



# STATEMENT OF ENVIRONMENTAL EFFECTS

## Replacement of Lift Hut – Perisher Quad Express Top Station

Lot 177 DP756697, Top Station Quad Express Perisher Valley

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Prepared for Perisher Ski Resort

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## 1 INTRODUCTION

This statement of environmental effects has been prepared by Perisher Blue Pty Ltd to accompany a development application for demolition of the existing lift operators hut and replacement with a new hut at the top station of the Perisher Quad Express Chairlift, Lot 177 DP756697, Perisher Valley. The application is being lodged by Perisher Blue, pursuant to Clause 4.12 of the Environmental Planning and Assessment Act 1979.

The proposal has been designed to achieve the relevant provisions of State Environmental Planning Policy (Precincts Regional) 2021, and Clause 4.15 of the Environmental Planning and Assessment Act 1979 (as amended).

This statement has been prepared having regard to the following documentation:

- Floor plans, elevations and sections prepared by Matthew Murtagh
- Site Plan
- Geotechnical assessment and Form 4
- Site Environmental Management Plan

### 1.1 Objectives of the proposal

To provide an upgraded lift operators hut to facilitate the operation of the Quad Express Chairlift.

## 2 SITE DESCRIPTION AND DETAILS OF THE PROPOSAL

### 2.1 Subject Site and Surrounding Development

The subject site (within Lot 177 DP756697) is situated northwest of the Perisher Carpark within the Perisher Ski Area. The area is developed for a lifting facility and the associated lift operators hut and ski patrol hut.

The area surrounding the subject site is part of Perisher Consolidated Mountain Licence area and used principally for the purpose of snow sports.

The proposed replacement operators hut will be in keeping with the surrounding uses and is ancillary to the function of the lift.

The existing hut is located on the southern side of the chairlift top station.

The site is snowbound when the building is in operation and is accessed outside of the ski season via a formed road, the Centre Valley Access Road.



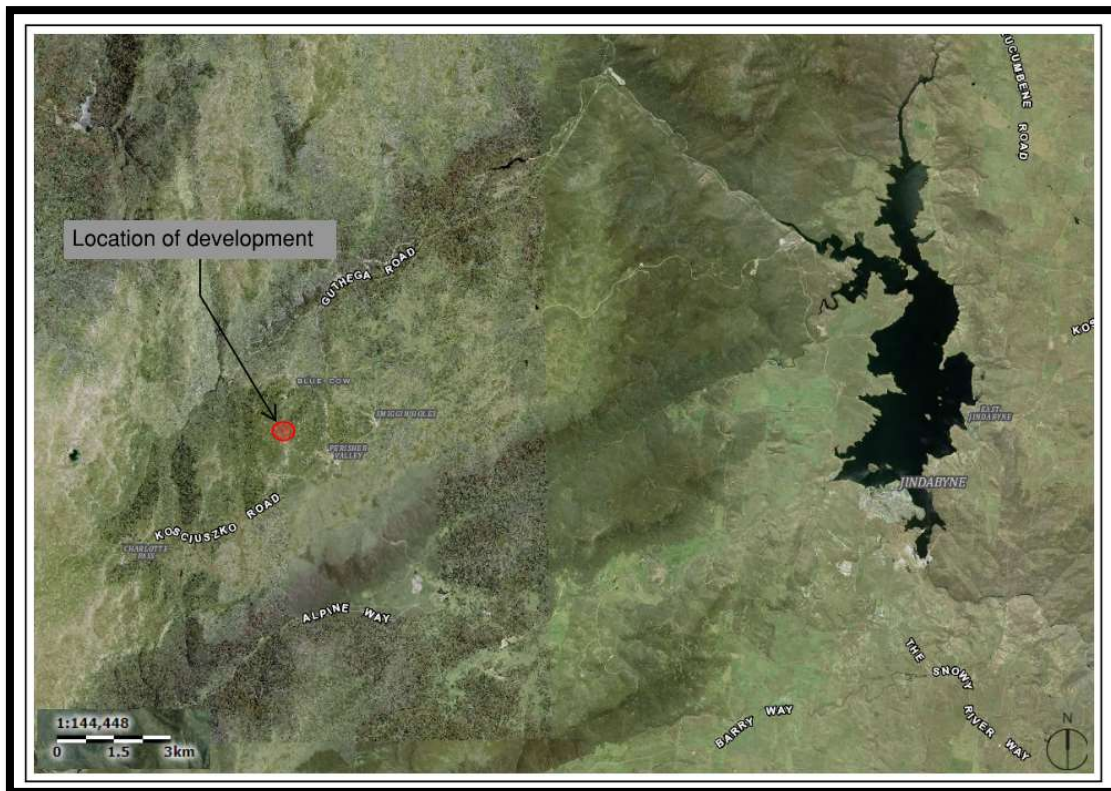


Figure 1 - Site location Plan.

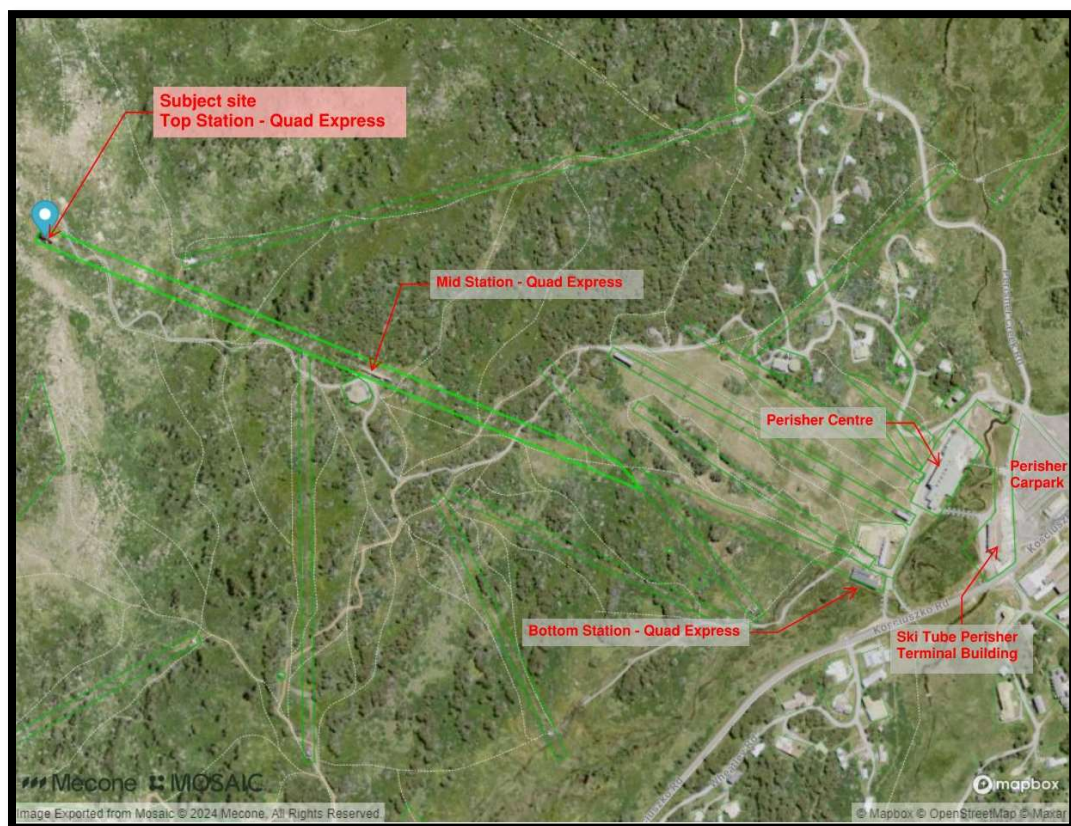


Figure 2 - Site Context Plan (Source – Mecone Mosaic)





Figure 3: Subject site identified on the Perisher Trail Map



Figure 4 - Site Plan





*Figure 5 – View of the eastern elevation of the existing hut in summer when viewed from downslope. The hut is located on a filled mound to ensure it is at the correct height for the chairlift in winter.*



*Figure 6 - View of the eastern elevation of the existing hut in winter with snow built up to floor level*



*Figure 7 - Southern elevation of existing operators hut, replacement hut will be in the same position as the existing hut*



*Figure 8 – Entrance to the existing hut in summer*

## 2.2 Project Overview

The development will incorporate the removal/demolition of the existing top lift operators hut and the construction of a new larger hut in the same location. The existing hut will be demolished with materials able to be reused removed from site and stored at the Smiggin Holes stockpile site, the balance of the materials will be either recycled or disposed of at Jindabyne landfill. Existing electricity services will be disconnected at the time of demolition and then reconnected at completion of new hut.

The current lift hut is located on a fill embankment of which some soil will be removed/moved to allow for the construction of piers and strip footings. The hut will be constructed on a blockwork base to allow for ease of service connection under the floor.

The new hut which is larger in size than the existing will now be able to accommodate the lift operators' room, a storage room and a plant room to store a generator. The structure is based on the design of the current Leichardt bottom station operator room.



Figure 9 -Red area showing the approximate size difference between the existing and proposed hut.

