

## Response to Office of Environment and Heritage Submission

Submission / Comments	Response
<p><b>Fauna and Flora</b></p> <p><i>The proposed trenching routes have not been adequately identified. An accurate assessment on the impact to flora and fauna is unable to be conducted. The SEE states that trenching will be limited to "disturbed areas of land" however an acceptable route map is not provided. Of concern is the proximity of the proposed works to native vegetation "islands".</i></p>	<p>Services to the facility include the power supply and the fibre to connect the facility to the Optus network.</p> <p>The power supply is to be via underground conduit directly from the Cat Sheds – and this route is to be trenched directly to the site. As per the site photos in Appendix A of the SEE this route is disturbed and currently used for heavy vehicle access and storage. The trench will be a maximum of 450mm wide.</p> <p>The proposed fibre route is to follow the existing access tracks to connect directly to the existing telecommunications conduits that run between the mountain and the village. The Optus fibre route is indicatively shown in the SEE as the provision of fibre to the facility is undertaken by separate survey once consent to install the facility is granted. Please refer to the attached 'Below Ground Services' map that shows the existing and indicative, proposed, fibre routes. To minimise impact, this may be undertaken by underground boring rather than trenching, and may be specified as a condition should the development be approved by consent.</p> <p>Installation of fibre by underground boring will minimise any potential impacts associated with the fibre route and will only need a 1m<sup>3</sup> pit every 100 m (approx) during installation.</p> <p>By following the existing access tracks, a minimum separation of 2 metres from any vegetation islands will be maintained, and would be acceptable as a condition of consent.</p> <p>The permanent access pits are to be located 300 mm below ground and covered with a detector plate, which will assist to minimise impact with resort operations.</p> <p>The attached EPBC Act Protected Matters Report lists the following plants as listed threatened species within a 500m radius of the proposed facility:</p>

<p><u>Sod replacement and rehabilitation</u></p> <p>Sod replacement should be undertaken where trenching is proposed. Rehabilitation works must be conducted according to "Rehabilitation Guidelines for the Resort Areas of Kosciuszko National Park" (DECC 2007). Rehabilitation areas must be adequately mulched and maintained until an erosion resistant ground condition is achieved.</p> <p><u>Safety of fauna</u></p> <p>Any excavations left open overnight must be left such that any fauna entering these excavations are able to escape easily.</p> <p><u>Sediment and erosion control</u></p> <p>All straw bales used for mulching or sediment and erosion control must be certified as weed free.</p> <p><u>Machinery cleaning</u></p> <p>Machinery must be cleaned prior to entering the park, be regularly maintained and manoeuvred to prevent the spread of exotic vegetation.</p>	<p><u>Pterostylis oreophila</u> <u>Blue-tongued Orchid, Kiandra Greenhood</u> Critically endangered - Species or species habitat likely to occur within area</p> <p><u>Thesium australe</u> <u>Austral Toadflax, Toadflax</u> Vulnerable - Species or species habitat likely to occur within area</p> <p>The attached table lists threatened alpine plant species more broadly, including the two species noted above.</p> <p>Noted. To further minimise the requirement for Sod replacement and rehabilitation, trenching may be avoided and the requirements for sod replacement and rehabilitation is limited to every 100 m where a 1 m<sup>3</sup> pit is required for bore access.</p> <p>Noted.</p> <p>Noted.</p> <p>Noted.</p>
<p><u>Aboriginal Archaeology</u></p> <p>The SEE did not address the potential impacts on Aboriginal cultural heritage values adequately. Due Diligence for Aboriginal Cultural Heritage Assessments has not been demonstrated. However the</p>	<p>Guidelines under Section 8 in the Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales have been followed in preparation of the SEE.</p>

<p><i>development area is a previously disturbed site and there are no known Aboriginal sites within or close to the development area. Should any Aboriginal objects be uncovered during construction, any works impacting the objects must cease immediately and the NPWS contacted for assessment of the site.</i></p>	<p>Please find attached a search under the Aboriginal Heritage Information Management System. The search is centred at the proposed site location with a buffer of 50m. No Aboriginal sites are recorded and no Aboriginal places are declared near the location.</p> <p>On this basis, the SEE reflects a Due Diligence approach to works as per Section 8 - to stop work and notify authorities should any objects be uncovered during construction.</p>
<p><u>Leasing</u></p> <p><i>The proposal is permissible under the head lease held by Kosciuszko Thredbo Pty Ltd. I note the email correspondence from the proponent to Mark Brown (Department of Planning and Environment) on 18 May 2015 and support the proposed sub-lease having built in requirements for co-location. Advice on leasing components is being sought and further leasing comments may be applicable.</i></p>	<p>Noted.</p> <p>KT note that the statutory 28 days for OEH referral comments under the Kosciuszko National Park Alpine Resorts SEPP, 2007 expired on 9 March, 2015.</p>
<p><u>Compliance with National Parks and Wildlife Act 1974</u></p> <p><i>Concerns are raised over the potential visual impact of the proposed structure. The proposed height of the tower is well above the existing infrastructure and ski lift towers and would be visible from the village and the Alpine Way.</i></p>	<p>Visual impact is addressed in the SEE and particularly in the context of the coverage objectives of the facility.</p> <p>Even a reduction in height of five metres has significant impacts on the targeted coverage areas for the site, and Optus would need to consider how this deficit would be addressed in the future. As previously noted, Optus' intent is to avoid the requirement of a future site in the area.</p> <p>KT understands the proposal to be compliant with Section 153 (D) of the NPW Act (1974) as the Minister has granted a lease to KT that grants it the right to enter into agreements with Utility Providers.</p> <p>Concerns regarding potential visual impacts are matter to be dealt with by DPE under the Alpine SEPP/EPA Act and are not matters of compliance with the NPW Act.</p>



