NZ SKI

# REMARKABLES SKIFIELD DOOLANS EXPANSION PROJECT

Terrestrial Ecology Management Plan

21 May 2026

## TABLE OF CONTENTS

## LIST OF FIGURES



## LIST OF TABLES

## EXECUTIVE SUMMARY

This Terrestrial Ecology Management Plan (TEMP) has been prepared to guide the management of ecological values associated with the proposed Remarkables Ski Area Upgrade and Doolans Expansion project during the construction, operation and maintenance phases of the development. The TEMP establishes the framework, mitigation measures, monitoring requirements and adaptive management responses necessary to avoid, minimise, remedy and offset potential adverse ecological effects associated with the Project.

The Project is located within an alpine and subalpine environment containing indigenous vegetation communities, wetland habitats, avifauna habitat and indigenous invertebrate values. Potential ecological effects associated with the Project include vegetation clearance, habitat fragmentation, sedimentation and hydrological changes to wetlands, disturbance to fauna, spread/increase of pest species and operational disturbance associated with increased human activity.

The overarching objective of the TEMP is to ensure that ecological effects are managed in accordance with the relevant resource consent conditions, statutory requirements and industry best practice, while maintaining the ecological functioning and biodiversity values of the Project Area and surrounding environment.

Key management measures incorporated within the TEMP include:

- Protection of wetlands and ecologically sensitive areas through exclusion zones, erosion and sediment controls, hydrological management and staged construction methodologies;
- Avoidance and minimisation of indigenous vegetation clearance wherever practicable, including retention of high-value vegetation, clearly defined disturbance footprints and rehabilitation of temporarily disturbed areas;
- Implementation of vegetation translocation, revegetation and restoration programmes using indigenous, locally sourced species to support long-term ecological recovery and habitat connectivity;
- Management of avifauna effects through pre-construction surveys, seasonal restrictions where required, nest identification and protection procedures,

ecological supervision during high-risk activities and adaptive management responses where active nesting is identified;

- Measures to avoid or minimise impacts on indigenous invertebrates, including habitat salvage where appropriate, minimisation of disturbance to key habitat features and restoration of disturbed habitats;
- Biosecurity and pest management procedures to prevent the introduction and spread of pest plants and animals;
- Ongoing ecological monitoring, compliance reporting and adaptive management to assess the effectiveness of mitigation measures and inform corrective actions where required.

The TEMP adopts an adaptive management approach whereby mitigation and monitoring measures may be refined in response to monitoring outcomes, ecological observations and consultation with suitably qualified and experienced ecologists and regulatory authorities.

Implementation of the management measures outlined in this TEMP is intended to ensure that adverse ecological effects associated with the skifield expansion project are appropriately managed and that indigenous biodiversity values are maintained and enhanced over time to the extent practicable.

## REPORT INFORMATION

| | |
|---|---|
| **Report Status** | Final |
| **Author** | |
| **Review By** | |
| **Version Number** | 1.0 |
| **Version Date** | 19 May 2026 |

# GLOSSAY OF TERMS AND ACRONYMS

| Term / Acronym | Description |
|---|---|
| AEE | Assessment of Environmental Effects |
| asl | Above sea level |
| BACI | Before–After, Control–Impact |
| CMS | Conservation Management Strategy |
| Conservation Act | *Conservation Act 1987* |
| DEM | Digital Elevation/Terrain Model |
| DOC | Department of Conservation |
| EIA | Ecological Impact Assessment |
| FAC | Facultative Upland |
| FTAA or the Act | *Fast-track Approvals Act 2024* |
| GPS | Global Positioning System |
| ha | Hectare |
| LENZ | Land Environments of New Zealand |
| m | Metre |
| mm | Millimetre |
| NZTCS | New Zealand Threat Classification System |
| OBL/FACW | Obligate and Facultative Wetland |
| RMA | *Resource Management Act 1991* |
| Reserves Act | *Reserves Act 1977* |
| RF | Random Forest |
| 5MBCs | Five-Minute Bird Counts |
| SQE | Suitably Qualified Ecologist |
| Taonga species | Taonga species are native New Zealand plants, animals, and organisms with deep cultural, spiritual, and historical significance to Māori, acting as indicators of ecosystem health and sustaining communities through traditional use. |
| TEC | Threatened Environment Classification |

| Term / Acronym | Description |
|---|---|
| TEMP | Terrestrial Ecology Management Plan |
| The Project | The Remarkables Ski Area Upgrades and Doolans Expansion Project |
| Wildlife Act | *Wildlife Act 1953* |

# 1. INTRODUCTION

The Remarkables Ski Area is located approximately 24 km from central Queenstown and is a major destination for both domestic and international visitors. While the existing ski field is designed to support around 3,500 skiers per day, visitor demand has consistently exceeded this capacity in recent years.

The Remarkables Ski Area Upgrades and Doolans Expansion Project ("**the Project**") aims to develop a world-class, multi-valley ski area capable of meeting current and future tourism demands within the district and region. To achieve this, the Project proposes upgrades to existing infrastructure in the Remarkables Ski Area and an extension of the skiable terrain into the adjacent Doolans Basin, which will be accessed via a new gondola and associated ski trails.

The proposed Doolans expansion area lies predominantly within the Remarkables Conservation Area, with additional activities occurring in the Rastus Burn Recreation Area where the current ski field is located. As the expanded ski field spans both the Queenstown Lakes District and Central Otago District boundaries, it is subject to the planning frameworks of each district.

Delivery of the Project will require earthworks and vegetation clearance to establish new ski trails, access roads, and lift infrastructure. This Terrestrial Ecology Management Plan ("**TEMP**") outlines the measures that will be implemented to manage potential effects on indigenous vegetation, wetland habitats, avifauna and invertebrate communities within and immediately adjacent to the Project footprint.

Approval of the construction phase of the Project is being sought through the Fast Track Approvals Act 2024 ("**the Act** or **FTAA**"), which requires the consideration of potential effects on ecological values at an early stage of design and implementation. In support of this process, this TEMP has been prepared to identify, minimise, manage and mitigate potential impacts on indigenous vegetation communities, wetland habitats, invertebrate and avifauna species within the Project area.

The operational phase of the ski field includes the ongoing use, operation, maintenance, and management of ski field infrastructure and associated facilities following completion of construction activities. While the majority of ecological disturbance and associated effects are anticipated to occur during the construction phase, this TEMP also applies to operational and maintenance activities where ecological effects may occur. Operational activities may include the use of ski runs and

access tracks, operation and maintenance of lifts and utilities, snow management activities, vegetation management, maintenance of drainage and erosion controls, operation of visitor facilities, and routine inspection and repair works. These activities have the potential to result in ongoing ecological disturbance, including disturbance to indigenous vegetation, fauna habitat, and ecological values within and adjacent to the Project area. Accordingly, all operational and maintenance activities with the potential to result in ecological effects must be undertaken in accordance with the management measures, monitoring requirements, and mitigation procedures outlined in this TEMP to avoid, remedy, or mitigate adverse ecological effects where practicable.

## 1.1 PURPOSE

The purpose of this TEMP is to ensure that all terrestrial ecology management measures associated with both the construction, operation, and maintenance phases of the Project are planned, implemented, and managed appropriately in a way that:

- Avoids, remedies, or mitigates adverse effects on indigenous vegetation, alpine and subalpine wetlands, avifauna and invertebrate communities within the Project area;
- Maintains or enhances ecological values within and adjacent to the Project footprint, ensuring compliance with conditions of the FastTrack approvals and any related consent or concession requirements;
- Provides a consistent, transparent framework for ecological management, monitoring, and adaptive responses that supports timely delivery of works within the Fast Track process while safeguarding key ecological features; and
- Ensures integration of contractor, operator, iwi/hapū, and regulatory roles so that environmental responsibilities are clearly communicated, understood, and effectively implemented across all stages of the Project.

This TEMP will remain in effect for 35 years, which aligns with and covers the full life of the approval sought for the Remarkables Ski field. This ensures all management commitments are upheld for the duration of the authorised activity.

## 1.2 REMARKABLES ECOLOGICAL DISTRICT PRACTITIONER

**Table 1.1: Relevant experience of author**

| Name | Years' experience | Relevant experience |
|---|---|---|
| | 14 | Experienced environmental professional with over 14 years in the ecology field, with strong relevance to regulatory assessment and environmental management planning in New Zealand. My experience includes coordinating, assessing, and delivering numerous linear and non-linear infrastructure projects across small to large scales, supported by extensive experience undertaking and reviewing flora and fauna surveys, ecological impact assessments, and associated mitigation and management measures. I have prepared, reviewed, and assessed environmental approvals and management plans both as a practitioner and as a regulator in Australia, providing a strong foundation in statutory interpretation, effects-based assessment, risk-informed decision-making, and compliance. This background translates well to the authoring of management plans within a regulatory framework, underpinned by strong technical reporting, legislative understanding, and a consistent focus on achieving defensible and compliant environmental outcomes. |

## 1.3 DISCLAIMER

This TEMP has been prepared for the purposes of managing and mitigating terrestrial ecological effects associated with the Project approved under the Act. The TEMP is intended to be used solely for this purpose and for the specific works and activities described herein and should not be relied upon for any other purpose without prior written approval.

This plan has been prepared in accordance with current best-practice ecological assessment and management principles and is based on information available at the time of preparation, including site-specific ecological investigations, project design information, and relevant documentation provided by the proponent. While every effort has been made to ensure the accuracy and completeness of the information contained in this TEMP, changes to site conditions, project design, or legislative requirements may necessitate review and updating of the plan.

## 1.4 ASSUMPTIONS

It has been assumed, when developing this management plan, that the information provided by NZSki and third parties is complete and accurate.

## 1.5 FAST-TRACK APPROVALS ACT CONDITIONS

The conditions relevant to this TEMP are provided in Appendix 1. The specific condition relating to the development and implementation of the TEMP is as follows:

*The objective of the Terrestrial Ecology Management Plan is to identify how the potential adverse effects of the Remarkables Ski Area Upgrades and Doolan Expansion Project on the terrestrial ecology and biodiversity values (excluding lizards) within the project area and its surrounds will be appropriately managed.*

*To achieve this objective, the Terrestrial Ecology Management Plan must be in general accordance with the draft Terrestrial Ecology Management Plan lodged [with the application for resource consent] and must include:*

*(a) Details of the location, extent, and type of mitigation works, including lead-in times, implementation timeframes, and duration of maintenance;*

*(b) Details of what components of the Terrestrial Ecology Management Plan apply to construction related activities only, and those which are required to continue when construction has been completed;*

*(c) Staff training procedures and signage requirements;*

*(d) Monitoring, reporting, and review procedures, including triggers for remedial action if performance standards are not met; and*

*(e) Detailed contents and performance indicators in relation to the following:*

*(i) Vegetation management – to provide the approach for managing and monitoring flora values associated with vegetation clearance and / or earthworks, and guides impact management for vegetation clearance and or / earthworks, including methodology for translocating plant species (including the requirements set out in Condition ECO.10 of this resource consent);*

*(ii) Species identification – to document a methodology for the identification of the plant species set out in Condition ECO.10 of this resource consent;*

*(iii) Wetland management – to ensure the hydrological functioning of natural inland wetlands are maintained by providing the approach for managing and monitoring natural inland wetland values (including the requirements set out in Condition ECO.41 to ECO.49 of this resource consent);*

*(iv) Stream management – to set out how the connectivity of streams will be maintained, and to describe how disturbed stream banks will be remediated*

*following the completion of construction work, as required by Condition FEW.5 of this resource consent;*

*(v) Weed management– to ensure that no new exotic species are introduced to the wider landscape and existing exotic species are controlled to ensure no increase in current population / distribution by outlining the methods and protocols to be implemented to minimise risk of weeds (including the requirements set out in Condition ECO.17 of this resource consent);*

*(vi) Invertebrate management - which outlines the methods that will be used to minimise the effects of the project on invertebrates through provision of appropriate habitat; and*

*(vii) Avifauna management – which outlines how avifauna are to be managed, including in respect of the requirements of Conditions ECO.18 to ECO.22.*

*Advice Note: The management of lizards is subject to a separate management plan and suite of resource consent conditions.*

## 1.6 RESPONSIBILITIES

NZSki retains overall accountability for carrying out this TEMP. Responsibility for implementing the TEMP on site and ensuring adherence to its requirements sits with the Construction Site Manager (being the Contractor's on-site representative). The Site Manager will liaise with the Project Ecologist(s), or another appropriately qualified ecologist (referred to hereafter as the ecologist), who must be endorsed by the Project Ecologist and have a clear understanding of this TEMP. The Project Ecologist will possess suitable qualifications and experience relating to terrestrial ecology management. Additional requirements specific to individual management plans are outlined within those respective plans.

The roles and responsibilities of all parties involved in delivering the TEMP are outlined, but not limited to, those listed in Table 1.1 with relevant contact information provided in Table 1.2.

**Table 1.1: Responsibilities of those implementing the TEMP**

| Title | Responsibility |
|---|---|
| Project owner (NZSki) | > Overall manager of the Project, including the implementation of the TEMP.<br>> Ensuring suitably qualified personnel are engaged. |
| Project manager | > Co-ordinate communication between the contractor and Project Ecologist. |

| Title | Responsibility |
|---|---|
| | > Check-in with contractor and Project Ecologist to ensure compliance with TEMP. |
| Contractor / Construction Site Manager | > Delivery of, and compliance with the TEMP. |
| Project ecologist | > Responsible for providing specialist ecological advice, undertaking pre-construction surveys, supervising or monitoring works where required, confirming compliance with ecological requirements, and recommending corrective actions if necessary. |
| Contractors and Site Personnel | > Responsible for complying with the requirements of this TEMP and any site-specific ecological protection measures relevant to Project activities. |

## 1.7 OBJECTIVES

The vegetation related objectives for the Project are as follows:

- Minimise disturbance and vegetation loss by defining and enforcing clear work boundaries, access routes, and no-go areas;
- Retain and protect high value or sensitive indigenous vegetation wherever practicable during construction and operations;
- Implement best practice vegetation salvage, handling, and reinstatement to restore alpine and subalpine plant communities as close as practicable to re-works composition, structure, and density; and
- Prevent and manage weed incursions, ensuring that construction and operational activities do not introduce or spread invasive species.

The wetland related objectives for the Project are as follows:

- Avoid and minimise direct and indirect effects on wetlands, including hydrological alteration, sedimentation, compaction, shading, and edge effects;
- Maintain wetland hydrological regimes, ensuring natural water flows and water quality are sustained where practicable;
- Monitor wetland condition over time to detect and respond to any adverse trends attributable to Project activities; and

- Implement corrective or restorative actions promptly where monitoring identifies unexpected effects or risk of degradation.

The invertebrate related objectives for the Project are as follows:

- Protect indigenous invertebrate habitats, especially those associated with cushionfields, wetlands, seepages, rock outcrops, fellfields, and tussock lands;
- Avoid, minimise, or manage disturbance to invertebrate populations during vegetation clearance, ground disturbance, and infrastructure installation;
- Implement monitoring protocols for key indicator or threatened invertebrate species to evaluate potential effects and track long-term ecological outcomes; and
- Apply adaptive management measures where monitoring identifies adverse effects on invertebrate values or ecosystem function.

The avifauna related objectives for the Project are as follows:

- Avoid, remedy, or mitigate adverse effects on Eastern Falcon, NZ Pipit and Kea arising from construction, operation, and maintenance activities associated with the Project;
- Protect indigenous avifauna species and respective habitats, with particular consideration given to threatened, at risk, or regionally significant species where present or potentially present;
- Minimise disturbance to Eastern Falcon, NZ Pipit and Kea during sensitive periods, including breeding, nesting, and fledging seasons, through appropriate timing of works and implementation of avoidance measures;
- Prevent injury, mortality, or displacement of Eastern Falcon, NZ Pipit and Kea during activities associated with the Project by implementing effective pre-works surveys, active monitoring, and responsive management actions where required;
- Maintain the ecological function and connectivity of Eastern Falcon, NZ Pipit and Kea habitat within and adjacent to the project area to the extent practicable;
- Ensure all Eastern Falcon, NZ Pipit and Kea-related management and mitigation measures are informed by suitability qualified ecological advice and current best-practice methods;

- Promote compliance with relevant statutory obligations, approval conditions under the Fast Track Approvals Act, and any applicable wildlife protection legislation; and
- Establish clear roles, responsibilities, and procedures for avifauna management, monitoring, incident response, and reporting throughout the life of the Project.

The integrated management and adaptive management objectives are as follows:

- Ensure construction and operational practices follow best practice alpine ecological management, including erosion and sediment control, vegetation reinstatement, and habitat protection;
- Provide clear procedures, roles, and responsibilities so ecological safeguards are embedded into all field activities;
- Enable timely decision making through an adaptive management framework that identifies triggers for action and defines appropriate responses; and
- Support compliance reporting and transparency, ensuring the outcomes of monitoring, mitigation, and adaptive actions are documented and available to regulators, iwi/hapū partners, and stakeholders.

## 1.8 PROJECT SUMMARY

The Project is located within the Rastus Burn and Doolans Basins, within the wider Remarkables Ranges. The Project site broadly falls within three distinct areas:

- The existing Remarkables Ski Area and lower Remarkables: Comprising of an area of approximately 449ha, this area includes the existing ski area in the Rastus Burn and the associated Remarkable Ski Area Access Road and car parks;
- The Doolans Basin Ski Expansion Area: Comprising of an area of approximately 251ha, this area is a new expansion of the existing ski field into the adjacent Doolans Basin; and
- Lower Remarkables Transit Hub: this area includes the existing lower car park adjacent to SH6 (Car Park A), at the bottom of the Remarkables Ski Field Access Road, and the proposed new area of car parking located approximately 500m east of Car Park A and within the Boneyard storage area.

### 1.8.1 Existing Remarkables Ski Area and Lower Remarkables Upgrades

The key Project works proposed within the existing Remarkables Ski Area and the Lower Remarkables are summarised below and include:

- Upgrades to existing infrastructure services and associated structures including upgrades to mains power supply, infield power distribution, water, wastewater, stormwater, communications, and snowmaking;
- Upgrades to existing Lower Remarkables car park area and provision of additional bus / shuttle and ride sharing facilities;
- Expansion of the existing Rastus Burn Base Building and reconfiguration of the arrival surrounds;
- Construction of the new Doolans Gondola providing access into the Doolans Basin, including construction of the new Base Station adjacent to the Rastus Burn Base Building and construction of gondola towers, cables and associated infrastructure up to the new Helicopter Ridge Midstation;
- Upgrades to existing and establishment of new access roads and ski trails to provide vehicular access and ski return trails to and from the Doolans Basin; and
- Installation of new operational controls to maintain the health and safety of ski field users. Such controls include wayfinding signage, barriers/gates, permanent safety fencing/netting, snow fences, avalanche control, and boundary markers.

Refer to the full Project description contained in the substantive application for further details and plans relating to the above.

### 1.8.2 Establishment of the Doolans Basin Ski Expansion Area

The key Project works proposed within the Doolans Basin are summarised below and include:

- Establishment and use of the new Doolans Gondola from the Rastus Burn Base Building into the Doolans Basin. The new gondola includes the new Base Station directly adjacent to the existing Rastus Burn Base Building, the new Helicopter Ridge Midstation (with a patrol hut), and the new Doolans Return Station directly adjacent (and connected) to the proposed Doolans Cabin Building. It also includes construction of gondola towers, cables and associated infrastructure;

- Establishment and use of a new multi-purpose Doolans Cabin Building, designed to accommodate gondola cabin parking, integrated cabin maintenance, storage, bathroom facilities, café facilities and emergency shelter space;
- Establishment and use of ski trails and access roads between the gondola midstation, the Doolans Cabin Building and associated infrastructure. Where practicable, ski trails and access roads will be co-located to minimise the level of ground disturbance;
- Construction of a learners snowsports area adjacent to the Doolans Cabin Building with a covered passenger conveyor lift, supported by snowmaking infrastructure;
- Establishment of supporting services and facilities in the Doolans Basin, including power, water, wastewater, stormwater, communications and snowmaking facilities; and
- Installation of new operational controls to maintain the health and safety of ski field users. Such controls include wayfinding signage, barriers/gates, permanent safety fencing/netting, snow fences, avalanche control, boundary markers.

Construction is planned to occur over four consecutive summers, beginning in the summer of 2027. Refer to the full Project description contained in the substantive application for further details and plans relating to the above.

### 1.8.3 Lower Remarkables Transit Hub

The proposed works within this area include:

- The proposed upgrades to the existing car park at the bottom of the Remarkables Ski Field Access Road (Car Park A);
- Construction of a new car parking area (Car Park B) approximately 500m east of the existing Car Park A; and
- Conversion of the existing temporary storage yard into a new car park (the Boneyard Car Park).

# 2. ENVIRONMENTAL SETTING

The following provides a brief overview of the environmental setting of the Project area and is summarised from the Ecological Impact Assessment prepared by e3 Scientific.

## 2.1 2.1 STATUTORY CONTEXT AND LAND OWNERSHIP

The Project occurs on public conservation land administered by the Department of Conservation ("**DOC**"), including areas classified as Recreation Reserve and Conservation Area, with immediately surrounding lands also including areas held as Stewardship Land. Activities on these land categories are governed by the Conservation Act 1987 ("**Conservation Act**") and the Reserves Act 1977 ("**Reserves Act**"). These approvals have been sought under the FTAA and other legislation relevant to this management plan includes the Resource Management Act 1991 ("**RMA**") and the Wildlife Act 1953 ("**Wildlife Act**").

## 2.2 LENZ/TEC CONTEXT

The ski field intersects five Land Environments of New Zealand (LENZ) L4 units with very low national proportional disturbance from the proposal footprint (e.g., Q1.2a ~192 ha within the expansion area mapping extent equates to ~0.09% of that LENZ unit nationally; note this is mapping extent, not direct disturbance). Threatened Environment Classification (TEC) classes within the disturbance footprint are Category 6 (>30% indigenous cover, >20% protected), indicating nationally higher remaining indigenous cover and stronger protection levels than lowland settings.

## 2.3 VEGETATION AND WETLANDS

The landscape supports 12 mapped vegetation communities characteristic of relatively unmodified alpine/subalpine environments. Dominant types include snow tussock grassland (AL1), north-facing tussock (AL1), Dracophyllum scrub (VS7), cushionfield (AH2) and high-alpine cushionfield (AH2), with specialist wetland systems: cushion bogs (WL9), riparian wetlands (WL9) and seepages (WL17). Rockfield (AH2.2), rocky outcrops (AH2) and snowbank (AH2) communities contribute habitat heterogeneity, while disturbed vegetation is largely confined to existing infrastructure corridors in Rastus Burn. Indigenous dominance exceeds 99% cover in key alpine communities, with exotics largely constrained to disturbed areas. Vegetation communities within and adjacent to the Project area are shown in **Error! Reference source not found.**.

## 2.4 THREATENED FLORA AND BIODIVERSITY VALUES

The combined historical and recent surveys record 247 indigenous plant species in upper Rastus and Doolans, with 34 species listed At Risk nationally (NZTCS), plus one Threatened – Nationally Endangered, one Data Deficient, one Taxonomically Unresolved, and 37 regionally At Risk/Threatened/Data Deficient (Otago). Most communities support one or more At Risk/Threatened taxa, notably cushionfield, wetlands, rocky outcrops and snowbanks. Invertebrate knowledge has historically been limited; recent targeted sampling indicates diverse alpine assemblages linked to microhabitats (cushions, moss/turf, rock crevices, saturated margins) and host-plant associations.

A full list of Threatened and At Risk flora species relevant to the Project is provided in Appendix 2.

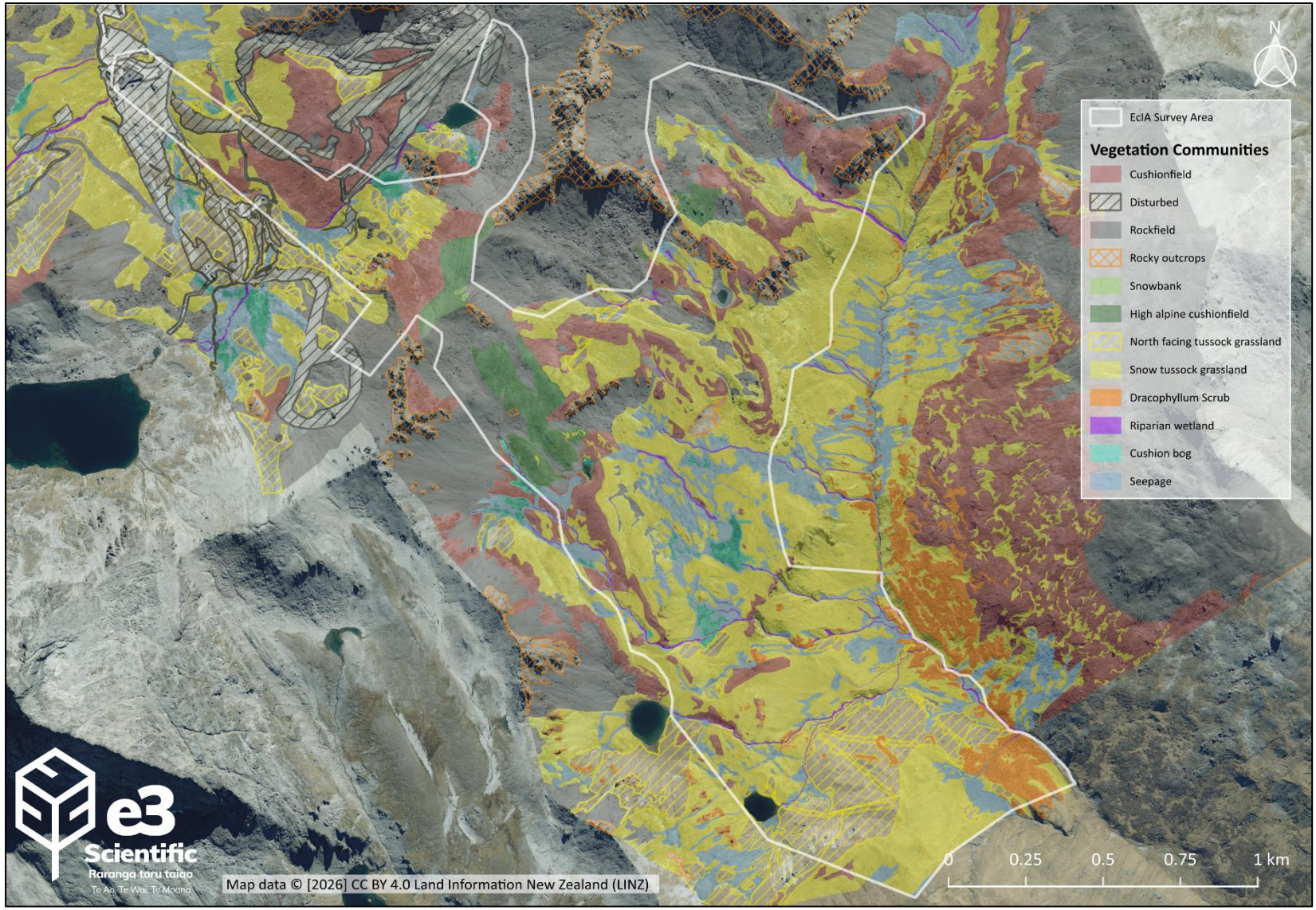



**Figure 1 Vegetation communities within and adjacent to the study area.**

Eight taonga plant species have been identified within proposed disturbance areas and/or the wider study area. See Table 2.1 for a list of those species.

**Table 2.1 Taonga Species**

| Species | Community association |
|---|---|
| Taramea/*Aciphylla aurea* | Snow tussock grassland, north facing tussock grassland, and *Dracophyllum* scrub. |
| Taramea/ Taramea/*Aciphylla kirkii* | Snow tussock grassland, north facing tussock grassland, cushionfield, rockfield, rocky outcrop, riparian wetland, and seepage. |
| Taramea/*Aciphylla lecomtei* | Snow tussock grassland, cushionfield, and rocky outcrop. |
| Taramea/*Aciphylla "Lomond"* | Snow tussock grassland, north facing tussock grassland, and *Dracophyllum* scrub. |
| Taramea/*Aciphylla simplex* | Cushionfield, high alpine cushionfield, rockfield and rocky outcrop. |
| Wīwī/*Juncus pusillus* | Cushion bog, seepage, and riparian wetland. |
| Wīwī/*Juncus novae-zelandiae* | Cushion bog, and seepage. |
| Koromiko/kōkōmuka/*Veronica salicifolia* | Riparian wetland. |

## 2.5 AVIFAUNA

Six indigenous avifauna species are known from the Project area: eastern falcon, Australasian harrier, paradise shelduck, kea, southern black-backed gull and New Zealand pipit. All except kea were observed during surveys in the Doolans Creek area.

A total of 108 five-minute bird counts were completed, with birds recorded at 30 sites and no avifauna detected at 42 locations within observable distance. Overall, five indigenous and three exotic species were recorded during 5MBCs, with walkthrough surveys identifying birds at an additional eight locations. Duplicate records were avoided once species were already documented nearby.

New Zealand pipit was the most abundant species, recorded 23 times across a range of habitats. Paradise shelduck and southern black-backed gull occurred at moderate abundance and were repeatedly observed in the same locations.

Eastern Falcons were observed repeatedly patrolling large areas of the Rastus Burn and Doolans Creek catchments. Based on these observations, up to three territorial pairs were inferred, with ranges spanning the Upper Rastus Burn (including alpine basins above ~1600 m asl), Lower Rastus Burn (below the Remarkables base area to ~1300 m asl), and the headwaters of the Doolans Creek Right Branch. Some sightings may represent the same individual or pair given the species' large home ranges.

# 3. EFFECTS MANAGEMENT HEIRACHY

The Project applies a standard hierarchy to manage ecological effects:

- Avoidance – Micro-site and design to avoid sensitive features (e.g., wetlands, cushionfields, snowbanks, intact tussock communities); constrain footprints; avoid high-value microhabitats and seepage lines;
- Minimisation – Where avoidance is not practicable: limit work areas; use low-impact methods and low-ground-pressure plant; stage works; implement erosion and sediment controls; fence no-go zones; minimise access to sensitive areas and timing works during warmer months;
- Remediation / Restoration – Salvage and reinstate vegetation and soils; restore microtopography; re-establish hydrological pathways at wetlands/seepages; stabilise exposed soils; control weeds and pests to promote recovery;
- Offsetting / Compensation – If significant residual effects remain after the above steps, implement additional measures (e.g., habitat enhancement, pest control, restoration elsewhere within the same ecological context), consistent with applicable policy and approval conditions. In the context of the Project, NZSki is proposing to compensate for residual adverse effects by designing and implementing a Biodiversity Compensation Project (not discussed in this TEMP) and by funding the creation of a board walk to Lake Alta; and
- Adaptive Management – Monitor performance against criteria and trigger levels; if recovery lags or thresholds are exceeded, implement targeted corrective actions (e.g., supplementary planting, hydrological reinstatement, enhanced sediment control, adjusted timing), and review methods until outcomes meet required standards.

# 4. PROCEDURES

## 4.1 STAFF TRAINING PROCEDURES

All personnel working within the Project area must be appropriately trained in ecological management measures prior to undertaking any works.

A mandatory, site-specific ecological induction will be provided to all staff, contractors, and subcontractors before they commence work.

The induction will cover:

- Indigenous terrestrial ecological values present within the alpine and subalpine environments;
- Identification of sensitive habitats, species of interest (including kea), and ecological exclusion/no-go areas;
- Applicable consent conditions and obligations under this Terrestrial Ecology Management Plan;
- Measures to avoid, remedy, or mitigate adverse ecological effects; and
- Procedures for managing wildlife encounters, including stop-work and notification protocols.

Targeted ecological training may be provided by a suitably qualified and experienced ecologist ("**SQE**") where works occur in higher-risk areas or where specialist input is required.

Ongoing toolbox talks will be used to reinforce ecological requirements, particularly:

- Prior to vegetation clearance or earthworks;
- When work methods or locations change; and
- Following any ecological incident or near miss.

*Responsibility*

The Site Manager is responsible for ensuring all personnel complete the required training and comply with ecological procedures.

The Project Ecologist (SQE) is responsible for delivering specialist ecological training and providing advice as required.

All site personnel are responsible for adhering to the training and immediately reporting any ecological issues.

## 4.2 SIGNAGE REQUIREMENTS

Ecological signage is required by consent to clearly identify sensitive areas and to support compliance with ecological protection measures.

Signage will be installed to identify:

- Ecological exclusion or no-go areas;
- Sensitive habitats and areas of ecological risk; and
- Wildlife awareness messages (including kea).

Signage will be installed prior to works commencing in each relevant area and will be maintained for the duration of construction.

Signage will be durable, clearly visible, and appropriate for alpine conditions.

*Responsibility*

The Site Manager is responsible for installation and maintenance of signage.

The Project Ecologist (SQE) will verify signage locations and adequacy where required.

## 4.3 MONITORING, REPORTING AND REVIEW PROCEDURES

Monitoring, reporting, and review are required to confirm that the objectives of this TEMP are being met and that ecological effects are appropriately managed during construction and operation.

*Monitoring*

Pre-construction monitoring will confirm:

- Completion of required staff training;
- Correct establishment of ecological exclusion zones and signage; and
- Compliance with pre-construction consent requirements.

During construction, monitoring will be undertaken by a suitably qualified ecologist or delegated, trained personnel and may include:

- Inspections of sensitive habitats and exclusion zones;
- Oversight of vegetation clearance and earthworks in ecologically sensitive areas; and
- Recording interactions with indigenous fauna (including kea).

Post-construction and operational monitoring, where required by consent / concession, will assess:

- Rehabilitation or reinstatement success; and
- Any ongoing or residual ecological effects.

*Responsibility*

The Project Ecologist (SQE) is responsible for ecological monitoring oversight.

The Site Manager is responsible for facilitating access and ensuring monitoring requirements are implemented.

*Reporting*

An Ecological Monitoring and Incident Register will be maintained, recording:

- Monitoring results;
- Ecological observations and incidents; and
- Corrective actions taken.

Any breach of consent / concession conditions or ecological incident will be:

- Investigated promptly; and
- Reported to the Consent Authority and DOC in accordance with consent requirements.

Formal monitoring reports will be provided to the Consent Authority and DOC where required by the applicable approval conditions.

*Responsibility*

The Project Ecologist (SQE) is responsible for preparing ecological monitoring reports.

The Consent Holder is responsible for submission of reports to the Consent Authority and / or DOC.

### 4.4 REVIEW AND ADAPTIVE MANAGEMENT

This Plan will be reviewed:

- If monitoring identifies unanticipated adverse effects;
- Following any significant ecological incident; and
- Where construction methods or the project footprint change.

Adaptive management measures will be implemented to address any identified issues.

*Responsibility*

The Project Ecologist will recommend amendments where required.

The Consent Holder is responsible for ensuring any material changes are approved by the Consent Authority in accordance with consent conditions.

## 5. VEGETATION MANAGEMENT

Vegetation management for the Project is informed by the ecological values and species identified in the flora schedules and the mitigation framework outlined in Table 6.1.

Key management priorities are to:

- Avoid and minimise disturbance to indigenous vegetation through footprint delineation, access control, and micro-siting;
- Protect high-value vegetation and species, including translocation of At Risk and Threatened taxa in accordance with the DOC–NZSki Alpine Rehabilitation Protocol;
- Maintain ecological function, including soil stability, hydrology, and vegetation structure;
- Reinstate vegetation using salvaged material and eco-sourced species; and
- Implement monitoring and adaptive management to ensure performance criteria are met.

Management measures, monitoring, and adaptive responses are detailed in Table 6.1.

## 5.1 SPECIES IDENTIFICATION

Species identification has been undertaken to characterise the ecological values of the Project Area and inform management responses.

The flora schedules (see Appendix 2) identify a diverse assemblage of indigenous vascular plant species, including:

- Multiple species classified as At Risk – Naturally Uncommon and Declining, reflecting restricted distributions and sensitivity to disturbance;
- Several Threatened species, requiring targeted management and translocation; and
- A number of Data Deficient and taxonomically unresolved taxa, which require a precautionary management approach.

Identification methodology includes:

- Field surveys by suitably qualified ecologists;
- Use of standard taxonomic keys and reference collections;
- Targeted surveys for Threatened and At Risk species prior to works; and
- Mapping and tagging of individuals and populations requiring management (including translocation).

This approach ensures that all species of conservation concern are identified and managed in accordance with Table 6.1 and associated species schedules.

## 5.2 WETLAND MANAGEMENT

Wetland management measures are set out in Table 6.2.

The Project Area contains multiple wetland types (e.g. cushion bogs, seepages, riparian wetlands and tarn margins) that support specialised vegetation and invertebrate assemblages.

Management is focused on:

- Maintaining hydrological integrity, including natural flow paths and hydroperiod (including in the design of any wetland crossings);
- Avoiding sedimentation and compaction, particularly within sensitive bog and seepage systems;

- Protecting wetland vegetation communities, including Threatened and At Risk flora; and
- Establishing buffers and exclusion zones around wetland features.

Monitoring and adaptive management measures ensure that:

- Sediment deposition remains within acceptable limits;
- Hydrology and vegetation condition are maintained; and
- Any adverse effects are rapidly identified and remedied.

Detailed mitigation, monitoring and triggers are provided in Table 6.2.

## 5.3 STREAM MANAGEMENT

Stream management focuses on maintaining hydrological connectivity and ecological function of all stream systems within the Project Area.

Key measures include:

- Designing all stream crossings to maintain natural flow regimes and connectivity;
- Avoiding diversion or interruption of flow paths;
- Implementing sediment and erosion controls during construction; and
- Stabilising and rehabilitating disturbed stream banks using natural materials and native vegetation.

Monitoring will assess:

- Sediment deposition;
- Bank stability; and
- Flow continuity.

Where performance criteria are not met, adaptive measures (e.g. bank reinforcement, additional sediment controls, or redesign of crossings) will be implemented, consistent with the framework outlined in Table 6.2.

