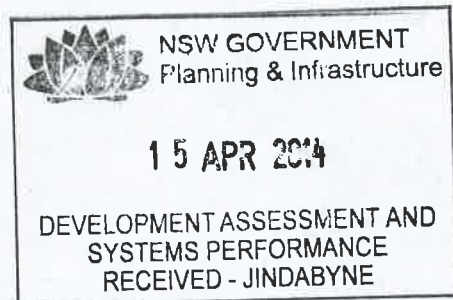


STATEMENT OF ENVIRONMENTAL EFFECTS

TREE REMOVAL WORKS FOR THE RE-ESTABLISHMENT AND WIDENING OF THE POWDER VALLEY TRAVERSE GUTHEGA, PERISHER SKI RESORT KOSCIUSZKO NATIONAL PARK



Prepared for:
Perisher Blue Pty Ltd



APRIL 2014
Project: 04-14-A

STATEMENT OF ENVIRONMENTAL EFFECTS

TREE REMOVAL WORKS FOR THE RE-ESTABLISHMENT AND WIDENING OF THE POWDER VALLEY TRAVERSE GUTHEGA, PERISHER SKI RESORT KOSCIUSZKO NATIONAL PARK

This report has been prepared by:



Ivan Pasalich BEnvP MPIA CPP MEIANZ
Principal
Dabyne Planning Pty Ltd

APRIL 2014
Project: 04-14-A

Dabyne Planning Pty Ltd
Reproduction of the document or any part
thereof is not permitted without prior written permission

CONTENTS

1	Introduction	2
1.1	Executive Summary	2
2	The Locality and The Site	4
2.1	The Locality	4
2.2	The Site	4
3	Description of the Development	8
3.1	Purpose of the Development	8
3.2	General Description	9
3.3	Tree Removal Timing	10
4	Key Matters for Consideration	11
4.1	Fauna and Flora	11
4.2	Environmental Offsets	12
4.3	Aboriginal Cultural Heritage	13
5	Environmental and Planning Legislation	16
5.1	Environmental Planning and Assessment Act, 1979	16
5.1.1	Section 79C(1)(a)(i) – Environmental Planning Instruments	16
5.1.2	Section 79C(1)(a)(ii) – Draft Environmental Planning Instruments	19
5.1.3	Section 79C(1)(a)(iii) – Development Control Plans	19
5.1.4	Section 79C(1)(a)(iiia) – Planning Agreements	20
5.1.5	Section 79C(1)(a)(iv) – Regulations	20
5.1.6	Section 79C(1)(b)– Likely Impacts	20
5.1.7	Section 79C(1)(c)– Suitability of the Site	20
5.1.8	Section 79C(1)(d)– Submissions	20
5.1.9	Section 79C(1)(e)– Public Interest	20
5.2	National Parks and Wildlife Act, 1974	21
5.3	Threatened Species and Conservation Act, 1995	21
5.4	Environment Protection and Biodiversity Act, 1999	21
5.4.1	National Heritage Listing	22
5.4.2	Listed threatened species and communities	24
6	Conclusion	25
	Appendix A Plans	
	Attachment 1: Site Plans	
	Attachment 2: Combined Environmental Offsets Plan	
	Appendix B Photographs	
	Appendix C Fauna and Flora Assessment Report	
	Appendix D Site Environmental Management Plan	

1. INTRODUCTION

1.1 Executive Summary

Dabyne Planning Pty Ltd has been engaged by Perisher Blue Pty Ltd (Perisher), the operator of the Perisher Ski Resort to prepare a Statement of Environmental Effects (SEE) to accompany a Development Application (DA) to the NSW Department of Planning and Infrastructure (DPI).

The overall project is to re-establish and widen the Powder Valley Traverse, a ski traverse run that is located within the Guthega ski area of the Perisher Ski Resort. To achieve this, the project requires tree removal, rock removal and a skier bridge. Due to timing constraints, these three components have been separated with each component subject to a separate DA. To ensure that all the associated environmental impacts are assessed in combination, one fauna and flora report has been prepared for the combined three separate DA's.