# EPBC Act Protected Matters Report

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

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

Information is available about [Environment Assessments](#) and the EPBC Act including significance guidelines, forms and application process details.

Report created: 04/03/15 19:23:11

## [Summary](#)

### [Details](#)

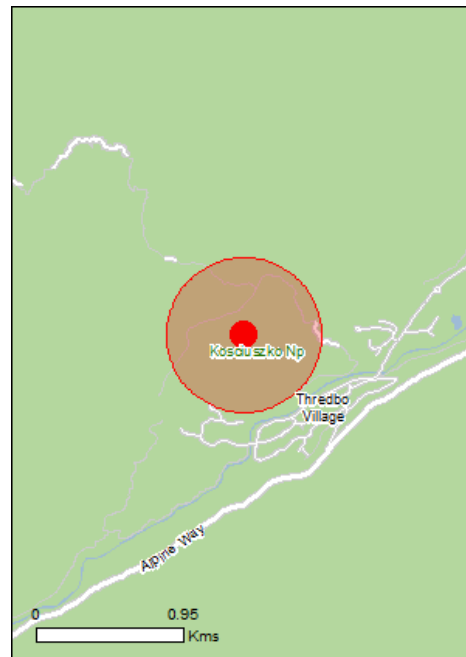
[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

### [Caveat](#)

### [Acknowledgements](#)



This map may contain data which are  
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[Coordinates](#)

Buffer: 0.5Km



# Summary

## Matters of National Environmental Significance

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

<a href="#">World Heritage Properties:</a>	None
<a href="#">National Heritage Places:</a>	2
<a href="#">Wetlands of International Importance:</a>	1
<a href="#">Great Barrier Reef Marine Park:</a>	None
<a href="#">Commonwealth Marine Areas:</a>	None
<a href="#">Listed Threatened Ecological Communities:</a>	1
<a href="#">Listed Threatened Species:</a>	12
<a href="#">Listed Migratory Species:</a>	11

## 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 and the heritage values of a place on the Register of the National Estate.

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.

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.

<a href="#">Commonwealth Land:</a>	None
<a href="#">Commonwealth Heritage Places:</a>	None
<a href="#">Listed Marine Species:</a>	11
<a href="#">Whales and Other Cetaceans:</a>	None
<a href="#">Critical Habitats:</a>	None
<a href="#">Commonwealth Reserves Terrestrial:</a>	None
<a href="#">Commonwealth Reserves Marine:</a>	None

## Extra Information

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

<a href="#">Place on the RNE:</a>	3
<a href="#">State and Territory Reserves:</a>	1
<a href="#">Regional Forest Agreements:</a>	1
<a href="#">Invasive Species:</a>	25
<a href="#">Nationally Important Wetlands:</a>	None
<a href="#">Key Ecological Features (Marine)</a>	None

## Details

### Matters of National Environmental Significance

#### National Heritage Properties [\[ Resource Information \]](#)

Name	State	Status
<b>Natural</b>		
<a href="#">Australian Alps National Parks and Reserves</a>	NSW	Listed place
<b>Historic</b>		
<a href="#">Snowy Mountains Scheme</a>	NSW	Nominated place

#### Wetlands of International Importance (RAMSAR) [\[ Resource Information \]](#)

Name	Proximity
<a href="#">Blue lake</a>	Within 10km of Ramsar

#### Listed Threatened Ecological Communities [\[ Resource Information \]](#)

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

Name	Status	Type of Presence
<a href="#">Alpine Sphagnum Bogs and Associated Fens</a>	Endangered	Community likely to occur within area

