

# **APPENDIX A**

**FAUNA AND FLORA ASSESSMENT** 

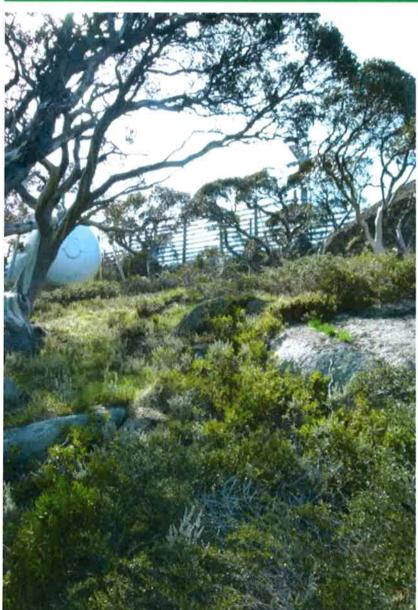


# **FLORA AND FAUNA ASESSMENT**

Proposed Gas Tank, Blue Cow Ski Area Perisher Ski Resort

Prepared for Perisher Blue Pty Ltd

12 December 2014









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# **Executive summary**

This report describes the biological environment and assesses the potential effects on threatened and migratory species, endangered populations and ecological communities of the proposal to install a 30,000 L gas tank within the Blue Cow ski area of Perisher Ski Resort.

The study area and immediate surrounds was found to support approximately 70 m<sup>2</sup> of the widespread and well conserved vegetation community; Tall Alpine Heath with Eucalypts. Thirty-five plant species were recorded within the study area during the survey period. No threatened flora species were recorded within the study area despite targeted searches and good survey coverage.

Whilst the study area provides known habitat for the threatened fauna species such as *Mastacomys fuscus* (Broad-toothed Rat) and *Petroica phoenicea* (Flame Robin), similar habitats are extensive in the locality and the habitats to be affected are small in the context of the extent of similar habitats contiguous with the study area. Under these circumstances, whilst the proposal will have some minor impacts on fauna habitats, these impacts are considered acceptable given their minor nature, and in the context of extensive areas of similar habitat that will continue to be available in contiguous areas. The proposal will not sever any linkages between habitats or otherwise restrict fauna movement.

Following the application of the seven factors from Section 5A of the NSW Environmental Planning and Assessment Act 1979, as required by the TSC Act and the NSW Fisheries Management Act 1994, in accordance with relevant assessment guidelines, it is concluded that the proposal is unlikely to have a significant effect on threatened species, endangered populations, threatened ecological communities, or their habitats. A Species Impact Statement is not required for the proposal.

Following consideration of the administrative guidelines for determining significance under the Commonwealth Environment Protection & Biodiversity Conservation Act 1999, it is concluded that the proposal is unlikely to have a significant impact on matters of National Environmental Significance or Commonwealth land, and a referral to the Commonwealth Environment Minister is therefore not required.

A number of impact mitigation and amelioration measures have been recommended to be incorporated into the proposal, as identified in Section 5.

# 1 Introduction

Eco Logical Australia Pty Ltd (ELA) was engaged by Perisher at the request of Dabyne Planning Pty Ltd to prepare a flora and fauna assessment to accompany a proposal for the installation of a new gas tank adjacent to the existing gas tank at the Blue Cow terminal building, within the Blue Cow ski area of Perisher Ski Resort. This flora and fauna assessment provides the findings of a review of relevant literature, database searches and field survey. It also addresses relevant statutory considerations and makes recommendations to ameliorate the potential impacts of the proposal on vegetation and habitats.

The aim of this investigation was to assess the ecological impacts of the proposal on flora, fauna and habitats within the study area. The objectives of this investigation were:

- To identify and describe the flora species and vegetation communities present in the study area, their condition and conservation significance.
- To identify and describe the fauna habitats present in the study area and their condition.
- To identify the fauna species which are present or likely to occur in the study area, and describe their conservation significance.
- To assess the impacts of the proposal on vegetation, fauna, habitats, and other environmental features as necessary.
- To make recommendations regarding any environmental management and impact mitigation/amelioration measures, which can be implemented to limit the effects of the proposal on vegetation, fauna, habitats, and other environmental features as necessary.

