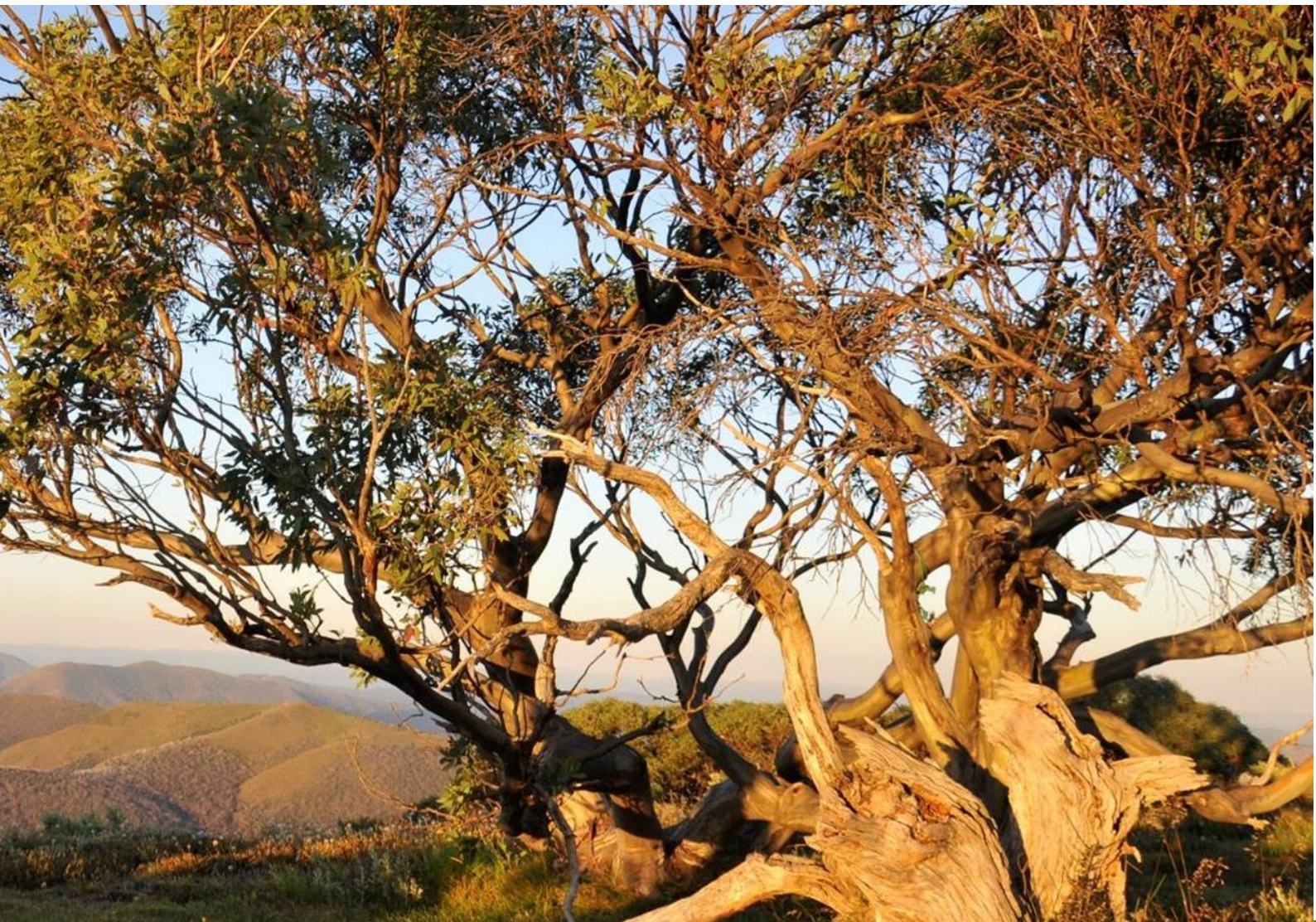


2021



# ENVIRONMENTAL MANAGEMENT PLAN

MOUNT HOTHAM ALPINE RESORT MANAGEMENT BOARD



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## Introduction

Healthy functioning ecosystems are essential for human life through the provision of resources. They are equally important for their intrinsic value, supporting rich flora and fauna diversity. Alpine and sub-alpine areas have high conservation and biodiversity value within the Australian landscape, with several threatened species persisting within these landscapes.