## 5.4 WEED MANAGEMENT

Weed management is critical given the sensitivity of alpine vegetation communities to invasion.

The flora schedules indicate that many indigenous species are At Risk or Threatened, meaning weed establishment represents a significant ecological risk.

The Project will implement:

- Strict hygiene protocols, including vehicle and equipment washdowns prior to site entry;
- Establishment and use of a quarantine area near the Remarkables Ski Field Base to enable checks and cleaning of machinery and equipment prior to entering the Project area;
- No soil from outside the Project area will be brought onto the site for use in construction activities;
- Identification and control of existing weed sources;
- Ongoing surveillance and rapid response to new infestations; and
- Restriction of movement through sensitive vegetation areas.

Performance targets include:

- No new weed incursions attributable to Project activities; and
- No increase in weed extent or density.

Monitoring and adaptive responses (including intensified control and expanded surveillance) are set out in Table 6.1.

## 5.5 INVERTEBRATE MANAGEMENT

The Project Area supports diverse alpine and wetland invertebrate assemblages, including species associated with cushionfield, rockfield, and wetland habitats.

The invertebrate schedules identify:

- Species with Threatened and At Risk conservation status, including taxa sensitive to microclimatic and habitat changes; and
- Data Deficient and poorly understood species, requiring precautionary management.

Management measures focus on:

- Retention and reinstatement of microhabitats, including rock refugia, turf, and moss mats;
- Minimisation of disturbance and compaction;
- Maintenance of moisture regimes and microclimate; and
- Targeted surveys and monitoring using BACI methodology.

Performance criteria aim to:

- Avoid significant declines in species richness or abundance; and
- Maintain key habitat features.

Mitigation, monitoring and adaptive management measures are detailed in Table 6.3.

## 5.6 AVIFAUNA MANAGEMENT

Avifauna management addresses the potential effects of the Project on indigenous bird species, including Threatened and At Risk species such as kārearea (eastern falcon), New Zealand Pipit and kea.

The avifauna schedules indicate:

- Presence of species dependent on alpine grassland, wetland, and rocky habitats; and
- Species sensitive to disturbance, habitat loss, and human interaction.

Management measures include:

- Avoidance and minimisation of habitat loss, particularly in key foraging and breeding areas;
- Seasonal restrictions and buffers around nesting sites;
- Infrastructure design to reduce collision risk;
- Strict waste and food management to prevent wildlife habituation; and
- Traffic and activity controls to minimise disturbance.

Monitoring focuses on:

- Species presence and abundance;
- Breeding success; and

- Behavioural responses.

Adaptive management will be implemented where triggers are exceeded, including modification of activities, increased buffers, and enhanced habitat restoration.

Detailed measures, monitoring and triggers are provided in Table 6.4.

# 6. MITIGATION, MANAGEMENT AND ADAPTIVE MANAGEMENT MEASURES

The following mitigation, management, and adaptive management measures have been developed to ensure that all Project activities avoid, remedy, or mitigate adverse effects on the ecological values present within the Project area. These measures apply to indigenous vegetation, wetlands and waterways, avifauna and invertebrate communities, as well as to public access and compliance requirements associated with operating on public conservation land. Together, they provide a structured framework that identifies potential effects, sets out clear management responses, establishes robust monitoring to detect changes, and outlines adaptive actions where performance criteria are not met.

A gantt chart is shown in Figure 6 outlining the timing of monitoring events for this TEMP. Pre-works are assumed to begin in October 2026, with construction beginning the following month in November 2026. The gantt chart also only shows the first seven years of monitoring events, however, monitoring will continue over the life of the approval (i.e. 35 years). Monitoring events between Years 8 and 35 will repeat the pattern of Years 6 and 7, with all matters to be monitored in the final year of the approval.

## 6.1 MITIGATIONS, MANAGEMENT AND ADAPTIVE MANAGEMENT MEASURES FOR INDIGENOUS VEGETATION

Table 6.1 outlines the proposed mitigation, management, monitoring, and adaptive management measures for indigenous vegetation communities that may be affected by the Project. These measures ensure that construction and operational activities avoid, remedy, or mitigate adverse effects on vegetation and associated ecological values, and that any unexpected effects are identified early and addressed promptly.

In addition, Condition ECO.6 allows for earthworks / vegetation clearance to occur outside of the disturbance footprint shown in Figure 2, only if this would:

- Result in a reduced disturbance footprint; or
- Result in a reduction in ecological effects.

Any changes to the disturbance footprint must be surveyed by an ecologist and the rationale for these changes included within a written report.

## 6.2 MITIGATIONS, MANAGEMENT AND ADAPTIVE MANAGEMENT MEASURES FOR WETLANDS

Table 6.2 sets out the mitigation, management, monitoring, and adaptive management measures for wetlands, seepages, riparian areas, and tarn margins. The framework is designed to maintain natural hydrological patterns, protect wetland vegetation, and prevent sedimentation or disturbance that may compromise ecosystem functions.

## 6.3 MITIGATIONS, MANAGEMENT AND ADAPTIVE MANAGEMENT MEASURES FOR INVERTEBRATES

Table 6.3 presents the mitigation, management, monitoring, and adaptive management measures for alpine and wetland invertebrate communities. Measures focus on safeguarding habitat features, detecting changes in species richness or abundance, and responding effectively where monitoring indicates ecological stress or decline.

## 6.4 MITIGATIONS, MANAGEMENT AND ADAPTIVE MANAGEMENT FOR AVIFAUNA

Table 6.4 outlines the proposed mitigation, management, monitoring, and adaptive management measures for indigenous avifauna potentially affected by the Project. These measures are intended to ensure that adverse effects on avifauna and respective habitats are avoided, remedied, or mitigated such that overall effects remain no more than minor. The framework incorporates ongoing monitoring, performance criteria, and response actions to enable early detection and timely management of any unanticipated effects.

**Table 6.1 Mitigation, Management, Performance Criteria, Adaptive Management Actions for Indigenous Vegetation**

| Receptor / Vegetation Type(s) | Key Risks / Effects | Mitigation & Management Measures (Construction & Operation) | Monitoring (Indicator • Method • Frequency) | Performance Criteria / Triggers | Adaptive Management Actions | Statutory / DOC Linkage |
|---|---|---|---|---|---|---|
| General Standards (All Alpine Vegetation) | Sediment generation, soil movement/removal, or deposition affecting alpine vegetation | Location/Extent: Applies to all areas within the mapped Project disturbance footprint and adjacent receiving environments (including downslope vegetation and drainage pathways).<br><br>Pre-works (4–6 weeks prior): Establish sediment and erosion control measures; confirm drainage and flow-path stability.<br><br>During works (daily): Enforce access routes; maintain sediment controls; inspect erosion controls. Post-works (within 48 hrs): Stabilise exposed soils; repair sediment controls; reinstate vegetation where practicable.<br><br>Operation (ongoing): Integrate minimisation of sediment movement into grooming and snowmaking procedures.<br><br>Duration: Measures maintained until performance criteria are achieved and for the duration of the consent. | Indicators: Sediment control integrity; absence of sediment plumes; compliance with access routes.<br><br>Method: Site audits; photopoints.<br><br>Frequency: Pre-works; weekly during works; post-event; annual review. | No uncontrolled sediment release; sediment controls functioning as designed. | Suspend works; repair/upgrade controls; retrain crews. | Conservation Act s17U; |
| General Standards (All Alpine Vegetation) | Introduction or spread of weeds affecting native alpine plant communities | Location/Extent: Applies across all construction areas, access routes, machinery entry points, and adjacent vegetation.<br><br>Pre-works (4–6 weeks prior): Implement hygiene procedures (vehicle washdowns, inspections); identify adjacent weed sources.<br><br>During works (daily): Maintain hygiene; restrict all movement (vehicular and pedestrian); treat new weeds.<br><br>Post-works (within 48 hrs): Rapid response weed treatment. Operation (ongoing): Integrate weed surveillance into operations.<br><br>Duration: Measures maintained for duration of construction and ongoing operation until no Project-attributable weed spread is detected. | Indicators: Hygiene compliance; new weed occurrences.<br><br>Method: Inspections; photopoints<br><br>Frequency: Pre-works; weekly; post-event; annual survey. | No new weed incursions attributable to Project. | Stop works; treat weeds; enhance hygiene; expand surveillance. | Conservation Act s17U; |
| General Standards (All Alpine Vegetation) | Physical damage to alpine vegetation from machinery, personnel, or materials | Location/Extent: Applies to all retained vegetation within and immediately adjacent to the disturbance footprint (including | Indicators: Buffer integrity; disturbance records. | No vegetation damage outside approved footprint. | Cease works; retrain crews; reinforce buffers. | Conservation Act s17U; |

| Receptor / Vegetation Type(s) | Key Risks / Effects | Mitigation & Management Measures (Construction & Operation) | Monitoring (Indicator • Method • Frequency) | Performance Criteria / Triggers | Adaptive Management Actions | Statutory / DOC Linkage |
|---|---|---|---|---|---|---|
| | | designated exclusion zones, no-go areas and buffers).<br><br>Pre-works (4–6 weeks prior): Install protection fencing; mark exclusion zones and no-go areas; confirm access routes.<br><br>During works (daily): Enforce access; monitor compliance.<br><br>Post-works (within 48 hrs): Repair damage; reinstate vegetation.<br><br>Operation (ongoing): Maintain protection measures where required.<br><br>Duration: Maintained until rehabilitation success criteria are achieved. | Method: Audits; photopoints.<br><br>Frequency: Pre-works; weekly; post-incident; annual. | | | |
| General Standards – Footprint delineation & translocation | Loss of indigenous vegetation | Location/Extent: Applies to all mapped disturbance areas and identified translocation zones (as per project plans and SQE mapping). Disturbance footprint pegged and flagged by SQE prior to works.<br><br>Pre-works: Survey, map, tag vegetation for translocation.<br><br>During works: Salvage and handle vegetation per protocol (see Appendix 3).<br><br>Post-works: Rehabilitate all exposed areas through the reinstatement of pre-disturbed vegetation community and stabilisation of landform through erosion and sediment control measures.<br><br>Duration: Translocated vegetation monitored and maintained for the life of the consent or until performance criteria are met. | Indicators: Survival and vigour; compliance with handling.<br><br>Methods: Tagged census; photopoints.<br><br>Frequency: Annual Years 1–3; biennial Years 5 & 7. | 100% translocation; no sustained decline in survival/vigour. | Supplementary planting; refine methods; extend exclusion zones. | DOC–NZSki Protocol; Conservation Act s17U |
| Plant Translocations – Status-based commitments | Loss of At Risk / Threatened and taonga plant species | Location/Extent: Applies to all locations where listed species occur within the disturbance footprint and approved recipient sites (Figure 2).<br><br>Pre-works: Translocate all required individuals/clusters (as detailed in Appendix 2) to appropriate sites that have been delineated prior to the translocations occurring. See Appendix 3 for translocation protocol. | Indicators: Counts; survival; vigour.<br><br>Methods: GPS records; photopoints.<br><br>Frequency: Annual Years 1–3; biennial Years 5 & 7. | All required individuals translocated prior to works. | Supplementary translocations; improve sites. | DOC–NZSki Protocol (Appendix 3); Conservation Act s17U |

| Receptor / Vegetation Type(s) | Key Risks / Effects | Mitigation & Management Measures (Construction & Operation) | Monitoring (Indicator • Method • Frequency) | Performance Criteria / Triggers | Adaptive Management Actions | Statutory / DOC Linkage |
|---|---|---|---|---|---|---|
| | | Post-works: Monitor and maintain recipient sites.<br><br>Duration: Maintenance and monitoring for life of consent or until criteria achieved. | | | | |
| Snow Tussock Grassland (AL1) | Loss of tussock cover; erosion; weed ingress | Location/Extent: Applies to all tussock grassland within disturbance footprint and immediately adjacent affected areas (Figure 2). Measures include turf salvage, rapid stabilisation, hygiene controls, and operational restrictions.<br><br>Implementation: Pre, during, and post-works as specified above.<br><br>Duration: Maintained until vegetation cover and stability criteria are achieved and sustained. | Indicators: Survival; exotic cover; erosion.<br><br>Methods: Plots; photopoints.<br><br>Frequency: Baseline; 3, 6, 12 months; annual. | ≥80% survival; ≤10% exotic increase; erosion stabilised. | Supplementary planting; stabilisation; adjust operations. | Conservation Act s17U |
| Cushionfield (AH2) | Damage to cushions; microhabitat loss | Location/Extent: Applies to all mapped cushionfield areas and exclusion buffers (see Figure 2). Measures include micro-siting, hand tools, salvage and rapid reinstatement.<br><br>Implementation: Works restricted to appropriate seasonal windows.<br><br>Duration: Maintained and monitored until survival and integrity criteria achieved. | Indicators: Cushion survival; fragmentation.<br><br>Methods: Plots; photopoints.<br><br>Frequency: Baseline; 6, 12 months; annual. | ≥70% survival; no fragmentation >0.5 $m^2$. | Re-plugging; restoration; extend exclusions. | Conservation Act s17U |
| Rockfield / Rocky Outcrop | Loss of refugia; lichen damage | Location/Extent: Applies to all rockfield and outcrop habitats within disturbance footprint. (Figure 2). Measures include retention/relocation of refugia and minimisation of disturbance.<br><br>Duration: Maintained for life of consent. | Indicators: Refugia extent; lichen cover.<br><br>Methods: Photopoints.<br><br>Frequency: Annual. | No net loss of refugia or lichen. | Replace refugia; restore microhabitats. | Conservation Act s17U |

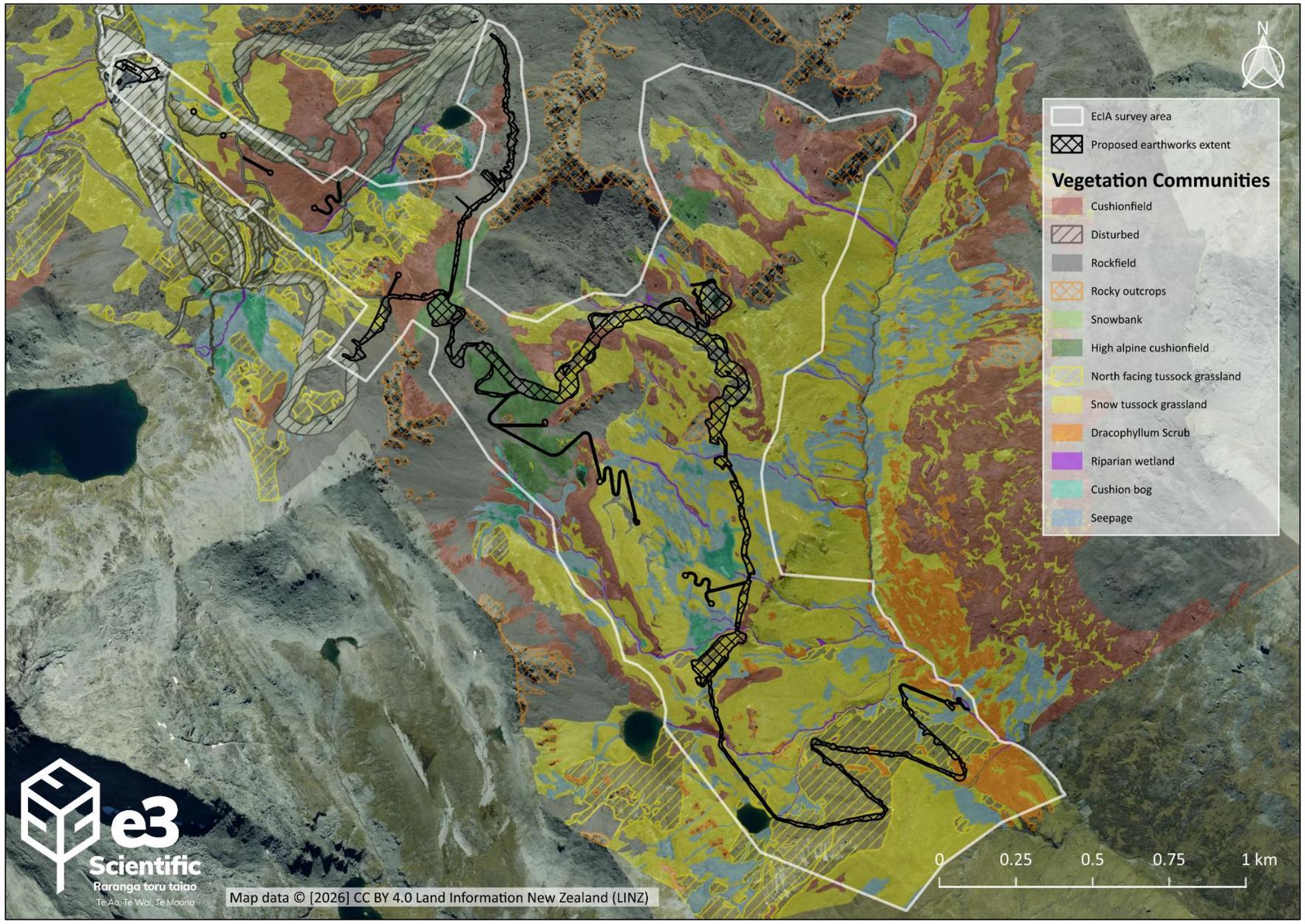



**Figure 2 Proposed earthworks within each vegetation community.**

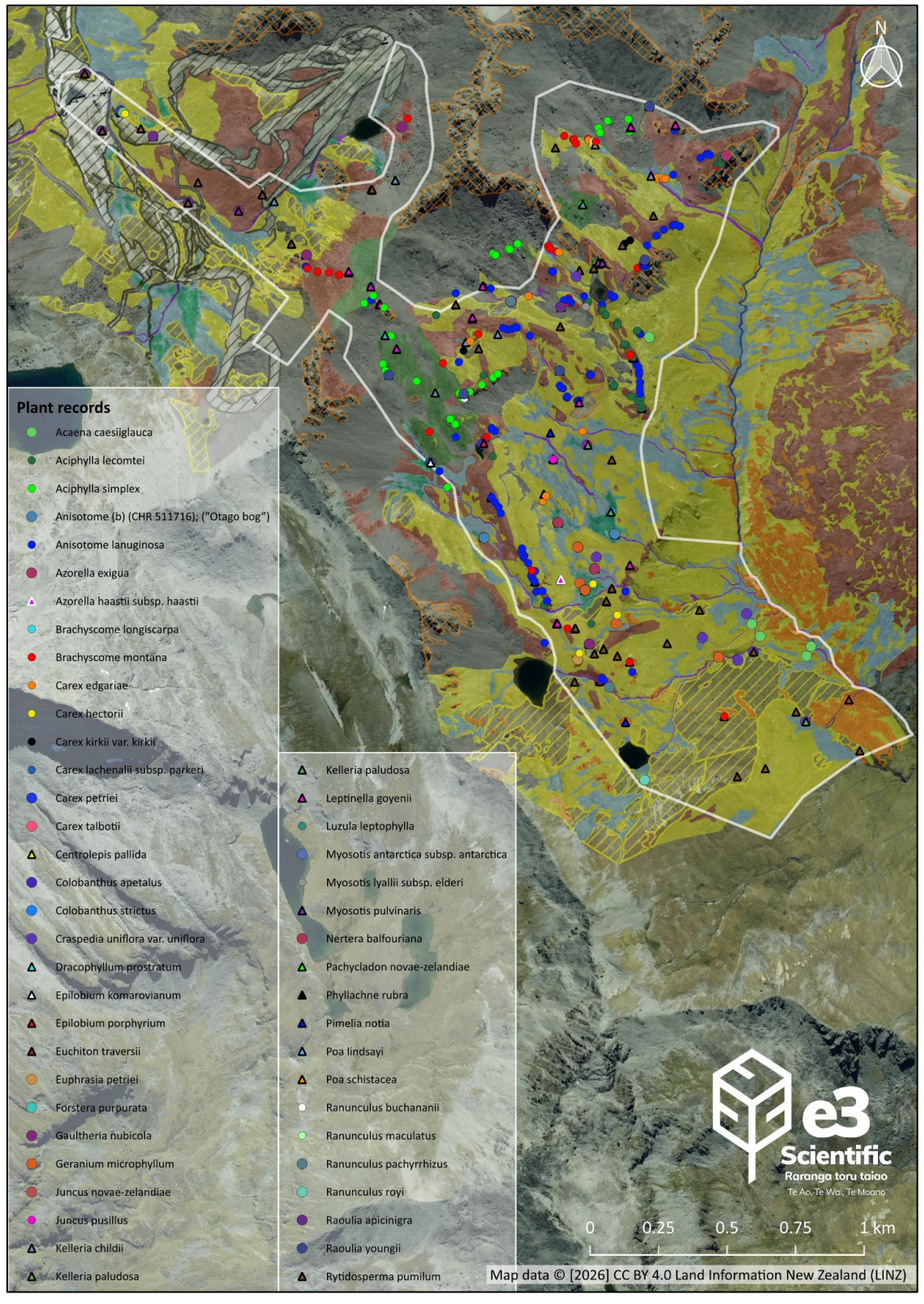



**Figure 3 Location Threatened and At Risk and Data Deficient flora.**

**Table 6.2 Mitigation, Management, Performance Criteria, Adaptive Management Actions for Wetlands**

| Receptor / Wetland Type | Key Risks / Effects | Mitigation & Management Measures | Monitoring (Indicators • Methods • Frequency) | Performance Criteria / Triggers | Adaptive Management Actions | Statutory / DOC Linkage |
|---|---|---|---|---|---|---|
| Cushion Bog (WL9) | Hydrological alteration; sedimentation; compaction; change in hydroperiod; microtopography loss | Location/Extent: Applies to all mapped cushion bog areas within the Project Area (Figure 2). and a minimum 15 m buffer upslope and around wetland margins, including contributing catchments.<br><br>Implementation: Pre-construction establishment of buffers and sediment controls; during construction maintain natural overland flow, avoid machinery within wetland footprint, use low-ground-pressure equipment; post-construction stabilises disturbed areas within 24–48 hrs.<br><br>Duration: Measures maintained for the duration of construction and operation and until hydrological and vegetation performance criteria are achieved. | Indicators: water table proxy; native bog cover; sediment depth; hydroperiod.<br><br>Methods: transects; probes; photopoints.<br><br>Frequency: baseline; 6-monthly (2 yrs); annual; event-based. | ≤5 mm sediment; no measurable water table decline; ≤10% loss of native cover. | Restore hydrology; increase sediment controls; re-sod margins; extend exclusion zones. | Conservation Act s17U; Resource Management Act 1991 ss6(c), 7(d), 15 |
| Riparian Wetland (WL9) | Sediment input; bank instability; nutrient enrichment; compaction | Location/Extent: Applies to all riparian wetlands, stream margins, and a minimum 20 m buffer from active channels and wetland edges (Figure 2).<br><br>Implementation: Pre-construction buffer establishment and exclusion zones; during construction stabilised crossings, sediment controls, restricted access; post-construction rehabilitation of banks and vegetation.<br><br>Duration: Measures maintained until bank stability and vegetation criteria are achieved and for the duration of the consent. | Indicators: turbidity; native cover; bank stability; sediment depth.<br><br>Methods: transects; photopoints; turbidity checks.<br><br>Frequency: baseline; 6-monthly (2 yrs); annual; event-based. | No bank destabilisation; sediment ≤5 mm; ≤10% native cover decline. | Reinforce banks; increase sediment control; adjust access; plant native species. | Conservation Act s17U; Resource Management Act 1991 ss6(a), 6(c), 7(d), 15 |
| Seepage Wetland (WL17) | Interception of seepage; desiccation; altered flow paths; turf degradation | Location/Extent: Applies to all mapped seepage zones, flow paths, and contributing micro-catchments within the disturbance footprint and adjacent areas (Figure 2).<br><br>Implementation: Pre-construction identification and protection of flow paths; during construction avoid cut-off drains, maintain microtopography, restrict machinery; post-construction reinstates flow continuity.<br><br>Duration: Maintained until flow continuity and vegetation cover criteria are achieved. | Indicators: flow continuity; soil moisture; turf cover; sediment.<br><br>Methods: transects; moisture probes; photopoints.<br><br>Frequency: baseline; 6-monthly (2 yrs); annual; event-based. | Flow maintained; ≤15% turf decline; sediment ≤5 mm. | Recreate micro-relief; block drains; re-sod turf; extend exclusions. | Conservation Act s17U; Resource Management Act 1991 ss6(c), 7(d), 15 |

| Receptor / Wetland Type | Key Risks / Effects | Mitigation & Management Measures | Monitoring (Indicators • Methods • Frequency) | Performance Criteria / Triggers | Adaptive Management Actions | Statutory / DOC Linkage |
|---|---|---|---|---|---|---|
| Tarns (Margins & Open Water) | Bank erosion; sediment input; habitat disturbance; altered flow | Location/Extent: Applies to all tarns, margins, and contributing catchments, including a minimum 20 m no-go buffer.<br><br>Implementation: Pre-construction buffer establishment; during construction no stockpiling or discharge, maintain flow paths, install sediment controls; post-construction stabilises banks and margins.<br><br>Duration: Measures maintained for duration of consent and until water quality and bank stability criteria are achieved. | Indicators: bank stability; clarity; vegetation condition.<br><br>Methods: photopoints; clarity checks; inspections.<br><br>Frequency: baseline; annual; event based. | No new erosion; clarity within baseline; ≤10% vegetation decline. | Reinforce banks; re-vegetate margins; improve controls; restrict access. | Conservation Act s17U; Resource Management Act 1991 ss6(a), 6(c), 15 |
| Wetland and Stream Crossings | Hydrological disruption; sedimentation | Location/Extent: Applies to all constructed crossings within wetlands, streams, and associated flow paths across the Project Area.<br><br>Implementation: Pre-construction preparation and approval of detailed design (hydrologist and SQE); during construction implement approved designs, maintain connectivity and sediment controls; post-construction verifies function and stability.<br><br>Duration: Measures maintained for life of infrastructure and until hydrological performance criteria are met. | Indicators: design approvals; hydrological connectivity; sediment.<br><br>Methods: audits; inspections; photopoints.<br><br>Frequency: pre-start; during construction; post-event. | Approved designs in place; no decline in connectivity; sediment ≤5 mm. | Suspend works if unapproved; refine design; restore hydrology; enhance controls. | Conservation Act s17U; DOC concession conditions; Resource Management Act 1991 ss5, 6(a), 6(c), 15 |

**Table 6.3 Mitigation, Management, Performance Criteria, Adaptive Management Actions for Invertebrates**

| Receptor / Vegetation Type(s) | Key Risks / Effects | Mitigation & Management Measures (Construction & Operation) | Monitoring (Indicator • Method • Frequency) | Performance Criteria / Triggers | Adaptive Management Actions | Statutory / DOC Linkage |
|---|---|---|---|---|---|---|
| Alpine Assemblages (AH2, rock outcrops, cushionfields, turf vegetation) | Habitat loss; fragmentation; desiccation; refugia loss; compaction | Location/Extent: Applies to all alpine habitats within the mapped disturbance footprint and adjacent areas where indirect effects (e.g. desiccation, microclimate change) may occur. Includes rock outcrops, cushionfields, turf vegetation, and stable scree.<br><br>Implementation: Pre-construction mapping and salvage of microhabitats; during construction minimise disturbance and retain moisture; post-construction reinstates refugia and microhabitats. Translocate all invertebrate host specific "Not Threatened" plant species in accordance with the same methodology for 'At Risk – Declining' and 'Threatened' plant species. This applies to all species within the Cardamine genus, Aciphylla aurea and Aciphylla 'lomond'. These host specific plant species must be identified in the Terrestrial Ecology Management Plan.<br><br>Duration: Measures maintained and monitored until microhabitat condition and invertebrate community criteria are achieved and for the duration of the consent. | Indicators: species richness/abundance; microhabitat condition.<br><br>Methods: BACI sampling (pitfall traps, hand-searches, soil cores).<br><br>Frequency: baseline; Years 1–2 post-construction; extended if triggers exceeded. | ≤15–20% decline in richness/abundance; no net loss of key microhabitats; no increase in desiccation indicators. | Reinstate refugia; increase shading/moisture; expand buffers; restrict timing; additional monitoring. | Conservation Act s17U; Resource Management Act 1991 ss6(c), 7(d) |
| Wetland Assemblages (WL9, WL17, tarn margins, flushes) | Hydrological disruption; sedimentation; compaction; eutrophication | Location/Extent: Applies to all wetlands, seepages, tarn margins and associated hydrological catchments within the Project Area, including areas subject to indirect effects from sediment or flow changes.<br><br>Implementation: Pre-construction hydrological assessment and protection; during construction maintain flow paths, install sediment controls, restrict machinery; post-construction restores microtopography and hydrology.<br><br>Duration: Maintained for duration of construction and operation and until hydrological and ecological criteria are achieved. | Indicators: wetland taxa composition; sediment depth; soil moisture; microtopography.<br><br>Methods: control/impact sampling; transects; probes.<br><br>Frequency: 6-monthly first 2 years; annual thereafter. | No sustained decline in wetland taxa; sediment ≤5 mm; soil moisture within 10% of baseline. | Restore hydrology; increase sediment controls; revegetate; restrict access; extend exclusions. | Conservation Act s17U; Resource Management Act 1991 ss6(c), 7(d), 15 |
| Significant / Threatened Invertebrates | Sensitivity to microclimate change; refugia loss; predation; data gaps | Location/Extent: Applies to all confirmed or potential habitats for Threatened or At Risk invertebrate species within the disturbance footprint and adjacent habitats, including identified refugia (rock piles, turf, moss mats) and host-plant areas (see Figure 2).<br><br>Implementation: Pre-construction targeted surveys; during construction retain or relocate refugia, minimise disturbance, manage lighting; post-construction implements habitat restoration and predator management where required.<br><br>Duration: Measures maintained for the duration of the consent and until population and habitat stability is demonstrated. | Indicators: occupancy/abundance; refugia condition; host-plant presence.<br><br>Methods: BACI surveys (pitfall, light traps, transects, hand-searches).<br><br>Frequency: baseline; Years 1–3 (≥2 events/year); extended if triggers exceeded. | No >20% decline in occupancy/abundance; no loss of refugia; no decline in habitat condition; detection of Nationally Critical species triggers stop-work. | Pause works; expand buffers; restore habitat; increase monitoring; implement predator control; consult DOC. | Conservation Act s17U; NZTCS; Resource Management Act 1991 ss6(c), 7(d) |

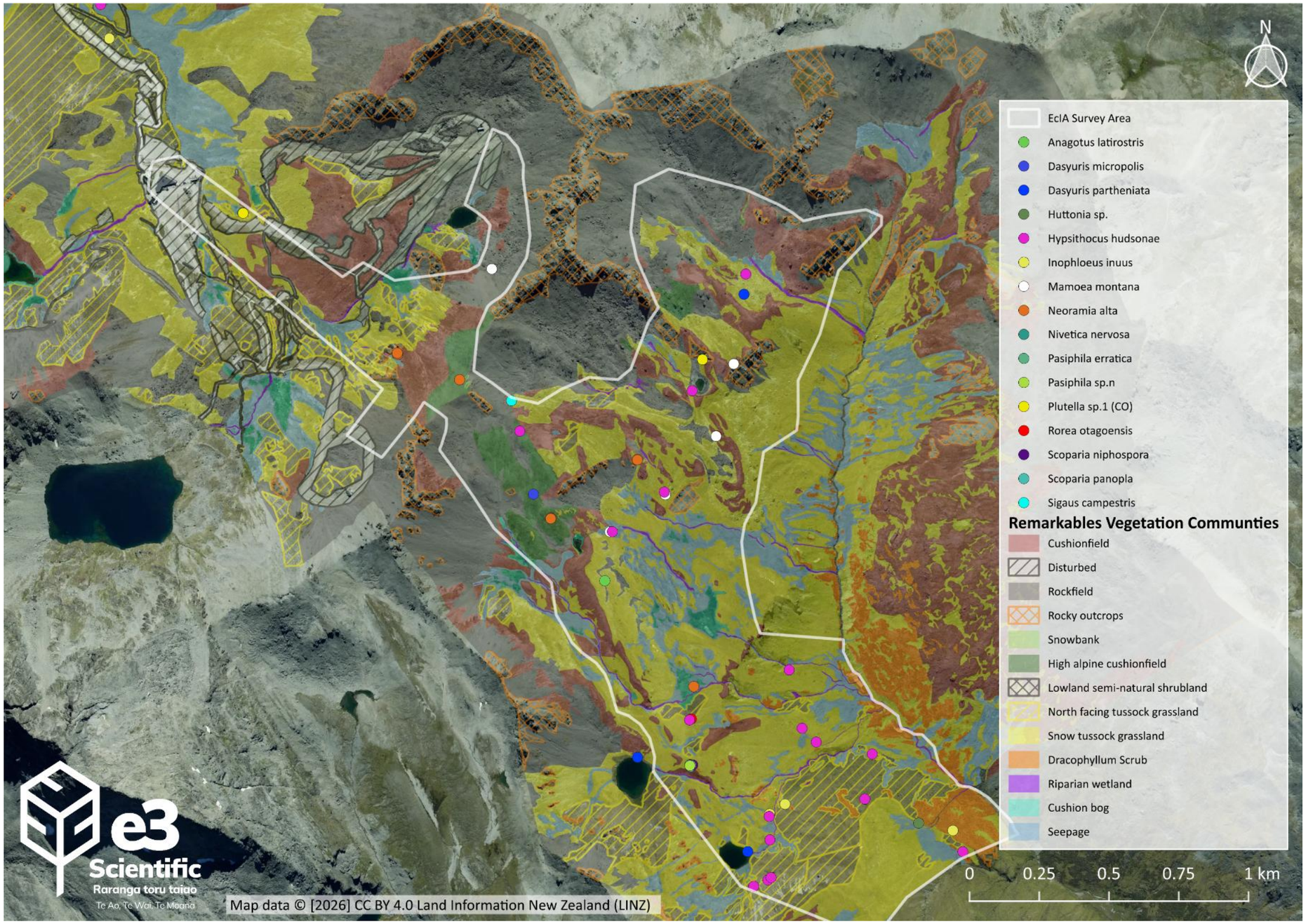



**Figure 4 Location of Unclassified, Data Deficient, At Risk, Threatened invertebrate species.**

**Table 6.4 Mitigation, Management, Performance Criteria, Adaptive Management Actions for Avifauna**

| Receptor | Key Risks / Effects | Mitigation & Management Measures (Construction & Operation) | Monitoring (Indicator • Method • Frequency) | Performance Criteria / Triggers | Adaptive Management Actions | Statutory / Fast-Track Linkage |
|---|---|---|---|---|---|---|
| Eastern Falcon / Kārearea | Disturbance to nesting birds during construction activities within the breeding season | Location/Extent: Applies to nesting habitat within the disturbance footprint and adjacent areas where construction activities may result in disturbance to nesting kārearea.<br><br>Implementation: Where works occur during the breeding season (August–May), nesting habitat within the disturbance footprint must be surveyed by a suitably qualified ecologist no more than 8 days prior to disturbance activities. Where active nests are identified and construction activities could result in direct disturbance:<br>(a) construction activities must avoid the area until chicks have fledged, where practicable; and<br>(b) where avoidance is not achievable, nests must be relocated to an adjacent undisturbed area by a suitably qualified ecologist.<br><br>A suitably qualified ecologist must be present during implementation of management measures where required.<br><br>Duration: Applies during all construction activities undertaken within the breeding season. | Indicator: Presence of active nests within areas potentially affected by construction activities.<br><br>Method: Pre-construction nest surveys undertaken by a suitably qualified ecologist. Monitoring of identified nests during nearby construction activities where applicable.<br><br>Frequency: Prior to disturbance activities during each breeding season, with surveys undertaken no more than 8 days before disturbance. | Identification of active nests where construction activities could result in direct disturbance. | Implement sequential management response:<br>1. Avoid disturbance until fledging where practicable; or<br>2. Relocate nests to adjacent undisturbed habitat where avoidance is not achievable. | Fast-track Approvals Act 2020; Conservation Act s17U; Resource Management Act 1991 ss6(c), 7(d) |
| Kea | Human interaction, habituation, ingestion of rubbish, and nuisance behaviour associated with construction activities | Location/Extent: Applies across all construction areas, operational areas, tracks, ski area infrastructure, buildings, waste storage areas, and visitor interfaces within the Project Area.<br><br>Implementation: Where kea are observed within, or in proximity to, areas where construction activities are occurring: | Indicator: Presence of unsecured materials, nuisance kea behaviour, and rubbish accumulation.<br><br>Method: Site inspections and incident reporting by construction personnel and ecologists.<br><br>Frequency: Ongoing during | Observation of nuisance kea behaviour, unsecured materials, or rubbish accumulation associated with construction or operational activities. | Reinforce material securing measures, implement or expand kea-safe playgrounds, increase site inspections, and undertake additional rubbish removal where required. | Fast-track Approvals Act 2020; Conservation Act s17U; Resource Management Act 1991 ss6(c), 7(d) |

| Receptor | Key Risks / Effects | Mitigation & Management Measures (Construction & Operation) | Monitoring (Indicator • Method • Frequency) | Performance Criteria / Triggers | Adaptive Management Actions | Statutory / Fast-Track Linkage |
|---|---|---|---|---|---|---|
| | | (a) all tools, consumable items, and loose or soft construction materials must be secured to make them inaccessible to kea;<br>(b) interactions with kea must be avoided where practicable, and otherwise minimised to reduce habituation; and<br>(c) where kea become nuisance kea, kea-safe 'playgrounds' must be installed to distract kea during work hours.<br><br>To reduce plant community degradation, species smothering, and ingestion of rubbish by kea:<br>(d) rubbish bins associated with the consented activities must not be stored externally; and<br>(e) annual rubbish collections must be undertaken within and adjacent to tracks and ski area infrastructure.<br><br>Duration: Measures remain in place until construction in the affected area has been completed. Annual rubbish collections undertaken for the duration of operation. | construction; annual rubbish collection inspections. | | | |
| Kea and other avifauna | Bird strike associated with reflective or transparent building surfaces | Location/Extent: Applies to the Doolans Base Building where external window finishes provide direct line of sight or reflective surfaces.<br><br>Implementation: Monitor and record bird strike incidents associated with the Doolans Base Building. Where monitoring identifies bird strike involving "Threatened" or "At Risk" bird species, deterrent measures identified within the Terrestrial Ecology Management Plan must be implemented.<br><br>Duration: Monitoring undertaken for the | Indicator: Bird strike incidents, including species affected.<br><br>Method: Incident recording and inspections of building surrounds.<br><br>Frequency: Ongoing for five years following construction. | Recorded bird strike involving "Threatened" or "At Risk" bird species. | Implement deterrent measures identified within the Terrestrial Ecology Management Plan. | Fast-track Approvals Act 2020; Resource Management Act 1991 ss6(c), 15 |

| Receptor | Key Risks / Effects | Mitigation & Management Measures (Construction & Operation) | Monitoring (Indicator • Method • Frequency) | Performance Criteria / Triggers | Adaptive Management Actions | Statutory / Fast-Track Linkage |
|---|---|---|---|---|---|---|
| | | first five years following construction of the Doolans Base Building. | | | | |
| New Zealand Pipit / Pīhoihoi | Disturbance to nesting birds during construction activities within the breeding season | Location/Extent: Applies to nesting habitat within the disturbance footprint and adjacent areas where construction activities may result in disturbance to nesting pīhoihoi.<br><br>Implementation: Where works occur during the breeding season (August–February), nesting habitat within the disturbance footprint must be surveyed by a suitably qualified ecologist no more than 8 days prior to disturbance activities. Where active nests are identified and construction activities could result in direct disturbance:<br>(a) construction activities must avoid the area until chicks have fledged, where practicable; and<br>(b) where avoidance is not achievable, nests must be relocated to an adjacent undisturbed area by a suitably qualified ecologist.<br><br>Duration: Applies during all construction activities undertaken within the breeding season. | Indicator: Presence of active nests within areas potentially affected by construction activities.<br><br>Method: Pre-construction nest surveys undertaken by a suitably qualified ecologist.<br><br>Frequency: Prior to disturbance activities during each breeding season, with surveys undertaken no more than 8 days before disturbance. | Identification of active nests where construction activities could result in direct disturbance. | Implement sequential management response consistent with consent conditions. | Fast-track Approvals Act 2020; Conservation Act s17U; Resource Management Act 1991 ss6(c), 7(d) |

