Kluane / Wrangell-St. Elias / Glacier Bay / Tatshenshini-Alsek

1. World Heritage Property Data

1.1 - Name of World Heritage property

Kluane / Wrangell-St. Elias / Glacier Bay / Tatshenshini-Alsek

1.2 - World Heritage property details

1.3 - Geographic information table

Name	Coordinates	Property (ha)	Buffer zone (ha)	Total (ha)	Inscription year
Kluane / Wrangell-St. Elias / Glacier Bay / Tatshenshini-Alsek	61.198 / -140.992	9839121	0	9839121	1979
Total (ha)		**9839121**	**0**	**9839121**	

1.4 - Map(s)

Title	Date	Link to source
Kluane / Wrangell-St Elias / Glacier Bay / Tatshenshini-Alsek - Map of the inscribed property	1994	
Kluane / Wrangell-St. Elias / Glacier Bay / Tatshenshini-Alsek - Map of the inscribed property	2014	

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

1. World Heritage in Canada (Parks Canada)
2. World Heritage in the United States
3. Natural site datasheet from WCMC
4. Tatshenshini-Alsek Park
5. Wrangell-St. Elias National Park and Preserve
6. Glacier Bay National Park and Preserve
7. Kluane National Park and Reserve of Canada

Comment

Current URL for World Heritage in the US: https://www.nps.gov/subjects/internationalcooperation/worldheritage.htm Current URL for World Heritage in Canada: https://parks.canada.ca/culture/spm-whs/sites-canada Can delete the WCMC reference

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

This biosphere reserve in southeastern Alaska consists of two units, Glacier Bay and Admiralty Island. Glacial advance and retreat that have been occurring since the mid Miocene shaped the landscape of the area. https://en.unesco.org/biosphere/eu-na/glacierbay-admiraltyisland

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)

The Wilderness Act applies to areas within Wrangell-St. Elias and Glacier Bay National Parks/Preserves. Glacier Bay National Park is a UNESCO Biosphere Reserve. The Protected Areas of British Columbia Act applies to Tatshenshini-Alsek The Alsek River portion of Kluane National Park and Reserve is designated under the Canadian Heritage Rivers System.

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?

Not aware

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

Unaware of any elements located within the site

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

Not aware

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.

Unaware of any documentary heritage associated with this site.

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

The Kluane / Wrangell-St. Elias / Glacier Bay / Tatshenshini-Alsek national parks and protected areas along the boundary of Canada and the United States of America contain the largest non-polar icefield in the world as well as examples of some of the world's longest and most spectacular glaciers. Characterized by high mountains, icefields and glaciers, the property transitions from northern interior to coastal biogeoclimatic zones, resulting in high biodiversity with plant and animal communities ranging from marine, coastal forest, montane, sub-alpine and alpine tundra, all in various successional stages. The Tatshenshini and Alsek river valleys are pivotal because they allow ice-free linkages from coast to interior for plant and animal migration. The parks demonstrate some of the best examples of glaciation and modification of landscape by glacial action in a region still tectonically active, spectacularly beautiful, and where natural processes prevail.

Criterion (vii): The joint properties encompass the breadth of active tectonic, volcanic, glacial and fluvial natural processes from the ocean to some of the highest peaks in North America. Coastal and marine environments, snow-capped mountains, calving glaciers, deep river canyons, fjord-like inlets and abundant wildlife abound. It is an area of exceptional natural beauty.

Criterion (viii): These tectonically active joint properties feature continuous mountain building and contain outstanding examples of major ongoing geologic and glacial processes. Over 200 glaciers in the ice-covered central plateau combine to form some of the world's largest and longest glaciers, several of which stretch to the sea. The site displays a broad range of glacial processes, including world-class depositional features and classic examples of moraines, hanging valleys, and other geomorphological features.

Criterion (ix): The influence of glaciation at a landscape level has led to a similarly broad range of stages in ecological succession related to the dynamic movements of glaciers. Subtly different glacial environments and landforms have been concentrated within the property by the sharp temperature and precipitation variation between the coast and interior basins. There is a rich variety of terrestrial and coastal/marine environments with complex and intricate mosaics of life at various successional stages from 500 m below sea level to 5000 m above.

Criterion (x): Wildlife species common to Alaska and Northwestern Canada are well represented, some in numbers exceeded nowhere else. The marine components support a great variety of fauna including marine mammals and anadromous fish, the spawning of which is a key ecological component linking the sea to the land through the large river systems. Populations of bears, wolves, caribou, salmon, Dall sheep and mountain goats that are endangered elsewhere are self-regulating here. This is one of the few places remaining in the world where ecological processes are governed by natural stresses and the evolutionary changes in a glacial and ecological continuum.

Integrity

At 9,839,121 ha, including 242,700 ha of marine waters and 1,900 km of coastline, the property is vast and encompasses all the elements required to express its exceptional beauty and scientific values. The boundaries connect key land masses within which a wide breadth of glacial, ecological and biological processes are exhibited. Geomorphological processes are shown in the various successive stages of altitude within the property. Healthy terrestrial and marine fish and wildlife populations of key species endemic to the northwest of the North American continent are well-represented within the property, ecological processes are functioning naturally within intact ecosystems, and the property as a whole retains its wilderness values and character, and its scenic beauty.

Park management plans have identified a number of resource protection measures, such as environmental assessment processes, zoning, ecological integrity and visitor experience monitoring, and education programs to address internal and external pressures from recreational use, commercial growth and development adjacent to the property. These measures allow the property managers to monitor and respond to any long term challenges in order to protect the property's integrity into the future. Sport or subsistence harvest of fish and wildlife, including commercial trapping, are closely monitored and managed sustainably in areas where these activities are allowed.

Protection and management requirements

The property consists of four components that are protected and managed under specific legislative frameworks within Canada and the United States of America. Kluane National Park and Reserve is managed under the authority of the *Canada National Parks Act* and its associated regulations which govern the protection and management of the natural and cultural resources of the park. Land Claim Final Agreements with the Champagne and Aishihik and Kluane First Nations provide additional direction for the protection and management of the park's natural and cultural resources. These agreements have also established the Kluane National Park Management Board, a co-operative management regime for managing park resources.

Wrangell-St. Elias and Glacier Bay National Park and Preserves are administered under the authority of the *Organic Act* of August 25, 1916 which established the United States National Park Service, as well as specific enabling legislation for each park and other laws and regulations pertaining to the National Park Service. Day-to-day management is directed by a Park Superintendent and these parks are managed in accordance with the legislative and regulatory mandates of the U.S.

National Park Service. Wrangell-St. Elias National Park and Preserve has formal government-to-government agreements with three federally recognized tribal governments: the Cheesh'na Tribal Council, the Mentasta Traditional Council, and the Yakutat Tlingit Tribe. The Yakutat Tlingit Tribe agreement involves both Wrangell-St. Elias and Glacier Bay National Parks. Glacier Bay National Park also has a government-to-government relationship with the Huna Tlingit Tribe.

Tatshenshini-Alsek Park was established by the Province of British Columbia as a Class A park by an enactment of the provincial legislature and is managed under the *Parks Act* and the *Protected Areas of British Columbia Act* and associated regulations. In 1996, the Champagne-Aishihik First Nations (CAFN) and the Government of British Columbia signed the bi-lateral *Tatshenshini-Alsek Park Management Agreement*, which, in part, directed CAFN and British Columbia Parks to jointly manage Tatshenshini-Alsek Park.