The various Alpine Resorts of Victoria are managed by Resort Management Boards. The Alpine Resorts (Management) Act 1997 stipulates that the function of the Resort Management Boards is to make provision for the development, promotion, management and use of the resorts in a “sustainable basis and in a manner that is compatible with the alpine environment....for the use of the resorts primarily for alpine recreation and tourism and in all seasons of the year”.



Mount Hotham Alpine Resort Management Board (RMB) manages Mount Hotham Alpine Resort (MHAR), located in north-east Victoria covering an area of approximately 3,450 hectares. As the land manager the RMB has a responsibility to preserve, protect and enhance biodiversity within the Resort.

To achieve this the RMB has implemented an Environmental Management System (EMS) since 2014. The EMS has involved the development of the State of the Environment (SoE) Report, reviewing operational data and knowledge of environmental values within MHAR, and an Environmental Management Plan (EMP) outlining goals and actions informed by the SoE. The SoE and EMP are reviewed and updated every three years. The RMBs operational and strategic Risk Registers are regularly reviewed and updated for alignment to the EMP. The SoE and EMP were last reviewed in 2018. In 2021 the SoE was updated and forms the basis for targets set in this current EMP.

The diverse functions of the RMB and sensitive nature of the alpine environment means that many aspects of operations impact a variety of environmental values. This EMPs format follows on from previous versions and is divided into sections focusing on five key environmental values:

1. Production, Waste and Consumption
2. Atmosphere
3. Land Management
4. Biodiversity and Threatened Species
5. Water

Each section identifies aspects of RMB operations as well as impacts that can be associated with each environmental value. Many operational aspects are relevant to several themes, as such targets and actions have been allocated to the most relevant.

This EMP has been informed by the Department of Environment, Land, Water and Planning's Strategic Management Prospects (SMP) tool which has been developed to support land managers to prioritise management actions focused on biodiversity outcomes. Mount Hotham Resort is located within the Hotham Falls Region. The SMP tool identifies habitat loss, predation by feral animals, grazing by hard hooved animals, and weed introductions and spread as the greatest threats to biodiversity within the region.

The SMP tool identifies high priority management areas, including;

- Pest management, with investment in monitoring activities to determine impact, scale and best management programs,
- Tourism and recreation activities which attract hundreds of thousands of visitors each year to alpine areas can have huge impacts on the environment not only from the recreational use but also from the generation of waste (rubbish and wastewater),
- Continuation of sustainability projects in Alpine Resorts for overall biodiversity benefit is strongly encouraged, including the reduction of impacts from resort operations, waste and emissions, and
- Investment in education and behaviour change (signage, engagement with locals and tourists and encouraging citizen science) is required across all landscapes.

Based on the threats and priority management areas above, the SMP tool identifies weed control, deer control, fox and cat control and large herbivore control as the most cost-effective actions with the greatest benefit to as many species as possible. The Mountain Pygmy-possum and Alpine Tree Frog were identified as receiving the greatest benefit from the most cost-effectives actions.

Additional priority activities were identified through a consultation process and included;

- Habitat and ecological community improvement works (expanding habitat for species i.e. Mountain Pygmy-possum, revegetation with food plants and connectivity areas),
- increasing awareness of threats such as rat poison in buildings,
- restoring boulder field habitat, and
- restoring Alpine Peatland Bogs which have been historically impacted.

## Risk Management Policy Review

The Mount Hotham Alpine Resort Risk Management Framework identifies key RMB strategic and operational risks within the organisations Risk Profile and are continually updated as required.

## Environmental Policy

### **Aim**

To understand and minimise the impact of resort activities on environmental values with particular regard to sensitive areas within and adjacent to the resort.

