

Mt Buller Sustainable Water Security Project - Off Stream Storage

Planning Report

Mt Buller and Mt Stirling Alpine Resort Management Board

August 2017

Reference: 0378163

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Mt Buller Sustainable Water Security Project (Off Stream Storage)

Planning Report

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GLOSSARY

Alpine Bogs	Both the EPBC Act threatened ecological community (Alpine Sphagnum Bogs and Associated Fens) and the FFG Act threatened community (Alpine Bog Community)
BMO	Bushfire Management Overlay
CDZ	Comprehensive Development Zone
CHMP	Cultural Heritage Management Plan
CMA	Catchment Management Authority
DDO	Design Development Overlay 3
DELWP	Victorian Government Department of Environment, Land, Water and Planning
DEPI	Victorian Government Department of Environment and Primary Industries, now DELWP
EE Act	Victorian <i>Environment Effects Act 1978</i>
EMO	Erosion Management Overlay
EMP	Environmental Management Plan
EPBC Act	Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i>
ESO	Environmental Significance Overlay
EVC	Ecological Vegetation Class
FFG Act	Victorian <i>Flora and Fauna Guarantee Act 1988</i>
HEMAMP	Hydrological and Ecological Monitoring and Adaptive Management Program
local area	The area within a 5 km radius of the study area
LPPF	Local Planning Policy Framework
PCF	Project Construction Footprint for the proposed Mount Buller Water Storage
RMB	Mount Buller and Mount Stirling Alpine Resort Management Board
SPPF	State Planning Policy Framework
study area	Broad 30-hectare area in and around the PCF
water storage	The proposed 100 megalitre water storage at Mount Buller

EXECUTIVE SUMMARY

Mt Buller

Mt Buller Alpine Resort (the Resort) is one of the most accessible alpine resorts in Australia. Located within a sensitive environment with significant conservation, scenic, tourism and recreational values, the alpine and sub-alpine environment as a whole is a valuable resource forming an important part of the Australian landscape.

The Resort contributes significantly to the economy of the region and the State as a seasonal employment generator in tourism and service industry. While its attraction in winter for snow related recreation is well regarded, it is becoming increasingly popular as a destination in summer, which is consistent with a number of relevant strategies which seek to diversify the recreational offerings for Victorians and tourists in the alpine environment. In addition to policy support encouraging summer visitation, policy also recognises the increasing role snow making is to play for Alpine Resorts as the impacts of climate change begin to be felt. Summer visitation is increasing by approximately 16% year on year, and this is placing increasing pressure on infrastructure, specifically potable water, to keep up with demand.

The Challenge

The Resort has significant constraints on its water supply, specifically in terms of storage. A lack of on-mountain storage capacity severely impacts the reliability of water supply for potable and snow making purposes. Mt Buller's water licence allows for a sufficient amount of water to be extracted from the Boggy Creek catchment during winter. However, due to a lack of storage and restricting on the timing of extraction, Mt Buller is unable to extract the full extent of its water allocation.

A lack of water infrastructure on Mt Buller continues to result in compliance issues and environmental impacts and is threatening the mountain's economic sustainability. Due to an inability to extract and store sufficient water during winter to last into the summer period, the Resort have obtained a licence exemption to extract water in summer, which impacts environmental flows.

- Potable water storage is currently less than 14% of the required capacity in summer
- During the 8 months outside of winter, Mt Buller has been forced to extract water from the Boggy Creek catchment to meet drinking and fire-fighting water demands (a temporary exemption has previously been granted by Goulburn Murray Water to allow for this summer extraction).
- Extraction outside of the Winter Fill requirement is undesirable as it removes water from summer flows, and the Goulburn Broken Catchment Management Authority have previously advised the Delatite River (from which the summer water is extracted from) is already very stressed and that extractions should be undertaken during the winter months only.
- Summer resort operations are a key climate change adaptation strategy and are currently being hampered due to inability to provide adequate potable water.

In addition to a lack of potable water for consumption, the lack of water storage on the mountain impacts the ability for snowmaking. Given the significance of the Mt Buller snow season to the local and Victorian economy, the impacts of limited snow making capability are of significance, noting:

- Winter Season recreation underpins the commercial viability of the Resort and Region.
- The Resort's winter offering is increasingly dependent upon snowmaking for a reliable, resilient and sustainable product offering in response to Climate Change.
- Mt Buller's capacity and need to make snow is greater than the amount of water currently able to be stored in the Resort.
- Snow making activities require significant volumes of water (at times in excess of 10ML/day) to be supplied during a short period of time when conditions are optimal. However, due to limits to daily extractions, a lack of water storage constrains water use in peak snow making periods.
- Mt Buller has run out of water for snowmaking activities during 2013, 2014 and 2015 winter seasons, as well as the current (2017) season.

The Response

The Mt Buller Sustainable Water Security Project – Off Stream Storage Planning Application is a culmination of numerous specialist studies and assessments which have sought to find the best possible approach to resolving the potable water supply issue for the Resort and remove the need to obtain additional water supply during the summer months, allowing environmental flows to be maintained in the water sensitive summer months and ensure the Resort is able to comply with its Water Licence.

As with any development within the alpine region, the land affected by the development contains sensitive environmental values. Detailed technical reports are included with the application, including a Geotechnical Risk Assessment, Flora & Fauna Assessment, The Mountain Pygmy-possum (*Burrhamys parvus*) and the Mount Buller Sustainable Water Storage, Site Environmental Management Plan and Landscape and Visual Assessment.

As part of the investigations into the design of the water storage, work has been undertaken to identify areas of high ecological values, particularly native vegetation and habitat for significant species and to minimise any adverse impacts. In this regard, considerable efforts have been made to reconsider the application (in relation to the initial scheme which formed part of Planning Application 2014/002775, which has subsequently been withdrawn), with a key driver being how the proposal can be realised whilst minimising environmental impacts. Environmental values have informed the project construction footprint, and care has been taken to reduce the project construction footprint where it would impact previously undisturbed land, or valuable habitat. The project is wholly located within the area identified as “Ski field Development Precinct”.

Noting the highly sensitive nature of the mountain (in terms of environment, landscape and geotechnical risk) and its remoteness and relative lack of accessibility, significant work has been undertaken to establish the most effective and least detrimental approach to achieving water security, noting any significant infrastructure project on the mountain is likely to cause some adverse impacts. This approach is consistent with the purpose of planning in Victoria.

There is no question that the proposal seeks permission for a reasonably significant piece of infrastructure. As such, it is significant to note that it is supported by significant policy weight, including work which specifically acknowledges the need for water storage on the mountain, and which seek to ensure that Mt Buller operates within its water licence requirements and efficiently throughout the summer and winter seasons. Nevertheless, it is acknowledged that any development within an alpine area requires detailed considerations regarding environment and biodiversity impacts, geological risk and considerations as to the impacts on landscape and opportunities for supporting recreation opportunities. Care has been taken to address these in the design of the proposal, and these considerations are detailed within this application. These different emphasis need to be considered on balance, having regard to the recreational intent of the resort, the valuable landscape and biological values of the mountain, the tourism and economic value provided by the resort to the region, the need for adequate provision of public utilities and the desire to facilitate support for bushfire response. This balanced consideration is articulated throughout the report.

1

INTRODUCTION

1.1

PLANNING APPLICATION

This planning application seeks planning permission for the use and development of a water storage facility (utility installation) and associated infrastructure and buildings and works, including native vegetation removal at Mt Buller Alpine Resort.

The following details provide a summary of the planning application:

Project	<ul style="list-style-type: none"> • Water Storage Facility (100ML) • Construction of fencing and pump house • Associated infrastructure including: <ul style="list-style-type: none"> • Piping, pumping, tanks, road realignment and connection and reconnection to existing services • Environmental watering system • Landscaping <ul style="list-style-type: none"> • Landscaping with native vegetation and rehabilitation • Decommissioning of infrastructure <ul style="list-style-type: none"> • Boggy Creek TBar and lift towers • Underground fuel tank. • Decommissioning and re-alignment of water supply and communications services • Vegetation Removal <p>It is noted that whilst references have been made to the water storage being used for snow making, this is in relation to existing snow making infrastructure. No new snow making infrastructure is proposed as part of this application.</p>
Location	<p>The location is referred to as the “Control Centre” due to the existing building known as the Control Centre which exists near the proposal.</p> <p>The proposed Control Centre location is within the Alpine Resort Ski Area, north of the final section of the unsealed Mt Buller Summit Road.</p>
Title	<p>The Mt Buller Alpine Resort is Crown Land reserve managed by the Mt Buller Mt Stirling Resort Management Board (CA 5A, SPI 5A~A\PP2370, Parish of Changue East, County of Wongangatta.</p>
Project Construction Footprint	<p>10.347 hectares</p>
Proposed Native Vegetation Removal	<p>5.2784 hectares</p> <ul style="list-style-type: none"> • 5.194 hectares of Alpine Grassy Heathland (EVC 1011) • 0.0846 hectares of Sub-alpine Woodland (EV 43).
Planning Permit Triggers	<ul style="list-style-type: none"> • Comprehensive Development Zone 2 • Environmental Significant Overlay 1 (<i>Burramys parvus</i> (Mountain Pygmy-possum)) • Erosion Management Overlay 1 (Management of Geotechnical Hazard) (EMO1) • Clause 52.17 Native Vegetation Removal

The Resort has significant constraints on its water supply. The water requirements of the Resort are determined by the need to service the resident and visitor populations, including summer visitation, support firefighting ability and to maintain the amenity and functionality of the Resort during winter for skiing and snow-play.

The RMB has established the Mt Buller Sustainable Water Security Project which encompasses a series of projects designed to assist it in meeting its obligation to provide a secure and reliable water supply to the Resort, both now and in the future. One component of the Mt Buller Sustainable Water Security Project is the development of an Off-Stream Storage Facility and associated upgrade of the Resort water supply and treatment infrastructure.

In July 2014 a Planning Application was lodged (known as Planning Application 2014/002775) seeking planning permission for water storage and associated infrastructure, including native vegetation removal at Mt Buller Alpine Resort. Following formal referral (pursuant to S. 55 of the Planning and Environment Act 1987) from the former Department of Environment and Primary Industries (DEPI) this application was placed on hold, to allow considerations of matters raised within the referral.

Work was then undertaken as how to best respond to the concerns identified. Based on a completed Native Vegetation Offset Strategy and fully developed Hydrological and Ecological Management Adaptive Management Program (HEMAMP), the Project Construction Footprint has been minimised, with the key driver for minimisation being how the project's impact on native flora and fauna could be minimised, whilst still meeting expectations in terms of design outcomes, geological considerations and feasibility requirements. It should be noted that the proposal has a project construction footprint of almost 1 hectare less than what was sought under 2014/002775.

Given the considerable time and changes which has occurred since July 2014, it has been determined to formally withdraw application 2014/002775 and lodge this application.

This Planning Application was lodged on 12 August 2016. On 18 November 2016 Goulburn Murray Water advised as part of their referral response under Section 55 of *the Planning and Environment Act 1987* that the works proposed as part of this proposal would require an application be made for a construction and operating licence (works licence) to Goulbourn Murray Water. This advice means that the buildings and works elements of the planning proposal are now exempt from requiring a Planning Permit, pursuant to Clause 62.02-1 of the Alpine Resorts Planning Scheme, which includes the following relevant provision:

“Any requirement in this scheme relating to the construction of a building or the construction or carrying out of works, other than a requirement in the Public Conservation and Resource Zone, does not apply to:

- *Buildings and works associated with a dam if a licence is required to construct the dam or to take and use water from the dam under the Water Act 1989.”*

This Planning Report and Annex A - Detailed Planning Assessment have been updated to reflect the reduced permit triggers of the application. It is recognised that the broader considerations of buildings and works are still relevant to the application, pursuant to Clause 65 of the Alpine Resorts Planning Scheme. However it must be noted that the “National Trust Principal¹” applies, whereby the exercise of discretion is confined only to those considerations which are relevant to the purpose of the relevant controls that are subject to planning approval.