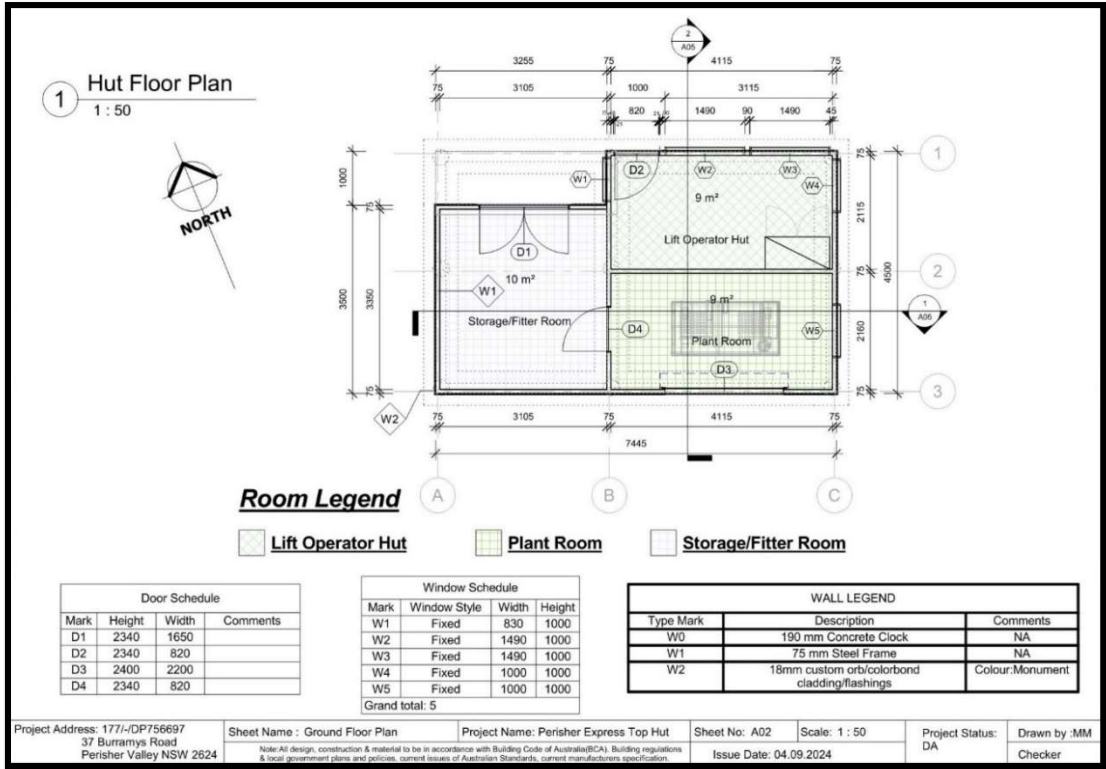


Figure 10 - Floor Plan - Proposed Hut

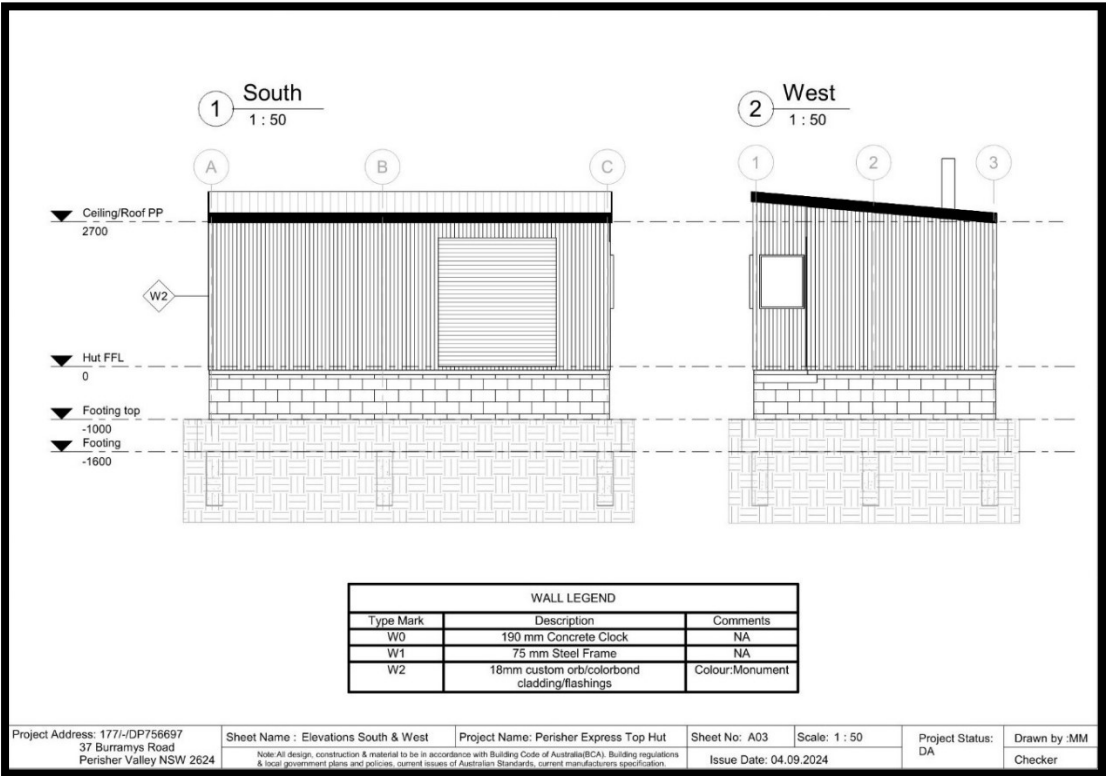


Figure 11 - Proposed Hut Elevations (South and West)



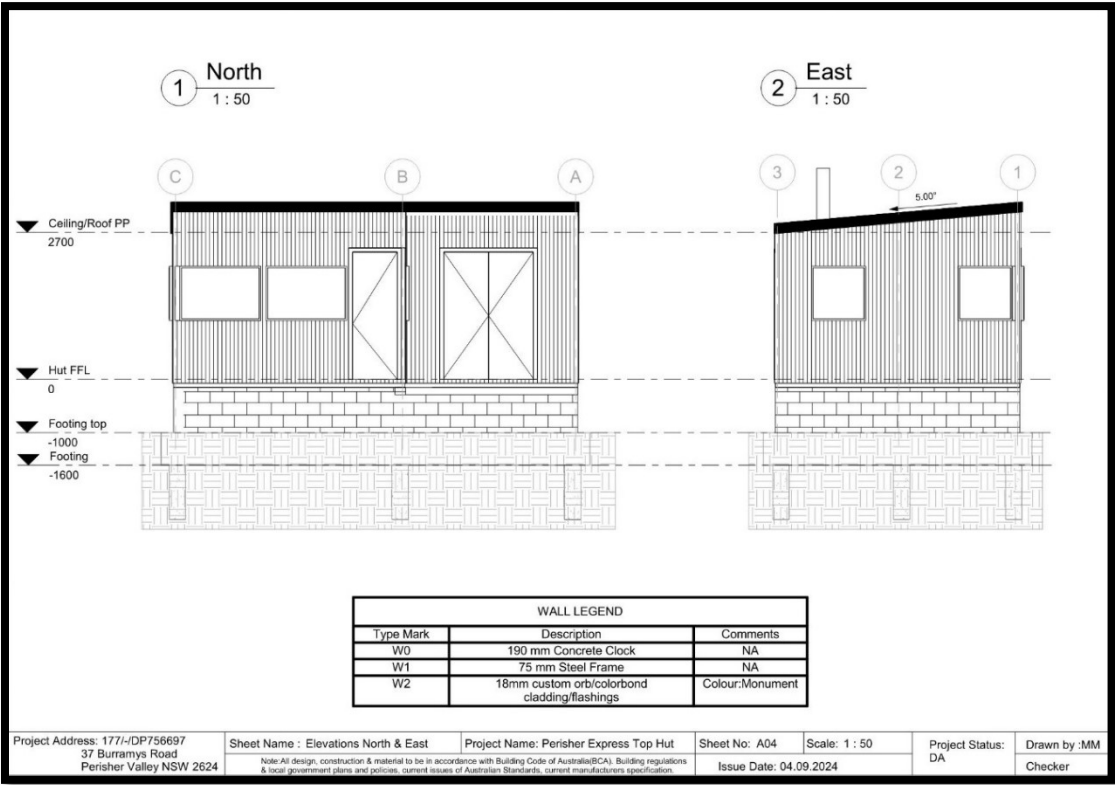


Figure 12 – Proposed Hut Elevations (North and East)

2.3 Site Access

Vehicular access to the site is via the formed Centre Valley Access Road. Which is accessible from the Perisher Carpark in summer allowing for materials to be transported to the site and for the materials generated by the demolition to be removed. No work is required to enable the access road to be used for this purpose.



Figure 13 - Site access road highlighted in yellow

## 2.4 Construction Material Storage and Construction Timeframes

Materials will be transported to site and stored in the hardstand area adjacent to the chairlift. Due to the cleared areas surrounding the top station of the chairlift all materials can be stored without impact on native vegetation. The site will be managed in accordance with the approved SEMP and the site cleared and rehabilitated where required upon completion of works.

Excess fill will be removed from site and stored at the Smiggin Holes stockpile site. Construction will occur in the summer season once the area is clear of snow. Components of the building will be prefabricated off site to reduce the onsite construction timeframes.

## 2.5 Excavation

Minor excavation will be required to remove a portion of the existing fill mound on which the current hut is constructed upon. No excavation of natural ground will be required to facilitate the development.

## 2.6 Waste Management

General waste generated by the workers on site will be stored appropriately in accordance with the SEMP in moisture and fauna proof containers and removed from site periodically when required.

The materials generated by the demolition of the lift hut will be reviewed to determine the appropriateness for reuse or recycling and the outcome will be dependent on condition at the time of demolition. Materials will be transported to the Smiggin Holes Stockpile site prior to reuse with the balance recycled where possible or transported to Jindabyne Landfill.

## 2.7 Power and Communications

The replacement hut will be connected to existing power and communications infrastructure.

# 3 DESIGNATED AND INTEGRATED DEVELOPMENT

## 3.1 Designated Development

The development proposed is **not** development described in Schedule 3, Part 2 of the Environmental Planning and Assessment Regulation 2021, nor is it declared as “designated development” under an environmental planning instrument applicable to the land.

## 3.2 Integrated Development

Section 4.46 of the EP&A Act requires a review of whether the proposed development on the land would trigger an approval under other environmental or related legislation. Such development is categorised as “integrated development”.

The following provides a brief overview of on whether any aspect of the development triggers a need for the consent authority to obtain general terms of approval from other relevant approval authorities.



**Table 1 – Integrated Development Requirements**

Relevant Subject Legislation	Approval Required Y/N
<b>Fisheries Management Act 1994</b>	No
<b>Heritage Act 1977</b>	No
<b>National Parks and Wildlife Act 1974</b>	No
<b>Protection of the Environment Operations Act 1977</b>	No
<b>Roads Act 1993</b>	No
<b>Rural Fires Act 1997</b>	No
<b>Rural Fires Act 1997</b>	No

As per the table above the development is **not** considered to be “integrated development” within the meaning of the Act and Regulation.

## 4 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 – S4.15

Section 4.15 (1) of the Environmental Planning and Assessment Act lists the matters which must be taken into consideration by the consent authority when determining a development application. Table 2 lists these matters and provides a summary assessment of each of these matters. A full assessment of each follows in section 4 of this statement of environmental effects.

**Table 2 -S4.15 Environmental Planning and Assessment Act Compliance Checklist**

MATTER	IMPACTS / COMMENTS
<b>(1)(a) the provisions of:</b> <b>(i) any environmental planning instrument</b> <b>(ii) any proposed instrument</b> <b>(iii) any development control plan</b> <b>(iiia) any planning agreement</b> <b>(iv) the regulations</b>	(i) The development complies with the provisions of State Environmental Planning Policy (Precincts Regional) 2021 – Chapter 4 (ii) there are no proposed instruments applicable to the subject land. (iii) there are no adopted development control plans applicable to the subject land. (iiia) there are no know planning agreements relating to the subject land. (iv) The development application has been made in accordance with the requirements contained in the Environmental Planning and Assessment Regulation 2021.
<b>(b) the likely impacts of the development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality</b>	The likely impacts of the development have been outlined above.
<b>(c) the suitability of the site for the development</b>	The site is suitable for the development as proposed and matters concerning site suitability have been addressed above
<b>(d) any submissions made in accordance with this Act or the regulations</b>	As per the Community Participation Plan the development application will not be required to be placed on exhibition.
<b>(e) the public interest</b>	The assessment addresses the relevant requirements of Chapter 4 of SEPP (Precincts- Regional) 2021 and therefore considered to meet the public interest test.

## 4.1 The provision of any environmental planning instrument

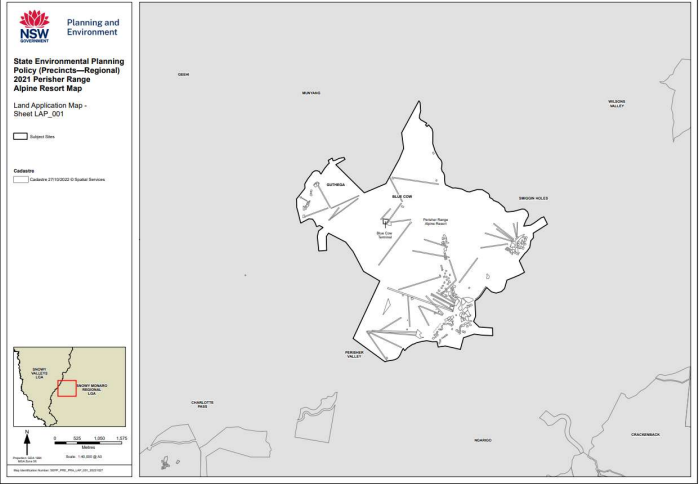
### 4.1.1 State Environmental Planning Policy (Precincts Regional) 2021

The development is subject to the provisions of Chapter 4 – Kosciuszko Alpine Region, of the Precincts Regional SEPP. Table 3 below demonstrates compliance with the relevant provisions of chapter 4.