### **Background**

The MHAR is a premier Australian alpine tourism destination and as one of five alpine resorts, provides a key economic driver for Victoria. Responsible for ongoing management and provision of services to the resort, the RMB is committed to sustainable environmental management practices to protect and, where possible enhance, natural values across the resort. The RMB has a commitment to comply with relevant legislation and policy requirements

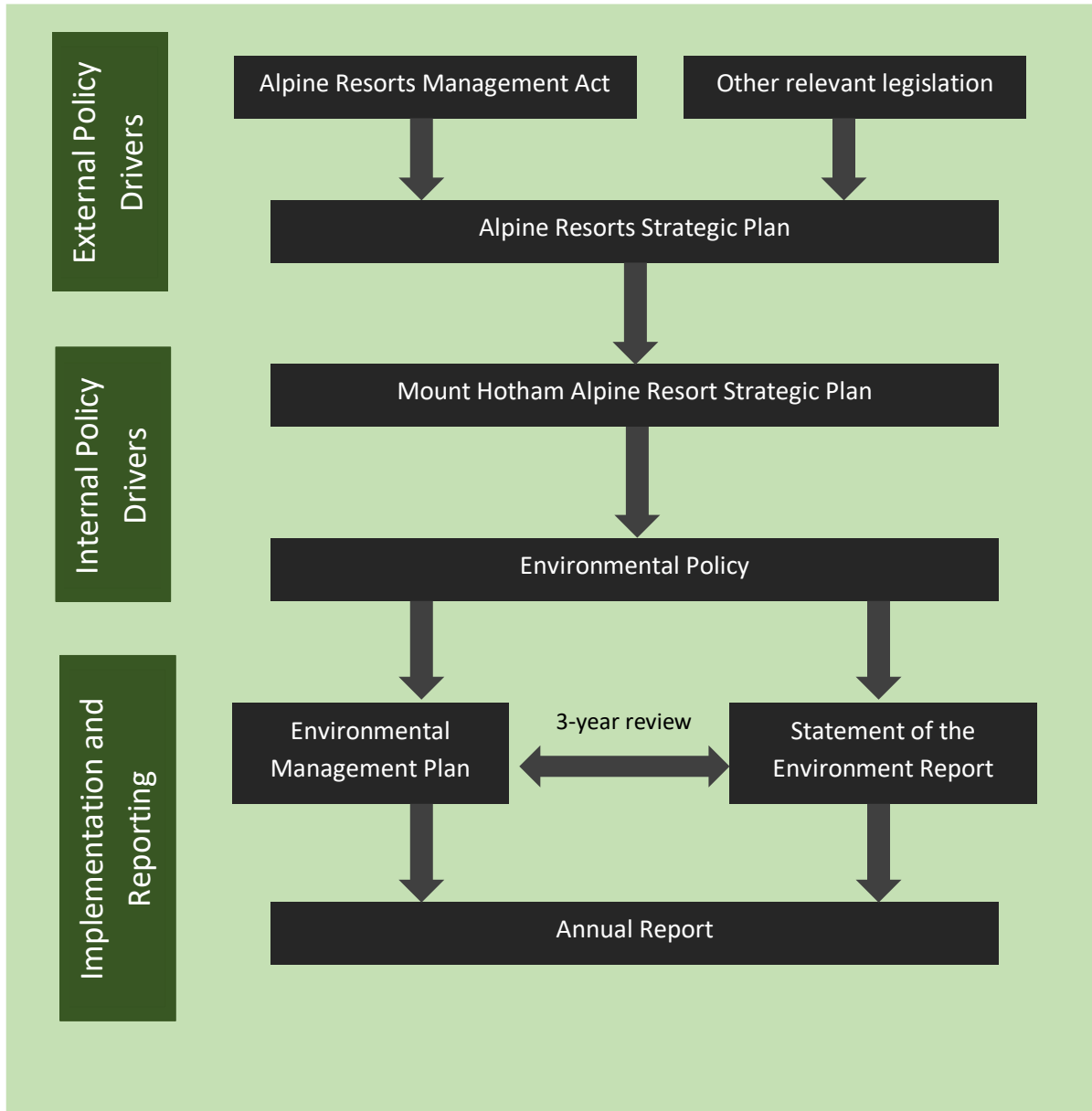
To achieve this aim the RMB will:

- Adopt, implement and review an Environmental Management System (EMS) that complies to governmental standards;
- Assess and monitor environmental risks and impacts of RMB activities, operations and infrastructure;
- Address risks and indirect impacts of external stakeholders, operators and visitors to the resort where appropriate;
- Seek to minimise consumption of water and energy and reduce waste generated from resort activities and operations;
- Seek to educate stakeholders, operators and visitors on the environmental significance of the resort;
- Ensure stakeholders and operators consider and appropriately mitigate against risks and impacts to the surrounding environment;
- Communicate environmental performance within RMB annual reporting; and
- Continually strive to improve environmental performance outcomes.