¹ *National Trust of Australia (Vic) v Australian Temperance & General Mutual Life Assurance Society Ltd (1976) VR 592.*

2.1

MT BULLER ALPINE RESORT

Mt Buller Alpine Resort (the Resort) is one of the most accessible alpine resorts in Australia. Located within a sensitive environment with significant conservation and biodiversity, scenic, tourism and recreational values, the alpine and sub-alpine environment as a whole is a valuable resource forming an important part of the Australian landscape.

As noted by Local Policy within the Alpine Resort Planning Scheme, the Resort forms part of the upper catchment of the Delatite and Howqua Rivers. The Alpine National Park abuts the Resort boundary to the south-east, south, south-west and west. A common boundary to the north is shared with the Mt Stirling Alpine Resort in the upper Delatite River valley.

The Resort is an integral part of the unique alpine environment that contains a variety of fauna, flora and alpine communities. Some of these species are listed as threatened in Schedule 2 of the *Flora and Fauna Guarantee Act 1988* and the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*. The Village and ski fields are within the sub-alpine woodland and treeless sub-alpine mosaic.

In addition to being an area of environmental and landscape significance, the Resort is a recreation asset to Victoria and provides significant economic benefits, particularly for the local region.

Mt Buller is the most visited Alpine Resort in Victoria:

- 430,000 Visitors Annually
- 70% of these during the winter period for snow recreation
- Contributes \$268 million in Gross State Product (GSP)
- Contributes 2,400 FTE jobs
- Contributes \$153 million (23%) of Mansfield Shire Gross Regional Product (GRP)
- The most financially secure and sustainable Alpine Resort in Victoria

There is a permanent population at the Resort of about 200 people, with the local population swelling during the snow season.

Mt Buller is Crown Land (reserved), managed by the Mt Buller Mt Stirling Resort Management Board (RMB) which is established under the *Alpine Resorts (Management) Act 1997*. Section 1A of the *Alpine Resorts (Management) Act 1997* states that the object of the Act is to make provision in respect of alpine resorts:

(a) *for the development, promotion, management and use of the resorts on a sustainable basis and in a manner that is compatible with the alpine environment, having regard to –*

- i. *environmental and ecological considerations, in particular, climate change; and*
- ii. *economic considerations; and*
- iii. *cultural heritage considerations, in particular, Indigenous cultural heritage considerations; and*

(b) *for the use of the resorts –*

- i. *primarily for alpine recreation and tourism; and*
- ii. *in all seasons of the year; and*
- iii. *by persons from varied cultural and economic groups.*

The ski field area is leased by Buller Ski Lifts Pty Ltd. Pursuant to Recital E of the Lease under *Alpine Resorts (Management) Act 1997*, the primary purpose and objective of managing and operating the Alpine Resort is intensive alpine tourism development for recreation and tourism.

In this regard, the purpose of the Resort should be understood as being primarily for recreation and tourism throughout the year, for all persons. In this regard, the Resort should ensure that it is accessible, facilitates recreation and tourism and provides opportunity for a diversity of visitors and ensuring that development, management and use of the resorts is sustainable and compatible with the alpine environment.

The annual water demand for the Resort is influenced by climatic conditions and varies significantly from year to year. The location of the Resort at high elevations and on sloping land near the summit of Mt Buller means that there is limited catchment nearby from which to collect or store water. Mt Buller has a well documented need to secure water security to ensure the resort is able to continue to operate in accordance with its water licence.

The security of water is not a new problem to the Resort, with investigations into potential water supply augmentation options being undertaken since the 1990's.

The Mt Buller Master Plan (2010) and the Alpine Resorts Strategic Plan (2012) both acknowledge that water supply is an issue for Mt Buller. These documents also propose an increase in the total visitor numbers for Mt Buller and Mt Stirling Alpine Resort, particularly outside the winter period. An increase of visitors, particularly outside of winter, will place more stress on the already untenable water supply arrangement.

The water supply and treatment infrastructure at the Resort has developed over several decades in response to changes in the nature and scale of the activities being undertaken. Regulatory and policy requirements for drinking water and for the reuse of treated effluent have also influenced the development of water supply, treatment, storage and reuse infrastructure at the Resort.

The Resort's innovative approach for recycling water for the purposes of snowmaking has been recognised by the United Nations Association of Australia at the World Environment Day Awards in 2002.

2.2.1

Investigations into Water Supply and Demand

Water supply at the Resort has formed an ongoing issue for the Resort Management. The Mt Buller Sustainable Water Security Project proposes a long term response to the ongoing water supply issues for the Resort.

A summary of the historical development of water supply infrastructure as relevant to the subject proposal is provided below, although it is noted that the issue extends prior to 2004:

- The drought conditions experienced from **2004-2010** highlighted the need for more secure and alternative water supplies.
- In **2007-2008** the Sustainable Water Re-Use Project was completed. This involved the construction of a separate Class A Sewerage Treatment Plan (STP) and a variety of ancillary infrastructure to facilitate the recycling and reuse of treated effluent received from the primary wastewater treatment facility. The Class A recycled water upgrade provided water to meet increased snowmaking demand and other non-potable uses within the Resort. While the use of the Sun Valley Reservoir for the storage of Class A recycled water allowed some substitution of raw water to be undertaken, it also meant that the capacity to store water for subsequent treatment and potable use was reduced. This storage capacity reduction together with a general increase in demand for both raw and potable water to the Resort, prompted further elevation into raw water supply and storage.
- In **2007-2009** a feasibility study to investigate the reliability of water supplies from Bogy Creek and site options for the proposed storage (Mausell | AECOM 2008) was commenced. Further concept design and water supply (catchment) analyses were completed in 2009 (AECOM, 2009). A water storage of 80 to 100 ML capacity was considered feasible.
- In response to the water supply issues in **2011** the RMB commissioned a Water Supply Demand Strategy Review (GHD, 2013) coinciding with the development of the Alpine Resorts Strategic Plan (ARCC, 2012). This review considered the issues of water supply and demand from a long term approach, looking to identify if and how the Resort could respond to the water supply into the future. This review sought to identify the best mix of measures to maintain a balance between the demand for water and available supply as at 2011, and for the future. This investigation determined that the preferred strategic option involved the construction of an on mountain storage with further augmentation of ancillary infrastructure to meet ongoing water supply demands.

- In 2013 the Mt Buller Mt Stirling Resort Management Board (RMB) established the Mt Buller Sustainable Water Security Project in recognition of the fact that no single water supply, demand management, monitoring or treatment initiative is likely to be sufficient to secure the quality and quantity of Mt Buller's water supplies over the long term. The project includes a range of initiatives designed to assist the RMB in meeting its obligation to provide a safe and reliable water supply to the Resort. One component of the Mt Buller Sustainable Water Security Project is the development of a 100 ML off-stream storage and associated infrastructure, which is the subject of this report.

2.2.2 *Water Supply and Water Licence*

The Resort receives its water from the Boggy Creek catchment, under a Section 51 Annual Diversions Licence No 7093691 issued by Goulburn-Murray Water, pursuant to *the Water Act 1989*.

This licence allows a total water volume of 700 ML/year, diverted from Boggy Creek between the months of May and October at a maximum diversion rate of 4ML/day.

The restriction of extraction to the months May-October is known as the 'winter-fill requirement', which is a standard condition in accordance with current government policy, to provide for environmental flows over the 'summer months'.

Mt Buller receives water from two main sources; diversions from Boggy Creek (and its tributaries), and Class A recycled water from the Mt Buller Wastewater Treatment Plant. A third source is obtained from a licensed diversion of a tributary of the Howqua River into the Sun Valley Reservoir. This is achieved via a temporary 20 ML/year diversion licence to supplement demand for snow making purposes, with the infrastructure owned and operated by Buller Ski Lifts Pty Ltd (BSL).

A schematic of the current water supply system is provided within Figure 1: Mt Buller Water Supply System Schematic.

Critically, the 700ML/yr allocation of water is sufficient for the forecast annual (summer and winter) demand until 2035 (which is 686 ML/yr). The problem lies in the limited storage capacity, and it is a storage capacity issue which this report is responding to. A detailed review of the water demand and supply is provided in the following sections, to outline the water supply issues.

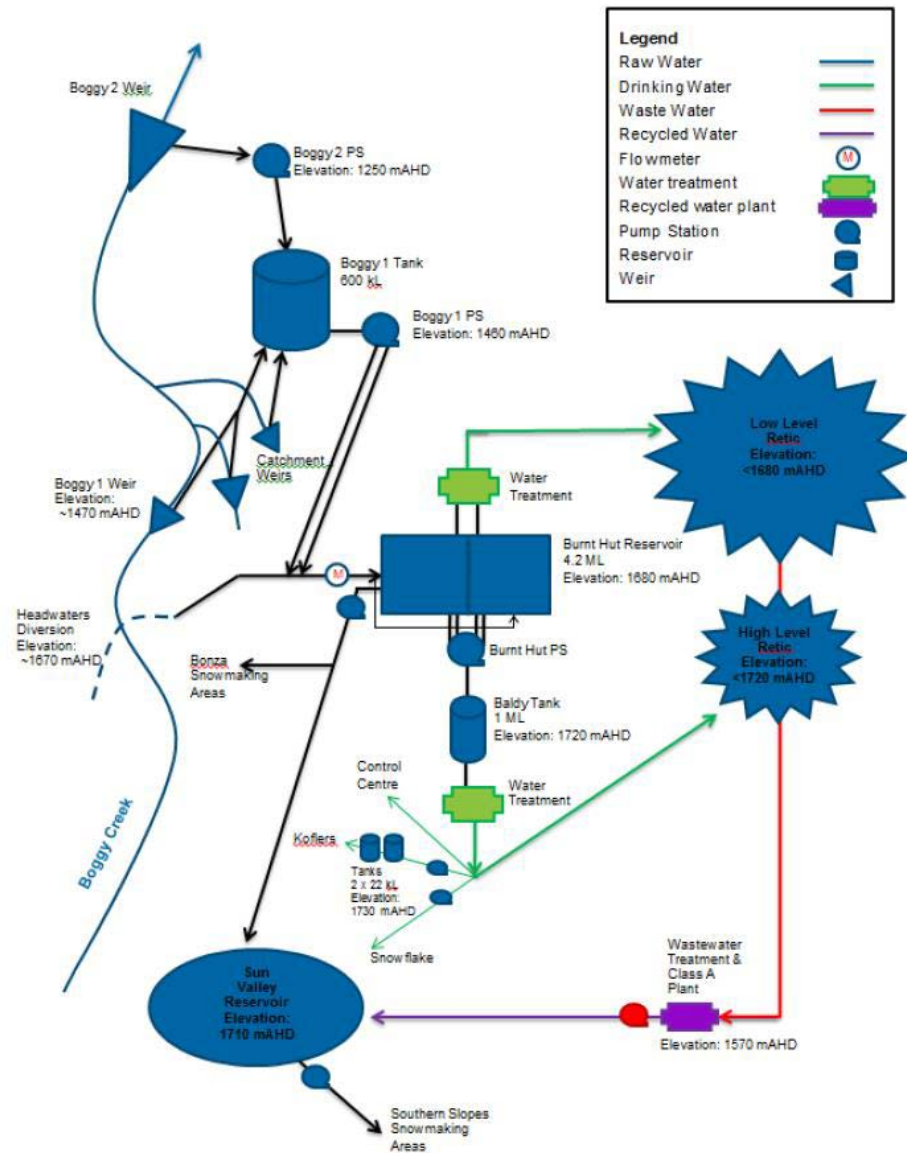


Figure 1 Mt Buller Water Supply System Schematic

Source: GHD (Design Summary 2016)

2.2.3 Portable Water Demand and Supply

The population of Mt Buller varies seasonally, with a large number of visitors to the Resort during the winter ski season. Therefore the water demand for potable water also varies seasonally, with higher demand during winter months when the population swells with visitors and ‘winter residents’ due to the season.

However, whilst the winter season is the busiest, Mt Buller is experiencing increased visitation during the summer months, or the ‘green season’, due to an increased focus on summer recreation activities such as mountain biking. While an increase in tourism during this time is consistent with the Strategic Objectives of the Alpine Strategic Resorts Plan 2012, it places increased pressure on the potable water supply for the Resort during summer.

