

Attachment 3bH **Table H : ENVIRONMENTAL IMPACT ASSESSMENT**

<b>Location on Public Conservation Land:</b>	<b>Special feature of value</b>	<b>Potential Effects of your activity on the feature or value</b>	<b>Methods to mitigate or avoid any adverse effects identified</b>
<p><b>Western Lakes &amp; Mountains / Nga Puna Wai Kaihari a Rakaihautu Place</b></p> <p><b>Richardson – Upper Shotover Area Whakaari Conservation Area: 2800823</b></p> <p><b>Existing Hut: E 1243351 N 5021506</b></p>	<p><b>(OMCS 2016) Part 1, Appendix 11 &amp; 12. Setting</b></p> <p><b>Destination category:</b></p> <p><b>Concession Operations</b></p> <p><b>Preferred Concessions effects management</b></p>	<p><b>OMCS Appendix 12 Backcountry Definition</b></p> <p><b>Backcountry Accessible and walk in</b></p> <p><b>Local Treasure (OMCS Appendix 11 )</b></p> <p><b>concession activity may be permitted in the backcountry zone</b></p> <p><b>Avoid adverse effects</b></p>	<p><b>Consideration this assessment is given to OCMS 2016 relevant Policies and Outcomes Maps and Appendices.</b></p> <p><b>Subject to conditions to avoid remedy or mitigate adverse effects including compliance with criteria within Appendix 12 the outcomes and Policies for Part two-Places and Policies for Part 3 apply</b></p> <p>The Environmental Impact Assessment (2017) identified special features and methods to mitigate and avoid any effects of the Activity in OT ACC-20767 (and associated OT GUI-27189).</p> <p>These mitigation methods have been in place for 9 years since activities began in 2011.</p> <p>Mitigating Methods are documented by mountainhut.nz and audited by Adventure Mark Safety Audit provider.</p> <p>This EI Assessment has been compiled for this application to continue the activity OT-20767 for the Existing hut. The Existing Hut complies with the OMCS Outcomes and Policies of Part 2 Places, and Part 3.</p>
<p><b>Relevant documents</b></p> <p>OCMS</p> <p>Part 2 Places</p> <p>Appendix 12</p> <p><b>Backcountry definition</b></p>	<p><b>Values</b></p> <p><b>Facilities on Conservation Land</b></p> <p><b>Predominant Facility Setting</b></p>	<p><b>A range of facility standards, including any designated vehicle routes and popular walks and tramping tracks.</b></p> <p><b>Human Impacts Soil</b></p>	<p>OMSC Part 2 Places pg 64” structures may be present where well blended into the landscape or where buildings already exist”</p> <p>The Hut in this assessment is an Existing Hut.</p> <p>The existing hut size is small and sits hidden from all views apart from those from the East.It colour and size and shape blends well into the landscape.</p> <p>The existing hut is located within a days walk of a road end and strategically</p>