#### Listed Threatened Species [\[ Resource Information \]](#)

Name	Status	Type of Presence
<b>Birds</b>		
<a href="#">Botaurus poiciloptilus</a>		
Australasian Bittern [1001]	Endangered	Species or species habitat likely to occur within area
<a href="#">Rostratula australis</a>		
Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area
<b>Fish</b>		
<a href="#">Prototroctes maraena</a>		
Australian Grayling [26179]	Vulnerable	Species or species habitat may occur within area
<b>Frogs</b>		
<a href="#">Litoria verreauxii alpina</a>		
Alpine Tree Frog, Verreaux's Alpine Tree Frog [66669]	Vulnerable	Species or species habitat likely to occur within area
<b>Mammals</b>		
<a href="#">Dasyurus maculatus maculatus (SE mainland population)</a>		
Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat likely to occur

Name	Status	Type of Presence
<a href="#">Petrogale penicillata</a>		within area
Brush-tailed Rock-wallaby [225]	Vulnerable	Species or species habitat may occur within area
<a href="#">Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)</a>		
Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Vulnerable	Species or species habitat may occur within area
<a href="#">Pseudomys fumeus</a>		
Konoom, Smoky Mouse [88]	Endangered	Species or species habitat may occur within area

#### Plants

<a href="#">Pterostylis oreophila</a>		
Blue-tongued Orchid, Kiandra Greenhood [22903]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Thesium australe</a>		
Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat likely to occur within area

#### Reptiles

<a href="#">Cyclodomorphus praealtus</a>		
Alpine She-oak Skink [64721]	Endangered	Species or species habitat may occur within area
<a href="#">Liopholis guthega</a>		
Guthega Skink [83079]	Endangered	Species or species habitat likely to occur within area

#### Listed Migratory Species [\[ Resource Information \]](#)

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

Name	Threatened	Type of Presence
<b>Migratory Marine Birds</b>		
<a href="#">Apus pacificus</a>		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area

#### Migratory Terrestrial Species

<a href="#">Haliaeetus leucogaster</a>		
White-bellied Sea-Eagle [943]		Species or species habitat may occur within area
<a href="#">Hirundapus caudacutus</a>		
White-throated Needletail [682]		Species or species habitat known to occur within area
<a href="#">Merops ornatus</a>		
Rainbow Bee-eater [670]		Species or species habitat may occur within area
<a href="#">Monarcha melanopsis</a>		
Black-faced Monarch [609]		Species or species habitat likely to occur within area
<a href="#">Myiagra cyanoleuca</a>		
Satin Flycatcher [612]		Species or species habitat known to occur within area
<a href="#">Rhipidura rufifrons</a>		
Rufous Fantail [592]		Species or species habitat known to occur within area

#### Migratory Wetlands Species

<a href="#">Ardea alba</a>		
Great Egret, White Egret [59541]		Species or species habitat likely to occur within area
<a href="#">Ardea ibis</a>		
Cattle Egret [59542]		Species or species

Name	Threatened	Type of Presence
<a href="#">Gallinago hardwickii</a> Latham's Snipe, Japanese Snipe [863]		habitat likely to occur within area
<a href="#">Rostratula benghalensis (sensu lato)</a> Painted Snipe [889]	Endangered*	Species or species habitat may occur within area

## Other Matters Protected by the EPBC Act

### Listed Marine Species [\[ Resource Information \]](#)

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

Name	Threatened	Type of Presence
<b>Birds</b>		
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area
<a href="#">Ardea alba</a> Great Egret, White Egret [59541]		Species or species habitat likely to occur within area
<a href="#">Ardea ibis</a> Cattle Egret [59542]		Species or species habitat likely to occur within area
<a href="#">Gallinago hardwickii</a> Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
<a href="#">Haliaeetus leucogaster</a> White-bellied Sea-Eagle [943]		Species or species habitat may occur within area
<a href="#">Hirundapus caudacutus</a> White-throated Needletail [682]		Species or species habitat known to occur within area
<a href="#">Merops ornatus</a> Rainbow Bee-eater [670]		Species or species habitat may occur within area
<a href="#">Monarcha melanopsis</a> Black-faced Monarch [609]		Species or species habitat likely to occur within area
<a href="#">Myiagra cyanoleuca</a> Satin Flycatcher [612]		Species or species habitat known to occur within area
<a href="#">Rhipidura rufifrons</a> Rufous Fantail [592]		Species or species habitat known to occur within area



Name	Threatened	Type of Presence
<a href="#">Rostratula benghalensis (sensu lato)</a> Painted Snipe [889]	Endangered*	Species or species habitat may occur within area

## Extra Information

### Places on the RNE [\[ Resource Information \]](#)

Note that not all Indigenous sites may be listed.

Name	State	Status
<b>Natural</b>		
<a href="#">Kosciuszko National Park (1981 boundary)</a>	NSW	Registered
<b>Historic</b>		
<a href="#">Snowy Mountains Scheme</a>	NSW	Registered
<a href="#">Thredbo Village Conservation Area</a>	NSW	Registered

### State and Territory Reserves [\[ Resource Information \]](#)

Name	State
Kosciuszko	NSW

### Regional Forest Agreements [\[ Resource Information \]](#)

Note that all areas with completed RFAs have been included.