The subject DA and therefore this report is for tree removal works as part of the re-establishment and widening of the Powder Valley Traverse.

The Powder Valley Traverse is located between the bottom of the Mother In-Law Ski Run and the new Freedom Quad Chairlift, which has replaced the Cow Pastures J-bar.

The Powder Valley Traverse Ski Run is located lower down the slope than the existing Low Traverse Ski Run and higher up the slope than the existing Creek Traverse Ski Run located on the opposite side of the Blue Cow Creek. The Powder Valley Traverse Ski Run is therefore intended to be the primary ski run that connects skiers and boarders from Blue Cow, the Pleasant View Trail Ski Run and Double Trouble Ski Run (from the back of the Pleasant Valley Chair) to Guthega.

The Powder Valley Traverse Ski Run will improve skier circulation from these parts of the resort through to Guthega and allow Perisher to close the Low Traverse Ski Run and not rely on the Creek Traverse Ski Run to provide connectivity to the new Freedom Quad chairlift.

This is important for safety reasons due to existing and potential future collisions between users of the Low Traverse and users of the ski runs including The Screw, Schnatzl and Karl's which all cross through the traverse, perpendicular to the skiers and boarders using it.

As with the Creek Traverse, a snow bridge is required to form an access over Blue Cow Creek to the bottom of the new Freedom Quad chairlift. Therefore reducing the reliance on this traverse and therefore use of a snow bridge is beneficial to Perisher given that this presents access issues in marginal conditions during the early and latter parts of the ski season.

As the Powder Valley Traverse Ski Run has already previously been created, groomed and used, the proposed tree removal works allow for a wider and safer ski run, which allows improved access and safer operation of grooming equipment.

With the construction and opening of the Freedom Quad Chairlift, the widening of the traverse and closure of the other ski run traverses is further justified due to the additional skier traffic that will be generated by the new lift.

The tree removal works will require the removal and pruning of forty-four (44) trees, comprising of the removal of thirty-six (36) trees and pruning of branches in relation to eight (8) trees.

To offset the impacts associated with the tree removal works, it is proposed to plant replacement (locally propagated) Eucalypt trees at a ratio of 2:1 at the Guthega Saddle, on the western side of the snow fence adjacent to the Bloody Mary Ski Run.

With the removal and pruning of forty-four (44) trees, it is proposed that eighty-eight (88) trees be planted within an area covering 132m² (x 1.5m² for each tree).

A detailed description of the proposal is provided in Section 3 of the report.

The purpose of this SEE is to:

- describe the land to which the DA relates.
- describe the form of the proposed works.
- define the statutory planning framework within which the DA is to be assessed and determined; and
- assess the proposed development against the matters for consideration listed under Section 79C(1) of the Environmental Planning and Assessment Act, 1979 (EP&A Act, 1979).

The report has been prepared in accordance with the requirements of Schedule 1 of the Environmental Planning and Assessment Regulations 2000.

2. THE LOCALITY AND THE SITE

2.1 The Locality

The proposed works will be located within the Guthega ski area of the Perisher Ski Resort.

The Guthega ski area, is located approximately 45kms from Jindabyne. Vehicle access to the resort is achieved via Guthega Road from Kosciuszko Road.

The location of the Perisher Ski Resort and the Guthega ski area is illustrated in context with the regional locality in figure 1 below.