## 1.1 The proposal

The proposal is to install a new 30,000 L gas tank adjacent to the existing 50,000 L gas tank, approximately 50 m to the east of Blue Cow Skitube Terminal building. This will enable the conversion of heating for the Blue Cow Skitube Terminal from oil to gas.

The new tank is approximately in 10 m in length and 2.5 m in diameter. In accordance with Australian Standards 5601 and 1596, the new tank will be white and set back 4 m from the existing tank, and 12 m from the Terminal Quad Chairlift line.

The tank will be fixed to concrete plinths and constructed with strict footings the same as the existing tank. The tanks will be manifolded together with a new 50 mm pipe be installed between the existing tank and the Blue Cow Terminal. This pipe will be installed within a trench 0.45 m wide x 0.7 m deep and follow the edge of the batter below the Terminal Chair and then follow the road down to the Terminal building, being located mostly within a disturbed corridor.

The installation of the gas tank will require the removal of three trees and a small amount of heath, and temporary disturbance to a small amount of vegetation during construction.

The proposal is identified in Figure 1 and Photos 1-4.

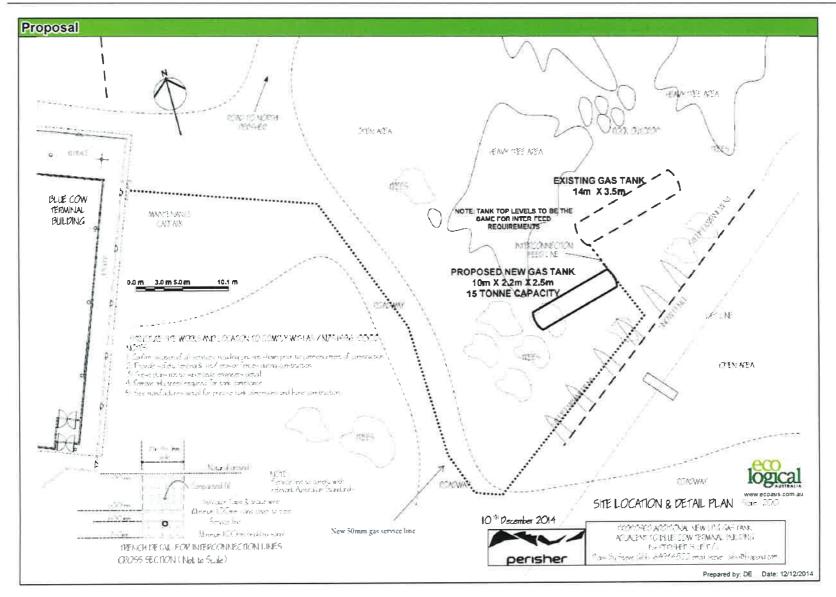


Figure 1: The proposal



Photo 1: The gas tank will be installed immediately adjacent to the existing gas tank and will require temporary machinery access from the existing access road.



Photo 2: The proposal will require the removal of three small Snow Gums and some heath.

# 1.2 Direct and indirect impacts

Direct impacts on flora and fauna arising from the proposal will comprise:

- the removal of approximately 50 m<sup>2</sup> of native vegetation including three *Eucalyptus niphophila* (Snow Gum) trees for the installation of the proposed gas tank; and
- the temporary disturbance to approximately 20 m<sup>2</sup> of native vegetation including the pruning of two Snow Gum branches for temporary machinery access during the construction phase.

Indirect impacts associated with the proposal are expected to be minor as:

- the footprint of the proposed direct impacts on native vegetation is small;
- the area surrounding the study area is already disturbed; and
- the proposal will be implemented using low impact methods and with adequate safeguards to prevent adverse impacts extending beyond the proposal footprint.

The proposal is not anticipated to result in any substantial changes in surface or subsurface hydrology, lead to any weed invasion, or result in other indirect impacts which may lead to the loss or adverse modification of vegetation communities or associated habitats. Similar developments throughout the resort, including within the proposed footprint, have had negligible impact on surface and subsurface hydrology, aquatic ecosystems or vegetation communities beyond the immediate footprint.

