021 and 2024	# Plants for 2024/25 planting	2025- 2033
Trees				
Eucalyptus viminalis subsp. *pryoriana*	coastal white gum	Seedlings from specimen tree planted in 2021 (estimated as 189 plants) - 130 counted in Oct Survival rate approx. 70%. Higher survival northern end of site. No additional planting in 2024	NA	NA
Acacia melenoxylon	blackwood	Not planted in 2021. Can be planted at southern end of the site where weeter conditions experienced.	15	
Shrubs				
Acacia mearnsii	black wattle	Up to 100 planted 2021– 53 counted in Oct 2024 Undertake additional planting in 2024	15	TBD
Acacia verticillata	prickly moses	Up to 20 planted 2021 –none recorded on Oct 2024 Undertake additional planting in 2024	15	TBD
Allocasuarina littoralis	bulloak	Up to 100 planted 2021 - 38 counted in Oct 2024 Undertake additional planting in 2024	15	TBD
Banksia marginata	banksia	Up to 25 planted 2021 - 12 counted in Oct 2024 Undertake additional planting in 2024	10	TBD
Daviesia sejugata	Disjunct Bitter Pea	Up to 30 planted 2021 –9 counted in Oct 2024 Undertake additional planting in 2024	10	TBD
Dodonaea viscosa	native hop	Up to 60 planted 2021 - –25 counted in Oct 2024 Undertake additional planting in 2024	20	TBD
Solanium laciniatum	kangaroo apple	Not planted in 2021.	100	TBD

Scientific Name	Common Name	Planting notes 2021 and 2024	# Plants for 2024/25 planting	2025- 2033
		To be planted in clearings around the white gums and across the site where exotic species more dominant. Fast growing plant use suppress weed species.		
Ground Covers and Understorey Plants				
Carpobrotus rossii	pigface	Up to 200 planted 2021 -–2 counted in Oct 2024 Undertake additional planting in 2024	150	TBD
Dianella brevicaulis	short stem flax lily	Up to 200 planted 2021 - none recorded on Oct 2024 Undertake additional planting in 2024	100	TBD
Lomandra longifolia	sagg	Up to 200 planted 2021 - none recorded on Oct 2024 Undertake additional planting in 2024	100	TBD
Poa poiformis	coastal tussock	Up to 100 planted 2021 - only 4 Poa sp counted in Oct couldn't ID to species level Undertake additional planting in 2024	100	TBD
Rhagodia candolleana	coastal saltbush	Up to 2500 planted 2021 – all plants lost due to severe frost in 2022 Additional plants to be planted around the white gum and tall shrub saplings to provide coverage and suppress weed species.	2400	TBD
Tetragonia implexicoma	bower spinach	Up to 2500 planted 2021 planted 2021– none recorded on Oct 2024 Additional planting around site to provide coverage and suppress weed species.	150	TBD
		TOTAL plants 2024	**3200**	

APPENDIX 2 - WEED IDENTIFICATION AND MANAGEMENT

For up-to-date information on the control and management of all declared weeds visit the **Declared Weeds Index** on the Department of Natural Resources and Environment Tasmania website.

https://nre.tas.gov.au/invasive-species/weeds/weeds-index/declared-weeds-index

Cut-leaf nightshade – *Solanum triflorum*

Declared weed under the *Biosecurity Act 2019.*

Zone A weed in Clarence municipality under cut-leaf nightshade - Statutory Weed Management Plan (2011).


(Photo: Karen Stewart, NRE)

- Cut-leaf nightshade is a sprawling non-woody plant growing from 30 to 100 cm high and spreading to 50 to 100 cm. The stems and lobed, toothed leaves are sparsely hairy and without spines. Flowers white to pale purple, often in clusters of three on short stalks, and the fruits are a marbled-green berry about 10 cm in diameter.
- Cut-leaf nightshade flowers in summer, fruiting extends from summer through to autumn and seeds are ripe by early autumn. Germinates in autumn & winter.

Control Guide (from https://nre.tas.gov.au/invasive-species/weeds/weeds-index/declared-weeds-index/cut-leaf nightshade)

Spread of cut-leaf nightshade

- Cut-leaf nightshade spreads by seed. The seed viability of cut-leaf nightshade is not certain, but some research indicates that it can remain viable in the soil for around nine years.
- Rooting from the nodes results in some local spread of the plant.
- Although toxic, animals are known to spread the seed.
- Cut-leaf nightshade can be spread by machinery, vehicles and contaminated material such as soil and sand.