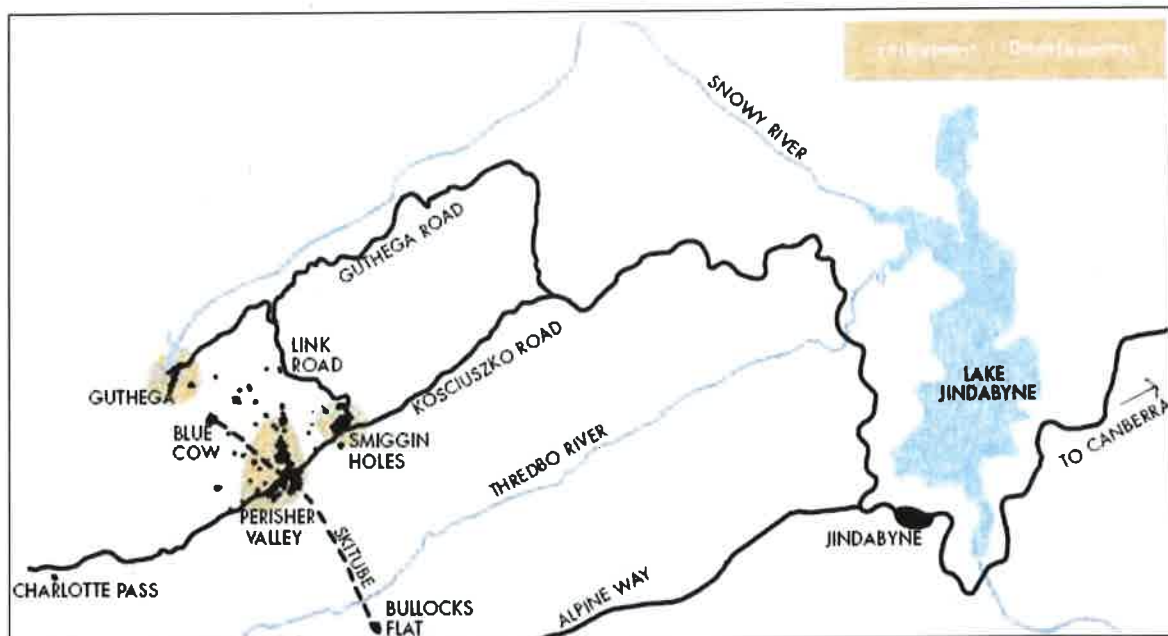


Figure 1: Location of the Guthega ski area in context with the region
(source: Perisher Range Resorts Master Plan)

2.2 The Site

The subject site is located on the southern slopes of the Guthega ski area towards the bottom of the valley between the Mother In-Law Ski Run to the east and the Freedom Guthega Chairlift to the west.

An aerial photo and topographic map of the Guthega ski area is provided in figure's 2 & 3 with the subject site highlighted.