**Table 3 - Chapter 4 Precincts Regional SEPP Compliance**

PROVISION	COMPLIANCE/COMMENTS
<b>PART 4.1 AIM AND OBJECTIVES OF CHAPTER</b>	
<b>(1) The aim of this Chapter is to protect and enhance the Alpine Region by ensuring development is managed with regard to the principles of ecologically sustainable development, including the conservation and restoration of ecological processes, natural systems and biodiversity.</b>	The development will replace an existing piece of infrastructure necessary for the operation of the ski lift. It will provide an improved staff experience and allow for additional storage space and the generator to be accommodated within the building.
<b>(a) to encourage the carrying out of a range of development to support sustainable tourism in the Alpine Region all year round, if the development does not result in adverse environmental, social or economic impacts on the natural or cultural environment of the Alpine Region, including cumulative impacts on the environment from development and resource use,</b>	The development is a replacement of an existing lift hut which supports the use of the chairlift during the winter ski season. Due to its nature and scale, it does not result in any adverse environmental, social or economic impacts. Materials which can be reused or recycled through the demolition of the existing hut will be appropriately managed to reduce the amount of material required to go to landfill.
<b>(b) to establish planning controls</b>	Not applicable
<b>(c) to minimise the risk to the community of exposure to environmental hazards, particularly geotechnical hazards, bush fires and flooding, by—</b> <b>(i) generally requiring development consent on land in the Alpine Region, and</b> <b>(ii) establishing planning controls for buildings to ensure the safety of persons using the buildings if there is a fire.</b>	(c)(i) The development requires development consent and poses no risk to the community from environmental hazards.  (c)(ii) Not applicable as the objective relates to the preparation of planning controls.
<b>4.2 Land to Which Chapter Applies.</b>	The proposed development is within the Perisher Subregion



	 <p>Planning and Environment NSW State Environmental Planning Policy (Precincts—Regional) 2021 Perisher Range Alpine Resort Map Land Application Map - Sheet L&amp;P_001 Indoor Sites Cadastral Copyright 2021/2022 G. Spatial Services Scale: 1:50,000 (D.M.) Perisher Range Alpine Resort Map - Sheet L&amp;P_001</p>
<b>4.3 Definitions</b>	<p>The proposed development defined as a “<i>ski slope hut</i>” in Schedule 4A – Dictionary to Chapter 4 as:</p> <p><i>ski slope hut means a race hut, lift hut, ski patrollers’ hut or similar hut that—</i></p> <p><i>(a) is erected on a ski slope, and</i></p> <p><i>(b) must be fixed to the ground.</i></p>
<b>PART 4.2 PERMITTED OR PROHIBITED DEVELOPMENT</b>	
<b>4.7 Land Use Table</b>	<p>The development proposed is ski slope hut which is a permissible use in the Land Use table and therefore is permitted development in the subregion.</p> <p><b><u>Perisher Range Alpine Resort</u></b></p> <p><b>1 Permitted without consent</b></p> <p>Nil</p> <p><b>2 Permitted with consent</b></p> <p>Advertising structures; Building identification signs; Business identification signs; Car parks; Commercial premises; Community facilities; Depots; Eco-tourist facilities; Emergency services facilities; Entertainment facilities; Environmental facilities; Environmental protection works; Fences; Function centres; Helipads; Information and education facilities; Infrastructure facilities; Lifting facilities; Management trails; Medical centres; Monitoring stations; Places of public worship; Public utility undertakings; Recreation facilities (indoor); Recreation facilities (outdoor); Recreation infrastructure; <b>Ski slope huts</b>; Ski slopes; Snow-making infrastructure; Staff accommodation; Telecommunications facilities; The Skitube; Tourist and visitor accommodation; Transport depots; Vehicle repair stations</p> <p><b>3 Prohibited</b></p> <p>Bed and breakfast accommodation; Farm stay accommodation; Any other development not specified in item 1 or 2</p>
<b>4.8 Subdivision</b>	<p>Not applicable</p>

<b>4.9 Demolition</b>	Demolition of the existing structure forms part of this development application.
<b>4.10 Temporary Use of Land</b>	Not applicable – the development is not a temporary use of land
<b>PART 4.3 EXEMPT AND COMPLYING DEVELOPMENT</b>	
Not applicable - The development is neither exempt nor complying as such a development application has been lodged for approval.	
<b>PART 4.4 OTHER DEVELOPMENT CONTROLS</b>	
<b>4.14 Development by Crown, public authorities, or Snowy Hydro</b>	Not applicable - the development is not being carried out on behalf of the Crown, public authorities or Snowy Hydro.
<b>4.15 Development on land on Kosciuszko Road and Alpine Way</b>	Not applicable – the development is not proposed on land identified in Schedule 16 of the National Parks and Wildlife Act 1974
<b>4.16 Development near Kangaroo Ridgeline</b>	Not applicable - this clause only applies to land identified as “Kangaroo Ridgeline” on the State Environmental Planning Policy (Precincts—Regional) 2021 Charlotte Pass Alpine Resort Map. The proposed development is not on land identified in the subject map.
<b>4.17 Classified roads</b>	Not applicable - The development does not front a classified road.
<b>4.18 Bush fire hazard reduction</b>	Not applicable
<b>4.19 Public utility infrastructure</b>	No augmentation of public utility infrastructure is required to facilitate the development, the existing connections will be disconnected at the time of demolition and then reconnected to the new building.
<b>4.20 Conversion of fire alarms</b>	Not applicable
<b>4.21 Heritage conservation</b>	Not applicable - There are no historic heritage items, Aboriginal heritage items or places being impacted by this development. See below for further information on the impact of the development on Aboriginal cultural heritage and historic heritage.
<b>4.22 – 4.24 Conservation incentives, Eco-tourist facilities and Flood planning</b>	Not applicable
<b>4.25 Earthworks</b> <b>(1) The objective of this section is to ensure that earthworks for which development consent is required will not have a detrimental impact on environmental functions and processes, neighbouring uses,</b>	The earthworks required to facilitate the development will form part of this development application, no additional separate application for earthwork is required. The earthworks required for the development are limited to the removal of a portion of a fill mound which is not a natural landform and was part of the construction of the lift and existing hut. As such the earthworks will not have a negative impact on the environment and surrounding uses.



<b>cultural or heritage items or features of the surrounding land.</b>	
<b>(2) Development consent is required for earthworks in the Alpine Region unless—</b> <b>(a) the earthworks are exempt development under this Chapter or another environmental planning instrument, or</b> <b>(b) the earthworks are ancillary to—</b> <b>(i) development permitted without consent under this Chapter, or</b> <b>(ii) development for which development consent has been given.</b>	The earthworks are ancillary to the development and are required to facilitate construction of the new hut.
<b>(3) In deciding whether to grant development consent for earthworks, or for development involving ancillary earthworks, the consent authority must consider the following matters—</b> <b>(a) the likely disruption of, or adverse impact on, drainage patterns and soil stability in the locality of the development,</b> <b>(b) the effect of the development on the likely future use or redevelopment of the land,</b> <b>(c) the quality of the fill or the soil to be excavated, or both,</b> <b>(d) the effect of the development on the existing and likely amenity of adjoining properties,</b> <b>(e) the source of any fill material and the destination of any excavated material,</b> <b>(f) the likelihood of disturbing relics,</b> <b>(g) the proximity to, and potential for adverse impacts on, a waterway, drinking water catchment or environmentally sensitive area,</b> <b>(h) appropriate measures proposed to avoid, minimise or mitigate the impacts of the development.</b>	<p>The earthworks are ancillary to the development proposed.</p> <p>(a) The earthworks are limited to the removal of a previously placed fill which will have no impact on soil stability or disrupt existing drainage patterns.</p> <p>(b) The earthworks are required to allow for the construction of the lift hut, which supports the primary use of the land for a ski lift. As such it will have no impact on the likely future use of the site.</p> <p>(c) There is no fill required, the soil to be removed from site is existing fill.</p> <p>(d) There are no adjoining properties therefore there are no amenity impacts.</p> <p>(e) There is no fill required, the soil to be removed from site is existing fill and it will be transported for storage at the Smiggins stockpile site for future reuse.</p> <p>(f) As the earthworks involve the partial removal of a fill mound it is unlikely that there will be any likelihood of disturbing relics. The SEMP and conditions of consent will include unexpected finds protocols.</p> <p>(g) The removal of existing fill from the site does not impact on a waterway or environmentally sensitive area. The development does not seek to disturb undisturbed ground.</p> <p>(h) A SEMP has been prepared and is included in this SEE which outlines the measures to minimise and mitigate impacts of the development. The development demonstrates the “avoid” principle by locating on and exiting footprint within a disturbed area.</p>
<b>PART 4.5 DEVELOPMENT ASSESSMENT AND CONSENT</b>	
<b>4.26 Master plans</b>	<p>Not applicable – this clause relates to the preparation and content of Master Plans.</p> <p>The Snowy Mountains Special Activation Precinct Master Plan 2022 applies to the subject site.</p>
<b>4.27 Consultation with National Parks and Wildlife Service</b>	Consultation will be carried out by the assessing officer in relation to this development application in accordance with these provisions.

<p><b>4.28 Consideration of master plans and other documents</b>  <b>(1) In deciding whether to grant development consent to development in the Alpine Region, the consent authority must consider the following—</b>  <b>(a) the aim and objectives of this Chapter set out in section 4.1</b></p>	<p>See consideration of the proposed development against the aim and objectives of Chapter 4 above.</p>
<p><b>(c) a conservation agreement under the Environment Protection and Biodiversity Conservation Act 1999 of the Commonwealth that applies to the land,</b></p>	<p>Not applicable there is no known conservation agreement applying to the subject land.</p>
<p><b>(d) the Geotechnical Policy — Kosciuszko Alpine Resorts published by the Department in November 2003,</b></p>	<p>The requirements of the Geotechnical Policy have been addressed in the subject application by:</p> <p>The site is inside the area marked “G” and complies with the requirements of 3.1(e) and is considered minor construction works and a form 4 has been prepared and included in the application package.</p> <p>Further information relating to Geotechnical impacts is found in 4.6.5 of this SEE.</p>
<p><b>(e) for development in the Perisher Range Alpine Resort—</b>  <b>(i) the Perisher Range Resorts Master Plan, published by the National Parks and Wildlife Service in November 2001, and</b></p>	<p>The development is consistent with the plan as it provides for an upgraded lift hut.</p>
<p><b>(e)(ii) the Perisher Blue Ski Resort Ski Slope Master Plan adopted by the National Parks and Wildlife Service in May 2002.</b></p>	<p>The development is consistent with the plan as it provides for an upgraded lift hut.</p>
<p><b>(2) In deciding whether to grant development consent to development in the Alpine Region, the consent authority must consider—</b>  <b>(a) a master plan approved by the Minister under section 4.26 that applies to the land,</b></p>	<p>Snowy Mountains Special Activation Precinct Master Plan 2022 applies to the land.</p> <p>The proposal is consistent with Master Plan, a full assessment against the relevant provisions of the Master Plan is included in Appendix A.</p>
<p><b>4.29 Consideration of environmental, geotechnical, and other matters</b>  <b>(1) In deciding whether to grant development consent to development in the Alpine Region, the consent authority must consider the following—</b></p>	<p>(a) Measures proposed to address geotechnical issues relating to the development have been addressed above under 4.28(d) and below in 4.6.5 of this SEE.</p> <p>There are no geotechnical impediments to the carrying out of the development.</p>