Name	State
<a href="#">Southern RFA</a>	New South Wales

### Invasive Species [\[ Resource Information \]](#)

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

Name	Status	Type of Presence
<b>Birds</b>		
<a href="#">Alauda arvensis</a> Skylark [656]		Species or species habitat likely to occur within area
<a href="#">Carduelis carduelis</a> European Goldfinch [403]		Species or species habitat likely to occur within area
<a href="#">Columba livia</a> Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
<a href="#">Passer domesticus</a> House Sparrow [405]		Species or species habitat likely to occur within area
<a href="#">Streptopelia chinensis</a> Spotted Turtle-Dove [780]		Species or species habitat likely to occur within area
<a href="#">Sturnus vulgaris</a> Common Starling [389]		Species or species habitat likely to occur within area

Name	Status	Type of Presence
<a href="#">Turdus merula</a>		
Common Blackbird, Eurasian Blackbird [596]		Species or species habitat likely to occur within area
<b>Mammals</b>		
<a href="#">Canis lupus familiaris</a>		
Domestic Dog [82654]		Species or species habitat likely to occur within area
<a href="#">Capra hircus</a>		
Goat [2]		Species or species habitat likely to occur within area
<a href="#">Equus caballus</a>		
Horse [5]		Species or species habitat likely to occur within area
<a href="#">Felis catus</a>		
Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
<a href="#">Feral deer</a>		
Feral deer species in Australia [85733]		Species or species habitat likely to occur within area
<a href="#">Lepus capensis</a>		
Brown Hare [127]		Species or species habitat likely to occur within area
<a href="#">Mus musculus</a>		
House Mouse [120]		Species or species habitat likely to occur within area
<a href="#">Oryctolagus cuniculus</a>		
Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
<a href="#">Rattus rattus</a>		
Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
<a href="#">Sus scrofa</a>		
Pig [6]		Species or species habitat likely to occur within area
<a href="#">Vulpes vulpes</a>		
Red Fox, Fox [18]		Species or species habitat likely to occur within area
<b>Plants</b>		
<a href="#">Asparagus asparagoides</a>		
Bridal Creeper, Bridal Veil Creeper, Smilax, Florist's Smilax, Smilax Asparagus [22473]		Species or species habitat likely to occur within area
<a href="#">Chrysanthemoides monilifera subsp. monilifera</a>		
Boneseed [16905]		Species or species habitat likely to occur within area
<a href="#">Nassella trichotoma</a>		
Serrated Tussock, Yass River Tussock, Yass Tussock, Nassella Tussock (NZ) [18884]		Species or species habitat likely to occur within area
<a href="#">Pinus radiata</a>		
Radiata Pine Monterey Pine, Insignis Pine, Wilding Pine [20780]		Species or species habitat may occur within area
<a href="#">Rubus fruticosus aggregate</a>		
Blackberry, European Blackberry [68406]		Species or species habitat likely to occur within area
<a href="#">Salix spp. except S.babylonica, S.x calodendron &amp; S.x reichardtii</a>		
Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497]		Species or species habitat likely to occur

Name	Status	Type of Presence
<a href="#">Ulex europaeus</a>		within area
Gorse, Furze [7693]		Species or species habitat likely to occur within area

# Coordinates

-36.50106 148.30082

## Caveat

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

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

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

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

For species where the distributions are well known, maps are digitised from sources such as recovery plans and detailed habitat studies. Where appropriate, core breeding, foraging and roosting areas are indicated under 'type of presence'. For species whose distributions are less well known, point locations are collated from government wildlife authorities, museums, and non-government organisations; bioclimatic distribution models are generated and these validated by experts. In some cases, the distribution maps are based solely on expert knowledge.

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

- migratory and
- marine

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

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

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

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

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

## 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:

- [Department of Environment, Climate Change and Water, New South Wales](#)
- [Department of Sustainability and Environment, Victoria](#)
- [Department of Primary Industries, Parks, Water and Environment, Tasmania](#)
- [Department of Environment and Natural Resources, South Australia](#)
- [Parks and Wildlife Service NT, NT Dept of Natural Resources, Environment and the Arts](#)
- [Environmental and Resource Management, Queensland](#)
- [Department of Environment and Conservation, Western Australia](#)
- [Department of the Environment, Climate Change, Energy and Water](#)
- [Birds Australia](#)
- [Australian Bird and Bat Banding Scheme](#)
- [Australian National Wildlife Collection](#)
- Natural history museums of Australia
- [Museum Victoria](#)
- [Australian Museum](#)
- [SA 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, Atherton and Canberra](#)
- [University of New England](#)
- [Ocean Biogeographic Information System](#)
- [Australian Government, Department of Defence](#)
- [State Forests of NSW](#)
- [Geoscience Australia](#)
- [CSIRO](#)
- 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.