The potable water supply for the Resort is sourced from Bogy Creek and its tributaries. The Bogy Creek catchment is located on the northern slopes of Mt Buller and is part of the Delatite and Goulburn River catchments. A series of aqueducts and weirs within the Bogy Creek catchment collect and divert water to extraction points. Water is then either gravity fed or pumped into the Burnt Hut reservoir or a series of small tanks. The main storage facility at Burnt Hut reservoir has a capacity of 4.2 ML, and additional water storage places located

within the supply system have a capacity of approximately 1.6 ML (total of 5.8ML). The demand and storage capacity of non-recycled water is outlined in Table 2 below.

Currently the demand for potable water between November and April ('summer' months) is estimated to be 33 ML per annum. As the existing storages (5.8 ML³ in total) provides just under 14% of the capacity currently required (excluding growth) to meet current potable demands for the 'summer' months, water is diverted from Boggy Creek during this time as part of a temporary licence exemption. However this practice is not desirable as it reduces environmental flows to Boggy Creek during summer months, and the continuance of the temporary exemption to the licence condition cannot be relied upon into the future. New storage would allow adequate water to be diverted during the 'winter' months (May - October) to supply the Resort during the 'summer' months (November - April) in accordance with diversion licence conditions.

The reliability of the existing water supply system is low during low catchment inflow years as evidenced during the years of drought 2004-2010. Reliability is particularly problematic if low inflow years coincide with years where natural snow coverage is also poor, as this results in reduced recharge of the soil and groundwater system systems from melted snow, which contribute to the storage and supply of water to Boggy Creek.

The existing raw treatment system complies with the current requirements of the Australian Drinking Water guidelines. However any future changes in standards, together with the increased emphasis on multiple barrier approaches to the water treatment, would require investment in the treatment system regardless of the Project.

Whilst the primary need for the water storage is the need to meet potable water demand, snow making and firefighting have also informed considerations regarding this project.

2.2.4 Snow Making Demand and Supply

Snow making activities on Mt Buller commenced in 1994. Water for snowmaking is sourced from the Burnt Hut reservoir (when excess is available) and the Class A Sewerage Treatment Plan which treats effluent received from the primary wastewater treatment facility to the Class A standard. Most snow making water is stored in the 70ML capacity Sun Valley Reservoir. The projected annual average snowmaking demand at Mt Buller in 2035 is 481ML/year in a medium growth scenario (2014 Mt Buller Off-Stream Water Supply Concept Design Investigations).

Snowmaking activities require significant volumes of water (at times in excess of 10 ML/day) to be supplied during a short period of time when conditions are optimal. However under current licence conditions, diversions from Boggy Creek are limited to 4 ML/day. This requirement combined with the limited storage capacity of the Sun Valley Reservoir (70 ML) there is a constraint to water use in peak snow making periods. In addition, for public health purposes the Class A recycled water cannot be used to supply potable demand and cannot be reused on areas which fall within the potable water supply catchment area.

Existing policy identifies a desire to achieving opportunities for snow making, as we respond to the challenges of climate change and to enable ongoing and viable opportunities for snow recreation to Victorians and support a local tourism industry.

Refer to Table 2 for a breakdown of estimated growth in demand. It is noted that no new snow making infrastructure is sought to be approved as part of this application. Refer to Section 3 of this Report for further discussion on this.

2.2.5 Firefighting Demand and Supply

Water storage at Mt Buller Resort is not only required to meet potable water consumption and snowmaking demands, but is also required in order for the RMB and other agencies to effectively respond to emergency situations such as structural fires or bushfires.

Currently there is a minimal supply of water for firefighting within the village, or for a larger bushfire response, stored at the Burnt Hut Reservoir. For much of the village this is not a gravity fed supply, so it relies on pumping and therefore an electricity supply, which can fail

during a fire. Although there is no regulatory requirement for RMB to store a minimum volume of water on site, it has been recommended that Mt Buller store a minimum volume of 10 ML of water at the Resort at all times in order to meet firefighting requirements and enable emergency response to bushfire events². This is equivalent to 2 months' worth of current summer demand.

A key consideration in storage location and infrastructure design is the ability to supply water to the Resort via gravity in the instance that power fails during a bushfire event.

CFA have reviewed the design of the water storage and have confirmed that as proposed it would provide an opportunity to support helicopter and gravity fed fire suppression efforts. CFA are in support of the proposal, please refer to Appendix K for a copy of their letter of support.

2.3 DEMAND, SUPPLY AND CONSTRAINTS SUMMARY

The current annual average demand for potable and snowmaking water combined is around 450 ML/year. Under the existing licence, the total volume permitted to be diverted from Boggy Creek each year (700 ML/yr), is adequate to supply the current annual average potable and snowmaking demand (450 ML/yr), and forecast annual demand by 2035 (686 ML/yr).

The table below provides a breakdown of the water supply allowed pursuant to the existing Licence and the current and project demand figures.

Table 1 Water Licence Figures

Total Volume of water licenced for diversion from Boggy Creek	Maximum diversion rate per day
700 ML (May-October extraction only)	4ML/day

Source: RMB and GHD

Table 2 Current and Estimated Future Annual Average Demand - Medium Growth Scenario (in ML)

Type and Season	2013	2025 Estimate	2035 Estimate	Available Raw/Potable Storage ³	Maximum Extraction Rate
Potable Demand					
May-October	134	161	161	5.8 or 13% of Summer Demand	4ML/day
November - April	33	44	44		
Total Potable	167	205	205		4ML/day May - October
Snow Making Demand					
May - October	283	413	481		
Grand Total Demand (Winter & Summer)	450	618	686		

Source: GHD (2014 Mt Buller Off-stream Storage Water Supply Concept Design Investigations)

² Advice from Alpine Resort Management Board 18 September 2014 and noted in the Mt Buller Sustainable Water Security Project Business Case.

³ Only relevant for 'Green Season' where water cannot be extracted in accordance with Water Licence.

The limited storage capacity in the current system and the maximum diversion rate per day (4 ML) constrain supply as follows:

- Adequate supply cannot be stored from winter diversions to supply the Resort during summer. Water is currently diverted during summer under a temporary exemption to the winter fill condition. This limits the ability to achieve environmental flows in Boggy Creek and is not a desirable or reliable long term solution; and
- Water use for snow making during peak periods is limited because of the maximum diversion rate from Boggy Creek (4 ML/day) and the limited storage capacity of the Sun Valley Reservoir (70 ML). Furthermore for public health reasons, recycled water cannot be used for snow making within the potable water supply catchment areas of the Resort.

Given the above, it is clear that the problem with potable water lies not in the amount of water licenced to the Resort, but in the storage/access to the water of which the Resort is licenced to extract.

2.4

CONSIDERATION OF WATER SUPPLY OPTIONS

A number of different strategic solutions to respond to the potable water supply constraints have been considered as part of the 2013 Mt Buller Water Supply Demand Strategy undertaken by GHD or have been previously considered by the RMB, or were discussed and reviewed by GHD and RMB at the commencement of the project. Refer to Appendix C for the Options Assessment Summary by GHD for a detailed review of each of these options, including off mountain storage (noting off mountain storage would require significant ancillary infrastructure to transfer the water up the mountain, resulting in environmental impacts significant capital and ongoing costs and a project of a significantly larger footprint.)

Ultimately, it was determined that a new 100 ML on mountain storage response was the most appropriate option as it provides the Resort with significant operational flexibility all year round, and allows the balance of raw water, potable and recycled water demands. The storage would allow the RMB to divert water during 'winter' months only, in accordance with the condition of their extraction licence and would also provide an adequate, gravity fed (if appropriately sited) supply for firefighting and provide a raw water supply for snow making on catchment areas and/or when additional snow making is desirable. Storage is considered to be the best way to manage the inherent variability in climate and streamflow associate with the Mt Buller region.

The realisation of the water storage project would remove the reliance on an exemption on the Resort's Water Licence and put a stop to summer water extraction. In addition to meeting summer demand, the project would support additional snow making activities on the mountain, noting the future challenges ahead for alpine resorts in association with climate change. Finally, the project would allow the Resort to achieve its desired on mountain storage during summer in case of bushfire.

2.5

THE PROPOSAL

The proposal seeks planning permission for the use and development of a utility installation (water storage) and native vegetation removal.

2.5.1

Construction

Figure 2 shows the Project Construction Footprint (PCF), with Table 3 providing an indication of the relevant works and infrastructure at each location. These elements are outlined in more detail within Appendix C.

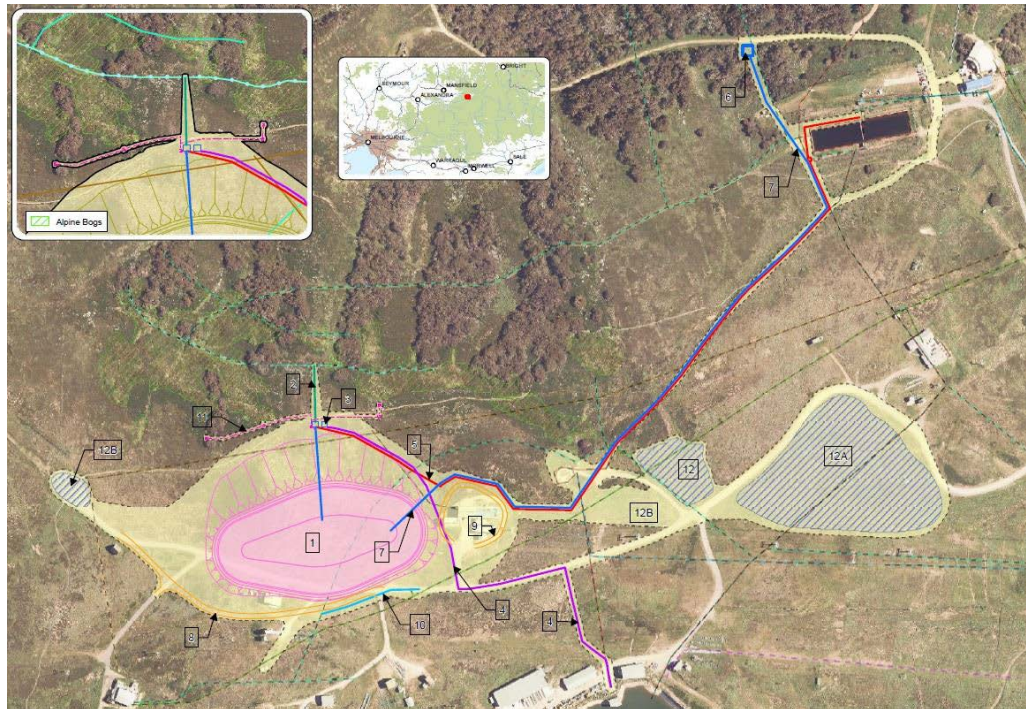


Figure 2: Proposed Concept Design and Project Construction Footprint

Source: GHD (Mt Buller Sustainable Water Security Project Off Stream Storage Concept Design Summary 2016)

Table 3 Concept Design

Number	Infrastructure/works
1.	Water Storage
2.	Storage Drainage
3.	Storage Transfer Pump Station
4.	Sun Valley Pipeline
5.	Raw water supply pipeline to treatment plant and low level reticulation network
6.	Raw water supply break tank and booster pump station
7.	Raw water supply pipeline from booster pump station to new water storage
8.	Summit carpark access road re-alignment
9.	Control Centre access road
10.	Connection and re-connection of existing services
11.	Environmental watering system
12.	Stockpile areas
	Construction phase support infrastructure and footprint
	Landscape Masterplan

Source: GHD (Mt Buller Sustainable Water Security Project Off Stream Storage Concept Design)

2.5.2

Project Realisation

The Landscape Masterplan (Figure 4) shows the proposed water storage and associated buildings once construction has finished. These are outlined in more detail within Annex N. It is noted that as part of the finalisation of the project a post construction habitat creation program involves rehabilitation of habitat for Bread-toothed Rat and Alpine Bog Skink and active creation of new habitat for Mountain Pygmy-possum within the PCF, in accordance with the Mountain Pygmy-possum Recovery Program (RMB 2013). This is outlined within the Flora and Fauna Report in Appendix G and Figure 3.