Management goals and objectives for the property have been developed through management plans for each individual protected area, specifically: the Kluane National Park and Reserve Management Plan (2010); the Wrangell-St. Elias National Park and Preserve General Management Plan (1986); the Glacier Bay National Park and Preserve General Management Plan (1984); and the Management Direction Statement (2000) for Tatshenshini-Alsek Park. Although management of each component of the property is directed by an individual management plan, there are a number of guiding principles related to natural and cultural resource management, visitor use and interpretation, science and research and relations with Aboriginal peoples that are common to all of the plans, reflecting strong cooperation among the property managers. The management plans and their associated goals and objectives are periodically reviewed and updated with First Nation, Native Alaskan, public, stakeholder and partner input, direction and advice.

Special attention will be given over the long term to monitoring and taking appropriate actions related to a number of factors in and near the property. Specifically, attention will focus on monitoring aquatic resources and forest and tundra ecosystem health. Park authorities manage or monitor human use, including visitation; infrastructure development; solid waste management; impacts of climate change; wildlife populations; biological and physical resource use; ecological disturbances such as fire; impacts from sudden geological events; and the potential for invasive or hyper-abundant 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	Glaciers and icefields	✖			
3.2.2	Intactness allowing animal and plant migrations	✖			
3.2.3					
3.2.4					
3.2.5					
3.2.6					
3.2.7					
3.2.8					
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

Site remains free of large-scale development that would impact the glaciers and free movement of animals and plants from interior to coast (see review in Marine Management Plan, BWMP). https://parkplanning.nps.gov/document.cfm?parkID=12&projectID=109472&documentID=126243

4. Factors Affecting the Property

4.1. Buildings and Development

4.1.1 - Housing

Previous answer Cycle 2 (19/09/2013):

- Not relevant

Relevant	✖ Not relevant

4.1.2 - Commercial development

Previous answer Cycle 2 (19/09/2013):

- Not relevant

Relevant	✖ Not relevant

4.1.3 - Industrial areas

Previous answer Cycle 2 (19/09/2013):

- Not relevant

Relevant	✖ Not relevant

4.1.4 - Major visitor accommodation and associated infrastructure

Previous answer Cycle 2 (19/09/2013):

- Not relevant

Relevant	✖ Not relevant

4.1.5 - Interpretative and visitation facilities

Previous answer Cycle 2 (19/09/2013):

- Not relevant

Relevant	✖ Not relevant

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

4.2. Transportation Infrastructure

4.2.1 - Ground transport infrastructure

Previous answer Cycle 2 (19/09/2013):

- Not relevant

Relevant	✖ Not relevant

4.2.2 - Underground transport infrastructure

Previous answer Cycle 2 (19/09/2013):

- Relevant, Positive, Negative, Current, Inside

✖ 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 (19/09/2013):

- 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 (19/09/2013):

- Relevant, Negative, Current, 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 (19/09/2013):

- Not relevant

✖ 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

The physical 'footprint' and derived effects of use that is or has the potential to affect this site include underground transport infrastructure, air transport infrastructure, marine transport infrastructure and the effects arising from use of transportation infrastructure. The identified potential negative impacts are currently deemed to be negligible to low within the whole site. Airstrip use has been static over the last decade; while cruise ships that engage the area are in waters that are out of the jurisdiction. It should be noted that large cruise ship traffic visiting coastal WRST has increased by >200% in recent years with potential for catastrophic oil spills on coastal resources but this occurs outside the boundary. The primary potential negative effect from the identified above is mammal disturbance, population reduction, and impacted habitat. Use of transportation infrastructure outside the site does have the potential to affect within the site in terms of mammal mortality. For example, in KNPR a highway runs parallel with a large portion of the site boundary. In 2018, 1 vehicle collided with a group of sheep killing 8 of them. This resulted in the mortality of 4% of the lambs and 3% of the nursery group from that specific population. Underground structures were selected by this site, specifically WRST. These underground structures refer to the miles of underground mining tunnels that exist, but are not currently used.

4.3. Services Infrastructures

4.3.1 - Water infrastructure

Previous answer Cycle 2 (19/09/2013):

- Relevant, Negative, Current, Potential, Outside

Relevant	✖ Not relevant

4.3.2 - Renewable energy facilities

Previous answer Cycle 2 (19/09/2013):

- Relevant, Negative, Potential, Inside

✖ 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 (19/09/2013):

- Relevant, Negative, Potential, Inside, Outside

Relevant	✖ Not relevant

4.3.4 - Localised utilities

Previous answer Cycle 2 (19/09/2013):

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

Relevant	✖ Not relevant

4.3.5 - Major linear utilities

Previous answer Cycle 2 (19/09/2013):

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

Relevant	✖ Not relevant

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

Services infrastructure relating to the developments for energy utilities (i.e. gas, electricity and water) and other service requirements mostly do not affect the site. The only identified impact relates to renewable energy facilities. There has been an increase in small solar projects with minimal tower installations across the site. This energy development is stable or green. Other locations within the site such as GLBAs headquarters has recently transitioned from burning diesel generators to intertie link to hydroelectric. The effects of these projects are considered to be positive.

4.4. Pollution

4.4.1 - Pollution of marine waters

Previous answer Cycle 2 (19/09/2013):

- Relevant, Negative, Potential, Outside

✖ 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 (19/09/2013):

- Relevant, Negative, Potential, Inside, Outside

✖ Relevant	Not relevant

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

4.4.3 - Surface water pollution

Previous answer Cycle 2 (19/09/2013):

- Relevant, Negative, Potential, Inside, Outside

✖ Relevant	Not relevant

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

4.4.4 - Air pollution

Previous answer Cycle 2 (19/09/2013):

- Relevant, Negative, Current, Potential, Outside

✖ Relevant	Not relevant

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

4.4.5 - Solid waste

Previous answer Cycle 2 (19/09/2013):

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

✖ Relevant	Not relevant

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

4.4.6 - Input of excess energy

Previous answer Cycle 2 (19/09/2013):

- Not relevant

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

All types of pollution (residential or commercial) as well as rubbish, solid waste that have been identified for this site includes pollution of marine waters, surface water and air. Large cruise ships now operate on MGO rather than HFO reducing impacts to air quality; owing to this change, ships bunker less HFO which reduces impacts should an oil spill occur. Treated wastewater effluent is discharged from the Village of Haines Junction which travels into KNPR. KNPR monitors water quality and works with the involved government agencies to minimize the impact to the wetlands and river. In GLBA, emission gas cleaning systems ('scrubber') wash water has been banned, reducing pollution to water. There is the potential of impacted water to travel into the site from placer mining but currently all operations are small and the effects on the site negligible. Inholdings within WRST have an increase in mining activities with potential to pollute the site. Additional other lands have potential for mining, monitoring of this activity is in place. The potential for impact is locally significant but very small in footprint relative to the large area.