Scientific Name	Common Name	Type Of Species	NSW Status	Occurrence	Vegetation Classes
<i>Pilularia novae-hollandiae</i>	Austral Pillwort	Plant>Ferns and Cycads	Endangered	Known	Coastal Freshwater Lagoons, Coastal Swamp Forests, Coastal Valley Grassy Woodlands, Floodplain Transition Woodlands, Highly disturbed areas with no or limited native vegetation, Inland Floodplain Shrublands, Inland Floodplain Swamps, Inland Floodplain Woodlands, Inland Riverine Forests, Riverine Plain Grasslands, Riverine Plain Woodlands, Southern Tableland Dry Sclerophyll Forests
<i>Calotis glandulosa</i>	Mauve Burr-daisy	Plant>Herbs and Forbs	Vulnerable	Known	Highly disturbed areas with no or limited native vegetation, Southern Tableland Wet Sclerophyll Forests, Subalpine Woodlands, Tableland Clay Grassy Woodlands, Temperate Montane Grasslands
<i>Calotis pubescens</i>	Max Mueller's Burr-daisy	Plant>Herbs and Forbs	Endangered	Predicted	Temperate Montane Grasslands
<i>Ranunculus anemoneus</i>	Anemone Buttercup	Plant>Herbs and Forbs	Vulnerable	Known	Alpine Bogs and Fens, Alpine Herbfields
<i>Carex archeri</i>	Archer's Carex	Plant>Herbs and Forbs	Endangered	Known	Alpine Herbfields
<i>Carex raleighii</i>	Raleigh Sedge	Plant>Herbs and Forbs	Endangered	Known	Alpine Bogs and Fens, Temperate Montane Grasslands
<i>Euchiton nitidulus</i>	Shining Cudweed	Plant>Herbs and Forbs	Vulnerable	Known	Alpine Herbfields
<i>Rytidosperma pumilum</i>	Feldmark Grass	Plant>Herbs and Forbs	Vulnerable	Known	Alpine Fjeldmarks
<i>Thesium australe</i>	Austral Toadflax	Plant>Herbs and Forbs	Vulnerable	Known	Brigalow Clay Plain Woodlands, Coastal Dune Dry Sclerophyll Forests, Coastal Headland Heaths, Coastal Valley Grassy Woodlands, Eastern Riverine Forests, Hunter-Macleay Dry Sclerophyll Forests, Maritime Grasslands, New England Dry Sclerophyll Forests, New England Grassy Woodlands, North Coast Wet Sclerophyll Forests, Northern Escarpment Dry Sclerophyll Forests, Northern Escarpment Wet Sclerophyll Forests, Northern Tableland Dry Sclerophyll Forests, Northern Tableland Wet Sclerophyll Forests, North-west Slopes Dry Sclerophyll Woodlands, Riverine Sandhill Woodlands, Southern Tableland Grassy Woodlands, Southern Tableland Wet Sclerophyll Forests, Subalpine Woodlands, Sydney Coastal Dry Sclerophyll Forests, Sydney Hinterland Dry Sclerophyll Forests, Tableland Clay Grassy Woodlands, Temperate Montane Grasslands, Wallum Sand Heaths, Western Slopes Dry Sclerophyll Forests, Western Slopes Grasslands, Western Slopes Grassy Woodlands
<i>Rytidosperma vickeryae</i>	Perisher Wallaby-grass	Plant>Herbs and Forbs	Endangered	Known	Alpine Bogs and Fens
<i>Eucalyptus saxatilis</i>	Suggan Buggan Mallee	Plant>Mallees	Endangered	Known	Rocky cliffs, major rock outcrops etc, Southern Tableland Dry Sclerophyll Forests, Southern Tableland Wet Sclerophyll Forests
<i>Diuris pedunculata</i>	Small Snake Orchid	Plant>Orchids	Endangered	Known	Coastal Valley Grassy Woodlands, Dry Rainforests, Eastern Riverine Forests, Hunter-Macleay Dry Sclerophyll Forests, Montane Bogs and Fens, New England Dry Sclerophyll Forests, New England Grassy Woodlands, North Coast Wet Sclerophyll Forests, Northern Escarpment Dry Sclerophyll Forests, Northern Escarpment Wet Sclerophyll Forests, Northern Gorge Dry Sclerophyll Forests, Northern Hinterland Wet Sclerophyll Forests, Northern Tableland Dry Sclerophyll Forests, Northern Tableland Wet Sclerophyll Forests, North-west Slopes Dry Sclerophyll Woodlands, South East Dry Sclerophyll Forests, Southern Escarpment Wet Sclerophyll Forests, Southern Tableland Wet Sclerophyll Forests, Subalpine Woodlands, Sydney Coastal Dry Sclerophyll Forests, Sydney Hinterland Dry Sclerophyll Forests, Sydney Sand Flats Dry Sclerophyll Forests, Tableland Clay Grassy Woodlands, Temperate Montane Grasslands, Western Slopes Dry Sclerophyll Forests, Western Slopes Grasslands, Western Slopes Grassy Woodlands
<i>Prasophyllum retroflexum</i>	Kiandra Leek Orchid	Plant>Orchids	Vulnerable	Known	Temperate Montane Grasslands
<i>Diuris ochroma</i>	Pale Golden Moths	Plant>Orchids	Endangered	Predicted	Subalpine Woodlands, Tableland Clay Grassy Woodlands, Temperate Montane Grasslands
<i>Pterostylis oreophila</i>	Blue-tongued Greenhood	Plant>Orchids	Critically Endangered	Known	Alpine Bogs and Fens, Montane Bogs and Fens, Water bodies, rivers, lakes, streams (not wetlands)
<i>Discaria nitida</i>	Leafy Anchor Plant	Plant>Shrubs	Vulnerable	Known	Alpine Bogs and Fens, Eastern Riverine Forests, Subalpine Woodlands, Temperate Montane Grasslands