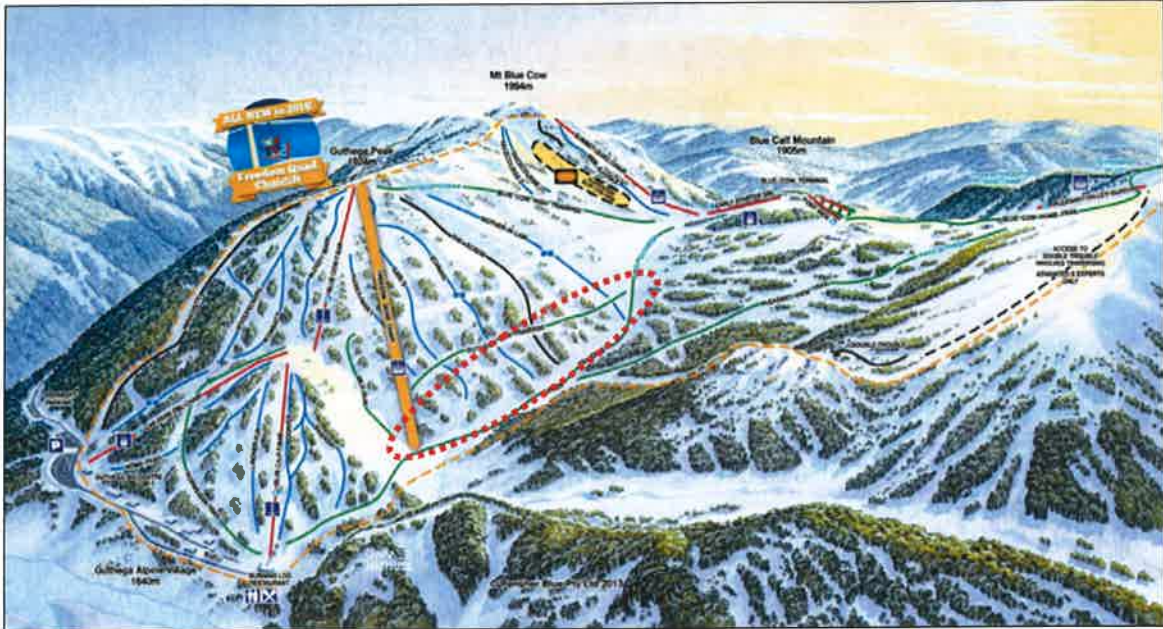


Figure 2: Location of the subject site in context with the Guthega ski area (aerial photo)



Figure 3: Location of the subject site in context with the Guthega ski area (topographic plan)

The location of the subject site in context with the ski trail map is illustrated below in Figure 4.



**Figure 4: Perisher Ski Trail Map with the subject site area highlighted
(Source: Perisher Blue Pty Ltd)**

The site is located between an altitude of 1700m at the lower western end and 1810m [AHD] at the higher eastern end, located towards the bottom of the valley.

The site is generally located above Blue Cow Creek, the main watercourse at the bottom of the valley which flows into the Guthega Dam.

The site is mostly undisturbed, except where the existing ski runs have been cut and other resort infrastructure, including timing huts have been installed.

The native vegetation within the site comprises of four vegetation communities with Tall Alpine Heath with and without Eucalypts being the predominant vegetation community with considerable ecotones between the vegetation communities within the study area given the complexity of key variables such as drainage, slope and rockiness.

The location of the site in context with the skiing operations is provided in the Ski Patrol map below in figure 5 and Google map in figure 6 below.

3. DESCRIPTION OF THE DEVELOPMENT

3.1 Purpose of the Development

The proposal is to undertake tree removal works as part of the re-establishment and widening of the Powder Valley Traverse, a ski traverse run that is located within the Guthega ski area of the Perisher Ski Resort.

The Powder Valley Traverse is located between the bottom of the Mother In-Law Ski Run and the new Freedom Quad Chairlift, which has replaced the Cow Pastures J-bar.

The Powder Valley Traverse Ski Run is located lower down the slope than the existing Low Traverse Ski Run and higher up the slope than the existing Creek Traverse Ski Run located on the opposite side of the Blue Cow Creek, as shown figure 7 below.



Figure 7: Location of the Powder Valley Traverse ski run in context with the Low Traverse and Creek Traverse ski runs

The purpose of undertaking the tree removal works is to:

- Re-establish the Powder Valley Traverse (shown in blue in figure 7 above) as the primary ski run that connects skiers and boarders from Blue Cow, the Pleasant View Trail Ski Run and Double Trouble Ski Run (from the back of the Pleasant Valley Chair) to Guthega.
- Improve skier circulation from these parts of the resort through to Guthega and provide connectivity to the new Freedom Quad chairlift with a wider traverse being able to accommodate greater skier traffic.
- Allow closure of the Low Traverse Ski Run, which will improve safety due to existing and future collisions between users of the Low Traverse and users of the ski runs

including The Screw, Schnatzl and Karl's which all cross through the traverse, perpendicular to the skiers and boarders using it.

- Reduce reliance on the Creek Traverse Ski Run to provide connectivity to the new Freedom Quad chairlift as this traverse requires a snow bridge over Blue Cow Creek which cannot be provided in marginal conditions during the early and latter parts of the ski season.
- Improve grooming operations and safety through the widening of the run.

With the construction and opening of the Freedom Quad Chairlift, the widening of the traverse and closure of the other ski run traverses is further justified due to the additional skier traffic that will be generated by the new lift.

The location of Powder Valley Traverse in relation to the existing ski runs and new lift is illustrated in figure 8 below.

