Te Wahipounamu – South West New Zealand

1. World Heritage Property Data

1.1 - Name of World Heritage property
Te Wahipounamu – South West New Zealand

1.2 - World Heritage property details

1.3 - Geographic information table

Name	Coordinates	Property (ha)	Buffer zone (ha)	Total (ha)	Inscription year
Te Wahipounamu – South West New Zealand	-45.036 / 167.32	2600000	0	2600000	1990
Total (ha)		**2600000**	**0**	**2600000**	

1.4 - Map(s)

Title	Date	Link to source
Te Wahipounamu – South West New Zealand – World Heritage Area	2002	

Comment
a new map emailed through on 31 March

1.5 - Web and Social Media data of the property (if applicable)

1. Natural site datasheet from WCMC
2. World Heritage in New Zealand
3. Department of Conservation - Te Papa Atawbai

Comment
The Links at 2 and 4 are not working - not sure what 2 is intended to link to https://www.doc.govt.nz/ - this is the appropriate link for 4

2. Other Conventions/Programmes under which the World Heritage property is protected (if applicable)

2.1 - Records indicate that your World Heritage property (in whole or in part) is designated and/or protected under the Conventions/programmes shown in the prefilled table below. Please check and amend as necessary.

		The World Heritage property (in whole or in part) is designated and/or protected under this convention/programme	The World Heritage property (in whole or in part) is not designated and/or protected under this convention/programme
2.1.1	**International Register of Cultural Property under Special Protection** (1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict)		✖
2.1.2	**List of Cultural Property under Enhanced Protection** (Second Protocol to the 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict)		✖
2.1.3	**The List of Wetlands of International Importance (The Ramsar List)** (Convention on Wetlands of International Importance (Ramsar Convention))		✖
2.1.4	**World Network of Biosphere Reserves** Man and the Biosphere (MAB) Programme		✖
2.1.5	**Global Geoparks Network** UNESCO Global Geoparks		✖

2.2 - Please provide comments on 2.1 if necessary

2.3 - Do your national authorities intend to request the granting of Enhanced Protection (if relevant) under the Second Protocol to the 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict for the World Heritage property in the next three years?
No

2.4 - Do your national authorities intend to designate whole or part of the World Heritage property for inclusion in the List of Wetlands of International Importance (The Ramsar List), if relevant, in the next three years?
No

2.5 - Do your national authorities intend to designate whole or part of the World Heritage property as a Man and Biosphere Reserve (if relevant) in the next three years?

No

2.6 - Do your national authorities intend to apply for whole or part of World Heritage property to be designated as a UNESCO Global Geopark (if relevant) in the next three years?

No

2.7 - Please indicate the level of cooperation at property level between designations under different Conventions/Programmes

2.7.1	**1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict**	
2.7.1	There is **no contact** with the Focal Point(s) of this designation/programme.	✖
2.7.2	The World Heritage Site Manager **occasionally** communicates with the Focal Point(s) of this designation/programme.	
2.7.3	The World Heritage Site Manager **regularly** communicates with the Focal Point(s) of this designation/programme.	
2.7.4	The World Heritage Site Manager **also manages** this designation/programme.	
2.7.2	**Second Protocol to the 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict**	
2.7.1	There is **no contact** with the Focal Point(s) of this designation/programme.	✖
2.7.2	The World Heritage Site Manager **occasionally** communicates with the Focal Point(s) of this designation/programme.	
2.7.3	The World Heritage Site Manager **regularly** communicates with the Focal Point(s) of this designation/programme.	
2.7.4	The World Heritage Site Manager **also manages** this designation/programme.	
2.7.3	**Convention on Wetlands of International Importance (Ramsar Convention)**	
2.7.1	There is **no contact** with the Focal Point(s) of this designation/programme.	✖
2.7.2	The World Heritage Site Manager **occasionally** communicates with the Focal Point(s) of this designation/programme.	
2.7.3	The World Heritage Site Manager **regularly** communicates with the Focal Point(s) of this designation/programme.	
2.7.4	The World Heritage Site Manager **also manages** this designation/programme.	
2.7.4	**Man and the Biosphere (MAB) Programme**	
2.7.1	There is **no contact** with the Focal Point(s) of this designation/programme.	✖
2.7.2	The World Heritage Site Manager **occasionally** communicates with the Focal Point(s) of this designation/programme.	
2.7.3	The World Heritage Site Manager **regularly** communicates with the Focal Point(s) of this designation/programme.	
2.7.4	The World Heritage Site Manager **also manages** this designation/programme.	
2.7.5	**UNESCO Global Geoparks**	
2.7.1	There is **no contact** with the Focal Point(s) of this designation/programme.	✖
2.7.2	The World Heritage Site Manager **occasionally** communicates with the Focal Point(s) of this designation/programme.	
2.7.3	The World Heritage Site Manager **regularly** communicates with the Focal Point(s) of this designation/programme.	
2.7.4	The World Heritage Site Manager **also manages** this designation/programme.	

2.8 - Please add any further comments on cooperation with the other designation(s)/programme(s)

2.9 - Are you aware of any elements associated with the World Heritage property that have been inscribed on the Representative List of the Intangible Cultural Heritage?

No

2.10 - Please list any elements associated with the World Heritage property inscribed under the Convention for the Safeguarding of the Intangible Cultural Heritage of which you are aware

2.11 - Are you aware of any documentary heritage listed under the Memory of the World Programme associated with the World Heritage property?

No

2.12 - Please list any documentary heritage associated with the World Heritage property listed under the Memory of the World Programme of which you aware.

3. Statement of Outstanding Universal Value

3.1 - Statement of Outstanding Universal Value for the property as adopted by the World Heritage Committee

Statement of Outstanding Universal Value

Brief synthesis

Located in the south-west corner of New Zealand's' South Island, Te Wähipounamu – South West New Zealand covers 10% of New Zeland's landmass (2.6 million hectares) and is spread over a 450km strip extending inland 40 - 90km from the Tasman Sea. The property exhibits many classic examples of the tectonic, climatic, and glacial processes that have shaped the earth. The great Alpine Fault divides the region and marks the contact zone of the Indo-Australian and Pacific continental plates making it one of only three segments of the world's major plate boundaries on land. Collision between the two tectonic plates constructs the main mountain range, known as the Southern Alps/Kä Tiritiri o te Moana, which rise to nearly 4 000m altitude within a mere 30km from the sea.

Overwhelmingly a mountainous wilderness, including significant piedmont surfaces in the north-west glaciation, both historic and modern, is a dominant landscape feature. Spectacular landforms include: the 15 fiords which deeply indent the Fiordland coastline; a sequence of 13 forested marine terraces progressively uplifted more than 1000m along the Waitutu coastline over the past million years; a series of large lake-filled glacial troughs along the south-eastern margin; the Franz Josef and Fox Glaciers which descend into temperate rainforest; and spectacular moraines of ultramafic rock extending to the Tasman coastline.

As the largest and least modified area of New Zealand's natural ecosystems, the flora and fauna has become the world's best intact modern representation of the ancient biota of Gondwana. The distribution of these plants and animals is inextricably linked to the dynamic nature of the physical processes at work in the property. The region contains outstanding examples of plant succession after glaciation, with sequences along altitudinal (sea level to permanent snowline), latitudinal (wet west to the dry east), and chronological gradients (fresh post-glacial surfaces to old Pleistocene moraines).

It is the combination of geological and climatic processes, the resultant landforms, the unique biota displaying evolutionary adaptation over a diverse range of climatic and altitudinal gradients, all in a relatively pristine state, that give Te Wähipounamu – South West New Zealand its exceptional and outstanding natural characteristics.

Criterion (vii): Te Wähipounamu - South West New Zealand contains many of the natural features which contribute to New Zealand's international reputation for superlative landscapes: its highest mountains, longest glaciers, tallest forests, wildest rivers and gorges, most rugged coastlines and deepest fiords and lakes, as well as the remnant of an extinct volcano in Solander Island. The temperate rainforests of the property are unmatched in their composition, extent and intactness by any such forests anywhere in the world.

From the vast wilderness of Fiordland in the south to the spectacular upthrust of the Southern Alps in the north, the landscapes are world class for the sheer excellence of their scenic beauty. It is an area of magnificent primeval vistas: snow-capped mountains, glaciers, forests, tussock grasslands, lakes, rivers, wetlands and over 1000km of wilderness coastline. Only traces of human influence are evident and then mainly in peripheral areas.

Criterion (viii): Te Wähipounamu - South West New Zealand is considered to be the best modern example of the primitive taxa of Gondwanaland seen in modern ecosystems – and as such the property is of global significance. The progressive break-up of the southern super-continent of Gondwanaland is considered one of the most important events in the earth's evolutionary history. New Zealand's separation before the appearance of marsupials and other mammals, and its long isolation since, were key factors enabling the survival of the ancient Gondwanan biota on the islands of New Zealand to a greater degree than elsewhere. The living representatives of this ancient biota include flightless kiwis, carnivorous land snails, 14 species of podocarp and genera or beech.

The South West is also an outstanding example of the impact of the Pleistocene epoch of earth history. Ice-carved landforms created by these "Ice Age" glaciers dominate the mountain lands, and are especially well-preserved in the harder, plutonic igneous rocks of Fiordland. Glacier-cut fiords, lakes, deep U-shaped valleys, hanging valleys, cirques, and ice-shorn spurs are graphic illustrations of the powerful influence of these glaciers on the landscape. Depositional landforms of Pleistocene glacial origin are also important, especially in Westland, west of the Alpine Fault. Chronological sequences of outwash gravels, and moraine ridges in elegant curves and loops, outline the shapes of both former piedmont glaciers and Holocene "post-glacial" valley glaciers.

Criterion (ix): A continuum of largely unmodified habitats, the property exhibits a high degree of geodiversity and biodiversity. Fresh-water, temperate rainforest and alpine ecosystems are all outstandingly well represented over an extensive array of landforms and across wide climatic and altitudinal gradients. Notable examples of on-going biological processes can be found in the large expanses of temperate rainforest, the plant succession after glacial retreat, soil/plant chronosequences on beach ridges, plant succession on alluvial terraces, vegetation gradients around the margins of glacial lakes and ecotypic differentiation of plants on ultramafic soils. The extensive and little modified freshwater habitats, the impressive diversity of alpine ecosystems, extensive alpine plant endemism, and on-going evolution associated with long-standing geographical isolation of animal populations, like the kiwi taxa of South-Westland, are further examples of on-going biological evolution.

While there is little permanent physical evidence of past human interaction with the natural environment, tangata whenua (the indigenous people who have customary authority in a place) have long associations with the area which was significant to them for natural resources, particularly pounamu (nephrite). European associations are more recent and initially based on natural resource exploitation. The predominant human uses today are associated with sustainable tourism.

Criterion (x): The habitats of Te Wähipounamu contain an extensive range of New Zealand's unusual endemic fauna, a fauna which reflects its long evolutionary isolation and absence of mammalian predators. The property contains the entire wild population of the rare and endangered takahë *(Notornis mantelli),* the entire population of the South Island subspecies of brown kiwi (*Apteryx australis*), New Zealands rarest Kiwi, the rowi *(Apteryx rowi)*, the only significant remaining populations of the seriously declining mohua / yellowhead *(Mohoua ochrocephala)*, the only large populations remaining of käkä and käkäriki / yellow-crowned parakeet, the only remaining population of pateke / Fiordland brown teal in the South Island.

The world's rarest and heaviest parrot, käkäpö (*Strigops habroptilus*) survived in Fiordland until the early 1980s. It is now thought to be extinct on the mainland and its survival depends on careful management of a limited number of offshore island populations.

Integrity

Te Wähipounamu encompasses many complete 'mountains-to-the-sea' or 'mountains-to-inland basins' landscape sequences. These landscapes cover the full range of erosion and deposition landforms of Pleistocene and modern glacial origin. The 2.6 million hectare property represents the 10 percent of New Zealand that is least disturbed or modified by human settlement, and is largely in its natural state giving it a high degree of integrity. The property boundaries encompass all the values of the property which comprises a nearly contiguous network of reserved land covering much of the south-west of the South Island. The boundaries are closely and realistically aligned with the main features of the area. The property includes four national parks (Fiordland, Mount Aspiring, Mount Cook and Westland) covering 1,725,437 ha, two nature reserves, three scientific reserves, 13 scenic reserves, four wildlife management reserves, five ecological areas, conservation areas and one private reserve (20 ha). Bordered by other protected public conservation land the property has an effective buffer zone providing further protection for the natural values.

The property contains nearly 2 million hectares of temperate rainforest on an extraordinary range of landforms and soils-including altitudinal, latitudinal, west-to east rainfall gradients, and age sequences associated with glacial retreat, prograding coastlines and marine terraces uplifted progressively over the last million years. In particular, the rainforest contains the best examples in the Southern Hemisphere of one of the most ancient groups of gymnosperms, the *Podocarpaceae*, which range from the densely-packed 50m-high rimus of the South Westland terraces to the world's smallest conifer, the prostrate pygmy pine.

The relatively recent introductions of alien browsing mammals and predators, such as rodents and mustelids, have resulted in localised extinctions, range reductions, and significant declines in abundance of some indigenous biota. These threats will remain, but with ongoing intervention can be managed and should not impact

significantly on the integrity of the area. There is some evidence of the effects of global warming on the permanent icefields and glaciers in the region.