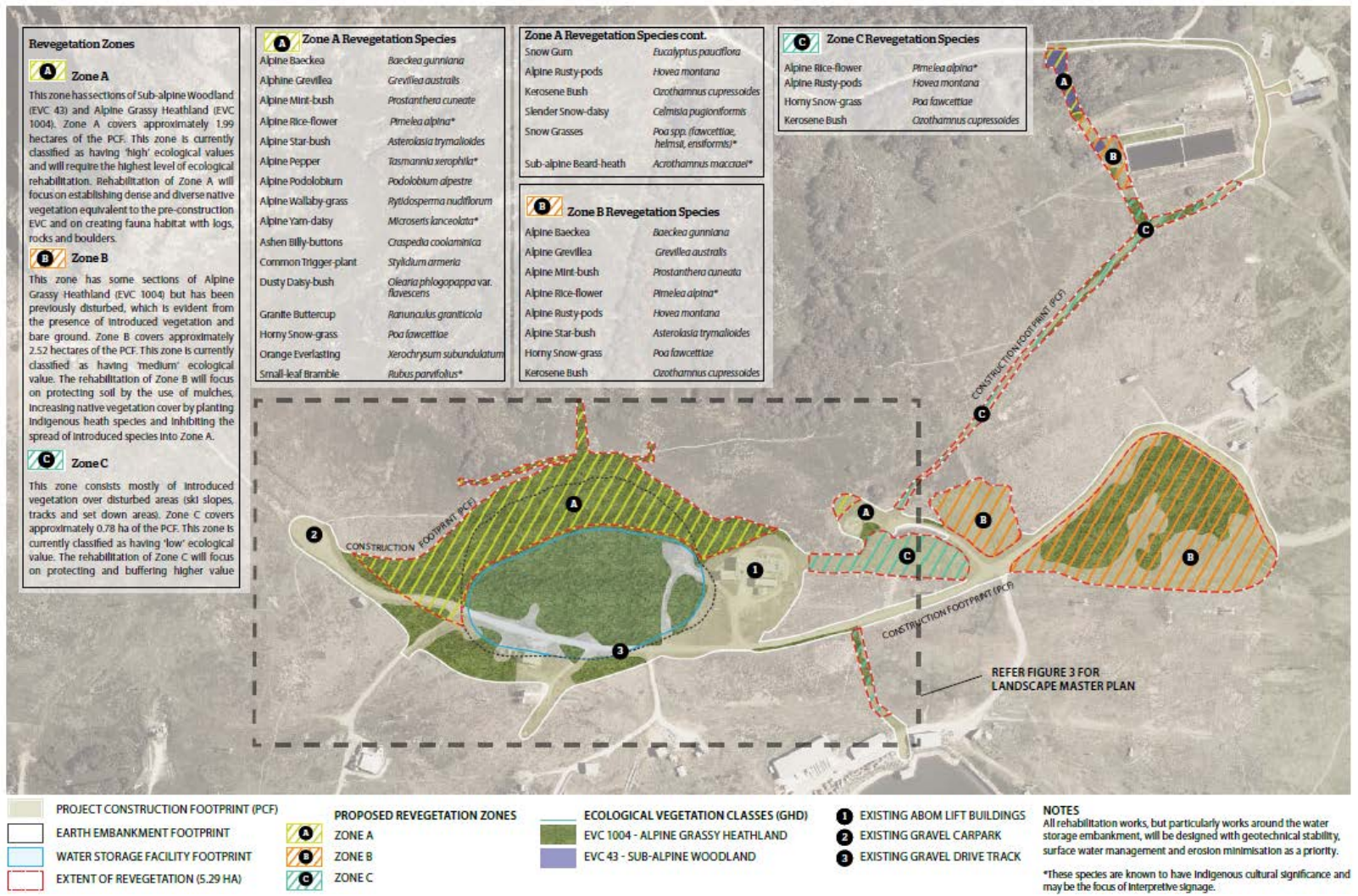


Figure 3 Revegetation and Habitat Rehabilitation Plan

Source: Biosis and Tract (Mt Buller Sustainable Water Security Project – Off-stream Storage, Ecological Rehabilitation Plan 2016).

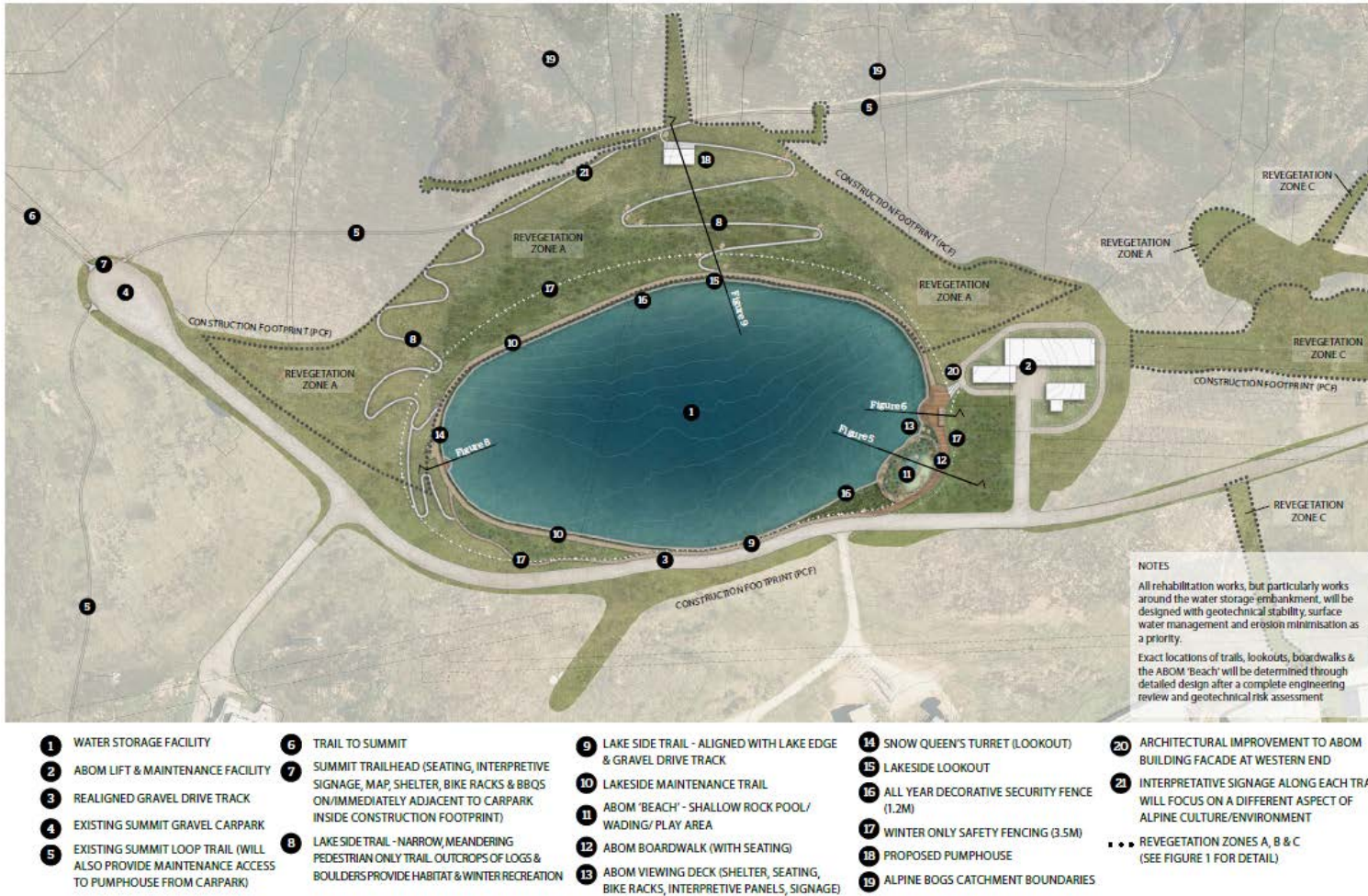


Figure 4: Landscape Masterplan

Source: Biosis and Tract (Mt Buller Sustainable Water Security Project – Off-stream Storage, Ecological Rehabilitation Plan 2016)

It is noted that whilst references have been made to the water storage being used for snow making, this is in relation to existing snow making infrastructure. No new snow making infrastructure is proposed.

Decommissioning of infrastructure

The current location of the water storage is within the area of the top load station of the Boggy Creek TBar and several lift towers. This lift is to be decommissioned as a component of this project.

This will involve the decommissioning and removal of an underground fuel tank located adjacent to the Boggy Creek T-Bar top lift station. Additional decommissioning and re-alignment of services including water supply and communications would also occur.

Native Vegetation Removal

The Project Construction Footprint (PCF) covers an area of 10.347 hectares. The proposal would require the removal of 5.2784 hectares of native vegetation, including 5.194 hectares of Alpine Grassy Heathland (EVC 1011) and 0.0846 hectares of Sub-alpine Woodland (EV 43).

2.6

LOCATION AND SITE DESCRIPTION

The proposed location (referred to as the Control Centre) is within the Mt Buller Alpine Resort Ski Area, north of the final section of the unsealed Mt Buller Summit Road. It extends over the existing Boggy Creek ski lift alignment and northwards to the Summit Nature Walk track. The site is located on a gently to moderately sloping plateau directly east of the Mt Buller summit. The site area slopes downhill to the north with the slopes steepening as they approach the valley below.

The land forms part of the ski field, and as such many areas have been subject to previous disturbance. There is existing infrastructure within the PCF. The area is typically vegetated with low lying alpine grasses, herbs and shrubs. Occasional rock outcrops of basalt are exposed towards the southeast corner of the site with a scattering of boulders across the surface area.



Figure 5 Indicative Location of Proposal

Source: Google Maps/ERM

3 *PLANNING AND OTHER REGULATORY GUIDANCE*

3.1 *INTRODUCTION*

The land is controlled by the Alpine Resorts Planning Scheme.

The Minister for Planning is the Responsible Authority and the Alpine Planning Unit of the Department of Environment, Land, Water and Planning (DELWP) administers the planning scheme on behalf of the Minister.

Accordingly, the relevant provisions of the planning scheme are referenced below.

3.2 *STATE PLANNING POLICY FRAMEWORK*

The following provisions of the State Planning Policy Framework (SPPF) are considered relevant to the proposal.

3.2.1 *Clause 12 Environmental and Landscape Values*

Clause 12.01-1 Protection of biodiversity

The objective of this Clause is to 'assist the protection and conservation of Victoria's biodiversity, including important habitat for Victoria's flora and fauna and other strategically valuable biodiversity sites'.

Clause 12.01-2 Native vegetation management

The objective of this Clause is 'to ensure that permitted clearing of native vegetation results in no net loss in the contribution made by native vegetation to Victoria's biodiversity.' The key strategy to achieve this vision is to apply the risk-based approach to managing vegetation, avoid, minimise and mitigate, as set out in Permitted clearing of native vegetation – Biodiversity assessment guidelines (DEPI, 2013).

Clause 12.03 Alpine areas

Strategies under this Clause include to ensure that the sustainable long term planning and management of Victoria's resorts is consistent with the strategic directions contained within the Alpine Resorts Strategic Plan (State Government of Victoria, Alpine Resorts Co-ordinating Council, 2012).

The relevant details of the Alpine Resorts Strategic Plan are outlined within Section 3.6 of this report.

Clause 12.03-2 Sustainable development in alpine areas

The objective of this Clause is to 'facilitate Sustainable use and development of Alpine areas for year round use and activity'. One of many strategies outlined in the Clause to achieve this vision is to ensure that there is a mixture of uses and developments to cater for users of the alpine areas in all season.

Clause 12.04-1 Environmentally sensitive areas

The objective of this Clause is to 'protect and conserve environmentally sensitive areas'. The Clause identifies all Alpine areas as being environmentally sensitive.

Clause 12.04-2 Landscapes

The objective of this Clause is 'to protect landscapes and significant open spaces that contribute to character, identity and Sustainable environments'.