4.5. Biological resource use/modification

4.5.1 - Fishing/collecting aquatic resources

Previous answer Cycle 2 (19/09/2013):

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

✖ Relevant	Not relevant

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

4.5.2 - Aquaculture

Previous answer Cycle 2 (19/09/2013):

- Relevant, Negative, Potential, Outside

Relevant	✖ Not relevant

4.5.3 - Land conversion

Previous answer Cycle 2 (19/09/2013):

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

✖ Relevant	Not relevant

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

4.5.4 - Livestock farming/Grazing of domesticated animals

Previous answer Cycle 2 (19/09/2013):

- 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 (19/09/2013):

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

Relevant	✖ Not relevant

4.5.6 - Commercial wild plant collection

Previous answer Cycle 2 (19/09/2013):

- Not relevant

Relevant	✖ Not relevant

4.5.7 - Subsistence wild plant collection

Previous answer Cycle 2 (19/09/2013):

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

Relevant	✖ Not relevant

4.5.8 - Commercial hunting

Previous answer Cycle 2 (19/09/2013):

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

Relevant	✖ Not relevant

4.5.9 - Subsistence hunting

Previous answer Cycle 2 (19/09/2013):

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

Relevant	✖ Not relevant

4.5.10 - Forestry/Wood production

Previous answer Cycle 2 (19/09/2013):

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

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

Biological resource use/modification including the collecting/harvesting of wild plants and animals (forestry, fishing, hunting, gathering) and harvesting domesticated species (silviculture, agriculture, aquaculture) has been identified within the site, specifically fishing, forestry, hunting, and land conversion. When the U.S. Congress passed the Alaska National Interest Lands Conservation Act (ANILCA) in 1980, which established Wrangell-St. Elias National Park and Preserve along with many other conservation areas in Alaska, it recognized the important connection between local rural subsistence users and the land in allowing for a continued opportunity for a subsistence lifestyle by rural Alaska residents, both Native and non-Native. If resources and their habitats are maintained in a natural and healthy state, traditional subsistence hunting and fishing are allowed in the park and preserve. Additionally, ANILCA provides that rural residents with knowledge of local conditions should have a role in the management of subsistence resources on public lands. Similarly, in KNPR indigenous partners have the right to subsistence harvesting of plants and animals. The positives associated with indigenous partners utilizing the park outweigh any loss of individual animals. Wildlife surveys and monitoring are conducted inside and outside the site to determine the overall health of the populations. Outside monitoring and management of hunting is within the jurisdiction of the Yukon Government. Hunting and gathering activities in KNPR by non-indigenous partners are prohibited. Fishing pressures are thought to be increasing in KNPR. The implementation of management actions outside of the site is increasing the angling effort in KNPR due to ease of accessibility and the ability to keep preferred species such as lake trout (Salvelinus namaycush). Additional management actions may be implemented by the site if the effects on the population are found to be a cause for concern by the ecological monitoring program. Commercial fishing in GLBA continues to decrease and will soon be completely phased out. Wood harvest is small and sustainable; an important transition of use is the dedication of private lands (hundreds of thousands of acres) in carbon sequestration programs. Livestock Farming /Grazing of domesticated animals provides the potential for disease transfer from outside domestic populations such as sheep pneumonia complex which could result in serious mortality events in bighorn sheep (Ovis canadensis). There is also the potential for domestic wild boar farming outside of the park – which can have subsequent negative effects on the ecosystem. There are no feral wild boars in the Yukon at this time but farming of the species is allowed resulting in the potential for escape. There are only a few small hobby farms located near KNPR but the potential for more or for the current ones to expand exists. The values for the world heritage are not immediately impacted by the factors above; however, the overall integrity of the site has potential for impact as ocean commercial fisheries impact salmon returning to the site; pressures from sport hunting and fishing have potential to impact subsistence hunting and fishing in the USA portion of the site.

4.6. Physical resource extraction

4.6.1 - Mining

Previous answer Cycle 2 (19/09/2013):

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

✖ Relevant	Not relevant

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

4.6.2 - Quarrying

Previous answer Cycle 2 (19/09/2013):

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

Relevant	✖ Not relevant

4.6.3 - Oil and gas

Previous answer Cycle 2 (19/09/2013):

- Relevant, Negative, Potential, Inside, Outside

Relevant	✖ Not relevant

4.6.4 - Water (extraction)

Previous answer Cycle 2 (19/09/2013):

- Relevant, Negative, Current, Potential, Inside

Relevant	✖ Not relevant

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

Physical resource extraction covers both exploration and/or exploitation activities. Mining and gas exploration are occurring inside and outside of the USA portion of the site. The footprint of impact is small relative to the size of the area. Potential therefore exists for impacts but not yet realized. Clean up of old mining sites is occurring where necessary, such as: https://www.nps.gov/wrst/learn/management/kennecott-mines-and-mill-town-site-environmental-investigation-project.htm Mining in the KNPR region is limited to outside of the site and is also of a relatively small area per individual project and are typically placer operations. It should be noted cumulatively outside of the sites jurisdiction clusters of mining have been observed and monitored. The main consequence of these sites is habitat fragmentation. Large mining potential exists outside of KNPR. There is one set of hard rock claims with the potential to be developed into a fully operational mine outside the site. Current market prices do not support moving into production and only exploration work is being conducted Legacy mining issues exist in the TAP, including contaminated mine sites being monitored on a 5 year revisitation cycle. Trends to date are not alarming, but there is potential for acid rock leaching in at the Windy Craggy mine site. With cobalt mining on the rise, the large deposit in the TAP has continued interest.

4.7. Local conditions affecting physical fabric

4.7.1 - Wind

Previous answer Cycle 2 (19/09/2013):

- Not relevant

Relevant	✖ Not relevant

4.7.2 - Relative humidity

Previous answer Cycle 2 (19/09/2013):

- Not relevant

Relevant	✖ Not relevant

4.7.3 - Temperature

Previous answer Cycle 2 (19/09/2013):

- Not relevant

✖ Relevant	Not relevant

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

4.7.4 - Radiation/Light

Previous answer Cycle 2 (19/09/2013):

- Not relevant

Relevant	✖ Not relevant

4.7.5 - Dust

Previous answer Cycle 2 (19/09/2013):

- Not relevant

✖ Relevant	Not relevant

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

4.7.6 - Water (rain/water table)

Previous answer Cycle 2 (19/09/2013):

- Not relevant

Relevant	✖ Not relevant

4.7.7 - Pests

Previous answer Cycle 2 (19/09/2013):

- 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 ✖	✖		✖	✖	↘		

4.7.8 - Micro-organisms

Previous answer Cycle 2 (19/09/2013):

- Relevant, Negative, Potential, Outside

Relevant	✖ Not relevant

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

Local conditions affecting physical fabric include environmental or biological factors that promote or contribute to deterioration processes of the fabric of heritage sites. The site has identified pests, dust, and temperature as factors to consider. A widespread Spruce Bark Beetle outbreak which began in the early 1990s has had a dramatic impact on the health of KNPR's forests. The beetles affected two-thirds of the white spruce forests, and nearly half (44%) of the mature spruce forest was killed. A wildfire deficit exists in KNPR likely influenced by various policies of the previous century enacted to suppress natural fire and remove Indigenous cultural practices and access to the land. Regular monitoring of these impacted forests is being conducted to understand whether these forests will return to pre-beetle conditions. Active management – prescribed fire, cultural burning, or other interventions to increase the resilience of the region's forests – are being explored within KNPR and with neighbouring jurisdictions. The warming temperatures are thinning/shrinking glaciers (on balance). There is also documented reduced winter ice on the rivers, on average. Glacial melt has the potential to re-route major rivers; melting of glaciers also has potential to influence geohazards (landslides both above and submarine). An example of river re-routing, also known as stream capture or river piracy within the site, is the Ä'äy Chù and Kaskawulsh rivers. In May of 2016, during an unusually warm spring, a meltwater channel formed through a section of dead ice separating the 2 headwaters. Within a few days the channel became a gorge, diverting the water from the lake that fed the Ä'äy Chù into the lake that feeds the Kaskawulsh. The remaining flow in the Ä'äy Chù, from side streams between the toe of the glacier and Kluane Lake, has been drastically reduced. The level of Kluane Lake outside the site has dropped significantly, affecting access to and use of the lake. Longer term impacts on fisheries in the lake are unknown. This has also resulted in an increase in significant dust storms that can impair visibility in the Ä'äy Chù valley causing difficulties for both park users and people driving on the highway outside of the site.

