



Bushfire Recovery Rebuild, Water Reuse, Selwyn Snow Resort

Development Application Assessment
DA 23/2747

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Glossary

Abbreviation	Definition
BCA	Building Code of Australia
BC Act	<i>Biodiversity Conservation Act 2016</i>
BC Regulation	<i>Biodiversity Conservation Regulation 2017</i>
BVM	Biodiversity Values Map
Consent	Development Consent
CPP	Community Participation Plan
Department	Department of Planning, Housing and Infrastructure
EPA	NSW Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2021</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPI	Environmental Planning Instrument
ESD	Ecologically Sustainable Development
KNP	Kosciuszko National Park
Minister	Minister for Planning
NPWS	National Parks & Wildlife Service
Planning Secretary	Secretary of the Department of Planning, Housing and Infrastructure
SEPP	State Environmental Planning Policy

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1 Introduction

The application seeks approval for reuse of recycled water from the sewage treatment plant (STP) for toilet flushing within the visitor centre and for the snowmaking system, Selwyn Snow Resort (**Figure 1**) within Kosciuszko National Park (KNP). The Applicant is Selwyn Snow Resort Pty Ltd.

The Department has assessed the application as a trial development application (DA) for the winter 2024 and winter 2025 seasons, even though the Applicant is seeking consent for permanent water reuse arrangements. Due to the Applicant's justification for the proposal including some assumptions, the Department was not satisfied that the environmental and human health risks could be appropriately mitigated in the longer term. The intent of the trial DA is to allow actual data to be collected to inform a subsequent application for a permanent arrangement.

Locality

Selwyn Snow Resort (the Resort) is located at 213 Kings Cross Road, Kiandra (Lot 36 DP 46316), approximately 90 kilometres southwest of Canberra in the northern section of the KNP and approximately 7 kilometres to the northeast of the Snowy Hydro township of Cabramurra. The Resort can be accessed by vehicle from the Snowy Mountains Highway via the Link Road to Kings Cross Road.

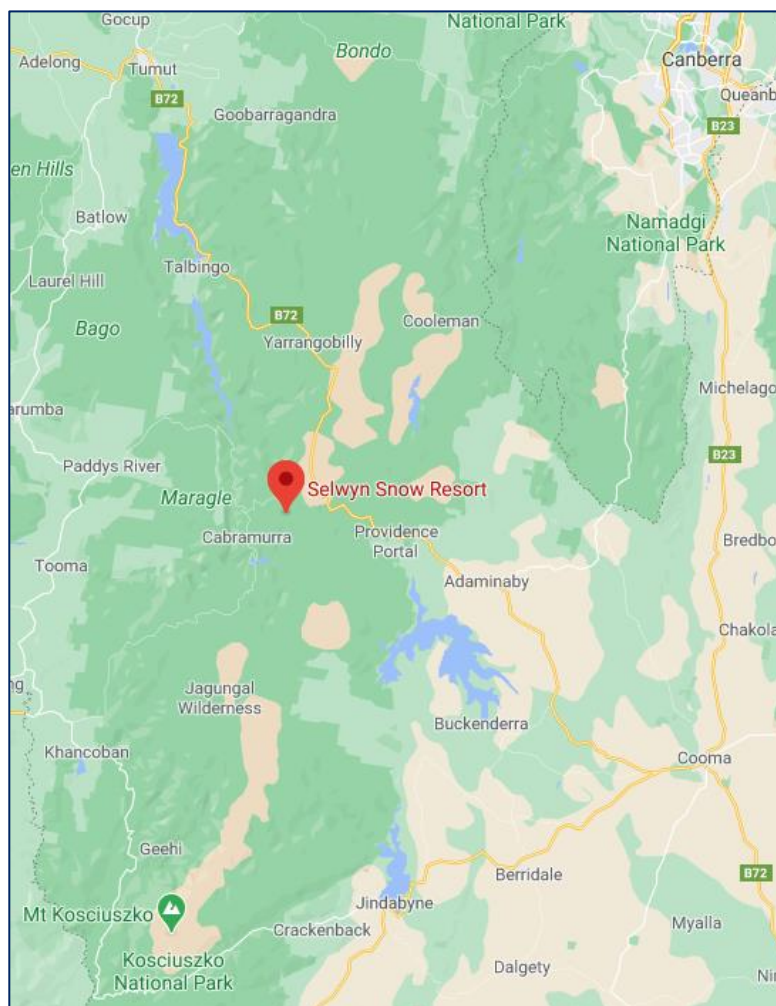


Figure 1 | Locality (Source: Google Maps 2023)

The Resort is the most northerly of Australia's ski resorts with a base elevation of 1,492 metres and a top elevation of 1,614 metres Australian Height Datum (AHD). The Resort is managed under a lease to the Applicant from NPWS which covers an area of approximately 203 hectares.

The primary focus of the Resort is to provide day visitors with opportunities for skiing and snow activities catering predominantly for beginners and intermediate skiers. The Resort provides recreational resources and generates economic activity for the surrounding communities, including the townships of Adaminaby, Tumut and Tumbarumba.

The Resort was established in the late 1960s however all of the buildings at the site experienced extensive damage during the 2019/2020 bushfires and were removed. The bushfire recovery rebuilding of the resort has included staff accommodation (DA 10639), a visitor centre (DA 10644), a resort operations centre (DA 10647), a sewage treatment plant (DA 22/5248), snowmaking infrastructure (DA 22/6507), a water pipeline (DA 22/14835) and other necessary infrastructure required to support ski resort activity and visitor experience.

Site

The development site for the proposed water reuse includes the toilet facilities within the visitor centre and the snowmaking system at the resort (**Figure 2**). Other than the visitor centre building, the site contains ski slopes, ski lifts, the quarry dam and other snowmaking and resort infrastructure. The area is predominantly cleared of trees and understory leaving open grassed areas used for recreational snow sports and snow play.

An Aboriginal site is located to the south west, outside of any area of snowmaking. In 2010, two stone Aboriginal artefacts were found on the ground surface. The artefacts are no longer visible however a 40 metre buffer area has been maintained around the site during the bushfire recovery rebuilding of the resort.