Avoid the introduction of cut-leaf nightshade

- Dispose of removed material carefully to avoid new plants germinating.
- Ensure all vehicles and machinery that have been in a cut-leaf nightshade infested area are thoroughly cleaned down before moving to a clean area.
- See the Washdown Guidelines for Weed and Disease Control for detailed information on how to wash-down equipment and personnel to reduce the chance of spreading cut-leaf nightshade.

Physical removal

- Individual plants can be dug out. Ensure any fruiting plants are bagged and deep buried on site.

Chemical control

- Under an off-label permit issued by the Australian Pesticides and Veterinary Medicines Authority (APVMA), there are herbicides registered for the control of cut-leaf nightshade in Tasmania. See Herbicides for Cut-leaf Nightshade Control for more information.
- No herbicide will be used to control this species on the property.

Yellow burrweed – *Amsinckia* sp (likely *calycina*)

Declared weed under the *Biosecurity Act 2019.*

Zone B weed in Clarence municipality under *Amsinckia* Species - Statutory Weed Management Plan (2011).

(Photo: Andy Welling ED)

- Amsinckias are hairy, winter-growing annual herbs, usually 20 to 70 cm high.
- Seeds germinate with the first autumn rains and further germinations occur through autumn and winter. The plant grows as a rosette (a whorl of leaves close to the ground) during winter and a flowering stem emerges in late winter or spring.
- Small yellow trumpet-like flowers are arranged along one side of the stem in a spike-like inflorescence coiled at the top. Flowering occurs from August to October/November. Aromatic seeds replace the small flowers in summer and autumn. Plants die off after seed set.

Control Guide (from https://nre.tas.gov.au/invasive-species/weeds/weeds-index/declared-weeds-index/amsinckia-species)

Spread of Amsinckia species

- Amsinckia spreads by seed only. Seed is spread on farm equipment, in contaminated fodder and feed grain, and via sowing of contaminated seed. Seed can also be spread by contaminated bird seed.
- Amsinckia can also be spread when the bristly flowers lodge in the coats of feral animals and stock, and when seed is carried in the digestive tracts of birds and stock.

Avoid the introduction of cut-leaf nightshade

- Implements and vehicles which have been used on infested areas should be thoroughly cleaned before leaving the site.
- Avoid using fodder and seed grain sourced from areas infested with amsinckia.
- See the Washdown Guidelines for Weed and Disease Control for detailed information on how to wash-down equipment and personnel to reduce the chance of spreading cut-leaf nightshade.

Physical removal

- Small infestations of amsinckia can be removed by hand pulling. Ensure any fruiting plants are bagged and deep buried on site.
- For larger infestations on grazing land, mowing or slashing just before flowering can reduce seed production and if undertaken repeatedly will deplete the soil seedbank.

Chemical control

- A number of herbicides are registered for use on amsinckia in Tasmania (see Herbicides for Amsinckia Control for more information).
- No herbicide will be used to control this species on the property.

Capeweed – *Arctotheca calendula*

Environmental weed – pest species

- Capeweed is an autumn-germinating annual plant, with seedlings appearing from late February through to late April. As plants mature they develop into a rosette, or whorl of leaves close to the ground.
- Capeweed rosettes are similar to storksbill, crowsfoot, bittercress, and mustards, but can be identified by the undersides of the leaves which are whitish and covered by a thick mat of short hairs.
- Flowering occurs in late spring and early summer; the masses of yellow, daisy-like flowers with dark, almost black centres are conspicuous from a considerable distance. Capeweed dies off in late summer.

Control Guide (from https://nre.tas.gov.au/invasive-species/weeds/weeds-index/declared-weeds-index/capeweed#CapeweedControlGuide)

Avoiding the establishment of capeweed

- Capeweed is spread by seed. Seeds are spread by birds and animals, and as a contaminant in soils on vehicles and machinery.
- See the Washdown Guidelines for Weed and Disease Control for detailed information on how to wash-down equipment and personnel to reduce the chance of spreading capeweed.

Physical removal

- Pulling or grubbing can remove capeweed where infestations are small.
- Use a fork as capeweed can be difficult to pull by hand. First loosen the soil around the plant then lift, taking care to remove as much of the root system as possible.
- Chipping is generally unsuitable as regrowth from the portion of root left in the ground is likely.

Cultivation

- Cultivation can be used to remove established infestations. Cultivate to expose the root systems with minimal breakage and leave the plants to dry out and die.
- Cultivation can be combined with cropping or pasture establishment to control large and well established infestations.

Grazing

- Grazing management should aim at maintaining a continuous and vigorous pasture.
- Heavy grazing during late winter or early spring can control capeweed.