#### 1.3 Offsets

The proposal includes rehabilitation actions to offset the impacts on vegetation and fauna habitats. Field investigations and consultation with Perisher identified a potential rehabilitation area that could be used for offsetting the impacts of the proposal as identified below:

• 140 m<sup>2</sup> of heath and tree plantings in an existing disturbed area on the edge of the Tall Alpine Heath with Eucalypts approximately 35 m to the east of the study area (**Photo 3**).

# 1.4 Subject site, study area and locality

The subject site for the purposes of this report comprises the footprint of the proposed gas tank and temporary machinery access.

The study area for the purposes of this report is considered to extend approximately 2 m beyond the limits of the subject site given the negligible indirect impacts anticipated beyond the development footprint.

The locality for the purposes of this report is the area of land within a 5 km radius of the study area.

## 1.5 Topography, geology and soils

The study area occupies a gently sloping north-west facing slope at an altitude of approximately 1,900 m Australian Height Datum (AHD) associated with Blue Calf Mountain.

The study area is underlain by Silurian granodiorite (Ecology Australia 2002). Soils are likely to comprise a mix of alpine humus soils, comprising sandy clay loams, and peat at lower depths.

There are no identified watercourses within the study area or immediate surrounds, however the study area drains to an area of impeded drainage and associated minor watercourse to the north-west which drains to Perisher Creek.



Photo 3: The proposal includes the planting of trees and heath on the edge of the clearing approximately 35 m to the east of the study area.

#### 1.6 Disturbances

The edges of the study area have already been disturbed in association with the installation of the existing gas tank, the batter to the Terminal Quad Chairlift and other ski infrastructure including the existing access tracks. These disturbed areas are generally dominated by introduced grasses and herbs such as exotic *Poa* sp. and *Fescue* sp. grasses and *Trifolium repens* (White Clover). The small areas of native vegetation to be affected by the proposal are generally relatively undisturbed with only minor occurrences of exotic grass and herb species in places.

# 1.7 Planning and legislation

It is not the intention of this assessment to document all the legislation and planning instruments that are relevant to the proposal. A detailed analysis of the statutory environment is provided in the Statement of Environmental Effects for the proposal (Dabyne Planning 2014). However, the legislation and planning instruments which are relevant to the assessment of potential impacts on terrestrial flora and fauna are discussed in brief below.

#### 1.7.1 Environmental Planning and Assessment Act 1979

The Environmental Planning and Assessment Act 1979 (EPA Act) is the principle planning legislation for NSW, providing a framework for the overall environmental planning and assessment of development proposals. This proposal is to be assessed under Part 4 of the EPA Act. The EPA Act places a duty on the determining authority to adequately address a range of environmental matters including the maintenance of biodiversity and the likely impact to threatened species, populations and communities. Assessment of threatened species, populations and community considerations usually occurs under Section 5A of the EPA Act relating to 7-Part Tests of Significance.

### 1.7.2 Threatened Species Conservation Act 1995

The Threatened Species Conservation Act 1995 (TSC Act) aims to protect and encourage the recovery of threatened species, populations and communities listed under the Act. Obligations on determining authorities include the consideration of threatened species, populations, endangered communities and recovery plans in fulfilling their statutory responsibilities in the development approvals process under the EPA Act. The Act requires the completion of a Species Impact Statement where a significant impact is considered likely on a threatened species, population or community listed under the Act.

# 1.7.3 State Environmental Planning Policy (Kosciuszko National Park---Alpine Resorts) 2007

State Environmental Planning Policy (Kosciuszko National Park—Alpine Resorts) 2007 identified the Minister for Planning as the determining authority for development within the NSW Alpine Resorts. SEPP (Kosciuszko National Park—Alpine Resorts) 2007 requires the Minister for Planning to refer for comment any development application in the Alpine Resorts to the Director General of the NSW Office of Environment and Heritage (OEH).

# 1.7.4 Environment Protection Biodiversity Conservation Act 1999

The Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act provides a national scheme for protecting the environment and conserving biodiversity values. Approval from the Commonwealth Minister is required under the EPBC Act if the action will, or is likely to, have a significant impact on matters considered to be of national environmental significance (MNES). MNES relevant to the proposal include species and ecological communities that are listed under the Act. The EPBC Act does not define significant impact but identifies matters that are necessary to take into consideration.