The unnamed drainage line (**Figure 3**) which forms part of the Clear Creek catchment is contained within the site. The potable water intake is located on the drainage line. The snowmaking system disperses above the potable water intake and on waterfront land (within 40 metres of a waterway).

An area of known contamination exists at the site. An underground petroleum storage system (UPSS) associated with a former mechanical workshop was removed in 2020. Contaminated land has been partly remediated approximately 10 metres to the east of the resort operations centre. Any remaining potential contamination is at least 2 metres below the ground surface in this location.

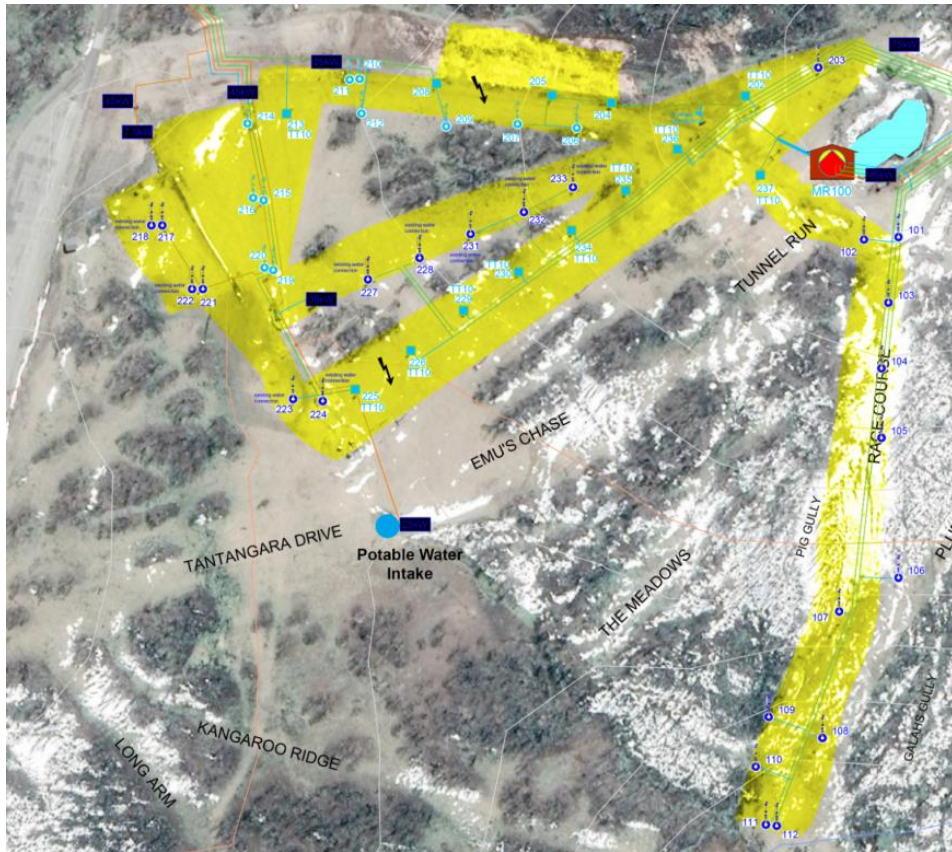


Figure 2 | Site with extent of snowmaking in yellow (Source: Applicant's documentation)

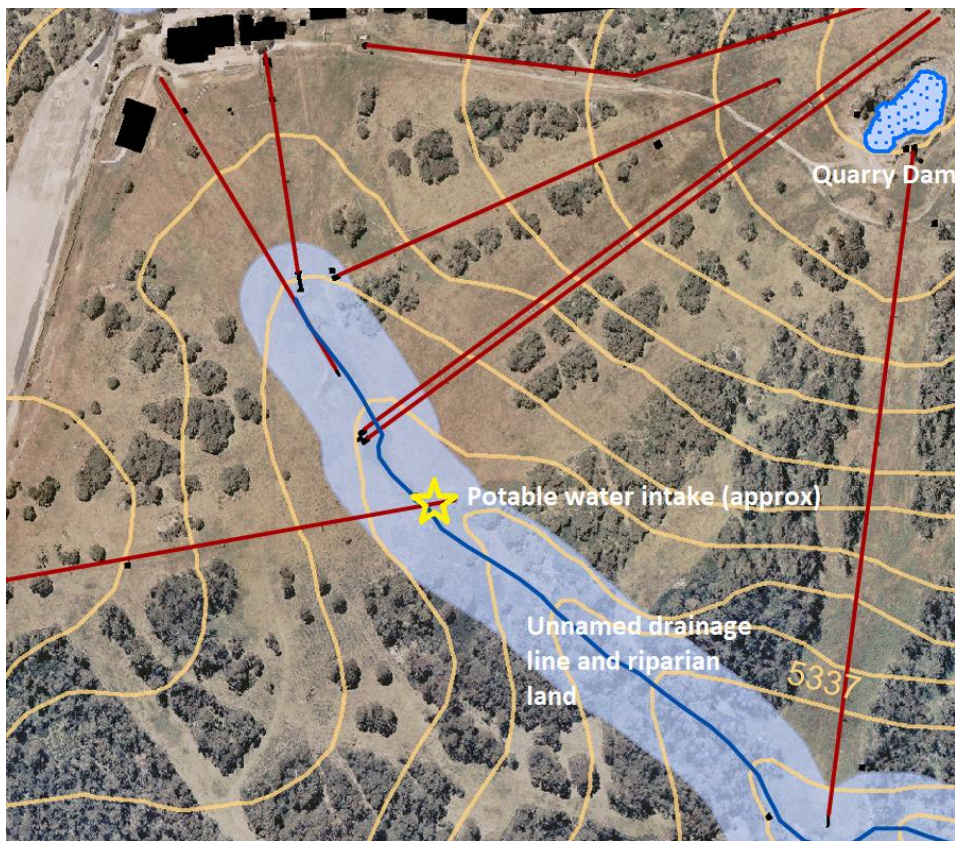


Figure 3 | Site with drainage line and riparian land pre bushfire (Source: Department mapping)

Proposal

The Applicant states that intention of the development is to seek approval for the 'use' of existing infrastructure for the disposal of recycled treated water generated from the STP (DA 22/5248), by reuse in toilet flushing and ground application by way of snowmaking. The proposal also relates to separation of the resort's potable water source so that the risk of contaminated water supply is mitigated. Some minor pipe connection works are required to facilitate the separation of potable water.