The international profile of the area as a visitor destination places pressure on some of the main tourist attractions within the wider site. These pressures are being managed to provide visitor access but only where the conservation values at these sites are protected.

Protection and management requirements

A comprehensive array of statutes and regulations protect the property, the most important being the *National Parks Act 1980* and the *Conservation Act 1987*. These two pieces of legislation along with the *Reserves Act 1977* are the principal means of ensuring legal protection for the property. The land encompassed by the boundaries of the property, with one small exception, is Crown (Government and the people of New Zealand) owned and it is administered by the Department of Conservation. The property is a reformulation of two previous property inscribed on the World Heritage List in 1986; Fiordland National Park and Westlands / Mt Cook National Park. This property adds 1.2 million ha of the intervening land, almost doubling the size of the area inscribed in 1986 and including almost 70% of the area under national park status, and greatly adding to the overall universal value, wilderness quality and integrity of the property.

The Department of Conservation has a legislative mandate for the preservation and protection of natural and historic resources for the purpose of maintaining their intrinsic values, providing for their appreciation and recreational enjoyment by the public, and safeguarding the options of future generations.

The Department of Conservation is obligated through its legislation to give effect to the principles of the Treaty of Waitangi. In practice this implies a partnership agreement with tangata whenua that have manawhenua (prestige, authority over the land) over the area. This involves an annual business planning process with the Ngäi Tahu iwi (the overarching tribal authority for tangata whenua). This process gives Ngäi Tahu the opportunity to engage in and contribute to the operational management of the property.

The particularly high natural values of the property, along with the World Heritage status, mean that this area is a priority area for ongoing management. The Area covers four separate Conservancies, although they all report to one Manager. The Department's organisational structure therefore also provides for integrated management of the area.

There is no single management strategy for the area, although under the *National Parks Act*, each national park is required to have a national park management plan and there are also a number of conservancy conservation strategies that acknowledge the values of the regions comprising the large site, as well as the property's World Heritage status. Together these planning documents set strategic directions for the integrated management of this property. These are statutory documents formulated through a public consultation process. The national park management plans are prepared by the Department of Conservation (the administering authority for all national parks in NZ) and approved by the New Zealand Conservation Authority, in accordance with the *General Policy for National Parks* (a policy document that guides the implementation of the *National Parks Act*, also prepared and administered by the Department of Conservation).

The principal uses of the property are nature conservation, nature based recreation and tourism and sustainable small-scale natural resource utilisation. Impacts from tourism at key sites and introduced species are being addressed by management actions and continue to be a concern. Traditional use of vegetation by native Maori people, fishing for whitebait, recreational hunting and short-term pastoral leases are closely regulated and do not result in significant impacts.

Invasive species are the biggest impact on the property, despite their impacts being restricted to small areas of the property. Population increases of red deer as well as impacts from other browsing mammals such as wapiti, fallow deer, goat, chamois and tahr have caused severe damage in some parts of the property, in particular threatening the integrity of the forest and alpine ecosystems. Commercial hunting activities have assisted in reducing numbers and impacts from these species. Australian brush-tailed possum, rabbits, mustelids and rodents also impact habitats and indigenous birds. The Department of Conservation has control programmes in place and National Parks general policy seeks to eradicate new incursions and eradicate (where possible) or reduce the range of existing invasive species.

3.2 - Please list the key attributes of Outstanding Universal Value of your property and give an assessment of their condition. As a guideline, it is suggested to focus on approximately five key attributes (no more than 15 overall).

	Brief identification of attribute	Preserved	Compromised	Seriously compromised	Lost
3.2.1	Many classic examples of the tectonic, climatic, and glacial processes that have shaped the earth including the Great Alpine Fault, one of only three segments of the world's major plate boundaries on land, and the Southern Alps/Kä Tiritiri o te Moana a collision between the two tectonic plate, which rise to nearly 4 000m altitude within a mere 30km from the sea.	✖			
3.2.2	Outstanding examples of the impact of the Pleistocene epoch of earth history. Ice-carved landforms especially in Fiordland including glacier-cut fiords, lakes, deep U-shaped valleys, hanging valleys, cirques, and ice-shorn spurs, and depositional landforms especially in Westland including chronological sequences of outwash gravels and moraine ridges in elegant curves and loops.	✖			
3.2.3	The best modern example of the primitive taxa of Gondwanaland seen in modern ecosystems. Living representatives include flightless kiwis, carnivorous land snails, and 14 species of podocarp and genera or beech	✖			
3.2.4	Vast wilderness. Only traces of human influence are evident and then mainly in peripheral areas.	✖			
3.2.5	Spectacular landforms and landscapes world class for their scenic beauty including New Zealand's highest mountains, longest glaciers, tallest forests, wildest rivers and gorges, deepest fiords and lakes, 1000km of wilderness coastline, tussock grasslands, wetlands and the remnant of an extinct volcano in Solander Island.	✖			
3.2.6	Extensive range of New Zealand's unusual (due to long evolutionary isolation and absence of mammalian predators) endemic fauna including entire wild population of the rare and endangered takahë (Notornis mantelli), the entire population of the South Island subspecies of brown kiwi (Apteryx australis), New Zealands rarest Kiwi, the rowi (Apteryx rowi), the only significant remaining populations of the seriously declining mohua / yellowhead (Mohoua ochrocephala), the only large populations remaining of käkä and käkäriki / yellow-crowned parakeet, the only remaining population of pateke / Fiordland brown teal in the South Island. The world's rarest and heaviest parrot, käkäpö (Strigops habroptilus) (…now thought to be extinct on the mainland and its survival depends on careful management of a limited number of offshore island populations…)	✖			
3.2.7	Continuum of largely unmodified habitats outstandingly well represented over an extensive array of landforms and across wide climatic and altitudinal gradients including fresh-water, temperate rainforest (unmatched in their composition by any forests anywhere in the world) and alpine ecosystems	✖			

3.2.8	Notable examples of ongoing biological processes including large expanses of temperate rainforest, the plant succession after glacial retreat, soil/plant chronosequences on beach ridges, plant succession on alluvial terraces, vegetation gradients around the margins of glacial lakes and ecotypic differentiation of plants on ultramafic soils, extensive and little modified freshwater habitats, the impressive diversity of alpine ecosystems and extensive alpine plant endemism	✖			
3.2.9					
3.2.10					
3.2.11					
3.2.12					
3.2.13					
3.2.14					
3.2.15					

3.3 - Comments, conclusions and/or recommendations related to Statement of Outstanding Universal Value

Climate change is threatening parts of the site/is a rising concern: Risk from mammalian predators is rising, likely due to climate change related increases in habitat and mast year frequency/intensity. NZ applies substantial, ongoing funding and innovative management efforts to control pests - due to this effort, residual pest threat is stable. Ice/snow, coastal areas and ecosystems are being impacted by changes in temperature, precipitation, storm frequency and intensity, and sea level rise.

4. Factors Affecting the Property

4.1. Buildings and Development

4.1.1 - Housing

Previous answer Cycle 2 (22/07/2011):

- Not relevant

Relevant	✖ Not relevant

4.1.2 - Commercial development

Previous answer Cycle 2 (22/07/2011):

- Not relevant

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive ✖		✖	✖				↗
Negative ✖		✖	✖				↗

4.1.3 - Industrial areas

Previous answer Cycle 2 (22/07/2011):

- Not relevant

Relevant	✖ Not relevant

4.1.4 - Major visitor accommodation and associated infrastructure

Previous answer Cycle 2 (22/07/2011):

- Relevant, Positive, Negative, Current, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive ✖	✖		✖				↗
Negative ✖		✖	✖				↗

4.1.5 - Interpretative and visitation facilities

Previous answer Cycle 2 (22/07/2011):

- Relevant, Positive, Current, Potential, Inside

✖ Relevant	Not relevant

	Impact	Origin	Trend of impact

Impact	Current	Potential	Inside	Outside	Decreasing	Stable	Increasing
Positive ✖	✖		✖				↗
Negative ✖	✖		✖		↘		

4.1.6 - Please comment as necessary on how the factors selected as relevant in 4.1 are affecting the property either negatively or positively

4.1.2 A company is scoping data for a proposed gondola alongside the Franz Josef Glacier / Kā Roimata o Hine Hukatere. Positive - visitor connection with the glacier without using helicopters. Negative: strong visual affect on the dynamic wild landscape. 4.1.4 Positive: enables visitors to engage over extended time-frame via a managed location. Negative: potential increase as visitor numbers increase. 4.1.5 Plus: education, information. Minus: hardening of sites.

4.2. Transportation Infrastructure

4.2.1 - Ground transport infrastructure

Previous answer Cycle 2 (22/07/2011):

- Relevant, Positive, Negative, Current, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive ✖	✖		✖	✖			↗
Negative ✖	✖		✖	✖		→	

4.2.2 - Underground transport infrastructure

Previous answer Cycle 2 (22/07/2011):

- Relevant, Positive, Negative, Current, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive ✖	✖		✖			→	
Negative							

4.2.3 - Air transport infrastructure

Previous answer Cycle 2 (22/07/2011):

- Relevant, Positive, Negative, Current, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive ✖	✖		✖	✖		→	
Negative ✖	✖		✖	✖		→	

4.2.4 - Marine transport infrastructure

Previous answer Cycle 2 (22/07/2011):

- Relevant, Negative, Current, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive ✖	✖		✖			→	
Negative ✖		✖	✖	✖	↘		

4.2.5 - Effects arising from use of transportation infrastructure

Previous answer Cycle 2 (22/07/2011):

- Relevant, Positive, Negative, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact	Origin	Trend of impact

Impact	Current	Potential	Inside	Outside	Decreasing	Stable	Increasing
Positive ✖	✖		✖	✖		→	
Negative ✖	✖		✖	✖			↗

4.2.6 - Please comment as necessary on how the factors selected as relevant in 4.2 are affecting the property either negatively or positively

4.2.1 Plus: connects people to place in managed way. Minus: hardening of surfaces. 4.2.3 Plus: connects people to place. Minus: landing facilities detracting from wilderness. 4.2.4 Plus: connects people to place.Minus: Potential waste/rubbish risk from marine craft. 4.2.5 Plus: connects people to place. Minus: Visitor experience - congestion,crowds, sound impacts. Safety - congestion roads. Carbon - vehicles, aircraft, marine craft.

4.3. Services Infrastructures

4.3.1 - Water infrastructure

Previous answer Cycle 2 (22/07/2011):

- Relevant, Negative, Current, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive ✖	✖		✖			→	
Negative ✖		✖	✖			→	

4.3.2 - Renewable energy facilities

Previous answer Cycle 2 (22/07/2011):

- Relevant, Negative, Current, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive ✖	✖		✖			→	
Negative ✖	✖		✖			→	

4.3.3 - Non-renewable energy facilities

Previous answer Cycle 2 (22/07/2011):

- Not relevant

Relevant	✖ Not relevant

4.3.4 - Localised utilities

Previous answer Cycle 2 (22/07/2011):

- Relevant, Positive, Negative, Current, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive ✖	✖		✖				↗
Negative ✖		✖	✖			→	

4.3.5 - Major linear utilities

Previous answer Cycle 2 (22/07/2011):

- Relevant, Negative, Current, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive ✖	✖		✖	✖		→	
Negative ✖	✖		✖	✖		→	

4.3.6 - Please comment as necessary on how the factors selected as relevant in 4.3 are affecting the property either negatively or positively

4.3.1 and 4.3.2 Small scale hydro schemes across Westland. Manapouri hydrostation large scale Plus: community/national renewable power. Minus: potential biodiversity impact, scenic impact. 4.3.4 Plus: increase in cellphone infrastructure supporting communities and traveller safety. Minimal impact on biodiversity/scenic values. 4.3.5 Minor scale power lines adjacent to the highway, with any additions a such as fibre either going underground or along the existing powerlines.

4.4. Pollution

4.4.1 - Pollution of marine waters

Previous answer Cycle 2 (22/07/2011):

- Not relevant

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive							
Negative ✖		✖	✖		↘		

4.4.2 - Ground water pollution

Previous answer Cycle 2 (22/07/2011):

- Relevant, Negative, Potential, Outside

Relevant	✖ Not relevant

4.4.3 - Surface water pollution

Previous answer Cycle 2 (22/07/2011):

- Relevant, Negative, Potential, Outside

Relevant	✖ Not relevant

4.4.4 - Air pollution

Previous answer Cycle 2 (22/07/2011):

- Relevant, Negative, Potential, Outside

Relevant	✖ Not relevant

4.4.5 - Solid waste

Previous answer Cycle 2 (22/07/2011):

- Relevant, Negative, Potential, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive							
Negative ✖		✖	✖		↘		

4.4.6 - Input of excess energy

Previous answer Cycle 2 (22/07/2011):

- Relevant, Negative, Potential, Outside

Relevant	✖ Not relevant

4.4.7 - Please comment as necessary on how the factors selected as relevant in 4.4 are affecting the property either negatively or positively

4.4.1 and 4.4.5 Risk increasing as exposure risk for historic landfills increases due to river and coastal erosion, but decreasing due to increased awareness and preemptive mitigation from local government and DOC.