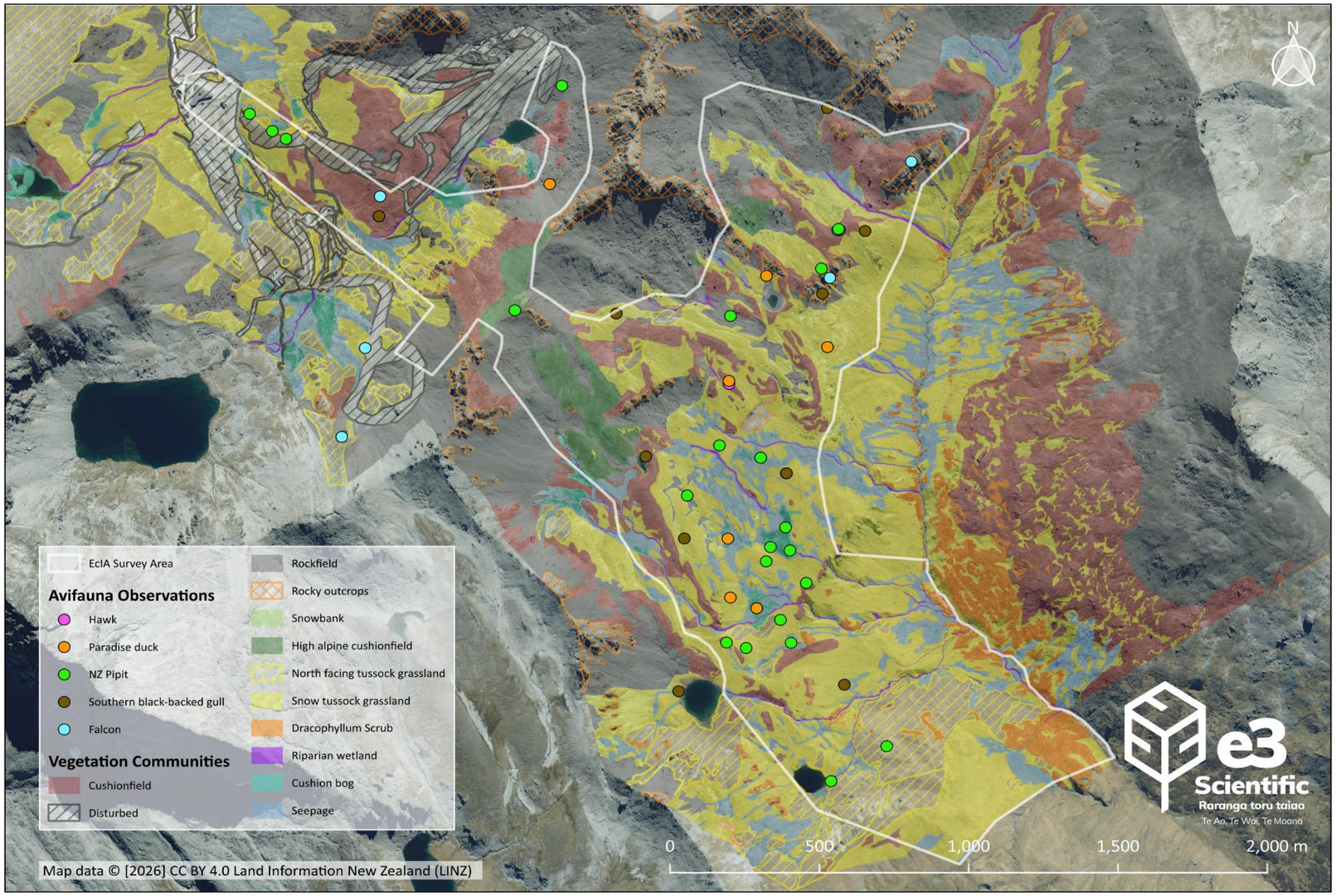



**Figure 5 Location of avifauna observations.**

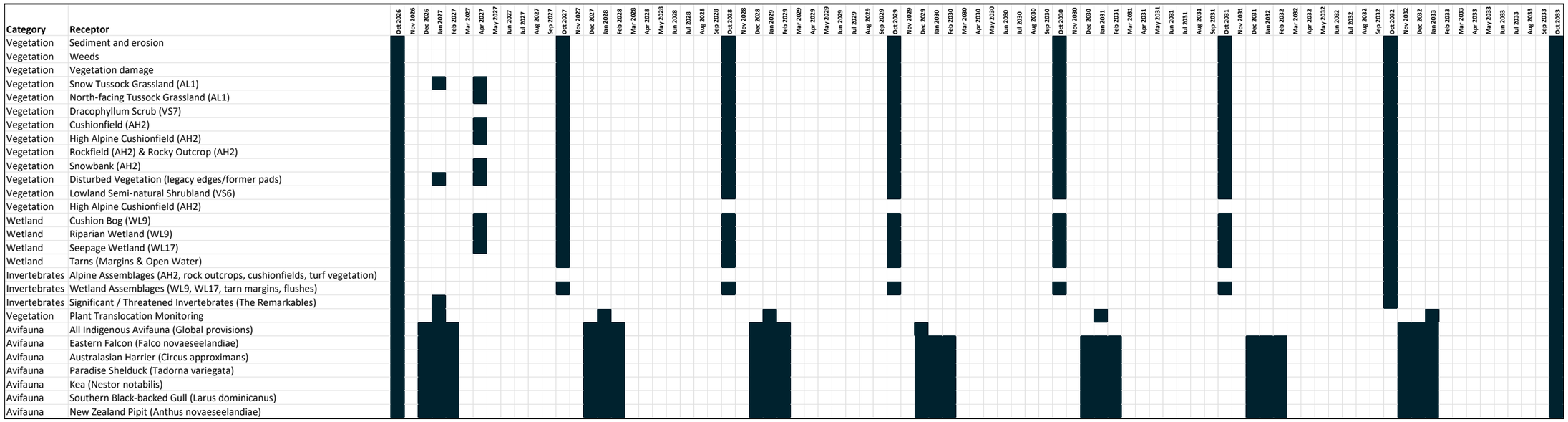



**Figure 6 Gantt Chart showing Monitoring Events for the Project**

Note: Monitoring events between Years 8 and 35 will repeat the pattern of Years 6 and 7, with all matters to be monitored in the final year of the approval.

# 7. REPORTING FOR INDIGENOUS VEGETATION, WETLANDS AVIFAUNA AND INVERTEBRATES

Monitoring and reporting are essential components of ensuring that the mitigation and management measures set out in this plan are effective and that any unexpected adverse effects are identified early. This section outlines the monitoring requirements, indicators, methods, frequencies, and performance criteria for indigenous vegetation, wetlands and waterways, and invertebrate communities. It also sets out the reporting processes and responsibilities to ensure compliance with approval conditions and enable timely adaptive management where performance criteria are not met.

Table 7.1 below outlines mitigation, monitoring, and adaptive management measures relating to public access management, site safety, and compliance reporting.

**Table 7.1 Reporting Requirements for the Project**

| Performance Criterion / Trigger | Reporting & Escalation |
|---|---|
| Reinstated tussocks ≥70% survival at 12 months | Report % survival; if <70% → supplementary planting; notify DOC. |
| Exotic cover ≤10% above baseline | Report % change; outline weed control response; notify DOC if >10%. |
| Erosion features stabilised within 12 months | Report unresolved erosion; include remediation actions; notify DOC if erosion cannot be stabilised. |
| Indigenous vegetation: No sustained decline | Report deviations; describe corrective actions; notify DOC for ongoing decline. |
| Dracophyllum: No dieback >5 m | Report dieback extent; outline infill planting; notify DOC when >5 m. |
| Dracophyllum: No net weed increase | Report weed presence; outline follow-up sweeps; notify DOC if weed increase exceeds performance criteria set out in Table 6.1, Table 6.2 and Table 6.3. |
| Cushionfields: ≥60% cushion survival | Report survival; describe re-plugging; notify DOC if <60%. |
| Cushionfields: No fragmentation >0.5 $m^2$ | Report fragmentation; describe buffer expansion; notify DOC. |
| High alpine: No net cushion loss | Report loss; describe fencing/screens; notify DOC. |
| Rockfield: No refugia/lichen loss | Report loss; describe replacement; notify DOC. |
| Snowbanks: No disturbance | Report any disturbance; note timing adjustments; notify DOC. |
| Cushion bog: Sediment ≤5 mm | Report sediment depth; describe control upgrades; notify DOC. |
| Cushion bog: No water-table decline | Report moisture trends; describe hydrological fixes; notify DOC. |
| Cushion bog: Native cover stable/improving | Report covers trends; outline planting; notify DOC. |
| Riparian: No bank destabilisation | Report stability changes; outline reinforcement; notify DOC. |

| Performance Criterion / Trigger | Reporting & Escalation |
|---|---|
| Riparian: Sediment ≤5 mm | Report exceedances; describe sediment trap upgrades; notify DOC. |
| Seepage: Flow continuity; turf ≥85% | Report losses; describe drain blocking; notify DOC. |
| Tarns: No new erosion; clarity stable | Report erosion/clarity issues; describe bank reinforcement; notify DOC. |
| Invertebrates: ≤20% decline | Report declines >20%; outline habitat enhancement; notify DOC. |
| Wetland invertebrates: No taxa decline; sediment ≤5 mm | Report declines; describe hydrology restoration; notify DOC. |
| Access: Zero unauthorised entry | Report incidents; outline new controls; notify DOC for significant issues. |
| Compliance: 100% timely reporting | Report delays; propose revised timelines; notify DOC. |
| Plant translocations: Monitoring schedule adherence (annual Years 1–3; biennial Years 5 & 7) | Report completion of each monitoring event. If missed → immediate catch-up within 1 month; notify DOC. |
| Translocation commitments met (At Risk/Threatened/taonga individuals; up to 500 clusters for Naturally Uncommon/Data Deficient) | Report counts vs. commitments prior to works. If shortfall → pause relevant works, propose supplementary translocations; notify DOC. |
| ECO.14C: All species-specific plant translocations (those required by Condition ECO.10(a) of this resource consent): ≥60% survival after seven years. | Report survival rates at each monitoring event. If survival is <60% after seven years, implement the adaptive management response required by ECO.16 and notify DOC. |
| ECO.14D: Community vegetation translocation / remediation (those required by Condition ECO.10(b) of this resource consent): ≥60% indigenous cover after seven years. | Report indigenous cover at each monitoring event. If indigenous cover is <60% after seven years, implement the adaptive management response required by ECO.16 and notify DOC. |
| ECO.15: Plant translocations monitored annually for three years and biennially for a further four years, in accordance with the TEMP | Report completion and results of each monitoring event in accordance with ECO.5. If a monitoring |

| Performance Criterion / Trigger | Reporting & Escalation |
|---|---|
| methodology and reported through the Terrestrial Ecology Monitoring Report.<br><br>ECO.16: If ECO.15 monitoring identifies that ECO.14C or ECO.14D requirements are not achieved, trial direct sowing or dispersal of indigenous locally sourced seed into disturbed substrate on an experimental basis and continue for another seven-year period where survival is observed. | event is missed, complete catch-up monitoring as soon as practicable and notify DOC.<br><br>Report the trigger, seed source, trial method, locations, survival observations and whether the direct sowing / dispersal programme will continue for the additional seven-year period; notify DOC. |
| Crossing designs: Hydrologist and SQE approvals in place prior to works | Report approval dates and references before mobilisation for each crossing. If approvals absent → works do not commence; notify DOC. |
| Handling limits compliance (single-movement where practicable; upright storage ≤1 day; designated rehab sites) | Report any non-compliance; outline corrective actions (e.g., logistics changes, additional staffing); notify DOC for repeated issues. |
| Avifauna assemblage maintained (six indigenous species recorded at baseline). No sustained decline (≥20%) in species richness or diversity. | Report species presence/absence and diversity. If any species is not recorded over two consecutive monitoring events (excluding seasonal absence), or diversity declines ≥20%: investigate cause, undertake targeted surveys, implement adaptive management, and notify DOC. |
| Eastern falcon: No reduction in nesting occupancy or breeding success attributable to Project activities. | Report nesting activity and outcomes. If nest abandonment or breeding failure is linked to Project activities: establish exclusion buffers, cease relevant activities within the buffer, and notify DOC. |
| Kea: No increase in interactions with people, infrastructure, or waste. | Report interaction observations. If increased interactions are observed: implement waste management controls and deterrents, and notify DOC. |
| Kea: No sustained reduction (>20%) in detections or site use. | Report presence and activity. If decline >20% is observed: assess disturbance sources, implement mitigation, and notify DOC. |

| Performance Criterion / Trigger | Reporting & Escalation |
|---|---|
| Avifauna mortality: No project-related mortality or injury. | Report all mortality or injury. If project-related mortality occurs cease relevant activity, investigate cause, implement mitigation, and notify DOC. |
| Avifauna disturbance: No repeated flushing or sustained displacement from key habitats. | Report disturbance events. If disturbance thresholds are exceeded: implement mitigation (e.g. timing, buffers, operational changes) and notify DOC. |
| Avifauna habitat: No degradation outside the approved Project footprint and no loss of habitat function. | Report habitat condition. If degradation is observed: implement restoration or offset measures and notify DOC. |

## 7.1 TERRESTRIAL ECOLOGY MONITORING REPORT:

By 30 June each year, the Consent Holder must engage a suitably qualified and experienced ecologist to prepare an annual Terrestrial Ecology Monitoring Report that covers activities addressed in the Terrestrial Ecology Management Plan for the previous year. This report is required annually throughout the life of the Project.

The Terrestrial Ecology Monitoring Report must be submitted to the Consent Authority by 30 August each year and must include:

- A description of the works and other actions completed by the Consent Holder in the previous twelve months;
- The methods for monitoring for, and recording, any increase in bird strike of Threatened or At Risk bird species, with any increase resulting in further deterrent measure being implemented;
- Where aspects of the Terrestrial Ecology Management Plan have not been implemented in accordance with expected timeframes, the reasons why, and the measures that have been taken by the Consent Holder to address the shortcomings; and
- An assessment of the effectiveness of the Terrestrial Ecology Management Plan in achieving objectives and performance indicators.

Where the Terrestrial Ecology Monitoring Report identifies that the performance indicators have not been achieved or maintained the Report must include:

- The reasons why the performance indicators have not yet been achieved;
- Specific measures that have already been implemented, or are required to be implemented to address the failure to achieve performance indicators; and
- Details of any amendments needed to the Terrestrial Ecology Management Plan or any other related management plan.

# 8. CONCLUSION

This TEMP provides a comprehensive and operationally practical framework for managing the ecological effects associated with the Project. The Plan integrates a detailed understanding of the alpine environment with a robust suite of mitigation, monitoring, and adaptive management measures tailored to the unique sensitivities of high elevation indigenous vegetation, wetland systems, avifauna and invertebrate communities.

The monitoring and performance criteria established in Section 6 ensure transparent, evidence-based evaluation of environmental outcomes, enabling early detection of any unexpected ecological changes and timely implementation of corrective actions. This approach supports continuous improvement and provides confidence that ecological values will be maintained or enhanced over the life of the Project.

Implementation of this TEMP will contribute to the long-term protection and resilience of the alpine ecosystems within the Project area. It ensures that the Project proceeds in accordance with statutory obligations, meets the expectations of the Fast-Track consent pathway, and upholds the ecological integrity of this nationally important environment. As a living document, the TEMP will guide environmental management practices, support compliance with approval conditions, and adapt to new information and monitoring results as the Project progresses.

# 9. REFERENCES


Department of Conservation (DoC) (2016) Otago Conservation Management Strategy 2016, incorporating July 2022 partial review. Wellington: New Zealand Government. Available at:https://www.doc.govt.nz/about-us/our-policies-and-plans/statutory-plans/statutory-plan-publications/conservation-management-strategies/otago/

Department of Conservation (DoC) (2015) Walter Peak: Conservation Resources Report – Updated 2015. Crown Pastoral Land Tenure Review, Lease SS041. Toitū Te Whenua – Land Information New Zealand.

Department of Conservation (DoC) (n.d.) Coronet Peak: Conservation Resources Report (Parts 1–6). Crown Pastoral Land Tenure Review, Lease PO195. Toitū Te Whenua – Land Information New Zealand.

e3 Scientific. (2025). Remarkables Skifield Doolans Expansion Ecological Impact Assessment.

Ministry for the Environment (MfE). (2022). Wetland delineation protocols. Wellington: Ministry for the Environment.

Clarkson, B., Fitzgerald , N., Champion, P., Forester , L., & Rance , B. (2021). New Zealand wetland plant indicator status ratings 2021. Manaaki Whenua - Landcare Research.

McEwen, W.M. (Ed.) 1987: Ecological Regions and Districts of New Zealand. New Zealand Biological Resources Centre Publication No. 5. Department of Conservation, Wellington.

Munsell Color. (2010). Munsell soil color charts: With genuine Munsell color chips. Grand Rapids, MI: Munsell Color.

Landcare Research. (2012). Retrieved 2025, from Our Environment: http://ourenvironment.scinfo.org.nz/home

Simpson, N. (2018). Native Plants of the Remarkables Including Rastus Burn, Wye Valley and Doolans Valley. Queenstown: Conservation Consultancy Limited.

Singers, N., & Rogers, G. (2014). A classification of New Zealand's terrestrial ecosystems (Science for Conservation No. 325. Department of Conservation.

# APPENDIX 1: H.02 RESOURCE CONSENT CONDITIONS

**DRAFT RESOURCE CONSENT CONDITIONS – 19 MAY 2026**

## 1. INTERPRETATION

| **INTERPRETATION** | |
|---|---|
| **Alpine project area** | The area of the Project contained within the Rastus Burn and Doolans Basin. Excludes the Lower Remarkables Transit Hub. |
| **Earthwork development stage** | Where earthworks proposed to be staged, between construction seasons and within construction season, each stage may be separately defined.<br>*Note: This term has been defined for the purposes of allowing erosion sediment control plans be certified separately for each stage, rather than requiring all stages to be certified at the start of each construction season.* |
| **Project disturbance area** | A subset of the wider Alpine Project Area, where physical disturbance (vegetation clearance / earthworks) will be undertaken, as shown in **Attachment A**. |
| **Relevant Consent Authority** | Otago Regional Council and /or Queenstown Lakes District Council and /or Central Otago District Council |
| **Ski Season / Winter Ski Field Operations** | The period between 1 May and 30 October where fee paying customers may use the ski area. |
| **Terrestrial Ecology Management Plan** | Management plan relating to the management of the activities which effect indigenous vegetation, avifauna, wetlands and invertebrates.<br>The management of activities which effect indigenous lizards are managed separately through a lizard management plan. |
| | **Acronyms and Abbreviations** |
| **FTAA** | Fast-track Approvals Act 2024 |

## 2. GENERAL CONDITIONS

| **GENERAL** | |
|---|---|
| GC. 1 | The activities authorised by this resource consent must be undertaken in general accordance with the information contained in the Substantive Application and supporting technical documents submitted by NZSki Limited (“the Consent Holder”) to the Environmental Protection Authority ("EPA") in support of its application for authorisation of the Remarkables Ski Area Upgrades and Doolans Expansion Project under the Fast-track Approvals Act 2024. |

| | |
|---|---|
| GC.2 | In the event of any conflict or discrepancy between the documents noted above and the conditions of this resource consent, the conditions will prevail. |
| **ADMINISTRATION** | |
| GC.3 | The Consent Holder must pay to the relevant Consent Authority all actual and reasonable charges arising from the monitoring of the conditions of the resource consents and any other administrative charges fixed in accordance with Section 36 of the RMA, or any charge prescribed in accordance with regulations made under Section 360 of the RMA. |
| **COMMENCEMENT AND LAPSING OF CONSENT** | |
| GC.4 | These resource consents commence on [insert date of issue of decision document]. |
| GC.5 | Pursuant to section 87(2)(b) of the Fast Track Approvals Act 2024, these resource consents will lapse if not given effect to within 10 years of its date of commencement (see section 97 of the Act). |
| **REVIEW CONDITIONS** | |
| GC.6 | The relevant Consent Authority may review any or all conditions of the resource consents within their applicable jurisdictions by giving notice of their intention to do so pursuant to section 128 of the Resource Management Act 1991, within one (1) month of each anniversary of the commencement of the resource consents, for any of the following reasons:<br>(a) Determining whether the conditions of the resource consents are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or which becomes evident after the date of the commencement of the resource consent; or<br>(b) To address any adverse effects on the environment which have arisen as a result of the exercise of the resource consents that were not anticipated at the time of commencement of the resource consent; or<br>(c) To review the adequacy of, necessity for, and frequency of any of the monitoring programmes or management plans that are part of the conditions of the resource consents; or<br>(d) To require a holder of a discharge permit to do something that would otherwise contravene section 15 of the Resource Management Act 1991 to adopt the Best Practicable Option to remove or reduce any adverse effect on the environment.<br>(e) Any review under this condition must, in addition to the matters set out in the Resource Management Act 1991, also recognise and provide for the purpose of the Fast-Track Approvals Act 2024. |
| **MANAGEMENT AND MONITORING PLANS** | |
| GC.7 | Where any condition requires the Consent Holder to submit a monitoring plan, management plan or any other document to the relevant Consent Authority for 'certification' or 'recertification', the |

<table>
<tr><td></td><td>process set out in clauses (a) and (b) must be followed:<br><br>(a) The Consent Holder must supply a monitoring plan, management plan or any other document to the relevant Consent Authority.<br><br>NOTES:<br><br>(i) The certification (or withholding certification) of a monitoring plan, management plan or any other document by the relevant Consent Authority must be based on the relevant Consent Authority's assessment as to whether the document adequately addresses its objectives or requirements as set out in the relevant condition requiring the document's certification.<br><br>(ii) Should the monitoring plan, management plan or any other document supplied in accordance with clause a of this condition, in the opinion of the relevant Consent Authority, achieve the requirements of the relevant condition(s) requiring the document's certification, the relevant Consent Authority will issue a written confirmation (which will constitute 'the certificate') to the Consent Holder that the requirements of the relevant condition(s) have been satisfied;<br><br>(iii) Where the monitoring plan, management plan or other document supplied in accordance with clause (a) of this condition, in the opinion of the relevant Consent Authority does not achieve the requirements of the relevant condition(s) requiring the document's certification, the relevant Consent Authority will advise the Consent Holder in writing of the shortcomings, including additional information or measures, it considers necessary to meet the requirements of the relevant condition(s) and ask that the management plan(s) or document(s) be modified to address the concerns, and then be resubmitted;<br><br>(iv) Certification will not be unreasonably withheld or delayed and certification or a response is expected to take no longer than 30 working days.<br><br>(b) The Consent Holder must address any written response provided by the relevant Consent Authority and resubmit an amended monitoring plan, management plan or any other document to the relevant Consent Authority for certification.</td></tr>
<tr><td>GC.8</td><td>No later than the submission date referred to for the relevant document, the following documents must be submitted to the relevant Consent Authority for certification:<br><br>To be certified by the Queenstown Lakes District Council<br><br>
<table>
<tr><th>Document</th><th>Submission date / timeframe</th></tr>
<tr><td>Terrestrial Ecology Management Plan</td><td>40 working days before works commence in the Alpine Project Area</td></tr>
<tr><td>Lizard Management Plan</td><td>40 working days before works commence in the Alpine Project Area (excluding Car Park 3)</td></tr>
<tr><td>Car Park 3 Lizard Management Plan</td><td>40 working days prior to the commencement of vegetation clearance or earthworks within Car Park 3 of the Alpine Project Area.</td></tr>
</table>
</td></tr>
</table>

| | | |
|---|---|---|
| | Construction Environmental Management Plan | 40 working days prior to the commencement of earthworks in the Alpine Project Area |
| | Erosion and Sediment Control Plan | 20 working days prior to the commencement of earthworks within each earthwork development stage |
| | Lower Remarkables Transit Hub Lizard Management Plan | 40 works days prior to the commencement of vegetation clearance or earthworks at Car Park B. |
| | Lower Remarkables Transit Hub Rehabilitation Plan | 20 works days prior to the commencement of vegetation clearance or earthworks at Car Park B. |
| | Lower Remarkables Transit Hub Landscaping Plan | 20 works days prior to the commencement of vegetation clearance or earthworks at Car Park B. |

**To be certified by the Central Otago District Council**

| **Document** | **Submission date / timeframe** |
|---|---|
| Terrestrial Ecology Management Plan | 40 working days before works commence in the Alpine Project Area |
| Lizard Management Plan | 40 working days before works commence in the Alpine Project Area (excluding Car Park 3) |
| Construction Environmental Management Plan | 40 working days prior to the commencement of earthworks in the Alpine Project Area |
| Erosion and Sediment Control Plan | 20 working days prior to the commencement of earthworks within each earthwork development stage |

**To be certified by the Otago Regional Council**

| **Document** | **Submission date / timeframe** |
|---|---|
| Terrestrial Ecology Management Plan<br>(insofar as it relates to wetlands) | 40 working days before works commence in the Alpine Project Area |
| Construction Environmental Management Plan | 40 working days prior to the commencement of earthworks in the Alpine Project Area |
| Erosion and Sediment Control Plan | 20 working days prior to the commencement of earthworks within each earthwork development stage |
| Wastewater Operations and Management Manual | 20 working days following the commencement of this consent |
| Spill Response Plan | 20 working days prior to construction |

| | |
|---|---|
| GC.9 | The management plans submitted to the relevant Consent Authority for certification must be in general accordance with the draft management plans that formed part of the Consent Holder's FTAA Substantive Application, except as amended to: |

| | |
|---|---|
| | (a) To provide a more stringent management approach;<br>(b) To better align the management plans with consent and / or other approval conditions;<br>(c) To incorporate comments made by the relevant Consent Authority, the Department of Conservation or the Mana Whenua Advisory Group on the draft management plans; or<br>(d) To reflect changes arising through detailed design. |
| GC.10 | The Consent Holder must implement the certified monitoring plans and management plans and other certified documents, and all activities authorised by this resource consent must be carried out in accordance with the certified monitoring plans, management plans or other certified documents. |
| GC.11 | In the event of any conflict or inconsistency between the conditions of this resource consent and the provisions of a certified version of a management plan, monitoring plans or other document submitted to the relevant Consent Authority for certification, the conditions of this resource consent must prevail. |
| GC.12 | The Consent Holder must ensure that a copy of each management plan or monitoring plan, including any certified amendments, is available onsite at all times and that each copy is updated within five working days of any amendments being certified. |
| | **Amendments to Plans** |
| GC.13 | The Consent Holder may make amendments to any of the plans referred to in Condition GC.8 at any time. Any amendment to any plan must be submitted for recertification by the Consent Authority and any works associated with the amendment must not commence until recertification has occurred in accordance with Condition GC.7. |
| | *Department of Conservation Role in Amendments to Management Plans* |
| GC.14 | In addition to the requirements of Condition GC.7, if certification of new or amendments to existing management plans listed in Condition GC.8 are proposed, the Consent Holder must invite the Department of Conservation to participate in a collaborative workshop with the Consent Holder to discuss the conservation land related matters and have input into any associated revisions in accordance with Condition GC.7. |
| GC.15 | If the Department of Conservation agrees to participate in a workshop in accordance with Condition GC.14:<br>(a) The Consent Holder must provide a copy of the amended management plan(s) to the Department of Conservation at least 15 days before the workshop;<br>(b) The Consent Holder must circulate a record of the workshop discussions to the Department of Conservation within five working days of the completion of the workshop; and<br>(c) The Department of Conservation may provide written feedback to the Consent Holder on the management plan(s) amendments within 15 working days of the completion of the workshop. |

| | |
|---|---|
| GC.16 | If the Department of Conservation does not participate in a collaborative workshop, the Consent Holder must provide a copy of the amended management plan(s) to the Department and give the Department of Conservation 15 working days to provide written feedback to the Consent Holder on its content. |
| GC.17 | The Consent Holder must provide any written feedback received from the Department of Conservation on the amended management plan(s) to the relevant Consent Authority when the management plan(s) is submitted for recertification, along with an explanation of where any comment made by the Department of Conservation has not been incorporated into the management plan(s) and the reasons why. |
| **COMPLAINTS PROCEDURE** | |
| GC.18 | The Consent Holder must maintain and keep complaints register for any complaints received in relation to activities authorised by this consent. As a minimum, the register must record the following:<br>(a) The date, time, and details of the complaint;<br>(b) The incident that resulted in the complaint, if known, including its location;<br>(c) Any corrective action taken by the Consent Holder in response to the complaint, including timing of that corrective action; and<br>(d) Communication with the complainant in response to the complaint.<br>*Advice note: The Consent Holder shall provide a copy of the complaints register to the [consent authority] on request.* |
| **ACCIDENTAL DISCOVERY PROTOCOL** | |
| GC.19 | If archaeological material is discovered when exercising this consent, the following procedures must be undertaken by the Consent Holder:<br>(a) All work must cease, and where practicable machinery within 20 m of the discovery shut down;<br>(b) The Consent Holder must notify the Heritage New Zealand Regional Archaeologist;<br>(c) If the site appears to be of Māori origin, the Consent Holder must also notify the Papatipu Rūnaka listed in (d) of the discovery and ensure site access to enable appropriate cultural procedures and tikanga to be undertaken (as long as all statutory requirements under the Heritage New Zealand Pouhere Taonga Act 2014 and the Protected Objects Act 1975 have been met);<br>(d) The Papatipu Rūnaka entities referred to in (c) are:<br>(i) Te Rūnaka o Moeraki, based in Moeraki;<br>(ii) Kāti Huirapa ki Puketeraki, based in Karitane;<br>(iii) Te Rūnaka o Ōtākou, based on the Otago Peninsula;<br>(iv) Waihōpai Rūnaka, based in Invercargill; |

| | |
|---|---|
| | (v) Te Rūnaka o Awarua, based in Bluff;<br>(vi) Te Rūnaka o Ōraka-Aparima, based in Riverton;<br>(vii) Hokonui Rūnaka, based in Gore; and<br>(viii) Any other group invited by the iwi listed above.<br>(e) If human remains (koiwi tangata) are discovered, the Consent Holder must also advise the New Zealand Police; and<br>(f) Works affecting the discovery must not recommence until Heritage New Zealand provides written approval or an archaeological authority has been obtained. Such authorisations must be provided to the relevant Consent Authority(s)<br>*Advice Note: The Heritage New Zealand Pouhere Taonga Act 2014 provides for the recording, protection, and preservation of archaeological sites whether registered or not. As such, any land use activity likely to damage, modify or destroy any pre-1900 archaeological site (whether recorded or unrecorded) will require an archaeological authority from Heritage New Zealand for the work to lawfully proceed. This applies to all sites, regardless of whether a building or resource consent has been granted or not.* |

### 3. MANA WHENUA

| **MANA WHENUA** | |
|---|---|
| MW.1 | At least three (3) months prior to the commencement of activities authorised by this consent, the Consent Holder must invite the following parties to request the establishment of the mana whenua advisory group. The invitation must seek direction on the make-up of group, frequency of hui and group composition. The following parties must be invited to include representatives on the mana whenua advisory group:<br>(a) Te Rūnaka o Moeraki;<br>(b) Kāti Huirapa ki Puketeraki;<br>(c) Te Rūnaka o Ōtākou;<br>(d) Waihōpai Rūnaka;<br>(e) Te Rūnaka o Awarua;<br>(f) Te Rūnaka o Ōraka-Aparima; and<br>(g) Hokonui Rūnaka.<br>(h) Any other group invited by the Consent Holder.<br>If the invitation to establish the mana whenua advisory group is declined, or an individually listed Papatipu Rūnaka declines the information, the invitation must remain open for a period of two years from the commencement of works authorised by the consent. |

| | |
|---|---|
| | *Advice Note*: The Consent Holder will not be in breach of this Condition if any one or more of the parties specified above does not wish to be a member of the mana whenua advisory group or to attend any particular meetings of the mana whenua advisory group. |
| MW.2 | The purpose of the mana whenua advisory group is to:<br>(a) Facilitate ongoing engagement between the Consent Holder and Papatipu Rūnaka with shared interests in the project area in respect of the activities authorised by the resource consent and the wider NZ Ski operations on the maunga.<br>(b) Facilitate feedback to the Consent Holder on the implementation of the management plans required by Condition GC.8;<br>(c) Provide for mana whenua involvement in Project delivery, including in particular in respect of management plans and the Biodiversity Compensation Project;<br>(d) Enable mana whenua advisory group members to share information with the seven Papatipu Rūnaka with shared interests in the project area relevant to the Remarkables Ski Area Upgrade and Doolans Basin Expansion;<br>(e) Ensure the appropriate tikaka and kawa (customary practices and protocols) are being applied throughout the development and implementation of the Remarkables Ski Area Upgrade and Doolans Basin Expansion;<br>(f) Oversee and direct the implementation of the accidental discovery protocol procedures consistent with Condition GC.19 and any archaeological authority granted for the Project; and<br>(g) Identify and direct cultural monitoring requirements and measures to be implemented during construction activities. |
| MW.3 | The Consent Holder must invite the mana whenua advisory group to six monthly (or an alternative frequency as agreed to by mana whenua advisory group) meetings throughout construction activities, and once annually for the balance of the duration of the resource consents. |
| MW.4 | After establishing the mana whenua advisory group as required by Condition MW.1, the Consent Holder must facilitate the preparation by the mana whenua advisory group of an agreed programme of works and budget to reflect and give effect to the purpose of the mana whenua advisory group as set out in Condition MW.2. The programme of works should be kept under active review and updated as deemed appropriate by the mana whenua advisory group.<br>*Advice note: It is anticipated that the mana whenua advisory group programme of works will set out the components of the project that mana whenua would like involvement in, including the following project activities and any others (as agreed to with the Consent Holder):*<br>• *Reviewing and preparing feedback on management and monitoring plans;*<br>• *Advice on the development and implementation of ecological and pest control projects;*<br>• *Representation of Kāi Tahu identity in the built environment;*<br>• *Interpretation and signage;* |

| | |
|---|---|
| | • *Advice on the development and implementation of the Biodiversity Compensation Project Plan;*<br>• *Other activities as agreed between the Consent Holder and Papatipu Rūnaka*. |