Reuse in flushing toilets

Effluent collected by the STP undergoes treatment, with effluent from the commercial kitchen passing through a grease trap to intercept and remove greases and solids. The effluent is then conveyed to two 50kL balance tanks so that variations in flow and composition can be attenuated. From the balance tanks, effluent moves to MLE biological treatment, then filtration (MBR), UV disinfection and free chlorine disinfection. The treated water then passes into a 50kL recycled water tank, which is proposed to be used for toilet flushing. The cycle then recommences. It is proposed to utilise recycled water for all toilet flushing in the visitor centre, estimated at 20kL/day during periods of peak visitation. The toilets within the visitor centre can also be directly supplied with potable water as an alternative to recycled water if required.

Reuse in snowmaking

The use of recycled water for ground application by way of snowmaking is proposed to draw from the same 50kL tank as for the toilet flushing. From the 50kL recycled water tank, the recycled water is pumped through a pipeline to the existing quarry dam for storage until required for snowmaking. The recycled water is diluted within the quarry dam when mixed with the water supply from Clear Creek. The diluted water is then pumped from the quarry dam to the snowmaking guns, which spray the manufactured snow across the distribution area (**Figure 2**). In spring, when the snow melts, the water disperses into the natural environment. The volume of recycled water to be used for ground application by way of snow making is proposed to be capped at a maximum 25kL/day.

Potable water supply

The Applicant adopted the government's recommendation to include, as part of this DA, the separation of their potable water supply from the catchment where recycled water discharge will occur. The potable water supply is proposed to be sourced from Three Mile Dam (approximately 2km north of the visitor centre) via a separate pipeline (**Figure 4**) that is isolated from the snowmaking / recycled water system. To achieve the separation of potable water supply, the Applicant is relying on two key aspects:

1. repairs to an existing pipeline, approved under DA 2-1-2007, from Three Mile Dam to the quarry that will be facilitated by NPWS under their lessor consent provisions; and
2. some additional minor pipeline connection works (**Figure 5**).

In addition to the repairs already authorised by NPWS, the following works are proposed under this DA:

- New connecting water pipe between the existing line from Three Mile Dam and the existing line to the water tank adjacent to the staff accommodation (i.e. without going through the quarry).
- Installation of switching valve to direct water to quarry or divert it to the water tank via the new line
- Installation of a non-return valve.

- Part of the existing line from quarry to water tank must be capped and decommissioned.
- The Powerline Pump shed must be disconnected and equipment removed to allow water to be diverted.

Supporting documents and supporting information to this assessment report can be found on the NSW Planning Portal website at:

<https://www.planningportal.nsw.gov.au/development-assessment/state-significant-applications/projects/state-development-applications>