The RMB will make available this policy document and any other documentation relating to environmental objectives, targets and monitoring outcomes to staff and relevant interested parties though the RMB Intranet, the website and other RMB publications.

## Policy Framework

The purpose of the EMP is to identify key areas requiring prescriptive ongoing implementation to achieve the aim of the Environmental Policy. The relationship between external and internal policy direction and implementation is demonstrated in the flow diagram below.



## Definitions

Terms and Definitions relevant to this EMP include:

*Environmental aspect* – element of an organisation’s activities or products or services that can interact with the environment.

*Environmental impact* – any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation’s environmental aspects.

*Environmental management system (EMS)* – part of an organisation’s management system used to develop and implement its environmental policy and manage its environmental aspects.

*Environmental aim/objective* – overall environmental goal, consistent with the environmental policy, that an organisation sets itself to achieve.

*Environmental policy* – overall intentions and direction of the organisation related to its environmental performance as formally expressed by top management.

*Environmental target* – detailed performance requirement, applicable to the organisation or parts thereof, that arises from the environmental objectives and that needs to be set and met to achieve those objectives.





## Core Values

### **Climate Change Adaptation**

Climate Change will have a diverse range of impacts on alpine resorts, with increasingly variable weather patterns from year to year. Climate Change is predicated to increase climatic variability, reduce snowfall, increase temperature and increase high intensity rainfall events. This climatic variability has the capacity to impact biodiversity and the alpine tourism industry into the future. The RMB is committed to prioritising sustainability outcomes through the reduction of electricity and fuel consumption and waste production, and increase renewable energy production. The RMB is working to adapt to Climate Change through diversifying the economic and social aspects of alpine tourism. To ensure native species have the greatest capacity to adapt to Climate Change the RMB is protecting and enhancing habitat and minimising invasive weeds and feral animals. Through these efforts the RMB aims to build resilience and adaptive capacity across both human and ecological communities.

### **Traditional Owner Recognition and Engagement**

The RMB acknowledges the Traditional Owners of the land on which Mount Hotham Resorts is situated as original custodians of these lands and that the land was never ceded. Principal Indigenous groups within the Mount Hotham region include the Gunaikurnai, Dhuduroa and the Jaitmathang. Traditional Owners have a long and rich history within the alps, and we recognise the need to operate in a way that preserves native title, is sensitive toward cultural heritage, and with respect and care for Country. The RMB recognises the continuing connection to land and welcomes a growing and positive relationship with Traditional Owners within the Mount Hotham region. The RMB supports Traditional Owner led management, protection and engagement of cultural heritage, and are committed to supporting Traditional Owner self-determination.

### **Threatened Species Management**

There are currently 10 fauna species and 105 flora species of state significance within the Resort, according to the Victorian Biodiversity Atlas. Four species are nationally listed under the Environmental Protection and Biodiversity Conservation Act: the Alpine She-Oak Skink, Broad-toothed Rat, Mountain Pygmy Possum (MPP) and Alpine Tree Frog. These four species along with the Alpine Bog Skink and Dingo are listed on Victoria's Advisory List of Threatened Vertebrate Fauna. All are listed under the Fauna and Flora Guarantee Act. A RMB Threatened Fauna Management has been developed and focuses on pest flora and fauna management, habitat restoration and augmentation, and long-term monitoring of threatened species. The RMB aims to deliver effective and practical on ground actions informed by scientific research and best practice environmental management practices. The RMB actively engages in collaborative partnerships with surrounding land managers to increase the scale and effectiveness of conservation actions.



## Production, Waste and consumption

### Environmental Aspects

RMB operations that directly and indirectly relate to production, waste and consumption include: responsibilities for potable water supply and consumption; waste water treatment and discharge; solid waste collection, disposal and landfill operations; recycling collection, processing and disposal, and transfer station operations; electrical and LPGas consumption; unleaded and diesel fuel storage and consumption; workshop and transport services; and resort management vehicles and plant including maintenance.