<p>Existing Hut is at 1880m And sits in what is described as the Saddle area of Stoney Creek under the North Face of Mt Larkins</p>	<p><b>Preferred Concession effects management</b></p>	<p><b>Disturbance, water runoff removal of vegetation Aesthetic values</b></p> <p><b>Evidence of control limited to essential directional signs and barriers on Great walks and where there are significant hazards.</b></p> <p><b>Concessionaire clients should not be advantaged or disadvantaged compared to those for non concessionaire visitors unless there is a specified reason for different management: The Policies for Part Two and Part 3 apply</b></p>	<p>positioned near existing tracks and routes and provides positive benefits for recreation users. The existing hut supports recreational values as it supplies safety and shelter and accessibility for recreationalists. A variety of recreational areas are made accessible to visit during multi day trips from the existing hut. Unique recreational opportunities mountain biking and ski touring using existing features (snowed terrain) and tracks (historic) The effects from activities are mitigated by maximum guest numbers of ten.</p> <p>Mountainhut.nz trips are certified Adventure Activities. Operations work from the Safety Management System and Standard Operational Procedures. These identify general and activity specific key risks and potential losses and environmental management. Best Practice is the Standard for all activities.</p> <p>There are no route markers or hazard signs. All waste water and sewerage is contained in tanks and removed from the site by helicopter.</p> <p>Mountainhut.nz complies with all DOC conditions of Consent for GUI and ACC Concessions. Activity Fees and landing fee and management fee revenue goes to DOC</p> <p>The presence of the existing hut may increase the amount of public visitors to the area over time.</p>
<p><b>References</b> <b>General Conservation Policy</b> <b>Public Access</b></p> <p><b>OMCS</b> <b>Part 2 Places</b> <b>Appendix 12&amp;15</b></p>	<p><b>Public Access</b></p>	<p><b>Concessionaire clients should not be advantaged or disadvantaged compared to those for non concessionaire visitors unless there is a specified reason for</b></p>	<p>The presence of the existing hut may increase the amount of public visitors to the area over time. The existing hut remains unlocked at all times Two bunks are made available to Members of the Public at all times in the hut. Hut fees are determined by the Department of Conservation Hut fees are \$45 per night. Fees cover hut maintenance which is the responsibility of the concessionaire including the removal of waste water and effluent. There are written instructions in the hut advising Members of the Public to inform them of the</p>

		<b>different management: The Policies for Part Two and Part 3 apply.</b>	proper disposal of sewerage and waste water. Kea and Hut safety. Public visitors are self reliant and self educated. The hiking routes best suit experienced back country hikers. Public are able to hike, bike ski and stay in, the same facilities as Clients. Public need a permit for helicopter landings.
<b>OCMS Part two page 65&amp;67 Appendix Part 3 Specific requirements Map 4 Air Access Zones</b>	<b>Aircraft management</b>       <b>Desired visitor experience and interaction</b>	<b>Whakaari is in the Air Access Zone: Orange Zone -To be managed.</b>   <b>Occasional to Regular flights are expected Generally accepting of the occasional intrusion of noise</b>   Impacts Noise Aesthetics	Identified in OMCS Part 3 Table 3.6.2 Whakaari Conservation area: Concessionaire landing sites for servicing a hut on Mt Larkins Concessionaire Landing sites in Whakaari Conservation Area to service Heli-Biking are compliant with criteria OCMS 2016 Policies 3.6.1-3.6.9 Aircraft in Part 3 and the outcomes and Policies in Part 2 -Places  Sound from Helicopters during drop off and picking up Guests from the permitted landing site at the existing Hut is contained by the basin terrain of the area. Landings are limited per day and number per year through GUI Concession. Flight routes are consistent with Map 4 and Part 3 Aircraft in the OMCS and these are short and direct from the valley floor. Landing sites are Consented.  The Existing hut is situated in the flight corridor between Milford and Queenstown Airport so there is a variety of Aircraft noise present and expected in the vicinity.
<b>References OMCS Part 2: 2.3 Richardson /Upper Shotover Appendix 12</b>	<b>Values: Recreational Activities</b>  <b>Predominant visitor group</b>      <b>Ski Touring</b>	Activity associated with users of the hut:  <b>Predominantly back country comfort seekers and back country adventurers</b>   Snow covered landscapes for up to six months of the year create	Avoid and mitigating Methods:  Mountainhut.nz is an audited adventure activity that operates Best practice for all activities. Each activity complies with the SMS and SOPs for that activity. Visitors are guided, self guided or members of the public. Trips are helicopter accessed, hike in or out, or fly in and out hosted overnight hut stays. Activities depend on the season and visitor expectations and their experience in the backcountry.  The area provides opportunity for great skiing during the winter. Ski touring is quiet and carried out on the snow surface. There is no helicopter lifts for ski runs involved. Ski touring has proven over time to be compatible with Heli ski