3.2.2 *Clause 13 Environmental Risk*

Clause 13.03-2 Erosion and landslip

The objective of this Clause is to 'protect areas prone to erosion, landslip or other land degradation processes'. A strategy to achieve this objective is to prevent inappropriate development in unstable areas or areas prone to erosion.

Clause 13.05 Bushfire

The objective of this Clause is to 'assist to strengthen community resilience to bushfire'. This Clause identifies the prioritisation of the protection of human life over other policy considerations in planning and decision-making in areas at risk from bushfire.

3.2.3 *Clause 14 Natural Resource Management*

Clause 14.02-1 Catchment planning and management

The objective of this Clause is to 'assist the protection and, where possible, restoration of catchments, waterways, water bodies, groundwater, and the marine environment'. The strategy of particular relevance to this application is to 'protect water catchments and water supply facilities to ensure the continued availability of clean, high-quality drinking water'.

3.2.4 *Clause 15 Built Environment and Heritage*

Clause 15.03-2 Aboriginal cultural heritage

The broad objective of this Clause is to 'ensure the protection and conservation of places of Aboriginal cultural heritage significance'. Strategies to achieve the objective include to:

- Identify, assess and document places of Aboriginal cultural heritage significance...
- Provide for the protection and conservation of pre- and post-contact Aboriginal cultural heritage places
- Ensure the permit approvals align with recommendations of a CHMP

3.2.5 *Clause 17 Economic Development*

Clause 17.03-1 Facilitating Tourism

This Clause seeks to encourage tourism development to maximise the employment and long-term economic, social and cultural benefits of developing the State as a competitive domestic and international tourist destination.

3.2.6 *Clause 19 Infrastructure*

Clause 19.03-2 Water supply, sewerage and drainage

The objective of the Clause is to plan for the provision of water supply, sewerage and drainage services that efficiently and effectively meet State and community needs and protects the environment'.

3.3 *LOCAL PLANNING POLICY FRAMEWORK*

The following clauses are considered of relevance to the project.

3.3.1 *Clause 21.01 Alpine Resorts Strategic Statement*

The Clause provides objectives, strategies and directions for implementation of strategic policies in a response to the challenges and opportunities that face Victoria's Alpine Resorts.

The key issues facing the Resorts are focussed around eight strategic themes including (details as relevant):

- **Environmental and Landscape Values**
 - Protection of the significant flora and fauna species and communities, including the Alpine Bog Community and the Mountain Pygmy-possum (*Burramys parvys*).

- Protection of the integrity of the flora and fauna and their biodiversity values by appropriate development and assessment of Village and skifield expansion.
- Protection and maintenance of natural drainage lines and moss beds within the Villages from inappropriate development as they are important components of the natural drainage system and contribute to slope stability in the Resort.
- **Natural Resource Management**
 - Protection of water quality as the Resorts are located within and near Special Water Supply Catchment Areas.
 - Identification of appropriate and environmentally sensitive snow making opportunities for the long term viability of the Resort and catchment management.
- **Infrastructure**
 - Improving infrastructure, in accordance with environmental protection requirements and practices, to allow year round use and growth of the Resorts.
 - Responsible management of water to satisfy the needs and expectations of residents and visitors to the Resorts as well as to protect water resources within the catchments.
- **Environmental Risks**
 - The removal of vegetation, and the location and siting of buildings, works and infrastructure, to have regard to drainage lines, subterranean water levels and movement to minimise the risk associated with ground stability within the Resort.
 - Uses and developments within the Resort need to recognise the influence of the extreme weather conditions that characterise the Resorts.
 - There is the potential for climate change to influence snow depth levels in Victoria within the next 50 years.
 - Appropriate vegetation management and built form techniques implemented to aid in the protection of the Resort Villages from bushfire.
- **Settlement**
 - Provision of an appropriate level of facilities and services to meet the needs of the existing and future permanent population of the Resorts.
- **Economic Development**
 - Promotion of All Seasons visitation and activation in line with the Alpine Resorts Strategic Plan through facilitation of active and passive recreation developments that operate year round.
- **Built Environment and Heritage**
 - Ensuring that design, scale, height and materials of development are sympathetic to the existing natural and built form character of the Resorts.
- **Transport**

3.3.2

Clause 21.05 Mt Buller Resort Strategic Statement

The Mt Buller Resort Strategic Statement is a policy document that identifies key issues and opportunities specific to the Mt Buller Alpine Resort. Amongst other things, the Strategic Statement recognises:

- Mt Buller's rich Aboriginal heritage and unique natural environment and landscape
- The importance of the Resort's tourism industry and its significant contribution to the region's economy and tourism identity
- The need to ensure that all developments minimise impacts on the sensitive alpine environment and protects natural and scenic values
- The need to ensure continued development of recreational facilities to encourage year round use of the resort
- The need to increase capacity of the ski fields during the winter season.

The 'Vision' for the Mt Buller and Mt Stirling Resorts as identified in Clause 21.05 -2 is to be 'the most attractive and popular year-round alpine destination in Victoria and be recognised as a leader in environmental management.

A detailed assessment under the relevant sections of both the Alpine and Mt Buller Resort Strategic Statements are undertaken within Section 6 of this report.

The map overlaid is included in Clause 21.05-2 and provides the Strategic Land Use Framework Plan. It is noted that the proposal is within the “Skifield Development Precinct”.

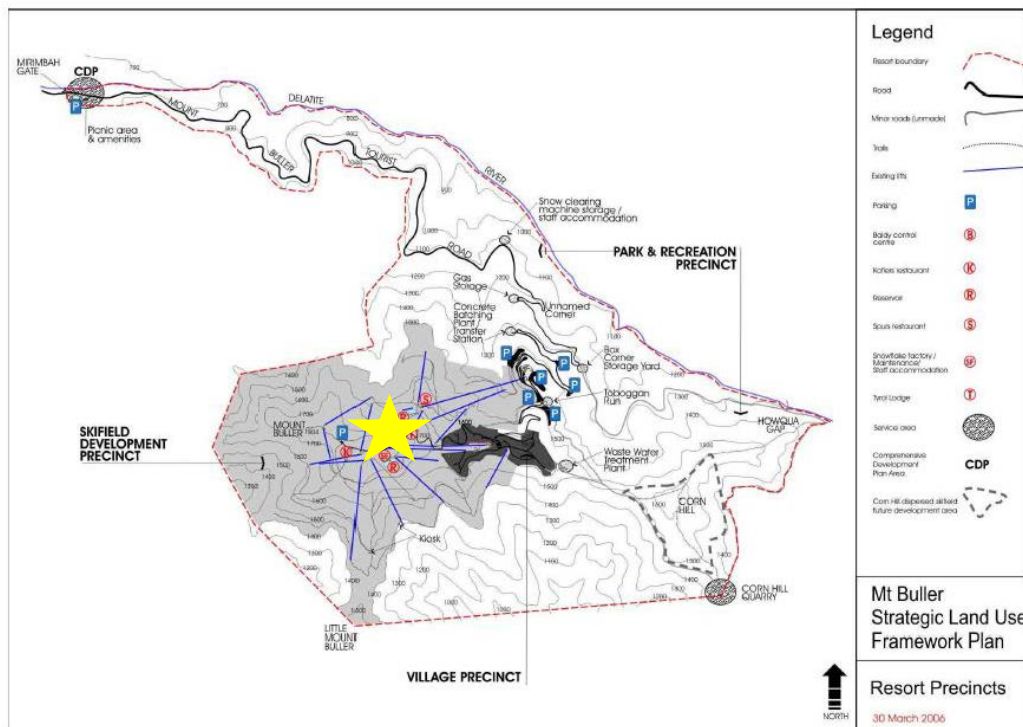


Figure 6 Mt Buller Strategic Land Use Framework Plan

Source: DELWP (Alpine Resorts Planning Scheme)

Clause 21.05-3 Objectives – Strategies – Implementation

The following elements of Clause 21.05-3 are considered relevant (emphasis added). An assessment against these have been undertaken, refer Annex A.

Environmental and Landscape Values

Key issues

- Ensuring sustainable use and development within the Resort to capitalise on the natural assets which are a primary focus for visitors.
- Potential for adverse environmental impacts to natural ecosystems through ongoing recreational use and construction activity.
- Managing the off-site effects of development and land use within the Resort to minimise their impact.
- Potential habitat for the Mountain Pygmy-possum (*Burramys parvus*) is dispersed throughout the Resort, located outside of the Village areas. The existing and potential habitat requires protection from inappropriate development.

Tourism and Recreation

Key issues

- The Resort’s skifields are a finite resource, which require extensive management and maintenance all year-round.
- Depending on capacity of servicing infrastructure, the capacity of the existing skifields can be improved and expanded to provide for a variety of experiences for snow based recreational activities.
- Development of the skifield terrain has significant environmental implications which must be balanced against the goal of achieving intensive year-round recreation in the Resort.

Infrastructure

Overview

The existing developed areas within the Resort are well provided for in terms of physical infrastructure and services. The Resort can sustain maximum capacity for two to three days,

however several days are required post a visitation peak for the water and sewerage systems to recover.

The infrastructure has adequate capacity, subject to minor modification, to meet the additional demands resulting from planned future expansion of the Resort.

Key issues

- Increased snow making will require augmentation of the water supply.
- The design and construction of new infrastructure must be sympathetic to the environmental values of the Resort and minimise impacts on the surrounding natural systems.
- The location and design of unobtrusive water storage areas is required.
- Responsible management of water is required to satisfy the needs and expectations of residents and visitors to Mt Buller as well as protecting water resources within the Delatite and Howqua catchments.
- Provision needs to be made for ongoing maintenance, repair and upgrading of facilities to be undertaken in a manner that is consistent with the Resort's Environmental Management Plan.

Objective 1

To ensure service infrastructure is provided to meet the current and future requirements of the Resort year-round.

Strategies

- Implement provision of service infrastructure to meet the planned growth of the Resort.
- Encourage the provision of additional water supply and storage facilities for snow making purposes within the Resort.
- Require all development in the Village to be connected to reticulated services.

Objective 2

To ensure that services are provided in a cost effective manner using innovative technology to support best practice management of resources.

Strategies

- Implement the construction of the underground reticulated electricity supply system throughout the Village.
- Provide for service activities or infrastructure throughout the Resort on appropriate land as the need for the use or development arises.

Objective 3

To ensure that service and infrastructure is provided in a manner that minimises impacts on existing natural, built, cultural and environmental values of the Resort.

Strategies

- Ensure that physical infrastructure and services are appropriately designed and located to minimise their environmental and visual impact.

Environmental Risk

Key issues

- Recognising the geotechnical issues associated with development within the Resort.
- Acknowledging the impacts of climate change.
- Managing the risk of bushfire.

Objective 1

To take proper account of geotechnical stability considerations.

Strategies

- Ensure that the design, construction and maintenance of development takes account of geotechnical stability considerations.
- Identify and monitor sites in the Resort that may be susceptible to landslide/subsidence and minimise the risk of land slides/subsidence.
- Ensure that development applications demonstrate an acceptable level of risk of landslip or instability prior to granting approval for development.

Objective 3

To ensure the safety of the Resort from bushfire.

Strategies

- Manage safety from bushfire through appropriate fire management strategies.

- Ensure that developments demonstrate an acceptable level of risk to fire prior to granting approval for development or use.
- Encourage applicants to consult with the relevant fire authority and the Mt Buller and Mt Stirling Resort Management Board regarding bushfire management information prior to lodging an application for planning permit or a site development plan.
- Implement the Fire Protection Plan prepared by the Mt Buller and Mt Stirling Alpine Resort Management Board.
- Ensure that development in areas of high bushfire hazard does not increase the fire hazard to built assets and human life.
- Effectively balance vegetation conservation and protection from bushfire.
- Ensure that the safety of the Resort is managed through appropriate fire management strategies.

Clause 22.05 Mt Buller Resort Local Planning Policies

The Clause provides objectives and policy for the Mt Buller Alpine Resort.

Aboriginal Heritage

Overview

Mt Buller Alpine Report is part of the traditional lands of the Taungurong people and there are two major causes of disturbance to Aboriginal cultural heritage place and objects, which is vegetation clearance and construction of building and works.