## Austral Toadflax - profile

**Scientific name:** *Thesium australe*

**Conservation status in NSW:** [Vulnerable](#)

**Commonwealth status:** [Vulnerable](#)

**Profile last updated:** 31 Jul 2013

### Description

Austral Toadflax is a small, straggling herb to 40 cm tall. Leaves are pale green to yellow-green, somewhat succulent, 1 - 4 cm long and 0.5 - 1.5 mm wide. Flowers are minute and white, emerging where the leaves meet the stems and appearing in spring. The fruit is small and nut-like, developing in summer. This species is often hidden amongst grasses and herbs.

### Distribution

Austral Toad-flax is found in very small populations scattered across eastern NSW, along the coast, and from the Northern to Southern Tablelands. It is also found in Tasmania and Queensland and in eastern Asia. Although originally described from material collected in the SW Sydney area, populations have not been seen in a long time. It may persist in some areas in the broader region.

### Habitat and ecology

- Occurs in grassland on coastal headlands or grassland and grassy woodland away from the coast.
- Often found in association with Kangaroo Grass (*Themeda australis*).
- A root parasite that takes water and some nutrient from other plants, especially Kangaroo Grass.

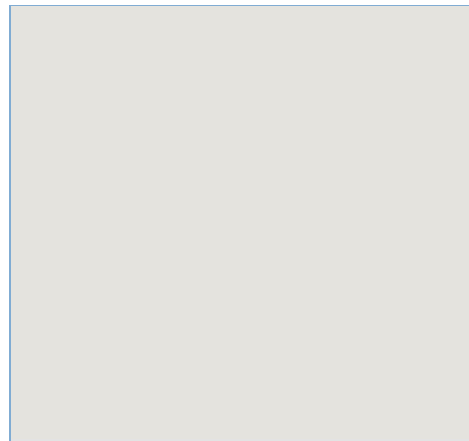
### Regional distribution and habitat

Click on a region below to view detailed distribution, habitat and vegetation information.

- [Border Rivers-Gwydir](#)
- [Central West](#)
- [Hawkesbury-Nepean](#)
- [Hunter-Central Rivers](#)
- [Murray](#)
- [Murrumbidgee](#)
- [Namoi](#)
- [Northern Rivers](#)
- [Southern Rivers](#)

### Threats

### Indicative distribution



**Key:**  known

predicted

The areas shown in pink and/purple are the sub-regions where the species or community is known or predicted to occur. They may not occur throughout the sub-region but may be restricted to certain areas. ([click here](#) to see geographic restrictions). The information presented in this map is only indicative and may contain errors and omissions.

- Loss and degradation of habitat and/or populations for residential, infrastructure and agricultural developments.
- Loss and degradation of habitat and/or populations by intensification of grazing regimes.
- Loss and degradation of habitat and/or populations by invasion of weeds.
- Loss and degradation of habitat and/or populations from road works (particularly widening or re-routing).

## Recovery strategies

A targeted strategy for managing this species has been developed under the Saving Our Species program; click [here](#) for details. For more information on the Saving Our Species program click [here](#)

## Activities to assist this species

- Protect known populations from changes to land use.
- Do not undertake road works, pasture modification or other changes in land use that may affect populations.
- Do not increase grazing pressures on sites where populations persist - reduce grazing pressures where possible.
- Undertake weed control in and adjacent to populations, taking care to spray or dig out only target weeds.
- Mark sites and potential habitat onto maps (of the farm, shire, region, etc) used for planning (e.g. road works, residential and infrastructure developments, remnant protection, rehabilitation).
- Search for new populations in potential habitat.