<b>(a) measures proposed to address geotechnical issues relating to the development,</b>	
<b>(b) the extent to which the development will achieve an appropriate balance between—</b> <b>(i) the conservation of the natural environment, and</b> <b>(ii) taking measures to mitigate environmental hazards, including geotechnical hazards, bush fires and flooding,</b>	<p>(b) the development has achieved an appropriate balance between the conservation of natural environment and taking measures to mitigate hazards (Geotech, bushfire and flooding).</p> <ul style="list-style-type: none"> <li>- No natural ground disturbance is required to facilitate the development as the only excavation required is into an existing fill mound.</li> <li>- The development application is accompanied by appropriate requirements of the KAR Geotechnical Policy.</li> <li>- No clearing was required to mitigate bushfire hazards</li> <li>- The site is not subject to flooding</li> </ul>
<b>(c) the visual impact of the proposed development, particularly when viewed from the land identified as the Main Range Management Unit in the Kosciuszko National Park Plan of Management,</b>	<p>(c) The development is considered to have adequacy addressed visual impacts by use of materials and colours which blend with the natural environment.</p> <p>The visual impacts of the development have been addressed further in 4.4.6 of this SEE.</p>
<b>(d) the cumulative impacts of development and resource use on the environment of the Alpine Subregion in which the development is carried out,</b>	(d) Due to the nature and scale of the development it will have minimal cumulative impacts on the Alpine subregion and associated minimal resource use.
<b>(e) the capacity of existing infrastructure and services for transport to and within the Alpine Region to deal with additional usage generated by the development, including in peak periods,</b>	(e) Due to the nature of the development, it will not generate additional usage of existing infrastructure including transport services.
<b>(f) the capacity of existing waste or resource management facilities to deal with additional waste generated by the development, including in peak periods.</b>	(f) The development will not generate any additional waste during its operation as it is the replacement of an existing facility.
<b>(2) For development involving earthworks or stormwater drainage works, the consent authority must also consider measures to mitigate adverse impacts associated with the works.</b>	<p>(2) The development involves minimal earthworks into existing fill and no impact on natural ground other than to allow for building footings and roof stormwater management. Environmental impacts of ground works will be mitigated using the methods outlined in the SEMP.</p> <p>Stormwater drainage from the roof will be managed through provision of appropriate onsite stormwater drainage measures consistent with existing measures. During construction mitigation measures will be installed as per the requirements of the SEMP.</p>
<b>(3) For development the consent authority considers will significantly</b>	Not applicable - The development is the replacement of and existing lift hut which supports existing lifting infrastructure, it



<p><b>alter the character of an Alpine Subregion, the consent authority must also consider—</b></p> <p><b>(a) the existing character of the site and immediate surroundings, and</b></p> <p><b>(b) how the development will relate to the Alpine Subregion.</b></p>	<p>is in the same location of the exiting hut and will not require natural ground disturbance as such it could not be considered to significantly alter the character of the Perisher Subregion.</p>
<p><b>4.30 Kosciuszko National Park Plan of Management</b></p>	<p>The proposed development is consistent with the relevant provisions of the Kosciuszko National Park Plan of Management.</p>

#### 4.1.2 State Environmental Planning Policy (Resilience and Hazards) 2021

The development does not trigger further assessment against the provisions of the resilience and SEPP Resilience and Hazards as it is not considered, to be hazardous or potentially hazardous development or offensive or potentially offensive development. The site is suitable for the development as proposed with respect to site contamination and there is no requirement for remediation prior to the development taking place.

#### 4.2 Any proposed instrument

There are no proposed instruments relating to the subject site.

#### 4.3 Any development control plan

There is no development control plan applying to the subject site.

#### 4.4 Any planning agreement

There are no planning agreements applicable to the subject site.

#### 4.5 The Regulations

The proposed modification complies with the relevant requirements of the Environmental Planning and Assessment Regulation 2021.

#### 4.6 The likely Impacts of the development

##### 4.6.1 Biodiversity and Impacts on Aquatic Ecosystems

##### 4.6.1.1 Biodiversity Conservation Act

The development does not exceed clearing thresholds and is not on land shown on the Biodiversity Values Map (see below) as such no BDAR is required for the subject development



Figure 14 - Location of the works (red hatched area) in relation to the Biodiversity Value mapped area

#### 4.6.1.2 Environment Protection and Biodiversity Conservation Act (EPBC Act)

The factors which need to be considered under the Commonwealth *Environment Protection and Biodiversity Conservation Act (EPBC Act)* are listed in *Table 4* together with an assessment of each of these factors. None of these factors are considered to result in impacts which would be considered significant under the guidelines applying to the *EPBC Act*.

**Table 4 - Environment Protection and Biodiversity Conservation Act checklist**

FACTOR	IMPACTS / COMMENTS
<b>Matters of National Environmental Significance</b>	
<b>Any environmental impact on a World Heritage Property?</b>	No impact
<b>Any environmental impact on a National Heritage Place?</b>	No impact on the Australian Alps National Heritage Place.
<b>Any environmental impact on wetlands of international importance?</b>	No impact
<b>Any environmental impact on Commonwealth listed species or ecological communities?</b>	No impact
<b>Any environmental impact on Commonwealth listed migratory species?</b>	No impact
<b>Does any part of the proposal involve a nuclear action?</b>	No nuclear action
<b>Any environmental impact on a Commonwealth Marine Area?</b>	No impact
<b>Impact on Great Barrier Reef Marine Park?</b>	No impact
<b>Impact on Commonwealth land?</b>	No impact
<b>Impact on the environment, from action taken by the Commonwealth?</b>	No impact

<b>Commonwealth heritage places outside of Australian jurisdiction?</b>	No impact
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#### 4.6.1.3 Riparian and Aquatic Ecosystem Impacts

Due to the location of the site, it is not in the vicinity of a creek or river system, nor will the works impact on downstream aquatic ecosystems.

#### 4.6.2 Aboriginal Cultural Heritage

A search of the AHIMS database did not identify any recorded Aboriginal Cultural Heritage items in the area of the development. The land is not identified as “archaeologically sensitive land” on the State Environmental Planning Policy (Precincts-Regional) 2021 Kosciuszko Alpine Region Aboriginal Archaeological Heritage Map.

A due diligence assessment was carried out, and is attached in appendix C and based on the outcome of the assessment it is reasonable to conclude that there are no known Aboriginal objects or a low probability of objects occurring in the area of the proposed activity, and the development can proceed with caution without applying for an Aboriginal heritage impact permit or the need to carry out further assessment via an Aboriginal Cultural Heritage Assessment Report.

The SEMP includes measures in the case of unexpected finds.

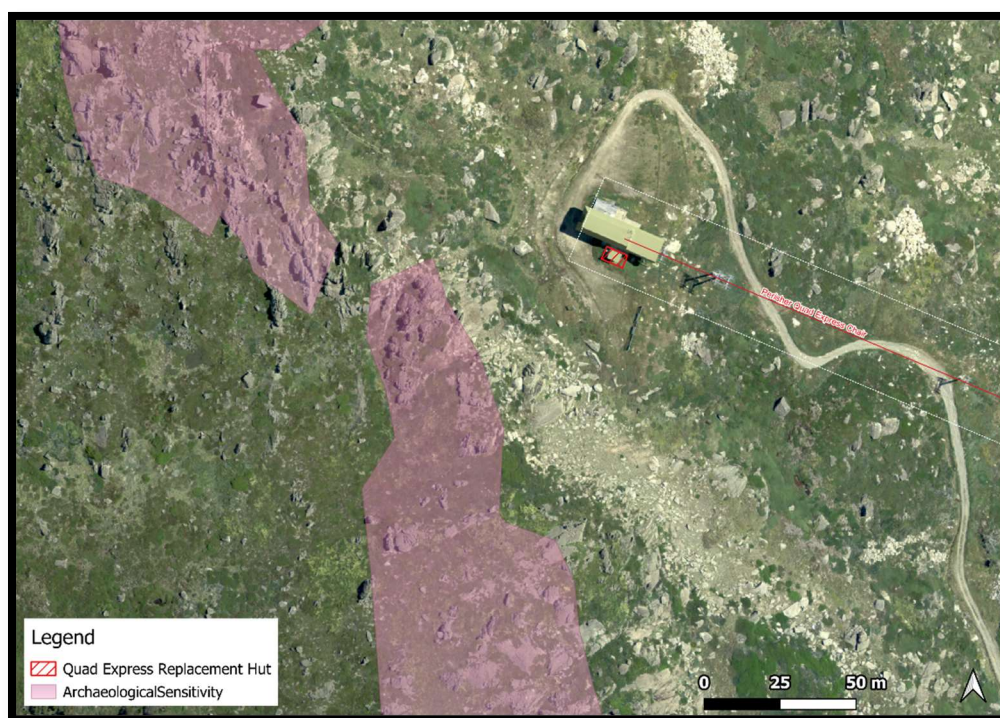


Figure 15 – Development (red hatched area) in relation to areas of mapped Archaeological Sensitivity

#### 4.6.3 Historic Heritage

There is no historic heritage in the vicinity of the proposed development that would be adversely impacted by the proposed development.



#### **4.6.4 Construction Impacts**

Due to the nature of the development, there will be limited construction impacts. Appropriate sediment and erosion control will be in place during construction and the areas made good prior to operation. Construction will occur at times where the limited noise and vibration can be managed appropriately to limit impacts on adjoining uses.

The site is accessed via a formed road in summer allowing for both demolition of the existing structure and construction of the new building to be undertaken without disturbance to native vegetation or the need for new construction access.

#### **4.6.5 Geotechnical Considerations**

The site is inside of the areas marked “G” on the Geotechnical Policy Map however it is considered minor development and a form 4 has been prepared which is attached to the Geotech assessment in Appendix D. The structure will be engineered and constructed in accordance with the recommendations of the Geotech assessment.

#### **4.6.6 Visual Impacts**

The proposed development will have minimal visual impact and is an expected element in the landscape associated with an operating chairlift. The design is consistent with the new lift operators’ huts constructed elsewhere in the resort and will be used a template for these huts moving forward. This allows for consistency in the landscape with respect to built form, colours and materials. Whilst the footprint is larger than the existing hut it will be in the same location adjoining the chairlift and will be constructed of Colourbond in a deep grey (Monument) which will allow the structure to recede into the environment when viewed from a distance.

#### **4.6.7 Effects on Ski Resort Operation**

The proposed development will enhance the staff experience when operating the lift and allow for additional storage and the enclosure of the generator to reduce the visual impact of the infrastructure.

#### **4.6.8 Bushfire**

The site is mapped as Bushfire Prone Land (Category 1) due to the nature of the development and the use of the site the development is “Other Development” as described in Chapter 8 of Planning for Bushfire Protection 2019. The use is not considered to be a special fire protection purpose, nor does it include any residential component.

The structure is used in the winter months limiting the impact on the occupants with respect to bushfire as the bushfire risk is at its lowest during the months of the ski season and the building is snowbound when in operation.