4.8. Social/Cultural uses of heritage

4.8.1 - Ritual/Spiritual/Religious and associative uses

Previous answer Cycle 2 (19/09/2013):

- Relevant, Positive, Current, Inside

✖ 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 (19/09/2013):

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

Relevant	✖ Not relevant

4.8.3 - Indigenous hunting, gathering and collecting

Previous answer Cycle 2 (19/09/2013):

- 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 (19/09/2013):

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

Relevant	✖ Not relevant

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

Previous answer Cycle 2 (19/09/2013):

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

Relevant	✖ Not relevant

4.8.6 - Impacts of tourism/Visitation/Recreation

Previous answer Cycle 2 (19/09/2013):

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

Relevant	✖ Not relevant

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

Social factors that contribute to changing the character of the fabric of heritage sites include indigenous hunting, gathering, and collecting and tourism/visitation. Subsistence, food security, is increasingly challenged by local sport fishing and hunting and the increased costs of living in rural areas. KNPR recognizes that First Nation harvesting is an integral part of the ecological integrity of the site and the greater region. A renewal of First Nations subsistence harvesting within the park is helping to restore the relationship between First Nations and their environment. A new law and regulations now allow for the traditional gull egg harvest in Glacier Bay. In addition to legislation supporting traditional harvest, a new tribal house was constructed in Glacier Bay. The Tribal House serves as a box of knowledge to learn about Tlingit culture as well as for Tlingit communities and organizations to offer cultural workshops on topics such as Native art, woodworking, weaving, song and dance, healthy living, and more. Effects from indigenous hunting, gathering, and collecting are overall positive. Visitation by large cruise ships is increasing to areas adjacent to coastal WRST; however, cruise ship visitation to GLBA is managed sustainably.
https://www.nps.gov/glba/learn/historyculture/huna-tribal-house-project.htm https://www.nps.gov/glba/learn/historyculture/tlingit-gull-egg-harvest.htm

4.9. Other human activities

4.9.1 - Illegal activities

Previous answer Cycle 2 (19/09/2013):

- Relevant, Negative, Potential, Outside

Relevant	✖ Not relevant

4.9.2 - Deliberate destruction of heritage

Previous answer Cycle 2 (19/09/2013):

- Not relevant

Relevant	✖ Not relevant

4.9.3 - Military training

Previous answer Cycle 2 (19/09/2013):

- Relevant, Negative, Current, Potential, Outside

Relevant	✖ Not relevant

4.9.4 - War

Previous answer Cycle 2 (19/09/2013):

- Not relevant

Relevant	✖ Not relevant

4.9.5 - Terrorism

Previous answer Cycle 2 (19/09/2013):

- Not relevant

Relevant	✖ Not relevant

4.9.6 - Civil unrest

Previous answer Cycle 2 (19/09/2013):

- 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

4.10. Climate change and severe weather events

4.10.1 - Storms

Previous answer Cycle 2 (19/09/2013):

- Relevant, Positive, Current, Potential, 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 (19/09/2013):

- Relevant, Positive, Current, Potential, Inside

Relevant	✖ Not relevant

4.10.3 - Drought

Previous answer Cycle 2 (19/09/2013):

- Not relevant

Relevant	✖ Not relevant

4.10.4 - Desertification

Previous answer Cycle 2 (19/09/2013):

- Not relevant

Relevant	✖ Not relevant

4.10.5 - Changes to oceanic waters

Previous answer Cycle 2 (19/09/2013):

- Relevant, Negative, Potential, Outside

✖ Relevant	Not relevant

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

4.10.6 - Temperature change

Previous answer Cycle 2 (19/09/2013):

- Relevant, Negative, Current, Potential, 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 (19/09/2013):

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

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

Climate change and severe weather events include storms (river/stream overflows), changes to oceanic waters, temperature change. Storm frequency and severity are increasing in the Gulf of Alaska which can impact coastal resources. What's more, marine 'heat waves' in the Gulf of Alaska have been documented and can negatively influence marine resources that utilize GLBA and coastal WRST including marine mammals, seabirds, and fish. Glaciers and large icefields cover almost 80% of Kluane National Park and Reserve. In the last 50 years, the area glaciated has decreased by 20% and over 230 small glaciers have disappeared due to climate change. An observation in abnormal storm events have been noted – with significant events being documented by parks staff. Examples include abnormal large rain events resulting in river flooding and rain on snow events. See news release with link to scientific article: https://www.fisheries.noaa.gov/feature-story/most-recent-data-shows-gulf-alaska-marine-ecosystem-slow-return-pre-heatwave-sta te

4.11. Sudden ecological or geological events

4.11.1 - Volcanic eruption

Previous answer Cycle 2 (19/09/2013):

- Relevant, Positive, Potential, Inside

Relevant	✖ Not relevant

4.11.2 - Earthquake

Previous answer Cycle 2 (19/09/2013):

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

Relevant	✖ Not relevant

4.11.3 - Tsunami/Tidal wave

Previous answer Cycle 2 (19/09/2013):

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

Relevant	✖ Not relevant

4.11.4 - Avalanche/Landslide

Previous answer Cycle 2 (19/09/2013):

- Relevant, Positive, Current, 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 (19/09/2013):

- Relevant, Positive, Current, Potential, Inside

Relevant	✖ Not relevant

4.11.6 - Fire (wildfire)

Previous answer Cycle 2 (19/09/2013):

- 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 ✖		✖	✖	✖			↗

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

The only sudden ecological or geological events considered by this site was the potential of fire (wildfire). All other factors currently exist at this site but are negligible to negatively affecting the fabric of the site and can be considered to only add character to the wilderness values. As discussed in 4.7.9 KNPR is currently in a wildfire deficit likely influenced by various policies of the previous century enacted to suppress natural fire and remove Indigenous cultural practices and access to the land. There are both negatives and positives associated with wildfire – positives include a renewal of the ecosystem and fire regime. Negatives can include a temporary reduction in aesthetics, but more severely the burning of site assets, loss of possible cultural sites and wildfire moving into the communities outside of the site. Active management – prescribed fire, cultural burning, or other interventions to increase the resilience of the region's forests – are being explored within KNPR and with neighbouring jurisdictions. The finalization of a fire management plan has been written and other precautions are being taking into consideration to minimize the risk.