### Environmental impacts

The production and consumption of natural resources; either directly or indirectly by resort operations; can deplete resources for future or downstream beneficial use. Reduction in resources can also impact or affect the function of an ecosystem, particularly water sensitive alpine and subalpine environments such as bogs and fens or riparian areas. The depletion or reduction in availability and quality of natural resources has negative consequences including soil erosion, pollution of waterways, contamination of land, surface or ground water from wastes, increased nutrient and decreases in biological activity. Production of resources such as recyclable materials, recycled water or alternative energy supply can have a positive environmental impact by reducing the requirement for future natural resource use and virgin materials.

### Targets

- 1.1 Continue to reduce the proportion of waste to landfill, with the goal of landfill making up 45% of total waste by 2024.
- 1.2 Investigate the potential to install solar panels at Danny's Shed.
- 1.3 Complete lining of biosolids evaporation pan at Cobungra Landfill Site by June 2022.



## Production, Waste and Consumption

Action	Responsible Person	Timeframe
Investigate options for the use of compostable coffee cups across all coffee retailers within the Resort	Resort Operations Manager, Environmental Manager, Environmental Officers	February 2022
Develop and implement a waste education and communications campaign relating to the Victorian Government's Kerbside Transition	Environmental Manager, Environmental Officers	December 2022
Investigate options for soft plastics recycling to remove this waste from landfill	Environmental Officers	2024
Encourage stakeholders to develop personalised waste management plans focussing on commercial kitchens that are newly established or new management	Solid Waste Supervisor, Environmental Officer	Ongoing
Maintain existing relationship with North East Waste Resource Recovery Group and other relevant stakeholders including East Gippsland Shire, Alpine Shire and other Alpine Resort RMBs for collaboration on waste management projects, education and communications and funding opportunities	Environmental Manager, Environmental Officer	Ongoing
Review and finalise Mount Hotham's Kerbside Recycling Transition Plan	Solid Waste Supervisor, Environmental Officer	June 2022
Investigate options to reduce electricity use at Danny's Shed, either through reduced consumption or renewable power options	Resort Operations Manager, Environmental Officers	Ongoing

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Complete lining biosolids evaporation pan at Cobungra Landfill Site	Technical Services Manager, Resort Operations Manager	June 2022
Finish and fully line second biosolids evaporation pan at Cobungra Landfill Site, funding permitting	Technical Services Manager, Resort Operations Manager	2024

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## Atmosphere – Climatic Variability and Emissions

### Environmental Aspect

RMB operations that result in emissions include non-renewable energy consumption, fuel consumption by vehicles and equipment, LPG consumption, waste disposal and wastewater treatment. Land management responsibility of drainage and land stability issues are associated with climatic variability such as high rainfall events. In addition, the commercial viability of the resort is believed at risk if economic reliance is solely placed on winter operations and as such expansion of 'green season' offerings are becoming more important.

### Environmental Impacts

Environmental impact from climate change will likely include depletion of water availability, variable snowfall, increasing land stability risks from high rainfall events, increased droughts, increased bushfire activity. These can all have consequences for biodiversity and ecosystem health, along with RMB operations and visitation to the Resort during the snow and green season. Reduction or increases in electricity and fuel consumption will reduce or increase greenhouse gas emissions directly generated by operations. The carbon footprint of operations can be increased or decreased through the products selected for use. Localised air quality can be affected by odours particularly from waste management infrastructure and the sewerage treatment plant.

### Targets

1. Zero complaints received annually for excessive odours from any RMB operated facility.





## Atmosphere – Climatic Variability and Emissions

Action	Responsible Person	Timeframe
Investigate conversion to renewable energy through current electricity suppliers or opting to source electricity from sustainable energy providers	Environmental Manger, Environmental Officer	2023
Encourage stakeholders to investigate green-energy options and promote sustainable building and consumer practices	Environmental Officer	Ongoing
Continue to collate and make available relevant rainfall and precipitation data from BOM and snow data from Ski Patrol to inform future decisions	Environmental Officer	Ongoing
Minimise storage time of organics within the transfer station to reduce risk of odours	Resort Operations Manager	Ongoing
Review and continue standardised procedures to mitigate odour risks associated with operations at the sewerage treatment plant	Wastewater Manager	Ongoing

## Land Management

### Environmental Aspect

RMB operations relating to land management include geotechnical referrals assessments and co-ordination of the Land Stability Risk program with DELWP; vegetation offset management; resort landscaping, stormwater drainage, utility infrastructure development and/or maintenance; tracks and trail development and maintenance; roads, car parks and snow clearing operations; bushfire and native vegetation management including the Victorian Alps Nursery operations, Native Offset Site management, revegetation and restoration projects and cultural heritage considerations.