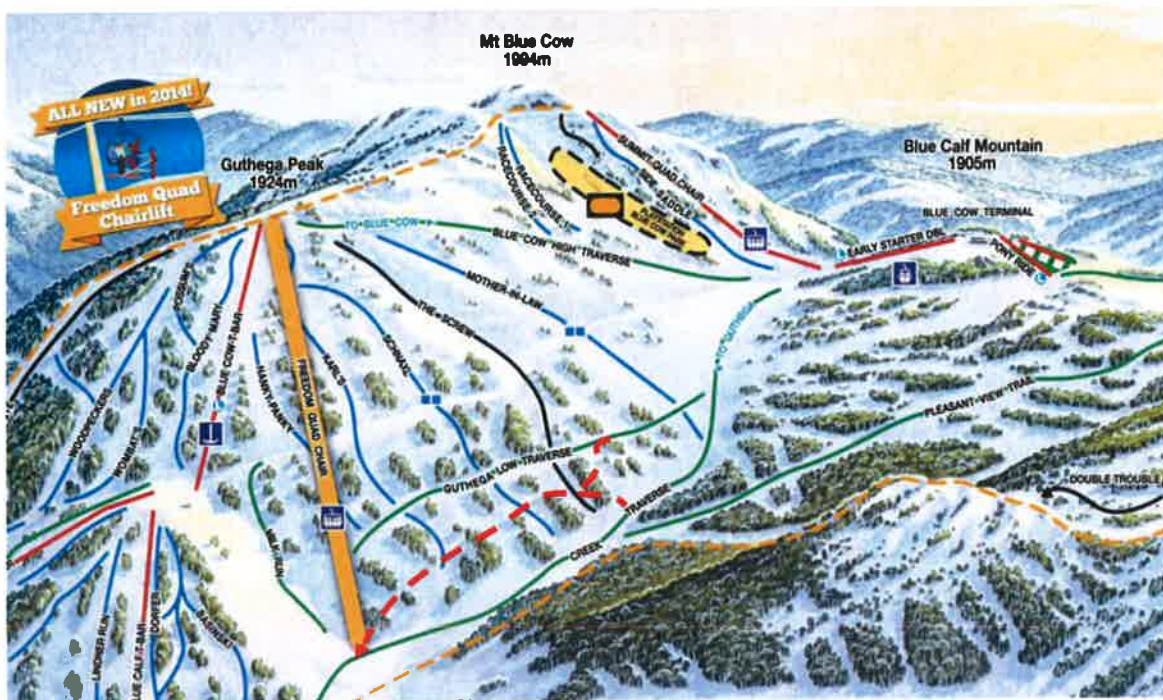


Figure 8: Location of the Powder Valley Traverse ski run in context with the Low Traverse and Creek Traverse ski runs and new Freedom Quad Chairlift

3.2 General Description

The tree removal works will require the removal and pruning of forty-four (44) trees, comprising of the removal of thirty-six (36) trees and pruning of branches in relation to eight (8) trees as illustrated in the Site Plan provided in Attachment 1 of Appendix A and photos provided in Appendix B.

The trees are proposed to be removed with chainsaws, with stumps to be cut to the ground but to remain insitu. The timber will be cut on site with the larger diameter pieces (trunks) to be cut into manageable pieces and stacked on a grassed area (eg the Low Traverse ski run). Where there is adequate snow cover, the timber will be hand loaded into

an oversnow trailer which will be towed by a Grooming machine to Guthega car park. The cut timber will then be transported to the NPWS stockpile site at Sawpit Creek.

The smaller cut timber will be stacked and placed under the heath off the ski runs.

No earthworks are proposed as part of the works.

3.3 Tree Removal Timing

The proposed tree removal timing of the project has been scheduled to start in mid May through to late May, prior to the start of the ski season in early June 2014. The works will only take a maximum of one (1) week.

4. KEY MATTERS FOR CONSIDERATION

4.1 Fauna and Flora

A fauna and flora investigation and assessment of the subject site was undertaken to assess the biological environment and the potential effects on threatened and migratory species, endangered populations and ecological communities of the three combined components of the project, being tree removal, rock removal and a skier bridge.