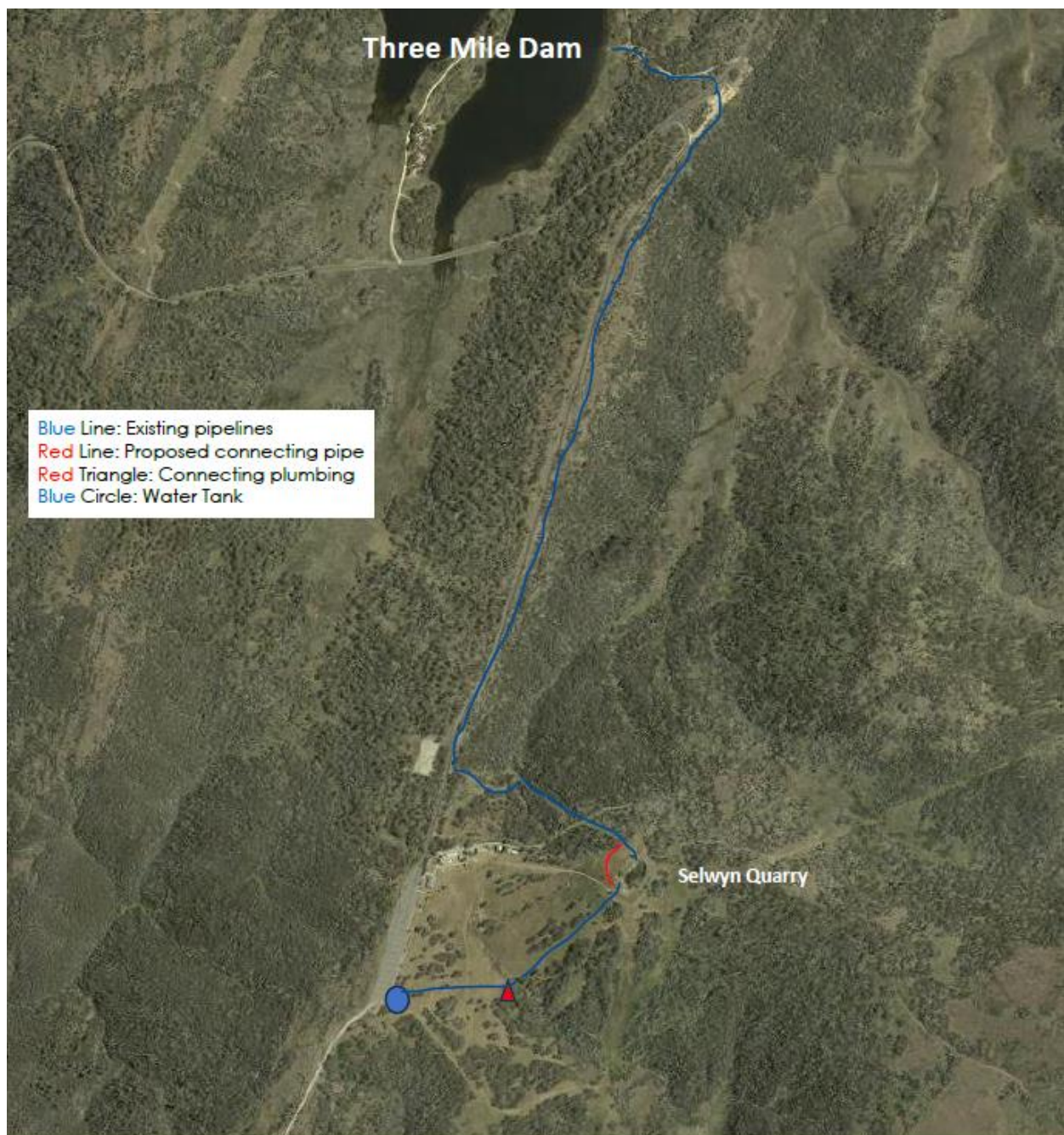


Figure 4 | Existing pipeline from Three Mile Dam to quarry (Source: Applicant documentation)



Figure 5 | Existing pipeline from Three Mile Dam to quarry (Source: Applicant documentation)

2 Matters for Consideration

2.1 Strategic Context

South East and Tableland Regional Plan 2036

The proposal is consistent with the Regional Plan as it assists in re-establishing the use of Selwyn Snow Resort as an important winter tourism and recreational facility which in turn supports positive social and economic welfare in the region. The winter 2024 and winter 2025 seasons trial DA seeks to protect the natural environment and cultural values associated with KNP. The water reuse distribution area is generally confined to disturbed ski slope areas. An alternative potable water source has been obtained from Three Mile Dam to protect human health during the trial period.

Precincts – Regional SEPP

The proposal is consistent with Chapter 4 of the Precincts - Regional SEPP as the potential impacts on the natural environment and cultural heritage have been mitigated through the implementation of a winter 2024 and winter 2025 seasons trial DA. Accurate data will be collected during the trial to monitor environmental and human health risks, where the data can then be utilised to inform a subsequent application for a permanent arrangement. Visitation of the NSW Alpine Resorts is being promoted again now that the Resort is operational which gives tourists the choice of a unique low-cost option for families to experience snow.

2.2 Permissibility

The proposal is predominantly for the 'use' of existing infrastructure and land with some additional minor pipeline connection works for the separation of the potable water supply. No other works are proposed, as the infrastructure required to facilitate the disposal of the recycled water by toilet flushing and ground application by way of snowmaking has already been approved under separate DAs. The Land Use Table for the Mount Selwyn Alpine Resort does not list specifically list the disposal of recycled water as a land use 'permitted with consent'. In this circumstance, the propose 'use' for which this Application seeks consent is ancillary to the approved STP (DA 22/5248). Pursuant to section 4.7of the Precincts – Regional SEPP, 'infrastructure facilities' which includes sewage treatment works, are permissible with consent within the Mount Selwyn Alpine Resort.

2.3 Mandatory Matters for Consideration

Objects of the EP&A Act

Table 1 | Objects of the EP&A Act

Objects of the EP&A Act	Consideration
(a) to promote the social and economic welfare of the community and a better environment	The proposal is part of the bushfire recovery rebuilding of Selwyn Snow Resort and the efficient

by the proper management, development and conservation of the State's natural and other resources,	<p>operation of their STP that will support positive social and economic welfare in the region.</p> <p>The intent of the trial period is to minimise impacts on the environment and human health. Accurate data will be collected during the trial which can then be utilised to inform a subsequent application for a permanent arrangement.</p>
(b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,	The proposal would not have an unacceptable impact on the environment during the trial period thus being ecologically sustainable development.
(c) to promote the orderly and economic use and development of land,	The proposed water reuse supports the operation of the STP and assists in re-establishing the use of the Resort as an important winter tourism and recreational facility. An alternative potable water source has been obtained from Three Mile Dam to protect human health during the trial period.
(d) to promote the delivery and maintenance of affordable housing,	Not applicable to this proposal.
(e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,	The impacts upon the environment can be mitigated during the trial period. The application is supported by a flora and fauna assessment report in which the Ecologist concludes a low risk to the environment based on preventative measures. This report is considered suitable for the winter 2024 and winter 2025 seasons trial. See discussion in Section 4 .
(f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),	The proposed development is not anticipated to result in any impacts upon built or cultural heritage, including Aboriginal cultural heritage.
(g) to promote good design and amenity of the built environment,	The Department considers that the proposed water reuse will not adversely impact the existing setting during the trial period and will be carried out so as to minimise impacts upon the natural environment. An alternative potable water source has been obtained from Three Mile Dam to protect human health during the trial period.

(h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,	The Department has recommended conditions of consent to ensure the winter 2024 and winter 2025 seasons trial is undertaken in accordance with legislation, guidelines, policies and procedures (refer to Appendix A).
(i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,	The Department publicly exhibited the proposal (Section 3), which included consultation with government agencies and consideration of their responses.
(j) to provide increased opportunity for community participation in environmental planning and assessment.	The Department publicly exhibited the proposal (Section 3), which included displaying the application on the NSW Planning Portal website. One public submission was received during the exhibition period which has been considered as part of the assessment.

Considerations under section 4.15 of the EP&A Act

Table 2 | Section 4.15(1) Matters for Consideration

Section 4.15(1) Evaluation	Consideration
(a)(i) any environmental planning instrument (EPI)	<p>The Precincts – Regional SEPP is the only EPI which applies to the site for this development. An assessment in accordance with the requirements of the SEPP is provided below.</p> <p>The Department is satisfied that, in the context of a winter 2024 and winter 2025 seasons trial, the proposal is consistent with the requirements of Chapter 4 of the Precincts – Regional SEPP.</p>
(a)(ii) any proposed instrument	Not applicable to the proposal.
(a)(iii) any development control plan	Not applicable to the proposal.
(a)(iiia) any planning agreement	Not applicable to the proposal.
(a)(iv) the regulations	The application satisfactorily meets the relevant requirements of the EP&A Regulation, particularly the