# 2 Methods

#### 2.1 Database and literature review

Data gathered during all field studies and the literature review was analysed and interpreted in accordance with the provisions of legislation and planning controls pertaining to flora and fauna. Threatened and migratory species, threatened populations and EECs that have been recorded, or have the potential to occur within the locality have been assessed for their likelihood to inhabit the study area (**Appendix A**). All listed species and EECs considered likely to occur within the study area, or to be affected by the proposal, require consideration pursuant to Section 5A of the EPA Act and under the EPBC Act.

#### 2.2 Field surveys

ELA conducted flora and fauna surveys within the study area and surrounds on 31 October 2014. ELA has also undertaken detailed flora and fauna surveys of areas immediately adjacent to the study area in association with the flora and fauna assessment for the replacement of the Pony Ride rope-tow with the conveyor in its current position (ELA 2011) and the proposed relocation of the conveyor (ELA 2014). Where relevant the outcomes of those surveys are also discussed.

# 2.2.1 Flora surveys

A detailed botanical survey was conducted in the study area by ELA Senior Ecologist Ryan Smithers on 31 October 2014.

### Community identification and floristic audit

The study area was surveyed to document the flora species present, including those of conservation significance, and the location and extent of vegetation communities including any EECs encountered. All flora species encountered within the study area were identified to species level. A description of the vegetation was then prepared with general observations made of the wider area. The vegetation was assessed according to the floristic and structural classifications of Ecology Australia (2002). Reference was also made to McDougall and Walsh (2007).

#### Targeted searches

Specific searches for plant species of conservation significance known from the locality were conducted targeting areas of potential habitat. In particular searches were undertaken for *Argyrotegium nitidulum* (Shining Cudweed), *Ranunculus anemoneus*, *Carex archeri* (Archer's Carex), *Carex raleighii* (Raleigh Sedge), and *Rytidosperma vickeryae* (Perisher Wallaby Grass).

#### Limitations

The floristic audit undertaken recorded as many species as possible and provides a comprehensive but not definitive species list. More species would probably be recorded during a longer survey over more seasons and years. Nevertheless, the techniques used in this investigation are considered adequate to gather the data necessary to identify potential ecological constraints to the proposal.

#### Flora survey effort

The flora survey effort employed a total of two person-hours.

#### 2.2.2 Fauna surveys

Field investigations for fauna were conducted in conjunction with the flora surveys on 31 October 2014.

#### Habitat analysis

A description of the fauna habitats in the study area was prepared because the type of habitat in an area influences which animals occur there, as well as diversity and abundance. This habitat assessment also has an important role in predicting threatened fauna likely to occur in an area. The information collected usually includes the type of vegetation present, the presence/absence of rock habitats, tree hollows, ponds, streams, wetlands, foraging substrates and other features likely to attract threatened fauna. The study area and immediate surrounds were traversed to identify habitat components, which were recorded and described.

#### Diurnal surveys

Specific searches were conducted for habitats or resources of relevance for those threatened fauna species known from alpine and subalpine areas, and which might be anticipated to occur given the vegetation communities and habitats present. In particular targeted searches were undertaken for evidence of Petroica phoenicea the Broad-toothed Rat, *Liopholis guthega* (Guthega Skink) and Flame Robin.

Opportunistic fauna surveys involved observations of animal activity, habitat surveys and searches for indirect evidence of fauna. Diurnal mammal searches were conducted in areas of potential habitat across the study area, with emphasis on searches for scats, tracks, burrows, diggings and scratchings. Searches were also undertaken around the bases of the affected rocks for evidence of the burrow networks used by the Guthega Skink.

#### Limitations

The results of fauna surveys can be optimised by conducting investigations over a long period to compensate for the effect of unfavourable weather, seasonal changes and climatic variation. In general, the longer the survey the more species will be detected. Results can also be improved by using a wide range of techniques, since some species are more likely to be detected by a particular method.