The landscape surrounding the subject building is predominated by rocky outcrops and low alpine vegetation. The area immediately surrounding the site is disturbed hardstand devoid of significant vegetation with only low grass growing in non-gravel areas.

The structure will be constructed from non-combustible materials of Colourbond and blockwork in contrast to the wood clad exterior to the existing hut.



Figure 16 - Area surrounding the site during winter illustrating the nature of the site whilst the building is in operation (Source – Google Streetview 2016)



Figure 17 - A view looking south to the chairlift with the hut to be replaced on the southern side of the structure. This illustrates the landscape characteristics when the structure is operational and the proximity to vegetation in the distance. (Source – Google Streetview 2016)



Figure 18 - Image showing landscape immediately surrounding the site of the replacement lift hut. The fill mound in the foreground will be modified to allow for the construction of the new hut.

Section 8.1 of Planning for Bushfire Protection 2019 requires that “other development” must meet the following conditions in order to comply with PBP:

#### **1. Satisfy the Aims and Objectives of Planning for Bushfire Protection (Chapter 1)**

***The aim of PBP is to provide for the protection of human life and minimise impacts on property from the threat of bush fire, while having due regard to development potential, site characteristics and protection of the environment.***

The development is the replacement of an existing lift hut which is ancillary to the principal use of the site for lifting infrastructure (chairlift), the lift hut is occupied in the winter months during the ski season when the lift is operational. This is when there is adequate snow on the ground to operate the lift and when the bushfire risk is non-existent. The site is in the higher alpine area and is surrounded by rock outcrops, and low vegetation which is managed as a ski slope. As such there is significant defensible space surrounding the site and access from a formed access road during the summer period (when the building is unoccupied).

The building does not seek to make changes to any existing utility services.

***The objectives are to:***



***afford buildings and their occupants protection from exposure to a bush fire;  
provide for a defensible space to be located around buildings;***

Due to the time when the building will be occupied being in winter when there is snow on the ground there is little risk to the occupants with respect to bushfire. The site at above 1900m is snowbound in winter as illustrated in figures 16 & 17 (captured in August 2016).

As such in winter when the structure is occupied there is extensive defensible space around the building as there is no fuel available to start or sustain a bushfire.

During the summer months when the lift is not in operation and the lift hut is not occupied. In addition, there is no connective vegetative canopy of trees within 100m of the building and the area immediately surrounding is disturbed and predominated by rocky outcrops, grasses and hardstand.

***provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent the likely fire spread to buildings***

Due to the nature of the site and the use of the structure there are no hazards from which the development needs to be separated whilst it is in operation. During summer due to the landscape and surrounding limited vegetation this limits the likely spread of fire and impact on the infrastructure.

***ensure that appropriate operational access and egress for emergency service personnel and occupants is available***

Access to the site is via oversnow transport whilst in operation due to being in a high alpine snowbound location. However during operation the bushfire risk is negligible with no fuel or conditions that would allow a fire to start and be sustained. During summer the site is accessed via a formed access road which would allow for access by emergency services and egress by staff in the event of a bushfire. Workers access to the site can be restricted at times of significant fire danger to further reduce the likelihood of impact on staff or emergency services. This is not a site which includes any accommodation nor is it operational and staffed outside of the ski season.

***provide for ongoing management and maintenance of BPMs***

The building is used as an operators hut for the chairlift with storage related to its operation. It is an essential building for the operation of the Perisher Express chairlift and is maintained by Perisher on a scheduled basis.

***ensure that utility services are adequate to meet the needs of firefighters***

Due to the location and use there is no requirement for there to be reticulated water at the top station of the chairlift, however the site is accessed by a formed road which can be used by vehicles with water tanks if required.

**2. consider any issues listed for the specific purpose for the development set out in this chapter.**

The proposed development is a replacement operator's hut, including storage area and plant room ancillary to an existing chairlift, as such sections 8.3.1 & 8.3.10 of PBP are the most relevant considerations.

***The NCC does not provide for any bush fire specific performance requirements for these particular classes of buildings. As such AS 3959 and the NASH Standard are not considered as a set of Deemed to Satisfy provisions, however compliance with AS 3959 and the NASH Standard must be considered when meeting the aims and objectives of PBP.***

The proposed structure is to be built with non-combustible cladding and can be constructed in compliance with any relevant requirements of AS3959 and the NASH standard.

8.3.1 acknowledges that bushfire is not captured in the NCC for Class 5-8 buildings however the following objectives should be applied in relation to access, water supply and services and emergency and evacuation planning:

***to provide safe access to/from the public road system for firefighters providing property protection during a bush fire and for occupant egress for evacuation***

The development is accessible from Front Valley via a formed access road which is accessible in summer when there may be some limited bushfire risk to the top station of the chairlift. During winter the area is snowbound however the risk from bushfire at that time of year would be highly unlikely due to snow cover and lack of vegetation that would support a fire.

Due to the location of the building in a cleared area it allows for unobstructed egress of occupants in the case of an emergency.

***to provide suitable emergency and evacuation (and relocation) arrangements for occupants of the development***

A building evacuation diagram, site layout diagram and Statement of Action will be prepared and provided in the subject building in accordance with the NSW Rural Fire Service Guidelines for the Preparation of Emergency/Evacuation Plan and with Australian Standard AS 3745 2010 'Planning for Emergencies in Facilities'.

The building is subject to fire safety inspections and annual fire safety statements.

***to provide adequate services of water for the protection of buildings during and after the passage of bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building;***

The access to reticulated water is restricted to mid station of the chairlift however due to its, location, seasonal use and surrounding landscape the risk of impact from bushfire is minimal and the site can be accessed with water carrying vehicles via a formed road out of the ski season.

***provide for the storage of hazardous materials away from the hazard wherever possible***

The development does not include any hazardous materials that require storage. The generator will be located within a separate room of the structure and will meet all relevant Australian Standards for installation, operation and ongoing maintenance.

### 3. Propose an appropriate combination of Bushfire Protection Measures.

8.3.10 relates specifically to Commercial and Industrial Development and requires development to address the aims and objectives of PBP 2019 as there is no residential component. How the development assesses the aims and objectives has been provided above. Section 8.3.10 requires that suitable combination of BPM commensurate to the level of risk to the development, the scale of the development and the numbers of people likely to be occupancy the building.

The operator's hut is a replacement of an existing hut and does not increase the bushfire risk to the related chairlift structure or the occupants. As such existing emergency management procedures would transfer to the new structure with no additional measures reasonably required for this development. In addition, the site will be occupied in the winter months when the area is snowbound and the risk to occupants of the building (which is generally two staff members) is negligible, summer use of the structure is limited to maintenance which can be scheduled to ensure bushfire risk to persons is limited.

#### 4.6.9 Social and Economic Impacts

Due to its nature and scale the development will have no adverse social and economic impacts.

#### 4.7 Suitability of the site for the development

The development is an upgrade of an existing lift hut which is essential infrastructure required for the operation of the lift as such the site is considered suitable for the development as proposed.

#### 4.8 Public Interest

The development is compliant with the requirements of relevant legislation, environmental planning instruments and associated policies applying and therefore considered to meet the public interest test.

## 5 CONCLUSION

The proposal for ***demolition of an existing lift hut and the construction of a replacement lift hut*** is considered to comply with all provisions of relevant legislation and will have minimal impact on surrounding properties and uses and as such the development should be approved as proposed.

## 6 APPENDICES

APPENDIX	A	SAP Master Plan Assessment Table
APPENDIX	B	Site Photographs
APPENDIX	C	Site Environmental Management Plan
APPENDIX	D	Aboriginal Cultural Heritage Due Diligence Assessment
APPENDIX	E	Geotechnical Inspection



## Appendix A – SAP Master Plan Assessment Table

### Snowy Mountains Special Activation Precinct Master Plan 2022

PROVISION	RESPONSE
<b>10 ALPINE PRECINCT PROVISIONS</b>	
<b>10.1 LAND USE</b>	
<p>Complies:</p> <ul style="list-style-type: none"> <li>The development is permissible under the Precincts Regional SEPP and complies with the relevant provisions of all documents listed (Excepting the Alpine DCP which is yet to be adopted and as such is not a matter for consideration for this application).</li> <li>The development complies based on an assessment against the performance criteria of the Master Plan is carried out below, there is currently no Alpine Development Control Plan.</li> <li>The development is an upgrade to existing infrastructure and required to operate the chairlift</li> <li>An assessment of the impact of the development on the environment, heritage and cultural values which has demonstrated that the development will not compromise any of these factors.</li> <li>The development has no impact on carrying capacity as it does not relate to the provision of additional tourist accommodation.</li> <li>The development does not fall within a specified structure plan as it is ski slope related; however it is wholly located within disturbed land adjacent to the existing lift, in the same location as the hut it is to replace.</li> <li>The development does not involve new or upgraded accommodation</li> </ul>	
<b>10.2 Alpine Resorts</b>	
<p>Complies</p> <ul style="list-style-type: none"> <li>The development is infill development as it is the replacement of an existing building within the curtilage of the express quad chairlift.</li> <li>The development supports the operation of the Express Quad Chairlift at Perisher Valley.</li> <li>The development has been designed to complement the infrastructure it supports and will be constructed of materials and colours that are in keeping with the alpine environment.</li> <li>The replacement hut will have improved environmental performance based on a revised design with modern construction methods and materials.</li> </ul>	
<b>10.3 Alpine Accommodation</b>	
Not applicable – the proposed development does not include accommodation.	
<b>10.4 Alpine Experience</b>	
<p>Not applicable – due to the nature of the development:</p> <ol style="list-style-type: none"> <li>The development supports a visitor attraction but is not in itself open to the public however will have an improved modern appearance for users of the chairlift. is</li> <li>The development does not include the construction of new or upgraded shared trails or paths;</li> <li>The development does not impact transport to or from the resort;</li> </ol>	

iv. The development will not generate the need for new carparking.	
<b>CHAPTER 11 ENVIRONMENT AND SUSTAINABILITY</b>	
<b>11.1 Biodiversity</b>	
Complies	
<ul style="list-style-type: none"> <li>The development is the replacement of an existing building using the same location and whilst it is a larger footprint it is wholly within the curtilage of the existing chairlift on land which is previously disturbed.</li> <li>The development does not require any vegetation removal, nor does it impact on riparian corridors.</li> <li>The development does not trigger the Biodiversity Offsets Scheme due to its location and extent</li> <li>No additional bushfire measures are required, and no clearing is required to provide for asset protection zones.</li> </ul>	
<b>11.2 Geotechnical</b>	
Complies	
The development has addressed the requirements of the Geotechnical Policy – Kosciuszko National Park (DPNIR, 2003). An assessment and associated form 4 have been prepared by a Geotechnical Engineer and are included in Appendix D of this SEE.	
<b>11.3 Flood Risk Management</b>	
Not applicable	
There is currently no adopted flood mapping contained within the masterplan or SEPP providing information to determine Flood Planning Level or the PMF, as such there is currently no flood planning areas or related floor planning levels or probable maximum flood levels applicable to the site.	
The site is at the top of a hill with no likelihood of being impacted by overland or riverine flooding.	
<b>11.4 Water Quality</b>	
Not applicable	
Due to the nature and location of the development it will have no impact on water quality.	
<b>11.5 Bushfire</b>	
Complies	
<ul style="list-style-type: none"> <li>The structure is used in the winter months limiting the impact on the occupants with respect to bushfire as the bushfire risk is at its lowest during the months of the ski season. In addition the landscape surrounding the subject building is predominated by rocky outcrops and low alpine vegetation. The area immediately surrounding the site is disturbed hardstand devoid of significant vegetation with only low grass growing in non-gravel areas.</li> <li>The structure will be constructed from non-combustible materials of Colourbond and blockwork in contrast to the wood clad exterior to the existing hut.</li> <li>The site is accessed in summer by a formed road, should it be required to be accessed during a bushfire</li> </ul>	
<b>11.6 Sustainability and Climate Change</b>	
Complies	
<ul style="list-style-type: none"> <li>The development will have minimal impact due to its nature and scale.</li> <li>Impact on biodiversity, landscape and cultural values have been addressed in the body of the SEE.</li> <li>The development complies with all relevant design standards and will have no impact on climate responsiveness and resilience.</li> <li>The EMS as described has yet to be finalised. The EMS is being prepared currently by NPWS to meet this standard as such this requirement is currently not applicable.</li> </ul>	