	<p>procedures relating to development applications (Part 3 and Part 4) and fees (Part 13 and Schedule 4).</p> <p>The Department has undertaken its assessment in accordance with all relevant matters as prescribed by the regulations, the findings of which are contained within this report.</p>
(a)(v) any coastal zone management plan	Not applicable to the proposal.
(b) the likely impacts of that development	<p>The Department has considered the likely impacts of the development, with minimal native vegetation impacts likely to occur as a result of the proposal during the trial period. There are no anticipated adverse impacts on the natural environment or upon built and cultural heritage, including Aboriginal cultural heritage. The proposal is considered to have positive economic and social impacts. It also supports the bushfire recovery and rebuilding efforts.</p> <p>Conditions are recommended to ensure that the environmental and human health risks are appropriately mitigated during the trial period.</p>
(c) the suitability of the site for the development,	<p>The site is suitable for the development during the trial period, as discussed in Section 4 of this report.</p> <p>The potential impacts on the natural environment and cultural heritage have been mitigated as the snowmaking system disperses predominately on existing disturbed ski slope areas. A 40 metre radius buffer area protects the site of previously observed Aboriginal artefacts. An alternative potable water source has been obtained from Three Mile Dam to protect human health during the trial period. There are no anticipated impacts on any threatened species, populations or ecological communities as a result of the trial.</p>
(d) any submissions made in accordance with this Act or the regulations,	One public submission was received during the exhibition period which has been considered as part of the assessment. Consideration has also been given to agency discussions during the assessment of the application. See Section 3 of this report.
(e) the public interest.	The works are consistent with the aim and objectives of Chapter 4 of the Precincts - Regional SEPP. The

development supports the use of the Resort and would not have an adverse impact on the environment. The proposal is consistent with the principles of ESD.

As such, the proposal is considered to be in the public interest.

Environmental Planning Instruments

State Environmental Planning Policy (Precincts - Regional) 2021 (Precincts - Regional SEPP) is the principal EPI applicable to the development. Consideration of the relevant provisions to the proposal within Chapter 4 of the Precincts - Regional SEPP is provided in **Table 3**.

Table 3 | Chapter 4 considerations

Chapter 4 - Precincts - Regional SEPP - Kosciusko Alpine Region	
Section 4.21 Heritage conservation	
European heritage	The proposal would not impact on any European heritage items.
Aboriginal heritage	The Applicant has provided a due diligence assessment in their statement of environmental effects. The NPWS advised that the Applicant has followed a suitable process and due diligence in determining that the proposed works are unlikely to harm Aboriginal objects.
Section 4.27 Consultation with National Parks and Wildlife Service	
Consult with, and consider submissions from, the NPWS	The proposal was referred to the NPWS and comments were received. Refer to consideration of the NPWS referral comments in Section 3 of this report.
Section 4.28(1) – Consideration of master plans and other documents	
(a) the aim and objectives of this policy, as set out in section 4.1	In the context of a winter 2024 and winter 2025 seasons trial, the proposal is consistent with the aim and objectives of Chapter 4 of the Precincts - Regional SEPP in that it is consistent with the principles of ESD and supports the ongoing use of the ski resort. Conditions are recommended to

	ensure that the environmental and human health risks are appropriately mitigated during the trial.
(b) a draft development control plan	Not applicable to the development.
(c) a conservation agreement	Not applicable to the development.
(d) the Geotechnical Policy – Kosciuszko Alpine Resorts	There are no adverse geotechnical impacts associated with the proposed water reuse.
(e) for development in the Perisher Range Alpine Resort, the Perisher Range Resorts Master Plan, or the Perisher Blue Ski Resort Ski Slope Master Plan.	Not applicable to the development.

Section 4.29 Consideration of environmental, geotechnical and other matters

Under section 4.29(1) – In deciding whether to grant development consent to development in the Alpine Region, the consent authority must consider the following -

(a) measures proposed to address geotechnical issues relating to the development,	There are no adverse geotechnical impacts associated with the proposed water reuse.
(b) the extent to which the development will achieve an appropriate balance between – (i) the conservation of the natural environment, and (ii) taking measures to mitigate environmental hazards, including geotechnical hazards, bush fires and flooding,	The proposal would not have an unacceptable impact on the natural environment during the trial period. There are no known natural hazards that would react adversely as a result of the proposed water reuse. Conditions are recommended to ensure that soil, groundwater and surface water monitoring is undertaken during the trial period.
(c) the visual impact of the proposed development, particularly when viewed from the land identified as the Main Range Management Unit,	The proposal relates to water reuse for toilet flushing and snow making and therefore will have no visual impact.
(d) the cumulative impacts of development and resource use on the environment of the Alpine Subregion in which the development is carried out,	Given the nature of this proposal and the trial period, it is not expected to result in any increased cumulative impacts. The intent of the trial DA is to allow data to be collected to inform a subsequent application for a permanent arrangement.

(e) the capacity of existing infrastructure and services for transport to and within the Alpine Region to deal with additional usage generated by the development, including in peak periods,	No additional usage of the infrastructure and service network is predicted as a result of the project. The proposed water reuse supports the operation of the STP.
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(f) the capacity of existing waste or resource management facilities to deal with additional waste generated by the development, including in peak periods.	The proposal seeks to manage waste generated by resort visitation. It will not generate waste.
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Under section 4.29(2) – For development involving earthworks or stormwater draining works, the consent authority must also consider -

Measures to mitigate adverse impacts associated with the works	<p>The proposal involves minimal earthworks of pipe connections that facilitate the separation of the potable water supply. No stormwater draining works are proposed.</p> <p>It is expected that when the manufactured snow with recycled water melts it will disperse naturally as surface and/or groundwater. Conditions are recommended to ensure that monitoring is undertaken during the trial period. The data that is collected will inform any subsequent application for a permanent arrangement.</p>
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Under section 4.29(3) – For development the consent authority considers will significantly alter the character of an Alpine Subregion, the consent authority must also consider -

(a) the existing character of the site and immediate surroundings, and	The development will not significantly alter the character of an Alpine Subregion, or the character of the site and immediate surroundings.
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(b) how the development will relate to the Alpine Subregion.	As above.
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Section 4.30 Kosciuszko National Park Plan of Management

Consistency between the development and the Kosciuszko National Park Plan of Management	NPWS advised that they were satisfied that approval of the proposal would not be inconsistent with the KNP PoM.
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Ecologically Sustainable Development (ESD)

The EP&A Act adopts the definition of ESD found in the *Protection of the Environment Administration Act 1991*. ESD initiatives and sustainability have been adequately considered by the Applicant and mitigation measures are proposed to be incorporated into the proposed water reuse.