4.5. Biological resource use/modification

4.5.1 - Fishing/collecting aquatic resources

Previous answer Cycle 2 (22/07/2011):

- Relevant, Negative, Current, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive							
Negative ✖	✖		✖	✖		→	

4.5.2 - Aquaculture

Previous answer Cycle 2 (22/07/2011):

- Not relevant

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive							
Negative ✖		✖	✖				↗

4.5.3 - Land conversion

Previous answer Cycle 2 (22/07/2011):

- Relevant, Negative, Current, Potential, Inside

Relevant	✖ Not relevant

4.5.4 - Livestock farming/Grazing of domesticated animals

Previous answer Cycle 2 (22/07/2011):

- Relevant, Negative, Current, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive							
Negative ✖	✖		✖		↘		

4.5.5 - Crop production

Previous answer Cycle 2 (22/07/2011):

- Not relevant

Relevant	✖ Not relevant

4.5.6 - Commercial wild plant collection

Previous answer Cycle 2 (22/07/2011):

- Not relevant

Relevant	✖ Not relevant

4.5.7 - Subsistence wild plant collection

Previous answer Cycle 2 (22/07/2011):

- Relevant, Positive, Negative, Current, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive ✖	✖		✖			→	
Negative							

4.5.8 - Commercial hunting

Previous answer Cycle 2 (22/07/2011):

- Relevant, Positive, Current, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		

Impact	Current	Potential	Inside	Outside	Decreasing	Stable	Increasing
Positive ✖	✖		✖	✖	↘		
Negative ✖	✖		✖	✖		→	

4.5.9 - Subsistence hunting

Previous answer Cycle 2 (22/07/2011):

- Relevant, Positive, Current, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive ✖	✖		✖	✖		→	
Negative ✖	✖		✖	✖		→	

4.5.10 - Forestry/Wood production

Previous answer Cycle 2 (22/07/2011):

- Not relevant

Relevant	✖ Not relevant

4.5.11 - Please comment as necessary on how the factors selected as relevant in 4.5 are affecting the property either negatively or positively

4.5.1 Small scale activity. Anecdotal evidence that whitebait fishing it is having an adverse effect - regulations are currently under review. 4.5.4 Low level of non-intensive beef grazing in river valleys. Due to Freshwater Act legislation, potential to decrease in five years 4.5.8 and .9 Plus: removal of exotic mammals which put pressures on alpine vegetation and understory vegetation. Minus:use of lead shot in ammunition, causing lead toxicity in Kea, which scrounge on carcasses.

4.6. Physical resource extraction

4.6.1 - Mining

Previous answer Cycle 2 (22/07/2011):

- Relevant, Negative, Current, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive							
Negative ✖		✖	✖	✖		→	

4.6.2 - Quarrying

Previous answer Cycle 2 (22/07/2011):

- Relevant, Negative, Current, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive							
Negative ✖		✖	✖				↗

4.6.3 - Oil and gas

Previous answer Cycle 2 (22/07/2011):

- Relevant, Negative, Potential, Inside, Outside

Relevant	✖ Not relevant

4.6.4 - Water (extraction)

Previous answer Cycle 2 (22/07/2011):

- Relevant, Negative, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact	Origin	Trend of impact

Impact	Current	Potential	Inside	Outside	Decreasing	Stable	Increasing
Positive							
Negative ✖		✖	✖			→	

4.6.5 - Please comment as necessary on how the factors selected as relevant in 4.6 are affecting the property either negatively or positively

4.6.1 majority of land classifications in Te Wahipounamu restricts mineral related activity but some land classifications are subject to mineral permit applications under Crown Minerals Act 4.6.2 Small scale. Potential negative impact is increasing due to increased demand. 4.6.4 Potential negative risk increase due to global demand increasing. An existing consent to extract water in South Westland has expired.

4.7. Local conditions affecting physical fabric

4.7.1 - Wind

Previous answer Cycle 2 (22/07/2011):

- Not relevant

Relevant	✖ Not relevant

4.7.2 - Relative humidity

Previous answer Cycle 2 (22/07/2011):

- Not relevant

Relevant	✖ Not relevant

4.7.3 - Temperature

Previous answer Cycle 2 (22/07/2011):

- Not relevant

Relevant	✖ Not relevant

4.7.4 - Radiation/Light

Previous answer Cycle 2 (22/07/2011):

- Not relevant

Relevant	✖ Not relevant

4.7.5 - Dust

Previous answer Cycle 2 (22/07/2011):

- Not relevant

Relevant	✖ Not relevant

4.7.6 - Water (rain/water table)

Previous answer Cycle 2 (22/07/2011):

- Not relevant

Relevant	✖ Not relevant

4.7.7 - Pests

Previous answer Cycle 2 (22/07/2011):

- Relevant, Negative, Current, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	Current	Potential	Inside	Outside	Decreasing	Stable	Increasing
Positive							
Negative ✖	✖		✖	✖			↗

4.7.8 - Micro-organisms

Previous answer Cycle 2 (22/07/2011):

- Relevant, Negative, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	Current	Potential	Inside	Outside	Decreasing	Stable	Increasing

Positive							
Negative ✖		✖		✖			↗

4.7.9 - Please comment as necessary on how the factors selected as relevant in 4.7 are affecting the property either negatively or positively

4.7.6 The site naturally experiences significant, destructive rainfall (storm increases covered in 4.10) 4.7.7 Risk from mammalian predators rising - habitat and mast year increases. Numbers decreasing where substantial management efforts are applied (e.g.1080 use, South Westland predator free work), numbers prolific elsewhere. Browsing animals require ongoing control. 4.7.8 Increase trend due to myrtle rust and increase ship traffic (potential ballast discharge)

4.8. Social/Cultural uses of heritage

4.8.1 - Ritual/Spiritual/Religious and associative uses

Previous answer Cycle 2 (22/07/2011):

- Not relevant

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive ✖	✖		✖	✖		→	
Negative							

4.8.2 - Society's valuing of heritage

Previous answer Cycle 2 (22/07/2011):

- Not relevant

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive ✖	✖		✖	✖			↗
Negative							

4.8.3 - Indigenous hunting, gathering and collecting

Previous answer Cycle 2 (22/07/2011):

- Relevant, Positive, Negative, Current, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive ✖	✖		✖	✖		→	
Negative ✖	✖		✖	✖		→	

4.8.4 - Changes in traditional ways of life and knowledge system

Previous answer Cycle 2 (22/07/2011):

- Relevant, Negative, Current, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive ✖	✖		✖	✖		→	
Negative ✖	✖		✖	✖		→	

4.8.5 - Identity, social cohesion, changes in local population and community

Previous answer Cycle 2 (22/07/2011):

- Relevant, Positive, Negative, Current, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**

Positive ✖	✖		✖	✖		➡	
Negative ✖	✖		✖	✖			↗

4.8.6 - Impacts of tourism/Visitation/Recreation

Previous answer Cycle 2 (22/07/2011):

- Relevant, Positive, Negative, Current, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive ✖	✖		✖	✖		➡	
Negative ✖	✖		✖	✖			↗

4.8.7 - Please comment as necessary on how the factors selected as relevant in 4.8 are affecting the property either negatively or positively

.1 Nohoanga site at Okarito .2 Political cycle shows increased support for human heritage protection.Minister of Conservation has cultural heritage as a top priority. .3 Limits on traditional activity is contentious. .4 Plus: Govt conservation work is focused on better meeting principles of the Treaty of Waitangi. Minus: Matauranga Maori not well integrated into NZ conservation. .5 /6 Plus: Economic benefit to isolated communities. Minus: Pressure from visitor numbers in some places .

4.9. Other human activities

4.9.1 - Illegal activities

Previous answer Cycle 2 (22/07/2011):

- Relevant, Negative, Current, Potential, Inside, Outside

Relevant	✖ Not relevant

4.9.2 - Deliberate destruction of heritage

Previous answer Cycle 2 (22/07/2011):

- Not relevant

Relevant	✖ Not relevant

4.9.3 - Military training

Previous answer Cycle 2 (22/07/2011):

- Not relevant

Relevant	✖ Not relevant

4.9.4 - War

Previous answer Cycle 2 (22/07/2011):

- Not relevant

Relevant	✖ Not relevant

4.9.5 - Terrorism

Previous answer Cycle 2 (22/07/2011):

- Not relevant

Relevant	✖ Not relevant

4.9.6 - Civil unrest

Previous answer Cycle 2 (22/07/2011):

- Not relevant

Relevant	✖ Not relevant

4.9.7 - Please comment as necessary on how the factors selected as relevant in 4.9 are affecting the property either negatively or positively

Nothing to add

4.10. Climate change and severe weather events

4.10.1 - Storms

Previous answer Cycle 2 (22/07/2011):

- Relevant, Positive, Negative, Current, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive							
Negative ✖	✖		✖	✖			↗

4.10.2 - Flooding

Previous answer Cycle 2 (22/07/2011):

- Relevant, Positive, Negative, Current, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive							
Negative ✖	✖		✖	✖			↗

4.10.3 - Drought

Previous answer Cycle 2 (22/07/2011):

- Relevant, Negative, Current, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive							
Negative ✖	✖		✖	✖			↗

4.10.4 - Desertification

Previous answer Cycle 2 (22/07/2011):

- Not relevant

Relevant	✖ Not relevant

4.10.5 - Changes to oceanic waters

Previous answer Cycle 2 (22/07/2011):

- Not relevant

Relevant	✖ Not relevant

4.10.6 - Temperature change

Previous answer Cycle 2 (22/07/2011):

- Relevant, Negative, Current, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive							
Negative ✖	✖		✖	✖			↗

4.10.7 - Other climate change impacts

Previous answer Cycle 2 (22/07/2011):

- Not relevant

Relevant	✖ Not relevant

4.10.8 - Please comment as necessary on how the factors selected as relevant in 4.10 are affecting the property either negatively or positively

4.10.1, 2 and 6. Increase in frequency/intensity across site, and sea level rise likely contributing to coastal flooding,increase erosion/aggregation and damage to forest and coastal areas,glacier and snow melt. Community/visitor infrastructure impacted. Visitor experiences diminished. Plus = increased proactive and integrated spatial planning. 4.10.6 Increased predator habitat range. Population spikes due to increased number/scale of 'mast' seeding years.

4.11. Sudden ecological or geological events

4.11.1 - Volcanic eruption

Previous answer Cycle 2 (22/07/2011):

- Not relevant

Relevant	✖ Not relevant

4.11.2 - Earthquake

Previous answer Cycle 2 (22/07/2011):

- Relevant, Positive, Negative, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive							
Negative ✖		✖	✖	✖			↗

4.11.3 - Tsunami/Tidal wave

Previous answer Cycle 2 (22/07/2011):

- Relevant, Negative, Potential, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive							
Negative ✖		✖	✖	✖		→	

4.11.4 - Avalanche/Landslide

Previous answer Cycle 2 (22/07/2011):

- Relevant, Positive, Negative, Potential, Inside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive							
Negative ✖	✖		✖				↗

4.11.5 - Erosion and siltation/Deposition

Previous answer Cycle 2 (22/07/2011):

- Relevant, Positive, Negative, Current, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive							
Negative ✖	✖		✖	✖			↗

4.11.6 - Fire (wildfire)

Previous answer Cycle 2 (22/07/2011):

- Relevant, Negative, Current, Potential, Inside, Outside

Relevant	✖ Not relevant

4.11.7 - Please comment as necessary on how the factors selected as relevant in 4.11 are affecting the property either negatively or positively

4.11.2 Southern Alpine Fault-line has a 27% chance of a magnitude 8 plus event in next 50 years 4.11.3 Offshore - low risk. Inside site risk due to Alpine Fault EQ. 4.11.4 and 5 Increasing due to climate change related snowline/glacier retreats and storm events

4.12. Invasive/alien species or hyper-abundant species

4.12.1 - Translocated species

Previous answer Cycle 2 (22/07/2011):

- Relevant, Negative, Current, Potential, Outside

Relevant	✖ Not relevant

4.12.2 - Invasive/Alien terrestrial species

Previous answer Cycle 2 (22/07/2011):

- Relevant, Negative, Current, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive							
Negative ✖	✖		✖	✖			↗

4.12.3 - Invasive/Alien freshwater species

Previous answer Cycle 2 (22/07/2011):

- Relevant, Negative, Current, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive							
Negative ✖	✖		✖	✖		→	

4.12.4 - Invasive/Alien marine species

Previous answer Cycle 2 (22/07/2011):

- Not relevant

Relevant	✖ Not relevant

4.12.5 - Hyper-abundant species

Previous answer Cycle 2 (22/07/2011):

- Not relevant

Relevant	✖ Not relevant

4.12.6 - Modified genetic material

Previous answer Cycle 2 (22/07/2011):

- Not relevant

Relevant	✖ Not relevant

4.12.7 - Please comment as necessary on how the factors selected as relevant in 4.12 are affecting the property either negatively or positively

4.12.2 Examples include predator pests, alpine ungulates, wasps, and gorse in river valleys. Stable or decreasing where intensive management occurs. Risk of predator pests increasing in areas without active management due to climate change related risk = beech mast frequency, habitat change in sub alpine areas etc. 4.12.3 aquatic weeds and coarse fish pests. Climate change related factors underpin most of the increasing impacts across the site.

