

Appendix VII

Licence Application Environmental Impact Assessment

Location on public conservation land	Special feature or value	Potential effects of your activity on the feature or value (positive or adverse)	Methods to remedy, mitigate or avoid any adverse effects identified
<p>Refer attached reports: Beale Consultants – ‘Terrestrial Ecological Assessment’; Water Ways Consulting Limited – ‘Treble Cone Ski Area Assessment of Aquatic Ecological Values’; and Land Landscape Architects – ‘Landscape and Visual Assessment’.</p>			
<p>Motatapu Conservation Area, North Motatapu Conservation Area and the Treble Cone Access Road Conservation Area.</p>	<p>Cultural values of Tangata Whenua</p>	<p>The main commentary with respect to Ngāi Tahu cultural values relates mainly to Lake Wānaka. Nonetheless the mauri of Wānaka represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. Consequently since Treble Cone Ski Field area is mostly in the catchment of the north branch of the Motatapu River which in turn flows into Matukituki River and then Lake Wānaka. In addition, the Matukituki River (Mātakitaki is the correct spelling), is also fed by streams from Treble Cone, which flows into the west side of Lake Wānaka. Hence activities on the Ski Field may have the potential to adversely affect the mauri of Lake Wānaka.</p> <p>During the 1879 Smith-Nairn Royal Commission of Inquiry into the Ngāi Tahu land claims, Ngāi Tahu kaumātua recorded Mātakitaki as a kāinga mahinga kai (food-gathering place) where tuna (eels), kāuru (cabbage tree root), and aruhe (bracken fernroot) were gathered. ¹ Accordingly, it is not only Lake Wānaka which is of significance to Ngāi Tahu it is the wider catchment.</p> <p>Of particular concern, is Treble Cone Ski Fields: wastewater management; oil; diesel; or hydraulic fluid spills; and damage</p>	<p>Maintain wastewater treatment plant (including drains that feed into the plant) in optimum condition including regular maintenance and monitoring.</p> <p>Ensure appropriate spill kits are maintained on site (sullage and petrochemical).</p> <p>Ensure any bulk fuel stored on site is bunded and maintain stationary container system compliance certification.</p> <p>Maintain the groomers and other machinery used on site, in the best condition with regular maintenance including the regular checks of hydraulic hoses.</p> <p>Mop up any spills which do occur by using best practice spill retrieval techniques and prevent any spillage into waterways. Remove any affected snow from the site to an appropriate site for disposal.</p>

¹ <http://www.kahurumanu.co.nz/atlas>

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		to vegetation which causes topsoil and sediment to flow into the catchment during snow melt or rainfall events.	Avoid grooming areas with shallow snowpack and uncovered vegetation.
	Cultural values of other members of the public	The value of the Treble Cone Ski Field and a recreational asset is generally recognised by the wider community.	We will work collaboratively with the Department and other concessionaires to ensure public access to these conservation areas is maintained. Nonetheless, Cardrona Alpine Resort must reserve the right to close the access road and the Ski Field for health and safety purposes such as avalanche risk management.
	Other users (tangata whenua, recreational users, and concessionaires) of the Land.	As this application relates to activities which are already occurring the effects on other users are well understood. The ongoing use of the Treble Cone Ski Field and Treble Cone Access Road Conservation Area will not change significantly accordingly the effects on other users will remain unchanged.	We will work collaboratively with the Department and other concessionaires to ensure public access to these conservation areas is maintained. Nonetheless, Cardrona Alpine Resort must reserve the right to close the access road and the Ski Field for health and safety purposes such as avalanche risk management.
	Historic sites or objects including Wāhi Tapu	QLDC, DOC and Heritage New Zealand do not identify any historic sites in the vicinity of Treble Cone Ski Field. However, with more than 60,000 recorded archaeological sites in New Zealand there is a chance of finding additional sites or material during earthworks. That is, earthworks carry the potential for accidental discovery which may include koiwi, artefacts, middens, hangi/umu, storage pits, early building foundations which maybe Maori or early European origin.	Treble Cone implements accidental discovery protocols with respect to earthworks. Specifically following the discovery of material that could be an archaeological site, koiwi and/or taonga, the machine operator will cease all work in the discovery area, with a 20m exclusion zone established around the find to minimise damage; and immediately advise the Operations Manager.
	Flora habitat / vegetation	Habitat modification and damage	Wherever possible invasive activities on wetlands, Dracophyllum shrublands and cushionfields are avoided in