4.12. Invasive/alien species or hyper-abundant species

4.12.1 - Translocated species

Previous answer Cycle 2 (19/09/2013):

- Relevant, Negative, Current, Outside

Relevant	✖ Not relevant

4.12.2 - Invasive/Alien terrestrial species

Previous answer Cycle 2 (19/09/2013):

- Relevant, Negative, Current, 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 (19/09/2013):

- Relevant, Negative, Potential, 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 (19/09/2013):

- Relevant, Negative, Potential, Outside

Relevant	✖ Not relevant

4.12.5 - Hyper-abundant species

Previous answer Cycle 2 (19/09/2013):

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

Relevant	✖ Not relevant

4.12.6 - Modified genetic material

Previous answer Cycle 2 (19/09/2013):

- 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

Invasive/alien aquatic and terrestrial species have been identified as having a potential effect on the site. For example, currently KNPR has very few known patches of invasive terrestrial species mostly in the form of plants. Monitoring of invasives outside of the site boundary have shown an increase in species of concern such as bird vetch (Vicia cracca). Continued monitoring and management actions will persist to minimize the effects. Similarly there are no aquatic invasive species present at the site but there is the potential with boats traveling across Canada and the USA visiting 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
	✖

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 (19/09/2013):

- 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 (19/09/2013):

- 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							

4.13.8 - High impact research/monitoring activities

Previous answer Cycle 2 (19/09/2013):

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

Relevant	Not relevant
	✖

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

Glacier Bay is developing a full planning portfolio. This included a new monitoring program for resources on the outer coast of Glacier Bay and Wrangell St. Elias. For WRST, financial support internal to the organization is insufficient; outside the organization is decreasing as small NGOs are fiscally vulnerable. However, in Glacier Bay, concession contracts with cruise ships are increasing, bringing >$10 million (USD) to park each year dedicated solely to protecting and understanding impacts of visitation. On balance, the funding is stable to decreasing between the two sites. Funding for KNPR currently remains stable. The KNPR management is in the process of being updated in collaboration with our first nation partners. Long term asset sustainability planning is being conducted within Parks Canada. Challenges can be encountered trying to fully staff positions due to the remoteness and size of the sites supporting communities. In regards to low impact research/monitoring activities recent visitor surveys have been conducted, and an increase in water sampling across the site. https://www.nps.gov/glba/getinvolved/planning.html l https://www.nps.gov/im/sean/outer-coast.html https://www.nps.gov/glba/learn/news/glacier-bay-issues-new-contracts-for-cruise-ship-services.html There is a disparity of resources between the national parks and the provincial parks which affect management capacity. Parks Canada uses an adaptive management approach where, after careful monitoring of on-the-ground indicators, strategies may be adjusted to improve decision-making and management effectiveness. BC Parks Management Plans respond to current and predicted future threats to the values and opportunities to enhance or change the values and uses of.

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
4.2 Transportation 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						
4.3.2 Renewable energy facilities	⊕	↓			↺	↗
4.4 Pollution						
4.4.1 Pollution of marine waters	⊕	↓		○		→
4.4.2 Ground water pollution						
	⊖	↓		○		→
4.4.3 Surface water pollution						
	⊖	↓		○	↺	→
4.4.4 Air pollution						
	⊖	↓			↺	↘
4.4.5 Solid waste						
	⊖	↓		○		→
4.5 Biological resource use/modification						
4.5.1 Fishing/collecting aquatic resources						
	⊖	↓		○	↺	→
4.5.3 Land conversion	⊕	↓	↓		↺	→
	⊖	↓	↓		↺	→

4.5.4 Livestock farming/Grazing of domesticated animals						
	⛔		↰		↱	→
4.6 Physical resource extraction						
4.6.1 Mining						
	⛔	↰	↰		↱	→
4.7 Local conditions affecting physical fabric						
4.7.3 Temperature						
	⛔	↰	↰	◎	↱	↗
4.7.5 Dust						
	⛔	↰		◎	↱	→
4.7.7 Pests						
	⛔	↰		◎	↱	↘
4.8 Social/Cultural uses of heritage						
4.8.1 Ritual/Spiritual/Religious and associative uses	⊕	↰	↰	◎		→
4.8.3 Indigenous hunting, gathering and collecting	⊕	↰		◎		→
4.10 Climate change and severe weather events						
4.10.1 Storms						
	⛔	↰	↰	◎	↱	↗
4.10.5 Changes to oceanic waters						
	⛔	↰		◎	↱	↗
4.10.6 Temperature change						
	⛔	↰		◎		↗
4.11 Sudden ecological or geological events						
4.11.4 Avalanche/Landslide						
	⛔	↰		◎	↱	↗
4.11.6 Fire (wildfire)						
	⛔		↰	◎	↱	↗
4.12 Invasive/alien species or hyper-abundant species						
4.12.2 Invasive/Alien terrestrial species						
	⛔		↰	◎		→
4.12.3 Invasive/Alien freshwater species						
	⛔		↰	◎		→
4.13 Management and institutional factors						
4.13.1 Management system/Management plan	⊕	↰		◎		↗
4.13.3 Governance	⊕	↰		◎		↗
4.13.4 Management activities	⊕	↰		◎		→
4.13.5 Financial resources						
	⛔	↰		◎		→

4.13.6 Human resources						
	⊖	👎		⊙	↖	↘
4.13.7 Low impact research/monitoring activities	⊕	👎		⊙		↗

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

4.2 Transportation Infrastructure

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
4.3.2 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

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
4.4.2 Ground water pollution						
						

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

4.4.3 Surface water pollution						

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
4.4.4 Air pollution						

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
4.5.3 Land conversion						

	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

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

4.7 Local conditions affecting physical fabric

Name	Impact			Origin		Trend
4.7.3 Temperature						
	⛔	👎	👎	⊙	🔄	↗

	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
4.7.5 Dust						
						

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
4.7.7 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

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
4.8.3 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

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
4.10.5 Changes to oceanic 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
4.10.6 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
4.11.4 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
4.11.6 Fire (wildfire)						

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
4.13.3 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

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

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	Ice and glaciers	✖			
4.18.1.2	Intactness allowing movement	✖			
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

5.2. Protective Measures

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

The Canada National Parks Act (2000) and its associated regulations govern the protection and management of the cultural and natural resources of Kluane National Park and Reserve. Land Claim Final Agreements with the Champagne and Aishihik and Kluane First Nations provide additional direction for the protection and management of the park and park reserve's cultural and natural resources.

National park regulations include but are not necessarily limited to:

- aircraft access
- business
- camping
- fire protection
- fishing
- general
- wildlife regulations

The Canada National Parks Act requires that "maintenance or restoration of ecological integrity, through the protection of natural resources and natural processes, shall be the first priority of the Minister when considering all aspects of the management of parks." The Parks Canada Agency Act (1998) established an Agency "for the purpose of ensuring that Canada's national parks, national historic sites and related heritage areas are protected and represented for this and future generations and in order to further the achievement of the national interest as it is related to those parks, sites and heritage areas and related programs."