4.13. Management and institutional factors

4.13.1 - Management system/Management plan

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	**Current**	**Potential**	**Inside**	**Outside**	**Decreasing**	**Stable**	**Increasing**
Positive ✖	✖		✖	✖		→	
Negative							

4.13.2 - Legal framework

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		

Impact	Current	Potential	Inside	Outside	Decreasing	Stable	Increasing
Positive ✖	✖		✖	✖		→	
Negative							

4.13.3 - Governance

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	Current	Potential	Inside	Outside	Decreasing	Stable	Increasing
Positive ✖	✖		✖	✖		→	
Negative							

4.13.4 - Management activities

Previous answer Cycle 2 (22/07/2011):

- Relevant, Positive, Negative, Current, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	Current	Potential	Inside	Outside	Decreasing	Stable	Increasing
Positive ✖	✖		✖	✖		→	
Negative							

4.13.5 - Financial resources

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	Current	Potential	Inside	Outside	Decreasing	Stable	Increasing
Positive ✖	✖		✖	✖		→	
Negative							

4.13.6 - Human resources

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	Current	Potential	Inside	Outside	Decreasing	Stable	Increasing
Positive ✖	✖		✖	✖		→	
Negative							

4.13.7 - Low impact research/monitoring activities

Previous answer Cycle 2 (22/07/2011):

- Relevant, Positive, Current, Potential, Inside, Outside

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	Current	Potential	Inside	Outside	Decreasing	Stable	Increasing
Positive ✖	✖		✖	✖		→	
Negative							

4.13.8 - High impact research/monitoring activities

Previous answer Cycle 2 (22/07/2011):

- Not relevant

✖ Relevant	Not relevant

	Impact		Origin		Trend of impact		
Impact	Current	Potential	Inside	Outside	Decreasing	Stable	Increasing

Positive ✖	✖		✖			→	
Negative							

4.13.9 - Please comment as necessary on how the factors selected as relevant in 4.13 are affecting the property either negatively or positively

13.1 National law requires management plans. Minus: Some are outdated and under review, one is not yet in the review process. Site is being actively managed - will be easier once plans better reflect current conditions. 13.2 Treaty of Waitangi, national laws, local by-laws, property-specific agreements,compliance with cultural heritage conventions and charters 13.5/6 Unlimited funds/human resource not possible. 13.8 The management system only allows high impact if overall outcome is good.

4.14. Other factor(s)

4.14.1 - Other factor(s)

4.15. Factors Summary Table

4.15.1 - Factors Summary Table

Name	Impact			Origin		Trend
4.1 Buildings and Development						
4.1.2 Commercial development						↗
						↗
4.1.4 Major visitor accommodation and associated infrastructure						↗
						↗
4.1.5 Interpretative and visitation facilities						↗
						↘
4.2 Transportation Infrastructure						
4.2.1 Ground transport infrastructure						↗
						→
4.2.2 Underground transport infrastructure						→
4.2.3 Air transport infrastructure						→
						→
4.2.4 Marine transport infrastructure						→
						↘
4.2.5 Effects arising from use of transportation infrastructure						→
						↗
4.3 Services Infrastructures						
4.3.1 Water infrastructure						→
						→
4.3.2 Renewable energy facilities						→
						→
4.3.4 Localised utilities						↗
						→
4.3.5 Major linear utilities						→
						→
4.4 Pollution						
4.4.1 Pollution of marine waters						
						↘
4.4.5 Solid waste						

4.5 Biological resource use/modification						
4.5.1 Fishing/collecting aquatic resources						
4.5.2 Aquaculture						
4.5.4 Livestock farming/Grazing of domesticated animals						
4.5.7 Subsistence wild plant collection						
4.5.8 Commercial hunting						
4.5.9 Subsistence hunting						
4.6 Physical resource extraction						
4.6.1 Mining						
4.6.2 Quarrying						
4.6.4 Water (extraction)						
4.7 Local conditions affecting physical fabric						
4.7.7 Pests						
4.7.8 Micro-organisms						
4.8 Social/Cultural uses of heritage						
4.8.1 Ritual/Spiritual/Religious and associative uses						
4.8.2 Society's valuing of heritage						
4.8.3 Indigenous hunting, gathering and collecting						
4.8.4 Changes in traditional ways of life and knowledge system						
4.8.5 Identity, social cohesion, changes in local population and community						
4.8.6 Impacts of tourism/Visitation/Recreation						
4.10 Climate change and severe weather events						
4.10.1 Storms						

4.10.2 Flooding	Negative	Current		Inside	Outside	↗
4.10.3 Drought	Negative	Current		Inside	Outside	↗
4.10.6 Temperature change	Negative	Current		Inside	Outside	↗
4.11 Sudden ecological or geological events						
4.11.2 Earthquake	Negative		Potential	Inside	Outside	↗
4.11.3 Tsunami/Tidal wave	Negative		Potential	Inside	Outside	→
4.11.4 Avalanche/Landslide	Negative	Current		Inside		↗
4.11.5 Erosion and siltation/Deposition	Negative	Current		Inside	Outside	↗
4.12 Invasive/alien species or hyper-abundant species						
4.12.2 Invasive/Alien terrestrial species	Negative	Current		Inside	Outside	↗
4.12.3 Invasive/Alien freshwater species	Negative	Current		Inside	Outside	→
4.13 Management and institutional factors						
4.13.1 Management system/Management plan	Positive	Current		Inside	Outside	→
4.13.2 Legal framework	Positive	Current		Inside	Outside	→
4.13.3 Governance	Positive	Current		Inside	Outside	→
4.13.4 Management activities	Positive	Current		Inside	Outside	→
4.13.5 Financial resources	Positive	Current		Inside	Outside	→
4.13.6 Human resources	Positive	Current		Inside	Outside	→
4.13.7 Low impact research/monitoring activities	Positive	Current		Inside	Outside	→
4.13.8 High impact research/monitoring activities	Positive	Current		Inside		→

Legend	Current	Potential	Negative	Positive	Inside	Outside

4.16. Assessment of current and potential positive and negative factors

4.16.1 - Assessment of current and potential negative and positive factors

4.1 Buildings and Development

Name	Impact			Origin		Trend
4.1.2 Commercial development						

Spatial scale - Area affected by the factor	
✖	Restricted
	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
Impact - Impact on the attributes	
✖	Insignificant
	Minor
	Significant
	Major
Management response - Capacity of management to respond	
✖	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
	Static
✖	Increasing

Name	Impact			Origin		Trend
4.1.4 Major visitor accommodation and associated infrastructure						

Spatial scale - Area affected by the factor	
✖	Restricted
	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
Impact - Impact on the attributes	

✖	Insignificant
	Minor
	Significant
	Major
Management response - Capacity of management to respond	
	High capacity
✖	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
	Static
✖	Increasing

Name	Impact			Origin		Trend
4.1.5 Interpretative and visitation facilities						↗
						↘

Spatial scale - Area affected by the factor	
✖	Restricted
	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
Impact - Impact on the attributes	
✖	Insignificant
	Minor
	Significant
	Major
Management response - Capacity of management to respond	
✖	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
✖	Static
	Increasing

4.2 Transportation Infrastructure

Name	Impact			Origin		Trend
4.2.1 Ground transport infrastructure						

	Spatial scale - Area affected by the factor
✖	Restricted
	Localised
	Extensive
	Widespread
	Temporal scale - Occurence of the impact
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
	Impact - Impact on the attributes
✖	Insignificant
	Minor
	Significant
	Major
	Management response - Capacity of management to respond
✖	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
	Trend - Developement over the last 6 years
	Decreasing
	Static
✖	Increasing

Name	Impact			Origin		Trend
4.2.2 Underground transport infrastructure						

	Spatial scale - Area affected by the factor
✖	Restricted
	Localised
	Extensive
	Widespread
	Temporal scale - Occurence of the impact
	One off or rare
	Intermittent or sporadic

	Frequent
✖	On-going
Impact - Impact on the attributes	
✖	Insignificant
	Minor
	Significant
	Major
Management response - Capacity of management to respond	
✖	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
✖	Static
	Increasing

Name	Impact			Origin		Trend
4.2.3 Air transport infrastructure						→
						→

Spatial scale - Area affected by the factor	
✖	Restricted
	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
Impact - Impact on the attributes	
✖	Insignificant
	Minor
	Significant
	Major
Management response - Capacity of management to respond	
✖	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing

✖	Static
	Increasing

Name	Impact			Origin		Trend
4.2.4 Marine transport infrastructure						

Spatial scale - Area affected by the factor	
✖	Restricted
	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
Impact - Impact on the attributes	
✖	Insignificant
	Minor
	Significant
	Major
Management response - Capacity of management to respond	
✖	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
✖	Static
	Increasing

Name	Impact			Origin		Trend
4.2.5 Effects arising from use of transportation infrastructure						

Spatial scale - Area affected by the factor	
	Restricted
✖	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic

	Frequent
✖	On-going
Impact - Impact on the attributes	
	Insignificant
✖	Minor
	Significant
	Major
Management response - Capacity of management to respond	
	High capacity
✖	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
	Static
✖	Increasing

4.3 Services Infrastructures

Name	Impact			Origin		Trend
4.3.1 Water infrastructure						→
						→

Spatial scale - Area affected by the factor	
✖	Restricted
	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
Impact - Impact on the attributes	
✖	Insignificant
	Minor
	Significant
	Major
Management response - Capacity of management to respond	
	High capacity
✖	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	

	Decreasing
✖	Static
	Increasing

Name	Impact			Origin		Trend
4.3.2 Renewable energy facilities						

Spatial scale - Area affected by the factor	
✖	Restricted
	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
Impact - Impact on the attributes	
	Insignificant
✖	Minor
	Significant
	Major
Management response - Capacity of management to respond	
✖	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
✖	Static
	Increasing

Name	Impact			Origin		Trend
4.3.4 Localised utilities						

Spatial scale - Area affected by the factor	
✖	Restricted
	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	
	One off or rare

	Intermittent or sporadic
	Frequent
✖	On-going
Impact - Impact on the attributes	
✖	Insignificant
	Minor
	Significant
	Major
Management response - Capacity of management to respond	
	High capacity
✖	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
	Static
✖	Increasing

Name	Impact			Origin		Trend
4.3.5 Major linear utilities						
						

Spatial scale - Area affected by the factor	
✖	Restricted
	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
Impact - Impact on the attributes	
✖	Insignificant
	Minor
	Significant
	Major
Management response - Capacity of management to respond	
✖	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	

	Decreasing
	Static
✖	Increasing

4.4 Pollution

Name	Impact			Origin		Trend
4.4.1 Pollution of marine waters						
	⛔		👎	◎		↘

Spatial scale - Area affected by the factor	
✖	Restricted
	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	
✖	One off or rare
	Intermittent or sporadic
	Frequent
	On-going
Impact - Impact on the attributes	
	Insignificant
	Minor
✖	Significant
	Major
Management response - Capacity of management to respond	
✖	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
✖	Static
	Increasing

Name	Impact			Origin		Trend
4.4.5 Solid waste						
	⛔		👎	◎		↘

Spatial scale - Area affected by the factor	
✖	Restricted
	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	

	One off or rare
✖	Intermittent or sporadic
	Frequent
	On-going
Impact - Impact on the attributes	
	Insignificant
	Minor
✖	Significant
	Major
Management response - Capacity of management to respond	
✖	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
	Static
✖	Increasing

4.5 Biological resource use/modification

Name	Impact			Origin		Trend
4.5.1 Fishing/collecting aquatic resources						

Spatial scale - Area affected by the factor	
✖	Restricted
	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
✖	Intermittent or sporadic
	Frequent
	On-going
Impact - Impact on the attributes	
	Insignificant
✖	Minor
	Significant
	Major
Management response - Capacity of management to respond	
✖	High capacity
	Medium capacity
	Low capacity

	No capacity and / or resources

Trend - Developement over the last 6 years	
	Decreasing
✖	Static
	Increasing

Name	Impact			Origin		Trend
4.5.2 Aquaculture						
						

Spatial scale - Area affected by the factor	
✖	Restricted
	Localised
	Extensive
	Widespread

Temporal scale - Occurence of the impact	
✖	One off or rare
	Intermittent or sporadic
	Frequent
	On-going

Impact - Impact on the attributes	
✖	Insignificant
	Minor
	Significant
	Major

Management response - Capacity of management to respond	
✖	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources

Trend - Developement over the last 6 years	
	Decreasing
✖	Static
	Increasing

Name	Impact			Origin		Trend
4.5.4 Livestock farming/Grazing of domesticated animals						
						

Spatial scale - Area affected by the factor	
✖	Restricted
	Localised
	Extensive
	Widespread

Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going

Impact - Impact on the attributes	
	Insignificant
✖	Minor
	Significant
	Major

Management response - Capacity of management to respond	
✖	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources

Trend - Developement over the last 6 years	
✖	Decreasing
	Static
	Increasing

Name	Impact			Origin		Trend
4.5.7 Subsistence wild plant collection						

Spatial scale - Area affected by the factor	
✖	Restricted
	Localised
	Extensive
	Widespread

Temporal scale - Occurence of the impact	
	One off or rare
✖	Intermittent or sporadic
	Frequent
	On-going