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	<p>The Treble Cone ski area is a coherent ecosystem comprising relatively intact expanse of snow tussock and <i>Dracophyllum</i> shrubland.</p>		<p>view of the sensitivities of these plant communities to disturbance and their inability to recover once disturbed.</p> <p>Keep vehicle use (except for snow groomers) to formed roads and tracks on ski field).</p> <p>The maintain wide tussock grassland buffers around the wetlands to ensure the water regime is not altered and that sediment deposition is avoided. Where possible tracks and other land disturbance activities are to be undertaken on the downgradient of wetlands to further avoid alterations to surface and groundwater regimes.</p> <p>Wherever possible earthworks and other disturbances are undertaken on tussock grassland owing to the great degree of resilience of the grassland. The salvage and replacement of tussock vegetation during construction of ski-field facilities is to be undertaken to reinstate affected areas of tussock grassland.</p> <p>Vegetation reinstatement and other restorative measures specific to the Treble Cone ski field have been formalised through a Site Restoration Protocol agreed to between DOC and the Treble Cone Investments Limited (DOCdm1598630) and the provisions of this protocol are followed.</p>

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			Continue with grazing animal (rabbits, hares, deer) reduction programmes with the approval of the Department of Conservation, implement further pest control programmes.
	Fauna / wildlife habitat	<p>The potential adverse effects are as follows:</p> <ul style="list-style-type: none"> ➤ Loss and/or damage to indigenous vegetation which can in turn impact on the site's overall biodiversity; ➤ Erosion and sedimentation which can in turn adversely affect downstream waterways; ➤ Establishment of invasive weed species which displace endemic species which provide habitat for indigenous invertebrate; and ➤ Predation by introduced mammals. 	<p>Follow the directives in the attached Site Restoration Protocol between Treble Cone and the Department of Conservation (DOCdm1598630) which details the mitigation methods to minimise the impacts on the environment from the works undertaken and to rehabilitate work sites to a high standard.</p> <p>The maintain wide tussock grassland buffers around the wetlands to ensure the water regime is not altered and that sediment deposition is avoided. Where possible tracks and other land disturbance activities should be constructed on the downgradient of wetlands to further avoid alterations to surface and groundwater regimes.</p> <p>Equipment used for any development or remedial works within the ski area boundary and access road area, associated with either winter or summer activities must be checked, cleaned, and dried to ensure no introduction of exotic materials.</p> <p>Continue weed control programmes (wooded weeds) and where appropriate, with the approval of the Department of Conservation, implement further weed control programmes as required.</p>

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			Continue with predator trapping and introduced mammal control programmes with the approval of the Department of Conservation, implement further pest control programmes.
	Earthworks	<p>The potential adverse effects are as follows:</p> <ul style="list-style-type: none"> ➤ Loss and/or damage to indigenous vegetation which can in turn impact on the site’s overall biodiversity; ➤ Erosion and sedimentation which can in turn adversely affect downstream waterways; ➤ Establishment of invasive weed species; and ➤ Adverse visual effects through scars being created on the landscape. 	<p>Follow the directives of the attached Site Restoration Protocol between Treble Cone and the Department of Conservation (DOCdm1598630) which details the mitigation methods to minimise the impacts on the environment from the works undertaken and to rehabilitate work sites to a high standard.</p> <p>Moreover, the QLDC Proposed District Plan’s Earthworks and Indigenous Vegetation provisions would trigger resource consent for significant earthworks and such resource consents would also include site remediation requirements.</p>
	Increase threats (pests, weeds, pathogens, and fire) to public conservation land.	Introduction and establishment of invasive weeds species and mammalian pests resulting in loss of biodiversity.	<p>Continue site restoration programs to maintain and enhance indigenous vegetation.</p> <p>Continue weed control programmes and where appropriate, with the approval of the Department of Conservation, implement further weed control programmes as required.</p>