Policy Objectives

- To protect and preserve Aboriginal cultural heritage.
- To establish procedures for considering Aboriginal heritage.
- To minimise the disturbance to any known or unknown Aboriginal cultural heritage.

Policies

- Promote the identification, protection and management of Aboriginal cultural heritage values.
- Have regard to the requirements of the *Aboriginal Heritage Act 2006* and any maps and guidelines produced by Aboriginal Affairs Victoria in considering an application for use or development, or a request to rezone land.
- Require applicants proposing to develop or rezone land in areas of Aboriginal cultural heritage sensitivity to demonstrate that the impact of the proposed development on Aboriginal cultural heritage values has been addressed in accordance with the requirements of the *Aboriginal Heritage Act 2006* and any maps and guidelines produced by Aboriginal Affairs Victoria.

3.4

PLANNING CONTROLS AND PERMIT TRIGGERS

Table 4: Planning Control and Triggers

Control	Permit Trigger
Comprehensive Development Zone 2 (CDZ1)	<p>Pursuant to Clause 1 of Schedule 2 to the Zone, a permit is required to use the land for a utility installation.</p> <p>Pursuant to Clause 3.1 a permit is required to construct a building or construct or carry out works unless the buildings and works are exempt. As articulated through the Golburn Murray Water Referral dated 18 November 2018, a works licence is required for the proposed dam, pursuant to the <i>Water Act 1989</i>. Pursuant to Clause 62.02-1 of the Alpine Planning Scheme, any requirement in the scheme relating to the construction of a building or the construction of carrying out of works... does not apply to buildings and works associated with a dam is a licence is required to construct the a or to take and use water from the dam under the <i>Water Act 1989</i>.</p> <p>Therefore, despite Clause 3.1 of the Comprehensive Development Zone 2, given the provisions of Clause 62.02-1, no planning permit is required for buildings and works associated with the project.</p>

Environmental Significant Overlay 1 (Burrhamys parvus (Mountain Pygmy-possum)) (ESO1)	Pursuant to Clause 42.01-2 of the Environmental Significance Overlay and Clause 3 of Schedule 1 to the Environmental Significance Overlay a permit is required remove vegetation.
Design and Development Overlay 3 (Mount Buller Ski Fields) (DDO3)	Pursuant to Clause 43.02-2 and Clause 2 of Schedule 3 of Design and Development Overlay, a planning permit is required to construct a building or construct or carry out works, however due to the exemptions within Clause 62.02-1 as outlined above, no planning permit is required under the provision of the DDO3.
Erosion Management Overlay 1 (Management of Geotechnical Hazard) (EMO1)	Pursuant to Clause 44.01-1 and Clause 2 of Schedule 1 of Erosion Management Overlay 1 a planning permit is required to remove vegetation.
Bushfire Management Overlay 1	Pursuant to Clause 44.06-1 no planning permit is required for the proposed utility installation.
Clause 52.17 Native Vegetation Removal	Pursuant to 52.17-2 a planning permit is required to remove, destroy or lop native vegetation, including dead native vegetation.

3.4.1 *Comprehensive Development Zone 2*

Pursuant to the Alpine Resorts Planning Scheme, the purpose of the Comprehensive Development Zone schedule 2 includes:

- To identify areas associated with the development and use of an alpine resort on which passive and active recreation occur.
- To enable the development and the use of the land which is in accordance with sound environmental management and land capability practices, and which takes into account the significance of the environmental resources.
- To minimise impacts on significant landscapes.
- To minimise impacts on areas of significant vegetation.
- To minimise impacts on habitat and habitat corridors for indigenous fauna.

3.4.2 *Environmental Significant Overlay 1 (Burrhamys parvus (Mountain Pygmy-possum))*

Pursuant to the Alpine Resorts Planning Scheme, the purpose of the Environmental Significance Overlay – Schedule 1 includes:

- To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.
- To identify areas where the development of land may be affected by environmental constraints.
- To ensure that development is compatible with identified environmental values

The **Statement of Environmental Significance** for the ESO1 includes:

“The Mountain Pygmy-possum (Burrhamys parvus) is the only Australian mammal restricted to the alpine and sub-alpine environment. It was discovered in 1966 as a living animal at Mt Higginbotham, Victoria.

The Mountain Pygmy-possum (Burrhamys parvus) is listed as threatened on Schedule 2 of the Flora and Fauna Guarantee Act 1988. The distribution of Mountain Pygmy-possum (Burrhamys parvus) is correlated closely with the distribution of periglacial boulder/rock scree formed during the last ice age. These rock scree may support a variety of vegetation communities depending on the type of rock, aspect and depth of scree. The most common floristic community is Podocarpus heathland. There are several forms of this vegetation community ranging from more or less exclusively P lawrencei (Mountain Plum Pine) over deep scree, to more diverse flora as soil and leaf litter is deposited. On drainage lines where the boulders are almost buried Carex Poa sedgeland may predominate. These vegetation species/communities are extremely sensitive to trampling, disturbance and burial by deposition of soil.

The Department of Sustainability and Environment has mapped the habitat of the Mountain Pygmy-possum (Burrhamys Parvus) throughout the Alpine Resorts. The habitat requires conservation and protection from inappropriate development.”

3.4.3 *Erosion Management Overlay 1 (Management of Geotechnical Hazard)*

Pursuant to the Alpine Resorts Planning Scheme, the purpose of the Erosion Management Overlay – Schedule 1 includes:

- To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.
- To protect areas prone to erosion, landslip or other land degradation processes, by minimising land disturbance and inappropriate development.

3.4.4 *Bushfire Management Overlay 1*

Pursuant to the Alpine Resorts Planning Scheme, the purpose of the Bushfire Management Overlay – Schedule 1 includes:

- To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.
- To ensure that the development of land prioritises the protection of human life and strengthens community resilience to bushfire.
- To identify areas where the bushfire hazard warrants bushfire protection measures to be implemented.
- To ensure development is only permitted where the risk to life and property from bushfire can be reduced to an acceptable level.

3.4.5 *Clause 52.17 Native Vegetation Removal*

Pursuant to the Alpine Resorts Planning Scheme, the purpose of the **Clause 52.17 Native Vegetation** includes:

- To ensure permitted clearing of native vegetation results in no net loss in the contribution made by native vegetation to Victoria’s biodiversity. This is achieved through the following approach:
 - Avoid the removal of native vegetation that makes a significant contribution to Victoria’s biodiversity.
 - Minimise impacts on Victoria’s biodiversity from the removal of native vegetation.
 - Where native vegetation is permitted to be removed, ensure that an offset is provided in a manner that makes a contribution to Victoria’s biodiversity that is equivalent to the contribution made by the native vegetation to be removed.
- To manage native vegetation to minimise land and water degradation.
- To manage native vegetation near buildings to reduce the threat to life and property from bushfire.

Table 5: Referrals and Notice Provisions

Control	Permit Trigger
Comprehensive Development Zone 2	<p>Pursuant to Clause 5.0 of Schedule 2 of the Comprehensive Development Zone any use which requires connection to reticulated services or that involves alteration to the topography of the land must be referred in accordance with Section 55 of the Act to the referral authority as specified in the Schedule to Clause 66.04.</p> <p>The Schedule to Clause 66.04 referral to the relevant utility service provider where the development proposes connections to reticulated services and to the Secretary of the Department of Sustainability and Environment (now DELWP) as a determining referral authority.</p> <p>Pursuant to Clause 6.0 of Schedule 2 of the Comprehensive Development Zone notification of any use or development must be given in accordance with Section 52(1)(c) of the Act to the Relevant Resort Management Board and relevant adjoining Municipal Council, as specified within the Schedule to Clause 66.06.</p>
Environmental Significant Overlay 1 (<i>Burramys parvus</i> (Mountain Pygmy-possum))	<p>Pursuant to Clause 4.0 of Schedule 1 to the Environmental Significance Overlay an application must be referred to the Department of Sustainability and Environment (now DELWP) in accordance with Section 55 of the Act as a determining referral authority.</p>
Erosion Management Overlay 1 (Management of Geotechnical Hazard)	<p>Pursuant to Clause 5.0 of Schedule 1 to the Erosion Management Overlay an application must be referred to the relevant Alpine Resort Management Board in accordance with Section 55 of the Act as a determining referral authority.</p> <p>Pursuant to Clause 4.0 of Schedule 1 to the Erosion Management Overlay an application is exempt from the notice requirements of section 52(1)(a),(b) and (d), the decision requirements of section 64(1),(2) and (3) and the review rights of section 82(1) of the Act.</p>
Clause 52.27 Native Vegetation Removal	<p>Pursuant to Clause 66.02-2 an application to remove native vegetation as in the subject proposal requires referral to the Secretary to the Department of Environment and Primary Industries (as constituted under Part 2 of the Conservation, Forests and Lands Act 1987) as a recommending referral authority.</p>

3.6

OTHER REGULATORY CONTROLS, STRATEGIC DOCUMENTS AND POLICIES

The *Alpine Resorts (Management) Act 1997* provides the management framework for all Victorian alpine resorts. S.33A and S.33F of the *Alpine Resorts (Management) Act 1997* requires the preparation of an Alpine Resort Strategic Plan and that the strategy be updated after five years. The *Alpine Resorts Strategic Plan 2012* is the five year update of the *Victorian Alpine Resorts 2020 Strategy*. The *Alpine Resorts Strategic Plan 2012* has been adopted by the Victorian Government.

The *Strategic Management Plan 2013-2018* by the Mt Buller and Mt Stirling Alpine Resort Management Board articulates the direction provided with the *Alpine Resorts Strategic Plan*

2012 for the Mt Buller and Mt Stirling context, in accordance with requirements of S.56 of the *Alpine Resorts (Management) Act 1997*.

The *Mt Buller Masterplan 2010* provides a consolidated and coordinated direction for future development of Mt Buller. The development of the *Mt Buller Master Plan 2010* is consistent with Objective 6 of the *Alpine Resorts Strategic Plan 2012*. It is noted that it has not been incorporated into the Alpine Resorts Planning Scheme, however this may occur in the future, or it will work to inform future planning scheme amendments.

3.6.1 *Alpine Resorts Strategic Plan 2012*

The Alpine Resorts Strategic Plan 2012 identifies the following key objectives:

- Objective 1 – Enhancing the visitor experience and developing resorts
- Objective 2 – Delivering resort services and infrastructure efficiently and accountably
- Objective 4 – Respecting the alpine environment
- Objective 5 – Broadening access opportunities
- Objective 6 – Regulatory reform

The Strategic Plan 2012 also goes through the individual resorts. The strategy articulates that one of the key barriers or constraints for Mt Buller is the lack of water, both potable and for snow-making.

A more detailed assessment against the provisions of the Strategic Plan is undertaken within Appendix A.

3.6.2 *Mt Buller and Mt Stirling Management Plan 2013-2018*

The Management Plan 2013-2018 builds on the direction of the Alpine Resorts Strategic Plan. It has been endorsed by the Minister for Environment and Climate Change as published in the Government Gazette on 13 November 2013.

The Management Plan identifies that a key objective is to provide safe and reliable water and wastewater, and waste removal facilities and services. A Key Commitment of this Management plan is to develop an additional water storage facility for snowmaking and potable water supply as detailed within the Resort's Water Supply Demand Strategy'. This project contributes to the realisation of that commitment.

It should be noted, that pursuant to Section 56H of the *Alpine Resorts (Management) Act 1997*:

Land managers and other Authorities to take Strategic Management Plan into account

In carrying out a function involving land management or land use planning –

- (a) on behalf of the Crown; or
- (b) under an Act –

a Minister, public authority, committee of management of reserved Crown land, municipal council or the Council must take all reasonable steps to give effect to the Strategic Management Plan for an alpine resort.

3.6.3 *Mt Buller Master Plan 2010*

The development of the Mt Buller Master Plan 2010 (the Master Plan) is consistent with Objective 6 of the Alpine Resorts Strategic Plan 2012.

The Master Plan outlines the broader directions for Mt Buller and makes numerous references to this specific project. This in part allows for the project to be understood in terms of the future directions and ensures that there is a clear and articulated direction for Mt Buller, both in terms of its development and the projection of its natural environment, and the subject project is consistent with this.