Impact - Impact on the attributes	
✖	Insignificant
	Minor
	Significant
	Major

Management response - Capacity of management to respond	
✖	High capacity
	Medium capacity
	Low capacity

	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
✖	Static
	Increasing

Name	Impact			Origin		Trend
4.5.8 Commercial hunting						

Spatial scale - Area affected by the factor	
	Restricted
✖	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
Impact - Impact on the attributes	
	Insignificant
	Minor
✖	Significant
	Major
Management response - Capacity of management to respond	
✖	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
✖	Static
	Increasing

Name	Impact			Origin		Trend
4.5.9 Subsistence hunting						

Spatial scale - Area affected by the factor	
✖	Restricted
	Localised
	Extensive
	Widespread

Temporal scale - Occurence of the impact	
	One off or rare
✖	Intermittent or sporadic
	Frequent
	On-going
Impact - Impact on the attributes	
✖	Insignificant
	Minor
	Significant
	Major
Management response - Capacity of management to respond	
✖	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
✖	Static
	Increasing

4.6 Physical resource extraction

Name	Impact			Origin		Trend
4.6.1 Mining						
	⛔					➡

Spatial scale - Area affected by the factor	
✖	Restricted
	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	
✖	One off or rare
	Intermittent or sporadic
	Frequent
	On-going
Impact - Impact on the attributes	
✖	Insignificant
	Minor
	Significant
	Major
Management response - Capacity of management to respond	
✖	High capacity
	Medium capacity

	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
✖	Static
	Increasing

Name	Impact			Origin		Trend
4.6.2 Quarrying						
	⛔		👎	◎		↗

Spatial scale - Area affected by the factor	
✖	Restricted
	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
✖	Intermittent or sporadic
	Frequent
	On-going
Impact - Impact on the attributes	
	Insignificant
✖	Minor
	Significant
	Major
Management response - Capacity of management to respond	
✖	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
	Static
✖	Increasing

Name	Impact			Origin		Trend
4.6.4 Water (extraction)						
	⛔		👎	◎		→

Spatial scale - Area affected by the factor	
✖	Restricted
	Localised
	Extensive

	Widespread
Temporal scale - Occurence of the impact	
✖	One off or rare
	Intermittent or sporadic
	Frequent
	On-going
Impact - Impact on the attributes	
	Insignificant
	Minor
✖	Significant
	Major
Management response - Capacity of management to respond	
✖	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
	Static
✖	Increasing

4.7 Local conditions affecting physical fabric

Name	Impact			Origin		Trend
4.7.7 Pests						
	⊖					↗

Spatial scale - Area affected by the factor	
	Restricted
	Localised
	Extensive
✖	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
Impact - Impact on the attributes	
	Insignificant
	Minor
	Significant
✖	Major
Management response - Capacity of management to respond	
	High capacity

✖	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
	Static
✖	Increasing

Name	Impact			Origin		Trend
4.7.8 Micro-organisms						
	⛔		👎		↩	↗

Spatial scale - Area affected by the factor	
	Restricted
✖	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
Impact - Impact on the attributes	
	Insignificant
✖	Minor
	Significant
	Major
Management response - Capacity of management to respond	
	High capacity
✖	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
	Static
✖	Increasing

4.8 Social/Cultural uses of heritage

Name	Impact			Origin		Trend
4.8.1 Ritual/Spiritual/Religious and associative uses	⊕	👎		⊙	↩	→

Spatial scale - Area affected by the factor	
	Restricted

	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
	On-going
Impact - Impact on the attributes	
	Insignificant
	Minor
	Significant
	Major
Management response - Capacity of management to respond	
	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
	Static
	Increasing

Name	Impact			Origin		Trend
4.8.2 Society's valuing of heritage						

Spatial scale - Area affected by the factor	
	Restricted
	Localised
	Extensive
✖	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
Impact - Impact on the attributes	
	Insignificant
	Minor
	Significant
✖	Major
Management response - Capacity of management to respond	

✖	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
	Static
✖	Increasing

Name	Impact			Origin		Trend
4.8.3 Indigenous hunting, gathering and collecting						→
						→

Spatial scale - Area affected by the factor	
✖	Restricted
	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
✖	Intermittent or sporadic
	Frequent
	On-going
Impact - Impact on the attributes	
✖	Insignificant
	Minor
	Significant
	Major
Management response - Capacity of management to respond	
✖	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
✖	Static
	Increasing

Name	Impact			Origin		Trend
4.8.4 Changes in traditional ways of life and knowledge system						→
						→

Spatial scale - Area affected by the factor	
	Restricted

	Localised
	Extensive
✖	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
Impact - Impact on the attributes	
	Insignificant
✖	Minor
	Significant
	Major
Management response - Capacity of management to respond	
✖	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
	Static
✖	Increasing

Name	Impact			Origin		Trend
4.8.5 Identity, social cohesion, changes in local population and community						

Spatial scale - Area affected by the factor	
	Restricted
✖	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
Impact - Impact on the attributes	
	Insignificant
✖	Minor
	Significant
	Major
Management response - Capacity of management to respond	

	High capacity
✖	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
✖	Static
	Increasing

Name	Impact			Origin		Trend
4.8.6 Impacts of tourism/Visitation/Recreation						

Spatial scale - Area affected by the factor	
	Restricted
✖	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
Impact - Impact on the attributes	
	Insignificant
✖	Minor
	Significant
	Major
Management response - Capacity of management to respond	
✖	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
	Static
✖	Increasing

4.10 Climate change and severe weather events

Name	Impact			Origin		Trend
4.10.1 Storms						

Spatial scale - Area affected by the factor

	Restricted
	Localised
✖	Extensive
	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
Impact - Impact on the attributes	
	Insignificant
	Minor
✖	Significant
	Major
Management response - Capacity of management to respond	
	High capacity
	Medium capacity
✖	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
	Static
✖	Increasing

Name	Impact			Origin		Trend
4.10.2 Flooding						
						

Spatial scale - Area affected by the factor	
	Restricted
	Localised
✖	Extensive
	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
Impact - Impact on the attributes	
	Insignificant
	Minor
✖	Significant
	Major

Management response - Capacity of management to respond	
	High capacity
	Medium capacity
✖	Low capacity
	No capacity and / or resources

Trend - Developement over the last 6 years	
	Decreasing
	Static
✖	Increasing

Name	Impact			Origin		Trend
4.10.3 Drought						
	⛔	👎		⊙	↩	↗

Spatial scale - Area affected by the factor	
✖	Restricted
	Localised
	Extensive
	Widespread

Temporal scale - Occurence of the impact	
✖	One off or rare
	Intermittent or sporadic
	Frequent
	On-going

Impact - Impact on the attributes	
	Insignificant
✖	Minor
	Significant
	Major

Management response - Capacity of management to respond	
	High capacity
	Medium capacity
✖	Low capacity
	No capacity and / or resources

Trend - Developement over the last 6 years	
	Decreasing
	Static
✖	Increasing

Name	Impact			Origin		Trend
4.10.6 Temperature change						
	⛔	👎		⊙	↩	↗

Spatial scale - Area affected by the factor

	Restricted
	Localised
	Extensive
✖	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
Impact - Impact on the attributes	
	Insignificant
	Minor
✖	Significant
	Major
Management response - Capacity of management to respond	
	High capacity
	Medium capacity
	Low capacity
✖	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
	Static
✖	Increasing

4.11 Sudden ecological or geological events

Name	Impact			Origin		Trend
4.11.2 Earthquake						

Spatial scale - Area affected by the factor	
	Restricted
	Localised
	Extensive
✖	Widespread
Temporal scale - Occurence of the impact	
✖	One off or rare
	Intermittent or sporadic
	Frequent
	On-going
Impact - Impact on the attributes	
	Insignificant
	Minor
	Significant

✖	Major
Management response - Capacity of management to respond	
	High capacity
✖	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
	Static
✖	Increasing

Name	Impact			Origin		Trend
4.11.3 Tsunami/Tidal wave						
	⛔					➡

Spatial scale - Area affected by the factor	
✖	Restricted
	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	
✖	One off or rare
	Intermittent or sporadic
	Frequent
	On-going
Impact - Impact on the attributes	
	Insignificant
✖	Minor
	Significant
	Major
Management response - Capacity of management to respond	
	High capacity
✖	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
✖	Static
	Increasing

Name	Impact			Origin		Trend
4.11.4 Avalanche/Landslide						
	⛔					↗

Spatial scale - Area affected by the factor	
	Restricted
✖	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
✖	Frequent
	On-going
Impact - Impact on the attributes	
	Insignificant
	Minor
✖	Significant
	Major
Management response - Capacity of management to respond	
	High capacity
	Medium capacity
✖	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
	Static
✖	Increasing

Name	Impact			Origin		Trend
4.11.5 Erosion and siltation/Deposition						
	⛔	👎		⊙	↻	↗

Spatial scale - Area affected by the factor	
	Restricted
✖	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
✖	Frequent
	On-going
Impact - Impact on the attributes	
	Insignificant
	Minor
✖	Significant

	Major
Management response - Capacity of management to respond	
	High capacity
	Medium capacity
✖	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
	Static
✖	Increasing

4.12 Invasive/alien species or hyper-abundant species

Name	Impact			Origin		Trend
4.12.2 Invasive/Alien terrestrial species						
						

Spatial scale - Area affected by the factor	
	Restricted
	Localised
	Extensive
✖	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
Impact - Impact on the attributes	
	Insignificant
	Minor
	Significant
✖	Major
Management response - Capacity of management to respond	
	High capacity
	Medium capacity
✖	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
	Static
✖	Increasing

Name	Impact			Origin		Trend
4.12.3 Invasive/Alien freshwater species						

Spatial scale - Area affected by the factor	
	Restricted
✖	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
Impact - Impact on the attributes	
	Insignificant
✖	Minor
	Significant
	Major
Management response - Capacity of management to respond	
	High capacity
	Medium capacity
	Low capacity
✖	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
	Static
✖	Increasing

4.13 Management and institutional factors

Name	Impact			Origin		Trend
4.13.1 Management system/Management plan						

Spatial scale - Area affected by the factor	
	Restricted
	Localised
	Extensive
✖	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
Impact - Impact on the attributes	

	Insignificant
	Minor
	Significant
✖	Major
Management response - Capacity of management to respond	
✖	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
✖	Static
	Increasing

Name	Impact			Origin		Trend
4.13.2 Legal framework						

Spatial scale - Area affected by the factor	
	Restricted
	Localised
	Extensive
✖	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
Impact - Impact on the attributes	
	Insignificant
	Minor
	Significant
✖	Major
Management response - Capacity of management to respond	
✖	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
✖	Static
	Increasing

Name	Impact	Origin	Trend

4.13.3 Governance						

	Spatial scale - Area affected by the factor
	Restricted
	Localised
	Extensive
✖	Widespread
	Temporal scale - Occurence of the impact
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
	Impact - Impact on the attributes
	Insignificant
	Minor
	Significant
✖	Major
	Management response - Capacity of management to respond
✖	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
	Trend - Developement over the last 6 years
	Decreasing
✖	Static
	Increasing

Name	Impact			Origin		Trend
4.13.4 Management activities						

	Spatial scale - Area affected by the factor
	Restricted
	Localised
	Extensive
✖	Widespread
	Temporal scale - Occurence of the impact
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
	Impact - Impact on the attributes
	Insignificant

	Minor
	Significant
✖	Major
Management response - Capacity of management to respond	
✖	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
✖	Static
	Increasing

Name	Impact			Origin		Trend
4.13.5 Financial resources						→

Spatial scale - Area affected by the factor	
	Restricted
	Localised
	Extensive
✖	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
Impact - Impact on the attributes	
	Insignificant
	Minor
	Significant
✖	Major
Management response - Capacity of management to respond	
	High capacity
✖	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
✖	Static
	Increasing

Name	Impact			Origin		Trend
4.13.6 Human resources						→

Spatial scale - Area affected by the factor	
	Restricted
	Localised
	Extensive
✖	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
Impact - Impact on the attributes	
	Insignificant
	Minor
✖	Significant
	Major
Management response - Capacity of management to respond	
	High capacity
✖	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
✖	Static
	Increasing

Name	Impact			Origin		Trend
4.13.7 Low impact research/monitoring activities						→

Spatial scale - Area affected by the factor	
	Restricted
✖	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
Impact - Impact on the attributes	
	Insignificant
	Minor

	Significant
✖	Major
Management response - Capacity of management to respond	
	High capacity
✖	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
✖	Static
	Increasing

Name	Impact			Origin		Trend
4.13.8 High impact research/monitoring activities						

Spatial scale - Area affected by the factor	
✖	Restricted
	Localised
	Extensive
	Widespread
Temporal scale - Occurence of the impact	
	One off or rare
	Intermittent or sporadic
	Frequent
✖	On-going
Impact - Impact on the attributes	
	Insignificant
✖	Minor
	Significant
	Major
Management response - Capacity of management to respond	
✖	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Developement over the last 6 years	
	Decreasing
✖	Static
	Increasing

4.17. Serial inscriptions (national or transnational)

4.17.1 - If your property is a serial inscription (national or transnational) please identify which components of the property are impacted by each factor

Not relevant

4.18. Prediction of the state of conservation at next cycle of Periodic Reporting.

4.18.1 - Please predict what the state of conservation of each attribute will be approximately 6 years from now (at the time of the next cycle of Periodic Reporting)

	Attribute	Preserved	Compromised	Seriously compromised	Lost
4.18.1.1	Spectacular landforms and landscapes world class for their scenic beauty including New Zealand's highest mountains, longest glaciers, tallest forests, wildest rivers and gorges, deepest fiords and lakes, 1000km of wilderness coastline, tussock grasslands, wetlands and the remnant of an extinct volcano in Solander Island. Note the compromised element is snow and glaciers likely due to climate change.		✖		
4.18.1.2	All other attributes	✖			
4.18.1.3		✖			
4.18.1.4		✖			
4.18.1.5		✖			

5. Protection and Management of the Property

5.1. Boundaries and Buffer Zones

5.1.1 - Are the boundaries of the World Heritage property adequate to maintain the property's Outstanding Universal Value?