However, surveys are subject to constraints that determine the amount of time allocated, the methods used and the timing of the work. Thus, the results should be viewed in the light of these limitations. The fauna detected during the survey period are a guide to the native fauna present, but are by no means a definitive list of the species occurring in the study area. Nevertheless, the techniques used in this investigation are considered adequate to gather the data necessary to identify potential ecological constraints to the proposal.

### Survey Effort

The fauna survey effort employed a total of two person-hours.

# Survey Conditions

The surveys for this assessment were undertaken in cool and dry weather with, sunny skies and moderate north-west winds.

# 3 Results

#### 3.1 Database and literature review

**Appendix A** provides a list of threatened species that have been recorded from database searches within a 10 km radius of the study area with the status of each species listed as endangered (E) or Vulnerable (V). The potential for each of these species to occur in the study area and the importance of the habitats within the study area are also discussed in **Appendix A**, and a decision made regarding the need for further assessment in this report.

#### 3.2 Flora

The vegetation within the study area has been typed with reference to the classifications of Ecology Australia (2002). The study area supports one vegetation community, Tall Alpine Heath with Eucalypts as shown in **Figure 2** and **Photo 2**.

#### 3.2.1 Tall alpine heath with eucalypts

The Tall Alpine Heath with Eucalypts within the study area and immediate surrounds is characterised by *Eucalyptus niphophila* to a height of approximately 5 m above an understorey dominated by *Nematolepis ovatifolia*, *Olearia phlogopappa* (Dusty Daisy-bush), *Baeckea gunniana*, and *Oxylobium ellipticum* (Common Shaggy Pea), and to a lesser extent *Orites lancifolius* (Alpine Orites), *Grevillea australis* (Alpine Grevillea), and *Ozothamnus secundiflorus* (Cascade Everlasting) to a height of 0.5-1 m. There are also one or two individuals of *Tasmannia xerophila* (Alpine Pepperbush) and *Melicytus dentatus* (Tree Violet), and one individual of *Podocarpus lawrencei* (Mountain Plum Pine).

The groundcover includes grasses such as *Poa costiniana* (Bog Snow-grass), *Poa fawcettiae* (Smooth Blue Snowgrass), *Poa ensiformis* (Purple-sheathed Tussock-grass), *Trisetum spicatum* (Bristle Grass), and *Deyeuxia crassiuscula*, and graminoids and forbs including *Asperula gunnii* (Mountain Woodruff), *Acaena novae-zelandiae* (Bidgee Widgee), *Craspedia aurantia*, *Oreomyrrhis eriopoda* (Australian Carraway), *Carex breviculmis*, *Senecio prenanthoide*, *Celmisia sp.*, *Pimelea alpina*, and in disturbed areas, weeds such as *Festuca rubra* (Red Fescue), *Festuca nigrescens* (Chewings Fescue) *Agrostis capilliaris* (Browntop Bent), *Hypochaeris radicata* (Flatweed), *Trifolium repens* (White clover) and *Acetosella vulgaris* (Sheep Sorrel).

### 3.2.2 Threatened flora species

No threatened flora species where detected within the study area.

#### 3.2.3 Flora species

Thirty-five plant species were recorded within the study area during the survey period including 28 native species and seven exotics, and this species list appears in **Appendix B**.



Figure 2: Vegetation within and immediately surrounding the study area.

#### 3.3 Fauna

### 3.3.1 Fauna habitats

The study area contains a limited range of fauna habitats given its small size. However, the study area is surrounded by extensive areas of remnant native vegetation and as such, a range of native fauna are likely to occur there from time to time. In particular, the heath, trees and rocks provide habitat value for native birds, terrestrial mammals, reptiles, and invertebrates.

The heath within and surrounding the study area generally provide good habitat for the Broad-toothed Rat. Minor evidence of the Broad-toothed Rat (faecal pellets) was detected around the rocks surrounding the study area, which provide some sheltering habitat for the species. Other common small mammal species such as *Antechinus swainsonii* (Dusky Antechinus) and *Rattus fuscipes* (Southern Bush Rat) may also occur within the study area from time to time.