Other laws that apply to Canadian national parks include:

- The Fisheries Act (1985)
- The Canadian Environmental Assessment Act (1992).
- The Migratory Birds Convention Act (1994)
- The Species at Risk Act (2002)

Consolidated versions of the Canada National Parks Act and associated regulations can be found at:

http://laws.justice.gc.ca/en/N-14.01/index.html and http://lois.justice.gc.ca/fr/N-14.01/index.html

Canadian national parks are also managed according to Parks Canada's Guiding Principles and Operational Policies.

Wrangell-St. Elias and Glacier Bay National Park and Preserves are administered under the authority of the Organic Act of August 25, 1916 (39 Stat. 535), which established the United States NPS and which states that the fundamental purpose of national parks is "…to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such a manner as by such means as will leave them unimpaired for the enjoyment of future generations." The Organic Act and its associated regulations govern the protection and management of the cultural and natural resources of the unit.

Wrangell-St. Elias National Park and Preserve was established under ANILCA at 5.34 hectares (13.2 million acres), with some sections designated as national preserve and the bulk of the area designated as national park. 3.6 million hectares (8.9 million acres) of federally designated wilderness was overlaid on these sections

Glacier Bay National Monument was established on February 26, 1925 by proclamation of Calvin Coolidge (43 Stat 1988) under the Antiquities Act. In 1980, ANILCA redesignated the monument as Glacier Bay National Park and Preserve and extended the boundaries to include the northern end of the Fairweather Range and adjacent coastal areas. ANILCA also designated most of the park lands and a portion of the park waters as Wilderness.

Management of the properties' resources is mandated under several additional federal statutes enacted over the past 80 years:

- Wilderness Act
- National Historic Preservation Act

- Redwood Act
- National Environmental Policy Act
- Endangered Species Act
- The National Parks and Recreation Act of 1978
- Marine Mammal Protection Act
- National Parks Omnibus Management Act of 1998

Tatshenshini-Alsek Park was established in 1993 by the Province of British Columbia as a Class A Park by an enactment of the provincial legislature. Parks are managed for important conservation values and are dedicated for the preservation of their natural environments for the inspiration, use and enjoyment of the public. It is managed under the following statutes:

- Park Act and regulations
- Protected Areas of BC Act
- Wildlife Act

Source: Periodic Reporting Cycle 1

Comment

Impact Assessment Act - Canada Heritage Conservation Act - Canada

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

2003 / Yukon Environment and Socio-Economic Assessment Act / Canadian Federal legislation and regulation /
2019 / Impact Assessment Act / Canadian federal legislation and regulation /
1996 / Heritage Conservation Act / Provincial Legislation /

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?

There is **no legal framework** in the buffer zone for maintaining the Outstanding Universal Value including conditions of Authenticity and/or Integrity of the World Heritage property

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 **acceptable capacity/resources** to enforce legislation and/or regulation in the World Heritage property but some deficiencies of enforcement remain

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

GLBA undergoes periodic planning reviews including Front country, Backcountry/Wilderness, and Marine Management Plans. (see links from above). Park enforcement is well funded. New initiatives include an active on-board compliance monitoring of large cruise ships. WRST has insufficient resources (e.g., 1 LE ranger for 4 million acres avg annually; 1 LE ranger for 2 million acres avg seasonally). WRST mitigates this fact through coordination with other LE organizations for periodic/strategic collaborative efforts but remains vulnerable to low funding. Funding is stable for law enforcement and enforcement officer numbers have remained stable. TAP has insufficient resource (capacity and funding) to effectively patrol and enforce the regulations and legislation. BC Parks is restricted by the ability to build capacity for the park and working with funding deficiencies.

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

T-AP has a completed Protected Areas Management Effectiveness assessment (PAME), with UNESCO driven methodology, to identify the deficiencies in order to better protect the World Heritage Property. Final version will be available to the organization upon completion.

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

Public management system at provincial/regional level

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)
Traditional ways of management recognised by local communities and other specific groups
Governance mechanisms that foster and respect traditional practices, knowledge and uses of the property
Agreed ‘Memorandums of Understanding’ between different managing institutions, groups or others, including documents agreed with local communities for management

Mechanisms to promote equal participation among and within groups, including different levels of authority, local communities, indigenous people, women and men, and other specific groups
An integrated management plan combining World Heritage and any other designations
A management plan
An annual work plan or business plan
A visitor/visitation management plan
An environmental management framework
An assessment of biological and cultural diversity and ecosystem services provided by the property
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

GLBA is managed according to marine management plan; strict regulation of number and type of visitors arriving via marine vessel; commercial services contracts applied to businesses that provide a range of visitor experience, all managed according to concessions laws. KNPR is managed by an overarching management plan which feeds into the objectives of other management plans and programs. Backcountry use and access is managed through a permitting system. TAP is managed according to a management direction statement and a functional cooperative management board with the Champagne and Aishihik First Nations, through the tatshenshini-Alsek Park Management Board Agreement. River use is managed through a permitting process (private and commercial) and other commercial uses on the landbase are authorized through a permitting process.

5.3.4 - Management Documents

Title	Status	Available	Date	Link to source
General Management Plan	N/A	Available	1991	

Comment

Management planning process underway for the TAP to replace management direction statement. GLBA: Managed according to marine management plan; strict regulation of number and type of visitors arriving via marine vessel; commercial services contracts applied to businesses that provide a range of visitor experience, all managed according to concessions laws

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?

No use has been made of the 2011 Recommendation on the Historic Urban Landscape

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

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?

No 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:

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

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 many of its activities are being implemented**

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	Transformative participation in all relevant decision processes for Local communities and Indigenous peoples in WRST and KNPR				

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

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

WRST has been transitioning since 2016 towards transformative public processes. There has been a pivot to listening and inclusion in decisions and outcomes. In 2023 we're moving towards co-stewardship of some projects with tribal organizations and enhanced transparency of decision processes with other management decisions. Community empowerment has been limited as there are few organized governance structures to formalize with; however, community engagement has expanded/increased. Social inclusion and equity, improving opportunities for all, irrespective of age, sex, disability, ethnicity, origin, religion or economic or other status is growing, but there is much work to do. TAP is currently working towards a new management plan for the park. T-AP has a completed Protected Areas Management Effectiveness assessment (PAME), with UNESCO driven methodology, to identify the deficiencies in order to better protect the World Heritage Property. Final version will be available to the organization upon completion.

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)	70 %	70 %
6.1.1.7	Governmental (regional/provincial/state)	20 %	20 %
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 %	0 %
6.1.1.11	Commercial activities (e.g. merchandising and catering, filming permit, concessions, etc.)	10 %	10 %
6.1.1.12	Other	0 %	0 %
		Total 100 %	Total 100 %

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

GLBA receives about 40% of its funding from the national/federal government and receives the remaining 60% from commercial activities. Alternatively WRST was created with an enabling legislation that limits funding outside the government. As such, it receives >95% government and <5% commercial.KNPR is similar to WRST where government funding is the majority with some funds from commercial

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

The available **budget is acceptable** but **could be further improved** to fully meet the management needs

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

The existing sources of funding are **secure over the medium-term** and **planning is underway to secure funding over the long-term**

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

There is a disparity of resources between the national parks and the provincial parks which affect management capacity. Parks Canada uses an adaptive management approach where, after careful monitoring of on-the-ground indicators, strategies may be adjusted to improve decision-making and management effectiveness. BC Parks Management Plans respond to current and predicted future threats to the values and opportunities to enhance or change the values and uses of.