The boundaries are **adequate to maintain** the property's Outstanding Universal Value

5.1.2 - Are the boundaries of the World Heritage property known and recognised?

The boundaries **are known by both** the management authority and local communities/landowners

5.1.3 - Are the buffer zone(s) of the World Heritage property adequate to maintain the property's Outstanding Universal Value?

The property has **no buffer zone** and **does not need one**

5.1.4 - Are the boundaries of the buffer zones known and recognised?

The property has **no known and recognised** buffer zone

5.1.5 - Comments, conclusions and/or recommendations related to boundaries and buffer zones of the World Heritage property

5.1.4.1 'Not known' because the site does not have official WHA recognised buffer zones. It is however, largely surrounded by conservation land protected under New Zealand's conservation law.

5.2. Protective Measures

5.2.1 - Protective designation (legal, regulatory, contractual, planning, institutional and/or traditional).

The site is protected under the Conservation Act 1987, the National Parks Act 1980 and the Reserves Act 1977. The Conservation Act establishes the Department of Conservation, the New Zealand Conservation Authority and the conservation boards, and sets out processes for managing conservation areas. The National Parks Act establishes principles for national parks. The Reserves Act establishes the purposes of reserves and management principles for them. In combination, this legislation provides a very high level of protection and management integration.

Source: Periodic Reporting Cycle 2

5.2.2 - Please list any legislation and other measures (regulatory -including spatial planning- contractual, institutional or traditional) not included in 5.2.1 and indicate the category

1991 / Resource Management Act /
https://legislation.govt.nz/act/public/1991/0069/latest/DLM230265.html 2013 /

Environment Southland Regional Coastal Plan /
https://www.es.govt.nz/about-us/plans-and-strategies/regional-plans/coastal-plan 2000 / West Coast Regional Coastal Plan /

5.2.3 - Is the legal framework (i.e. legislation and/or regulation including spatial planning) adequate for maintaining the Outstanding Universal Value including conditions of Integrity and/or Authenticity of the property?

The **legal framework** for maintaining of the Outstanding Universal Value including conditions of Authenticity and/or Integrity of the World Heritage property provides an **adequate basis for effective management and protection**

5.2.4 - Is the legal framework (i.e. legislation and/or regulation) adequate in the buffer zone for maintaining the Outstanding Universal Value including conditions of Integrity and/or Authenticity of the property?

The property has **no buffer zone**

5.2.5 - Is the legal framework (i.e. legislation and/or regulation) in the broader setting of the World Heritage property adequate for

maintaining the Outstanding Universal Value including conditions of Integrity and/or Authenticity of the property?

The **legal framework** for the broader setting of the World Heritage property provides an **adequate basis for** effective management and protection of the property, contributing to the maintenance of its Outstanding Universal Value including conditions of Authenticity and/or Integrity

5.2.6 - Can the legal framework (i.e. legislation and/or regulation) be enforced?

There is **adequate capacity/resources** to enforce legislation and/or regulation in the World Heritage property

5.2.7 - Please provide a short summary of how the legislation, including spatial planning and other regulation, works in practice

Public conservation lands must be managed in accordance with the legislation under which they are held. The Conservation Act is the most relevant legislation. It requires that it shall be interpreted and administered as to give effect to the principles of the Treaty of Waitangi. The Minister of Conservation is responsible for the administration of the Conservation Act. https://www.legislation.govt.nz/act/public/1987/0065/latest/link.aspx?id=DLM435834#DLM435834 See the Outlook Assessment Report.

5.2.8 - Comments, conclusions and/or recommendations about the information related to the measures taken to protect the World Heritage property

A more comprehensive commentary on the governance and management system can be found in the IUCN 2020 Conservation Outlook Assessment report. The site is not managed as a single entity but under a set of interlocking and overlapping plans. This is complex but it works. Protection is underpinned by a strong legal framework and active participation, formally and informally, across society.

5.3. Management System/Management Plan

5.3.1 - Please check the box which most closely match the character of the governance and management system of the property

Public management system at national level

If 'Other', please specify

5.3.2 - Management System: Please indicate which of the various management tools listed below are used to help protect the property.

A statutory Management Plan or zoning plan for the property.
Other forms of statutory or non-statutory plans (e.g. strategic plans)
Governance mechanisms that foster and respect traditional practices, knowledge and uses of the property
A code of practice developed by industry
A management plan
An annual work plan or business plan
A disaster, climate or conflict risk management plan
A visitor/visitation management plan
An environmental management framework
A joint approach to management of cultural and natural heritage

5.3.3 - Please give a brief description of the management system currently in place at your property

The management system is predominantly driven by the legislation system referenced in question 5.2.7 A more comprehensive commentary can be found in the IUCN 2020 Conservation Outlook Assessment report. The site is not managed as a single entity but under a set of interlocking and overlapping plans. This is complex but it works. Protection is underpinned by a strong legal framework and active participation, formally and informally, across society. 5.3.2.4 is true but needs more work ref 5.3.19

5.3.4 - Management Documents

Comment

Links were emailed through on 1 April

5.3.5 - Has any use been made of the 2011 Recommendation on the Historic Urban Landscape in developing policies and best practices for the protection of this property?

The 2011 Recommendation on the Historic Urban Landscape is **not relevant** to this property

5.3.6 - If the Historic Urban Landscape Recommendation has been used at this property, please describe briefly what has been done.

Not relevant

5.3.7 - Has any use been made of the Policy Document on the Impacts of Climate Change on World Heritage Properties at the property?

Some use has been made of the World Heritage Policy for Climate Change

5.3.8 - If the Climate Change policy has been used, please briefly describe what has been done along with any research on the impacts of Climate Change on the property:

New Zealand's national climate change policies apply. DOC has a 5 year plan to increase resilience of wildlife and wild places to impacts of climate change. This includes a science plan. https://www.doc.govt.nz/our-work/climate-change-and-conservation/adapting-to-climate-change/

5.3.9 - Has any use been made of the Strategy for Reducing Risks from Disasters at World Heritage Properties at the property ?

No use has been made of the Strategy for Reducing Risks from Disasters at World Heritage Properties

5.3.10 - If the Strategy for Reducing Risks from Disasters at World Heritage Properties has been used, please briefly describe what has

been done
Not relevant

5.3.11 - Rate the coordination between the various levels of administration (i.e. national/federal; regional/provincial/state; local/municipal etc.) involved in the management of the World Heritage property
There is **adequate coordination** between all bodies/levels involved in the management of the property

5.3.12 - Is the management system/plan adequate to maintain the property's Outstanding Universal Value?
The management system/plan is **fully adequate** to maintain the property's Outstanding Universal Value

5.3.13 - Is the management system being implemented?
The management system is being **fully implemented and monitored**

5.3.14 - Is there an annual work/action plan and is it being implemented?
An annual work/action plan **exists and all of its activities are being implemented and monitored**

5.3.15 - Does the management system include formal mechanisms and procedures that ensure participation and contribution of the following groups, living within or near the World Heritage property and/or buffer zone in management decisions that maintain the Outstanding Universal Value of the property?

		Not applicable	No mechanisms for participation	Some participation	Direct participation	Transformative participation in all relevant decision processes
5.3.15.1	Local communities				×	
5.3.15.2	Local authorities			×		
5.3.15.3	Landowners in the property and the buffer zone				×	
5.3.15.4	Indigenous peoples				×	
5.3.15.5	Women	×				
5.3.15.6	Other specific groups				×	
	If you selected, 'Other specific groups' please specify	Regional Conservation Boards, NZ Conservation Authority				

5.3.16 - Please rate the cooperation/relationship between the World Heritage property managers/coordinators/staff and the following groups

		Not applicable	Non-existent	Poor	Fair	Good
5.3.16.1	Local communities					×
5.3.16.2	Local/Municipal authorities					×
5.3.16.3	Indigenous peoples				×	
5.3.16.4	Landowners					×
5.3.16.5	Women	×				
5.3.16.6	Youth/Children	×				
5.3.16.7	Researchers					×
5.3.16.8	Local Visitors/Tourists					×
5.3.16.9	National/International tourists					×
5.3.16.10	Tourism Industry					×
5.3.16.11	Local businesses and industries					×
5.3.16.12	NGOs					×
5.3.16.13	Other specific groups	×				
	If you selected 'Other specific groups', please specify					

5.3.17 - Please rate the extent to which the management system of your property contributes towards achieving the objectives of the World Heritage Committee's Policy for the Integration of a Sustainable Development Perspective into the Processes of the *World Heritage Convention*

		Not applicable	No contribution	Limited	Significant	Full achievement
5.3.17.1	The management system of the property contributes to gender equality					×

5.3.17.2	The management system of the property provides ecosystem services/benefits to the local community (e.g. fresh air, water, food, medicinal plants)					✖
5.3.17.3	The management system of the property contributes to social inclusion and equity, improving opportunities for all, irrespective of age, sex, disability, ethnicity, origin, religion or economic or other status					✖
5.3.17.4	The management system of the property integrates a human rights-based approach					✖
5.3.17.5	The management system of the property contributes to fostering inclusive local economic development, and to enhancing livelihood					✖
5.3.17.6	The management system of the property contributes to conflict prevention, including respect for cultural diversity within and around the World Heritage property				✖	

5.3.18 - Please provide further details on the ratings of the management system given in the table above

NZ is governed by Human Rights Legislation https://www.legislation.govt.nz/act/public/1993/0082/latest/DLM304212.html and by the Treaty of Waitangi https://www.legislation.govt.nz/act/public/1987/0065/latest/link.aspx?id=DLM435834#DLM435834 These underpin all aspects of governance and management of the WHA site. 5.3.17.6. Rated as significant not full achievement. Govt is refocusing how it applies the Treaty of Waitangi in its conservation work to improve best practice in that regard.

5.3.19 - Comments, conclusions and/or recommendations related to the management system/plan

5.3.14 Annual planning provides prioritisation at a national and regional level. Business planning and reporting targets monitoring at DOC's national ecosystem/species conservation outcomes. 5.3.16.3/17.6 A recent Supreme Court ruling from a case brought by Ngai Tai ki Tāmaki has refocused DOC in how it applies the principles of the Treaty of Waitangi to deliver the Conservation Act. In response, and aligned with wider Govt direction, DOC is undertaking work to improve best practice.

6. Financial and Human Resources

6.1. Funding

6.1.1 - If your funding sources do not exactly fit those shown, put the relevant amounts against the funding type that most closely represents your situation, and use the comment box below to provide more details.

		Project costs	Running costs
6.1.1.1	Multilateral funding (GEF, World Bank, etc.)	0 %	0 %
6.1.1.2	Bilateral international funding	0 %	0 %
6.1.1.3	World Heritage Fund (International Assistance)	0 %	0 %
6.1.1.4	Contribution from other conventions and programmes	0 %	0 %
6.1.1.5	International donations (NGOs, foundations, etc.)	0 %	0 %
6.1.1.6	Governmental (national/federal)	0 %	80 %
6.1.1.7	Governmental (regional/provincial/state)	0 %	0 %
6.1.1.8	Governmental (local/municipal)	0 %	0 %
6.1.1.9	In-country donations (NGOs, foundations, etc.)	0 %	0 %
6.1.1.10	Individual visitor charges (e.g. entry, toilets, parking, camping fees, etc.)	0 %	5 %
6.1.1.11	Commercial activities (e.g. merchandising and catering, filming permit, concessions, etc.)	0 %	15 %
6.1.1.12	Other	0 %	0 %
		Total 0 %	Total 100 %

6.1.2 - Please comment here on any other aspects of funding sources not covered in the table above

Not applicable

6.1.3 - Is the current budget sufficient to manage the World Heritage property effectively?

The available **budget is adequate** for effective management of the World Heritage property

6.1.4 - Are the existing sources of funding secure and likely to remain so?

The existing sources of funding are **secure over both the medium- and long-term**

6.1.5 - Comments, conclusion, and/or recommendations related to finance and infrastructure

The COVID 19 pandemic has undermined funding from commercial activities and visitor related charges. The NZ Government is well aware of this and is monitoring the situation - it is temporary and we do not expect it to have a meaningful impact on conservation work. 6.1.1 funding proportions are approximates across the 3 sources (government, visitor charges, commercial) because government funding for conservation is at a national rather than site specific level.

6.1.6 - Estimate the distribution of men and women involved in the management, conservation, interpretation of the World Heritage properties and the extent to which they are drawn from local communities.