The study area provides habitat for reptiles associated with alpine heaths including the *Eulamprus tympanum* (Southern Water Skink), *Pseudemoia entrecasteauxii* (Mountain Log Skink), *Pseudemoia pagenstecheri* (Grassland Tussock Skink) and *Drysdalia coronoides* (White-lipped Snake). The study area provides a small amount of marginal potential habitat for the Guthega Skink, however no evidence of any Guthega Skinks burrows was observed there.

The study area does not support any important sheltering habitat or foraging resources for the endangered *Burramys parvus* (Mountain Pygmy-possum), whose primary boulderfield nesting/hibernating sites are approximately 500 m to the north on Blue Cow Mountain.

There are only limited habitats for amphibians within the study area given its small size and the absence of any water habitats. *Crinia signifera* (Common Eastern Froglet) is likely to be the only amphibian that would occur within the study area.

The study area provides some potential foraging and nesting habitat for a range of birds associated with alpine and subalpine areas including the threatened species the Flame Robin. The Flame Robin is amongst the most common birds during the summer in the more open subalpine and alpine habitats in the locality, and is recorded regularly throughout the Perisher Resort Area.

Habitat connectivity to adjacent areas of native vegetation is excellent in all directions, except to the north-west, west and south where it is disrupted by the Exotic Grasslands associated with ski runs and the terminal building.

# 3.3.2 Fauna species

Fauna surveys within the study area during the survey period and in November 2010 (ELA 2011) and May 2014 (ELA 2014) resulted in nine native and one exotic fauna species being detected, including two mammals, six birds, one reptiles and one amphibian, as listed in **Table 1**.

Table 1: Fauna species recorded within the study area or immediate surrounds

Category	Common Name	Common Name Scientific Name		
Mammals	Broad-toothed Rat	Mastacomys fuscus	Scats	
	Brown Hare*	Lepus europaeus*	Observed	
Birds	Australian Magpie	Gymnorhina tibicen	Observed	
	Australasian Pipit	Anthus novaeseelandiae Observed		
	Crimson Rosella	Platycercus elegans	Observed	
	Flame Robin	Petroica phoenicea	Observed	
	Little Raven	Corvus mellori	Observed	
	Pied Currawong	Strepera graculina	Observed	
Reptiles	Skink	Pseudemoia sp.	Observed	
Amphibians	Common Eastern Froglet	Crinia signifera	Call recognition	

Bold denotes threatened species. \* denotes exotic species.

# 4 Impact assessment

# 4.1 Impacts on vegetation communities

# 4.1.1 Tall Alpine Heath (with and without eucalypts)

The proposal will result in the removal and/or disturbance of approximately 70 m<sup>2</sup> of Tall Alpine Heath with Eucalypts.

Ecology Australia (2002) estimate that there is more than 1,730 ha of the Tall Alpine Heath (with and without Eucalypts) in the Perisher Resort area. The community is very extensive in the alpine areas within NSW and there is likely to be tens of thousands of hectares of the community within Kosciuszko National Park. McDougall and Walsh (2007) confirm that the Tall Alpine Heath, with and without Eucalypts, is the most common on the main range, and are under little threat from a conservation perspective.

In this context, the loss or disturbance of approximately 70 m<sup>2</sup> of Tall Alpine Heath with Eucalypts is a relatively minor and acceptable impact.

### 4.2 Impacts on fauna habitats

The impacts on fauna habitats associated with the proposal are limited to the removal of approximately 50 m² of native vegetation, heath and three Snow Gums, on the edge of a large patch of Exotic Grassland. Some potential sheltering and foraging habitat will be affected, however this is a very small proportion of the sheltering and foraging habitat available in the area, and is not likely to have any substantial adverse impacts on fauna generally, or any threatened species. The proposal will not affect any known Broad-toothed Rat nests or burrowing sites for the Guthega Skink. Whilst Broad-toothed Rat scats were observed within and surrounding the study area, no major concentrations of scats or other evidence of nesting activity was detected. Similarly, no evidence of any Guthega Skink burrows was detected. As such, it is considered highly unlikely that the proposal will result in any significant adverse impacts on either the Broad-toothed Rat or Guthega Skink.

The proposal will not result in modifications to the hydrological environment nor will it create barriers which prevent the movement and dispersal of fauna species as the proposal will be located on the edge of a relatively extensive area of Exotic Grassland. The proposal includes rehabilitation actions that will offset the minor impacts of the proposal on fauna habitats.