Hume Regional Growth Plan

The Hume Regional Growth Plan identifies the local economic significance of the Alpine Resorts, as follows:

“Alpine resorts have the potential to offer a range of tourism activities throughout the year. Supporting further development of year-round attractions will contribute to the long-term viability of alpine resorts and help diversify the region’s tourism product, with winter tourism under threat from the potential impacts of climate change, which will reduce the average snow cover and number of snow days. The fire hazard presented by the environments within which alpine resorts are located will need to be considered when planning for the further development of these resorts.”

Rural tourism activities could also contribute to the diversification of the region’s tourism product and mitigate potential economic impacts on the tourism industry as a result of climate change, such as reduced snow cover and water available for recreational purposes.”

In addition to recognising the economic contributions by the Alpine Resorts, the Hume Regional Growth Plan recognises the environmental values of the area, not only in terms of protecting the natural environment, but also in terms of natural resource management, as follows:

“The waterways (rivers and wetlands) of the Hume Region are highly significant environmental and economic assets, providing water supply to one of Australia’s major food-producing areas. Along with providing water for the environment, these waterways also feed major water storages and significant irrigation infrastructure that supply water to settlements, industries and farms, particularly in the food bowl area in the north west of the region. Major rivers, such as the Murray River, water bodies and significant wetland complexes provide opportunities for nature-based and recreational tourism, which may be enhanced by environmental watering programs, such as those related to the outcomes of the Murray-Darling Basin Plan.”

The Hume Region has rich and diverse environmental and heritage assets. These include snow-covered mountains, alpine areas, lush river valleys, forests and woodlands, granite outcrops and floodplains. They also include a myriad of cultural heritage, including both Aboriginal and historic places and objects. Cultural landscapes are important for their heritage and environmental values as well as their scenic beauty. Environmental and heritage assets contribute to the economic success of the region, enhance liveability for its residents and provide an attraction for visitors and tourists.”

The following section provides an assessment of the project against the relevant provisions of the Alpine Resorts Planning Scheme and other documents where relevant.

The various specialist reports prepared in support of the project are referenced as appropriate to provide further detail.

It is considered that in essence the guidance provided by the Alpine Resorts Planning Scheme seeks to achieve a Mt Buller which is;

- accessible to Victorians and tourists alike to enjoy the unique alpine environment and participate in recreation opportunities;
- contributes to the diverse landscape values of the state;
- protects the local flora and fauna, in particular those species which are unique in the alpine environment or which are formally listed species or communities.
- minimises its impact on the local and broader environment such as waterways;
- provides a safe and accessible destination, which minimises environmental risk including bushfire and landslide; and
- supports a thriving local economy.

A number of investigations have occurred as to the best way to resolve the water security issue for Mt Buller in the long term, and this proposal is the culmination of that work. The proposed water storage and associated infrastructure has been designed to provide a long term response to the ongoing issue of water security at Mt Buller. Realisation of project would provide the following benefits:

- Cease the requirement to extract water outside Mt Buller's Water Licence to provide summer potable water. This would put an end to the summer extraction of water to Boggy Creek, which impacts environmental flows downstream.
- Support visitation growth in summer and snow making in winter (which also supports visitation). This assists in the ongoing viability of the Resort, noting that a number of strategic documents seek for the diversification of offerings into summer as well as expansion of snow making capacity as a response to climate change.
- Meets with the Resorts desire to have adequate on mountain storage in summer in case of bushfire, and could provide gravity fed water resources and a source of water for helicopter fire suppression activities.

It is noted that the project is of reasonable scale, and that it does require the removal (both temporary during construction and permanent) of native vegetation. In this regard, considerable efforts have been made to revise the proposal with the intention of minimising environmental impacts. Based on a revised and updated Flora and fauna Assessment, a Native Vegetation Offset Strategy and fully developed Hydrological and Ecological Management Adaptive Management Program (HEMAMP), the PCF has been minimised, with the key driver for minimisation being how the project's impact on native flora and fauna could be minimised, whilst still meeting expectations in terms of design outcomes, geological considerations and feasibility requirements. It is recognised that the project continues to have some impact on native vegetation. This is outlined in more detail below and within Annex F, G and I. However, given the proposal will remove the need for summer extraction from Boggy Creek (which impacts environmental flows downstream), provides an appropriate Native Vegetation Offset Strategy, is located within an area which is already significantly disturbed and is located wholly within the land identified for Ski Field Development, the impacts to the environment have been minimised and are considered acceptable on balance.

It should be noted that there is significant strategic support for the realisation of the project. This strategic support is articulated within each respective category, noting the requirement to balance environmental impacts associated with the construction footprint and ensure a geologically sound design.

4.1

KEY ISSUES

4.1.1

Environmental Considerations

Mt Buller contains a rich natural environment, which is of significant intrinsic value. Ecological communities found in the alpine region are generally limited in extent and are frequently located as 'islands' physically separated from each other, often with their own unique species or subspecies that are sensitive to change and disturbance.

A key consideration of this project, indeed a key driver of this project in relation to avoiding future removal of water from the environmental flows of Boggy Creek in summer, has been the natural environment.

A Flora and Fauna Assessment prepared by Biosis documents the areas ecological values, particularly native vegetation and habitat for significant species which occur within the project area and which will be impacted by the works associated with the project. The work undertaken by Biosis significantly informed GHD in their work to revise the PCF and establish an understanding of critical 'no go' areas for the project. A significant change which resulted in this process was ensuring that the project did not directly impact on the Alpine Bogs.

The total PCF for the proposed water storage dam would be 10.347 hectares, requiring the removal of 5.278 hectares of Native Vegetation. The 5.278 hectares of native vegetation includes:

- 5.194 hectares of Alpine Grassy Heathland (EVC 1011)
- 0.0846 hectares of Sub-alpine Woodland (EV 43).

The remaining area of the PCF (5.217 hectares) comprises disturbed areas, including roads, tracks, ski lifts, buildings, hardstands and heavily groomed ski runs.

Direct Impacts

The proposed removal of 5.2784 hectares of native vegetation is required to be assessed on the high risk-based pathway. The strategic biodiversity score of the native vegetation to be removed is 0.968. A Native Vegetation Offset Strategy has been prepared to offset the loss of native vegetation.

A detailed Native Vegetation Offset Strategy is included within Appendix J. This details the proposed offset strategy, which articulates the proposed offsets for both the general and specific offsets which are required. The specific offset requirements for the project cannot be achieved through purchase of credits via a third party credit provider because most of the species requiring offsets are largely restricted to Crown land in the Victorian Alps bioregion. Biosis has identified a 262-hectare area of remnant native vegetation at and around the summit of Mount Stirling as having potential to meet all general and specific offset requirements, except those relating to Fog Club-sedge. Other locations within the Mt Buller and Mt Stirling Alpine Resorts or offset programs being scoped by other alpine resorts would provide alternative options to secure the shortfall in specific offsets for Fog Club-sedge. Additional information in relation to this can be obtained through the Flora and Fauna Assessment (Appendix F) and Native Vegetation Offset Strategy (Appendix G).

The proposed removal of native vegetation should be understood in relation to the identified need of the project articulated within the Planning Report. One of the key outcomes of the project is that it would provide sufficient storage for Mt Buller to extract its water allocation in winter and store for use in summer, meaning an end to the current practice of extracting from Boggy Creek in summer which impacts environmental flows and occurs under a temporary exemption to the Resort's Water Licence.

The project has sought to minimise the impacts of the PCF through refining the design to:

- Avoid all Alpine Bogs.
- Reduce proposed native vegetation removal by more than 10% (than the original design)
- Minimise removal of habitat for Broad-toothed Rat, Alpine Bog Skink and other fauna.
- Increase the minimum buffer between the PCF and preferred Mountain Pygmy-possum habitat from 70 metres for the original PCF to 200 metres for the current revised PCF.

The results of this redesign process are the primary means by which ecological impacts have been avoided and/or minimised for the proposed water storage. The results have been achieved through an iterative process, involving (but not limited to):

- Realignment and narrowing of pipelines and access corridors.
- Moving stockpile locations to existing disturbed areas of non-native vegetation in preference to areas of native vegetation.
- Reducing the overall size of the PCF by almost one hectare.

Under the Permitted clearing of native vegetation – Biodiversity assessment guidelines it is a requirement that the cumulative impact of previous permitted clearing be considered as part of a planning permit application to remove native vegetation under Clause 52.17 of the Alpine Resorts Planning Scheme. This past permitted clearing only applies to the current land owner and you only need to consider the past permitted clearing in the last five years.

Previous advice from DELWP on cumulative impacts on Crown Land has refined this further. On Crown Land, you only need to consider the past permitted clearing undertaken by that public authority/ entity undertaking the project on that parcel of land in the last five years. Given the ski field has a head lease over it, the relevant parcel is defined as the Mt Buller Ski Field and the project is being undertaken by the Mt Buller and Mt Stirling Alpine Resort Management Board (RMB) and not Buller Ski Lifts, it is considered that there are no cumulative impacts of past permitted clearing that need to be considered as part of the Mt Buller Water Storage planning permit application as the RMB have not undertaken any clearing of native vegetation within the ski field lease area in the last 5 years.

Habitat supporting small populations of Broad-toothed Rat and Alpine Bog Skink are included in the PCF. The Flora and Fauna Report (Annex F and Annex N) details both of these species and also outlines the mitigation measures which have been taken to avoid, minimise and offset the impacts that may arise from construction and operation of the project on the Broad-toothed Rat and Alpine Bog Skink, amongst other species. The mitigation measures include a habitat creation program, which involves rehabilitation of habitat for Broad-toothed Rat and Alpine-Bog Skink.

Indirect Impacts

The potential for impacts to the Alpine Bog community has been considered and it can be confirmed that the proposal would not result in direct impacts to the Alpine Bog community. Furthermore, additional detail relating to the mitigation measures is included in this submission within the HEMAMP. Essentially, the HEMAMP specifies monitoring protocols and performance criteria for:

- Climate
- Surface Water
- Groundwater
- Ecology

The HEMAMP will:

- Document existing site conditions and confirm the critical parameters to be monitored and assessed on an ongoing basis.
- Identify the nature and extent of any changes to site hydrology and hydrogeology as a result of implementing the Project.
- Monitor the extent and condition of the Alpine Bogs in relation to any hydrological changes.
- Allow for early identification of potential impacts on Alpine Bogs.
- Enable implementation of measures to avoid and minimise impacts on Alpine Bogs.
- Document the effectiveness of any mitigation measures and inform future proactive and adaptive management activities.

The HEMAMP also documents a proposed reporting and review process. It is noted that the RMB has the resource capabilities that are required to implement the HEMAMP. The RMB has a history of conducting successful environmental monitoring and adaptive management programs, including management of a population of endangered Mountain Pygmy-possum and long-standing water quality monitoring. In this regard the HEMAMP is generally consistent with other monitoring and management programs which are undertaken by the RMB.

Mountain Pygmy-possum

The proposal triggers an assessment under the ESO1, which relates to the protection of the *Burramys parvus* (Mountain Pygmy-possum).

Work undertaken by Biosis and Dean Heinze articulate that the PCF contains no suitable habitat for Mountain Pygmy-possum. The following is taken from the Flora and Fauna Report, refer to Annex F for additional information.

The PCF contains no suitable habitat for Mountain Pygmy-possum and it is highly unlikely that Mountain Pygmy-possum would disperse through the PCF, meaning that the proposed project is unlikely to cause fragmentation of the surrounding Mountain Pygmy-possum population (D. Heinze, pers. comm., 4 June 2015). The PCF contains broad extents of Alpine Grassy Heathland and disturbed exotic vegetation, neither of which constitute habitat that Mountain Pygmy-possum is known to use. While individuals may occasionally disperse through atypical habitats to reach more optimal habitat, this is likely to be a very infrequent occurrence and animals making such movements would be vulnerable to predation due to the lack of appropriate cover.

Ample alternative and higher quality dispersal habitat is available to Mountain Pygmy-possum within the areas surrounding the PCF. When the Mountain Pygmy-possum Management Area was first defined, the area in and around the PCF was excluded as it provided little, if any, protective cover for Mountain Pygmy possum (D. Heinze, pers. comm., 4 June 2015).