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

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

Human resources **partly meet** the management needs of the World Heritage property

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

Conservation	Fair
Environmental sustainability	Fair
Community participation and inclusion	Fair
Risk preparedness	Fair
Capacity development and education	Fair
Administration	Fair
Research and monitoring	Fair
Awareness raising and public information/communication	Fair
Marketing and promotion	Fair

Interpretation	Fair
Visitor management/tourism	Fair
Enforcement (custodians, police)	Fair

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

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

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.

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

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 **acceptable** for most key areas but there are gaps

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 **considerable research** but it is **not directed towards 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 with local communities and some national agencies**

7.4 - Comments, conclusions and/or recommendations related to scientific studies and research projects
WRST has identified that there is insufficient 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, while KNPR and GLBA has identified it as adequate. The site has therefore selected its overall knowledge to be acceptable. For WRST, Research is growing but given the scale of the area (13.2 million acres with 23 communities) additional resources will be beneficial and reflect higher scores above. GLBA has an active research and monitoring program. One of the more studied marine protected areas in the world….and stands out as excellent. The ‘average’ scores are moderate above. https://www.nps.gov/im/cakn/index.htm https://www.nps.gov/im/sean/index.htm

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	Fair
Local visitors	Fair
National/international tourists	Fair
Tourism industry	Fair
Local businesses and industries	Fair
NGOs	Fair
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 education and awareness programme for children and/or youth **but it only partly meets the needs**

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

Local communities
Indigenous peoples
Local Visitors
National/international tourists
Tourism industry

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	Fair
Information booths	Fair
Guided tours	Fair
Trails/routes	Fair
Printed information materials	Good
Online (website, social media, etc.)	Fair
Transportation facilities	Fair
Other	Not needed
If 'Other' is selected, please specify	

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

World Heritage is communicated with visitors but has limited support locally, for the WRST portion of the Site. Awareness of the value of World Heritage is slowly growing for WRST. Likewise, it's mentioned for GLBA and listed on some of the advertisements for cruise ships as a WH Site but mostly people recognize it as a national park. In GLBA, there is an active on-board cruise ship Interpretation and Education program which reaches 95% of all visitors to the park. Within KNPR knowledge of its world heritage status is communicated with visitors but justification/world heritage values are relatively unknown and commonly conflated with the rationale of the park establishment. BCParks needs to revisit getting space within the Kluane National Park and Reserve Visitor Center in Haines Junction to provide information to the public about TAP.

9. Visitor Management

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

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

Entry tickets and registries
Visitor surveys
Other
All visitor centres across the site collect visitor use data. Additional records are kept and provided to the site at points of access by cruise ships. In the TAP, visitor statistics are only collected from commercial and private rafting permits.

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

More than four overnight stays

9.4 - Please provide the source of information

Average length stay of a visitor to the WH Property : one day (no overnight stay) and more that four overnight stays WRS counting system TAP - Park Use Permits

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

0 / 0 / 0 / 0 / 24.00$ / 0 /

9.6 - Please provide the source of information

GLBA: $27 is the average fee that cruise pax pay to get into the park. They don't get off the ship so these fees are sent directly to the park from the ships. KNPR: There is no entrance fee associated with KNPR, campground fees per night is $26.00 while backcountry permits per night are $12.75. (avg. $20.00) WRST: no entrance fee by law average stay in park approx. 10 days TAP: This varies. If you are hunting for sheep, you may be spending up to $30-40K, permit cost for a raft trip/ person (high season) is $125 CAD/approximately 8 day trip = $16 CAD/day.

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

Visitation for the site is low relative to the size of the protected area. Strategies are implemented to the extent any impacts at all are localized and largely mitigated. Visitors volume and activities are regulated. BCParks is initiating a new planning process for the TAP

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

Visitor use of the World Heritage property is **effectively managed and does not impact its Outstanding Universal Value**

9.10 - Is the effectiveness of tourism management regularly monitored?

Yes, using a different system

If a different system, please specify

If a different system, please specify: National Parks specific management systems BCParks monitors, but it is infrequently done due to capacity.

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

If 'Yes', please specify In TAP, raft guiding is a locally (and non-locally) driven, sustainable tourism initiatives as well as the local guide outfitter.

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

Yes

If 'Yes', please specify

If 'Yes', please specify Benefits of tourism shared with the local communities include economic benefits through employment with the site, and tourism operators with offers in the site. The site is used as a prominent marketing point for businesses working on the site periphery. Economic benefits are communicated within some parks at the site. Revenue return in TAP helps to cover partial operational costs with CAFN.

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

The world heritage status is shared whenever feasible. WRST and KNPR are limited on fees it can charge while GLBA receives millions of dollars in fees. The difference is the legislative authorities and jurisdiction that provides for mass tourism on cruise ships through GLBA. KNPRs tourism is primarily in day use while traveling along the highway, with some campground, backcountry fees. Reduced visitation numbers are due to restrictions imposed by the COVID-19 pandemic.

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

there are Inventory and Monitoring Networks as well as Resource Stewardship Strategies. Given the size of the WRST area the on-the-ground monitoring trend is positive and growing, but not complete in activity due to logistics and capacity. The park's network monitoring at a landscape scale provides reasonable approximations of trends that meet statistical and scientific requirements of rigor. KNPR has a comprehensive monitoring plan for ecological monitoring and conservation standards. https://www.nps.gov/im/sean/index.htm https://www.nps.gov/im/cakn/index.htm T-AP has a completed Protected Areas Management Effectiveness assessment (PAME), with UNESCO driven methodology, to identify the deficiencies in order to better protect the World Heritage Property. Final version will be available to the organization upon completion.

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	Good
Indigenous peoples	Good
Landowners	Good
Women	Good
Researchers	Good
Tourism industry	Good
Local businesses and industry	Good
NGOs	Good
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.

N/A

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

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	There is **no legal framework** in the buffer zone for maintaining the Outstanding Universal Value including conditions of Authenticity and/or Integrity of the World Heritage property	✖
5.2.6	There is **acceptable capacity/resources** to enforce legislation and/or regulation in the World Heritage property but some deficiencies of enforcement remain	

5.3	**Management System/Management Plan**	
5.3.5	**No use** has been made of the Historic Urban Landscape Recommendation to develop policies and best practices for the protection of the property	
5.3.7	**No 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**	
6.1.3	The available **budget is acceptable** but **could be further improved** to fully meet the management needs of the World Heritage property	
6.1.7	Human resources **partly meet** the management needs of the World Heritage property	
6.1.10	**No use** has been made of the World Heritage Strategy for Capacity Development at the World Heritage property	
7	**Scientific Studies and Research Projects**	
7.2	There is **considerable research** in the World Heritage property but it is **not directed towards management needs and/or improving understanding of Outstanding Universal Value**	
8	**Education, Information and Awareness Building**	
8.2	There is a planned education and awareness programme for children and/or youth **but it only partly meets the needs**	✖
9	**Visitor Management**	
9.12	The presentation and interpretation of the Outstanding Universal Value of the property **is acceptable but improvements could be made**	✖