The proposal is consistent with ESD principles and the Department is satisfied the proposed pipeline works have been developed having regard to ESD principles, in accordance with the objects of the EP&A Act as follows:

- the proposed winter 2024 and winter 2025 seasons trial is not expected to adversely impact upon the health, diversity, or productivity of the environment for future generations.
- the Applicant has recognised the value of the environment and utilises a state-of-the-art STP tertiary treatment so that water reuse through toilet flushing and snowmaking mitigates impacts to the environment.
- the proposal does not impact upon cultural heritage, including Aboriginal cultural heritage.

Biodiversity Conservation Act 2016

Section 1.7 of the EP&A Act requires the application of the *Biodiversity Conservation Act 2016* (BC Act) in connection with the terrestrial environment. The BC Act introduced a Biodiversity Offsets Scheme (BOS) that applies when:

- the amount of native vegetation being cleared exceeds a certain threshold area; or
- the impacts occur within an area mapped on the Biodiversity Values Map (BVM) published by the Minister for Environment; or
- the 'test of significance', in section 7.3 of the BC Act, identifies that the development or activity is likely to significantly affect threatened species or ecological communities, or their habitats; or
- the works are carried out in a declared area of outstanding biodiversity value.

The Applicant's environmental assessment confirms that the proposal does not involve the 'clearing of native vegetation' and therefore does not exceed the BOS threshold. The area of snowmaking distribution does not coincide with any areas identified with biodiversity values on the Biodiversity Values Map. The Flora and Fauna report concludes that the proposal is unlikely to have a significant impact on threatened species, ecological communities or their habitats.

The Department is satisfied that the provisions of the BC Act have been duly considered by the Applicant and in this case the BOS does not apply to the development.

2.4 Other approvals

Protection of the Environment and Operations Act 1997

The proposed development is classified as integrated development under section 4.46 of the EP&A Act for which approval is required from the NSW Environment Protection Authority (EPA) under the *Protection of the Environment and Operations Act 1997* (POEO Act) for a non-scheduled activity. Section 43(d) of the POEO Act permits an environment protection licence to be issued *‘to control the carrying out of non-scheduled activities for the purpose of regulating water pollution resulting from any such activity, as referred to in section 122’*.

Rural Fires Act 1997

The development is located on bush fire prone land. However, the proposed water reuse is not development for a special fire protection purpose and a bush fire safety authority (BFSA) from the NSW Rural Fire Service (the RFS) is not required.

3 Engagement

3.1 Department's engagement

The Department's Community Participation Plan, November 2019, prepared in accordance with Schedule 1 of the EP&A Act requires nominated integrated development applications be exhibited for a period of 28 days. The Department exhibited the application between 15 March 2023 and 12 April 2023 on the NSW Planning Portal.

The application was also forwarded to State government agencies, including:

- the EPA pursuant to section 4.46 (integrated development) of the EP&A Act as an environment protection licence is required under the provisions of the POEO Act;
- the NPWS pursuant to section 4.15 of the Precincts – Regional SEPP; and
- NSW Health as a key stakeholder for public health matters.

3.2 Summary of submissions

The Department received comments from NPWS, EPA and NSW Health. One public submission was received.

NPWS

The NPWS commented that they are supportive of the proposed effluent recycling scheme. However, they noted that the Applicant only assumes that discharge from the STP is able to meet the adopted interim water quality guidelines. In order to test this assumption, NPWS requested further assessment from the Applicant around a range of performance and technical matters for the scheme. The NPWS also provided comments relating to leasing and the KNP Plan of Management, BC Act, environmental values of KNP, Aboriginal cultural heritage and public health consideration.

The additional information provided by the Applicant in response to the matters raised by NPWS was not sufficient to demonstrate that the environmental and human health risks could be appropriately mitigated in the longer term. The NPWS support the trial DA approach by the Department which will allow data to be collected to inform a subsequent application for a permanent arrangement.

On 25 January 2024, NPWS responded to the Applicants proposal to separate their potable water supply from the catchment where recycled water discharge is occurring and the Applicants additional Flora and Fauna Report. NPWS confirmed that:

- the additional Flora and Fauna Report had considered the effects of the direct application of effluent when there is no snow cover;
- their concerns regarding public health had been resolved by the Applicant sourcing drinking water from Three Mile Dam;

- the works on NPWS land to facilitate supply from Three Mile Dam were authorised through a CRA that was approved on 23 November 2023;
- they are supportive of a two year trial period given the uncertainties arising from a lack of baseline data and monitoring; and
- vegetation monitoring is required as a condition of consent as it is the most appropriate method to monitor any potential impacts to the Alpine She-oak Skink and the Broad-toothed Rat as a result of the recycled water scheme.

The Department has considered the comments received from the NPWS in **Section 4** and recommended conditions in the instrument of consent at **Appendix A**.

EPA

On 4 April 2023, the EPA advised that if effluent is placed in a position where it may enter waters, either as snow or when it melts, then an environment protection licence for miscellaneous discharge to waters will be required. In addition, the EPA requested further information from the Applicant to ensure an appropriate level of assessment was conducted to characterise potential water pollution risks and to ensure all practicable and reasonable measures to avoid, minimise and mitigate impacts had been considered. They also requested updates to the dilutions study with further consideration of ANZG (2018) and ANZECC (2000) due to multiple uncertainties and assumptions in the dilution study in relation to discharge scenarios, the receiving environment, dilution in the quarry dam, pollutant levels and potential accumulation of pollutants within quarry dam.