<b>12. PLACE AND LANDSCAPE</b>	
<b>12.1 Aboriginal Cultural Heritage</b>	
Complies	
<ul style="list-style-type: none"> <li>The land is not identified as “archaeologically sensitive land” on the State Environmental Planning Policy (Precincts-Regional) 2021 Kosciuszko Alpine Region Aboriginal Archaeological Heritage Map.</li> <li>A search of the AHIMS database did not identify any recorded Aboriginal Cultural Heritage items in the area of the development.</li> <li>A due diligence assessment was carried out, and is attached in appendix C and based on the outcome of the assessment it is reasonable to conclude that there are no known Aboriginal objects or a low probability of objects occurring in the area of the proposed activity, and the development can proceed with caution without applying for an Aboriginal heritage impact permit or the need to carry out further assessment via an Aboriginal Cultural Heritage Assessment Report. No AHIP is required.</li> <li>There are no aboriginal cultural significant places and sites impacted by the development.</li> </ul>	
<b>12.2 Historic Heritage</b>	
Not applicable	
The building is not heritage listed and the development will not have an impact on heritage listed items in the Perisher Valley.	
<b>12.3 Landscape, Character and Open Space</b>	
Complies	
<ul style="list-style-type: none"> <li>The design of the replacement hut responds to the built form of the existing hut (to be replaced) and the associated chairlift. It has no impact on the natural features of the area as it is below the level of the existing chairlift and compliments the structure.</li> <li>Due to the scale, size, and nature of the proposed development the creation of a green infrastructure network is not a relevant requirement</li> <li>No new or replacement landscaping required.</li> <li>Revegetation of disturbed areas to ensure soil stabilisation will occur upon completion of construction.</li> <li>Stormwater will be managed in the same way as the exiting building manages stormwater, no change is proposed as part of this application.</li> </ul>	
<b>12.4 Built Form</b>	
General criteria for all development in the Alpine Region	
The building is in keeping with its use and location with respect to design and materiality.	
The building is to be constructed on an existing area of fill which will be modified to enable the development, the footings proposed respond to the geotechnical characteristics of the site.	
For village centres and public domain	
The development is within the ski area and not be accessed by the public as such it will not impact on the village centre or associated public domain areas.	
<b>13. TRANSPORT AND INFRASTRUCTURE</b>	
<b>13.1 Transport network</b>	
Not applicable - due to the nature and scale of the development	
<b>13.2 Utilities, services and infrastructure</b>	
Complies	

- The development will be reconnected to existing services utilised by the existing hut.
- Due to the nature and scale of the development there is no trigger for integrated water cycle management and renewable energy solutions to be provided as part of the development.



## Appendix B Site Environmental Management Plan

PROJECT & EMERGENCY CONTACTS	
Project Name	Replacement of Lift Hut, top of Quad Express Chair, Centre Valley
Perisher Project Manager	Andrew Kennedy – 02 6459 4402
Perisher Operations	Mountain Office - 02 6459 4408
Perisher Environmental Manager	Lani Banerjee – 02 6459 4504
Emergency	000
DPE	Sarah Collum – 02 6450 5543
EPA	131 555

ENVIRONMENTAL MANAGEMENT MEASURES	
PRIOR TO CONSTRUCTION	
Induction	<ul style="list-style-type: none"> <li>All project staff to be made aware of disturbance footprint and environmental safeguards prior to works commencing</li> </ul>
Access	<ul style="list-style-type: none"> <li>All access to site via the formed Centre Valley Access Track</li> <li>Machinery from offsite to be cleaned prior to accessing site</li> <li>Site works to be limited to dry periods, to minimise soil disturbance</li> </ul>
Storage	<ul style="list-style-type: none"> <li>All equipment to be stored in areas of exotic grass or formed access track only. No storage of equipment or machinery on native vegetation.</li> </ul>
Disturbance to Soil	<ul style="list-style-type: none"> <li>Sedimentation and erosion controls to be installed in areas likely to experience soil loss into the surrounding environment.</li> </ul>
DURING CONSTRUCTION	
Disturbance to Soil	<ul style="list-style-type: none"> <li>For erosion control, the combined use of straw bale filters and sediment fencing are to be used.</li> <li>Erosion and sedimentation controls shall be monitored &amp; maintained daily and immediately following a rainfall event.</li> </ul>
Flora & Fauna	<ul style="list-style-type: none"> <li>No unapproved removal or disturbance of native vegetation</li> <li>Refuel away from areas of native vegetation</li> <li>No storage of material on native vegetation</li> </ul>
Machinery / Fuel & Concrete	<ul style="list-style-type: none"> <li>Spill kits shall be readily accessible</li> <li>Spills of any liquids shall be controlled and cleaned up immediately</li> <li>No maintenance other than emergency repairs shall be undertaken on site.</li> <li>No concrete washout shall be undertaken on the project site</li> </ul>
Work Hours	<ul style="list-style-type: none"> <li>Limit work to approved hours only (daylight)</li> </ul>
Waste	<ul style="list-style-type: none"> <li>All litter and waste to be contained and removed from site regularly</li> </ul>
FOLLOWING CONSTRUCTION	

Stabilisation & revegetation	<ul style="list-style-type: none"><li>Control weeds annually, or as required in the area</li></ul>
Disturbance to Soil	<ul style="list-style-type: none"><li>All erosion and sedimentation controls to be removed from site once ground has stabilised</li></ul>

Appendix C Archeological Due Diligence

Project: Quad Express Replacemcnent Top Stataion Lift Hut

The due diligence assessment below is taken from the Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales, DECCW 2010. The assessment was undertaken by Sophie Ballinger, Mountain Planning Manager for Perisher Resort, September 2024


Generic Due Diligence Process

Step 1 – Will the activity disturb the ground surface?

Yes the propsoal will include some limited excavation in previously disturbed areas.

Step 2a – Search of AHIMS database

An AHIMS search was undertaken and no aboriginal sites or places are recorded or declared in or near the location. A copy of the search result is reproduced below:

**AHIMS Web Services (AWS)**  
Search Result


Your Ref/PO Number : Quad Chair Top Station  
Client Service ID : 902846

Vail Resorts - Australia  
PO Box 42  
Perisher Valley New South Wales 2624  
Attention: Sophie Ballinger  
Email: sophie.ballinger@vailresorts.com.au  
Date: 20 June 2024

Dear Sir or Madam:

**AHIMS Web Service search for the following area at Lat. Long From : -36.4011, 148.3922 - Lat. Long To : -36.4, 148.3941, conducted by Sophie Ballinger on 20 June 2024.**

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 Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

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

2b – Is the activity in an area where there are landscape features which indicate the presence of Aboriginal objects.

Is the proposed development:

within 200m of waters; or	No
---------------------------	----

located within a sand dune system; or	No
located on a ridge top, ridge line or headland; or	No
located within 200m below or above a cliff face; or	No
within 20m of or in a cave, rock shelter, or a cave mouth; and	No
is on land that is not disturbed land	No

## Conclusion

---

Based on the outcomes of steps 2a and 2b it is reasonable to conclude that there are no known Aboriginal objects or a low probability of objects occurring in the area of the proposed activity, and the development can proceed with caution without applying for an AHIP.



## Appendix D – Geotechnical Assessment

Geotechnical assessment and Form 4 prepared by Asset Geo Enviro.

Our ref: 7406-4-R1  
30 November 2023



Vail Resorts  
PO Box 42  
Perisher Valley NSW 2624

**Attention: Michael Fearnside**

Dear Michael,

### **Perisher Express Quad Chair Top Station Lift Operators Hut, Perisher NSW Geotechnical Assessment**

---

#### **1. Introduction**

##### **1.1 General**

This report presents the results of a geotechnical assessment for the proposed Perisher Express Quad Chair Top Station Lift Operators Hut at Perisher NSW (the Site). The assessment was commissioned on 26 October 2023 by Michael Fearnside of Vail Resorts.

No documents were provided to us for this assessment. Based on briefing from the client, we understand that the project involves replacement of the existing Operators Hut.

The Site lies within the G-line as defined in DIPNR's "Geotechnical Policy – Kosciuszko Alpine Resorts", November 2003. However, given that the proposed works will likely be relatively minor, the development would fall under Minimal Impact criteria.

##### **1.2 Scope of Work**

The main objectives were to assess the surface and likely subsurface conditions and to provide comments and recommendations relating to Site Classification to AS2870–2011 "Residential Slabs and Footings" and bearing capacity for footings.

The following scope of work was carried out to achieve the project objectives:

- A review of existing regional maps and reports relevant to the Site held within our files.
- Visual observations of surface features.
- Engineering assessment and reporting.



This report must be read in conjunction with the attached "Important Information about your Geotechnical Report" in Appendix A. Attention is drawn to the limitations inherent in site investigations and the importance of verifying the subsurface conditions inferred herein.

## 2. Site Description

The Site is located about 1.6km west north-west of the Perisher Valley Terminal as shown in Plate 1. A plan of the Top Station is shown in Plate 2.

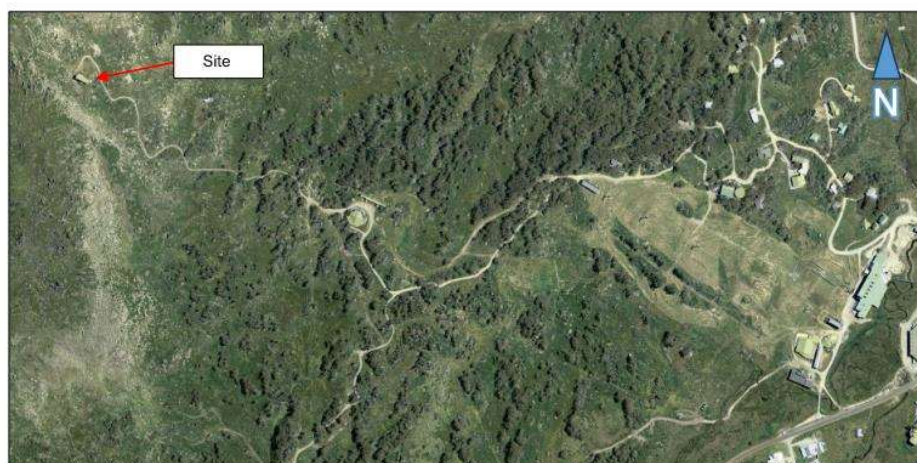


Plate 1 – Site Locality



Plate 2 – Plan of Top Station showing Location of Operators Hut

Topographically, the Site is on a moderate to steep slope that falls to the southeast at about 10° to 15°.