		From local communities %	From elsewhere %
6.1.6.1	Men	50 %	0 %

6.1.6.2	Women	50 %	0 %
		Total 100 %	Total 0 %

6.1.7 - Are available human resources adequate to manage the World Heritage property?

Human resources are **adequate** for management needs

6.1.8 - Considering the management needs of the World Heritage property, please rate the availability of professionals in the following disciplines

Conservation	Good
Environmental sustainability	Poor
Community participation and inclusion	Fair
Risk preparedness	Fair
Capacity development and education	Fair
Administration	Good
Research and monitoring	Good
Awareness raising and public information/communication	Fair
Marketing and promotion	Fair
Interpretation	Fair
Visitor management/tourism	Good
Enforcement (custodians, police)	Good

6.1.9 - Please rate the availability of training opportunities for the management of the World Heritage property in the following disciplines

Conservation	Good
Environmental sustainability	Good
Community participation and inclusion	Good
Risk preparedness	Good
Capacity development and education	Good
Administration	Good
Research and monitoring	Good
Awareness raising and public information/communication	Good
Marketing and promotion	Good
Interpretation	Good
Visitor management/tourism	Good
Enforcement (custodians, police)	Poor

6.1.10 - Has any use been made of the World Heritage Strategy for Capacity Building at the property?

No use has been made of the World Heritage Strategy for Capacity Building

6.1.11 - If the World Heritage Strategy for Capacity Building has been used, please briefly describe what has been done.

Not applicable

6.1.12 - Are there site-specific capacity building plans or programmes that develop local expertise and that contribute to the transfer of skills for the conservation and management of the World Heritage property?

A site-based capacity building plan or programme is in place and fully implemented**; all technical skills are being transferred** to those managing the property locally

6.1.13 - Comments, conclusions and/or recommendations related to human resources, expertise and training

6.1.12 We do not manage the property as a site, rather as several national parks and other conservation land governed by conservation management strategies - this means we do not have a site based capacity plan. To reflect this we have answered this question from the perspective of DOC's approach to capacity building as a whole.

7. Scientific Studies and Research Projects

7.1 - Is there adequate knowledge (scientific or traditional) about the values and attributes of the World Heritage property to support

planning, management and decision-making to ensure that Outstanding Universal Value is maintained?

Knowledge about the values and attributes of the World Heritage property is **adequate**

7.2 - Is there a planned programme of research at the property which is directed towards management needs and/or improving understanding of Outstanding Universal Value?

There is a **comprehensive, integrated programme** of research, which is relevant to management needs and/or improving understanding of Outstanding Universal Value

7.3 - Are results from research programmes publicly available and disseminated?

Research results **are shared** widely **with active outreach** to local communities and national and international audiences

7.4 - Comments, conclusions and/or recommendations related to scientific studies and research projects

DOC has an extensive program of research and collaboration with national science agencies. Programs do not cover the WHA site explicitly but do cover issues and attributes that affect the OUV's. Research is done to meet national conservation priorities such as threatened species, threat/pest control, climate change and visitor carrying capacity. Govt research is online https://www.doc.govt.nz/about-us/science-publications/series/doc-research-and-development-series/. Active outreach is ad hoc.

8. Education, Information and Awareness Building

8.1 - Please rate the awareness and understanding of the existence and justification for inscription of the World Heritage property amongst the following groups

Local communities	Fair
Local/municipal authorities	Fair
Indigenous peoples	Fair
Landowners	Fair
Women	Fair
Youth/children	Fair
Researchers	Good
Local visitors	Fair
National/international tourists	Good
Tourism industry	Good
Local businesses and industries	Good
NGOs	Good
Other specific groups	Not applicable
If you selected 'Other specific groups', please describe	

8.2 - Does the property have a heritage education programme(s) for children and/or youth, that can contribute to a better understanding of heritage, promote diversity and foster intercultural dialogue?

There is **a planned and effective education and awareness programme** for children and youth that contributes to the protection of the World Heritage property

8.3 - Who are the target audiences for education and awareness programmes at your property?

Local communities
Local/municipal authorities
Indigenous peoples
Landowners
Local Visitors
National/international tourists
Tourism industry
Local businesses and industries

8.4 - Please rate the adequacy of the following visitor facilities and services at the World Heritage property for education, information, interpretation and awareness building

Visitor centre	Good
Site museum	Not needed
Information booths	Not needed
Guided tours	Fair

Trails/routes	Good
Printed information materials	Not provided but needed
Online (website, social media, etc.)	Good
Transportation facilities	Poor
Other	Not needed
If 'Other' is selected, please specify	

8.5 - Comments, conclusions and/or recommendations related to education, information and awareness building

8.2 and 8.3 The DOC website has information and there are extensive educational resources in the visitor centres across the site. There are targeted youth education programmes in some places. 8.3 Awareness of conservation lands is increased through statutory processes with parties such as Iwi, local businesses, local government, landowners etc. 8.4 Some facilities/services are provided by Govt, others by business.

9. Visitor Management

9.1 - Please provide estimated annual visitor numbers (including national and international visitors) since the last Periodic Report

869,000 / 883,000 / 838,000 / 762,000 /

233,000 / 279,000 / 252,000 / 220,000 / 190,000 /

331,979 / 554,676 / 781,046 / 733,375 / 654,319 /

97,688 / 115,815 / 94,697 / 71,373 / 4475 /

9.2 - What information sources are used to collect visitor statistics?

Entry tickets and registries

Accommodation establishments

Transportation services

Tourism industry

Visitor surveys

Other

National Park road and track counters, booking systems at DOC campsites/huts.

9.3 - What is the average length stay of a visitor to the World Heritage property?

Two overnight stays

9.4 - Please provide the source of information

9.3 answer is an estimate as data is not collected for the site as a whole. Many visitors are self drive and may spend several days over their holiday in the site. Primary data sources: https://www.stats.govt.nz/information-releases/accommodation-survey-september-2019 Track counters- internal DOC system - Track counter https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=8186333&dDocName=DOCDM-1056932 DOC visitor centre information

9.5 - What is the approximate average daily visitor expenditure? (Please provide an estimated monetary figure in USD)

9.6 - Please provide the source of information

We do not have this information for the site. This data is available for some townships but we can not provide anything indicative across the site as it is highly dependant on what services are available in a particular place.

9.7 - Does the management system/plan for the World Heritage property include a strategy with an action plan to manage visitors, tourism activity and its derived economic, socio-cultural and environmental impacts?

There is a planned and **effective strategy** to manage visitors, tourism activity and its derived impacts on the World Heritage property

9.8 - Please provide any comments relating to the answer provided above in question 9.7

The site is managed via several conservation management strategies and national park plans. Some of these plans are due for review.

9.9 - Is visitor use effectively managed to maintain the Outstanding Universal Value of the property?

Visitor use of the World Heritage property is managed but **improvements could be made**

9.10 - Is the effectiveness of tourism management regularly monitored?

Yes, using a different system

If a different system, please specify

DOC management plan and permissions monitoring and visitor surveys

9.11 - How does the tourism industry cooperate with the site management to improve visitor experiences and maintain the Outstanding Universal Value of the World Heritage property?

There is **good cooperation** between those responsible for the World Heritage property and the tourism industry **to present the Outstanding Universal Value and increase appreciation**

9.12 - How well is the information on the Outstanding Universal Value of the property presented and interpreted?

The presentation and interpretation of the Outstanding Universal Value of the property **is acceptable but improvements could be made**

9.13 - At how many locations is the World Heritage emblem displayed at the property?

In **many locations**, but **not easily visible** to visitors

9.14 - How does visitor/tourism revenue (e.g. entry charges, permits) contribute to the management of the World Heritage property?

Fees are collected, and make **some contribution** to the management of the World Heritage property

9.15 - Are there locally driven sustainable tourism initiatives?

Yes

If 'Yes', please specify

Destination management strategies are being developed in several districts across the site. Many tourism businesses have signed up to the Industry's Sustainability Commitment. Operators are involved in a range of conservation activities, including a crowd-sourced initiative to remove gorse (invasive species) from Okarito Lagoon, managing pest control on islands in Fiordland and directly enabling DOC

9.16 - Are the benefits of tourism shared with local communities?

Yes

If 'Yes', please specify

9.17 - Comments, conclusions and/or recommendations related to visitation/tourism/public use of the World Heritage property

Visitor use of the site is generally well managed and is critical to the economy of local communities. Pre COVID, 1.8 million international visitors/year visited NZ's 13 national parks. The two most visited parks are within the site - Aoraki/Mt Cook and Fiordland. Visitor numbers threaten natural quiet in some places (e.g Milford Sound, Fox and Franz Glaciers), revised management plans and collaborative spatial planning initiatives will look to address this problem.

10. Monitoring

10.1 - Is there a monitoring programme at the property directed towards management needs and/or towards improving the understanding of the Outstanding Universal Value?

There is a **comprehensive, integrated programme of monitoring**, which is relevant to management needs and/or improving understanding of the Outstanding Universal Value

10.2 - Is necessary information available in order to define key indicators for measuring the state of conservation and are they used in monitoring how the Outstanding Universal Value of the property is being maintained?

Information on the values of the World Heritage property is **adequate and key indicators have been defined** for measuring the state of conservation and **are being used in monitoring** of how the Outstanding Universal value of the property is being maintained

10.3 - Are key indicators defined and in place for the following principal aspects of the property?

	Extend of indicators	Not applicable	No indicators	Indicators have been defined but are not yet in use	Indicators are in place and in use since the last Periodic Reporting cycle
10.3.1	State of conservation				✖
10.3.2	Effectiveness of the management system				✖
10.3.3	Character of governance				✖
10.3.4	Appropriate synergy with other conservation designations	✖			
10.3.5	Contribution to sustainable development	✖			
10.3.6	Capacity development	✖			

10.4 - Please provide information on relevant key indicators adopted at the property

Conservation indicators (from the Tier 1 Monitoring programme) include vegetation, birds and pests. Tools include tracking tunnels, acoustic recordings, aerial surveys, and longitudinal site observations across approx 350 plots. Effectiveness of management and governance is monitored via statutory requirements which include public engagement.

10.5 - Please rate the level of involvement in monitoring of the following groups:

World Heritage managers/coordinators and staff	Good
Local/municipal authorities	Good
Local communities	Fair
Indigenous peoples	Fair
Landowners	Fair
Women	Not applicable
Researchers	Good

Tourism industry	Fair
Local businesses and industry	Fair
NGOs	Fair
Other specific groups	Not applicable
If you selected 'Other specific groups', please specify	

10.6 - Has the State Party implemented relevant recommendations arising from the World Heritage Committee?

No relevant Committee recommendations to implement

10.7 - Please provide comments relevant to the implementation of recommendations from the World Heritage Committee.

No relevant recommendations to implement

10.8 - Comments, conclusions and/or recommendations related to Monitoring

There is an integrated plan and considerable biodiversity monitoring across the site. This is called Tier 1 Monitoring and is driven by national conservation priorities so is not site specific. The monitoring of climate change related impacts on OUV's is less comprehensive. Effectiveness of management and governance is monitored via statutory requirements which include public engagement.

11. Identification of Priority Management Needs

11.1 - Identification of Priority Management Needs

5.1	**Boundaries and Buffer Zones**	
5.1.3	The property has **no buffer zone**	
5.1.4	The property has **no known and recognised buffer zone**	✖
5.2	**Protective Measures**	
5.2.4	The property has **no buffer zone**	✖
5.3	**Management System/Management Plan**	
5.3.7	**Some use** has been made of the Policy Document on the Impacts of Climate Change on World Heritage Properties at the property	✖
5.3.9	**No use** has been made of the Strategy for Reducing Risks from Disasters at World Heritage Properties at the property	✖
6.1	**Funding**	
6.1.10	**No use** has been made of the World Heritage Strategy for Capacity Development at the World Heritage property	✖
9	**Visitor Management**	
9.9	Visitor use of the World Heritage property is managed but **improvements could be made**	
9.12	The presentation and interpretation of the Outstanding Universal Value of the property **is acceptable but improvements could be made**	✖

Please select 2 more issues.

Please save this question to reflect changes

12. Summary and Conclusions

12.1. Summary - Factors affecting the Property

12.1.1 - Summary - Factors affecting the Property

4.7	**Local conditions affecting physical fabric**						
4.7.7	Pests	Criteria viii, x Attribute 3, 6	Extensive and ongoing predator control work including ground breaking landscape scale initiatives (see section 14) and browsing animal control plans	Conservation indicators include vegetation, birds and pests. Tools include tracking tunnels, acoustic recordings, aerial surveys, and longitudinal site observations across approx 350 plots. Programme specific monitoring Mast year seed monitoring	Five year time frame for the predator free south westland initiative, otherwise ongoing pest work.	Department of Conservation lead agency. Others inlcude local government, iwi, philanthropists, non-government organisations, businesses, science and research organisations, communities, landowners and individuals, hunters.	Risk from mammalian predators increasing - temperature change = increased habitat and frequency/intensity of mast years. Sustained/substantial management effort/funding required. Browsing animals ongoing management. Landscape scale work underway.
4.8	**Social/Cultural uses of heritage**						

4.8.4	Changes in traditional ways of life and knowledge system							

4.10	**Climate change and severe weather events**

4.10.1	Storms	Criteria viii, ix Attributes 2, 5	Remedial actions to maintain infrastructure and access to the site and communities that live there. Proactive planning including increased integrated spatial planning. Proactive maintenance of shorelines/river channels. National climate change work	Ongoing monitoring of coastal erosion, flood impacts and important habitats Ongoing monitoring of infrastructure suitability	Ongoing	Central and local government - which central government agency depends on the nature of the affect e.g. roads, bridges versus important habitat damage	Increase in frequency/intensity storms plus sea level rise contributing to coastal flooding,increased erosion/aggregation, damage to forest/coastal areas, glacier/snow melt. Community and visitor infrastructure heavily impacted.