### Environmental Impacts

Possible environmental impacts include erosion, nutrient depletion, compaction of soil, loss or damage of native vegetation and/or habitat, increase or decrease in invasive species, visual amenity, sedimentation, pollution from snow clearing and stormwater runoff, alteration of sites of environmental, geological or cultural significance, effects of bushfires, alterations to water regime from changes to drainage patterns, pollution from chemical or fuel storage.

### Targets

1. All new development applications to adequately address the requirements of the Erosion Management Overlay.
2. Seal 4 km stretch of Great Alpine Road within the Village area by 2023, utilising glass pulverised onsite, to reduce sedimentation impacts on Mountain Pygmy possum habitat.
3. Continue to increase vegetation cover along Swindlers Valley Trail and Slalom Gully Batter, with an aim of 50% cover by 2024.
4. Undertake and maintain management works according to annual works programs for Offset sites within the Resort (Summit, Eastern Summit, Police Station, Wire Plain, and Freehold Offset Sites).
5. Install boot washing stations at key trail heads throughout the resort to reduce the introduction of weeds into and around the resort by 2024.

## Land Management

Action	Responsible Person	Timeframe
Ensure all development proposals received consider stormwater drainage, soil stability, waste management and remediation work as part of Site Environmental Management Plans	Environmental Manager	Ongoing
Liaise and promote good land management practice to all stakeholders, developers and construction personnel before, during and after works (encouraging minimal disturbance and revegetation where possible)	Environmental Manager, Environmental Officer	Ongoing
Seal 4 km stretch of Great Alpine Road within the Village area utilising glass pulverised onsite	Solid Waste Supervisor, Resort Operations Manager	December 2023
Continue revegetation works along Swindlers Valley and Slalom Gully Batter	Environmental Manager, Environmental Officer	Ongoing
Continue maintenance management of offset sites within the resort	Environmental Manager, Environmental Officer	Ongoing
Investigate and install boot washing stations at key walking trail heads to reduce weed introductions from bushwalkers	Environmental Manager, Environmental Officer, Tracks and Trails Manager	December 2024
Use soil, gravel and rock materials sourced from within the resort for construction and/or earthworks wherever possible to reduce weed risk from imported materials	Technical Services Manager	Ongoing

Continue supply of high quality indigenous alpine and subalpine plant species for use in revegetation and rehabilitation works at the Victorian Alps Nursery	Alps Nursery Manager	Ongoing
Continue to promote nursery business operations and community opportunities to alpine area land managers and the wider community within the Ovens and Kiewa Valley through the website and media opportunities	Alps Nursery Manager, Media and Communications, Marketing	Ongoing
Improve nursery online marketing and usability	Alps Nursery Manager, Media and Communications, Marketing	December 2022
Increase interpretative signage to raise awareness about biodiversity and cultural heritage throughout the Resort	Environmental Manager, Environmental Officer	December 2022
Seek input of relevant Traditional Owner groups in the development of land management practices and projects	Environmental Manager	Ongoing
Promote cultural heritage (both Aboriginal and post-European) awareness to visitors through interpretive signage to existing trails and educational opportunities	Tracks and Trails Manager	Ongoing
Continue to provide advice to stakeholders and assess permit applications for native vegetation removal for bushfire protection measures	Property Services Manager, Environmental Officer	Ongoing
Continue to undertake bushfire preparedness measured throughout the resort, including assessing fuels adjacent to buildings and vegetation management at appropriate times during summer	Environmental Manager, Tracks and Trails Team	Ongoing



## Biodiversity and Threatened Species

### Environmental Aspect

Mount Hotham Alpine Resort has high biodiversity values with several threatened species persisting within the Resort. Additionally, the alpine and sub-alpine environment are particularly sensitive and thus Resort operations need to be sympathetic and compatible. Land management aspects that impact biodiversity include threatened species management, construction and development, tourism, environmental programs including weed and predator control, education and promotion activities, and research funding and support.