		<p>opportunities for year round recreation.</p> <p>Ski Touring &amp; snow activities, with all aspects skiable, a variety of terrain and good depth of snow, provide an outstanding ski experience.</p>	<p>operations permitted to operate in the area.</p>
	<b>Hiking</b>	<p>Hiking in an accessible mid to high alpine zone with a safe shelter in the vicinity. Panaramic views of the Wakatipu Basin and the Lower Shotover basin can be seen from the Peak of Mt Larkins.</p>	<p>The public are able to Ski tour in the same area as guided ski touring activities occur.</p> <p>In summer the hike to the classic Peak of Mt Larkins is achievable in a 3hr round trip from the hut. The hike is almost entirely on stony ridges, rock and scree.</p>
	<b>Biking</b>	<p>Biking activities are listed in the OMCS Part 2 pg 62 as a popular activity and makes note that heli biking activities are located at Whakaari Conservation Area</p>	<p>Biking is contained to identified tracks and routes descending to the valley floor. The tracks are the historic scheelite tracks already etched in to the mountain side. Biking season is November to May. Staff Monitor track and ground conditions from trips in the trip log. Numbers are limited by conditions of consent. Max client number is 10 plus two guides per day with no more than 5 plus guide descending in a group.</p> <p>All effects from the activities are mitigated by Activity Best Practice. This includes Departmental Principles of Leave no Trace and Bikers Code and the Tiaki Promise.</p>
	<b>Typical visitor interaction Level Preferred maximum party size</b>	<p><b>15 or fewer people seen per day for back country adventure tracks.</b></p>	<p>Public are able to Bike and use pedal assist bikes on the same tracks as Heli-Biking activities.</p> <p>Maximum party size for hut and all activities is 10 plus two guides. The majority of trips are 5 or less guests.</p>

	<b>Desired visitor experience and interaction</b>	<p><b>40 or fewer people seen per day for backcountry comfort seeker tracks. Generally some time away from other groups and in some cases solitude Occasional encounters with organized groups.</b></p> <p><b>15 Impacts on Aesthetic values, Noise, soil disturbance or compaction, Vegetation disturbance</b></p>	<p>Mountainhut.nz complies with all DOC conditions of Consent for GUI and ACC concessions. Activity Fees and landing fee and management fee revenue goes to DOC</p> <p>Monitoring surveillance and partnership with DOC Staff can act as another set of eyes in the Conservation area regarding Public behavior or trends e.g lighting of fires around historic huts ( 2016) identifying and reporting non permitted guiding activity ( 2018/2019) Kea sightings (2010-2020) or presence of pests or weeds.</p> <p>All mountainhut Activities are limited to a maximum of ten plus two guides.</p>
OCMS Appendix12 Backcountry definition: Appendix 1 impacts from Activities	<p><b>Values: Landscape General description</b></p> <p><b>Accessibility</b></p>	<p><b>Large Scale natural settings generally accessed through front country. Includes popular walks and tramps set within large scale natural settings and or that access other settings</b></p> <p><b>People will have travelled some distance to reach these settings. Back country accessible focuses on unsealed roads, four</b></p>	<p>Mitigating and avoid methods:</p> <p>The area surrounding the existing hut is under snow for up to six months a year this naturally protects natural flora and fauna from the effects of skiing and snow activities during winter. Effects from natural weather and climate changes: e.g rain erosion, avalanche and snow creep, rock fall and drainage erosion remain un disturbed from concession activity. There are no signs or hazards marked.</p> <p>Summer guiding is done on established tracks and routes. Hiking to and from the valley floor which is a Positive re-use of historic tracks, water races and routes.</p> <p>Tracks and ground condition are monitored by staff as part of SMS Trip Logs. All rubbish and waste water is flown or carried to the valley for disposal.</p>