Although these three components will be subject to three separate Development Applications, it was considered appropriate that all the fauna and flora impacts associated with the three components be assessed together, to ensure that the cumulative impacts are appropriately considered in regard to re-establishing and widening the Powder Valley Traverse.

This assessment was undertaken by Ryan Smithers, Senior Ecologist with Eco Logical Australia and included fieldwork undertaken in February 2014.

The objectives of the investigation undertaken were:

- *identify the flora species and vegetation communities present in the study area, describe their condition and assess their conservation significance*
- *to identify the fauna habitats present in the study area and describe their condition*
- *to identify the fauna species which are present or likely to occur in the study area, and assess 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 to limit the effects of the proposal on vegetation, fauna, habitats, and other environmental values as necessary.*

The flora and fauna assessment report, provided in full in Appendix C, provides the findings of a review of the relevant literature, database searches, as well as field survey and consultation with relevant agencies. It also addresses relevant statutory considerations associated with the proposal.

Field assessment and survey

The field assessment and survey identified seventy-three (73) plant species, comprising of sixty-eight (68) native species and five (5) introduced species. One (1) threatened flora species, *Ranunculus anemoneus* (Anemone Buttercup) was detected at one location approximately 50 m to the north of the study area where approximately 20 plants were observed in a small grassy patch amongst heath. *R. anemoneus* is common in the Guthega area, and no plants will be adversely affected by the proposal, as no plants occur within close proximity to the proposed activities.

Targeted fauna surveys during the survey period resulted in sixteen (16) native and one (1) exotic fauna species being detected within or immediately surrounding the study area including two (2) mammals, eleven (11) birds, three (3) reptiles and one (1) amphibian.

Evidence of the threatened Broad-toothed Rat was recorded in and adjacent to the study area. Faecal pellets were observed in places although no nests were located in the study area or immediate surrounds. The Flame Robin and Gang-gang Cockatoo were also observed the study area or immediate surrounds.

The primary boulderfield nesting/hibernating sites for the Mountain Pygmy-possum are 600m-750m to the northwest and northeast of the study area. However there are secondary boulderfields in association with Blue Cow Creek, including three within the study area and immediate surrounds. It is possible that the Mountain Pygmy-possum forages and/or shelters within the study area from time to time, however the boulderfields within the study area are not identified breeding sites or are they likely to be important hibernating sites.

As the subject DA is for tree removal only, none of the trees to be pruned in association with the proposal are hollow-bearing and consequently there will be no loss of this resource for hollow-dependant threatened fauna.

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

The vegetation to be affected by the action proposed is widespread within the study area and elsewhere within the Perisher Resort Area. In this context the impacts on vegetation communities in association with the proposal is a relatively minor and acceptable impact.

Conclusion

An assessment of significance under Section 5A of the NSW Environmental Planning and Assessment Act, 1979 as required by the NSW Threatened Species Conservation Act, 1995 and Fisheries Management Act, 1994, in accordance with relevant assessment guidelines, was undertaken on those species and threatened communities known within the study area and immediate surrounds or with potential to occur there. The outcome of this assessment was that it is unlikely that the development would significantly impact on those threatened species assessed. A Species Impact Statement is therefore not required for the proposal.

Furthermore, an assessment of significance under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 was undertaken on those species and threatened communities known within the study area and immediate surrounds or with potential to occur there. The outcome of this assessment was that it is unlikely that the development would significantly impact on those threatened species or ecological communities assessed, and a referral to the Commonwealth Environment Minister is not necessary.

4.2 Environmental Offsets

To offset the impacts associated with the removal and pruning of forty-four (44) trees, the proposal includes planting replacement (locally propagated) Eucalypt trees at a ratio of 2:1, which would result in eight-eight (88) trees being planted over an area of 132m² (1.5m² area for each tree).

A suitable area for the tree planting has been identified on the western side of the snow adjacent to the Bloody Mary Ski Run as shown in figure 9 below and the plan provided in Attachment 2 of Appendix A.