Please select 6 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

4.2	**Transportation Infrastructure**						
4.2.5	Effects arising from use of transportation infrastructure	Criterions (vii), (viii), (ix) and (x)	Monitoring	on going	on going	Parks Canada, BC Parks, US NPS	Increased motorized recreation in the park is concerning
4.5	**Biological resource use/modification**						
4.5.1	Fishing/collecting aquatic resources	Criterions (vii), (viii), (ix) and (x)	n/o	n/o	n/o	Parks Canada, BC Parks, US NPS	n/o
4.6	**Physical resource extraction**						
4.6.1	Mining	Criterions (vii), (viii), (ix) and (x)	n/o	n/o	n/o	Parks Canada, BC Parks, US NPS	In TAP, legacy issues from mine sites and US military contamination sites are factors affecting the property.
4.7	**Local conditions affecting physical fabric**						
4.7.3	Temperature	Criterions (vii), (viii), (ix) and (x)	Monitoring programs and research by partners are being conducted to try to comprehensively understand and document its effects on the site. Active management actions are being performed when possible (for example restoring the fire regime) and mitigations such as adopting green initiatives are being undertaken by sites.	on-going	on-going	Parks Canada, BC Parks, US NPS	Climate change has been identified as the greatest thread to the Outstanding Universal Value and fabric both inside and out of the World Heritage.
4.10	**Climate change and severe weather events**						

4.10.1	Storms	Criterions (vii), (viii), (ix) and (x)	Monitoring programs and research by partners are being conducted to try to comprehensively understand and document its effects on the site. Active management actions are being performed when possible (for example restoring the fire regime) and mitigations such as adopting green initiatives are being undertaken by sites.	on-going	on-going	Parks Canada, BC Parks, US NPS	Climate change has been identified as the greatest thread to the Outstanding Universal Value and fabric both inside and out of the World Heritage.
4.10.5	Changes to oceanic waters	Criterions (vii), (viii), (ix) and (x)	Monitoring programs and research by partners are being conducted to try to comprehensively understand and document its effects on the site. Active management actions are being performed when possible (for example restoring the fire regime) and mitigations such as adopting green initiatives are being undertaken by sites.	on going	on going	Parks Canada, BC Parks, US NPS	Climate change has been identified as the greatest thread to the Outstanding Universal Value and fabric both inside and out of the World Heritage.
4.10.6	Temperature change	Criterions (vii), (viii), (ix) and (x)	Monitoring programs and research by partners are being conducted to try to comprehensively understand and document its effects on the site. Active management actions are being performed when possible (for example restoring the fire regime) and mitigations such as adopting green initiatives are being undertaken by sites.	on going	on going	Parks Canada, BC Parks, US NPS	Climate change has been identified as the greatest thread to the Outstanding Universal Value and fabric both inside and out of the World Heritage
4.11	**Sudden ecological or geological events**						
4.11.4	Avalanche/Landslide	Criterions (vii), (viii), (ix) and (x)	Monitoring programs and research by partners are being conducted to try to comprehensively understand and document its effects on the site. Active management actions are being performed when possible (for example restoring the fire regime) and mitigations such as adopting green initiatives are being undertaken by sites.	on going	on going	Parks Canada, BC Parks, US NPS	Climate change has been identified as the greatest thread to the Outstanding Universal Value and fabric both inside and out of the World Heritage.
4.13	**Management and institutional factors**						
4.13.5	Financial resources	Criterions (vii), (viii), (ix) and (x)	n/o	n/o	n/o	Parks Canada, BC Parks, US NPS	Capacity (staff and funding) both affect the property.
4.13.6	Human resources	Criterions (vii), (viii), (ix) and (x)	n/o	n/o	n/o	Parks Canada, BC Parks, US NPS	Capacity (staff and funding) both affect the property.

Summary - Factors affecting the Property **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**	None, the area is greater than 24 million acres, larger than many countries and surrounded by ocean and other protected land.	n/a	Parks Canada, BC Parks, US NPS	n/a
5.2	**Protective Measures**				

5.2.4	There is **no legal framework** in the buffer zone for maintaining the Outstanding Universal Value including conditions of Authenticity and/or Integrity of the World Heritage property	None, required as related to the World Heritage Site at this time	n/a	PArks Canada, BC Parks, US NPS	n/a
8	**Education, Information and Awareness Building**				
8.2	There is a planned education and awareness programme for children and/or youth **but it only partly meets the needs**	Local cultural acceptance of the concept is slow to evolve. However, there is a critical mass of support to retain the status and continue to grow support. Action : stay the course	n/a	Parks Canada, BC Parks, US NPS	n/a
9	**Visitor Management**				
9.12	The presentation and interpretation of the Outstanding Universal Value of the property **is acceptable but improvements could be made**	The funding stream for Glacier Bay is unique and sufficient to support this goal. For the remaining sites within the World Heritage site, additional funding could add organizational capacity to address this concern and others.	n/a	Parks Canada, BC Parks, US NPS	n/a

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?

The Authenticity of the World Heritage property **has been preserved**

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 are being **partially degraded** but the state of conservation of the World Heritage property has **not been significantly impacted**

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

The state of conservation of the property is in good condition

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	Positive
Management effectiveness	Positive
Quality of life for local communities and indigenous peoples	Positive
Recognition	Positive
Education	Positive

Infrastructure development	Positive
Funding for the property	Positive
International cooperation	Positive
Political support for conservation	Positive
Legal/Policy framework	Positive
Advocacy	Positive
Institutional coordination	Positive
Security	Positive
Gender equality	Positive
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	Positive
Fostering inclusive local economic development and enhancing livelihood	Positive
Contributing to conflict prevention, including respect for cultural diversity within and around heritage properties	Positive
Other	Not applicable
If 'Other', please specify	

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

The status of the designation provides managers a beacon of significance to work together towards the common protection of the site. It is not well known or appreciated by local residents and this cultural disposition is multi-generational. However, slowly awareness and appreciation is growing and status is important for the future.

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

The WH site is 24 million acres and so large that daily cooperation is not possible. This said, there are numerous areas of collaboration across boundaries including resource protection, science, and wildlife management. The single best example and model is the Alsek. Alsek river rafting guidelines and best use practices. Where each park upholds the highest level of protection, if required by one park's regulations, for river rafting and resource protection. For partnerships with other WH sites, see: https://whc.unesco.org/en/news/1347

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

Sustainable Development
State of Conservation
Management
Governance
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 *World Heritage Convention*
Management effectiveness to maintain the Outstanding Universal Value

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

State Party	Fair
Site Managers	Good
UNESCO World Heritage Centre	Fair
Advisory Bodies (ICOMOS, IUCN, ICCROM)	Fair

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

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

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
Indigenous people

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

Gender balance **is explicitly considered and effectively 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

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?

All 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

Difficult to compile answers over two countries. Survey appears to be longer than in 2013 and cumbersome Some questions felt redundant.

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	No support
UNESCO (other sectors/field offices)	No support
UNESCO National Commission	No support
ICOMOS International	No support
IUCN International	No support
ICCROM international/regional	No support
ICOMOS national/regional	No support
IUCN national/regional	No support

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

UNESCO World Heritage Centre	Not applicable
State Party Representative (national Focal Point)	Good
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?

Not applicable (i.e. I did not use these resources)

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

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

No item were proposed for update

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

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