## 4. BIODIVERSITY COMPENSATION

| **BIODIVERSITY COMPENSATION** | |
|---|---|
| | **Biodiversity Compensation Project Overview** |
| BIO.1 | No later than six (6) months after the Consent Holder commences construction activities within the Doolans Basin, the Consent Holder must establish and subsequently implement a Biodiversity Enhancement / Compensation Programme (the "Biodiversity Compensation Project"). The Biodiversity Compensation Project must:<br>(a) Cover an area of land at least 13.8 hectares in size; and<br>(b) Be located within public conservation land, land managed by the Consent Holder within the authorised concession area or land subject to QEII covenants; or<br>(c) Be located within an alternative location developed in consultation with the parties listed in Condition BIO.8. |
| BIO.2 | The objectives of the Biodiversity Compensation Project are to:<br>(a) Provide, long term ecological benefits to the wider area and address the Project's residual ecological effects relating to the permanent loss of 13.8 hectares of indigenous vegetation; and<br>(b) If agreeable to tangata whenua, enable exercise of their kaitiakitanga. |
| | **Biodiversity Compensation Project Fund** |
| BIO.3 | Prior to commencing winter ski field operations within the Doolans Basin, the Consent Holder must make available sufficient funds to finance the design of the Biodiversity Compensation Project. |
| BIO.4 | Prior to the commencement of winter ski field operations within the Doolans Basin, Consent Holder must establish a fund account to implement the Biodiversity Compensation Project as follows:<br>(a) Initial payment of $75,000; and<br>(b) Thereafter, payments of $75,000 annually, paid by 31 March each year.<br>The Consent Holder must continue the funding set out within (b) above until such time as the Biodiversity Compensation Project has resulted in 13.8 hectares of revegetated area. |
| BIO.5 | The rates in Condition BIO.4(a) and (b) must be adjusted at the start of each calendar year by the annual Consumer Price Index (CPI) published by Statistics New Zealand. The adjusted rates must thereafter be used to implement Condition BIO.1. |

| | |
|---|---|
| BIO.6 | The money paid into the fund account in accordance with Condition BIO.4 must be allocated to finance:<br>(a) The implementation of the Biodiversity Compensation Project Plan in accordance with Conditions BIO.7 to BIO.13; and<br>(b) The ongoing review and updating of the Biodiversity Compensation Project Plan. |
| | **Biodiversity Compensation Project Plan** |
| BIO.7 | The Consent Holder must prepare a Biodiversity Compensation Project Plan no later than 18 months after the Consent Holder commences construction of the Doolans Base Building. |
| BIO.8 | The Consent Holder must give the following parties the opportunity to participate in the development (and any subsequent review) of the Biodiversity Compensation Project Plan:<br>(a) The Department of Conservation;<br>(b) A representative of the Mana Whenua Advisory Group;<br>(c) [TBC]; |
| BIO.9 | Any feedback provided by the parties listed in Condition BIO.8 on the Biodiversity Compensation Project Plan must be provided to the Central Otago District Council along with information detailing where these recommendations have been addressed in the Biodiversity Compensation Project Plan, or details of why these recommendations have not been included in the Biodiversity Compensation Project Plan. |
| BIO.10 | The Biodiversity Compensation Project Plan must specify:<br>(a) The delivery mechanism for the Biodiversity Compensation Project (e.g. charitable company or trust, NZ National Parks and Conservation Foundation or other appropriate entity);<br>(b) The specific management and enhancement objectives for the Biodiversity Compensation Project;<br>(c) The detailed programme of activity for the first 5 years following the Consent Holder commencing construction of Doolans Base Building, including how the money referred in Condition BIO.4 is to be spent;<br>(d) Any land access arrangements with the Department of Conservation (or other parties) which are required to implement the Biodiversity Compensation Project Plan;<br>(e) Measurable and time bound performance indicators which demonstrate how the management and enhancement objectives identified in Condition BIO.10(b) are achieved;<br>(f) Methods of outcome monitoring for pest and native animal and plant species to determine programme effectiveness; and<br>(g) The reporting and review process for the Biodiversity Compensation Project Plan. |
| BIO.11 | A copy of the Biodiversity Compensation Project Plan, and any subsequent updated plans, must be provided to the parties listed in Condition BIO.8 for their records. |

| | |
|---|---|
| BIO.12 | The Consent Holder must implement the Biodiversity Compensation Project Plan. |
| BIO.13 | The Biodiversity Compensation Project Plan may be reviewed and updated by the Consent Holder at any time, in consultation with the parties listed in Condition BIO.8. The Consent Holder must provide the Department of Conservation with the most current version of the Biodiversity Compensation Project Plan within four (4) weeks of any update being completed.<br><br>Any such review must adopt the matters addressed in Condition BIO.14. |
| | **Biodiversity Compensation Project Reporting** |
| BIO.14 | The Consent Holder must provide an annual report to the Department of Conservation, by 30 June each year which includes:<br><br>(a) Progress on the development and/or implementation of the Biodiversity Compensation Project Plan. Where aspects of the Biodiversity Compensation Project Plan have not been implemented within the timeframes set out in the Biodiversity Compensation Project Plan, the Report must include the reasons why, and the measures that have been taken by the Consent Holder, or are intended to be taken by the Consent Holder to expedite the implementation of the Biodiversity Compensation Project Plan;<br><br>(b) An assessment of the effectiveness of the Biodiversity Compensation Project Plan in achieving its objectives and performance indicators. Where the report identifies that the performance indicators have not been achieved or maintained the Report must include:<br><br>(i) The reasons why the performance indicators have not yet been achieved;<br><br>(ii) Details of any specific measures that have already been implemented, or are intended to be implemented, to achieve the performance indicators; and<br><br>(iii) Any amendments to the Biodiversity Compensation Project Plan which would assist the Consent Holder to meet the objectives of the Biodiversity Compensation Project Plan, and a description of how these amendments have been provided for as part of the Biodiversity Compensation Project going forward.<br><br>(c) Feedback from the parties listed in Condition Bio.8 in respect of their views on the development and / or implementation of the Biodiversity Compensation Project Plan. |
| **FRESHWATER** | |
| | **Lake Alta Wetland Boardwalk** |
| BIO.15 | In addition to the requirements of Conditions BIO.1 to BIO.14 of this resource consent, upon completion of the construction of the water storage reservoir (Tarn 3), the Consent Holder must provide the Department of Conservation with a single, one off payment of $20,000 to be utilised for the construction of a boardwalk over the wetland leading to Lake Alta.<br><br>This boardwalk is provided to address the residual freshwater ecology effect relating to the loss of a tarn for water storage purposes within the Doolans Basin. |

| | |
|---|---|
| **PEST CONTROL** | |
| BIO.16 | The Consent Holder must implement the Pest Control Plan referred to Condition GC.8, subject to any amendments that may be made under Condition GC.7. |
| BIO.17 | Within two years of construction commencing within the disturbance areas (shown in Attachment A), the consent holder shall prepare a Pest Control Plan, prepared by a suitably qualified and experienced ecologist (with demonstrated experience in pest identification and management in New Zealand alpine environments) to the Central Otago District Council (in respect of activities in the Doolans Basin) for certification. |
| BIO.18 | 1. The objective of the Pest Control Plan is to manage the distribution of pests within the Doolans Basin that are present as a result of, or in exacerbated by the activities authorised by this consent.<br>2. To achieve the objective, the Pest Control Plan must include:<br>(a) Determine the abundance and distribution of all plant and animal pests that are the result of, or exacerbated by, the activities in the Project Area;<br>(b) Provide an expert assessment as to which species are of concern at this location;<br>(c) Develop and implement a control plan for those pests that are the result of, or exacerbated by, the authorised activity;<br>(d) Describe methods to control the pests of conservation concern;<br>(e) Describe monitoring methods to assess the effectiveness of control measures;<br>(f) Provide a statement of expected outcomes; and<br>Report on the effectiveness or otherwise of pest control measures implemented by the Consent Holder. |
| BIO.19 | 1. The effectiveness of the Pest Control Plan in achieving the objective specified in Condition BIO.18 must be reviewed by the Consent Holder at five yearly intervals, for the duration of the resource consent.<br>2. The Consent Holder must, at five year intervals from the Pest Control Plan being certified in accordance with GC.8, prepare a monitoring and review report of the effectiveness of the Pest Control Plan in achieving the objective specified in Condition BIO.18. Prepared by suitably qualified and experienced ecologist, the report shall address the matters set out in BIO.18(2) and include any recommendations for amendments to the Pest Control Plan.<br>3. The results of the review must be provided to the Central Otago District Council (in respect of activities in the Doolans Basin), at 5-yearly intervals to coincide with each review of the Pest Control Plan, |
| **LIZARDS** | |
| BIO.20 | The Consent Holder must implement the Lizard Management Plan referred to Condition GC.8, subject to any amendments that may be made under Condition GC.7. |

| | |
|---|---|
| BIO.21 | Within three months of the commencement of this consent, the Consent Holder must provide a research institution or environmental organisation with a one off payment of $80,000 for research of alpine lizards (such as orange spotted gecko) as compensation for the effects of the Project (within the alpine project area) on lizards. For the purposes of this condition, the one off payment is the sum total to be paid for all lizard research under the authorisations granted under the FTAA. |
| BIO.22 | The Consent Holder must provide written confirmation to the Central Otago District Council of the grant being provided to the research institution or environmental organisation within 10 working days of the grant being given. |
| BIO.23 | The Consent Holder must make the grant provided under BIO.21 contingent on the research institution or environmental organisation agreeing to publish its research findings. |

## 5. GENERAL CONSTRUCTION MANAGEMENT

| | |
|---|---|
| | **Construction Management** |
| CON.1 | The Consent Holder must ensure that all operations on the site are carried out in such a manner as to minimise dust emission and to not cause objectionable or offensive effects beyond the boundary of the site.<br><br>*Advice Note: For the purposes of this consent condition, an objectionable or offensive effect is considered to have occurred if any appropriately experienced officer at the Consent Authority determines it so after having regard to:*<br><br>*(a) The frequency, intensity, duration, location and effect of the dust emissions; and/ or*<br><br>*(b) Where relevant written advice from an experienced officer of the Consent Authority has been issued.* |
| | **Pre Construction Meeting** |
| CON.2 | At least 10 working days prior to the commencement of construction activities, a pre-construction site meeting must be arranged with appropriate representation from the Consent Holder, the Otago Regional Council, Queenstown Lakes District Council and Central Otago District Council monitoring teams and the primary contractor.<br><br>*Advice Note: The purpose of the pre-construction site meeting is to share information in respect of the works methods, management plan requirements and how the conditions of the resource consent will be complied with so that all relevant parties are aware of those matters.* |
| | **Construction Hours** |
| CON.3 | Construction activities must only occur between the following hours:<br><br>1. **Within the Rastus Burn or Doolans Basin:** between 7.00 am and 9.00 pm, Monday to Sunday (subject to the construction lighting requirements of Conditions CON.9 to CON.10).<br><br>2. **Within the Lower Remarkables Transit Hub:** between 7:30am and 6:00 pm on weekdays |

| | |
|---|---|
| | and Saturdays. No work will occur on Sundays or public holidays. |
| | **General Construction Conditions** |
| CON.4 | While carrying out any construction activities authorised by this resource consent, the Consent Holder must ensure that:<br>(a) All machinery only enters and exits work sites from existing roads or ski trails, whichever is closer; and<br>(b) Machinery does not disturb terrain or vegetation, other than as authorised by this resource consent. |
| CON.5 | All earthmoving machinery, pumps, generators and ancillary equipment must be operated so that spillage of fuel, oil and similar contaminants are prevented, and spillage and contaminant measures must be employed, particularly during refuelling and machinery services and maintenance. |
| CON.6 | All site entrance and exit points must be stabilised and appropriate measures employed to minimise off-site tracking of mud and other materials from the construction site onto adjacent public roads. |
| | **Construction Environmental Management Plan - Alpine Project Area** |
| CON.7 | The Consent Holder must implement the Construction Environmental Management Plan referred to Condition GC.8, subject to any amendments that may be made under Condition GC.7. |
| CON.8 | The objective of the Construction Environmental Management Plan is to identify and document how the potential adverse effects of the Project's construction activities on the environment and sensitive receptors are to be managed.<br>To achieve this objective, the Construction Environmental Management Plan for the Alpine Project Area must be in general accordance with the draft Construction Environmental Management Plan lodged [with the application for resource consent] and must include:<br>(a) Details of the activities and intended construction timetable (including staging) and hours of operation for the construction season;<br>(b) Set out how the Construction Environmental Management Plan is to be implemented, including roles and responsibilities in respect of the implementation of the plan;<br>(c) Contact details for the contractor, including a process for complaints and remedying concerns;<br>(d) Identify the site-specific erosion and sediment controls to be implemented;<br>(e) Identify earthworks management and disposal of spoil;<br>(f) Identify the waterbodies within the Project Area, set how water quality is to be protected (including performance indicators) and monitored;<br>(g) Detailed content and performance indicators of methods to control dust, debris on |

| | |
|---|---|
| | roads, and silt laden runoff throughout construction;<br>(h) Detailed content and performance indicators of construction noise and vibration management provisions;<br>(i) Detailed content and performance indicators of lighting management methods to be implemented in instances where nighttime and low natural light level construction activities are required;<br>(j) Construction traffic management procedures for the intersection of the Remarkables Ski Area Access Road and Stage Highway 6 intersection;<br>(k) Security provisions during construction;<br>(l) Document how archaeological and cultural heritage is to managed;<br>(m) Identify how construction effects on flora and fauna are to be managed;<br>(n) Detailed content and performance indicators of construction stormwater management measures to be implemented during construction activities;<br>(o) Detailed content and performance indicators in respect of contaminated land, should any areas of contamination be identified as part of construction activities; and<br>(p) Monitoring procedures and responsibilities. |
| | **Spill Prevention and Incident Response Plan** |
| CON.9 | 1. A Spill Response Plan must be provided to the Otago Regional Council for certification at least 20 working days prior to the commencement of any construction works.<br>2. The Spill Response Plan must specify the management measures required to avoid, remedy, mitigate the adverse effects of, and minimise risks from, contaminant spills to:<br>(a) The onsite environment; and<br>(b) The offsite environment (including the health of neighbouring site users).<br>The Spill Response Plan must be prepared by a suitably qualified and experienced professional. |
| CON.10 | 1. The Spill Response Plan must include:<br>(a) Identification of rapid containment measures that can be implemented onsite (including but not limited to deploying spill kits, temporary bunding, isolating the affected area); and<br>(b) Identification of the training measures that are to occur to ensure all operators are appropriately trained to implement the measures identified in Condition CON.10(a).<br>2. Identification of the parties to be notified of any spill event (including but not necessarily limited to the site manager, the persons responsible for individual activities or areas of activities within the site, and relevant authorities). |

| | |
|---|---|
| | **Construction Lighting** |
| CON.11 | The Consent Holder must ensure that no construction related (external) lighting is utilised during the summer period of 1 November to 28 February (inclusive). |
| CON.12 | If summer construction activities have been delayed and are required to occur in the autumn period of 1 March to 31 May (inclusive), the following applies (in order of priority):<br>(a) Construction related (external) lighting will not be used before sunrise or after sunset; then,<br>(b) Construction related external lighting will only be used one (1) hour before sunrise and one (1) hour before sunset; then<br>(c) The Consent Holder may request (in writing), the approval of the Consent Authority to use construction lighting between 7.00 am and 9.00 pm on up to (3) three days per week. The written request shall be accompanied by any written approval provided by the Department of Conservation to undertake lighting within the same timeframe under the Consent Holders concession. |
| CON.13 | There must be no upward light spill during construction. |
| | **Biosecurity** |
| CON.14 | The Consent Holder must implement didymo decontamination procedures for vehicles, machinery and equipment at the following locations to prevent the spread of didymo:<br>(a) After the last Rastus Burn stream crossing, before vehicles, machinery or equipment moves from the Rastus Burn into the Doolans Basin; and,<br>(b) After use within the Doolans Creek Right Branch, before the vehicle, machinery or equipment moves through the Doolans Basin tributary streams.<br>The procedures must be detailed in the Construction Environment Management Plan for the Alpine Project Area and a record of each decontamination event must be kept and made available to the Otago Regional Council upon request. |

## 6. EROSION AND SEDIMENT CONTROL

| **EROSION AND SEDIMENT CONTROL** | |
|---|---|
| | **General** |
| ESC.1 | The Consent Holder must establish and maintain erosion and sediment control measures during construction that are:<br>(a) In general accordance with:<br>(i) Erosion and Sediment Control Guidelines for Land Disturbing Activities in the Auckland Region 2016 (Auckland Council Guideline Document GD2016/005);<br>(ii) Queenstown Lakes District Council Guidelines for Environmental Management |

| | |
|---|---|
| | Plans, June 2019; and,<br>(iii) Department of Conservation and NZSKI Ltd. Protocol for the Rehabilitation of Natural Alpine Environments Following Ski Area Development. |
| ESC.2 | To minimise erosion, the Consent Holder must ensure, to the greatest extent practicable, that all clean water run-off from stabilised surfaces including catchment areas up gradient of the site is diverted away from the exposed areas via a stabilised system. |
| ESC.3 | All disturbed or cut vegetation, soil or debris must be placed in a position where it will not enter, nor cause erosion of, any water body. |
| ESC.4 | All erosion and sediment controls must be maintained in working order at all times. |
| ESC.5 | Vehicles, machinery and plant associated with construction activities must only use stabilised access points, and must be confined to the consented earthworks footprint shown in **Attachment A** or existing formed access tracks within the Remarkables Ski Area**.** |
| ESC.6 | Stockpiles of construction materials (for example, topsoil or rocks) must not exceed a height of 2 metres and must be temporarily stabilised using the methods identified in the certified Construction Environmental Management Plan. |
| ESC.7 | Soil-binding polymers must not be used anywhere within the alpine project area. |
| | **Chemical Treatment** |
| ESC.8 | Where chemical treatment forms part of the proposed erosion and sediment control measures, the Consent Holder must submit to the Consent Authority a Chemical Treatment Plan for certification to [Consent Authority] no later than 30 working days prior to commencement of the works requiring chemical treatment.<br>Certification is required to verify that the Chemical Treatment Plan:<br>(a) Includes actions, methods, monitoring programmes and trigger levels as appropriate to meet the objectives in Condition ESC.9; and<br>(b) Satisfies the requirements set out in Condition ESC.10. |
| ESC.9 | The Chemical Treatment Plan must:<br>(a) Identify the circumstances where chemical treatment is necessary to enhance the efficacy of sediment retention ponds and decanting earth bunds; and<br>(b) Confirm details of the chemical treatment system. |
| ESC.10 | The Chemical Treatment Plan must, as a minimum, include:<br>(a) An analysis of site soil reactivity to flocculants;<br>(b) Design details of the flocculation system, including within which sediment retention ponds and decanting earth bunds flocculants will be used;<br>(c) Monitoring (including pH and any other testing procedures) and maintenance (including post-storm) requirements, including a record keeping system; |

| | |
|---|---|
| | (d) Details of optimum flocculant dosage (including assumptions); and<br>(e) Contact details of the person responsible for the operation and maintenance of the flocculation treatment system and the organisational structure to which this person will report. |
| | **Erosion and Sediment Control Plan** |
| ESC.11 | The Consent Holder must implement the Erosion and Sediment Control Plan referred to Condition GC.8, subject to any amendments that may be made under Condition GC.7. |
| ESC.12 | The objective of the Erosion and Sediment Control Plan is to set out erosion and sediment control measures for earthworks, including staging, temporary and permanent stabilisation, inspection, and maintenance.<br>To achieve this objective, the Erosion and Sediment Control Plan must include:<br>(a) A description of the construction activities to be undertaken, including staging;<br>(b) The specific erosion and sediment control measures to be implemented to achieve the conditions of this consent, including their location, dimensions and capacity;<br>(c) Supporting calculations and design drawings;<br>(d) Catchment boundaries and contour information;<br>(e) Location(s) of stabilised entranceway(s);<br>(f) Details of temporary and permanent stabilisation, including (where relevant) how temporary structures will transition to permanent measures on site; and<br>(g) The construction methodology for any stream works within the relevant works area.<br>For the alpine project area, the Erosion and Sediment Control Plan must be in general accordance with the draft Erosion and Sediment Control Plan lodged [with the application for resource consent], except where amended to address the conditions of this consent or to address detailed design. |
| | **Erosion and Sediment Control Monitoring** |
| ESC.13 | The Consent Holder must ensure that all erosion and sediment control structures are inspected to identify any maintenance requirements, as follows:<br>(a) Daily visual checks during active earthworks;<br>(b) On a weekly basis;<br>(c) During the period commencing 24 hours before any forecast rainfall event of 25 mm over the subsequent 24 hours; and<br>(d) As soon as practicable following any rainfall event exceeding 25 mm over 24 hours. |
| ESC.14 | The Consent Holder must maintain records detailing:<br>(a) The date, time and results of the inspection undertaken in accordance with Condition ESC.13; |

| | |
|---|---|
| | (b) The erosion and sediment controls that required maintenance; and<br>(c) The date and time when the maintenance was completed.<br>These records must be provided to the Consent Authority within 72 hours of a written request to do so. |
| ESC.15 | Erosion and sediment control measures must only be removed:<br>(a) Once the corresponding catchment area has been permanently stabilised; or<br>(b) When in accordance with the certified Erosion and Sediment Control Plan. |

## 7. EARTHWORKS

| **EARTHWORKS** | |
|---|---|
| EW.1 | Detailed design plans and drawings for earthworks necessary to establish the Remarkables Ski Area Upgrades and Doolan Expansion Project must be provided to the Consent Authority at least 20 working days prior to any earthworks commencing on the site. |
| EW.2 | The design must be in general accordance with that shown on the following plans:<br>(a) Southern Land Remarkables Ski Area Upgrades & Doolans Basin Expansion Access and Transportation Proposed Car Park B and Boneyard, Sheet E153, Drawing Reference A30043_E7 Revision K, dated 6 May 2026.<br>(b) Southern Land Remarkables Area Upgrades & Doolans Basin Expansion Rastus Burn Wastewater Treatment Facility Proposed Infrastructure, Sheet E202, Drawing Reference A30043_7, Revision K, dated 6 May 2026.<br>(c) Southern Land Remarkables Area Upgrades & Doolans Basin Expansion Rastus Burn Base Area Extension Cut and Fill, Sheet E352, Drawing Reference A30043_7, Revision K, dated 6 May 2026.<br>(d) Southern Land Remarkables Area Upgrades & Doolans Basin Expansion Rastus Burn Access Roads and Utilities Cut and Fill, Sheet E402, Drawing Reference A30043_7, Revision K, dated 6 May 2026.<br>(e) Southern Land Remarkables Area Upgrades & Doolans Basin Expansion Gondola Mid Station Cut and Fill, Sheet E456, Drawing Reference A30043_7, Revision K, dated 6 May 2026.<br>(f) Southern Land Remarkables Area Upgrades & Doolans Basin Expansion Gondola Mid Station Cut and Fill, Sheet E502, Drawing Reference A30043_7, Revision K, dated 6 May 2026.<br>(g) Southern Land Remarkables Area Upgrades & Doolans Basin Expansion Doolans Gondola, Cabin Building and Learners Area Cut and Fill, Sheet E552, Drawing Reference A30043_7, Revision K, dated 6 May 2026.<br>(h) Southern Land Remarkables Area Upgrades & Doolans Basin Expansion Doolans Water Intake and Access Cut and Fill, Sheet E552, Drawing Reference A30043_7, Revision K, |

| | |
|---|---|
| | dated 6 May 2026.<br><br>along with any changes made to the preliminary / concept level design plans as necessary as a result of detailed design. |
| EW.3 | 1. The detailed design plans and drawings must include but not be limited to:<br>(a) Confirmation of the earthworks cut / fill balance;<br>(b) Confirmation of the location and staging of earthworks;<br>(c) Batter details;<br>(d) Slope stability design considerations;<br>(e) Retaining wall design;<br>(f) Stockpile requirements;<br>(g) Identification of onsite reuse of excavated material; and,<br>(h) Identification of offsite disposal of excavated material. |
| EW.4 | All earthworks must be carried out in accordance with best practice operations and in accordance with the Construction Environmental Management Plan and Erosion and Sediment Control Plans requires by Condition GC.9. |
| EW.5 | If during earthworks any significant water is found within cuts that are not already designated for water crossings (culverts, fords or splash crossings), works must cease until a suitably qualified and experienced hydrologist has inspected the cut and confirmed whether further actions (including mitigation measures or the use of additional crossings) is required to maintain the hydrological connectivity of the water with the surrounding waterbodies. |
| EW.6 | Trenching for the installation of servicing and utilities will be limited to a length of 150m per working construction face. |
| EW.7 | Trenching for the installation of services and utilities within the Curvey Basin access track must be contained within the existing access track. |

## 8. TERRESTRIAL ECOLOGY

| **TERRESTRIAL ECOLOGY – ALPINE PROJECT AREA** | |
|---|---|
| | **Terrestrial Ecology Management Plan** |
| ECO.1 | The Consent Holder must implement the Terrestrial Ecology Management Plan referred to Condition GC.8, subject to any amendments that may be made under Condition GC.7. |
| ECO.2 | The objective of the Terrestrial Ecology Management Plan is to identify how the potential adverse effects of the Remarkables Ski Area Upgrades and Doolan Expansion Project on the terrestrial ecology and biodiversity values (excluding lizards) within the alpine project area and its surrounds will be appropriately managed. |

| | |
|---|---|
| | To achieve this objective, the Terrestrial Ecology Management Plan must be in general accordance with the draft Terrestrial Ecology Management Plan lodged [with the application for resource consent] and must include:<br><br>(a) Details of the location, extent, and type of mitigation works, including lead-in times, implementation timeframes, and duration of maintenance;<br><br>(b) Details of what components of the Terrestrial Ecology Management Plan apply to construction related activities only, and those which are required to continue when construction has been completed;<br><br>(c) Staff training procedures and signage requirements;<br><br>(d) Monitoring, reporting, and review procedures, including triggers for remedial action if performance standards are not met; and<br><br>(e) Detailed contents and performance indicators in relation to the following:<br><br>(i) Vegetation management – to provide the approach for managing and monitoring flora values associated with vegetation clearance and / or earthworks, and guides impact management for vegetation clearance and or / earthworks, including methodology for translocating plant species (including the requirements set out in Condition ECO.10 of this resource consent);<br><br>(ii) Species identification – to document a methodology for the identification of the plant species set out in Condition ECO.10 of this resource consent;<br><br>(iii) Wetland management – to ensure the hydrological functioning of natural inland wetlands are maintained by providing the approach for managing and monitoring natural inland wetland values (including the requirements set out in Condition ECO.31 to ECO.41 of this resource consent);<br><br>(iv) Stream management – to set out how the connectivity of streams will be maintained, and to describe how disturbed stream banks will be remediated following the completion of construction work, as required by Condition FEW.4 of this resource consent;<br><br>(v) Weed management– to ensure that no new exotic species are introduced to the wider landscape and existing exotic species are controlled to ensure no increase in current population / distribution by outlining the methods and protocols to be implemented to minimise risk of weeds (including the requirements set out in Condition ECO.20 of this resource consent);<br><br>(vi) Invertebrate management - which outlines the methods that will be used to minimise the effects of the project on invertebrates through provision of appropriate habitat; and<br><br>(vii) Avifauna management – which outlines how avifauna are to be managed, including in respect of the requirements of Conditions ECO.21 to ECO.25.<br><br>*Advice Note: The management of lizards is subject to a separate management plan and suite of resource consent conditions.* |

| | |
|---|---|
| | **Amendments to the Terrestrial Ecology Management Plan** |
| ECO.3 | Any amended version of the Terrestrial Ecology Management Plan must as a minimum:<br>(a) Remain consistent with the objectives of the Terrestrial Ecology Management Plan as set out in Condition ECO.2; and<br>(b) Where the activities are to occur on land that is not owned by the Consent Holder, include details of the access rights necessary to carry out all terrestrial ecology management and mitigation measures;<br>(c) Include maps or visual tools at a scale which clearly identify the location and extent of any proposed management and mitigation measures;<br>(d) Include details of monitoring and reporting to the relevant Consent Authority prior to, during and post-construction and operation to determine if the Terrestrial Ecology Management Plan objectives and the performance measures are being met; and<br>(e) Include details of the roles and responsibilities of key staff responsible for implementing the Terrestrial Ecology Management Plan and procedures for training of contractors and other project staff regarding the Terrestrial Ecology Management Plan. |
| | **Terrestrial Ecology Management Plan Reporting** |
| ECO.4 | By 30 June each year the Consent Holder must engage a suitably qualified and experienced ecologist to prepare an annual Terrestrial Ecology Monitoring Report that covers activities addressed in the Terrestrial Ecology Management Plan for the previous year.<br>The Terrestrial Ecology Monitoring Report must be submitted to the Otago Regional Council (in respect of wetlands), Queenstown Lakes District Council and Central Otago District Council by 30 August each year during the construction period of the Project. |
| ECO.5 | The Terrestrial Ecology Monitoring Report must include:<br>(a) A description of the works and other actions completed by the Consent Holder in the previous twelve months;<br>(b) The methods for monitoring for, and recording, any increase in bird strike of Threatened or At Risk bird species, with any increase resulting in further deterrent measure being implemented;<br>(c) Where aspects of the Terrestrial Ecology Management Plan have not been implemented in accordance with expected timeframes, the reasons why, and the measures that have been taken by the Consent Holder to address the shortcomings;<br>(d) An assessment of the effectiveness of the Terrestrial Ecology Management Plan in achieving their objectives and performance indicators. Where the Terrestrial Ecology Monitoring Report identifies that the performance indicators have not been achieved or maintained the Report must include:<br>(i) The reasons why the performance indicators have not yet been achieved;<br>(ii) Specific measures that have already been implemented, or are required to be |

| | |
|---|---|
| | implemented to address the failure to achieve performance indicators; and<br>(e) Details of any amendments needed to the Terrestrial Ecology Management Plan or any other related management plan. |
| | **Vegetation Clearance / Earthworks** |
| ECO.6 | No earthworks can occur outside of the earthworks / disturbance extent shown on **in Attachment A** unless this would result in a reduced footprint or a reduction in terrestrial ecology effects. Any changes to the disturbance footprint must be surveyed in accordance with Condition ECO.8, and the rationale for these changes must be included in a written report in accordance with Condition ECO.9. |
| ECO.7 | At least 10 working days prior to undertaking vegetation clearance or earthworks within the project disturbance area **(Attachment A)**, the Consent Holder must:<br>(a) Engage a suitably qualified and experienced ecologist to delineate and mark the proposed disturbance footprint; and<br>(b) Undertake an ecology survey (or surveys) in accordance with Condition ECO.8, including the identification of any weed species.<br>(c) Identify and delineate comparable habitat outside of the disturbance footprint suitable for the translocation of indigenous flora species that are to be moved from the disturbance area in accordance with Condition ECO.8(b). |
| ECO.8 | Prior to undertaking vegetation clearance / earthworks the Consent Holder must ensure that an ecology survey is undertaken by one or more suitably qualified and experienced ecologist(s). The purpose of the ecology survey is to:<br>(a) Record and delineate the location of all indigenous flora species to be translocated in accordance with Condition ECO.10 of this resource consent;<br>(b) Document and record where the plant species should be translocated to; and<br>(c) To provide advice and recommendations in respect of any alternation to the disturbance footprint that may occur during construction;<br>(d) Identify the location of wetlands within 10m of the project disturbance area. |
| ECO.9 | Within 20 working days of any ecology survey being undertaken, the Consent Holder must provide the Queenstown Lakes District Council (in respect of activities in the Rastus Burn) and the Central Otago District Council (in respect of activities in the Doolans Basin) with written report(s) that include:<br>(a) The findings of the ecology survey(s) required by Condition ECO.8, including the GPS information or NZTM coordinates of the surveyed area;<br>(b) The details and rationale of any changes to the disturbance footprint resulting from the ecology survey;<br>(c) The details of the species found within the disturbance footprint; and<br>(d) The details of the comparable habitat selected (including GPS information or NZTM |

| | |
|---|---|
| | coordinates) for the translocation of the species required to be translocated in accordance with Condition ECO.10. |
| ECO.10 | Prior to undertaking vegetation clearance / earthworks within the disturbance footprint delineated in accordance with Condition ECO.9, a suitably qualified ecologist must:<br>(a) Translocate all "Threatened", "At-Risk – Declining" and "Taonga" plant species [TBC following discussions with Kā Rūnaka] listed in **Attachment B** into suitable and comparable habitat;<br>(b) Translocate up to 500 clusters of each 'At Risk – Naturally Uncommon' and 'Data Deficient' plant species listed in **Attachment C** into suitable and comparable habitat; and<br>(c) Translocate all invertebrate host specific "Not Threatened" plant species (not addressed by (a) and (b) above) in accordance with the same methodology for 'At Risk – Declining' and 'Threatened' plant species. This applies to all species within the Cardamine genus, Aciphylla aurea and Aciphylla 'lomond'. These host specific plant species must be identified in the Terrestrial Ecology Management Plan. |
| ECO.11 | The habitats where translocated plant species are to be planted must be located as close as practicable to the donor site. |
| ECO.12 | During vegetation clearance / earthworks, rehabilitation resources including topsoil, subsoil, vegetation, and rocks must be identified and salvaged where possible to be re-used during rehabilitation, subject to the exceptions set out in Condition ECO.20(e). |
| ECO.13 | All stockpiled material must be contained within the disturbance footprint and not to be deposited atop any indigenous vegetation. |
| ECO.14 | All batter slopes / exposed surfaces must be revegetated as contiguous mats using vegetation (not already subject to the requirements of ECO.10 (a) and (b)) removed within the disturbance footprint in accordance with the "*Protocol for the Rehabilitation of Natural Alpine Environments Following Ski Area Development*" (**Attachment D** to this resource consent). In addition to adhering to the "*Protocol for the Rehabilitation of Natural Alpine Environments Following Ski Area Development* ", the following must also be adhered to:<br>(a) Where practicable, removed vegetation is to be placed within one movement onto a suitable revegetation surface;<br>(b) Where a single movement is not practicable, vegetation should only be stored upright and for no longer that one day before being placed onto a suitable revegetation surface;<br>(c) Revegetation sites must be delineated and approved prior to receiving any excavated material; and<br>(d) All works are to be carried out by contractors experienced in vegetation translocation and revegetation and must work with a suitably qualified ecologist. |
| ECO.15 | Vegetation must be translocated in tracts of vegetation material as large as possible, to ensure as much of the habitat and ground dwelling terrestrial invertebrates are preserved. |

| | |
|---|---|
| ECO.16 | All species - specific plant translocations (those required by Condition ECO.10 (a) of this resource consent) must achieve a minimum 60 % survival rate after seven years. |
| ECO.17 | Community vegetation translocation / remediation (those required by Condition ECO.10 (b) of this resource consent) must achieve a 60 % indigenous cover rate after seven years. |
| ECO.18 | All plant translocations undertaken in accordance with Condition ECO.10 must be monitored on an annual basis for three years, and biennially for a further four years. The monitoring must be undertaken in accordance with the methodology set out in the Terrestrial Ecology Management Plan (Condition ECO.2 of this resource consent) and reported in accordance with the requirements of the Terrestrial Ecology Monitoring Report (Condition ECO.5 of this resource consent). |
| ECO.19 | Where the monitoring required by Condition ECO.18 identifies that the survival rates do not achieve the requirements of Conditions ECO.16 and ECO.17, direct sowing or dispersal of indigenous locally sourced seed into disturbed substrate will be trailed on an experimental basis and continued where survival is observed for another seven year period. |
| | **Weed Management** |
| ECO.20 | In addition to the weed management requirements of the Terrestrial Ecology Management Plan (Condition ECO.2(e)(v) of this consent), the Consent Holder must adhere to the following requirements:<br>(a) Identify all existing weed incursions within the disturbance footprint and remove these weeds;<br>(b) Soil from outside of the project area must not be brought onto the site to be used in construction activities;<br>(c) Prior to any machinery or equipment entering the project area, it must be checked for soil that could contain seeds or exotic plants, and all such soil must be removed;<br>(d) Establish a quarantine area near the Remarkables Ski Field Base to enable checks and cleaning of machinery and equipment prior to entering the project area; and<br>(e) Soil excavated from the Rastus Burn Base Building earthworks site must not be moved upslope, or between catchments. For any other areas, soil must not be moved more than 100 vertical metres upslope.<br>Cleaning must be undertaken and documented in accordance with the document titled '*KEEP IT CLEAN - best practice guide #A16'* produced by National Pest Control Agencies, ISBN 978-1-877474-54-5, June 2013 or any subsequent version of the guide (in which case the latter version prevails). |
| | **Avifauna Management** |
| ECO.21 | Where works take place within the breeding season for karearea (August-May) or pihoihoi (August-February), nesting habitat within the disturbance footprint for both species are to be surveyed ahead of time (no longer than 8-days prior to disturbance) and any nests identified. |

| | |
|---|---|
| ECO.22 | 1. Where the survey required by Condition ECO.21 identifies that construction activities could result in direct disturbance to any nesting kārearea / New Zealand falcon (*Falco novaeseelandiae*) or Pīhoihoi / New Zealand pipit (*Anthus novaeseelandiae*), the following approach must be applied (in sequential order), and with a suitably qualified ecologist(s) present on site:<br>(a) The following construction exclusion zones must be established around the nest site;<br>(i) A 200m exclusion zone must be established around the nest site of any kārearea / New Zealand falcon (*Falco novaeseelandiae*); and,<br>(ii) A 50m exclusion zone must be established around the next site of any New Zealand pipit (*Anthus novaeseelandiae*);<br>(b) where practicable, construction activities must avoid the exclusion area until chicks (if present) have fledged;<br>(c) where avoidance in accordance with Condition ECO.22(1)(b) is not practicable, the nest must be relocated to an adjacent undisturbed area as identified and documented by a suitably qualified ornithologist; or<br>(d) where relocation in accordance with Condition ECO.22(1)(c) may cause harm to the adult birds due to construction activities birds, the nest (and eggs if present) must be destroyed and the nest site disturbed within seven days to avoid renesting in the same location.<br>2. All works required under Condition ECO.22(1) must be undertaken and managed by a suitably qualified and experienced Ornithologist and in accordance the best practice capture, handling and release measures set out in the Department of Conservation's New Zealand National Bird Banding Scheme bird bander's manual. |
| ECO.23 | Where kea (*Nestor notabilis*) are observed within, or in proximity to, areas where construction activities are to occur, the following measures must be undertaken:<br>(a) All tools, consumable items, and loose or soft constructions material must be secured to make them inaccessible to kea;<br>(b) Interactions with kea must be avoided to the extent practicable, and otherwise minimised to reduce potential habituation; and<br>(c) If kea become a nuisance kea safe 'playgrounds' must be installed to distract kea during work hours.<br>All measures must remain in place until construction in the affected area has been completed. |
| ECO.24 | To reduce plant community degradation, species smothering and harmful ingestion of rubbish by kea (*Nestor notabilis*), the following measures must be implemented:<br>(a) Rubbish bins associated with the activities authorised by this resource consent must not be stored externally; and<br>(b) Annual rubbish collections must be undertaken within, and adjacent to, all tracks and ski area infrastructure. |