## Information sources

- Eddy, D. (2002) Managing Native Grassland: a guide to management for conservation, production and landscape protection. (World Wide Fund for Nature Australia, Sydney)
- Eddy, D., Mallinson, D., Rehwinkel, R and Sharp, S. (1998) Grassland Flora: a field guide for the Southern Tablelands (NSW & ACT). (Environment ACT, NSW National Parks and Wildlife Service, World Wide Fund for Nature Australia, Australian National Botanic Gardens, Natural Heritage Trust, Canberra)
- Harden, G.J. (ed.) (1992) Flora of New South Wales Vol. 3. UNSW Press, Kensington, NSW.
- Walsh, N.G. and Entwisle, T.J. (1999) Flora of Victoria; Volume 4, Dicotyledons Cornaceae to Asteraceae. (Inkata Press, Melbourne)

## Images



Austral Toad Flax  
Image 1 of 12.  
[View slideshow.](#)

## Related information

- ▶ [NSW Flora Online - Thesium australe](#)



Get involved

Report a  
sighting

## Blue-tongued Greenhood - profile

**Scientific name:** *Pterostylis oreophila*

**Conservation status in NSW:** [Critically Endangered](#)

**Commonwealth status:** [Critically Endangered](#)

**Gazetted date:** 09 Nov 2007

**Profile last updated:** 20 May 2014

### Description

The Blue-tongued Greenhood is a terrestrial orchid, with up to five leaves in a basal rosette before flowering. The leaves are later arranged loosely along the 20 cm tall flowering stems. The leaves are oval in shape, to 70 mm long and 20 mm wide. The flower is solitary, erect, predominantly white with narrow green stripes, somewhat bulky (the hood-like structure being about 2.5 cm long). Flowers have a curved lip of a distinctive bluish or blue-green (aqua) colour. It flowers from November to January.

### Distribution

In New South Wales, the Blue-tongued Greenhood is known from a few small populations within Kosciuszko National Park and a population of about 40 plants (possibly now extinct) in Bago State Forest and adjoining Crown Leases south of Tumut. The known distribution includes parts of the Snowy River, Tumbarumba and possibly Tumut Local Government Areas. The Blue-tongued Greenhood is also known from the Australian Capital Territory (Brindabella Range) and in montane areas of far north-eastern Victoria.

### Habitat and ecology

- Grows along sub-alpine watercourses under more open thickets of Mountain Tea-tree in muddy ground very close to water.
- Less commonly grows in peaty soils and sphagnum mounds.
- While more frequently found in low-light conditions it appears to also be able to tolerate full sun.

### Regional distribution and habitat

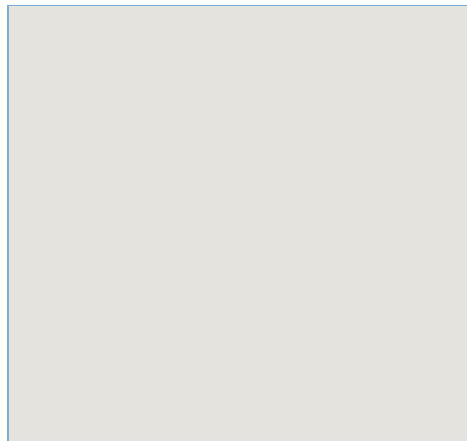
Click on a region below to view detailed distribution, habitat and vegetation information.

- [Murray](#)
- [Murrumbidgee](#)
- [Southern Rivers](#)

### Threats

- Rooting by feral pigs.
- Mineral fossicking at some sites.
- Threats from environmental and demographic stochasticity due to the narrow areas of

### Indicative distribution



**Key:**  known  predicted

The areas shown in pink and/purple are the sub-regions where the species or community is known or predicted to occur. They may not occur throughout the sub-region but may be restricted to certain areas. ([click here](#) to see geographic restrictions). The information presented in this map is only indicative and may contain errors and omissions.

occupancy, small population sizes, and dispersed distribution of populations.

- Altered hydrology due to adjacent land uses
- Altered hydrology due to climate change.
- Logging leading to sedimentation and drying out of sites.
- Inappropriate fire regimes.
- Possible illegal collection.

## Recovery strategies

A targeted strategy for managing this species has been developed under the Saving Our Species program; click [here](#) for details. For more information on the Saving Our Species program click [here](#)

## Activities to assist this species

- Fence populations to prevent rooting by feral pigs.
- Fence populations to prevent grazing and trampling by cattle and wild horses.
- Do not conduct control burns in sphagnum bog habitat.
- Prevent disturbances from logging adjacent to habitat.
- Take care in track construction or other works that may lead to alteration to drainage patterns near populations.