On 9 June 2023, the EPA identified that the additional information provided by the Applicant did not adequately address all the issues identified by the EPA in their previous correspondence. However, the EPA incorporated special conditions into the GTAs (Version 1) to avoid any further delays in assessing and determining the proposal. The special conditions primarily require the development of management plans and monitoring programs. These plans and programs are critical for demonstrating a structured and accountable way of managing operations and avoiding incidents. The EPA also advised that they need to issue an Environment Protection Licence for the non-scheduled activity 'sewage treatment processing by small plants' under Section 43(d) of the POEO Act, subject to a number of conditions. The Applicant will need to make a separate application to the EPA to obtain this licence.

On 20 December 2023, the EPA updated their GTAs (Version 2) and informed the Department that they were not in a position to support an application for permanent approval to discharge treated effluent to snow given that no additional environmental assessment has occurred. However, the EPA consider it appropriate to support consent for a two year trial period, subject to a series of special conditions.

On 24 January 2024, the EPA updated their GTAs (Version 3) and informed the Department that they further considered the sampling frequencies specified under condition M2 Requirement to monitor concentration of pollutants discharged of the GTA and found it appropriate that the frequency of the water monitoring be determined through consultation with the proponent during the environment protection licence application process. This will provide some flexibility with working through the appropriate seasonal range for sampling, and ensure the right number of data points are collected over the trial period.

The Department has included the GTAs (Version 3) in the instrument of consent at **Appendix A**.

NSW Health

On 11 May 2023, NSW Health wrote to the Department raising concerns in relation to the effluent recycling scheme and the drinking water quality assurance program (QAP). They commented that:

- snow made with recycled water would be applied upstream of the drinking water intake in Clear Creek, and has the potential to impact the drinking water supply;
- this is the first proposal for the use of recycled water for snow making in New South Wales; and
- recycled water is not permitted for snow making in drinking water catchments in Victoria.

NSW Health also raised concern that the QAP does not adequately identify and mitigate the risks to the drinking water supply from application of snow made with recycled water.

On 13 June 2023, NSW provided further commentary including:

- advice in relation to the requirements for drinking water and the extent of uses that the legislation covers;
- the recommendation that the drinking water QAP be updated to reflect the proposed uses for 2023 and will need to accurately reflect the potable water supply;
- agreement that water can continue to be drawn from Clear Creek but that this can only continue while the recycled water is not used and applied as snow; and
- the recommendation that should approval be forthcoming for the use of recycled water for snow making, the use of Clear Creek for domestic water supply shall cease and an appropriate alternate supply shall be sourced.

On 18 December 2023, the NSW Health responded to the Department in relation to the Applicants proposal to separate their potable water supply from the catchment where recycled water discharge is occurring. No concerns were raised and no changes to their previous correspondence were made.

The Department has considered the comments received from the NSW Health in **Section 4** or through recommended conditions in the instrument of consent at **Appendix A**.

Public submission

The objector raised public health and environmental concerns in relation to the proposed development. They commented that families with children are customers for Selwyn ski resort and that children will taste snow. If recycled water is not drinkable it is not suitable for snowmaking. Concern was also raised in relation to water run when snow melts in Spring and pollution of the earth, rivers and lakes, plants, and animals.

The Applicant responded that:

- The use of recycled water for snowmaking practices occurs ski resorts in Victoria and throughout the United States of America.

- Recycled water is also used across public spaces that children and families have access to, for example soccer fields or ovals.
- The approved STP treats to Class A Recycled Water standard, the highest level of treatment possible and has been designed to meet or better the EPAs modern technology performance standards.
- In general snow on the ground should not be eaten, even natural snow. After snow hits the ground (whether it falls from the sky or is manufactured), it is vulnerable to contamination by animals, machinery or even skiers & snowboarders. Therefore, our messaging will be focused on educating and reminding people not to eat snow.

The Department has considered the comments raised in the submission and the Applicant's response. The trial DA will allow data to be collected to inform if there are environmental and human health risks that need to be further mitigated. This would then allow a subsequent application assessment to determine if a permanent water reuse arrangement is appropriate.

4 Assessment

The Department has considered the relevant matters for consideration under section 4.15 of the EP&A Act, the SEE and supporting information in its assessment of the proposal. The key issues in the Department's assessment are:

- Biodiversity
- Public health
- Trial period

Each of these issues is discussed in the following sections of this report.

4.1 Biodiversity

The provisions of the BC Act have been considered by the Applicant and in this case the BOS does not apply to the development. However, the location of the site and the sensitive nature of the flora and fauna within the KNP create other potential natural environmental impacts that need to be carefully considered by the Department.

There are no biodiversity impacts associated with water reuse in flushing toilets, so the Department's assessment has focused on the potential impacts associated with water reuse in the snowmaking system.

In the areas where treated effluent will be dispersed from the snowmaking system, the vegetation comprises modified grassland cleared from subalpine woodland with bushfire affected juvenile snow gums and some remnant mature snow gums. The grassland is characterised by a mix of native and exotic species. The proposal is predominantly located on disturbed ski slopes. The Applicant engaged an ecologist to prepare a flora and fauna assessment for the proposed development. The ecologist identifies that the assessment is limited due to the time constraints associated with lodgement of the application.

The ecologist considers that the report is sufficient to provide confidence for the consent authority to issue a conditional approval. The ecologist states that there is no calculable impact, either because threatened entities are not present, or there is an assumption that the process will fail contrary to the dilution assessment undertaken and the contingencies available to prevent unsuitable discharge from being released from the quarry dam. On the premise of uncertain impacts, the project will be subjected to water quality and soil monitoring as mediums for measuring any cumulated pollutants against discharge and licence thresholds.

The report concludes a low risk to the environment based on preventative measures, including operational procedures and various monitoring actions for long-term water quality monitoring of Clear Creek and areas below snowmaking activities. The report also concludes that no terrestrial and aquatic threatened species or ecological community would interact with potential toxins, contaminants and nutrient accumulations that would have an adverse ecological impact.