| | |
|---|---|
| ECO.25 | The Consent Holder must monitor for bird strike on the Doolans Base Building where external window finishes provide a direct line of sight or reflection and record instances where there is bird strike. This monitoring must occur for the first five years following construction of the Doolans Base Building. Should the monitoring identify bird strike of "Threatened" or "At Risk" bird species, deterrent measures must be implemented. The deterrent measures must be identified in the Terrestrial Ecology Management Plan. |
| | **Lizard Management** |
| ECO.26 | Prior to the commencement of any vegetation clearance within the areas identified as McCann's Skink habitat in **Attachment E**, the consent holder shall ensure that the area authorised for vegetation clearance is clearly identified and marked on site (plus a 1 metre buffer). |
| ECO.27 | 1. The consent holder must ensure that vegetation within the marked clearance area identified in Condition ECO.26 is progressively trimmed to a height of approximately 40 centimetres using a scrub cutter fitted with a line trimmer attachment, prior to the vegetation clearance occurring.<br>2. Vegetation Trimming required by ECO.27(1) must not occur in increments exceeding 20cm. A period of seven days must pass between trimming increments (or a shorter period as approved by a suitably qualify and experienced ecologist).<br>3. Once the initially trimmed vegetation has dried, being approximately seven days after the initial trim, the Consent Holder must ensure that the area is trimmed again using a scrub cutter fitted with a circular metal blade to reduce the vegetation height to approximately 20 centimetres.<br>4. Alternative scrub-cutting methodologies may be used where a suitably qualified and experienced ecologist determines that such methodologies will achieve the same or a better ecological outcome. For the avoidance of doubt, mulching or mowing must not be used to achieve vegetation reduction within the clearance area. |
| ECO.28 | Any earthworks or vegetation clearance within the area of McCann's Skink habitat (shown in **Attachment E)** must not commence until the temperature at the earthworks or vegetation clearance site has reached a minimum of 14 degrees C. |
| | *Lizard Management Plan* |
| ECO.29 | The Consent Holder must implement the Lizard Management Plan and Car Park 3 Lizard Management Plan referred to in Condition GC.9, subject to any amendments that may be made under Condition GC.8.<br>*Advice note: For the purposes of conditions ECO.29 – ECO.30, references to "lizards" only applies to native lizards that are protected under the Wildlife Act 1953 and "lizard habitat" has a corresponding meaning.* |
| ECO.30 | 1. The objectives of the Lizard Management Plan and the Car Park 3 Lizard Management Plan are to ensure effects on lizards are managed and/or compensated in an ecologically appropriate |

| | |
|---|---|
| | manner.<br>2. To achieve the objectives, the Lizard Management Plan must be in general accordance with the Lizard Management plan lodged [with the application for resource consent] and must include:<br>(a) A description of the lizard values of the site;<br>(b) Identification of the actual and potential effects of the Remarkables Expansion Project; and<br>(c) A description of the effects management and compensation proposed to ensure the objective of the Lizard Management Plan is being met.<br>3. To achieve the objectives, the Car Park Lizard Management Plan must include details of:<br>(a) The lizard values of the site, informed by gee minnow trapping and manual habitat searching;<br>(b) Identification of the actual and potential effects of the proposed earthworks within Car Park 3; and,<br>(c) A description of the effects management proposed to ensure the objective of the Lizard Management Plan is being met.<br>4. The Lizard Management Plan and the Car Park Lizard Management Plan must be prepared in accordance with the Department of Conservations guidelines and model for producing management plans for New Zealand lizards (2018). |
| | **Natural Inland Wetland Management** |
| ECO.31 | At least 40 working days prior to the construction of any natural inland wetland crossing (including utilities trenching), the Consent Holder must provide to the Otago Regional Council:<br>(a) Location of the crossing;<br>(b) Detailed engineering designs of the structures;<br>(c) An assessment of the hydrological effects on the wetland;<br>(d) Construction methodology (including rehabilitation);<br>(e) A statement of when construction will start and when it is expected to end; and<br>(f) Contact details for site representative.<br>The information provided to the Otago Regional Council must include a review of the wetland crossing information by a suitably qualified and experienced hydrologist and wetland ecologist that confirms the crossing or utilities trenching will maintain the hydrological functioning and connectivity of the wetland. |
| ECO.32 | All natural inland wetland crossings must be constructed in general accordance with the detailed design plans and drawings. |
| ECO.33 | Within 10 working days of the completion of construction of each natural inland wetland crossing, each crossing must be inspected by a suitably qualified hydrologist and / or ecologist |

| | |
|---|---|
| | and confirmation that the design has been implemented correctly and is functioning as anticipated must be provided to the Otago Regional Council. |
| ECO.34 | If the works to construct a wetland crossing require the temporary taking, use, damming or diversion of water around the work site, or discharges of water into the water around a work site:<br>(a) The activity must be undertaken during a period when there is a low risk of flooding; and<br>(b) The activity must be undertaken only for as long as necessary to achieve its purpose. |
| ECO.35 | Photographic monitoring points must be established for all natural inland wetlands located within 10 m of the works footprint, as delineated in Condition ECO.8. Photographs must be taken:<br>(a) Before earthworks or vegetation clearance within 10m of the wetland commence;<br>(b) Within 7 days of the earthworks or vegetation clearance works within 10m of the wetland being completed; and<br>(c) 12 months after the completion of the earthworks or vegetation clearance work within 10m of the wetland.<br>If the photographs show natural inland wetland loss or altered hydrological condition (other than authorised by this consent), the Consent Holder must, within 20 working days, implement remedial measures to address the loss or altered hydrological condition of the natural inland wetland. |
| ECO.36 | Any activity authorised by this consent:<br>(a) Must not result in the discharge of a contaminant to any natural inland wetland in circumstances where the contaminant, after reasonable mixing, causes, or may cause, 1 or more of the following effects:<br>(i) The production of conspicuous oil or grease films, scums or foams, or floatable or suspended materials:<br>(ii) A conspicuous change in colour or visual clarity:<br>(iii) An emission of objectionable odour:<br>(iv) Adverse effects on aquatic life that are more than minor;<br>(b) Must not increase the level of flood waters that would, in any flood event (regardless of probability), inundate all or any part of the 1% AEP floodplain; and,<br>(c) Debris and sediment must not be placed—<br>(i) Within a setback of 10 m from any natural inland wetland; or<br>(ii) In a position where it may enter any natural inland wetland. |
| ECO.37 | 1. During and after any works within, or within 10 metres of, a natural inland wetland, erosion and sediment control measures must be applied and maintained at the site of the activity to minimise adverse effects of sediment on natural inland wetlands;<br>2. The measures must include stabilising or containing soil that is exposed or disturbed by the activity as soon as practicable after the activity ends; |

| | |
|---|---|
| | 3. The measures referred to in (b) must remain in place until vegetation covers more than 80% of the site; and<br>4. If the activity is vegetation clearance, revegetation must commence within three (3) months. |
| ECO.38 | 1. All machinery, vehicles, and equipment used for undertaking any activity authorised by this consent, must be cleaned before entering any natural inland wetland (to avoid introducing pests, unwanted organisms, or exotic plants);<br>2. Machinery that is used for the activity must sit outside a natural inland wetland, unless it is necessary for the machinery to enter the natural inland wetland to achieve the purpose of the activity;<br>3. If machinery or vehicles enter any natural inland wetland, they must be modified or supported to prevent them from damaging the natural inland wetland (for example, by widening the tracks of track-driven vehicles or using platforms for machinery to sit on); and<br>4. The mixing of construction materials, and the refuelling, maintenance and parking of vehicles, machinery, and equipment, must be done outside a 10 m setback from any natural inland wetland. |
| ECO.39 | 1. Any activity authorised by this consent must not prevent the public from continuing to access the natural inland wetland (unless that is required to protect the health and safety of the public or the persons undertaking the activity);<br>2. No later than 5 days after any activity within 10 metres of the any wetland is completed;<br>(a) All debris, materials, and equipment relating to the activity must be removed from the site; and<br>3. The site must be free from litter. |
| ECO.40 | Prior to works occurring within 10m of a natural inland wetland, appropriate erosion and sediment control must be implemented on the downgradient side of permeable access roads to reduce discharges into wetlands.<br>These erosion and sediment control measures must be documented in the erosion and sediment control plan required by condition GC.8. |
| ECO.41 | All works within natural inland wetlands must be undertaken in stages such that each disturbed section is completed and reinstated within the same working day unless otherwise certified by a suitably qualified hydrologist. |
| | **Structural Integrity** |
| ECO.42 | All natural wetland crossings must be designed, constructed and maintained to conform to standard engineering practices and at all times be maintained to a safe and serviceable standard. |
| | **Terrestrial Ecology General** |
| ECO.43 | The Consent Holder must ensure that lead based materials and finishes are not used in construction or maintenance of any infrastructure. |

| | |
|---|---|
| | **TERRESTRIAL ECOLOGY – LOWER REMARKABLES TRANSIT HUB** |
| | **Car Park B** |
| ECO.44 | The Consent Holder must prepare and implement the Lower Remarkables Transit Hub Car Park Rehabilitation Plan referred to Condition GC.8, subject to any amendments that may be made under Condition GC.7. |
| ECO.45 | The objective of the Car Park Rehabilitation Plan is to actively rehabilitate the area of land identified in **Attachment F** with high diversity grey shrubland.<br>To achieve the objective, the Car Park Rehabilitation Plan must include details of:<br>(a) Plant spacing and grade and densities;<br>(b) Growing medium;<br>(c) Site preparation requirements before rehabilitation works commence;<br>(d) Weed management; and,<br>(e) Reporting and monitoring requirements. |
| ECO.46 | Planting undertaken in accordance with the Lower Remarkables Transit Hub Rehabilitation Plan must be monitored for a period of three years, or until an 80% survival rate has been achieved. |
| ECO.47 | Prior to undertaking vegetation clearance within Car Park B the Consent Holder must ensure that a survey is undertaken by a suitability qualified and experienced ornithologist to determine whether any nests of grey warbler, New Zealand fantail or silvereye are present on site.<br>If nests are detected, vegetation clearance must not occur between 1 August and 30 January to avoid the peak breeding season of grey warbler, New Zealand fantail and silvereye. |
| ECO.48 | Prior to works commencing, the Consent Holder must obtain a wildlife permit from the Department of Conservation to catch, handle, salvage and relocate absolutely projected wildlife (lizards) from Car Park B.<br>*Advice Note: A copy of this wildlife permit shall be provided to Queenstown Lakes District Council* |
| ECO.49 | The objective of the Lower Remarkables Transit Hub Lizard Management Plan is to ensure effects on lizards are managed and/or compensated in an ecologically appropriate manner.<br>To achieve the objective, the Lower Remarkables Lizard Management Plan must include details of:<br>(a) The lizard values of the site;<br>(b) The actual and potential effects of the TBC; and,<br>(c) Reporting and monitoring requirements. |

## 9. FRESHWATER ECOLOGY

| **FRESHWATER ECOLOGY AND HYDROLOGY** | |
|---|---|
| | **Freshwater Ecology Management** |
| FEW. 1 | Where works are undertaken within any watercourse, or within 10m of a watercourse, the Consent Holder must implement and maintain erosion and sediment control measures that are:<br>(a) In general accordance with:<br>(i) Erosion and Sediment Control Guidelines for Land Disturbing Activities in the Auckland Region 2016 (Auckland Council Guideline Document GD2016/005);<br>(ii) Queenstown Lakes District Council Guidelines for Environmental Management Plans, June 2019;<br>(iii) Department of Conservation and NZSKI Ltd. Protocol for the Rehabilitation of Natural Alpine Environments Following Ski Area Development;<br>(iv) The Ministry for the Environment National works in waterways guideline (2021)<br>(b) In general accordance Construction Environmental Management Plan by Enviroscope (2026) submitted as part of the Fast Track Substantive Application and updated to reflect the conditions of this consent. |
| FEW.2 | The consent holder must ensure that the Erosion and Sediment Control Plan (required by Conditions ESC.11 and ESC.12) documents the erosion and sediment control measures to be implemented to ensure compliance with Condition FEW.1 |
| FEW.3 | 1. All machinery, vehicles, and equipment used for undertaking any activity authorised by this consent, must be cleaned before entering any stream (to avoid introducing pests, unwanted organisms, or exotic plants);<br>2. Machinery that is used for the activity must sit outside the stream, unless it is necessary for the machinery to enter the stream to achieve the purpose of the activity;<br>3. The mixing of construction materials, and the refuelling, maintenance and parking of vehicles, machinery, and equipment, must be done outside a 10 m setback from any stream. |
| | **Streambank Remediation** |
| FEW.4 | All disturbed stream banks must be protected with geotextile matting and replanted with locally sourced native tussock grasses at 1 metre spacings. |

## 10. HYDROLOGY AND INSTREAM STRUCTURES

| **HYDROLOGY AND INSTREAM STRUCTURES** | |
|---|---|
| | **Weir Construction** |
| WAT.1 | 1. Detailed design plans and drawings for water intake structure necessary to service the Project must be provided to the Otago Regional Council and Central Otago District Council at least 40 working days prior to any associated construction works commencing.<br>2. The designs must be in general accordance with those detailed in the Appendix B of the Stantec New Zealand Limited report titled "*Remarkables Ski Area Expansion Project Water Intake Concept Report"* and dated 29 April 2026, along with any changes made to the preliminary / concept level design plans as a result of detailed design.<br>3. The detailed design plans and drawings must include but not be limited to:<br>(a) Confirmation of the timing of the construction of the water intake structure within the development stages of the Project;<br>(b) Layouts, dimensions, and operational design details of the intake structure, including (but not limited to):<br>(i) Dimensions for the intake weir structure;<br>(ii) Dimensions and layout of wing wall and scour protection measures;<br>(iii) Details of the overflow/flushing chamber and sediment flushing return pipe to the creek;<br>(iv) Low head pump selection and dimensions which confirm the dimensions of the OF-chamber<br>(v) Diameter, rout and material for the rising main and low head pump chamber to the main pump building<br>(c) Measures and methods that are to be implemented to ensure works within the bed of Doolans Creek are minimised as far as practicable; and<br>(d) Measures and methods that are to be implemented to ensure adverse erosion and sediment control effects are avoided and / or managed appropriately. |
| WAT.2 | The water intake structure must be constructed in general accordance with the detailed design plans and drawings. |
| WAT.3 | Earthworks associated with the construction of the weir must only be undertaken when the flow in the Nevis River, at the Wentworth Station flow recorder site, is less than 11.7 cubic metres per second. |
| WAT.4 | The water intake structure (including wingwalls and scour protection structures) located as shown in Appendix B of the Stantec New Zealand Limited report titled "*Remarkables Ski Area Expansion Project Water Intake Concept Report"* and dated 29 April 2026, and must be designed, installed and maintained so that it does not cause erosion of the bed or banks of Doolans Creek. |

| | |
|---|---|
| WAT.5 | The Consent Holder must give the Otago Regional Council at least two (2) working days' notice of the intention to commence construction of the water intake structure and associated wingwalls and scour protection and will advise the Otago Regional Council immediately following their completion. |
| WAT.6 | During the construction of the water intake structure:<br>(a) The works area within the Doolans Creek Right Branch must be dewatered; and<br>(b) Cement use must be isolated, and any high alkalinity water must be pumped to a tanker and disposed offsite. |
| WAT.7 | The Consent Holder will keep a photographic record of the area, stream berm, and bank where works for the installation of the intake structure, wingwall and scour protection works occur. The record must comprise date stamped photographs of the area prior to construction commencing, photographs during construction, and photographs of the area after construction has been completed. The photographic record will be provided to the Otago Regional Council upon request. |
| WAT.8 | The Consent Holder must ensure that at the completion of the construction works, any newly established surfaces or slopes, or any vegetated areas that were cleared or damaged as a result of the activity, are stabilised to the satisfaction of the Otago Regional Council in order to prevent sediment associated with the works from entering the Doolans Creek Right Branch. |
| WAT.9 | Within 20 working days after the completion of the construction of the weir, the following information must be provided to the Otago Regional Council:<br>(a) The weir's asset identification number, if known:<br>(b) Confirmation of the weir's ownership;<br>(c) The type of weir;<br>(d) The weir's crest shape;<br>(e) The weir's height;<br>(f) The weir's width;<br>(g) The material from which the weir is made;<br>(h) The type of bed substrate that is present across most of the weir;<br>(i) Whether there are any remediation features (for example, baffles or spat rope) in the weir;<br>(j) Whether the weir has wetted margins;<br>(k) The slope of the weir;<br>(l) The backwater distance from the weir, meaning the distance furthest upstream where the water level is influenced by the weir;<br>(m) The numbers of each other type of structure to which this subpart applies, or of wingwalls or screens, on the weir; and<br>(n) If there is any apron or ramp on the weir, the information required by regulation 68 for each of them. |

| | |
|---|---|
| | **Structural Integrity** |
| WAT.10 | All the weir structure must be designed, constructed and maintained to conform to standard engineering practices and at all times be maintained to a safe and serviceable standard. |
| | **Water Take** |
| | *Limits* |
| WAT.11 | The water taken from Doolans Creek Right Branch under this resource consent must only occur during the period 1 May to 31 October (inclusive) and the amount taken must not exceed:<br>(a) 41,240 cubic metres in any June to September in any year;<br>(b) 38,872 cubic metres in any one month; and<br>(c) 30 litres per second. |
| WAT.12 | A residual flow of no less than 20 litres per second must, at all times, be maintained in the Doolans Creek Right Branch immediately downstream of the point of abstraction. |
| WAT.13 | Abstraction must not occur when the flow of the Doolans Creek Right Branch, at the point of abstraction, is less than 20 litres per second. |
| | *Monitoring and Recording* |
| WAT.14 | The Consent Holder must maintain:<br>(a) Water meters at the point of take that will measure the rate and the volume of water taken to within an accuracy of +/- 5% over the meter's nominal flow range at the locations specified. The water meter must be capable of output to a datalogger. No mechanical or clamp on water meters may be installed;<br>(b) A datalogger for each location of take that time stamps a pulse from the flow meter at least once every 15 minutes and have the capacity to hold at least twelve months data of water taken; and<br>(c) A data logger which enables all of the data to be sent to the Otago Regional Council. |
| WAT.15 | The Consent Holder must provide water take data collected in accordance with Condition WAT.14 once yearly to the Otago Regional Council. The Consent Holder must ensure data compatibility with the Otago Regional Council's time-series database and conform with Otago Regional Council's data standards. |
| WAT.16 | Within 20 working days of the installation of the water meter / datalogger/ telemetry unit, any subsequent replacement of the water meter / datalogger/ telemetry unit and at five (5) yearly intervals thereafter, and at any time when requested by the Otago Regional Council, the Consent Holder must provide written certification to the Otago Regional Council signed by a suitably qualified person certifying, and demonstrating by means of a clear diagram, that:<br>(a) Each device is installed in accordance with the manufacturer's specifications;<br>(b) Data from the recording device can be readily accessed and/or retrieved in accordance |

| | |
|---|---|
| | with the conditions above; and<br><br>(c) That the water meter has been verified as accurate.<br><br>The water meter / datalogger / telemetry unit must be installed and maintained throughout the duration of the consent in accordance with the manufacturer's specifications. |
| WAT.17 | All practicable measures must be taken to ensure that the water meter and recording device(s) are fully functional at all times. |
| WAT.18 | The Consent Holder must report any malfunction of the water meter / datalogger/ telemetry unit to the Otago Regional Council within 5 working days of observation of the malfunction. The malfunction must be repaired within 10 working days of observation of the malfunction or within a timeframe agreed with the Otago Regional Council in writing and the Consent Holder must provide proof of the repair, including photographic evidence, to the Otago Regional Council within five (5) working days of the completion of repairs. |
| | **Stream Crossings – Culverts, Fords, Splash Crossings and Utilities Trenching** |
| WAT.19 | 1. At least 40 working days prior to the construction of any stream crossing (culvert, ford, splash crossing or utilities trench), the Consent Holder must provide to the Otago Regional Council:<br><br>(a) Location of the crossing;<br><br>(b) Detailed engineering designs of the structures;<br><br>(c) An assessment of the hydrological effects on the stream;<br><br>(d) Construction methodology (including rehabilitation);<br><br>(e) A statement of when construction will start and when it is expected to end; and<br><br>(f) Contact details for site representative.<br><br>The information provided to the Otago Regional Council must include a review of the wetland crossing information by a suitably qualified and experienced hydrologist and ecologist that confirms the crossing will maintain the hydrological functioning of the stream and any wetland within 100m of the stream crossing.<br><br>2. Excepting utilities, the design must be in general accordance with that shown on the following plans:<br><br>(a) Southern Land Remarkables Ski Area Upgrades & Doolans Basin Expansion Rastus Burn Access Roads Trails and Utilities Stormwater, Sheet E506, Drawing Reference A30043_E7 Revision K, dated 6 May 2026;<br><br>(b) Southern Land Remarkables Ski Area Upgrades & Doolans Basin Expansion Rastus Burn Access Roads Trails and Utilities Reservoir, Sheet E507, Drawing Reference A30043_E7 Revision K, dated 6 May 2026; |
| WAT.20 | Detailed design for Culvert B (**Attachment G**) must include twin culverts, unless an alternative design is certified by a suitably qualified hydrologist as providing equivalent or better maintenance of stream hydrology. |

| | |
|---|---|
| WAT.21 | Detailed design for Culverts B and Culvert I (**Attachment G**) must confirm the direction of wetland seepage and whether a permeable access road or equivalent hydrological connectivity measure is required. If required by that assessment, the measure must be installed before the relevant crossing is brought into use. |
| WAT.22 | Splash Crossing B **(Attachment G)** must be located downgradient of the point where the wetland becomes a defined waterway, unless an appropriate alternative location is identified and approved by a suitably qualified hydrologist and freshwater ecologist. |
| WAT.23 | Detailed design for Armoured Swale C and Splash Crossing F (**Attachment G**) must demonstrate how those structures integrate without causing scour, channelisation or loss of wetland hydrology. Any discharge from Armoured Swale C must be dispersed by a permanent energy-dissipating outlet. |
| WAT.24 | Detailed design for Armoured Swale D **(Attachment G**) must include a permeable road or equivalent certified measure to maintain wetland hydrology, and any stormwater conveyed by Armoured Swale D must be discharged beyond the wetland boundary in a manner that avoids scour, sediment release and re-entry to the wetland. |
| WAT. 25 | Detailed design for Armoured Swale A **(Attachment G)** must intersect the intermittent stream downgradient of the transition from riparian wetland to stream channel to avoid loss of wetland area. |
| WAT.26 | All stream crossings must be designed, constructed and maintained to conform to standard engineering practices and at all times be maintained to a safe and serviceable standard. |
| WAT.27 | During the construction of culverts, splash crossing, fords or utilities trenching requiring instream works;<br>(a) The works area must be dewatered with a short diversion in place to ensure the works area is isolated and sediment laden water is pumped to a nearby sediment control device;<br>(b) If cement is required to be used, dewatering techniques must be used to ensure the cement is isolated, and any high alkalinity water must be pumped to a tanker and disposed offsite. |
| WAT.28 | 1. Within 10 working days and on the first anniversary of each stream crossing being installed, each crossing must be inspected by a suitably qualified hydrologist and / or ecologist and confirmation provided to the Otago Regional Council that the design has been implemented correctly and is functioning as anticipated. In addition, the following information must be provided to the Otago Regional Council:<br>(a) The type of structure;<br>(b) The geographical co-ordinates of the structure;<br>(c) The flow of the river or connected area (whether none, low, normal, or high);<br>(d) At the structure's location-<br>(i) The width of the stream or connected area at the water's surface; and<br>(ii) The width of the bed of the stream or connected area; |

| | |
|---|---|
| | (e) Visual evidence (for example, photographs) that shows both ends of the structure, viewed upstream and downstream. |
| WAT.29 | If the stream crossing is a culvert, within 20 working days of the culvert being installed, the following information must be provided to the Otago Regional Council:<br>(a) The culvert's asset identification number, if known;<br>(b) Details of the culvert's ownership;<br>(c) The number of barrels that make up the culvert;<br>(d) The culvert's shape;<br>(e) The culvert's length;<br>(f) The culvert's diameter or its width and height;<br>(g) The height of the drop (if any) from the culvert's outlet;<br>(h) The length of the undercut or erosion (if any) from the culvert's outlet;<br>(i) The material from which the culvert is made;<br>(j) The mean depth of the water through the culvert;<br>(k) The mean water velocity in the culvert;<br>(l) Whether there are low-velocity zones downstream of the culvert;<br>(m) The type of bed substrate that is in most of the culvert;<br>(n) Whether there are any remediation features (for example, baffles or spat rope) in the culvert;<br>(o) Whether the culvert has wetted margins;<br>(p) The slope of the culvert;<br>(q) The alignment of the culvert;<br>(r) The numbers of each other type of structure to which this subpart applies, or of wingwalls or screens, on the culvert; and<br>(s) If there is any apron or ramp on the culvert, the information required by Regulation 68 of the National Environmental Standard for Freshwater for each of them. |
| WAT.30 | If the stream crossing is a ford, within 20 working days of the ford being installed, the following information must be provided to the Otago Regional Council:<br>(a) The ford's asset identification number, if known;<br>(b) Details of the ford's ownership;<br>(c) The ford's length;<br>(d) The ford's width;<br>(e) The height of the drop (if any) from the ford's downstream end;<br>(f) The material from which the ford is made; |

| | |
|---|---|
| | (g) The type of bed substrate that is across most of the ford;<br>(h) The numbers of each other type of structure to which this subpart applies, or of wingwalls or screens, on the ford; and<br>(i) If there is any apron or ramp on the ford, the information required by Regulation 68 of the National Environmental Standard for Freshwater for each of them. |
| WAT.31 | Maintenance inspections of all culverts, fords or splash crossings authorised by this consent must be undertaken at bi-monthly during the snow-free operating season and within 5 working days after any storm event that causes overtopping, blockage or damage. |
| WAT.32 | Any temporary culverts used during construction must be removed at the end of each construction season (31 May). |
| | **Stormwater Run off and Discharge Monitoring** |
| WAT.33 | 1. Prior to instream works commencing within the Doolans Basin, deposited fine sediment cover must be sampled and measured using the SAM 2 method at the following locations (shown in **Attachment F)** to establish baseline conditions:<br>(a) at the downstream site below Culvert B, at Tributary C; and<br>(b) at the Doolans Creek weir site.<br>2. Within 2 to 12 months of the access road earthworks being completed, the sampling required in Condition WAT.32(1) above must be repeated to determine post construction deposited fine sediment cover.<br>3. If a change in post construction fine sediment levels exceeds 10% of the pre-construction sediment levels, the Consent Holder must prepare and submit a post construction instream management report to the Otago Regional Council within two months of the sampling being completed. The report must:<br>(a) identify the change in pre and post works deposited fine sediment cover within the two sites identified in Condition WAT.32(1);<br>(b) identify what activities or events may have contributed to the change in deposited fine sediment cover exceeding 10%; and<br>(c) identify whether remediation must be undertaken to reduce the deposited fine sediment cover to below 10% of the pre and post construction levels.<br>4. The remediation measures identified in Condition WAT.32(3)(c) must be implemented within the first available summer construction season.<br>*Advice note: the monitoring range in WAT.32(1) reflects that winter conditions may preclude monitoring within two months of the works being completed.* |
| WAT.34 | 1. For the first 2 years after commencement of stormwater discharge from the Gondola Base Building and Return Station to Tributary A, the Consent Holder must monitor at locations upstream and downstream of the discharge point:<br>(a) dissolved copper, zinc and dissolved carbon and zinc in Tributary A during: |

| | |
|---|---|
| | (i) the spring snowmelt period each year; and<br>(ii) two first-flush rainfall events in summer/autumn each year,<br>(b) instream macro-invertebrate communities during the summer months.<br>2. If monitoring under Condition WAT.33(a) and (b) above identifies elevated levels of copper or zinc concentrations relative to the upstream control sites, or material decline in downstream macroinvertebrate community conditions relative to upstream controls sites that is attributable to the discharge change, the Consent Holder must implement additional and treatment or diversion measures, such as diverting first flushes to ground soakage or installing universal pollutant treatment. |
| WAT.35 | The Consent Holder must provide a monitoring report to the consent authority within 20 working days of each monitoring round required by Condition WAT.33. Each report must include results, interpretation, compliance assessment, and any corrective actions taken or proposed. |

## 11. TRANSPORTATION

| **TRANSPORTATION** | |
|---|---|
| | **State Highway 6 / Remarkables Ski Field Access Road Intersection Upgrade** |
| TRANS.1 | Within 12 months of the Doolans Base Building being opened, the Consent Holder must, at its cost, initiate and undertake an investigation in collaboration with the New Zealand Transport Agency, that addresses the following:<br>(a) Modelling the State Highway 6 / Remarkables Ski Field Road intersection to determine how it is performing;<br>(b) Were the modelling required by (a) determines that there is a safety issue, the investigation must identify solutions to improve the performance of the intersection, and identify the preferred solution; and<br>(c) Details of who is responsible for funding the preferred solution referred to in (b) which must be proportionate to the contribution is resource consent makes to the identified safety issue compared to the wider network growth.<br>A report detailing the results of the investigation must be provided to the Queenstown Lakes District Council, for their information, upon its completion. |
| TRANS.2 | The Consent Holder must implement the intersection safety improvements identified in the investigation required by Condition TRANS.1 of this resource consent, unless the New Zealand Transport Agency provides written confirmation that the intersection safety improvements are not required.<br>*Advice note: separate approvals will be required for any intersection upgrades or improvements and are not authorised under these consents.* |

| | |
|---|---|
| | **Ski Season Temporary Traffic Management** |
| TRANS.3 | No later than 40 working days prior to the first ski season commencing following the commencement of this resource consent, the Consent Holder must submit a Ski Season Temporary Management Plan to the New Zealand Transport Agency. |
| TRANS.4 | The objective of the Ski Season Temporary Traffic Management Plan is to, during the ski season, increase the capacity for vehicle departures from the Remarkables Ski Field Access Road to Stage Highway 6 in the afternoon peak departure period.<br><br>To achieve this objective, the Ski Season Temporary Traffic Management Plan must include:<br><br>(a) Site contacts and emergency information;<br><br>(b) Description of traffic control measures to be implemented (for example stop / go controls or temporary signals);<br><br>(c) Approval process for the Ski Season Temporary Traffic Management Plan;<br><br>(d) Process for identifying other traffic management approvals that may be required from Queenstown Lakes District Council or the New Zealand Transport Agency;<br><br>(e) Communications and notification requirements, including community notifications; and<br><br>(f) Monitoring and compliance requirements. |
| TRANS.5 | The Consent Holder must implement the certified Ski Season Temporary Traffic Management Plan during the period where the ski field is open, unless a conflict or inconsistency between the conditions of this consent and the provisions of the certified version of Ski Season Temporary Traffic Management Plan is identified, in which instance the conditions of this resource consent must prevail. |
| | **Carparking** |
| TRANS.6 | No later than 20 working days prior to the Doolans Base Building first opening, the Consent Holder must convert and upgrade "Car Park B" and the "Boneyard Car Park" into a dedicated car parking area for use during winter operations. |
| TRANS.7 | The provision of car parking in accordance with Condition TRANS.6 may be staged and provided in response to actual travel demand and parking demand as monitored under Condition TRANS.13. |
| TRANS.8 | The Consent Holder must submit detailed design plans and drawings for the car parking area required by Condition TRANS.6 of this resource consent at least 20 working days prior to works commencing on the construction of the Cark Park B.<br><br>The design must be in general accordance with that shown on the following Southern Land Plans:<br><br>(a) Remarkables Ski Area Upgrades & Doolans Expansion Access and Transportation Car Park A Area, Drawing reference A30043_E7, Revision J dated 14 April 2026; and, |

| | |
|---|---|
| | (b) Remarkables Ski Area Upgrades & Doolans Expansion Access and Transportation Car Park B and Boneyard, Drawing reference A30043_E7, Revision K dated 6 May 2026;<br><br>along with any changes made to the preliminary / concept level design plans as necessary as a result of detailed design. |
| | **Travel Demand and Parking Management** |
| TRANS.9 | No later than 30 working days prior to the first ski season commencing following opening of the Doolans Base Building, the Consent Holder must submit a Travel Demand and Parking Management Plan to the Queenstown Lakes District Council.<br><br>*Advice note: The Consent Holder may, of its own accord, prepare and implement a Travel Demand and Parking Management Plan sooner that required by this condition to enable a gradual transition towards modal shift and to enable refinement of the plan before the Doolans Basin Ski Area is opened.* |
| TRANS.10 | The objective of the Travel Demand and Parking Management Plan is to provide a strategic framework designed to influence travel behaviour, reduce reliance on single-occupancy vehicles and alleviate traffic congestion (including parking) associated with the operation of the Remarkables Ski Field.<br><br>To achieve this objective, the Travel Demand and Parking Management Plan must provide detailed contents and performance indicators in relation to the following:<br><br>(a) The utilisation of the State Highway 6 base area car park as a 'park and ride' facility;<br><br>(b) Bus service utilisation and management, including description of pick-up points, routes and drop off sites;<br><br>(c) Parking area management; and,<br><br>(d) The promotion of car-pooling and measures to increase private car occupancy. |
| TRANS.11 | The Consent Holder must implement the Travel Demand and Parking Management Plan during the ski season, unless a conflict or inconsistency between the conditions of this consent and the provisions of the certified version of Travel Demand and Parking Management Plan is identified, in which instance the conditions of this resource consent must prevail. |
| TRANS.12 | By 30 November each year, the Consent Holder must engage a suitably qualified and experienced traffic engineer to prepare an annual Travel Demand and Parking Monitoring Report that covers activities addressed in the Travel Demand and Parking Management Plan.<br><br>The annual Travel Demand and Parking Monitoring Report must be submitted to the Queenstown Lakes District Council by 30 January each year. |
| TRANS.13 | The annual Travel Demand and Parking Monitoring Report must include:<br><br>(a) A description of the works and other actions completed by the Consent Holder in the previous twelve months;<br><br>(b) Where aspects of the Travel Demand and Parking Management Plan have not been implemented in accordance with expected timeframes, the reasons why, and the measures |

| | |
|---|---|
| | that have been taken by the Consent Holder to address the shortcomings;<br>(c) An assessment of the effectiveness of the Travel Demand and Parking Management Plan in achieving their objectives and performance indicators. Where the Travel Demand and Parking Monitoring Report identifies that the performance indicators have not been achieved or maintained the Report must include:<br>(i) The reasons why the performance indicators have not yet been achieved;<br>(ii) Specific measures that have already been implemented, or are required to be implemented to address the failure to achieve performance indicators; and<br>(iii) Details of any amendments needed to the Travel Demand and Parking Management Plan or any other related management plan. |
| | **Construction Traffic** |
| TRANS.14 | Heavy vehicles associated with the construction activities authorised by this consent must exit the Remarkables Ski Field Access Road by a left turn only onto State Highway 6. |

## 12. GEOTECHNICAL CONSIDERATIONS

| **GEOTECHNICAL ASSESSMENT AND REPORTING** | |
|---|---|
| GEO.1 | 1. The Consent Holder must undertake geotechnical investigations to confirm site specific characterisations for the following project elements:<br>(a) Doolans Base Building (including Doolans Return Station)<br>(b) Gondola Mid Station<br>(c) Rastus Burn Base Area Extension (including the Doolans Base Station);<br>(d) Gondola Towers<br>(e) Water Storage Reservoir<br>(f) Wastewater Treatment Facility (building)<br>(g) Wastewater Infiltration Ponds<br>(h) the retaining structure proposed along the Rastus Burn Mid-Return Road Access; |
| GEO.2 | 1. The geotechnical investigations described in GEO.01 must be undertaken by a suitably qualified and experienced geotechnical engineer and must comprise of the following site specific investigations:<br>(a) **Doolans Base Building (including Doolans Return Station), Gondola Mid Station:** At least two test pits must be dug to identify the bearing capacity of the soils and depth to rock at the sites described in Condition GEO.01(a) and (b). The test pits must inform the detailed design of the structures described in Condition GEO.01(a) and (b).<br>(b) **Rastus Burn Base Area Extension (including the Doolans Base Station):** At least two test pits must be dug to identify the bearing capacity of the soils GEO.01(c) . The test pits |

| | |
|---|---|
| | must inform the detailed design of the structures described in Condition GEO.01(c).<br><br>(c) **Gondola Towers:** the foundation excavation of the tower sites must be inspected during excavation to confirm the bearing capacity of underlying soils. If necessary, any unsuitable founding material will be undercut and replaced with an appropriate engineered foundation, as advised by the supervising geotechnical engineer.<br><br>(d) **Water Storage Reservoir:** At least two test pits must be dug to confirm external ground water pressure, the depth to bedrock and to inform stability modelling. If necessary, additional drilling may be required to confirm depth to bedrock. The test pits must inform the detailed design of the water storage reservoir described in GEO.01(e).<br><br>(e) **Wastewater Treatment Facility (building):** At least two test pits or bores must be dug to identify the bearing capacity of the soils and depth to rock at the site described in Condition GEO.01(e) . The test pits must inform the detailed design of the building described in Condition GEO.01(e).<br><br>(f) **Wastewater Infiltration Ponds:** At least one filtration test must be at undertaken every three years to confirm the permeability of the Wastewater Infiltration Ponds.<br><br>(g) **Rastus Burn Mid-Return Road Access and Retaining Structures:** during excavation, the stability and ground conditions of site described in Condition GEO.1(h) shall be confirmed. The supervising geotechnical engineering shall advise of any remedial action required to ensure the stability of the feature described in Condition GEO.1(h).<br><br>2. A results of the investigations identified in Conditions GEO.2(a), (b), (d) and (e) must be submitted to the relevant Consent Authority as part of detailed design of the relevant structure. The detailed design plans must identify how the design responds to the results of the investigation.<br><br>3. A report identifying the results of the investigations identified in Condition GEO.2(c), (f) and (g) and how the structures were constructed in response to those results must be submitted to the relevant Consent Authority within 20 working days of the investigation being completed. |