Under these circumstances, the impacts of the proposal on fauna habitats are considered to be minor and acceptable.

#### 4.3 Threatened species likelihood of occurrence

As a result of database searches and field surveys, the threatened species and communities identified in **Table 2** are known or considered to have the potential to occur within the study area or immediate surrounds (**Appendix A**). The potential impact of the proposal on these entities has been assessed (**Appendix C**) pursuant to relevant statutory assessments.

Table 2: Threatened species with the potential to be affected by the proposal

Scientific Name	Common Name	FM Act	TSC Act	EPBC Act	Occurrence
Fauna	76-77-7				
Mastacomys fuscus	Broad-toothed Rat	_	V	_	Potential
Petroica phoenicea	Flame Robin	-	V	_	Known

V = Vulnerable, E = Endangered

# 4.4 Conclusion of seven-part test

An assessment of significance under Section 5A of the EPA Act was undertaken for those threatened species known within the study area and immediate surrounds or with potential to occur there (**Table 2**). The outcome of this assessment was that it is highly unlikely that the proposal would significantly impact on those threatened species assessed (**Appendix B**).

A Species Impact Statement is not required for the proposal.

Recommendations have been provided in Section 5 to further ameliorate the potential impacts of the proposal.

#### 4.5 Conclusion of EPBC assessment

An assessment of significance under the EPBC Act was undertaken on threatened species known within the study area and immediate surrounds or with potential to occur there (**Table 2**).

The outcome of this assessment was that it is highly unlikely that the development would significantly impact on those threatened species assessed (**Appendix C**). A referral to the Commonwealth under the EPBC Act is not considered necessary.

# 5 Recommendations

To further mitigate the potential impacts of the proposal, the following recommendations for impact mitigation and amelioration are suggested.

# **Vegetation and Habitat Management**

- 1. All disturbance should be kept to the minimum required to achieve the proposal.
- 2. Native vegetation adjacent to the study area should be protected during the construction phase of the proposal. Building materials, machinery or other substances should not be stored in any undisturbed areas to avoid physical damage to the vegetation there.

#### Rehabilitation

- Appropriate sediment control measures should be implemented prior to any construction work for the proposal and retained in place until exposed areas of soil or vegetation are stabilised and/or revegetated.
- 4. Rehabilitation activities should be consistent with the resort areas rehabilitation guidelines (NGH Environmental 2007).

# 6 Conclusion

This report describes the biological environment and assesses the potential effects on threatened and migratory species, endangered populations and ecological communities of the proposal install a 30,000 L gas tank within the Blue Cow ski area of Perisher Ski Resort.

The proposal was found to effect only 70 m2 of the widespread and well conserved Tall Alpine heath with Eucalypts vegetation community. No threatened flora species were recorded within the study area and it is considered highly unlikely that the proposal will have any adverse impacts on threatened flora species. Similarly, whilst the study area provides a small amount of habitat for the threatened fauna species such as the Broad-toothed Rat and Flame Robin, similar habitats are extensive in the locality. Under these circumstances, whilst the proposal will have some minor impacts on fauna habitats, these impacts are considered acceptable given their minor nature. The proposal will not sever any linkages between habitats or otherwise restrict fauna movement.

Following the application of the seven factors from Section 5A of the NSW Environmental Planning and Assessment Act 1979, as required by the NSW Threatened Species Conservation Act 1995 and the NSW Fisheries Management Act 1994, in accordance with relevant assessment guidelines, it is concluded that the proposal is unlikely to have a significant effect on threatened species, endangered populations, ecological communities, or their habitats.

A Species Impact Statement is not required for the proposal.

Following consideration of the administrative guidelines for determining significance under the Commonwealth Environment Protection & Biodiversity Conservation Act 1999, it is concluded that the proposal is unlikely to have a significant impact on matters of National Environmental Significance or Commonwealth land, and a referral to the Commonwealth Environment Minister is not necessary.

Notwithstanding the relatively minor impacts on vegetation and fauna habitats associated with the proposal, the impact mitigation measures described in Section 5 are also recommended to be incorporated into the proposal.

# 7 Bibliography

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