The tree planting will be combined with heath planting as part of a combined offset area to offset the impacts of the combined components of the overall project, being tree removal, rock removal and a skier bridge.

The combined offset area has been measured at 292m² in size with 132m² allocated for the tree planting as part of this DA and the balance, a 160m² area for heath planting in relation to future DA's for rock removal and skier bridge.

A combined area providing one larger offset area is considered to achieve efficiencies and also provide additional environmental benefits over providing smaller individual offset areas.



Figure 9: Location for proposed combined environmental offsets area on the western side of the existing snow fence

4.3 Aboriginal Cultural Heritage

The identification and mapping of known and potential area of Aboriginal cultural heritage values was undertaken by Navin Officer Heritage Consultants as part of the Perisher Range Resorts Environmental Study, undertaken in 2000 by Connell Wagner.

The study included a predictive model that mapped the zones of Archeological Sensitivity as provided below in figure 10.

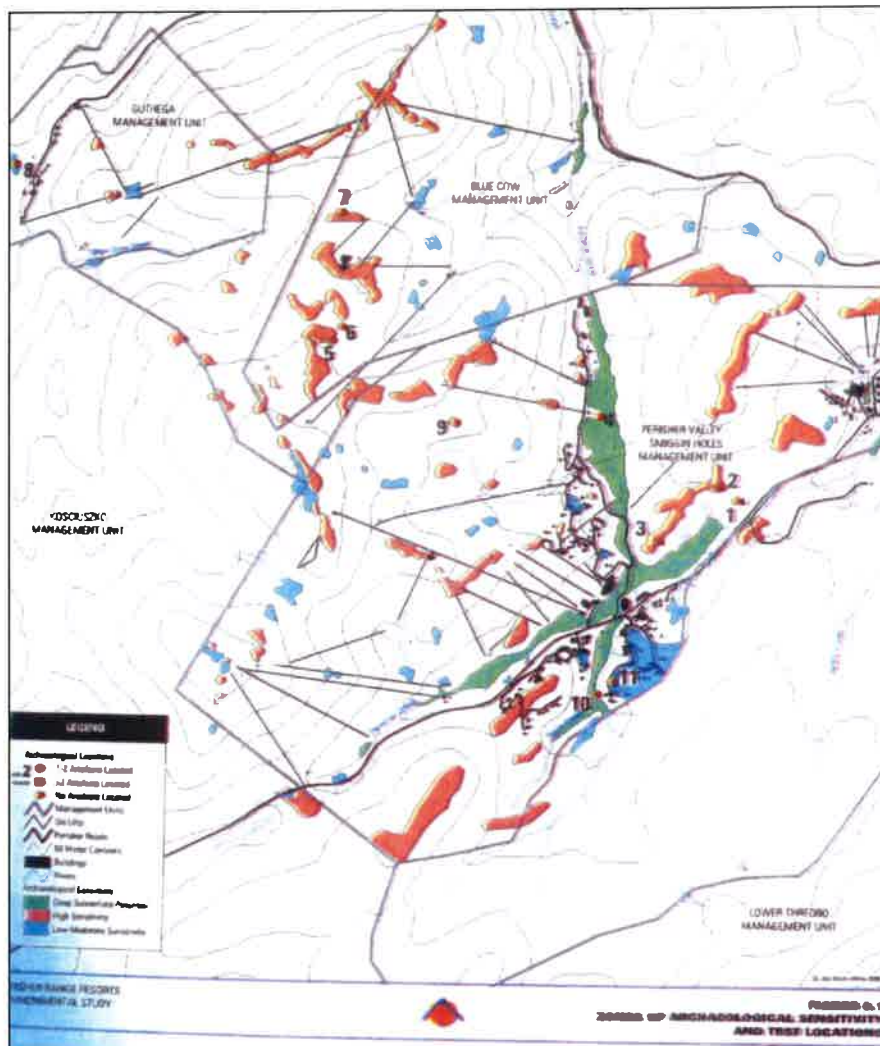


Figure 10: Zones of Archeological Sensitivity
(source: Perisher Range Resorts Environmental Study, Connell Wagner, 2000)

Based on the above map, the proposed works are located well away from the zone of high archeological sensitivity as shown above. The below extract of the 'Other Environmental Factors Map' for the Guthega Precinct as identified in the PSSMP provides a better scale and resolution. This map is based on the predictive model undertaken by Navin Officer for Connell Wagner.