		<p><b>wheel drive tracks, navigable waters and aircraft landing sites. Motorized ground access is generally restricted to roads and designated routes. Backcountry walk-in in focused beyond the influences of motorized access.</b></p> <p><b>Impacts on Aesthetic values, Noise</b></p>	<p>Popular Public day Hike routes are the Heather Jock Circuit and Mt McIntosh Loop or Huts. Whakaari Free Overnight Historic Huts attract many Public for overnight stays. Limited numbers of Public hike between Mt Alaska and Mt Larkin due to the distance, terrain and experience needed.</p> <p>SOPs include Identification of Environmental management and Leave no Trace Principles.</p>
<p><b>OMCS Part 2 Appendix 10 Actively conserved historic places on conservation land</b></p>	<p>Historic Values</p> <p>Low Alpine areas Local Treasures in Historic Landscapes</p>	<p>OMCS Part 2-Places (pg 62) Describes Whakaari as an actively conserved historic place. OMCS Appendix 10 lists heritage topics and significance as Scheelite battery and managers house, Bonnie Jean Hut, Boozer Hut, State mine and hut, Wallers Hut, McIntosh Hut, McIntryes Hut</p> <p><b>Impacts on Historic landscapes, Human, Fire, erosion</b></p>	<p>There are no Historic sites In the immediate area around the existing Hut. There are historic scheelite mine tracks most of the way to the hut from the valley floor. Guided hiking and biking activities use these to descend to the valley floor.</p> <p>Multiple historic sites and huts in the Conservation Area. DOC have installed some interpretation panels on some sites. As part of our SMS and SOPs Mountainhut.nz guided guests receive education and safety briefings regarding the history and safety around sites during guided hike and bike trips.</p> <p>Staff are knowledgeable and enjoy sharing stories about the Scheelite History of the area.</p> <p>Public visitors have the same access to the historic sites.</p>
<p><b>OMCS Part 1: 1.4 pg 25</b></p>	<p>Cultural Values <b>Glenorchy Lake Wakatipu</b></p>	<p><b>Ngai Tahu are the Tangata Whenua or Tribal Authority of the</b></p>	<p>Appropriate consultation with Tangata Whenua Ngai Tahu Mark Solomon was carried out during the 2007 Application for Lease for the existing hut.</p>

	<b>(Wakatipu-wai-maori) Western Lakes &amp; Mountains / Nga Puna Wai Kaihari a Rakaihautu Place</b>	<b>area. Expressed through Ngai Tahu kaitiakitanga (guardianship over there natural resources)  Impacts Human</b>	
<b>Identified in OMCS 2016 Appendix 2 Ecosystems and Habitat types Identified In Otago.</b>	<b>Ecosystems and Habitat  High Alpine Gravel field Stone Field cushion field   Rock Gravel and stone dominated communities</b>	<b>Impacts Human, Erosion, Fire, pests  Gravel Field/stonefield with areas of rock pavement boulder field and bluff and locally cushion field, herbfield and snow banks. Western Alp regional type include a diversity of grasses, small shrubs and sub shrubs. Gravel Field screes and boulderfields Mobile gravel field of predominantly greywake argillite and calcareous substrate on slope of between 35- 40degrees. That can include specialized scree plants.</b>	<p>Mitigating and Avoid management methods from human impacts and fire</p> <p>Existing Hut is in the margins of both high alpine zone and low alpine cross over zones. The Existing Hut has a contained burner for heating (not used by public). Ashes removed into Holding tanks. Signs in hut requesting headlights in hut.</p> <p>Animal tracks exist in the vicinity and are used for client short walks around the hut area. Hiking above the hut is on the stony ridge line and is devoid of vegetation.</p> <p>SOPs for all activities include the identification of Environmental Impact. Best Practice for all activities is standard.</p> <p>Guided activities include an on site briefing. This includes information on Ecosystems and habitats.</p> <p>Tracks leading to the valley floor follow historic scheelite mining trails, animal trails and water races.</p> <p>Staff undertake monitoring of tracks and ground conditions in Trip Logs No fires are used during any activities.</p>