4.10.2	Flooding	Same answer as 4.10.1	Same answer as 4.10.1	Same answer as 4.10.1	Same answer as 4.10.1	Same answer as 4.10.1	Same answer as 4.10.1

4.10.6	Temperature change	Criteria vii, viii, ix, x Attribute 3, 6, 8 (alpine ecosystems) Attribute 2, 5 - snow/ice	Extensive predator control work including ground breaking landscape scale initiatives (see section 14) Management plan reviews look for sustainable snow/ice experiences that align with values of the place National climate emergency initiatives	Conservation indicators include vegetation, birds and pests. Tools include tracking tunnels, acoustic recordings, aerial surveys, and longitudinal site observations across approx 350 plots. Programme specific monitoring Mast year seed monitoring	Five year time frame for the predator free south westland initiative, otherwise ongoing pest work Visitor opportunities via 10 yearly reviews of management plans	Department of Conservation lead agency. Others inlcude local government, iwi, philanthropists, non-government organisations, businesses, science and research organisations, communities, landowners and individuals	Increased predator habitat range. Population spikes due to increased number/scale of 'mast' seeding years. Decreased accessible snow/ice - decreased associated visitor opportunities National/global climate change initiatives critical to support

4.11	**Sudden ecological or geological events**

4.11.2	Earthquake	All	Largely focused on protecting human life. National Emergency Management Agency response framework. Project AF8 - civil defence detailed planning for coordinated response.	New Zealand continually and closely monitors its earthquake risk.	Ongoing	Central government - National Emergency Management Agency, the Earthquake Commission and Civil Defence Emergency Management Groups. Local government	The site experiences low-frequency high magnitude earthquakes. The risk of a magnitude 8 event (or higher) along the alpine fault is 75% before 2068. This would severally impact communities and conservation values across the site.

4.11.4	Avalanche/Landslide						
4.11.5	Erosion and siltation/Deposition						

4.12	**Invasive/alien species or hyper-abundant species**

4.12.2	Invasive/Alien terrestrial species	Refer to answers for 4.7.7 - pests	Refer to answers for 4.7.7 - pests	Refer to answers for 4.7.7 - pests	Refer to answers for 4.7.7 - pests	Refer to answers for 4.7.7 - pests	Refer to answers for 4.7.7 - pests

4.12.3	Invasive/Alien freshwater species						

Question not completed

12.2. Summary - Management Needs

12.2.1 - Summary - Management Needs

5.1	**Boundaries and Buffer Zones**

	Actions	**Timeframe**	**Lead agency (and others involved)**	**More info / comment**

5.1.4	The property has **no known and recognised buffer zone**	See answer to 5.1.3	See answer to 5.1.3	See answer to 5.1.3	See answer to 5.1.3

5.2	**Protective Measures**

5.2.4	The property has **no buffer zone**	See answer to 5.1.3	See answer to 5.1.3	See answer to 5.1.3	See answer to 5.1.3

5.3	**Management System/Management Plan**

5.3.7	**Some use** has been made of the Policy Document on the Impacts of Climate Change on World Heritage Properties at the property	The Department of Conservation has a climate change adaptation action plan https://www.doc.govt.nz/globalassets/documents/our-work/climate-change/climate-change-adaptation-action-plan.pdf.	Ongoing	Department of Conservation	The underlying principles of World Heritage Policies are enshrined in national policies and strategies which inform how NZ manages the site, including the climate action plan noted in the 'actions' for this point.
5.3.9	**No use** has been made of the Strategy for Reducing Risks from Disasters at World Heritage Properties at the property	See answer for 4.11 - sudden geological events	ongoing	See answer for 4.11 - sudden geological events	See answer for 4.11 - sudden geological events

6.1	**Funding**

6.1.10	**No use** has been made of the World Heritage Strategy for Capacity Development at the World Heritage property	Maintain focus on funding and capacity development across the site	Ongoing	Department of Conservation (DOC) and New Zealand Treasury.	The underlying principles of World Heritage Policies are enshrined in national policies and strategies which inform how NZ manages the site, including capacity development and funding. DOC has a focus on working with others to leverage funding.

9	**Visitor Management**

9.12	The presentation and interpretation of the Outstanding Universal Value of the property **is acceptable but improvements could be made**	Continual upgrades of information on DOC's website and in suitable places throughout the site.	Ongoing	Department of Conservation	The site covers a huge area and interpretive information will not always be easily available. The profile of the WHA status of the site could be improved via signage at 'gateway' points.

Summary - Management Needs completed

12.3. Conclusions on the State of Conservation of the Property

12.3.1 - Following the analysis undertaken for this report, what is the current state of Authenticity of the World Heritage property?

Not applicable (sites inscribed exclusively under criteria vii to x (natural World Heritage properties)

12.3.2 - Following the analysis undertaken for this report, what is the current state of Integrity of the World Heritage property?

The Integrity of the World Heritage property is **intact**

12.3.3 - Following the analysis undertaken for this report, what is the current state of the World Heritage property's Outstanding Universal Value?

The World Heritage property's Outstanding Universal Value has been **maintained**.

12.3.4 - What is the current state of the property's other values?

Other important cultural and/or natural values and the state of conservation of the World Heritage property are **intact**

12.3.5 - Comments. conclusions and/or recommendations related to the state of conservation of the property.

Climate change is threatening parts of the site/is a rising concern: Risk from mammalian predators is rising, likely due to climate change related increases in habitat and mast year frequency/intensity. NZ applies substantial, ongoing funding and innovative management efforts to control pests - due to this effort, residual pest threat is stable. Ice/snow, coastal areas and ecosystems are being impacted by changes in temperature, precipitation, storm frequency and intensity, and sea level rise.

13. Impact of World Heritage Status

13.1 - Please rate the impacts of World Heritage status of the property in relation to the following areas

Conservation	Positive
Research and monitoring	No impact
Management effectiveness	Positive
Quality of life for local communities and indigenous peoples	Positive
Recognition	Positive
Education	No impact
Infrastructure development	Positive
Funding for the property	No impact
International cooperation	No impact
Political support for conservation	Positive
Legal/Policy framework	Positive
Advocacy	Positive
Institutional coordination	Positive
Security	Not applicable
Gender equality	Not applicable
Provision of ecosystem services/ benefits to local communities	Positive
Social inclusion and equity, and improvement of opportunities for all, irrespective of age, sex, disability, ethnicity, origin, religion, or economic or other status	Not applicable
Fostering inclusive local economic development and enhancing livelihood	Positive
Contributing to conflict prevention, including respect for cultural diversity within and around heritage properties	Not applicable
Other	Not applicable
If 'Other', please specify	

13.2 - Comments, conclusions and/or recommendations related to World Heritage status and its impacts

Nothing to add

14. Good Practice in the Implementation of the World Heritage Convention

14.1 - Example of good practice in World Heritage protection, identification, conservation or management at the property level

NZ has launched a national effort to completely remove rats, stoats and possums from NZ by 2050. It is called Predator Free 2050 https://predatorfreenz.org/ This aspirational vision focuses on the complete removal of rats, stoats, and possums. Though other introduced predators also have an impact on our native flora and fauna, these three have been identified as the most damaging introduced mammalian predators to our natural taonga (treasures). Predator Free 2050 brings together central and local government, iwi, philanthropists, non-government organisations, businesses, science and research organisations, communities, landowners and individuals. Achieving this ambitious goal will be a team effort by everyone. Within the word heritage site, a ground breaking project has been undertaken as part of Predator Free 2050. Building on NZ's experience in creating predator free islands, an organisation called Zero Invasive Predators (ZIP) has successfully removed the three predator species from approximately 12,000 hectares in the Perth River Valley. It uses a model called 'remove and protect' where the predators are eliminated with toxins such as 1080 (sodium fluoroacetate) and traps, and the land is then defended with innovative detection devices and traps, and barriers such as fast flowing mountain rivers - no longer needing the large scale application of toxins. This landscape scale predator eradication has never before been achieved on mainland New Zealand. This work has been expanded to a 'predator free south westland' initiative encompassing the neighbouring 100,000 hectares of land between Whataroa and Waiai (Waiho) rivers. https://predatorfreesouthwestland.nz/

14.2 - Define which topics are covered by this example of best practice at the property level

State of Conservation
Management
Capacity Building

15. Assessment of the Periodic Reporting Exercise

15.1. Relevance of Periodic Reporting

15.1.1 - Has the Periodic Reporting process improved the understanding of the following?

The concept of Outstanding Universal Value
The concept of Integrity and/or Authenticity

15.1.2 - Please rate the follow-up to conclusions and recommendations from previous Periodic Reporting exercise by the following entities

State Party	Not needed
Site Managers	Not needed
UNESCO World Heritage Centre	Not needed
Advisory Bodies (ICOMOS, IUCN, ICCROM)	Not needed

15.2. Use of Data

15.2.1 - How do the authorities in charge of the property plan to use the data recorded from this cycle of Periodic Reporting?

Revision of priorities/strategies/policies for the protection, management and conservation of heritage
Update of management plans
Awareness raising
Advocacy

15.2.2 - Comments on use of data from the Cycle of Periodic Reporting

Data was compiled from existing information. The information is primarily utilised in it's original form rather than as compiled for this report, and therefore is already used to support all the functions listed in 15.2. This is because the site is managed as part of New Zealand's conservation land rather than as a site in and of itself.

15.3. Timing and resources

15.3.1 - Entities involved in the filling out of this online questionnaire (tick as many boxes as applicable)

Governmental institutions responsible for cultural and natural heritage
Site Manager/Coordinator World Heritage property staff
Conservation Boards

15.3.2 - Has a gender balanced contribution and participation been considered in the filling out of this questionnaire?

Gender balance has **not been explicitly** considered or implemented in the process.

15.3.3 - Were you given adequate time (i.e. roughly ten months) to gather necessary information and to fill in this questionnaire?

Yes

15.3.4 - Please estimate the time (working hours) needed to complete this questionnaire

336 / 336 /

15.3.5 - Did you mobilise any additional resources to fill out this questionnaire?

	Additional resources	No	Yes
15.3.5.1	Human resources	✖	
15.3.5.2	Financial resources for organizing consultation meetings/ training	✖	

15.4. Format and content of the Periodic Report

15.4.1 - How accessible was the information required to complete this questionnaire?

Most required information was accessible.

15.4.2 - Was the questionnaire easy to use and clear to understand?

		Very Difficult	Difficult	Easy	Very easy
15.4.2.1	Ease of use of questionnaire			✖	
15.4.2.2	Clarity of questions			✖	

15.4.3 - Please provide suggestions for improvement of the Periodic Reporting questionnaire

Less duplication of questions More options to answer 'other' and correspondingly more room for text Not forcing a certain number of ticks for issues to be addressed - most of the things we commented on as 'not doing' are not being done because they are not a priority in the management of this site. 5.3.1 – could only tick one box?

15.5. Training and Guidance

15.5.1 - Please rate the level of support in terms of training and guidance from the following entities in completing this questionnaire

UNESCO World Heritage Centre	Good
UNESCO (other sectors/field offices)	Not applicable
UNESCO National Commission	Not applicable
ICOMOS International	Not applicable
IUCN International	Not applicable
ICCROM international/regional	Not applicable
ICOMOS national/regional	Not applicable
IUCN national/regional	Not applicable

15.5.2 - Please rate the level of support for completing the Periodic Reporting questionnaire from the following entities

UNESCO World Heritage Centre	Good
State Party Representative (national Focal Point)	Not applicable
UNESCO other sectors (e.g. field office)	Not applicable
National Commission for UNESCO	Not applicable
ICOMOS International	Not applicable
ICCROM International/regional	Not applicable
ICOMOS national/regional	Not applicable
IUCN national/regional	Not applicable
IUCN International	Not applicable

15.5.3 - Were the online training resources prepared by the World Heritage Centre regarding Periodic Reporting adequate for you to complete this questionnaire?

Yes

15.5.4 - If you found that the online training resources were not adequate, what changes would you like to see implemented?

Nothing to add here

15.6. Actions that will require formal consideration by the World Heritage Committee

15.6.1 - Summary of actions that will require formal consideration by the World Heritage Committee

- **Map(s)**
  Reason for update: a new map emailed through on 31 March

Changes to these items will need to go through the proper processes.

15.7. Comments, conclusions and/or recommendations related to the Assessment of the Periodic Reporting Exercise

15.7.1 - Comments, conclusions and/or recommendations related to the Assessment of the Periodic Reporting Exercise

Nothing to add

15.7.2 - Thank you for having filled in all the questions. Please contact your National Focal Point for validation.