While impacts on Mountain Pygmy-possum are considered highly unlikely, post-construction rehabilitation of the PCF will involve dense revegetation with indigenous heath species and the establishment of rocky areas. Surface and subsurface rock from the PCF will be salvaged, stockpiled and reinstated in a strategic manner to provide the potential for additional Mountain Pygmy-possum habitat. The aim of this rehabilitation will be to increase the capacity for Mountain Pygmy-possum to move between existing dispersed areas of preferred habitat across Mount Buller. The RMB will undertake habitat reinstatement works in accordance with strategies outlined in the Mount Buller Mountain Pygmy-possum Recovery Plan (RMB 2013).

Construction of the project would take place during the Resort's summer construction period, which is when Mountain Pygmy-possum is most active. Noise, lighting, sedimentation and other disturbances from construction activities are highly unlikely to disrupt the activities of Mountain Pygmy-possum on Mount Buller because:

- The PCF is outside the defined Management Area for the Mountain Pygmy-possum population
- Construction noise will not exceed background noise by more than 10 dB outside normal working hours.
- Although construction lighting has the potential to attract adult Bogong Moths *Agrotis infusa* and therefore affect the availability of a favoured food source of the Mountain Pygmy-possum, construction lighting is unlikely to exceed the output of existing lighting at the Mount Buller village and will be minimised by limiting construction to daylight hours over the summer construction period.
- Sedimentation will be minimised through installation of erosion control measures, such as stormwater infrastructure, geofabric and sediment fences.

In addition, the proposed project is not anticipated to result in significant changes to recreational activities in the area or increase the predation risk to Mountain Pygmy-possum. Ongoing population monitoring, predator control and reconnecting fragmented habitat will continue through the established Mount Buller Mountain Pygmy-possum Recovery Plan, with a primary aim of protecting and enhancing Mountain Pygmy possum habitat.

Refer to the Flora and Fauna Report (Annex F) for additional information as how the Mountain Pygmy-possum has been considered and Annex N for additional consideration on the proposed habitat creation proposed as part of the project.

Consideration

It is acknowledged that the proposal would impact land within the alpine environment which contains significant habitat and native vegetation. This consideration has been at the forefront of work that has occurred to reconsider the water storage proposal to the one which is

included in the subject application. This proposal has sought to minimise impacts to native vegetation, articulated a Native Vegetation Offset Strategy and developed the HEMAMP. The minimisation and mitigation work is considered to reduce the level of impact to biodiversity to a reasonable level, noting the project has a demonstrated need and there exists significant strategic support to resolve Mt Buller's water security problem, with a number of positive benefits which include:

- Ceasing summer extraction from Boggy Creek, which is undesirable as it impacts environmental flows and occurs outside the Resort's water licence, noting the proposal is supported by Goulburn Murray Water.
- Facilitating access and enjoyment of the alpine environment through supporting access to potable water in summer and snow making in winter. The alpine environment provides intrinsically valuable recreation opportunities all year round for Victorians to experience this relatively unique environment, noting the project has the support of a number of local operators and stakeholders, including Alpine Resorts Coordinating Council, Victorian Snow Sports Association and Mt Buller Mansfield Regional Tourism.
- Supporting the local economy through increased tourism and economic viability of operations on Mt Buller, again noting the application has the support from a number of local stakeholders and business operators including Mansfield Secondary College, Mt Buller Ski Lifts, Mt Buller Ratepayers Association and Mt Buller Chamber of Commerce.
- Supporting firefighting capability, noting the application has the support of the CFA.

Given the above, as the application provides an appropriate Native Vegetation Offset Strategy, demonstrates the work which has occurred to minimise the PCF, incorporates a feasible and technically sound monitoring and adaptive management program, will include habitat creation to further mitigate impacts on threatened species and is located within an area which is already significantly disturbed and is located wholly within the land identified for Ski Field Development within the Resort which has a purpose of providing recreation and tourism, the impacts to the environment are considered reasonable and acceptable on balance and within the context of the benefits and strategic support for the project.

4.1.2

Landscape

GHD's Landscape Architecture team visited the site and prepared a Landscape and Visual Impact Assessment (Annex K) and Tract and Biosis have prepared an Ecological Rehabilitation Plan for the project to support the planning permit application and ultimate design and delivery of the project.

In assessing impacts upon the alpine landscape, the methodology considered changes to the landscape including identification of:

- The nature of the change, that is the degree of contrast, or integration of, any new features with existing features.
- Context and quality of the views including the extent to which the Project will be visible in the wider landscape (with consideration of the presence of intervening vegetation or features).
- The scale or degree of change (ie. obvious / imperceptible with respect to loss or addition of features).
- The nature of the impact (adverse or beneficial).

Mitigation measures are recommended and focus on enhancing the quality of the landscape within the site and planting of native species that are suitable to the site in accordance with the Flora and Fauna Assessment (Appendix F) prepared for the project.

Landscape and visual impacts will occur both during the construction and operation phases of the project and measures to minimise these impacts need to be undertaken for both stages. Whilst impacts will exist during the construction phase, these will be temporary outside of the winter season.

The landscape master plan provides further guidance to the design of the project (including material / planting selection) with the view to mitigating identified landscape and visual impacts. This has considered the requirements of DDO3 as relevant to the nature of the project.

Overall landscape and visual impacts associated with the project have been assessed as being of varying significance throughout the study area ranging from *moderate* to *not significant*, with some permanent impacts upon the visual landscape and amenity for some viewing locations resulting by virtue of the nature of the project. While the project would be visible, it will be 'seen' within the context of the skifield within which the proposal is located and which contains a lot of existing buildings and ski related infrastructure. It is not considered that the proposal would detrimentally impact any significant views or vistas, rather would be seen as another element within the skifield. The proposed structures would be of sympathetic design and appropriate to the alpine environment.

4.1.3

Recreation

The purpose of the Resort as articulated through the *Alpine Resorts (Management) Act 1997* and the Crown Land Lease is "to manage intensive alpine tourism development for recreation and tourism". In this regard recreation and tourism opportunities form a significant consideration and the way in which a proposal impacts on the ability for the Resort to operate in accordance with its purpose if relevant.

Mt Buller provides an accessible destination for Victorians and visitors to experience the alpine environment. Mt Buller receives a high number of 'first time' snow visitors, and its summer season growth is increasing by 16% year on year. Mt Buller includes specific facilities which ensure all ability access is available.

Accessible opportunities for visiting alpine environments are of intrinsic value to the state, as it contributes to a diversity of natural environments to be enjoyed. Supporting opportunities for pleasant and safe recreational environments for all Victorians and visitors to Victoria forms a central objective of planning in Victoria.

The project directly responds to this objective through a number of direct and indirect avenues, including:

- Providing essential services (potable water) infrastructure to the Resort.
- Contributing to a safe recreation destination through supporting sustainable access to potable water in summer
- Supporting firefighting efforts in case of fire.
- Supporting snow making on the resort, which is likely to be increasingly relied upon for viable snow recreation as the impacts of climate change are felt.

It is noted that the subject land is within the land identified as Skifield Development Precinct , and in this regard the subject land has already been identified for development subject to a range of considering, including environmental considerations.

Whilst the project would remove some land from the ski field, and in this regard remove some land from an area identified for recreational opportunities, this is balanced with the need to ensure that the land on which the project occurs minimising its environmental and landscape impacts, in particular its impacts on biodiversity. A discussion on the impacts on biodiversity has been undertaken above.

Furthermore, whilst the proposal would remove some recreational land, the project would facilitate an ability to provide year round recreational opportunities on the mountain, both in summer (though providing a sustainable storage for potable water) and winter (through supporting snow making).

In this regard, the proposal contributes more to supporting recreation than it detracts from removing a minor area of recreational land.

4.1.4

Economics and Tourism

Mt Buller is the most popular alpine resort in Victoria, with approximately 430,000 visitors annually. Whilst 70% of these visitors go to the mountain during the winter period, summer

visitation increasing by 16% year on year, fueled by events such as mountain biking and environmental tourism

Mt Buller contributes \$268 million in Gross State Product (GSP), contributes 2,400 FTE jobs, contributes \$153 million (23%) of Mansfield Shire Gross Regional Product (GRP)⁴ and is the most financially secure and sustainable Alpine Resort in Victoria. The financial security of the resort is significant, and support for the ongoing economic viability of Alpine Resorts is strategically supported.

Work undertaken as part of the investigation into the project identified that the realisation of the water storage project will positively contribute to the Mt Buller and local economy, through supporting increased tourism.

4.1.5

Geotechnical

Geotechnical considerations form a vital element of consideration in the project.

Due to their technical and specialist nature the geotechnical elements are not discussed within this report at any length, and reference is made to Annex E which contains the relevant report.

It is noted that specific considerations against the Erosion Management Overlay 1 (Management of Geotechnical Hazard) have been incorporated into the report and that all identified risks have been reduced to a “low or very low” risk, with the exception of those which are subject to further consideration under the Australian National Committee On Large Dams Guidelines (ANCOLD), which is to occur at the Detail Design stage.

⁴ *Economic Significance of the Australian Alpine Resorts*, Alpine Resort Co-ordinating Council Mt Buller Annual Report 2014–15, Mt Buller Mt Stirling Alpine Resort Management Board.

CONCLUSION

This submission has provided a comprehensive outline of the *Mt Buller Sustainable Water Security Project – Off-Stream Storage* project, including the potential impacts expected to result from the project and associated mitigation and offset measures.

The lack of sufficient potable water storage for the Mt Buller Resort is well documented, being referenced within the *Alpine Resorts Strategic Plan 2012*, the *Mt Buller and Mt Stirling Management Plan 2013-2018*, the *Mt Buller Master Plan 2010* and Clause 21.05 Mt Buller Resort Strategic Statement, within the Alpine Resorts Planning Scheme. The proposed water storage infrastructure will play an important role in successful and sustainable year round activity across the Mt Buller Alpine Resort.

The Mt Buller Sustainable Water Security Project – Off Stream Storage Planning Application is a culmination of numerous specialist studies and assessments which have sought to find the best possible approach to resolving the potable water supply issue for the Resort and remove the need to obtain additional water supply during the summer months, allowing environmental flows to be maintained in the water sensitive summer months and ensure the Resort is able to comply with its Water Licence.

As with any development within the alpine region, the land affected by the development contains sensitive environmental values. Detailed technical reports are included with the application, including a Geotechnical Risk Assessment, Flora & Fauna Assessment, The Mountain Pygmy-possum (*Burramys parvus*) and the Mount Buller Sustainable Water Storage, Site Environmental Management Plan and Landscape and Visual Assessment.

As part of the investigations into the design of the water storage, work has been undertaken to identify areas of high ecological values, particularly native vegetation and habitat for significant species and to minimise any adverse impacts. Noting the highly sensitive nature of the mountain (in terms of environment, landscape and geotechnical risk) and its remoteness and relative lack of accessibility, significant work has been undertaken to establish the most effective and least detrimental approach to achieving water security, noting any significant infrastructure project on the mountain is likely to cause some adverse impacts. This approach is consistent with the purpose of planning in Victoria.

Environmental values have informed the project construction footprint, and care has been taken to reduce the project construction footprint where it would impact previously undisturbed land, or valuable habitat. The project is wholly located within the area identified as “Ski field Development Precinct”. As articulated within this report and the relevant technical reports, specifically the Native Vegetation Offset Strategy and HEMAMP, as part of the proposal, offset and mitigation strategies have been put into place to minimise the detrimental impacts associated with the project.

There is no question that the proposal seeks permission for a reasonably significant piece of infrastructure. As such, it is significant to note that it is supported by significant policy weight, including work which specifically acknowledges the need for water storage on the mountain, and which seeks to ensure that Mt Buller operates within its water licence requirements and efficiently throughout the summer and winter seasons. Nevertheless, it is acknowledged that any development within an alpine area warrants detailed considerations regarding environment and biodiversity impacts, geological risk and considerations as to the impacts on landscape and recreation values. Care has been taken to address these in the design of the proposal, and these considerations are detailed within this application.

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