Selected photos of the site are attached.

The 1:250,000 Tallangatta Geological Map indicates the Site is underlain by Lower Devonian aged intrusive granites, micro-diorites and tonalites. This is locally weathered to produce core-stones and tor outcrops.

Numerous granite core-stones and outcrop were observed at various locations in the site vicinity. A fill embankment has been constructed to support the existing Operators Hut, appearing to be up to about 1.5m thick based on adjacent ground surface levels, and including granite boulders as evidenced by the site photos. It is expected that variably weathered granite is located at relatively shallow depth below the original ground surface.

Localised ponded water was observed upslope of the embankment.

### 3. Discussions & Recommendations

#### 3.1 Proposed Development

It is understood that the development comprises:

- Demolition of existing Operators Hut.
- Removal of existing fill embankment.
- Constructing strip footings and blockwork to support the new Operators Hut.

#### 3.2 Site Classification and Footings

In view of the landslide risk setting, the assessed site classification is Class P (Problem site).

Where strip footings are founded on extremely weathered or better granite anticipated at shallow depth beneath the original ground surface, a revised classification of Class A would apply and a conservative allowable bearing pressure of 150kPa could be adopted.

Further advice must be sought if poorer quality subgrade is encountered.

### 4. Limitations

In addition to the limitations inherent in geotechnical assessments and investigations (refer to the attached Information Sheets), it must be pointed out that the recommendations in this report are based on assessed subsurface conditions from limited observations. To confirm the assessed subsurface conditions in this report, further investigation would be required.

Asset accepts no liability where our recommendations are not followed or are only partially followed. The document "Important Information about your Geotechnical Report" in Appendix A provides additional information about the uses and limitations of this report.







Please do not hesitate to contact the undersigned if you have any questions regarding this report or if you require further assistance.

For and on behalf of

**AssetGeoEnviro**

**Mark Bartel**

BE, MEngSc, GMQ, CPEng, RPEQ/NER(Civil), DEP/PRE (NSW)  
Managing Director | Senior Principal Geotechnical Engineer

Encl: Site Photos

Form 4 – Minimal Impact Certification

Important Information about your Geotechnical Report

Soil and Rock Explanation Sheets

## Document Control

### Distribution Register

Copy	Media	Recipient	Location
1	Secure PDF	Michael Fearnside	Vail Resorts
2	Secure PDF	Sophie Ballinger	Vail Resorts
2	Secure PDF	Mark Bartel	Asset Geotechnical Engineering

### Document Status

Rev	Revision Details	Author	Reviewer		Approved for Issue		
			Name	Initials	Name	Initials	Date
0	Initial issue	M. Bartel			M. Bartel	<i>MAB</i>	30 November 2023



ISO 9001:2015  
ISO 14001:2015  
ISO 45001:2018 AS/NZS 4801:2001

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Perisher Express Quad Chair Top Station Lift Operators Hut  
Perisher NSW  
Geotechnical Assessment

Our ref: 7406-4-R1  
30 November 2023  
Page 4





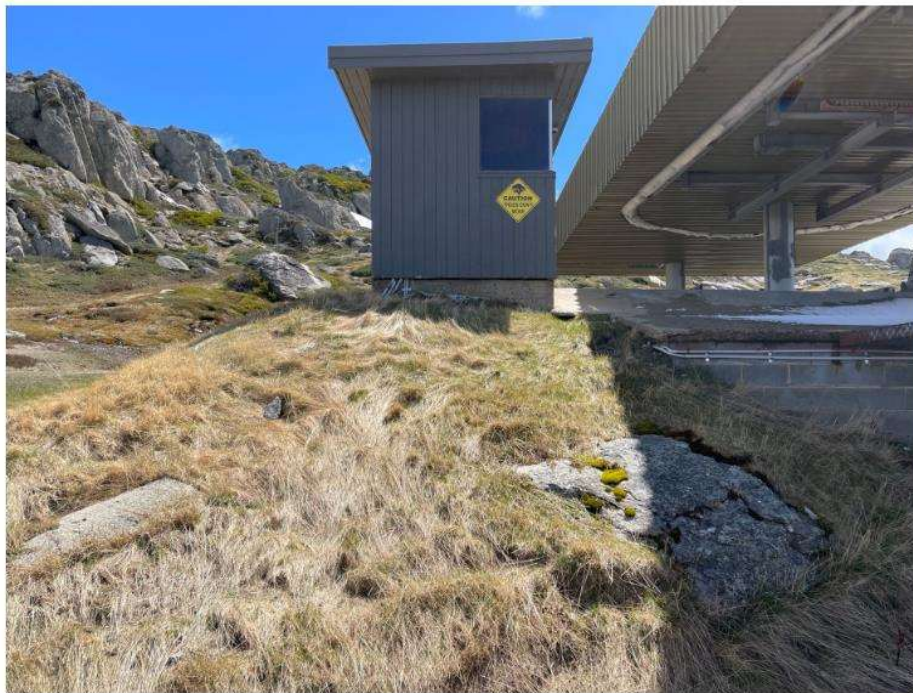
### Site Photos



**Photo 1**  
Overview of Lift Operators Hut



**Photo 2**  
Overview of Lift Operators Hut – continuation of Photo 1.



**Photo 3**  
View of Lift Operators Hut viewed from downslope.





Planning &  
Environment

## Geotechnical Policy

Kosciuszko Alpine Resorts

### Form 4 – Minimal Impact Certification

DA Number: \_\_\_\_\_

This form may be used where minor construction works which present minimal or no geotechnical impact on the site or related land are proposed to be erected within the "G" line area of the geotechnical maps.

A geotechnical engineer or engineering geologist must inspect the site and/or review the proposed development documentation to determine if the proposed development requires a geotechnical report to be prepared to accompany the development application. Where the geotechnical engineer determines that such a report is not required then they must complete this form and attach design recommendations where required. A copy of Form 4 with design recommendation, if required, must be submitted with the development application.

**Please contact the Alpine Resorts Team in Jindabyne for further information - phone 02 6456 1733.**

To complete this form, please place a cross in the appropriate boxes ☐ and complete all sections.

#### 1. Declaration made by geotechnical engineer or engineering geologist in relation to a nil or minimal geotechnical impact assessment and site classification

I,

Mr ☒

Ms ☐

Mrs ☐

Dr ☐

Other

First Name

Family Name

Mark

Bartel

OF

Company/organisation

Asset Geotechnical Engineering Pty Ltd (trading as AssetGeoEnviro)

certify that I am a geotechnical engineer /engineering geologist as defined by the "Policy" and I have inspected the site and reviewed the proposed development known as

Perisher Express Quad Chair Top Station Lift Operators Hut

As a result of my site inspection and review of the following documentation

(List of documentation reviewed)

No documentation provided



I have determined that; Class P (landslide risk setting), Class A if founding on rock

- ☒ the current load-bearing capacity of the existing building will not be exceeded or adversely impacted by the proposed development, and
- ☒ the proposed works are of such a minor nature that the requirement for geotechnical advice in the form of a geotechnical report, prepared in accordance with the "Policy", is considered unnecessary for the adequate and safe design of the structural elements to be incorporated into the new works, and
- ☒ in accordance with AS 2870.1 Residential Slabs and Footings, the site is to be classified as a type  
(insert classification type)

Class P (landslide risk setting, fill), Class A if founding on rock

and civil

- ☒ I have attached design recommendations to be incorporated in the structural design in accordance with this site classification. Refer report 7104-1-R1

I am aware that this declaration shall be used by the Department as an essential component in granting development consent for a structure to be erected within the "G" line area (as identified on the geotechnical maps) of Kosciuszko Alpine Resorts without requiring the submission of a geotechnical report in support of the development application.

## 2. Signatures

Signature

*Mark Bartel*

Name

Mark Bartel

Chartered professional status

CPEng 35641 NER (Civil)

Date

30 November 2023

## 3. Contact details

### Alpine Resorts Team

Shop 5A, 19 Snowy River Avenue

P O Box 36, JINDABYNE NSW 2627

Telephone: 02 6456 1733

Facsimile: 02 6456 1736

Email: alpineresorts@planning.nsw.gov.au

## Important Information about your Geotechnical Report

**Scope of Services**

The geotechnical report ("the report") has been prepared in accordance with the scope of services as set out in the contract, or as otherwise agreed, between the Client and Asset Geotechnical Engineering Pty Ltd ("Asset"), for the specific site investigated. The scope of work may have been limited by a range of factors such as time, budget, access and/or site disturbance constraints.

The report should not be used if there have been changes to the project, without first consulting with Asset to assess if the report's recommendations are still valid. Asset does not accept responsibility for problems that occur due to project changes if they are not consulted.

**Reliance on Data**

Asset has relied on data provided by the Client and other individuals and organizations, to prepare the report. Such data may include surveys, analyses, designs, maps, and plans. Asset has not verified the accuracy or completeness of the data except as stated in the report. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations ("conclusions") are based in whole or part on the data, Asset will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, misrepresented, or otherwise not fully disclosed to Asset.

**Geotechnical Engineering**

Geotechnical engineering is based extensively on judgment and opinion. It is far less exact than other engineering disciplines. Geotechnical engineering reports are prepared for a specific client, for a specific project and to meet specific needs, and may not be adequate for other clients or other purposes (e.g., a report prepared for a consulting civil engineer may not be adequate for a construction contractor). The report should not be used for other than its intended purpose without seeking additional geotechnical advice. Also, unless further geotechnical advice is obtained, the report cannot be used where the nature and/or details of the proposed development are changed.

**Limitations of Site Investigation**

The investigation program undertaken is a professional estimate of the scope of investigation required to provide a general profile of subsurface conditions. The data derived from the site investigation program and subsequent laboratory testing are extrapolated across the site to form an inferred geological model, and an engineering opinion is rendered about overall subsurface conditions and their likely behavior regarding the proposed development. Despite investigation, the actual conditions at the site might differ from those inferred to exist, since no subsurface exploration program, no matter how comprehensive, can reveal all subsurface details and anomalies.

The engineering logs are the subjective interpretation of subsurface conditions at a particular location and time, made by trained personnel. The actual interface between materials may be more gradual or abrupt than a report indicates.

Therefore, the recommendations in the report can only be regarded as preliminary. Asset should be retained during the project implementation to assess if the report's recommendations are valid and whether changes should be considered as the project proceeds.

**Subsurface Conditions are Time Dependent**

Subsurface conditions can be modified by changing natural forces or man-made influences. The report is based on conditions that existed at the time of subsurface exploration. Construction operations adjacent to the site, and natural events such as floods, or ground water fluctuations, may also affect subsurface conditions, and thus the continuing adequacy of a geotechnical report. Asset should be kept apprised of any such events and should be consulted to determine if any additional tests are necessary.

**Verification of Site Conditions**

Where ground conditions encountered at the site differ significantly from those anticipated in the report, either due to natural variability of subsurface conditions or construction activities, it is a condition of the report that Asset be notified of any variations and be provided with an opportunity to review the recommendations of this report. Recognition of change of soil and rock conditions requires experience, and it is recommended that a suitably experienced geotechnical engineer be engaged to visit the site with sufficient frequency to detect if conditions have changed significantly.

**Reproduction of Reports**

This report is the subject of copyright and shall not be reproduced either totally or in part without the express permission of this Company. Where information from the accompanying report is to be included in contract documents or engineering specification for the project, the entire report should be included to minimize the likelihood of misinterpretation from logs.