On 19 December 2023, the Applicant submitted an additional Flora and Fauna Report that considers direct application of diluted recycled treated effluent water for discharged during non-snowmaking operations

across the ski slopes, both during and after the winter season. The Report focused on the risk of an increase in weed density and distribution and subsequent impact to habitat allied to alpine she-oak skink and broad-toothed rat; the former assumed present and the latter detected by the author for the current and a previous assessment. The Report recommended that a Vegetation Monitoring Program be established to identify if discharged recycled water is responsible for a change in weed presence with potential consequences for habitat change.

In the context of a winter 2024 and winter 2025 seasons trial, the Department accepts that the Applicant has taken the appropriate steps to avoid and minimise the proposal's biodiversity impacts. Monitoring of the soil, groundwater and surface water will be necessary during the trial to ensure that the proposal is consistent with the aim of the Precincts – Regional SEPP to protect and enhance the natural environment. The EPA also need to issue an Environment Protection Licence for the non-scheduled activity.

4.2 Public health

The risks associated with water reuse in flushing toilets have been mitigated. The Resort's newly installed pipework for the toilets in the visitor centre is compliant with the plumbing code and includes a dual pipe system with backflow devices to protect the potable water supply. The Department's assessment has focused on the potential impacts associated with water reuse in the snowmaking system.

This proposal, the first of its kind in NSW, initially included snowmaking using recycled effluent within the Clear Creek catchment above the drinking water intake for the Resort. There is a risk of cross-contamination of that source through ground or surface water flow. Other recycled water snowmaking schemes in Victoria avoid this risk by sourcing drinking water from alternative catchments.

Each of the government agencies involved in the project agreed that the Applicant's recycled water management plan (RWMP) does not adequately address the human health risks associated with the potable water intake. In addition, the Applicant's QAP does not adequately identify and mitigate the risks to the drinking water supply from the distribution of snow made with recycled water.

NSW Health have advised the Department that they agree that the drinking water can continue to be drawn from Clear Creek. However, this can only continue while the recycled water is not used and applied as snow. They have recommended that should approval be forthcoming for the use of recycled water for snowmaking, the use of Clear Creek for domestic water supply must cease and an appropriate alternate supply shall be sourced.

The Department acknowledges NSW Health's comments and agrees that even under a trial scenario the risks are too great to allow both proposed water uses within the same catchment. There is high potential for water drawn from the existing potable water intake to contain recycled water in amounts that may be relevant to human health, especially during periods of lower precipitation.

On 25 October 2023, the Applicant adopted the governments recommendation, to include as part of this DA, the separation of their potable water supply from the catchment where recycled water discharge will occur. The potable water supply is proposed to be sourced from Three Mile Dam (approximately 2km north of the visitor centre) via a separate pipeline that is isolated from the snowmaking / recycled water system.

4.3 Trial period

The Department has assessed the application as a winter 2024 and winter 2025 seasons trial, even though the Applicant is seeking consent for permanent water reuse arrangements. Due to the Applicant's justification for the proposal including some assumptions, the Department was not satisfied that the environmental and human health risks had been appropriately quantified and therefore could not be appropriately mitigated in the longer term. The intent of the trial DA is to allow the necessary data to be collected to inform a subsequent application for a permanent arrangement.

Some of the fundamental aspects of the trial include:

- Environmental monitoring of soil, groundwater and surface water.
- Establishing baseline data as part of the monitoring plan prior to any water reuse discharge.
- Separation of water sources so that potable water is not extracted from the same catchment where water reuse discharge is occurring.

The Department is satisfied that the trial can be undertaken without causing an adverse impact on the environment or human health. The Department has recommended conditions that require the Applicant to prepare a range of monitoring plans, prepare baseline data, obtain an EPA licence and nominate an alternative water supply. During the trial, relevant data will be collected in relation to STP treatment capability, suitability of quarry dam dilution and determine whether recycled water is dispersing appropriately in the natural environment. After the winter season the Applicant will report back to the government agencies. This would then inform if a permanent water reuse arrangement is appropriate.

5 Recommendation

The Department has assessed the merits of the proposal in accordance with the relevant requirements of the EP&A Act. The Department's assessment concludes the proposal is acceptable as:

- there will not be a significant impact on any threatened species, populations or ecological communities and the natural environment and cultural values associated with KNP are protected,
- the winter 2024 and winter 2025 seasons trial seeks to protect the natural environment and cultural values associated with KNP with a water reuse distribution area that is generally confined to disturbed ski slope areas,
- an alternative potable water source has been obtained from Three Mile Dam to protect human health during the trial period,
- the trial will allow accurate data will be collected to monitor environmental and human health risks which can then be utilised to inform a subsequent application for a permanent arrangement,
- there are no adverse impacts to Aboriginal cultural heritage or natural hazards including bushfire and geotechnical risks,
- the water reuse supports STP operations and assists in re-establishing the use of Selwyn Snow Resort as an important winter tourism and recreational facility which promotes visitation of the NSW Alpine Resorts, and
- the trial is consistent with the regional plan for the locality and the Precincts – Regional SEPP and supports bushfire recovery and rebuilding efforts.

Overall, the Department is satisfied that the proposal is suitable for the site during the trial period and in the public interest. The Department therefore recommends that the application be approved, subject to recommended conditions.

In accordance with the Minister's delegation of 9 March 2022, the Director, Regional Assessments may determine the application as:

- no reportable political donation has been disclosed,
- there are less than 15 public submissions in the nature of objections, and
- the application is in relation to land to which Chapter 4 of the Precincts - Regional SEPP applies.

It is recommended that the Director, Regional Assessment, as delegate of the Minister for Planning:

- **considers** the findings and recommendations of this report,
- **accepts** and adopts all of the findings and recommendations in this report as the reasons for making the decision to grant consent to the application,
- **agrees** with the key reasons for approval listed in the notice of decision,
- **grants** consent for the application in respect of DA 23/2747, subject to the recommended conditions, and
- **signs** the attached Development Consent (**Appendix A**)

Recommended by:



Daniel James
Team Leader
Alpine Resorts Team

Adopted by:



Keiran Thomas
Director
Regional Assessments
as delegate of the Minister for Planning

11 April 2024

Appendices

Appendix A – Recommended Instrument of Consent