## 13. LANDSCAPE AND VISUAL / BUILT STRUCTURES

| **BUILDING DESIGN** | |
|---|---|
| BD.1 | 1. Detailed design plans and drawings for the following buildings and structures must be provided to the relevant Consent Authority at least 20 working days prior to the relevant building or structure construction works commencing:<br><br>**(a) Rastus Burn Base Area Extension (including Gondola Terminal); and**<br><br>**(b) Doolans Base Building.**<br><br>2. The design must be in general accordance with that shown on the following plans:<br><br>(a) **Rastus Burn Base Area Extension:** E350 Plan Series, Wyatt + Gray Architects, Remarkables Base Building Extension A1.20 to A.1.23, dated 2 March 2026. |

| | |
|---|---|
| | (b) **Doolans Base Building:** E550 Plan Series, Wyatt + Gray Architects, Remarkables Doolans Station Building A2.20 to A.21, dated 4 March 2026.<br><br>along with any changes made to the preliminary / concept level design plans as necessary as a result of detailed design. |
| BD.2 | 1. Detailed design plans and drawings for the following buildings and structures must be provided to the Consent Authority at least 20 working days prior to the relevant building or structure construction works commencing:<br><br>(a) Wastewater Treatment Plant;<br><br>(b) Electricity Substation (including emergency generators);<br><br>(c) Radio Communication Towers;<br><br>(d) Doolans Gondola Mid Station;<br><br>(e) Patrol Hut;<br><br>(f) Doolans Gondola Return Terminal;<br><br>(g) Doolans Basin Learners Zone Conveyor;<br><br>(h) Doolans Basin Water Supply Pump Station Building; and<br><br>(i) Doolans Basin Snowmaking System Pump Station Building.<br><br>2. The location of the buildings and structures described in (a) to (k) above must be positioned in general accordance with the location shown on the following plans:<br><br>(a) Wastewater Treatment Plant and Electricity Substation: Southern Land Remarkables Area Upgrades & Doolans Basin Expansion Rastus Burn Wastewater Treatment Facility Proposed Infrastructure, Sheet E202, Drawing Reference A30043_7, Revision K, dated 6 May 2026.<br><br>(b) Radio Communication Towers: Remarkables Ski Area Upgrades and Doolans basin Expansion Rastus Burn Access Roads and Utilities Overall, Sheet E403, Drawing Reference A30043_E7, Revision K, dated 6 May 2026.<br><br>(c) Doolans Gondola Return Terminal: Remarkables Ski Area Upgrades and Doolans basin Expansion Rastus Burn Doolans Gondola, Cabin Building and Learners Area, A30043_E7, Revision J, dated 16 April 2026 and E550 Plan Series, Wyatt + Gray Architects, Remarkables Doolans Station Building A2.12 dated 11 May 2026.<br><br>(d) Doolans Gondola Mid Station and Patrol Hut: Remarkables Ski Area Upgrades and Doolans Expansion– Gondola Mid-Station, Drawing Reference SK51, Revision B, dated 11 May 2026.<br><br>(e) Doolans Basin Learners Zone Conveyor: Southern Land Remarkables Ski Area Upgrades & Doolans Expansion Doolans Gondola, Cabin Buildings and Learners Area Learns Slop Conveyor Belt Details, Sheet E551, Drawing Reference A30043_E7, Revision J, dated 16 April 2026. |

<table>
<tr><td></td><td>(f) Doolans Basin Water Supply Pump Station Building: Southern Land Remarkables Ski Area Upgrades & Doolans Expansion Doolans Water Intake and Access Water Intake & Pumphouse Details, Sheet E604, Drawing Reference A330043_E7, Revision J, dated 16 April 2026.<br><br>(g) Doolans Basin Snowmaking System Pump Station Building: Southern Land Remarkables Ski Area Upgrades & Doolans Basin Expansion Doolans Access, Roads, Trails & Utilities Pumphouse Building Details, Sheet E510, Drawing Reference A30043_E7 Revision J, dated 16 April 2026.</td></tr>
<tr><td>BD.3</td><td>1. The buildings and structures described in Condition BD.2 must not exceed the dimensions described in Table 1.<br><br>Table 1: Maximum building and structure footprints
<table>
<tr><th>Building / Structure</th><th>Maximum footprint</th><th>Dimensions</th><th>Maximum height</th></tr>
<tr><td>Rastus Burn Wastewater Treatment Plant</td><td>2025 m$^2$</td><td>7 m x 22.5 m</td><td>4.5 m</td></tr>
<tr><td>Electricity Substation</td><td>157.5m$^2$</td><td>7.5 m x 25 m</td><td>4 m</td></tr>
<tr><td>Radio Communication and Telecommunication Whips</td><td>-</td><td>-</td><td>2 m (above the maximum ridgeline of the attached building)</td></tr>
<tr><td>Mid Station Patrol Hut</td><td>13 m$^2$</td><td>4.5 m x 2.85 m</td><td>3.8 m</td></tr>
<tr><td>Doolans Gondola Mid Station</td><td>1,000 m$^2$ (including terminal structure, control room, loading areas and supporting areas)</td><td></td><td>15 m</td></tr>
<tr><td>Doolans Gondola Return Terminal</td><td>770 m$^2$ (including terminal structure, control room, loading areas and supporting areas)</td><td>-</td><td>11 m</td></tr>
<tr><td>Doolans Basin Wastewater Pump Stations (PS1, PS2 and PS3) Sheds</td><td>10 m$^2$ (each)</td><td></td><td>4.5 m</td></tr>
<tr><td>Doolans Basin Learners Zone Conveyor</td><td>480 m$^2$</td><td>102.4 m x 2.7 m</td><td>3 m</td></tr>
<tr><td>Doolans Basin Water Supply Pump Station Building</td><td>65 m$^2$</td><td>10 m x 6.5 m</td><td>4.5 m</td></tr>
<tr><td>Doolans Basin Snowmaking System Pump Station Building</td><td>140 m$^2$</td><td>18.2 m x 7.6 m</td><td>4.5 m</td></tr>
</table></td></tr>
</table>

| | |
|---|---|
| BD.4 | 1. All buildings identified in Condition BD.2 are to be coated or in external cladding materials which tone in with the landscape in accordance with the following light reflective values:<br>(a) 15% or less for buildings located within the Rastus Burn; or<br>(b) Between 20 to 35% for buildings located within the Doolans Basin. |
| BD.5 | 1. Detailed design plans and drawings for the Gondola tower locations must be provided to the Consent Authority at least 20 working days prior to the tower or the associated temporary access to the tower commencing.<br>2. The towers must be positioned in general accordance with the following plans:<br>(a) Southern Land Remarkables Ski Area Upgrades & Doolans Expansion Remarkables Gondola Rastus Burn Side, Sheet E301, Drawing Reference A30043_E7, Revision 5, dated 6 May 2026; and,<br>(b) Southern Land Remarkables Ski Area Upgrades & Doolans Expansion Remarkables Gondola Doolans Side, Sheet E302, Drawing Reference A30043_E7, Revision K, dated 6 May 2026.<br>along with any changes made to the preliminary / concept level design plans as necessary as a result of detailed design.<br>3. The towers must be located within the gondola corridor shown in the plans referred to in 2(a) and 2(b) above;<br>4. The towers must not be located within waterway, wetland riparian, wetland seepage or natural inland wetland as mapped in the plans referred to in 2(a) and 2(b) above.<br>5. The maximum tower heights must be in general accordance with the table of tower heights shown on the following plan:<br>(a) Southern Land Remarkables Ski Area Upgrades & Doolans Expansion Remarkables Gondola Towers & Typical Foundations, Sheet E303, Drawing Reference A30043_E7, Revision I, dated 30 January 2026. |
| BD.6 | The Snowmaking System Pump Station Building described in Condition BD.2 shall be clad in Colorsteel (or similar) and painted in Resene Ironsand. |
| | **Car Park B Landscaping** |
| LSP.1 | 1. Within 30 working days of vegetation clearance commencing within Car Park B, the Consent Holder shall prepare and submit a Car Park B Landscape Planting Plan to the Queenstown Lakes District Council for certification. |
| LSP.2 | 1. The objective of the Car Park B Landscape Planting Plan is to visually integrate and break up the views of Car Park B.<br>2. To achieve the objective, the Car Park Landscaping Plan must:<br>(a) Provide enhancement and screen planting of:<br>(i) the escarpment area between the two Car Park B split levels; and |

| | |
|---|---|
| | (ii) the northern boundary of Car Park B (excluding the vehicle crossings), for a minimum width of 1.5m.<br>(b) Include specific details of the plant spacing and grade and densities. |

## 14. DOOLANS SKI AREA OPERATIONS

| **SKI FIELD OPERATIONS - DOOLANS SKI AREA** | |
|---|---|
| | **Annual Works Plan – Maintenance and Upgrades** |
| OP.1 | The Consent Holder must provide the Central Otago District Council with a forward-looking Annual Work Plan by 30 November annually. The Consent Holder must set out the following information in each Annual Work Plan:<br>(a) Any proposed modifications to its existing structures, assets or facilities;<br>(b) Any proposed new structures, assets or facilities it wishes to construct or add, and whether resource consent is required for those structures, assets or facilities (and those may be applied for separately);<br>(c) Any terrain modification or other earth disturbance activities it proposes to undertake, and whether resource consent is required for those structures, assets or facilities (and those may be applied for separately);<br>(d) Any proposed changes in use of existing structures, assets or facilities or the way in which services are delivered;<br>(e) Any restoration, revegetation or preventative maintenance the Consent Holder wishes to perform;<br>(f) Any revegetation, remediation or reinstatement measures it is required to perform pursuant to this resource consent; and<br>(g) The proposed commencement and completion dates of all such works and the inception or termination dates of any changes to services or the usage of the structures, assets or facilities.<br>*Advice note: An annual works plan must only be submitted for maintenance activities occurring within the ski area after the initial construction works have been completed. Construction works remain governed by the relevant conditions set out in this consent.* |
| | **Vehicle and Machinery Access** |
| OP.2 | While carrying out any activities authorised by this resource consent, the Consent Holder must ensure that:<br>(a) All machinery only enters and exits work sites from existing roads or ski trails, whichever is closer; and<br>(b) Machinery does not disturb terrain or vegetation, other than as authorised by this resource consent. |

| | |
|---|---|
| | **Hours and Seasons of Operations** |
| OP.3 | The Consent Holder must only operate ski activities in the Doolan's Basin in accordance with the following:<br>(a) Operating the ski-lifts and tows for customers to use during winter operations (1 May to 31 October) between 7:00 am and 5:00 pm;<br>(b) Operating the snowmaking machines only during winter operations (1 May to 31 October);<br>(c) Operating food and beverage facilities for customers to use during winter operations (1 May to 31 October between 7:00 am and 5:00 pm; and<br>(d) Operating the ski-lifts and tows for customers to use during summer operations (1 November to 30 April) between 7:00 am until 6:30 pm on four (4) or more days per week and between 7:00 am and 9:00 pm on up to three (3) days per week.<br>Where summer operations are proposed to occur after 6.30 pm on four or more days per week, the Consent Holder must provide the Central Otago District Council written notice at least two days before the event, including the written prior approval from the Department of Conservation required under [Concession number].<br>*Advice note: This condition effectively replicates the operational hours and seasonal constraints set out for ski activities in the Rastus Burn (Concession 96118-SKI), and is replicated in the Concession for ski activities in the Doolans Basin* |
| | **Fuels, Hazardous Materials, Chemicals and Waste** |
| OP.4 | Any waste or rubbish must be disposed of in an approved manner off site at a Consent Authority approved site. Waste held on the site prior to its removal must be stored in a manner so as to ensure it does not become a contaminant, is not blown by wind and does not present a potential hazard to wildlife, in particular kea (*Nestor notabilis*). |
| OP.5 | The Consent Holder must ensure that all site personnel are trained in hazardous material, waste and fuel handling and spill contingency and emergency procedures relevant to their areas of work. |
| OP.6 | The Consent Holder must ensure that all hazardous materials including paints, fuels and other chemicals stored on site are kept in a secure enclosed facility and that appropriate spill clean-up kits are available for use to contain and/or absorb all hazardous substances used in the Concession Activity. |
| OP.7 | In the event of any hazardous substance spill the Consent Holder must:<br>(a) Take all practicable measures to stop the flow of the substances and prevent further contamination onto the Land or water;<br>(b) Immediately contain, collect and remove the hazardous substances and any contaminated material, and dispose of all such material in an appropriate manner / authorised facility;<br>(c) Notify Central Otago District Council as soon as practicable; |

| | |
|---|---|
| | (d) Undertake any remedial action to restore any damage to affected land; and<br>(e) Take all measures to prevent any reoccurrence. |
| | **Operational Lighting** |
| OP.8 | The Consent Holder must ensure that:<br>(a) no operational (external) lighting is utilised during the summer period 1 November to 28 February (inclusive);<br>(b) no operational lighting is used before sunrise or before sunset between 1 March to 31 May. |
| OP.9 | During winter operations:<br>(a) the Doolans Gondola, the Doolan's Base Station and Doolans Mid Station may only be lit during winter operations between 6.30am to 5.30pm;<br>(b) there shall be no overnight lighting of the Doolans Base Building, between 9pm and 6am;<br>(c) lighting shall be restricted to the use of snow groomers and snow making equipment. |
| | **Avalanche Safety** |
| OP.10 | Prior to the Doolans Ski Area opening for the winter season, an avalanche atlas must be prepared by a suitably qualified and experienced Snow Safety Officer to manage the potential for avalanche risk within the Doolans Basin. The avalanche atlas will detail the avalanche mapping and trigger zones within the Doolans Ski Area. |
| OP.11 | Avalanche control within the Doolans Ski Area will be undertaken during the ski season in accordance with the avalanche atlas. |

## 15. RECREATION USER GROUP

| **RECREATION USER GROUP** | |
|---|---|
| RUG.01 | Within 3 months of construction authorised by this consent commencing, the Consent the Consent Holder must invite the establishment of a Recreational User Group for the Project in accordance with Condition RUG.04 and co-ordinate its activities in accordance with Conditions RUG.02 and RUG.03. |
| RUG.02 | The Consent Holder must prepare a Terms of Reference in consultation with the Recreational Users Group that outlines its purpose and functions which must include the following:<br>(a) Acting as a forum for relaying any recreational user questions or concerns and requests for information about the construction and operation of the Project to the Consent Holder's on-site management team;<br>(b) Developing acceptable means of addressing (where possible) and managing those questions or concerns; |

| | |
|---|---|
| | (c) Reviewing the implementation of measures to resolve and manage recreational user concerns;<br>(d) Consider opportunities to collaborate on recreational opportunities within the Remarkables and Hector Area;<br>(e) Frequency of meetings.<br>*Advice Note: The purpose of the Recreational User Group is to be an ongoing point of contact between the Consent Holder, their construction team, and recreational users.* |
| RUG.03 | The Consent Holder must:<br>(a) Convene the meetings of the Recreation User Group;<br>(b) Cover the direct costs associated with the establishment and operation of the meetings;<br>(c) Provide any relevant and up to date information on the Project; and,<br>(d) Keep and distribute of the Recreational User Group's minutes to all participants in the Group.<br>A person independent of the Consent Holder must chair the meetings, unless otherwise agreed by the Recreational User Group. |
| RUG.04 | The Consent Holder must notify its intention to establish a Recreational User Group for the Project by public notice. The Consent Holder must invite, as a minimum, the following parties to participate in the Community Liaison Group (in addition to the Consent Holder itself):<br>(a) A representative of Department of Conservation;<br>(b) A representative of the Federated Mountain Clubs or NZ Alpine Club;<br>(c) A representative of the Queenstown Climbing Clun;<br>(d) A representative from each concession holder within the Rastus Burn or Doolans Basin.<br>*Advice Note*: The Consent Holder will not be in breach of this Condition if any one or more of the parties specified above does not wish to be a member of the Recreational User Group or to attend any particular meetings of the Recreational User Group. |

## 16. SERVICING AND INFRASTRUCTURE

| **SERVICING AND INFRASTRUCTURE** | |
|---|---|
| | **Non-Potable and Potable Water** |
| INF.1 | 1. Detailed design plans and drawings for non-potable and potable water system necessary to establish the Project must be provided to the Central Otago District Council at least 20 working days prior to any non- potable and potable water system construction works commencing.<br>2. The design must be in general accordance with that shown on the following plans: |

| | |
|---|---|
| | (a) Southern Land Remarkables Ski Area Upgrades & Doolans Basin Expansion Access Roads Trails and Utilities Proposed Utilities, Sheet E503, Drawing Reference A30043_E7 Revision K, dated 6 May 2026;<br>(b) Southern Land Remarkables Ski Area Upgrades & Doolans Basin Expansion Access Roads Trails and Utilities Pumphouse Building Details, Sheet E510, Drawing Reference A30043_E7 Revision K, dated 6 May 2026; and,<br>(c) Southern Land Remarkables Ski Area Upgrades & Doolans Basin Expansion Access Roads Trails and Utilities Typical Trench Details, Sheet E511, Drawing Reference A30043_E7 Revision K, dated 6 May 2026.<br>along with any changes made to the preliminary / concept level design plans as necessary as a result of detailed design.<br>3. The detailed design plans and drawings must include but not be limited to:<br>(a) Confirmation of how the non-potable and potable water system will be implemented in stages to match the development of the site;<br>(b) Confirmation of the peak instantaneous potable water flow demand;<br>(c) Operational design details of the potable and non-potable water system;<br>(d) Operational details of potable and non-potable water storage; and,<br>(e) Details of water supply for fire fighting purposes. |
| INF.2 | The potable and non-potable water system for the Project must be constructed in general accordance with the detailed design plans and drawings unless a conflict or inconsistency between the conditions of this consent and the provisions of the detailed design plans and drawings is identified, in which instance the conditions of this consent must prevail. |
| INF.3 | Prior to the commencement of operational activities withing the Doolans Basin, the Consent Holder must confirm to the Central Otago District Council that a potable water system has been connected and is available to users on the site, or an alternative temporary solution agreed to by the Central Otago District Council. |
| INF.4 | Prior to the commencement of operational activities within the Doolans Basin, the Consent Holder must confirm to the Central Otago District Council that a suitable firefighting water supply is available in accordance with Fire and Emergency New Zealand requirements. |
| | **Water Storage Reservoir** |
| INF.5 | 1. Detailed design plans and drawings for water storage reservoir must be provided to the Central Otago District Council and Otago Regional Council at least 20 working days prior to the water storage reservoir construction works commencing.<br>2. The design must be in general accordance with that shown on the following plans:<br>(a) Southern Land Remarkables Ski Area Upgrades & Doolans Basin Expansion Doolans Access Roads Trails and Utilities Reservoir Layout, Sheet E507-509, Drawing Reference A30043_E7 Revision K, dated 6 May 2026; |

| | |
|---|---|
| | along with any changes made to the preliminary / concept level design plans as necessary as a result of detailed design.<br>3. The detailed design plans and drawings must include but not be limited to:<br>(a) Operational design details of how the water storage reservoir will operate; and<br>(b) Details of how the design takes the results of the geotechnical investigations required by Condition GEO.02. |
| INF.6 | The water storage reservoir must be constructed in general accordance with the detailed design plans and drawings unless a conflict or inconsistency between the conditions of this consent and the provisions of the detailed design plans and drawings is identified, in which instance the conditions of this consent must prevail. |
| | **Stormwater (Operational)** |
| INF.7 | 1. Detailed design plans and drawings for the stormwater (operational) management system necessary to service the activities proposed must be provided to the Queenstown Lakes District Council and Central Otago District Council at least 20 working days prior to any stormwater (operational) works commencing.<br>2. The design must be in general accordance with the plans attached as:<br>(a) Appendix A to the Stantec report titled *Remarkable Ski Area Expansion Project stormwater Concept Report,* and dated 21 April 2025; and<br>(b) Southern Land Remarkables Ski Area Upgrades & Doolans Basin Expansion Doolans Access Roads Trails and Utilities Stormwater, Sheet E506, Drawing Reference A30043_E7 Revision K, dated 6 May 2026;<br>along with any changes made to the preliminary / concept level design plans as necessary as a result of detailed design.<br>3. The detailed design plans and drawings must include but not be limited to:<br>(a) Operational design details of how the stormwater system will operate;<br>(b) Confirmation of how the stormwater system will be implemented in stages to match the development of the site; and<br>(c) How temporary erosion and sediment control measures implemented during construction will be transitioned to permanent structures. |
| INF.8 | The stormwater management system must be constructed in general accordance with the detailed design plans and drawings unless a conflict or inconsistency between the conditions of this consent and the provisions of the detailed design plans and drawings is identified, in which instance the conditions of this consent must prevail. |
| INF.9 | Prior to the commencement of operational activities within the alpine project area, the Consent Holder must confirm to the Queenstown Lakes District Council and the Central Otago District Council that the stormwater management system has been implemented. |

| | |
|---|---|
| | **Wastewater Doolans** |
| WAS.1 | 1. Detailed design plans and drawings for wastewater management system necessary to service the activities proposed within the Doolans Basin must be provided to the Central Otago District Council and Queenstown Lakes District Council (insofar as it relates to pipework traversing waterbodies within the Rastus Burn) at least 20 working days prior to any wastewater construction works commencing.<br>2. The design must be in general accordance with that shown on the following plans:<br>(a) Southern Land Remarkables Ski Area Upgrades & Doolans Basin Expansion Access Roads Trails and Utilities Proposed Utilities, Sheet E503, Drawing Reference A30043_E7 Revision K, dated 6 May 2026;<br>(b) Southern Land Remarkables Ski Area Upgrades & Doolans Basin Expansion Access Roads Trails and Utilities Typical Trench Details, Sheet E511, Drawing Reference A30043_E7 Revision K, dated 6 May 2026; and,<br>(c) Southern Land Remarkables Ski Area Upgrades & Doolans Basin Expansion Rastus Burn Access Roads Trails and Utilities Proposed Utilities, Sheet E403, Drawing Reference A30043_E7 Revision K, dated 6 May 2026;<br>along with any changes made to the preliminary / concept level design plans as necessary as a result of detailed design.<br>3. The detailed design plans and drawings must include but not be limited to:<br>(a) Operational design details of how the wastewater network will operate;<br>(b) Confirmation of how the wastewater system will be implemented in stages to match the development of the site;<br>(c) Confirmation of the peak instantaneous wastewater flow rate from the Doolans Base Building, through the raising main and into the Rastus Burn network; and<br>(d) Confirmation of the average (full site development without seasonal peaking) and peak dry weather daily volume. |
| WAS.2 | The wastewater management system for the Doolans Basin must be constructed in general accordance with the detailed design plans and drawings unless a conflict or inconsistency between the conditions of this consent and the provisions of the detailed design plans and drawings is identified, in which instance the conditions of this consent must prevail. |
| WAS.3 | Prior to the commencement of operational activities within the Doolans Base Building, the Consent Holder must confirm to the Central Otago District Council and Queenstown Lakes District Council that a wastewater system has been connected and is available to users on the site, or an alternative temporary solution agreed to by Central Otago District Council and Queenstown Lakes District Council. |
| | **Wastewater Rastus Burn** |
| WW.1 | This permit must not commence until Discharge Permit RM14.336.01 has been surrendered or has expired. |

<table>
<tr><td>WW.2</td><td>The treated wastewater discharge must only comprise treated human wastewater, treated commercial kitchen wastewater and by-wash water.<br><br>Advice Note: By-wash water is clean water that is discharged through the water and wastewater pipe network to prevent pipework from freezing.</td></tr>
<tr><td>WW.3</td><td>Until the upgraded wastewater treatment system required by Condition WW.44 is commissioned, the wastewater treatment and disposal system must comprise as a minimum:<br><br>(a) A 35 cubic metre pre settlement tank, twin 75 cubic metre septic tanks with outlet filters and a 31 cubic metre pre-settlement tank; and<br><br>(b) A dispersal field area of 6,100 square metres over three ponds.</td></tr>
<tr><td></td><td>Discharge Limits</td></tr>
<tr><td>WW.4</td><td>The volume of treated wastewater discharged must not exceed 127.44 cubic metres per day until 31 May 2029.</td></tr>
<tr><td>WW.5</td><td>The volume of treated wastewater discharged must not exceed 204 cubic metres per day from 1 June 2029.</td></tr>
<tr><td>WW.6</td><td>The areal rate of treated wastewater application to any part of dispersal field must not exceed 20 millimetres per day until 31 May 2029.</td></tr>
<tr><td>WW.7</td><td>The rate of treated wastewater application must not exceed a hydraulic loading rate 50 millimetres per day in any part of the dispersal field after 1 June 2029.</td></tr>
<tr><td>WW.8</td><td>The following limits apply to the treated wastewater discharged to the dispersal field from 1 June 2029:<br><br>
<table>
<tr><th>Parameter</th><th>Limit</th></tr>
<tr><td>Total nitrogen</td><td>Must not exceed an annual maximum of 750 kg in any calendar year.</td></tr>
<tr><td>Total phosphorus</td><td>Must not exceed an annual maximum of 100 kg in any calendar year.</td></tr>
<tr><td>Total suspended solids</td><td>Must not exceed a 5-year rolling 95$^{th}$ %ile of 110 mg/L and a 5-year rolling mean of 40 mg/L.</td></tr>
<tr><td>5-day carbonaceous biochemical oxygen demand</td><td>Must not exceed a 5-year rolling 95$^{th}$ %ile of 320 mg/L and a 5 year rolling mean of 80 mg/L.</td></tr>
</table>
</td></tr>
<tr><td></td><td>Performance Monitoring</td></tr>
<tr><td>WW.9</td><td>The Consent Holder must maintain a flow meter on the outlet pipe from the wastewater treatment system and before it enters the dispersal field and measure and record the daily volume of treated wastewater being discharged to the dispersal field.</td></tr>
</table>

| | |
|---|---|
| WW.10 | 1. For the purposes of informing the total nitrogen and total phosphorus limit review in Condition WW.37, in the period between 1 June 2026 and 31 October 2026, the Consent Holder must take a representative sample of treated wastewater at least once every fortnight from the discharge pipe to the dispersal field as shown on the plan in **Attachment [H].**<br>2. The representative sample of treated wastewater must:<br>(a) Be a time-proportional composite sample comprising 24 individual aliquots, collected at approximately hourly intervals (i.e. one aliquot per hour);<br>(b) Each aliquot shall be of equal volume and combined into a single composite sample container; and<br>(c) Sampling must be undertaken using an automatic sampler, unless otherwise agreed in writing by Otago Regional Council.<br>3. In the period between 1 June 2026 and 31 October 2026, the Consent Holder must also take a grab sample of treated wastewater between 7am and 12pm (ideally at 10am) at least once every fortnight from the discharge pipe to the dispersal field as shown on the plan in **Attachment [H].**<br>4. If the samples of treated wastewater required by Condition WW.10(1) and (3) are unable to be collected (for reasons beyond the Consent Holder's control), the Consent Holder must advise the Otago Regional Council in writing within five working days after the sampling day. The advice must include reasons why the sample was unable to be collected. |
| WW.11 | 1. After 31 October 2026, the Consent Holder must take a representative sample of treated wastewater at least once every month from the discharge pipe to the dispersal field as shown on the plan in **Attachment [H]**.<br>2. The representative sample of treated wastewater must comply with the requirements of Condition WW.10(2).<br>3. If the representative sample of treated wastewater required by Condition WW.11(1) is unable to be collected (for reasons beyond the Consent Holder's control), the Consent Holder must advise the Otago Regional Council in writing within five working days after the sampling day. The advice must include reasons why the sample was unable to be collected. |
| WW.12 | The Consent Holder must take a representative sample of water in the Rastus Burn at least once every month from the sites shown on the plan in **Attachment [H]** which are:<br>(a) Upstream of the dispersal field at NZTM 2000 1270254E 5003116N;<br>(b) 50m downstream of the dispersal field at NZTM2000 1269828E 50003614 N;<br>(c) 200m downstream of the dispersal field at NZTM2000 1269801E 5003728N; and<br>(d) 1500m downstream of the dispersal field at NZTM2000 1269858E 5004706N.<br>If the representative sample/s of water in the Rastus Burn are unable to collected for reasons beyond the Consent Holder's control, the Consent Holder must advise the Otago Regional Council in writing within five working days after the sampling day. The advice must include reasons why the sample/s were unable to be collected. |

| | |
|---|---|
| WW.13 | For the purposes of informing the total nitrogen and total phosphorus limit review in Condition WW.37, and to assess the performance of the upgraded wastewater treatment plant, the Consent Holder must take a representative sample of groundwater at least once every month in the months of February and June to October each year commencing in 2026 and ceasing in 2030 at the five monitoring bores (if there is sufficient groundwater to sample) shown on the plan in **Attachment [H]** which are:<br>(a) Bore 1 at NZTM2000 1270110E 5003372N;<br>(b) Bore 2 at NZTM2000 1270008E 5003580N;<br>(c) Bore 3 at NZTM2000 1269983E 5003578N;<br>(d) Bore 4 at NZTM2000 1270056E 5003393N; and<br>(e) Bore 5 at NZTM2000 1269969E, 5003545N.<br>If the representative sample/s of groundwater are unable to collected for reasons beyond the Consent Holder's control, the Consent Holder must advise the Otago Regional Council in writing within five working days after the sampling day. The advice must include reasons why the sample/s were unable to be collected. |
| WW.14 | Commencing in February 2031, the Consent Holder must take a representative sample of groundwater in February and July each year at two monitoring bores (if there is sufficient groundwater to sample) shown on the plan in **Attachment [H]** which are:<br>(a) Bore 1 at NZTM2000 1270110E 5003372N; and<br>(b) Bore 3 at NZTM2000 1269983E 5003578N.<br>If the representative sample/s of groundwater are unable to collected for reasons beyond the Consent Holder's control, the Consent Holder must advise the Otago Regional Council in writing within five working days after the sampling day. The advice must include reasons why the sample/s were unable to be collected. |
| WW.15 | The treated wastewater samples taken in accordance with Condition WW.10 and WW.11 must be analysed for the following:<br>(a) 5-day carbonaceous biochemical oxygen demand (cBOD5);<br>(b) Total phosphorus concentration;<br>(c) Dissolved reactive phosphorus concentration;<br>(d) Ammoniacal nitrogen concentration;<br>(e) Total nitrogen concentration;<br>(f) Total oxidised nitrogen concentration;<br>(g) pH;<br>(h) Total suspended solids concentration; and<br>(i) *Escherichia coli* concentration. |

| | |
|---|---|
| WW.16 | The water samples taken in accordance with Conditions WW.12, WW.13 and WW.14 must be analysed for the following:<br>(a) Dissolved reactive phosphorus;<br>(b) *Escherichia coli* concentration;<br>(c) Nitrate-nitrite concentration;<br>(d) Ammoniacal nitrogen concentration;<br>(e) Total nitrogen concentration;<br>(f) Electrical conductivity;<br>(g) pH;<br>(h) Turbidity; and<br>(i) *Escherichia coli* concentration |
| WW.17 | All sampling undertaken in accordance with Conditions WW.10 to WW.14 including sampling, transportation and laboratory analyses must be performed to IANZ registered standards, or otherwise as approved in writing by the Otago Regional Council. |
| WW.18 | The Consent Holder must engage a suitably qualified and experienced freshwater ecologist to undertake a biological monitoring survey of the Rastus Burn at intervals not exceeding two years. The first survey must be undertaken no later than 30 November 2027.<br>The survey must be undertaken either during or immediately after the end of the ski season but in all cases the survey must be undertaken be no later than 30 November.<br>The survey must be undertaken at four sites as shown in **Attachment** [**H**] which are:<br>(a) Upstream of the dispersal field at NZTM 2000 1270254E 5003116N;<br>(b) 50m downstream of the dispersal field at NZTM2000 1269828E 50003614 N;<br>(c) 200m downstream of the dispersal field at NZTM2000 1269801E 5003728N; and<br>(d) 1500m downstream of the dispersal field at NZTM2000 1269858E 5004706N.<br>The biological monitoring survey must comprise of:<br>(e) Chlorophyll a;<br>(f) Macroinvertebrate community index for hard-bottomed streams;<br>(g) Relative abundance of *ephemeroptera, plecoptera* and *trichoptera;*<br>(h) Taxonomic richness; and<br>(i) Periphyton sampling. |
| WW.19 | The Consent Holder must provide a Biological Monitoring Report to the Otago Regional Council prepared by a suitably qualified and experienced freshwater ecologist that details the results of the biological monitoring undertaken in accordance with Condition WW.18. The report must include: |

| | |
|---|---|
| | (a) A summary of results;<br>(b) A comparison to the results of previous biological monitoring;<br>(c) An assessment as to whether the biological health of Rastus Burn is being maintained, or is degrading; and<br>(d) If the biological health of the Rastus Burn is degrading, an assessment as to why this might be the case.<br>A copy of the Biological Monitoring Report is to be provided to the Otago Regional Council by 31 January in the year following the survey. |
| WW.20 | The Consent Holder must engage a suitably qualified and experienced ecologist undertake a wetland survey that includes the area within 100 m of the dispersal field to confirm the presence of wetlands by 30 November 2027. If wetlands are confirmed within 100 m of the dispersal field, the ecologist characterise the wetlands including the type, hydrology and vegetation community.<br>A report detailed the findings of the wetland survey is to be provided to the Otago Regional Council by 31 January 2028. |
| WW.21 | If the wetland survey undertaken in accordance with Condition WW.19 confirms the presence of wetlands within 100 m of the dispersal field, the Consent Holder must engage a suitably qualified and experienced ecologist to survey the hydrology and vegetation community of the wetlands at intervals not exceeding two years.<br>The survey must be undertaken either during or immediately after the end of the ski season but in all cases the survey must be undertaken be no later than 30 November. |
| WW.22 | The Consent Holder must provide a Wetland Survey Report to the Otago Regional Council prepared by a suitably qualified and experienced ecologist that details the results of the wetland survey undertaken in accordance with Condition WW.21. The report must include<br>(a) A description of the wetland hydrology and vegetation community,<br>(b) A comparison to the results of previous monitoring;<br>(c) An assessment as to whether wetland health is improving, is being maintained, or is degrading; and<br>(d) If wetland health is degrading, an assessment as to why this might be the case.<br>A copy of the Wetland Survey Report is to be provided to the Otago Regional Council by 31 January in the year following the survey. |
| WW.23 | The Consent Holder must engage a suitably qualified and experience engineer to test soakage rates in the dispersal field during the month of November at intervals not exceeding five years beginning in 2031 to determine the saturated soil infiltration rate. |
| WW.24 | If the monitoring undertaken in accordance with Condition WW.23 demonstrates that the average saturated soil infiltration capacity in the dispersal field is less than that specified in Condition WW.7, the Consent Holder must take the remedial action necessary to increase the saturated soil infiltration capacity so that it is not less than that specified in Condition WW.7 |

| | |
|---|---|
| | prior to 1 June the year after the soil monitoring was completed in accordance with Condition WW.23. |
| WW.25 | All monitoring bores identified in Condition WW.13 must be surveyed to confirm their location and elevation, at the top of the casing, by 31 October 2026. |
| WW.26 | The Consent Holder must install and maintain water level loggers in each of the monitoring bores identified in Condition WW.13 to continuously measure and record groundwater levels at intervals not exceeding 15 minutes from 1 June to 31 October (inclusive) 2026. |
| WW.27 | The Consent Holder must measure and record the depth to water level in each of the monitoring bores identified in Condition WW.13 from the top of the casing when collecting the groundwater samples required by Condition WW.13 and WW.14. |
| WW.28 | The Consent holder must undertake slug tests in each of the groundwater monitoring bores identified in Condition WW.13 to determine the hydraulic properties of the subsurface and aquifer by 30 November 2026. |
| WW.29 | The Consent Holder must install and maintain a surface water level monitoring site in the Rastus Burn at the upstream monitoring site identified in Condition WW.12(a) to continuously measure and record surface water levels at intervals not exceeding 15 minutes from 1 June to 31 December 2026 (inclusive). |
| WW.30 | The Consent Holder must undertake a minimum of four flow gaugings events in 2026, with at least three of those undertaken between 1 June and 31 October (inclusive), at the surface water level monitoring site identified in Condition WW.29. |
| WW.31 | The Consent Holder must establish a flow rating curve for the Rastus Burn based on information collected in accordance with Condition WW.29 and WW.30. |
| WW.32 | The Consent Holder must install and maintain a water level stage post in the Rastus Burn at the upstream monitoring site identified in Condition WW.12(a) by 31 May 2027. |
| WW.33 | The Consent Holder must measure and record the height of surface water in the Rastus Burn at the water level stage post identified in Condition WW.32 when collecting the water samples required by Condition WW.12. |
| WW.34 | The surface water level monitoring site identified in Condition WW.29 must be surveyed to confirm its location and elevation by 30 November 2026. |
| | **Reporting** |
| WW.35 | No later than 10 working days after the receipt of the analysis results from the laboratory analysis undertaken in accordance with Conditions WW.15 and WW.16, the Consent Holder must provide the Otago Regional Council:<br>(a) Copies of the analysis results; and<br>(b) Daily treated wastewater flow records for the 30 days prior to sampling recorded in accordance with Condition WW.9. |