**Report for Benefit of Client**

The report has been prepared for the benefit of the Client and no other party. Asset assumes no responsibility and will not be liable to any other person or organisation for or in relation to any matter dealt with or conclusions expressed in the report, or for any loss or damage suffered by any other person or organisation arising from matters dealt with or conclusions expressed in the report (including without limitation matters arising from any negligent act or omission of Asset or for any loss or damage suffered by any other party relying upon the matters dealt with or conclusions expressed in the report). Other parties should not rely upon the report or the accuracy or completeness of any conclusions and should make their own inquiries and obtain independent advice in relation to such matters.

**Data Must Not Be Separated from The Report**

The report presents the site assessment and must not be copied in part or altered in any way.

Logs, figures, drawings, test results etc. included in our reports are developed by professionals based on their interpretation of field logs (assembled by field personnel) and laboratory evaluation of field samples. These data should not under any circumstances be redrawn for inclusion in other documents or separated from the report in any way.

**Report Recommendations not Followed**

Where the recommendations of the report are not followed or are only partially followed, there may be significant implications for the project (e.g., commercial loss, property loss or damage, personal injury, or loss of life). Consult Asset if you are not intending to follow all the report recommendations, to assess what the implications could be. Asset does not accept responsibility where the report recommendations have not been followed or have only been partially followed.

**Other Limitations**

Asset will not be liable to update or revise the report to consider any events or emergent circumstances or fact occurring or becoming apparent after the date of the report.

## Soil and Rock Explanation Sheets (1 of 2)



## Log Abbreviations &amp; Notes

**METHOD****borehole logs**

AS	auger screw *
AD	auger drill *
RR	roller / tricone
W	washbore
CT	cable tool
HA	hand auger
D	diatube
B	blade / blank bit
V	V-bit
T	TC-bit

\* bit shown by suffix e.g. ADV

**excavation logs**

NE	natural excavation
HE	hand excavation
BH	backhoe bucket
EX	excavator bucket
DZ	dozer blade
R	ripper tooth

**coring**

NMLC, NQ, PQ, HQ

**SUPPORT****borehole logs**

N	nil
M	mud
C	casing
NQ	NQ rods

**excavation logs**

N	nil
S	shoring
B	benched

**CORE—LIFT**

	casing installed
H	barrel withdrawn

**NOTES, SAMPLES, TESTS**

D	disturbed
B	bulk disturbed
U50	thin-walled sample, 50mm diameter
HP	hand penetrometer (kPa)
SV	shear vane test (kPa)
DCP	dynamic cone penetrometer (blows per 100mm penetration)
SPT	standard penetration test
N*	SPT value (blows per 300mm)
	* denotes sample taken
Nc	SPT with solid cone
R	refusal of DCP or SPT

**USCS SYMBOLS**

GW	Gravel and gravel-sand mixtures, little or no fines.
GP	Gravel and gravel-sand mixtures, little or no fines, uniform gravels
GM	Gravel-silt mixtures and gravel-sand-silt mixtures.
GC	Gravel-clay mixtures and gravel-sand-clay mixtures.
SW	Sand and gravel-sand mixtures, little or no fines.
SP	Sand and gravel-sand mixtures, little or no fines.
SM	Sand-silt mixtures.
SC	Sand-clay mixtures.
ML	Inorganic silt and very fine sand, rock flour, silty or clayey fine sand or silt with low plasticity.
CL, CI	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays.
OL	Organic silts
MH	Inorganic silts
CH	Inorganic clays of high plasticity.
OH	Organic clays of medium to high plasticity, organic silt
PT	Peat, highly organic soils.

**MOISTURE CONDITION**

D	dry
M	moist
W	wet
Wp	plastic limit
Wl	liquid limit

**CONSISTENCY**

VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable

**DENSITY INDEX**

VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

## Graphic Log

**Soil**

	Fill
	Peat, Topsoil
	Clay
	Silty Clay
	Gravelly Clay
	Sandy Clay
	Silt
	Sandy Silt
	Clayey Silt
	Gravelly Silt
	Gravel
	Sandy Gravel
	Clayey Gravel
	Silty Gravel
	Sand
	Gravelly Sandy
	Silty Sand
	Clayey Sand

**Rock**

	Sandstone
	Shale
	Clayey Shale
	Siltstone
	Conglomerate
	Claystone
	Dolerite, Basalt
	Granite
	Limestone
	Tuff
	Porphyry
	Pegmatite
	Gneiss, Schist
	Quartzite
	Coal

**Other**

	Asphalt
	Concrete
	Brick

**Water**

	Level
	Inflow
	Outflow (complete)
	Outflow (partial)

**Boundaries**

	Known
	Probable
	Possible

**WEATHERING**

XW	extremely weathered
HW	highly weathered
MW	moderately weathered
SW	slightly weathered
FR	fresh

**STRENGTH**

VL	very low
L	low
M	medium
H	high
VH	very high
EH	extremely high

**RQD (%)**

$$= \frac{\text{sum of intact core pieces} \geq 2 \times \text{diameter}}{\text{total length of core run drilled}} \times 100$$

**DEFECTS:**

<b>type</b>		<b>coating</b>	
JT	joint	cl	clean
PT	parting	st	stained
SZ	shear zone	ve	veneered
SM	seam	co	coating

**shape**

pl	planar
cu	curved
un	undulating
st	stepped
ir	irregular

**roughness**

po	polished
sl	slickensided
sm	smooth
ro	rough
vr	very rough

**inclination**

measured above axis and perpendicular to core



## Soil and Rock Explanation Sheets (2 of 2)



## AS1726-2017

Soils and rock are described in the following terms, which are broadly in accordance with AS1726-2017.

## Soil

## MOISTURE CONDITION

Term	Description
Dry	Looks and feels dry. Fine grained and cemented soils are hard, friable or powdery. Uncemented coarse grained soils run freely through hand.
Moist	Soil feels cool and darkened in colour. Fine grained soils can be moulded. Coarse soils tend to cohere.
Wet	As for moist, but with free water forming on hand.
	Moisture content of cohesive soils may also be described in relation to plastic limit (W <sub>p</sub> ) or liquid limit (W <sub>L</sub> ) [ >> much greater than, > greater than, < less than, << much less than].

## CONSISTENCY OF FINE-GRAINED SOILS

Term	Su (kPa)	Term	Su (kPa)
Very soft	< 12	Very Stiff	>100 – ≤200
Soft	>12 – ≤25	Hard	> 200
Firm	>25 – ≤50	Friable	–
Stiff	>50 – ≤100		

## RELATIVE DENSITY OF COARSE-GRAINED SOILS

Term	Density Index (%)	Term	Density Index (%)
Very Loose	< 15	Dense	65 – 85
Loose	15 – 35	Very Dense	>85
Medium Dense	35 – 65		

## PARTICLE SIZE

Name	Subdivision	Size (mm)
Boulders		> 200
Cobbles		63 – 200
Gravel	coarse	19 – 63
	medium	6.7 – 19
	fine	2.36 – 6.7
Sand	coarse	0.6 – 2.36
	medium	0.21 – 0.6
	fine	0.075 – 0.21
Silt		0.002 – 0.075
Clay		< 0.075

## MATERIAL DELINEATION

Sand or gravel	>65% above 0.075mm
Clay or silt	>35% below 0.075mm

## MINOR COMPONENTS

Term	Proportion by Mass:	
	<u>coarse grained</u>	<u>fine grained</u>
Trace	≤ 5%	≤ 5%
With	>15% ≤ 30%	>5% – ≤12%

## SOIL ZONING

Layers	Continuous across exposures or sample.
Lenses	Discontinuous, lenticular shaped zones.
Pockets	Irregular shape zones of different material.

## SOIL CEMENTING

Weakly	Easily broken up by hand pressure in water or air.
Moderately	Effort is required to break up by hand in water or in air.

## USCS SYMBOLS

Symbol	Description
GW	Gravel and gravel-sand mixtures, little or no fines.
GP	Gravel and gravel-sand mixtures, little or no fines, uniform gravels.
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CH	Inorganic clays of high plasticity.
OH	Organic clays of medium to high plasticity, organic silt
PT	Peat, highly organic soils.

## Rock

## SEDIMENTARY ROCK TYPE DEFINITIONS

Rock Type	Definition (more than 50% of rock consists of ....)
Conglomerate	... gravel sized (>2mm) fragments.
Sandstone	... sand sized (0.06 to 2mm) grains.
Siltstone	... silt sized (<0.06mm) particles, rock is not laminated.
Claystone	... clay, rock is not laminated.
Shale	... silt or clay sized particles, rock is laminated.

## LAYERING

Term	Description
Massive	No layering apparent.
Poorly Developed	Layering just visible. Little effect on properties.
Well Developed	Layering distinct. Rock breaks more easily parallel to layering.

## STRUCTURE

Term	Spacing (mm)	Term	Spacing
Thinly laminated	<6	Medium bedded	200 – 600
Laminated	6 – 20	Thickly bedded	600 – 2,000
Very thinly bedded	20 – 60	Very thickly bedded	> 2,000
Thinly bedded	60 – 200		

## STRENGTH (NOTE: Is50 = Point Load Strength Index)

Term	Is50 (MPa)	Term	Is50 (MPa)
Very Low	0.03 – 0.1	High	1.0 – 3.0
Low	0.1 – 0.3	Very High	3.0 – 10.0
Medium	0.3 – 1.0	Extremely High	>10.0

## WEATHERING

Term	Description
Residual Soil	Material is weathered to an extent that it has soil properties. Rock structures are no longer visible, but the soil has not been significantly transported.
Extremely .....	Material is weathered to the extent that it has soil properties. Mass structures, material texture & fabric of original rock is still visible.
Highly .....	Rock strength is significantly changed by weathering; rock is discoloured, usually by iron staining or bleaching. Some primary minerals have weathered to clay minerals.
Moderately .....	Rock strength shows little or no change of strength from fresh rock; rock may be discoloured.
Slightly .....	Rock is partially discoloured but shows little or no change of strength from fresh rock.
Fresh	Rock shows no signs of decomposition or staining.

## DEFECT DESCRIPTION

Type	
Joint	A surface or crack across which the rock has little or no tensile strength. May be open or closed.
Parting	A surface or crack across which the rock has little or no tensile strength. Parallel or sub-parallel to layering/bedding. May be open or closed.
Sheared Zone	Zone of rock substance with roughly parallel, near planar, curved or undulating boundaries cut by closely spaced joints, sheared surfaces or other defects.
Seam	Seam with deposited soil (infill), extremely weathered in situ rock (XW), or disoriented usually angular fragments of the host rock (crushed).
Shape	
Planar	Consistent orientation.
Curved	Gradual change in orientation.
Undulating	Wavy surface.
Stepped	One or more well defined steps.
Irregular	Many sharp changes in orientation.
Roughness	
Polished	Shiny smooth surface.
Slickensided	Grooved or striated surface, usually polished.
Smooth	Smooth to touch. Few or no surface irregularities.
Rough	Many small surface irregularities (amplitude generally <1mm). Feels like fine to coarse sandpaper.
Very Rough	Many large surface irregularities, amplitude generally >1mm. Feels like very coarse sandpaper.
Coating	
Clean	No visible coating or discolouring.
Stained	No visible coating but surfaces are discoloured.
Veneer	A visible coating of soil or mineral, too thin to measure; may be patchy.
Coating	Visible coating =1mm thick. Thicker soil material described as seam.