## Information sources

- Bishop, T. (2000) Field Guide to the Orchids of New South Wales and Victoria. (New South Wales University Press, Sydney)
- Clemesha, S.C. (1974) A new *Pterostylis* from southern New South Wales. The Orchadian 4, 100-102.
- Jones, D.L. (1998) Contributions to Tasmanian orchidology 1-9. 7: A taxonomic review of *Pterostylis* in Tasmania. In: Banks DP (ed.), Australian Orchid Research vol. 3. (Australian Orchid Foundation, Seven Hills, NSW)
- Jones, D.L. (2006) A complete guide to native orchids of Australia including the island territories. (Reed New Holland, Frenchs Forest NSW.)

## Images



Pterostylis oreophila,  
Richard Hartland Image  
1 of 2.

[View slideshow.](#)

## Related information

- ▶ [Pterostylis oreophila \(an orchid\) - critically endangered species listing](#)

Get involved

Report a  
sighting

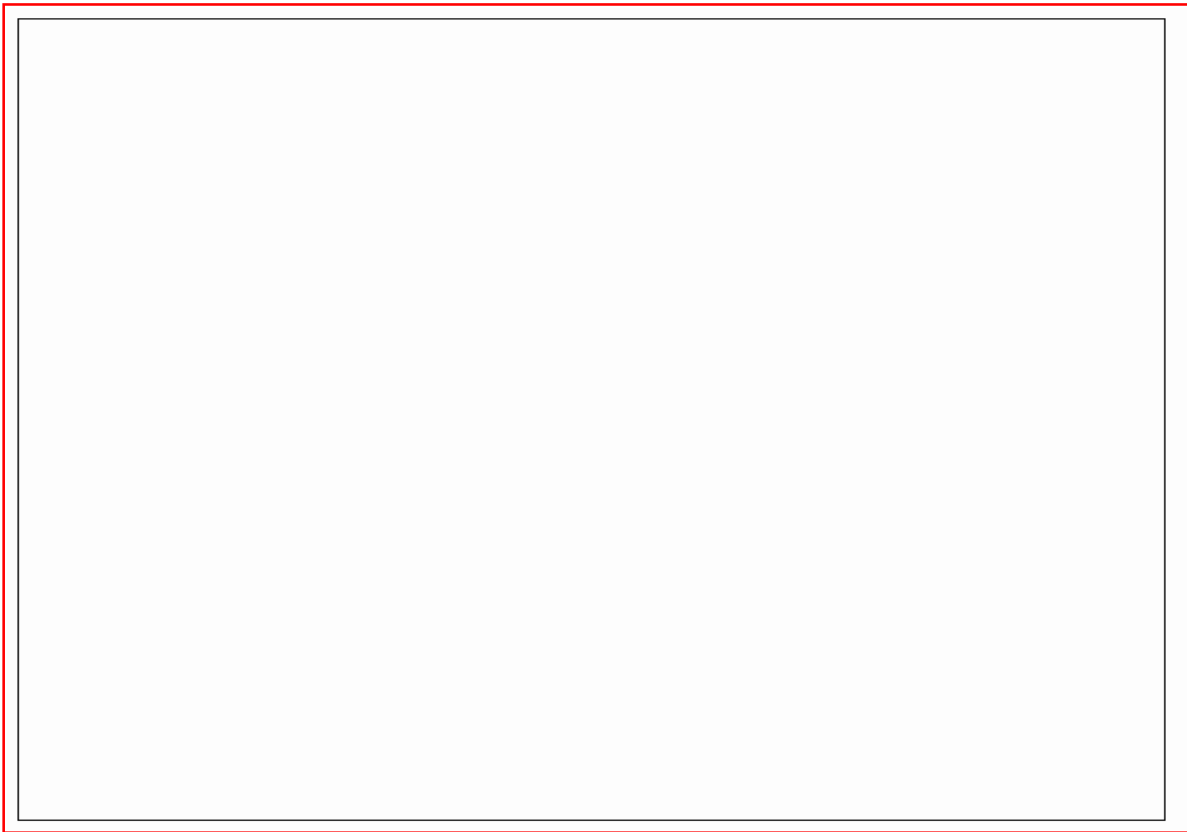
Catalyst O.N.E Pty Ltd  
PO Box 1119  
Crows Nest New South Wales 1585  
Attention: James Mciver  
Email: jmciver@catalystone.com.au

Date: 05 June 2015

Dear Sir or Madam:

**AHIMS Web Service search for the following area at Lat, Long From : -36.501, 148.3008 - Lat, Long To : -36.5009, 148.3009 with a Buffer of 50 meters, conducted by James Mciver on 05 June 2015.**

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

<b>0</b>	<b>Aboriginal sites are recorded in or near the above location.</b>
<b>0</b>	<b>Aboriginal places have been declared in or near the above location. *</b>

### **If your search shows Aboriginal sites or places what should you do?**

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the [NSW Government Gazette \(http://www.nsw.gov.au/gazette\)](http://www.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Office of Environment and Heritage's Aboriginal Heritage Information Unit upon request

### **Important information about your AHIMS search**

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Office of Environment and Heritage and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date .Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.