	<p><b>Sub Alpine Scrub</b> <b>Oleria</b> <b>Pseudopanex</b> <b>dracophyllum</b> <b>scrub</b></p> <p><b>Small Pockets of</b> <b>Ultra marific</b> <b>Beech manuka</b> <b>scrub rockland</b></p> <p><b>Tussock land/</b> <b>stonefield/</b> <b>rockland</b></p>	<p><b>Short forest scrub of</b> <b>wide range of local</b> <b>variants: hebe</b> <b>coporsma manuka</b></p> <p><b>Mosaic of short forest,</b> <b>scrub or variety of</b> <b>podocarp trees</b> <b>interspersed with areas</b> <b>of manuka shrub and</b> <b>bare ground and rock</b></p> <p><b>2 variants</b> <b>1. with occasional tall</b> <b>tussock grass lands</b> <b>shrublands and</b> <b>mountain tauhinu</b> <b>Dracopyllum prunum</b> <b>and D filifolium</b> <b>2. with locally manuka</b> <b>D Proum, blue tussock,</b> <b>bristle tussock and Poa</b> <b>ssp.</b></p>	<p>An Ecological and Habitat Assessment originally was completed in 2016 by Dawn Palmer. A further General Assessment was compiled by Simon Beale in 2017. (Attached)</p> <p>It is acknowledged that there may be some Flora and Fauna present identified in the OMSC 2017 Appendix 5 “threatened and at risk indigenous flora and fauna in Otago” in Whakaari.</p> <p>No Nationally critical flora has been identified in Part 2-Places.</p> <p>Pg 61 notes “ ecological values are high through out the area, especially to the North where Natural Values are least modified. Extensive intact tussock grasslands are present with a widespread diverse shrubland belt in upper catchments”. The Existing Hut sits further to the West of the Richardson -Shotover area and has been modified by historic scheelite mining activities.</p> <p>Monitoring surveillance and partnership with DOC</p> <p>Staff can act as another set of eyes in the Conservation area regarding Public behavior or trends e.g lighting of fires around historic huts (2015)</p> <p>identifying and reporting non permitted guiding activity( 2018/19),</p> <p>Kea sightings ( 2012-2020)</p> <p>or presence of pests or weeds.</p>
<p><b>OMCS</b> <b>Part 2 Places</b> <b>Appendix 5</b> <b>Threatened and at</b> <b>risk Flora and Fauna</b> <b>in Otago</b> <b>Appendix 6 Threats</b> <b>or pests</b> <b>Appendix 7</b> <b>Nationally iconic</b> <b>species in Otago</b></p>	<p><b>Feature: Fauna</b> <b>Vertebrates</b> <b>Kea</b> <b>Nestor Notabilis</b></p> <p><b>Threat status</b> <b>Endangered</b></p> <p><b>Described as a</b> <b>New Zealand</b> <b>Icon</b></p>	<p>Kea swoop and play in the vicinity of the Hut.</p> <p>There are no known nesting sites in the vicinity.</p> <p>Potential effects from Human activity include</p> <p>Loss of habitat or</p> <p>feeding grounds and</p> <p>socialization of birds.</p>	<p>Mitigating and avoid methods: Human Impacts and Fire</p> <p>Guides are able to educate guests by identifying Fauna and habitats.</p> <p>Visits by Kea positive by increasing awareness and educating guests on the endangered status of kea. Watch and enjoy but avoid any interaction.</p> <p>Keep area clean of objects and equipment at all times during and following any trip. The addition of the Kea Proof Tent for storage and staff accommodation.</p> <p>Identified Kea feeding Grounds are carefully monitored and avoided</p> <p>All completed “trip logs” keep a tally of the number of kea sighted. These are compiled over time.</p>



	<b>Invertebrates</b> <b>wetas alpine grass</b> <b>hoppers magpie</b> <b>moths</b>	<b>Impacts</b> <b>Pests: Goats Tar</b> <b>Possum Mice</b>  <b>Human impacts,</b> <b>vegetation loss, fire</b>	<p>The Kea Trust is sent an inventory of kea numbers.</p> <p>Keep clients on tracks rocks ridges or tracks in scree when hiking above the existing hut and on animal tracks or historic scheelite tracks below the existing hut.</p> <p>Goats are still visible and prevalent in numbers. Mice have been seen at 2300m during 2019 mice plague. Tar have been sighted around the hut.</p> <p>Staff contribute to local trapping line monitoring of vermin mustelids and hedgehogs in the Glenorchy area. A 30 trap control line is planned for the Mt Judah road to be managed by staff. Staff help with Bat monitoring around the Glenorchy area.</p>
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