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			<p>Continue with predator and mammalian pest trapping programmes and with the approval of the Department of Conservation, implement further pest control programmes.</p> <p>There will be no outdoor fires lit as part of this proposal.</p>
	<i>Didymosphenia germinata</i>	Spreading <i>Didymosphenia germinate</i> adversely impacting on quality of waterways.	<p>The majority of Ski Field visitation occurs during months and if visitors wear contaminated footwear or apparel on to the mountain this will not result in spreading of <i>Didymosphenia germinate</i>. As freezing causes 100% mortality and there was no difference in response between freezing at -2 °C and -15 °C, although the time taken for cells to freeze solid occurs faster in lower temperatures.²</p> <p>If <i>Didymosphenia germinate</i> was brought on to the mountain in the summer months the subsequent winter would kill off the Didymo. In addition, Didymo is already present in the Motatapu River the main river feed by the streams that run through these Conservation Areas.³</p>
	Rubbish, toilet waste or debris left on public conservation land	Littering and pollution of the Motatapu Conservation Area and Treble Cone Access Road effectively degrading the quality of the mountain environment.	Provision of adequate outdoor rubbish bins (that are emptied regularly) especially around the cafés on the mountain. Also, we have removed as much food packaging as possible from

² <https://fishandgame.org.nz/assets/Uploads/didymo-survival-dec-06-rev-may-07.pdf>

³ <https://www.orc.govt.nz/media/6193/didymo-in-otago-report-card-final.pdf>

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			<p>Treble Cone’s food and beverage outlets to reduce the amount of rubbish generated on the ski field.⁴</p> <p>Keep the wastewater treatment plant well maintained.</p> <p>Any waste generated during the operation, maintenance and ongoing use of the Ski Field will be dealt with using existing channels. That is; where possible waste is diverted into recycling channels or taken to landfill or disposed of through the on-mountain wastewater treatment plant.</p>
	<p>Landscape and scenic values</p>	<p>Being Outstanding Natural Landscape (ONL) Treble Cone Ski Field generally has high landscape character sensitivity. However, the Treble Cone Home Basin (where the base building is located) provides a significantly higher capacity to absorb development as it is already developed and is not readily visible from the valley floor; compared to the remainder of the landform with its generally highly visible slopes. That is, at the distance the existing development of the ski area can be viewed from, it is barely legible to the untrained eye.</p> <p>Activities such as the maintenance and creation of skiable terrain can result in adverse effects on the landscape. Features such as ‘Easy Rider trail’ zig zagging up mountain, ‘High Street’, ‘Side Saddle’, ‘Raffills Run’ remain discernible even when the site is viewed from a distance.</p>	<p>The main ski field infrastructure is located in the Home Basin and Home Basin is the focus of the majority of the ski field activity. Yet due to the mountain topography the Home Basin cannot be seen from the valley floor or the surface of Lake Wanaka.</p> <p>Activities such as the maintenance and creation of skiable terrain are mitigated through the Site Restoration Protocol between Treble Cone and the Department of Conservation (DOCdm1598630). Which details the methods to minimise the impacts on the environment from the works undertaken and to rehabilitate work sites to a high standard. Further within the scale of the Harris Mountains the ski trails are dwarfed by the surrounding landscape limiting their effects on the overall landscape.</p>

⁴ <https://www.cardrona.com/content-hub/news/2021-sustainability-update-no-landfill-bins-and-free-shuttles/>

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		<p>Treble Cone is renowned for the breath-taking views it affords of the surrounding landscape. This proposal will have the positive effect of continuing to enable use of the ski field with the contingent benefits of being able to appreciate the surrounding landscape from the ski field.</p>	<p>Much of the activity which is associated with this aspect of our application is temporary in nature such as car parking; and general use of the ski field by visitors and does not result in any long-term effects on the areas landscapes values.</p>
	<p>Cumulative effects</p>	<p>This proposal is effectively for the operation of status-quo; hence the effects are generally well understood. In particular, the Treble Cone Home Basin has capacity to absorb development as it is already developed and is not readily visible from the valley floor; compared to the rest of the ski field with its generally highly visible slopes. That is, at the distance the existing ski area infrastructure can be viewed from, it is barely legible to the untrained eye reducing the cumulative effects.</p>	<p>It is not considered that the proposal will result in any effects which will breach any threshold relating to the site's ability to absorb development. Furthermore, it is not considered that the proposal will result in degradation of natural values or inappropriate domestication of the landscape because of the significantly modified nature of the site.</p>