### Environmental Impact

Possible negative impacts include habitat destruction, degradation, loss or fragmentation; invasive plant and exotic predator species decreasing biodiversity values; and reducing population viability. Positive impacts include habitat improvement or expansion; increasing the understanding of the ecology of alpine areas and threatened species; increasing public awareness of biodiversity values and threatened species within alpine areas.

### Targets

1. Continue to implement an annual weed management program targeting key environmental weeds including Willow, English Broom and Ox-eye Daisy.
2. Restore boulderfield habitat at the historic Quarry Site by June 2022.
3. Continue to undertake habitat improvement works including revegetation, weed and predator control for threatened species.



## Biodiversity and Threatened Species

Action	Responsible Person	Timeframe
Continue to undertake targeted weed control, focusing on high priority invasive species	Environmental Manager, Environmental Officers	Ongoing
Successfully complete the Quarry Restoration Project funded through Bushfire Recovery via North East Catchment Management Authority	Technical Services Manager, Environmental Manager, Environmental Officers	June 2022
Continue to prioritise revegetation in areas that will improve habitat for threatened species	Environmental Manager, Environmental Officers	Ongoing
Undertake priority management actions according to performance measures outlined in Threatened Fauna Management Plan	Environmental Manager, Environmental Officers	Ongoing
In line with the Threatened Fauna Management Plan, develop and implement an introduced predator control program using techniques that minimise impacts on Dingo (Ngooran)	Environmental Manager, Environmental Officers	Ongoing
Investigate the potential to create artificial waterbodies to provide habitat for the threatened Alpine Tree Frog	Environmental Manager, Environmental Officers	December 2022
Implement biosecurity measures particularly to tracks and trails to reduce risk of disease and new invasive species introductions within the Resort	Environmental Manager and Environmental Officer	December 2022

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Promote hygiene protocols for all management and construction vehicles to wash down before entering works sites	Environmental Manager	Ongoing
Investigate technology (e.g., drones) for gathering multi-spectral data to create weed management mapping and evaluate weed control program	Environmental Officer	December 2024

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## Water – Rivers and Catchments

### Environmental Aspect

The aspects of RMB operations relating to water and catchment management include availability and quality of raw water; water treatment and consumption; wastewater generation, treatment, recycling and discharge; drainage and stormwater management; construction and development; waste disposal particularly litter and landfill operations; workshop, vehicle and plant use and maintenance; and invasive weed control programs.

### Environmental Impacts

Impacts relating to water include the availability and quality of surface and groundwater as a direct result of land use in the catchment, and pollution, alteration or changes in water sensitive ecosystems, particularly peat forming vegetation communities.

### Targets

1. Increase annual Class A recovery rate to 50 % of total wastewater discharge rate by 2024.
2. Ground water quality results at Cobungra Landfill to be maintained within accepted levels deemed by the ANZECC water quality guidelines.
3. 100 % compliance with EPA licence conditions.
4. Upgrade Swindlers Creek stream gauge, funding permitted.





## Water – Rivers and Catchments

Action	Responsible Person	Timeframe
Continue to improve Class A water production procedures with the aim of increased the recovery rate to 50 % of total wastewater discharge	Technical Services Manager	2024
Continue with bi-annual groundwater quality sampling within existing groundwater bores at Cobungra Landfill	Environmental Manger	Ongoing
Upgrade and continue stream gauge monitoring of Swindlers Creek	Technical Services Manager	Ongoing
Continue with winter litter reduction program and annual post winter “Clean Up Hotham” day to reduce occurrence of litter in our catchment and raise litter awareness	Environmental Officers	Ongoing
Continue to undertake annual water catchment surveys	Environmental Officers	Ongoing
Continue potable water testing to ensure high quality potable water supply	Technical Services Manager	Ongoing
Investigate feasibility of triple intercept and grease trap at workshop and Danny’s Shed	Resort Operations Manager	2024
Continue to improve stormwater drainage throughout the village to reduce sedimentation and pollution	Technical Services Manager	Ongoing
Work with stakeholders and developers to ensure any construction works within the Resort minimise land disturbance, soil erosion and the discharge of sediments and other pollutants into the catchments	Technical Services Manager	Ongoing