The map confirms that the proposed works are located outside if the predicted high sensitivity area as illustrated in figure 11 below.

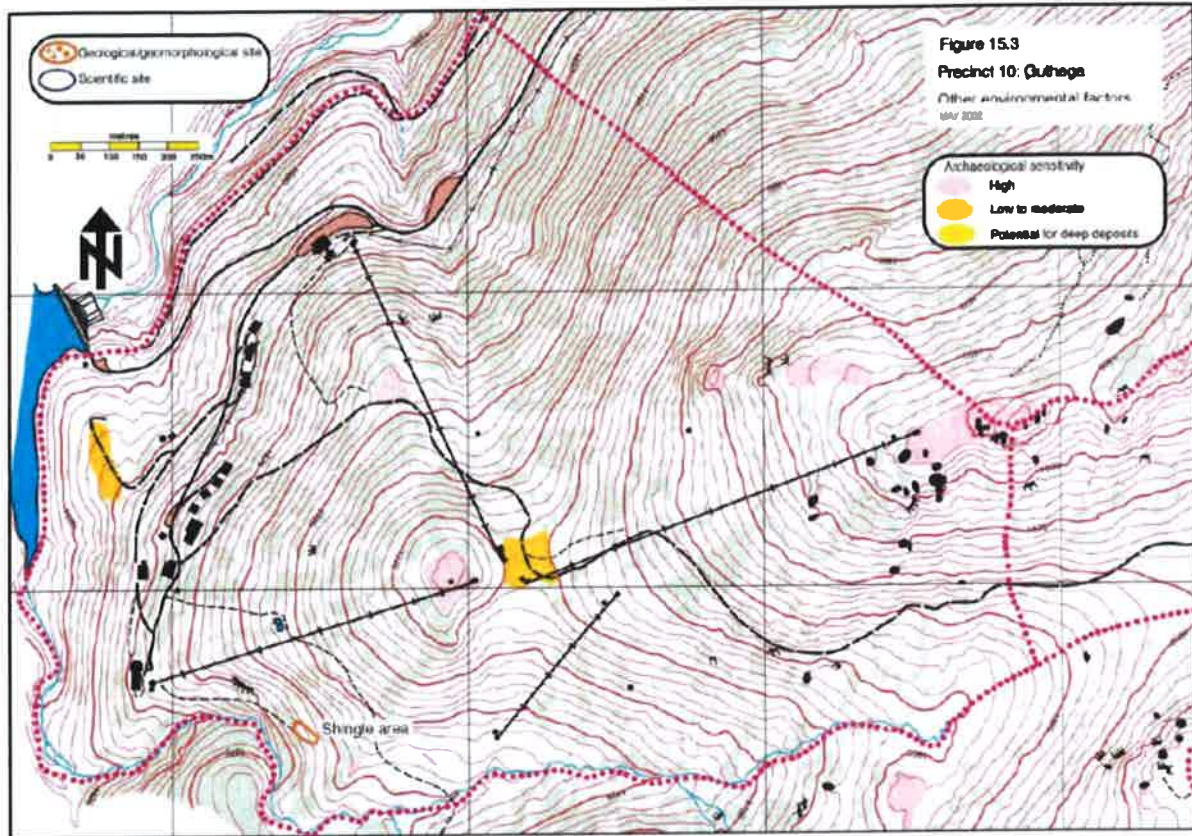


Figure 11: Other environmental factors maps for the Guthega Precinct
(source: PSSMP)

As the proposed tree removal works will not require any excavations and will be located outside of the area identified as potential for high archaeological, further archaeological assessment is therefore not warranted.