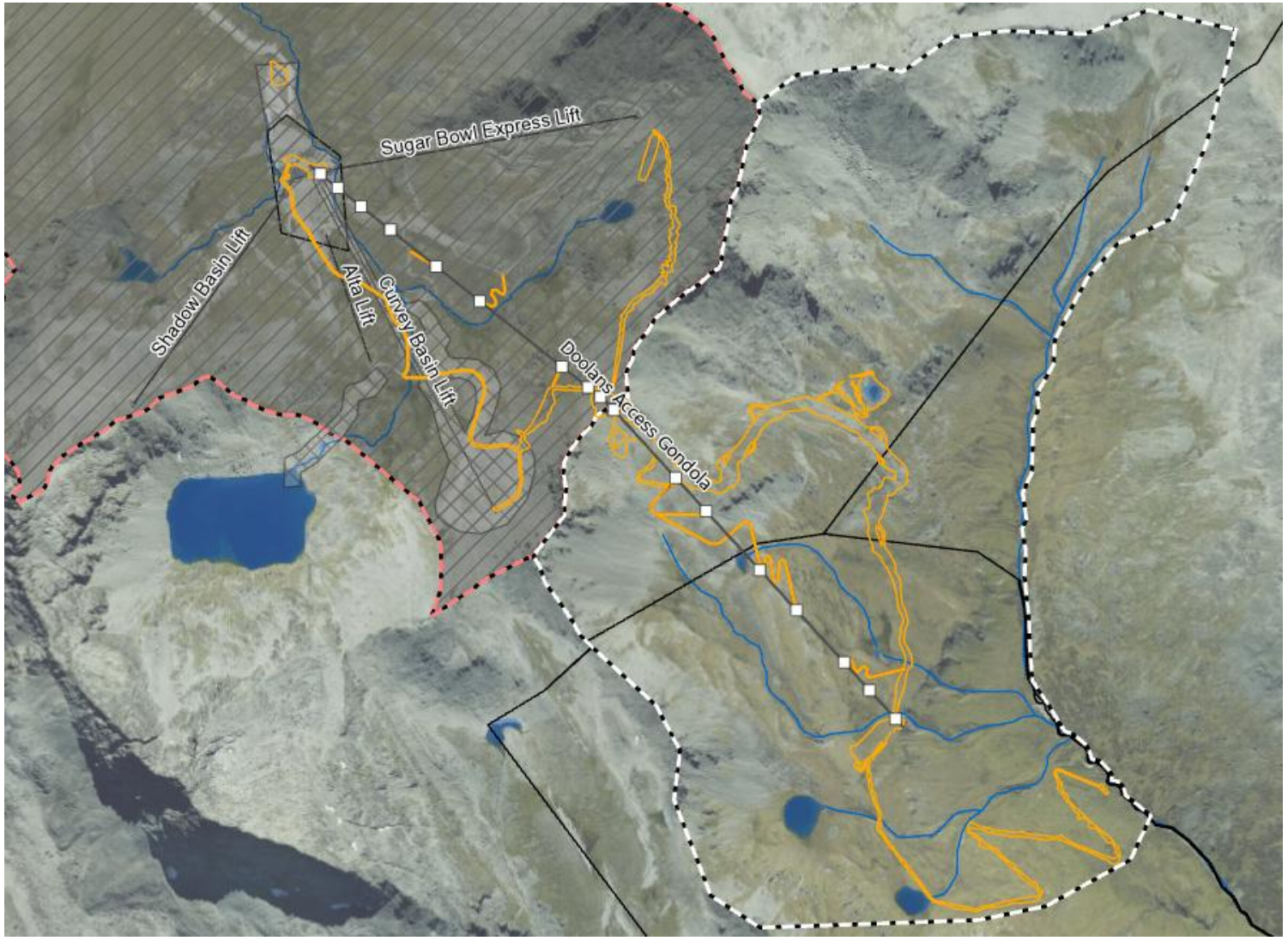
| | |
|---|---|
| WW.36 | By 31 January each year the Consent Holder must provide the Otago Regional Council with an Annual Report on the previous year's monitoring results collected during the previous 1 December and 30 November period. This report must include:<br>(a) A record of the daily volume of treated wastewater water discharged;<br>(b) Copies of all analytical sample results and records collected under Conditions WW.10 to WW.14 of this consent;<br>(c) Analysis of groundwater level data and slug test data collected in accordance with Conditions WW.26, WW.27 and WW.28 to determine likely groundwater flow directions from the dispersal field;<br>(d) An estimate of the annual total nitrogen and total phosphorus load in the Rastus Burn based on water samples collected in accordance with Condition WW.12 and surface water level data (used to estimate water flow) collected in accordance with Condition WW.33;<br>(e) An assessment of compliance with the conditions of this consent;<br>(f) A comparison of discharge quality and quantity results with the results of previous years and the identification of any trends; and<br>(g) An assessment of compliance with the requirements of the Wastewater Operations and Maintenance Manual required by Condition WW.39 of this consent. |
| WW.37 | By 31 December 2026, the Consent Holder must engage a suitably qualified and independent expert to undertake a review to confirm the assessment of historical annual loads of total nitrogen and total phosphorus included in the Wastewater Treatment and Disposal Feasibility Report (Stantec, 30 April 2026), which informed the limits set in Condition WW.8, has adequately characterised wastewater flows and nutrient concentrations to maintain water quality and aquatic ecology health in the Rastus Burn.<br>The review must include:<br>(a) The calculation of the total nitrogen and total phosphorus loads discharged between 1 June 2026 and 31 October 2026 based on wastewater flow data recorded in accordance with Condition WW.9 and the results of treated wastewater samples collected and analysed in accordance with Condition WW.10(1) and WW.10(3) and Condition WW.15; and<br>(b) A sensitivity analysis of historical annual loads discharged based on the assessment undertaken in clause (a) and comparing the measured 2026 total nitrogen and total phosphorus load discharge to the historic annual load calculations included in the Remarkables Wastewater Discharge Impact Assessment (e3 Scientific, April 2026).<br>If the review finds that the assessment of historical annual loads of total nitrogen and total phosphorus included in the Wastewater Treatment and Disposal Feasibility Report (Stantec, 30 April 2026) did not adequately characterise wastewater flows and nutrient concentrations to maintain water quality and aquatic ecology health in the Rastus Burn and that the total nitrogen and total phosphorus limits identified in Condition WW.9 need to be reduced to maintain water quality and aquatic ecology health in the Rastus Burn, the suitably qualified and independent |

| | |
|---|---|
| | expert must provide a recommendation about what the reduced limit/s should be based on the assessment undertaken in clause (a) and (b). |
| WW.38 | (a) If the review undertaken in accordance with Condition WW.37 recommends that a reduced total nitrogen and/or a total phosphorus limit is needed to maintain water quality and aquatic ecology health in the Rastus Burn then the Consent Holder must within 1 month of the review being completed provide written advice to the Otago Regional Council about whether they propose to implement the reduced limit and whether any variation to the conditions of this consent are needed.<br>(b) If the Consent Holder does not propose to implement a reduced limit/s (if recommended) identified in Condition WW.37, the reasons for not implementing the reduced limit must be provided in the written advice to the Otago Regional Council. |
| | **Management** |
| WW.39 | No later than 20 working days from the date of commencement of this consent, the Consent Holder must prepare and submit to the Otago Regional Council a Wastewater Operations and Management Manual for certification that it is in accordance with this condition.<br>The objective of the Wastewater Operations and Management Manual is to ensure the effective and efficient operation of the wastewater treatment and disposal system and to ensure compliance with the conditions of this resource consent.<br>The Wastewater Operations and Management Manual must include:<br>(a) A description of the treatment and disposal system, including a site map indicating the location of the treatment and disposal system and points of discharge to the dispersal field,<br>(b) Responsibilities and contact details of key personnel;<br>(c) Key operational matters, including weekly, monthly and annual maintenance checks;<br>(d) A description and map/s of monitoring sites;<br>(e) Monitoring requirements and sampling procedures;<br>(f) Reporting requirements;<br>(g) Contingency plans in the event of system malfunctions or breakdowns and any associated reporting requirements;<br>(h) Details of how complaints will be managed; and<br>(i) Emergency contact phone numbers. |
| WW.40 | The Wastewater Operations and Management Manual must be reviewed and updated prior to the implementation of the wastewater treatment plant upgrade required by Condition WW.43 and then every three years thereafter. The purpose of this review is to:<br>(a) Confirm that the Wastewater Operations and Management Manual accurately reflects current on-site activities and operations; and |

| | |
|---|---|
| | (b) To identify if changes to procedures contained within the Wastewater Operations and Management Manual are required to achieve the objective of the Manual stated in Condition WW.40.<br><br>A written report detailing the results of the review must be submitted to the Otago Regional Council 30 working days of the review being undertaken. If the review results in amendments to the Wastewater Operations and Management Manual, the amended Wastewater Operations and Management Manual (with identified amended sections) must be provided to the Otago Regional Council for certification at this time. |
| | **Wastewater Treatment Plant Upgrade** |
| WW.41 | The Consent Holder must prepare and submit to the Otago Regional Council a Wastewater Treatment Upgrade Plan prepared by a suitably qualified expert by 30 September 2027.<br><br>This plan must identify the technology and wastewater treatment plant upgrades necessary to improve the quality of the wastewater discharged to the dispersal field in order to meet the discharge limits specified in Condition WW.8. If the Consent Holder proposes to meet a reduced limit for total nitrogen and/or total phosphorus in accordance with Condition WW.38, the plan must also identify the technology and wastewater treatment plant upgrades required to meet the reduced total nitrogen limit.<br><br>The plan must include a minimum of secondary treatment for all wastewater to assist in ensuring the maximum hydraulic loading rate included in Condition WW.7 can be successfully implemented without compromising the performance of the dispersal field. |
| WW.42 | The Wastewater Treatment Upgrade Plan must include, but not be limited to, the following matters:<br><br>(a) A description of the proposed technology and wastewater plant upgrades to be installed;<br><br>(b) A description of the methodology of how the wastewater plant upgrades will be installed and a staged work plan describing the timing associated with the progressive implementation of these works; and<br><br>(c) The monitoring and reporting obligations associated with the wastewater treatment plant upgrades. |
| WW.43 | The Consent Holder must ensure that the Wastewater Treatment Plant Upgrade prescribed in the Wastewater Treatment Upgrade Plan is commissioned by 1 June 2029. |
| | **Wastewater General** |
| WW.44 | The Consent Holder must ensure that the discharge authorised by this consent does not cause any flooding, erosion, scouring, land instability or property damage.<br><br>Should such effects occur due to the exercise of this consent, the Consent Holder must, if so required by the Otago Regional Council and at no cost to the Otago Regional Council, take all such action as the Consent Authority may require to remedy any such damage. |

| | |
|---|---|
| | **Wastewater Conditions Review** |
| WW.45 | The Otago Regional Council may, within three months of receiving the review required by Condition WW.37 and subsequent reporting in Condition WW.38, and in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent for the purposes of determining whether the conditions of this permit are adequate to maintain water quality and aquatic ecology in the Rastus Burn. |
| | **Wastewater Rastus Burn** |
| WW.46 | 1. Detailed design plans and drawings for Wastewater Treatment Plant and associated piping required by Condition WW.40 must be provided to the Queenstown Lakes District Council at least 20 working days prior to any wastewater construction works commencing.<br>2. The location of the Wastewater Treatment Plan and associated piping must be in general accordance with that shown on the following plans:<br>(a) Southern Land Remarkables Ski Area Upgrades & Doolans Basin Expansion Rastus Burn Wastewater Treatment Facility Proposed Infrastructure, Sheet E202, Drawing Reference A30043_E7 Revision K, dated 6 May 2026. along with any changes made to the preliminary / concept level design plans as necessary as a result of detailed design.<br>3. The detailed design plans and drawings must include but not be limited to:<br>(a) Operational design details of how the wastewater network will operate;<br>(b) Confirmation of how the wastewater system will be implemented in stages to match the development of the site;<br>(c) Confirmation of the peak instantaneous wastewater flow rate into the Rastus Burn network; and<br>(d) Confirmation of the average (full site development without seasonal peaking) and peak dry weather daily volume. |
| WW.47 | The Wastewater Treatment Plant must be constructed in general accordance with the detailed design plans and drawings unless a conflict or inconsistency between the conditions of this consent and the provisions of the detailed design plans and drawings is identified, in which instance the conditions of this consent must prevail. |

## ATTACHMENT A – PROJECT DISTURBANCE AREA



## ATTACHMENT B - LIST OF THREATENED, AT-RISK-DECLINING AND TAONGA PLANT SPECIES TO BE TRANSLOCATED

**Taonga Plant Species:**

- Taramea / *Aciphylla aurea*
- Taramea / Taramea / *Aciphylla kirkii*
- Taramea / *Aciphylla lecomtei*
- Taramea / *Aciphylla "Lomond"*
- Taramea / *Aciphylla simplex*
- Wīwī / *Juncus pusillus*
- Wīwī / *Juncus novae-zelandiae*
- Koromiko / kōkōmuka / *Veronica salicifolia*

*TBC following further discussions with Kā Rūnaka*

**Threatened (all) and At Risk – Declining Plant Species:**

| Species | NZ Threat Classification | Regionally Threat Classification |
|---|---|---|
| *Acaena caesiiglauca* | Not Threatened | At Risk – Regionally Declining |
| *Aciphylla lecomtei* | At Risk – Declining | At Risk – Regionally Declining |
| *Carex edgariae* | At Risk – Naturally Uncommon | Threatened – Regionally Endangered |
| *Carex parvispica* | At Risk – Declining | At Risk – Regionally Naturally Uncommon |
| *Carex talbotii* | At Risk – Declining | Threatened – Regionally Vulnerable |
| *Colobanthus strictus* | Not Threatened | At Risk – Regionally Declining |
| *Craspedia uniflora var. uniflora* | Threatened – Nationally Endangered | Regionally Data Deficient |
| *Juncus pusillus* | At Risk – Naturally Uncommon | Threatened – Regionally Vulnerable |
| *Poa lindsayi* | Not Threatened | At Risk – Regionally Declining |
| *Ranunculus buchananii* | At Risk – Declining | Threatened – Regionally Vulnerable |
| *Ranunculus roy* | Data Deficient | Threatened – Regionally Vulnerable |
| *Rytidosperma pumilum* | Not Threatened | At Risk – Regionally Declining |
| *Taraxacum zealandicum* | At Risk – Declining | Not Threatened |

# ATTACHMENT C - LIST OF AT RISK – NATURALLY UNCOMMON AND DATA DEFICIENT PLANT SPECIES

**At Risk – Naturally Uncommon and Data Deficient Plant Species:**

| Species | NZ Threat Classification | Regionally Threat Classification |
|---|---|---|
| *Aciphylla simplex* | At Risk – Naturally Uncommon | At Risk – Regionally Naturally Uncommon |
| *Agrostis pallescens* | At Risk – Naturally Uncommon | At Risk – Regionally Naturally Uncommon |
| *Agrostis petriei* | Not Threatened | At Risk – Regionally Data Deficient |
| *Anisotome lanuginose* | At Risk – Naturally Uncommon | At Risk – Regionally Naturally Uncommon |
| *Azorella exigua* | At Risk – Naturally Uncommon | At Risk – Regionally Naturally Uncommon |
| *Azorella haastii* subsp. *Haastii* | Not Threatened | At Risk – Regionally Naturally Uncommon |
| *Brachyscome longiscarpa* | At Risk – Naturally Uncommon | At Risk – Regionally Naturally Uncommon |
| *Brachyscome montana* | At Risk – Naturally Uncommon | At Risk – Regionally Naturally Uncommon |
| *Carex enysii* | At Risk – Naturally Uncommon | At Risk – Regionally Data Deficient |
| *Carex hectorii* | At Risk – Naturally Uncommon | At Risk – Regionally Naturally Uncommon |
| *Carex kirkii var. kirkii* | At Risk – Naturally Uncommon | Data Deficient |
| *Carex petriei* | Not Threatened | At Risk – Regionally Naturally Uncommon |
| *Carex lachenalii subsp. parkeri* | At Risk – Naturally Uncommon | At Risk – Regionally Naturally Uncommon |
| *Carex pterocarpa* | At Risk – Naturally Uncommon | At Risk – Regionally Naturally Uncommon |
| *Carex purpurata* | At Risk – Naturally Uncommon | At Risk – Regionally Naturally Uncommon |
| *Celmisia ramulosa var. tuberculata* | Not Threatened | At Risk – Regionally Naturally Uncommon |
| *Centrolepis pallida* | Not Threatened | At Risk – Regionally Naturally Uncommon |

| | | |
|---|---|---|
| *Colobanthus apetalus* | Not Threatened | At Risk – Regionally Naturally Uncommon |
| *Deschampsia chapmanii* | Not Threatened | Regionally Data Deficient |
| *Deschampsia pusilla* | At Risk – Naturally Uncommon | Regionally Data Deficient |
| *Dracophyllum prostratum* | Not Threatened | At Risk – Regionally Naturally Uncommon |
| *Epilobium komarovianum* | Not Threatened | At Risk – Regionally Naturally Uncommon |
| *Epilobium porphyrium* | Not Threatened | At Risk – Regionally Naturally Uncommon |
| *Euchiton traversii* | Not Threatened | At Risk – Regionally Naturally Uncommon |
| *Euphrasia petrei* | Not Threatened | At Risk – Regionally Naturally Uncommon |
| *Festuca madida* | At Risk – Naturally Uncommon | At Risk – Regionally Naturally Uncommon |
| *Festuca matthewsii subsp. matthewsii* | Not Threatened | Regionally Data Deficient |
| *Forstera purpurata* | Not Threatened | At Risk – Regionally Naturally Uncommon |
| *Gaultheria nubicola* | Not Threatened | At Risk – Regionally Naturally Uncommon |
| *Gentianella amabalis* | Not Threatened | At Risk – Regionally Naturally Uncommon |
| *Geranium microphyllum* | At Risk – Naturally Uncommon | Unclassified |
| *Geum pusillum* | At Risk – Naturally Uncommon | At Risk – Regionally Naturally Uncommon |
| *Gunnera dentata* | Not Threatened | At Risk – Regionally Naturally Uncommon |
| *Kelleria childii* | Not Threatened | At Risk - Regionally Naturally Uncommon |
| *Kelleria paludosa* | Not Threatened | At Risk - Regionally Naturally Uncommon |
| *Lachnagrostis albida* | At Risk – Naturally Uncommon | At Risk – Regionally Naturally Uncommon |
| *Lachnagrostis uda* | At Risk – Naturally Uncommon | At Risk – Regionally Naturally Uncommon |
| *Leptinella albida* | At Risk – Naturally Uncommon | At Risk - Regionally Naturally Uncommon |

| | | |
|---|---|---|
| *Leptinella goyenii* | Not Threatened | At Risk - Regionally Naturally Uncommon |
| *Lobelia linnaeoides* | Not Threatened | At Risk - Regionally Naturally Uncommon |
| *Luzula colensoi* | Not Threatened | At Risk - Regionally Naturally Uncommon |
| *Luzula leptophylla* | At Risk – Naturally Uncommon | At Risk - Regionally Naturally Uncommon |
| *Myosotis bryonoma* | At Risk – Naturally Uncommon | At Risk - Regionally Naturally Uncommon |
| *Myosotis antarctica subsp. antarctica* | At Risk – Naturally Uncommon | At Risk - Regionally Naturally Uncommon |
| *Myosotis lyallii subsp. elderi* | At Risk – Naturally Uncommon | At Risk - Regionally Naturally Uncommon |
| *Myosotis pulvinaris* | Not Threatened | At Risk - Regionally Naturally Uncommon |
| *Nertera balfouriana* | Not Threatened | At Risk - Regionally Naturally Uncommon |
| *Pachycladon novae-zelandiae* | Not Threatened | At Risk - Regionally Naturally Uncommon |
| *Phyllachne rubra* | Not Threatened | At Risk - Regionally Naturally Uncommon |
| *Pimelea notia* | Not Threatened | At Risk - Regionally Naturally Uncommon |
| *Poa schistacea* | Not Threatened | At Risk - Regionally Naturally Uncommon |
| *Poa tonsa* | Not Threatened | At Risk - Regionally Naturally Uncommon |
| *Ranunculus maculatus* | At Risk – Naturally Uncommon | At Risk - Regionally Naturally Uncommon |
| *Ranunculus pachyrrhizus* | Not Threatened | At Risk - Regionally Naturally Uncommon |
| *Raoulia apicinigra* | Not Threatened | At Risk - Regionally Naturally Uncommon |
| *Raoulia hectorii var. mollis* | At Risk – Naturally Uncommon | At Risk - Regionally Naturally Uncommon |
| *Raoulia subulata* | Not Threatened | At Risk - Regionally Naturally Uncommon |
| *Raoulia youngii* | Not Threatened | At Risk - Regionally Naturally Uncommon |

| | | |
|---|---|---|
| *Shawia cymbifolia* | Not Threatened | At Risk - Regionally Naturally Uncommon |
| *Veronica ciliolate var. fiordensis* | At Risk – Naturally Uncommon | At Risk - Regionally Naturally Uncommon |
| *Veronica hectorii subsp. demissa* | Not Threatened | At Risk - Regionally Naturally Uncommon |

# ATTACHMENT D - PROTOCOL FOR THE REHABILITATION OF NATURAL ALPINE ENVIRONMENTS FOLLOWING SKI AREA DEVELOPMENT

# PROTOCOL FOR THE REHABILITATION OF NATURAL ALPINE ENVIRONMENTS FOLLOWING SKI AREA DEVELOPMENT

**Between**

**DEPARTMENT OF CONSERVATION ("DOC") and NZSKI LIMITED ("NZSKI").**

## 1. Introduction

The protocol sets out practical means of achieving a high standard of environmental rehabilitation during and following development works at either Coronet Peak or The Remarkables Ski Areas. NZSki will require its staff and contractors to act in accordance with the protocol.

The scope includes any work that results in any environmental disturbance including (but not limited to) the indigenous vegetation, native fauna, soil, wetlands, streams, lakes and natural landforms of the ski area. Works may only be exempted from the protocol with prior agreement from DOC.

DOC staff will conduct regular monitoring to observe progress and assess effectiveness of the measures. This will include providing advice, troubleshooting unexpected problems, adjusting management approaches and, if necessary, require corrective action to ensure the objectives of the protocol are met.

## 2. Objectives of the protocol

(a) To ensure that during the course of ski area developments there is a minimum of interference with the natural environment, and avoidance of disturbance to areas outside approved work areas;

(b) To ensure that any indigenous vegetation disturbed by development is restored as near as possible to its original density and diversity, within the shortest practical timeframe;

(c) To minimise the erosion of soil and impacts arising from sedimentation on existing or transplanted vegetation and receiving or downstream environments;

(d) To optimise the potential for longer term regeneration of indigenous vegetation through natural dispersal into and colonisation of disturbed areas;

(e) To otherwise reinstate a high standard of natural appearance of any ground not occupied by permanent structures or required to regularly bear mechanised traffic; and

(f) To establish a clear understanding between the staff and contractors of both the Department of Conservation (DOC) and NZSki on the required standards for:

  (i) Work site control measures;

  (ii) Removal and replacement of vegetation and top soil;

  (iii) Management of soil erosion and sediment control;

  (iv) Ongoing monitoring and maintenance of rehabilitated areas;

  (v) Contracted monitoring; and

  (vi) DOC's ability to suspend works.

**3. Work Site control measures**

(a) Only machinery operators with a demonstrated ability in earthworks and vegetation rehabilitation in an alpine setting are to undertake construction; training operators must be supervised by experienced operators.

(b) Prior to works, NZSki shall ensure that a briefing occurs between its staff, contractors and DOC to ensure a common understanding of how works will be conducted and coordination wherever possible in order to better achieve the Objectives of this protocol.

(c) NZSki must minimise disturbing non target areas when accessing and working within development sites. If machinery is required to move off existing tracks the least damaging route must be used, and any disturbed vegetation must be rehabilitated when works are completed; prior approval must be sought from DOC for significant departures from approved routes and additional environmental protection measures may be required.

(d) Measures to mimimise the risk of soil erosion in impacted areas must be in place and fit for purpose until rehabilitation works are completed and soil is no longer exposed or at risk of erosion due to the impacts of construction.

(e) Works must be conducted to ensure no contaminants are discharged onto the land or into watercourses (directly or indirectly); refuelling must be undertaken on hard surfaces away from watercourses and vegetation in a protected/bunded area; appropriate spill kits must be available for use wherever fuel is stored and precautions such as soil/absorbent material laid on ground when refuelling from portable tanks.

(f) All vehicles, machinery, equipment and aggregate material must be cleaned of weeds, seeds and soils before entering the works area.

(g) Sensitive natural features including streams, wetlands, tarns, lakes and rare habitats are not to be disturbed, either for development works or access to development sites. Where disturbance is unavoidable, prior approval must be sought from DOC and additional environmental protection measures may be required.

(h) All development and rehabilitation work impacting the natural environment must be completed by the 1st May. Any unfinished work must be stabilised to prevent soil erosion until works can recommence.

**4. Removal and replacement of vegetation and top soil**

(a) Vegetation must be carefully removed in a manner to minimise damage to both the foliage and root systems; as much soil material as possible shall be retained around the roots; particular care is required for species with tap or deep roots (e.g. Aciphylla (Spaniards), Anisotome (herbaceous species), cushion species).

(b) Topsoil must also be removed and stored separately from vegetation before excavation of deeper soil, fill and rock material may commence. If not used quickly to support the replanting of vegetation this topsoil may be stockpiled for later use; where possible, topsoil should not be stockpiled on vegetation in undisturbed areas.

(c) All vegetation removed should be quickly replanted into areas where works have already been completed. This will usually occur through progressive reinstatement on completed formations behind the main work “face”.

(d) Priority for replanting shall be given to areas prone to erosion.

(e) Individual plants or clumps of vegetated material (“sod”) shall be reinstated by careful use of a digger bucket. Spacing should be no greater than 1 metre, unless directed otherwise by DOC.

(f) Final positioning of transplanted vegetation and sods should be conducted by hand/with hand tools, with topsoil tamped around each plant or sod to maximise re-establishment and to achieve a result that closely resembles the surrounding natural areas.

(g) When transplanted plants and sods are insufficient to reinstate the cover in the disturbed area, additional vegetation may be sourced through splitting indigenous vegetation from adjacent areas. This should only be done where there is sufficient plant material to allow survival of both 'parent' and 'split' plants and should not unduly deplete an area otherwise unaffected by construction.

(h) Where specific plants are required to be transplanted from a work zone, these must be clearly marked with suitably durable flags, plant species, number of plants/clusters of plants and locations must be recorded using a handheld GPS; flags must be in place until all work is completed including project monitoring. Transplanted plants must be marked with suitably durable materials in their new location, with the new location recorded with handheld GPS, photographs showing the tag and plants with a record of species and number of plants/cluster of plants moved.

(i) Nursery reared plants (usually tussocks) may also be used to supplement transplanted vegetation and sods. Only locally sourced seeds may be used to grow plants for the ski area. Nursery reared plants are susceptible to frost heave, environmental stress and browsing and must be handled carefully as follows:

  (i) Slow-release fertiliser is to be placed in the root well prior to planting;

  (ii) Plants must be well bedded in to lessen risk of uprooting by feral animals and frost heave; and

  (iii) Plants may be treated with suitable chemicals to deter browsing by feral animals.

(j) Locally sourced seed of appropriate species may be broadcast to promote vegetation growth between transplanted vegetation and sods. Exotic seeds (e.g. grass) may be spread only with prior approval from DOC.

(k) Special care must be taken when replanting on steep slopes between 30 and 45 degrees:

  (i) Plants should be transplanted quickly; steep slopes require plants to be in the healthiest possible condition and reinstatement efforts focused on minimising the area of exposed soil.

  (ii) Indented troughs or depressions should be formed to create "bedding" for the tussocks or sods to be transplanted. Replanting should not occur on sheer surfaces.

  (iii) Replanting should be as close together as practical, or in clusters where vegetation was sparse or scattered prior to works.

  (iv) Large heavy plants and sods should be staked for support where possible.

  (v) Steep slopes should be closely monitored, and any plants or sods released from the slope quickly retrieved, split into smaller, lighter clumps and replanted back into the slope as described above.

  (vi) Consideration should be provided to planting small nursery reared plants where a shortfall of vegetation is anticipated; the placement of rocks, soil and plants that replicate natural patterns of the surrounding landscape should also be considered.

  (vii) Attempts at replanting vegetation on slopes steeper than 45 degrees should only proceed with prior approval from DOC; bespoke solutions should be investigated.

(l) The vegetation removed at one site may be used at another development site within the ski

area only with prior approval from DOC.

(m) If no areas are available for a quick reinstatement, vegetation may be temporarily stored in designated areas with prior agreement; in this case:

(i) All handling of vegetation for longer term storage away from the worksite must be done with great care to minimise cumulative damage to plants; vegetation should only be moved to storage and then retrieved for planting; loading and deposition should aim to reduce potential for damage to plants;

(ii) Vegetation may only be stockpiled up to one metre high with roots down to avoid die off resulting from smothering and crushing; and

(iii) All vegetation temporarily stored must be watered when protracted dry conditions may impact on survivorship.

(n) If NZSki expects to have a surplus of vegetation and/or topsoil at the end of works, this must be replanted/spread over other areas requiring rehabilitation, under direction from DOC.

(o) Any surplus rock material must not be stockpiled and/or spread over nearby terrain without prior approval from DOC.

(p) NZSki will actively eradicate any noxious weeds from all development and rehabilitation areas.

(q) No rock landscaping may be used as a substitute for vegetation unless by prior agreement.

(r) Use of rock in reinstatement works may occur where the impacted site was predominantly rocky prior to disturbance, or as a response to anticipated shortfalls in ground cover in the reinstated area; where rock is used to remediate construction impacts, it must achieve a natural appearance that replicates the patterns of the surrounding landscape, including rocky habitats.

**5. Management of soil erosion and sediment control**

(a) An Environmental Management Plan that includes a Sediment and Erosion Control Plan ("the Plan") must be submitted and approved prior to commencement of works where appropriate depending on the scale of works, as required by DOC. This Plan must include site/project specific measures that address the following in addition to the requirements of any Resource Consent issued by a Regional or District Authority. Where there is a discrepancy between the DOC approval and conditions of any other required authorisation, the measures providing the highest level of environmental protection shall prevail.

(b) Areas identified for erosion control and soil conservation work may vary from year to year as revegetation occurs and slope and soil stability is achieved. Requirements for erosion control and soil conservation measures may endure beyond the completion of construction.

(c) Significant developments will have a soil conservation and Sediment and Erosion Control Plan in place prior to the commencement of works. This Plan will demonstrate how the objectives of this protocol will be achieved.

(d) The Sediment and Erosion Control Plan shall include but not limited to the following:

(i) Management measures for the surface of vehicle tracks, formed ski trails and any other disturbed ground without a cover of indigenous vegetation to achieve appropriate water infiltration, minimise rilling and sheet erosion, reduce suspension of sediment and provide micro sites for wind borne seed to settle. Anticipated control measures include:

- shaping/crowning the surface;
- forming of earth, rock or vegetation bunds;
- ripping or roughening soils perpendicular to the slope angle;
- constructing water tables/swale drains to intercept and divert surface flows; and
- applying an appropriate gravel surface in problem areas.

(ii) Where the slope angle exceeds 30 degrees natural features such as rocks could be incorporated into the slope where this lends to the stability of the site; this would require prior approval from DOC and potentially the support of geotechnical experts. This solution would be considered on a site-by-site basis; refer to 4.p. and q. above.

(iii) Water tables/swales must have a catchment area no greater than 2,000m$^2$. Ski trails must have functioning swales no less than 60m apart. All water tables/swales must be maintained in a fit for purpose state and be able to convey water.

(iv) Water tables and swales must lead to an appropriately designed and armoured flow attenuation area able to capture sediment so only clear water disperses into the surrounding landscape.

(v) These settlement areas must be large enough to 'settle' the flow and allow sediment to be deposited, particularly during or following heavy rainfall events and during periods of snowmelt. Precise dimensions will depend on the area and erosion potential of catchment above, and appropriate designs must be incorporated into the Sediment and Erosion Control Plan. They may include excavated areas armoured with rocks and or surrounded by soil mounds and tussocks and or the use of geotextile materials.

(vi) Settlement areas must be maintained such that they provide a means of monitoring the effectiveness of control measures; management measures must be adjusted to reduce the potential for recurrent erosion where this becomes evident during monitoring.

(vii) Water tables and swales must be designed to maintain the hydrological integrity of adjacent seepages and wetlands.

(viii) To protect wetlands and wetland vegetation from sediment, no surface water carrying sediment must be allowed to run into wetland areas. Settlement areas must not overflow onto wetland areas.

(ix) Areas requiring erosion control measures are to be prioritised based on the following criteria:

- Vulnerability to erosion (e.g. slopes > 20 degrees, unconsolidated soils, disturbed ground adjacent to compacted soils).
- Saturated soils on cut faces where seepages have been intercepted.
- Remediation of slips or slumped land and stabilisation of land to prevent further or repeated slope failures.
- Settlement areas that require armouring or treatment in order to filter water.
- Stabilisation works required to facilitate revegetation.

(e) Sediment captured by settlement areas are to be redistributed to assist re-vegetation of

disturbed areas, whether historical or current earthworks e.g. used to fill gaps between transplanted tussocks or to improve the mineral soil content when planting nursery tussocks or to support the continuing recovery of previously disturbed sites.

**6. Ongoing monitoring and maintenance of the rehabilitated area**

(a) The purpose of the monitoring is to assess the progress of rehabilitation and advise NZSki how to prevent or minimise risks to the establishment of reinstated vegetation and recovery of self-sustaining vegetation cover.

(b) All development and rehabilitation works will be monitored at least once prior to the commencement of work and again at completion of works.

(c) Interim monitoring may be required, depending on the nature of work. Following completion, regular monitoring will continue for each development site until it is agreed by DOC and NZSki that the rehabilitation of the natural environment at that site can progress without further supplementation or management.

(d) Additional monitoring of erosion and sediment control measures will be made during or following significant periods of rainfall where it is safe to do so.

(e) Where monitoring establishes significant risks to rehabilitation, DOC will require NZSki to take any reasonable steps to rectify the situation and return the area to its desired condition. Any additional work required will be carried out at the cost of NZSki.

(f) In the event that an area is not rehabilitated following works, monitoring will continue until rehabilitation works have been completed. Attention will be paid to preventing erosion during any lay period.

(g) DOC reserves the right to recover the actual and reasonable costs of monitoring work.

**7. Contracted monitoring**

(a) DOC may contract monitoring to an external person/s. This approach not only provides time savings but can also source specialist expertise on how to rehabilitate the sensitive alpine vegetation. This expertise is also vital to advise on appropriate remedial actions for any issues, and to provide expert input to planning processes. Contracted monitoring will take place as below.

(b) The contractor is generally tasked to monitor the implementation of this protocol during any ski area development work that disturbs the natural environment.

(c) The monitor is to resolve any concerns of a routine nature directly with NZSki. Issues should be referred to DOC when problems are recurrent, significant in scale, unconventional, or if a mutual agreement cannot be reached.

(d) To advise both DOC and NZSki whenever their action (or inaction) may present a problem for ski area environment, whether related to a specific development or any other activity.

(e) The monitor is to immediately advise DOC and NZSki if unauthorised works may be occurring, of significant risks to the natural environment that warrant suspension of works, and of any concerns with geotechnical hazards and/or public safety.

(f) Monitoring visits are to be scheduled in consultation with NZSki and DOC at a frequency of no more than once a week and no less than three times a summer (depending on nature of works over summer).

(g) If agreement on scheduling cannot be reached, DOC will make a final decision and notify NZSki of when monitoring is to occur.

(h) A brief written report of each monitoring visit is to be forwarded to DOC and NZSki in a timely manner. Reports should take a broad approach to assess overall performance, record agreements reached on site and highlight unresolved issues. Reports should take advantage of photo monitoring where possible.

(i) The time required for visits (and reports) are to be appropriate to the works in progress. The monitor is to notify and seek agreement from NZSki where the combined time required for site visits and reporting is likely to exceed 5 hours.

(j) Support tasks supplementary to monitoring and reporting (e.g. research and meetings) are to be agreed with DOC and NZSki prior to work occurring.

(k) The time spent on monitoring visits, reporting and support work will be billed directly to NZSki at a rate no less equivalent to DOC's current hourly rate for field staff, plus GST. Disbursements are to be billed separately.

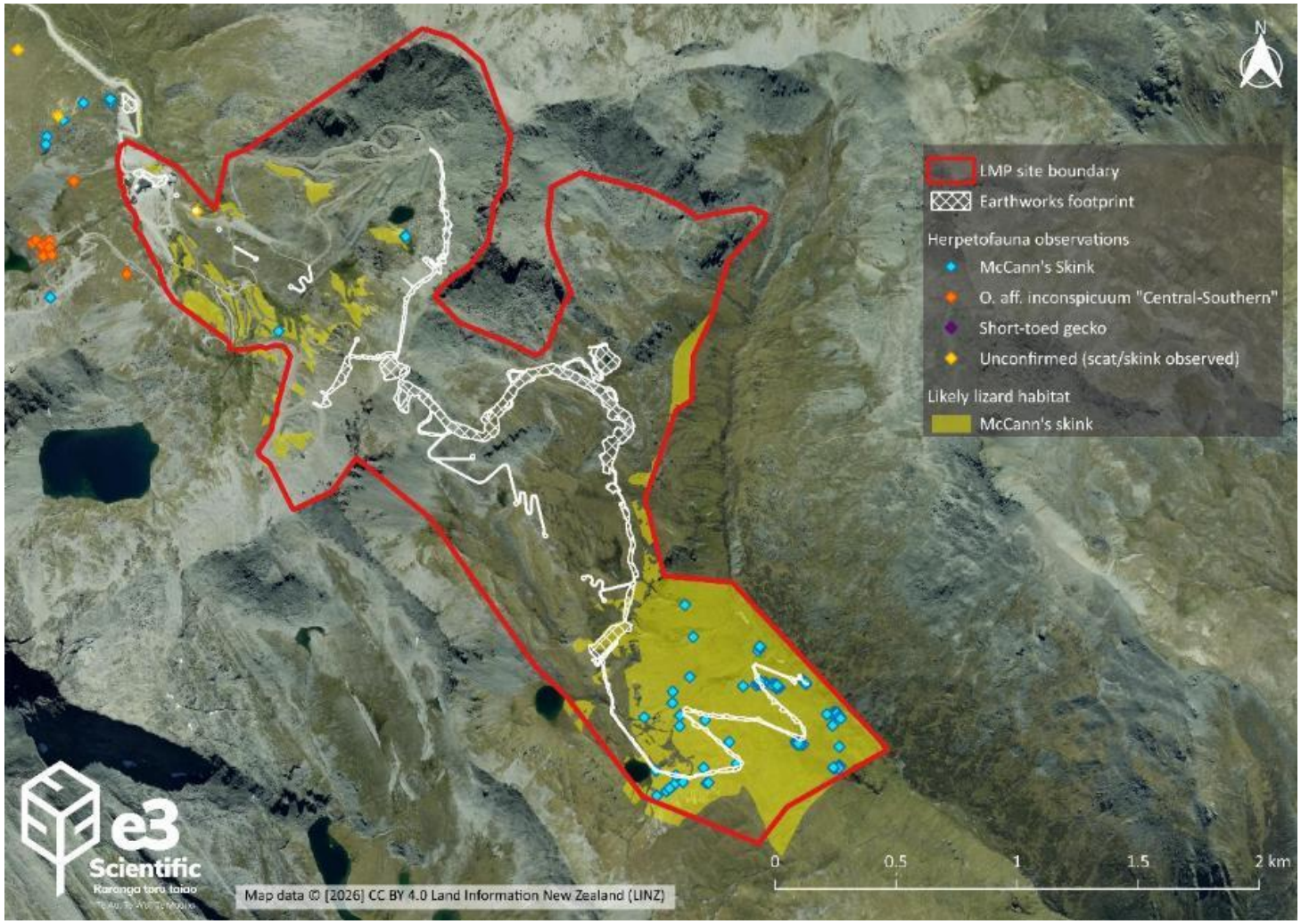
(l) All monitoring reports and discussions between the contractor, NZSki and DOC will be subject to the Official information Act 1982.

**8. Right to suspend works**

(a) DOC will, at its sole discretion, suspend any development work or activity should contracted monitoring, public feedback or DOC's own observations determine there are unexpected and/or significant impacts on the natural environment that are not being adequately rehabilitated.

(b) Any suspension shall remain in place until a response plan is agreed with NZSki.

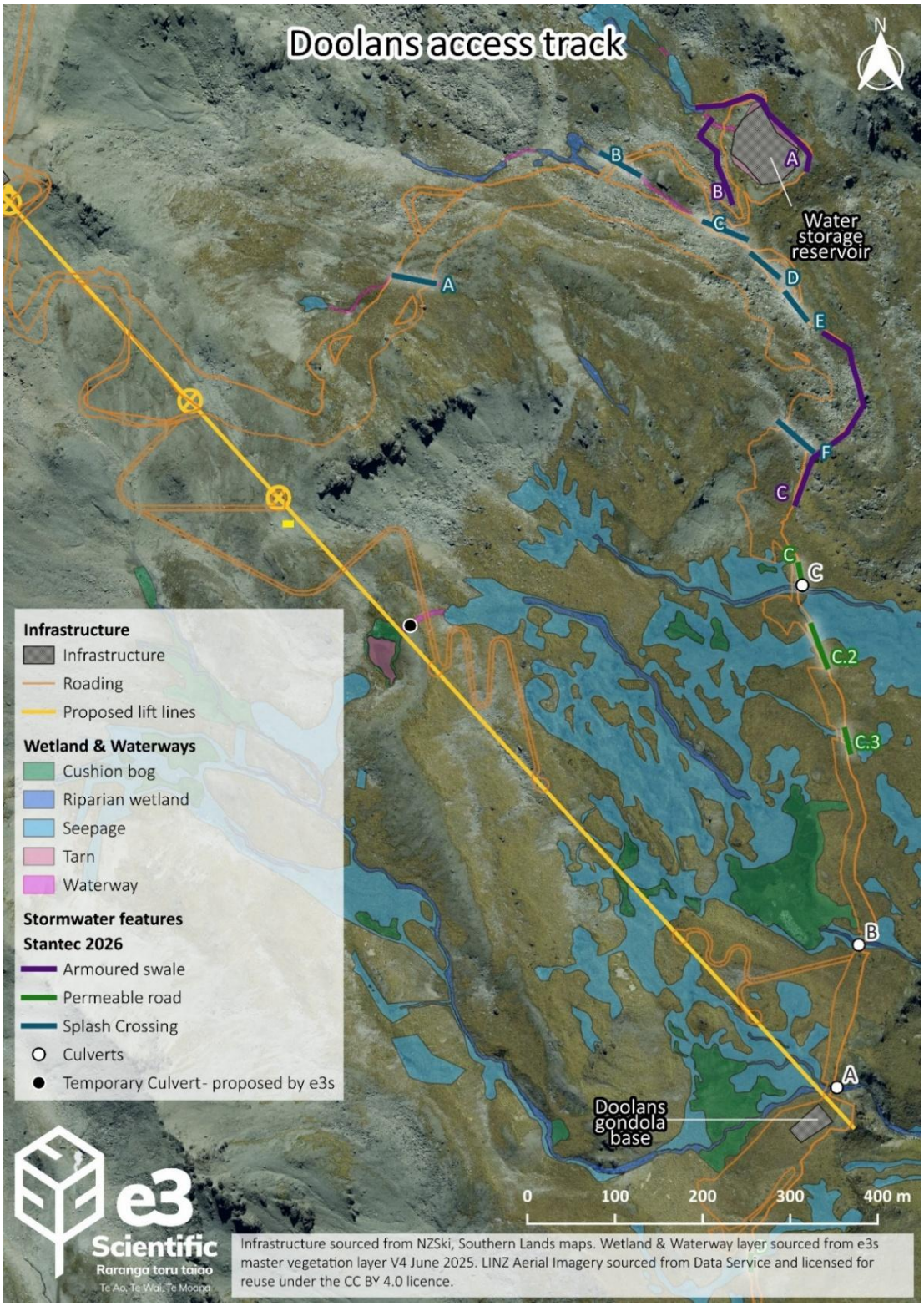
## ATTACHMENT E - MCCANN'S SKINK HABITAT

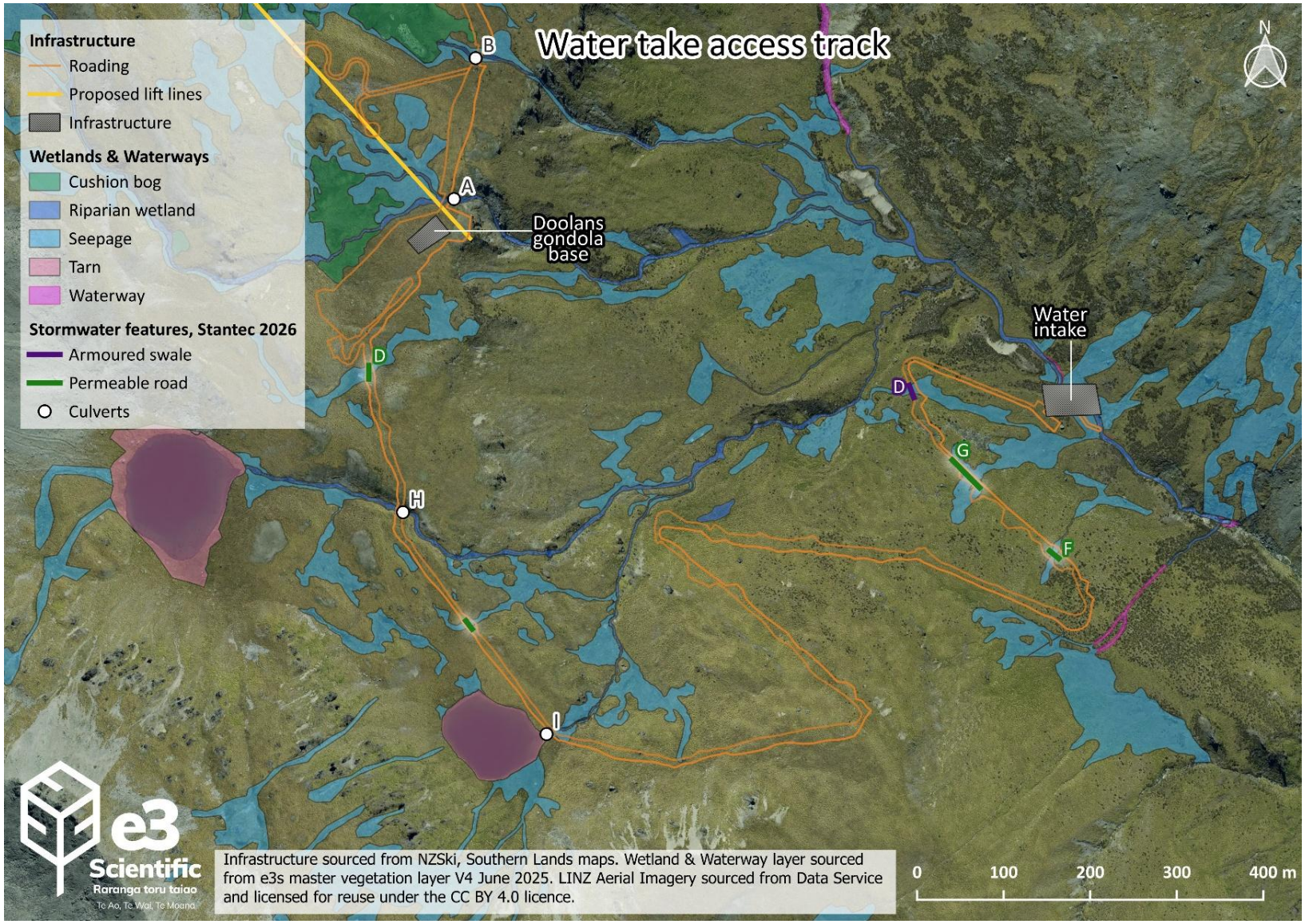


## ATTACHMENT F - LOWER REMARKABLES TRANSIT HUB REHABILITATION PLANTING PLAN

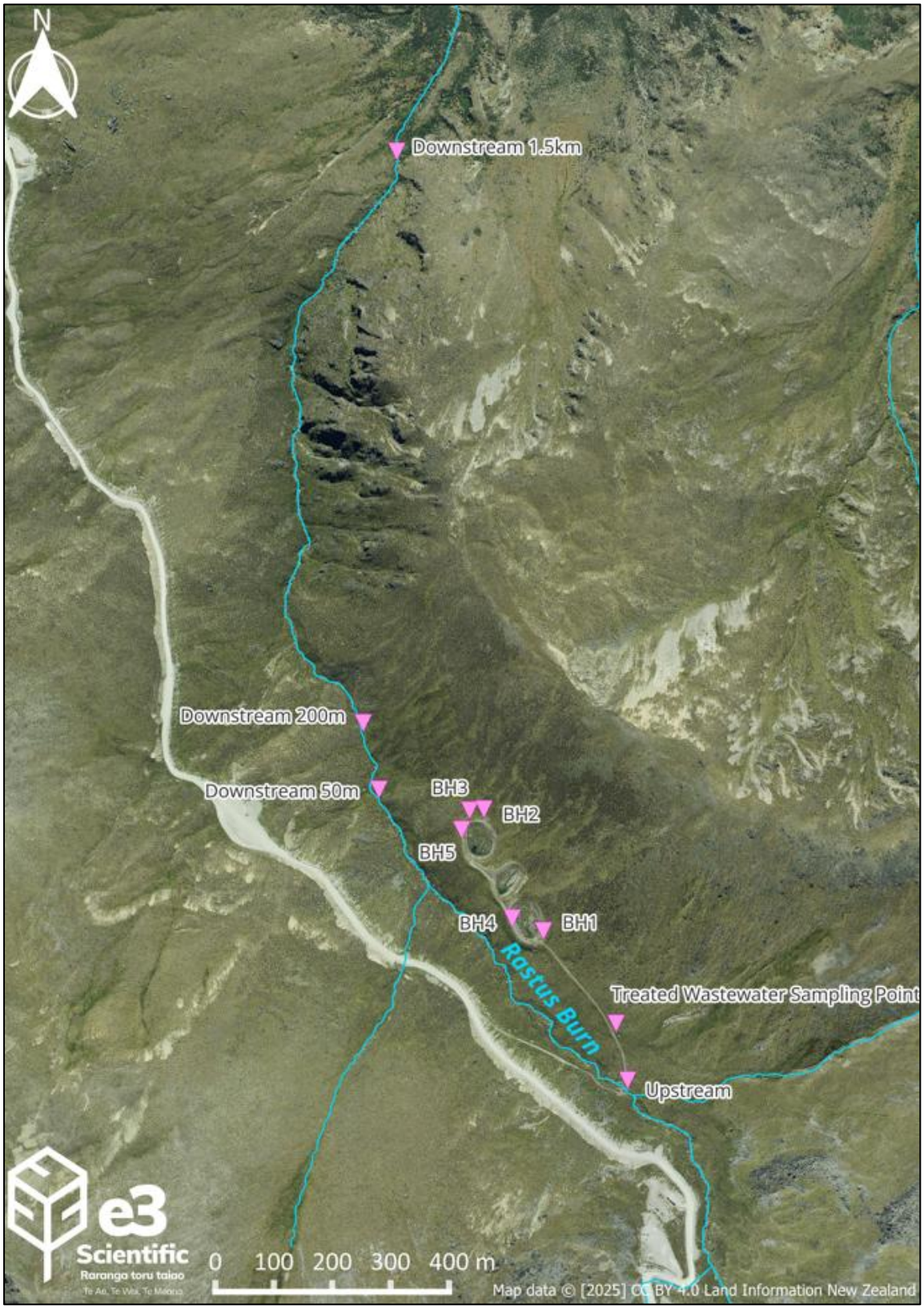

Remedial planting area shown in green, subject to the Lower Remarkables Transit Hub Rehabilitation Planting Plan.

## ATTACHMENT G - DOOLANS BASIN PROPOSED ACCESS ROAD AND STORMWATER MANAGEMENT




Water take access track
Infrastructure
Roading
Proposed lift lines
Infrastructure
Wetlands & Waterways
Cushion bog
Riparian wetland
Seepage
Tarn
Waterway
Stormwater features, Stantec 2026
Armoured swale
Permeable road
Culverts
Doolans gondola base
Water intake
A
B
D
D
F
G
H
I
N
e3 Scientific
Raranga toru taiao
Te Ao, Te Wai, Te Moana
Infrastructure sourced from NZSki, Southern Lands maps. Wetland & Waterway layer sourced from e3s master vegetation layer V4 June 2025. LINZ Aerial Imagery sourced from Data Service and licensed for reuse under the CC BY 4.0 licence.
0
100
200
300
400 m

## ATTACHMENT H – TREATED WASTEWATER AND WATER SAMPLING POINTS



# APPENDIX 2: THREATENED AND AT RISK FLORA, AVIFAUNA AND INVERTEBRATES PRESENT WITHIN THE PROJECT AREA RELEVANT TO THIS TEMP

| Species | NZTCS Conservation Status | Otago Regional Status |
|---|---|---|
| **Invertebrates** | | |
| *Dasyuris partheniata* | At Risk – Declining | – |
| *Plutella* sp. 1 (CO) | At Risk – Declining | – |
| *Sigaus campestris* | At Risk – Declining | – |
| *Hypsithocus hudsonae* | At Risk – Naturally Uncommon | – |
| *Neoramia alta* | At Risk – Naturally Uncommon | – |
| *Mamoa montana* | Data Deficient | – |
| *Rorea otagoensis* | Data Deficient | – |
| *Anagotus latrostris* | Unclassified | – |
| *Inophloeus inuus* | Unclassified | – |
| *Subantarctica centralis* | Data Deficient | – |
| *Huttonia* sp. | Unclassified | – |
| *Dasyuris microps* | At Risk – Declining | – |
| *Niveotica nervosa* | At Risk – Declining | – |
| *Scoparia panopla* | Unclassified | – |
| *Scoparia iphiospora* | Unclassified | – |
| *Pasiphila eratica* | Unclassified | – |
| *Pasiphila* sp. n | Unclassified | – |
| **Avifauna** | | |
| Eastern falcon/kārearea (*Falco novaeseelandiae*) | Threatened – Nationally Vulnerable | Threatened – Regionally Vulnerable |

| Species | NZTCS Conservation Status | Otago Regional Status |
|---|---|---|
| NZ pipit/pīhoihoi (*Anthus novaeseelandiae*) | At Risk – Declining | Not Threatened |
| Paradise shelduck/pūtangitangi | Not Threatened | Not Threatened |
| Pūkeko (*Tadorna variegata*) | – | – |
| Kea (*Nestor notabilis*) | Threatened – Nationally Endangered | Threatened – Regionally Critical |
| Australasian harrier/kāhu (*Circus approximans*) | Not Threatened | Not Threatened |
| Southern black-backed gull/karoro (*Larus dominicanus*) | Not Threatened | Not Threatened |
| **Threatened and At Risk Flora** | | |
| *Acaena caesiiglauca* | Not Threatened | At Risk – RD |
| *Aciphylla lecomtei* | At Risk – D | At Risk – RD |
| *Aciphylla kirkii* | Not Threatened | At Risk – RNU |
| *Aciphylla simplex* | At Risk – NU | At Risk – RNU |
| *Agrostis pallescens* | At Risk – NU | At Risk – RNU |
| *Agrostis petriei* | Not Threatened | Regionally Data Deficient |
| *Anisotome* (Otago bog) | Taxonomically Unresolved | N/A |
| *Anisotome lanuginosa* | At Risk – NU | At Risk – RNU |
| *Azorella exigua* | At Risk – NU | At Risk – RNU |
| *Azorella haastii* subsp. *haastii* | Not Threatened | At Risk – RNU |
| *Brachyscome longiscapa* | At Risk – NU | At Risk – RNU |

| Species | NZTCS Conservation Status | Otago Regional Status |
|---|---|---|
| *Brachyscome montana* | At Risk – NU | At Risk – RNU |
| *Carex edgeariae* | At Risk – NU | Threatened – RE |
| *Carex enysii* | At Risk – NU | Regionally Data Deficient |
| *Carex hectori* | At Risk – NU | At Risk – RNU |
| *Carex kirkii* var. *kirkii* | At Risk – NU | Data Deficient |
| *Carex petriei* | Not Threatened | At Risk – RNU |
| *Carex lachenalii* subsp. *parkeri* | At Risk – NU | At Risk – RNU |
| *Carex pisinna* | At Risk – D | At Risk – RNU |
| *Carex purpurata* | At Risk – NU | At Risk – RNU |
| *Carex flaviformis* | At Risk – D | Threatened – RV |
| *Celmisia ramulosa* var. *tuberculata* | Not Threatened | At Risk – RNU |
| *Centrolepis pallida* | Not Threatened | At Risk – RNU |
| *Chaerophyllum aff. colensoi* | Taxonomically Unresolved | N/A |
| *Colobanthus apetalus* | Not Threatened | At Risk – RNU |
| *Colobanthus strictus* | Not Threatened | At Risk – RD |
| *Craspedia uniflora* var. *uniflora* | Threatened – NE | Regionally Data Deficient |
| *Deschampsia chapmanii* | Not Threatened | Regionally Data Deficient |
| *Deschampsia pusilla* | At Risk – NU | Regionally Data Deficient |
| *Dracophyllum pronum* | Not Threatened | At Risk – RNU |
| *Epilobium komarovianum* | Not Threatened | At Risk – RNU |
| *Epilobium porphyrum* | Threatened | At Risk – RNU |
| *Euchiton traversii* | Not Threatened | At Risk – RNU |

| Species | NZTCS Conservation Status | Otago Regional Status |
|---|---|---|
| *Euphrasia petrei* | Not Threatened | At Risk – RNU |
| *Festuca matthewsii* | At Risk – NU | At Risk – RNU |
| *Festuca matthewsii* subsp. *matthewsii* | Not Threatened | Regionally Data Deficient |
| *Forstera purpurata* | Not Threatened | At Risk – RNU |
| *Gaultheria nubigena* | Not Threatened | At Risk – RNU |
| *Gentianella amabilis* | Not Threatened | At Risk – RNU |
| *Geranium microphyllum* | At Risk – NU | Unclassified |
| *Geum pusillum* | At Risk – NU | At Risk – RNU |
| *Gunnera dentata* | Not Threatened | At Risk – RNU |
| *Juncus pusillus* | At Risk – NU | Threatened – RV |
| *Kelleria childii* | Not Threatened | At Risk – RNU |
| *Kelleria paludosa* | Not Threatened | At Risk – RNU |
| *Lachnagrostis albida* | At Risk – NU | At Risk – RNU |
| *Lachnagrostis uda* | At Risk – NU | At Risk – RNU |
| *Leptinella albida* | At Risk – NU | At Risk – RNU |
| *Leptinella goyenii* | Not Threatened | At Risk – RNU |
| *Lobelia linnaeoides* | Not Threatened | At Risk – Regionally Naturally Uncommon |
| *Luzula colensoi* | Not Threatened | At Risk – RNU |
| *Luzula leptophylla* | At Risk – NU | At Risk – RNU |
| *Myosotis bryonoma* | At Risk – NU | At Risk – RNU |
| *Myosotis antarctica subsp. antarctica* | At Risk – NU | At Risk – RNU |
| *Myosotis lyallii* subsp. *elderi* | At Risk – NU | At Risk – RNU |
| *Myosotis pulvinaris* | Not Threatened | At Risk – RNU |
| *Nertera balfouriana* | Not Threatened | At Risk – RNU |

| Species | NZTCS Conservation Status | Otago Regional Status |
|---|---|---|
| *Pachycladon novae-zelandiae* | Not Threatened | At Risk – RNU |
| *Phyllachne rubra* | Not Threatened | At Risk – RNU |
| *Pimelea nivalis* | Not Threatened | At Risk – RNU |
| *Poa lindsayi* | Not Threatened | At Risk – RD |
| *Poa schistacea* | Not Threatened | At Risk – RNU |
| *Poa tonsa* | Not Threatened | At Risk – RNU |
| *Ranunculus buchananii* | At Risk – D | Threatened – RV |
| *Ranunculus maculatus* | At Risk – NU | At Risk – RNU |
| *Ranunculus pachyrrhizus* | Not Threatened | At Risk – RNU |
| *Ranunculus* sp. | Data Deficient | Threatened – RV |
| *Raoulia apicina* | Not Threatened | At Risk – RNU |
| *Raoulia hectorii var. mollis* | At Risk – NU | At Risk – RNU |
| *Raoulia subsericea* | Not Threatened | At Risk – RNU |
| *Raoulia youngii* | Not Threatened | At Risk – RNU |
| *Rytidosperma pumilum* | Not Threatened | At Risk – RD |
| *Schizeilema cymbifolium* | Not Threatened | At Risk – RNU |
| *Taraxacum zelandicum* | At Risk – D | Not Threatened |
| *Veronica ciliolata var. fiordensis* | At Risk – NU | At Risk – RNU |
| *Veronica hectorii* subsp. *demissa* | Not Threatened | At Risk – RNU |

# APPENDIX 3: A PROTOCOL FOR THE REHABILITATION OF NATURAL ALPINE ENVIRONMENTS FOLLOWING SKI AREA DEVELOPMENT BETWEEN DOC AND NZSKI LTD

# PROTOCOL FOR THE REHABILITATION OF NATURAL ALPINE ENVIRONMENTS FOLLOWING SKI AREA DEVELOPMENT

**Between**

**DEPARTMENT OF CONSERVATION ("DOC") and NZSKI LIMITED ("NZSKI").**

## 1. Introduction

The protocol sets out practical means of achieving a high standard of environmental rehabilitation during and following development works at either Coronet Peak or The Remarkables Ski Areas. NZSki wilProtocoll require its staff and contractors to act in accordance with the protocol.

The scope includes any work that results in any environmental disturbance including (but not limited to) the indigenous vegetation, native fauna, soil, wetlands, streams, lakes and natural landforms of the ski area. Works may only be exempted from the protocol with prior agreement from DOC.

DOC staff will conduct regular monitoring to observe progress and assess effectiveness of the measures. This will include providing advice, troubleshooting unexpected problems, adjusting management approaches and, if necessary, require corrective action to ensure the objectives of the protocol are met.

## 2. Objectives of the protocol

(a) To ensure that during the course of ski area developments there is a minimum of interference with the natural environment, and avoidance of disturbance to areas outside approved work areas;

(b) To ensure that any indigenous vegetation disturbed by development is restored as near as possible to its original density and diversity, within the shortest practical timeframe;

(c) To minimise the erosion of soil and impacts arising from sedimentation on existing or transplanted vegetation and receiving or downstream environments;

(d) To optimise the potential for longer term regeneration of indigenous vegetation through natural dispersal into and colonisation of disturbed areas;

(e) To otherwise reinstate a high standard of natural appearance of any ground not occupied by permanent structures or required to regularly bear mechanised traffic; and

(f) To establish a clear understanding between the staff and contractors of both the Department of Conservation (DOC) and NZSki on the required standards for:

(i) Work site control measures;

(ii) Removal and replacement of vegetation and top soil;

(iii) Management of soil erosion and sediment control;

(iv) Ongoing monitoring and maintenance of rehabilitated areas;

(v) Contracted monitoring; and

(vi) DOC's ability to suspend works.

**3. Work Site control measures**

(a) Only machinery operators with a demonstrated ability in earthworks and vegetation rehabilitation in an alpine setting are to undertake construction; training operators must be supervised by experienced operators.

(b) Prior to works, NZSki shall ensure that a briefing occurs between its staff, contractors and DOC to ensure a common understanding of how works will be conducted and coordination wherever possible in order to better achieve the Objectives of this protocol.

(c) NZSki must minimise disturbing non target areas when accessing and working within development sites. If machinery is required to move off existing tracks the least damaging route must be used, and any disturbed vegetation must be rehabilitated when works are completed; prior approval must be sought from DOC for significant departures from approved routes and additional environmental protection measures may be required.

(d) Measures to mimimise the risk of soil erosion in impacted areas must be in place and fit for purpose until rehabilitation works are completed and soil is no longer exposed or at risk of erosion due to the impacts of construction.

(e) Works must be conducted to ensure no contaminants are discharged onto the land or into watercourses (directly or indirectly); refuelling must be undertaken on hard surfaces away from watercourses and vegetation in a protected/bunded area; appropriate spill kits must be available for use wherever fuel is stored and precautions such as soil/absorbent material laid on ground when refuelling from portable tanks.

(f) All vehicles, machinery, equipment and aggregate material must be cleaned of weeds, seeds and soils before entering the works area.

(g) Sensitive natural features including streams, wetlands, tarns, lakes and rare habitats are not to be disturbed, either for development works or access to development sites. Where disturbance is unavoidable, prior approval must be sought from DOC and additional environmental protection measures may be required.

(h) All development and rehabilitation work impacting the natural environment must be completed by the 1st May. Any unfinished work must be stabilised to prevent soil erosion until works can recommence.

**4. Removal and replacement of vegetation and top soil**

(a) Vegetation must be carefully removed in a manner to minimise damage to both the foliage and root systems; as much soil material as possible shall be retained around the roots; particular care is required for species with tap or deep roots (e.g. Aciphylla (Spaniards), Anisotome (herbaceous species), cushion species).

(b) Topsoil must also be removed and stored separately from vegetation before excavation of deeper soil, fill and rock material may commence. If not used quickly to support the replanting of vegetation this topsoil may be stockpiled for later use; where possible, topsoil should not be stockpiled on vegetation in undisturbed areas.

(c) All vegetation removed should be quickly replanted into areas where works have already been completed. This will usually occur through progressive reinstatement on completed formations behind the main work “face”.

(d) Priority for replanting shall be given to areas prone to erosion.

(e) Individual plants or clumps of vegetated material (“sod”) shall be reinstated by careful use of a digger bucket. Spacing should be no greater than 1 metre, unless directed otherwise by DOC.

(f) Final positioning of transplanted vegetation and sods should be conducted by hand/with hand tools, with topsoil tamped around each plant or sod to maximise re-establishment and to achieve a result that closely resembles the surrounding natural areas.

(g) When transplanted plants and sods are insufficient to reinstate the cover in the disturbed area, additional vegetation may be sourced through splitting indigenous vegetation from adjacent areas. This should only be done where there is sufficient plant material to allow survival of both 'parent' and 'split' plants and should not unduly deplete an area otherwise unaffected by construction.

(h) Where specific plants are required to be transplanted from a work zone, these must be clearly marked with suitably durable flags, plant species, number of plants/clusters of plants and locations must be recorded using a handheld GPS; flags must be in place until all work is completed including project monitoring. Transplanted plants must be marked with suitably durable materials in their new location, with the new location recorded with handheld GPS, photographs showing the tag and plants with a record of species and number of plants/cluster of plants moved.

(i) Nursery reared plants (usually tussocks) may also be used to supplement transplanted vegetation and sods. Only locally sourced seeds may be used to grow plants for the ski area. Nursery reared plants are susceptible to frost heave, environmental stress and browsing and must be handled carefully as follows:

  (i) Slow-release fertiliser is to be placed in the root well prior to planting;

  (ii) Plants must be well bedded in to lessen risk of uprooting by feral animals and frost heave; and

  (iii) Plants may be treated with suitable chemicals to deter browsing by feral animals.

(j) Locally sourced seed of appropriate species may be broadcast to promote vegetation growth between transplanted vegetation and sods. Exotic seeds (e.g. grass) may be spread only with prior approval from DOC.

(k) Special care must be taken when replanting on steep slopes between 30 and 45 degrees:

  (i) Plants should be transplanted quickly; steep slopes require plants to be in the healthiest possible condition and reinstatement efforts focused on minimising the area of exposed soil.

  (ii) Indented troughs or depressions should be formed to create "bedding" for the tussocks or sods to be transplanted. Replanting should not occur on sheer surfaces.

  (iii) Replanting should be as close together as practical, or in clusters where vegetation was sparse or scattered prior to works.

  (iv) Large heavy plants and sods should be staked for support where possible.

  (v) Steep slopes should be closely monitored, and any plants or sods released from the slope quickly retrieved, split into smaller, lighter clumps and replanted back into the slope as described above.

  (vi) Consideration should be provided to planting small nursery reared plants where a shortfall of vegetation is anticipated; the placement of rocks, soil and plants that replicate natural patterns of the surrounding landscape should also be considered.

  (vii) Attempts at replanting vegetation on slopes steeper than 45 degrees should only proceed with prior approval from DOC; bespoke solutions should be investigated.

(l) The vegetation removed at one site may be used at another development site within the ski

area only with prior approval from DOC.

(m) If no areas are available for a quick reinstatement, vegetation may be temporarily stored in designated areas with prior agreement; in this case:

(i) All handling of vegetation for longer term storage away from the worksite must be done with great care to minimise cumulative damage to plants; vegetation should only be moved to storage and then retrieved for planting; loading and deposition should aim to reduce potential for damage to plants;

(ii) Vegetation may only be stockpiled up to one metre high with roots down to avoid die off resulting from smothering and crushing; and

(iii) All vegetation temporarily stored must be watered when protracted dry conditions may impact on survivorship.

(n) If NZSki expects to have a surplus of vegetation and/or topsoil at the end of works, this must be replanted/spread over other areas requiring rehabilitation, under direction from DOC.

(o) Any surplus rock material must not be stockpiled and/or spread over nearby terrain without prior approval from DOC.

(p) NZSki will actively eradicate any noxious weeds from all development and rehabilitation areas.

(q) No rock landscaping may be used as a substitute for vegetation unless by prior agreement.

(r) Use of rock in reinstatement works may occur where the impacted site was predominantly rocky prior to disturbance, or as a response to anticipated shortfalls in ground cover in the reinstated area; where rock is used to remediate construction impacts, it must achieve a natural appearance that replicates the patterns of the surrounding landscape, including rocky habitats.

**5. Management of soil erosion and sediment control**

(a) An Environmental Management Plan that includes a Sediment and Erosion Control Plan ("the Plan") must be submitted and approved prior to commencement of works where appropriate depending on the scale of works, as required by DOC. This Plan must include site/project specific measures that address the following in addition to the requirements of any Resource Consent issued by a Regional or District Authority. Where there is a discrepancy between the DOC approval and conditions of any other required authorisation, the measures providing the highest level of environmental protection shall prevail.

(b) Areas identified for erosion control and soil conservation work may vary from year to year as revegetation occurs and slope and soil stability is achieved. Requirements for erosion control and soil conservation measures may endure beyond the completion of construction.

(c) Significant developments will have a soil conservation and Sediment and Erosion Control Plan in place prior to the commencement of works. This Plan will demonstrate how the objectives of this protocol will be achieved.

(d) The Sediment and Erosion Control Plan shall include but not limited to the following:

(i) Management measures for the surface of vehicle tracks, formed ski trails and any other disturbed ground without a cover of indigenous vegetation to achieve appropriate water infiltration, minimise rilling and sheet erosion, reduce suspension of sediment and provide micro sites for wind borne seed to settle. Anticipated control measures include:

- shaping/crowning the surface;
- forming of earth, rock or vegetation bunds;
- ripping or roughening soils perpendicular to the slope angle;
- constructing water tables/swale drains to intercept and divert surface flows; and
- applying an appropriate gravel surface in problem areas.

(ii) Where the slope angle exceeds 30 degrees natural features such as rocks could be incorporated into the slope where this lends to the stability of the site; this would require prior approval from DOC and potentially the support of geotechnical experts. This solution would be considered on a site-by-site basis; refer to 4.p. and q. above.

(iii) Water tables/swales must have a catchment area no greater than 2,000m$^2$. Ski trails must have functioning swales no less than 60m apart. All water tables/swales must be maintained in a fit for purpose state and be able to convey water.

(iv) Water tables and swales must lead to an appropriately designed and armoured flow attenuation area able to capture sediment so only clear water disperses into the surrounding landscape.

(v) These settlement areas must be large enough to 'settle' the flow and allow sediment to be deposited, particularly during or following heavy rainfall events and during periods of snowmelt. Precise dimensions will depend on the area and erosion potential of catchment above, and appropriate designs must be incorporated into the Sediment and Erosion Control Plan. They may include excavated areas armoured with rocks and or surrounded by soil mounds and tussocks and or the use of geotextile materials.

(vi) Settlement areas must be maintained such that they provide a means of monitoring the effectiveness of control measures; management measures must be adjusted to reduce the potential for recurrent erosion where this becomes evident during monitoring.

(vii) Water tables and swales must be designed to maintain the hydrological integrity of adjacent seepages and wetlands.

(viii) To protect wetlands and wetland vegetation from sediment, no surface water carrying sediment must be allowed to run into wetland areas. Settlement areas must not overflow onto wetland areas.

(ix) Areas requiring erosion control measures are to be prioritised based on the following criteria:

- Vulnerability to erosion (e.g. slopes > 20 degrees, unconsolidated soils, disturbed ground adjacent to compacted soils).
- Saturated soils on cut faces where seepages have been intercepted.
- Remediation of slips or slumped land and stabilisation of land to prevent further or repeated slope failures.
- Settlement areas that require armouring or treatment in order to filter water.
- Stabilisation works required to facilitate revegetation.

(e) Sediment captured by settlement areas are to be redistributed to assist re-vegetation of

disturbed areas, whether historical or current earthworks e.g. used to fill gaps between transplanted tussocks or to improve the mineral soil content when planting nursery tussocks or to support the continuing recovery of previously disturbed sites.

**6. Ongoing monitoring and maintenance of the rehabilitated area**

(a) The purpose of the monitoring is to assess the progress of rehabilitation and advise NZSki how to prevent or minimise risks to the establishment of reinstated vegetation and recovery of self-sustaining vegetation cover.

(b) All development and rehabilitation works will be monitored at least once prior to the commencement of work and again at completion of works.

(c) Interim monitoring may be required, depending on the nature of work. Following completion, regular monitoring will continue for each development site until it is agreed by DOC and NZSki that the rehabilitation of the natural environment at that site can progress without further supplementation or management.

(d) Additional monitoring of erosion and sediment control measures will be made during or following significant periods of rainfall where it is safe to do so.

(e) Where monitoring establishes significant risks to rehabilitation, DOC will require NZSki to take any reasonable steps to rectify the situation and return the area to its desired condition. Any additional work required will be carried out at the cost of NZSki.

(f) In the event that an area is not rehabilitated following works, monitoring will continue until rehabilitation works have been completed. Attention will be paid to preventing erosion during any lay period.

(g) DOC reserves the right to recover the actual and reasonable costs of monitoring work.

**7. Contracted monitoring**

(a) DOC may contract monitoring to an external person/s. This approach not only provides time savings but can also source specialist expertise on how to rehabilitate the sensitive alpine vegetation. This expertise is also vital to advise on appropriate remedial actions for any issues, and to provide expert input to planning processes. Contracted monitoring will take place as below.

(b) The contractor is generally tasked to monitor the implementation of this protocol during any ski area development work that disturbs the natural environment.

(c) The monitor is to resolve any concerns of a routine nature directly with NZSki. Issues should be referred to DOC when problems are recurrent, significant in scale, unconventional, or if a mutual agreement cannot be reached.

(d) To advise both DOC and NZSki whenever their action (or inaction) may present a problem for ski area environment, whether related to a specific development or any other activity.

(e) The monitor is to immediately advise DOC and NZSki if unauthorised works may be occurring, of significant risks to the natural environment that warrant suspension of works, and of any concerns with geotechnical hazards and/or public safety.

(f) Monitoring visits are to be scheduled in consultation with NZSki and DOC at a frequency of no more than once a week and no less than three times a summer (depending on nature of works over summer).

(g) If agreement on scheduling cannot be reached, DOC will make a final decision and notify NZSki of when monitoring is to occur.

(h) A brief written report of each monitoring visit is to be forwarded to DOC and NZSki in a timely manner. Reports should take a broad approach to assess overall performance, record agreements reached on site and highlight unresolved issues. Reports should take advantage of photo monitoring where possible.

(i) The time required for visits (and reports) are to be appropriate to the works in progress. The monitor is to notify and seek agreement from NZSki where the combined time required for site visits and reporting is likely to exceed 5 hours.

(j) Support tasks supplementary to monitoring and reporting (e.g. research and meetings) are to be agreed with DOC and NZSki prior to work occurring.

(k) The time spent on monitoring visits, reporting and support work will be billed directly to NZSki at a rate no less equivalent to DOC's current hourly rate for field staff, plus GST. Disbursements are to be billed separately.

(l) All monitoring reports and discussions between the contractor, NZSki and DOC will be subject to the Official information Act 1982.

**8. Right to suspend works**

(a) DOC will, at its sole discretion, suspend any development work or activity should contracted monitoring, public feedback or DOC's own observations determine there are unexpected and/or significant impacts on the natural environment that are not being adequately rehabilitated.

(b) Any suspension shall remain in place until a response plan is agreed with NZSki.