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Protected Areas and Intergovernmental Cooperation in the St. Elias Region

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ABSTRACT

Ecosystem-based management is now recognized as the central approach in protected area planning and management. However, objective analyses and assessments of the types of interagency partnerships and collaborative relationships necessary for successful implementation of such an approach are limited. This article provides a detailed description and analysis of cooperation occurring between government agencies in the St. Elias region of Alaska, Yukon, and British Columbia. Cooperation in the region is characterized using a relative scale based on formality and complexity. Generally, complex interagency cooperation is accompanied by formal agreements while informal agreements are most often used in situations with few actors or less pressing management issues. Despite having similar management goals and objectives based on preservation, as well as sharing a collective designation as a UNESCO World Heritage Site, cooperation and coordination of activities between the four primary protected areas in the region are largely limited to informal communication—particularly across the international border. Factors that have acted to limit cooperation are examined and potential approaches for removing these barriers and expanding collaborative activities are discussed.

INTRODUCTION

It is often a practical impossibility to make parks and protected areas large enough, or numerous enough, to adequately protect biodiversity and sustain ecological integrity over the long term. As a result, there is

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widespread consensus that these areas must be viewed and managed within the context of the larger ecological systems they occupy. Ecosystem management has emerged over the past decade as the dominant paradigm in facilitating such an approach. While definitions of ecosystem management vary greatly, most recognize the complexity and inter-connective nature of ecosystems and are rooted in the notion of enlarging the focus of environmental management to incorporate entire ecosystems—typically at regional scales—rather than their individual components.

Given the size of regions; the complexity of land use, ownership, and jurisdiction often associated with such areas; and the fact that ecosystems invariably transcend political and administrative boundaries; cooperative efforts are key to facilitating effective ecosystem-based management of parks and protected areas. Indeed, most authors describe interagency cooperation and coordination as one of the most fundamental components of ecosystem management. Despite this need, actually achieving effective cooperation remains a key challenge. Varley points to a lack of commonly held policy and management goals among agencies as the largest impediment to cooperation, as well as what he calls “the crushing complexity” of coordinating activities between the multitude of agencies and organizations that must be involved. Gilbert describes a reluctance on the part of agencies to relinquish control and a lack of

2. See generally NATIONAL PARKS AND PROTECTED AREAS: THEIR ROLE IN ENVIRONMENTAL PROTECTION, supra note 1.
incentives for planning broad collaborative programs as two other obstacles. In light of these assertions, it is little wonder that Grumbine asserted that interagency cooperation between the U.S. National Park Service and other federal land management agencies, whether carried out under the axiom of ecosystem management or not, has largely been unsuccessful.

More than a decade has passed since the concept of ecosystem management for parks and wilderness areas was formalized. Since then, numerous examples of multi-agency partnerships established under this banner have been described. However, objective analyses and assessments of these partnerships and collaborative relationships remain relatively few in number. The intent of this article is to provide such an objective assessment by way of a detailed description and analysis of cooperation occurring between government agencies in the St. Elias region—a large area centred at the juncture of Alaska, Yukon, and British Columbia and dominated by a network of parks and protected areas. While not all, indeed not many, of the cooperative relationships within the region have been established under the specific pretense of ecosystem management, the agencies involved have, by and large, committed themselves to the concept of ecosystem management, particularly those responsible for management of the parks and protected areas. Moreover, the region contains the largest transborder protected area in the world and provides fertile ground, and thereby a useful case study, for the type of cooperation that can occur in international border regions.

Given the dominant role of publicly owned land in the St. Elias region, as well as Alaska and the Canadian north in general, federal and state/provincial/territorial government agencies are the primary focus of discussion in this article. First Nations are increasingly gaining recognition as a form of government, particularly in the Yukon, and are also discussed. However, other stakeholders in the region such as nongovernmental organizations (NGOs) and local or municipal governments play a smaller role and are not examined in detail at this scale.

8. Gilbert, supra note 5, at 182.
10. See generally ECOSYSTEM MANAGEMENT FOR PARKS AND WILDERNESS, supra note 3 (often referred to as the first collection of papers on the subject).
REGIONAL HUMAN-INSTITUTIONAL ENVIRONMENT

Bounded by the Gulf of Alaska, the Yukon's Shakwak Trench, and the Copper River Valley in Alaska, the St. Elias is a large mountainous region that trends southeast-northwest along the geologically young Wrangell and St. Elias Mountains. It is the source of several large watersheds including the Tatshenshini-Alsek, Chitina-Copper, and Tanana, and contains the largest temperate icefield in the world.\textsuperscript{14} Northern coniferous or boreal forests predominate in the interior lowlands, while temperate rainforests are predominant in coastal areas. Forests give way to subalpine zones of tall shrubs at higher elevations, which, in turn, give way to alpine meadows, tundra, and permanent snow and ice at the highest elevations. The fauna are also diverse, and the region is well known for globally significant populations of large mammals, particularly grizzly bear (\textit{Ursus arctos}) and Dall sheep (\textit{Ovis dalli}).

Much of the St. Elias region is composed of a network of public lands and protected areas managed by a variety of federal, state, provincial, and territorial agencies. At the core of this network are Wrangell-St. Elias and Glacier Bay National Parks and Preserves in Alaska, Kluane National Park and Reserve in Yukon, and Tatshenshini-Alsek Wilderness Provincial Park in British Columbia. In total, these four parks protect more than 98,000 km$^2$ and combine to form the largest United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site.\textsuperscript{15}

The configuration of protected areas in the region is illustrated in Figure 1 and supplemental information is provided in Table 1. The human-institutional setting of each area—including purpose, management objectives, and permitted land uses—is described in the following sections. This type of description is key to understanding the cooperative and collaborative projects that exist between the agencies responsible for the region's protected areas as well as those that exist with agencies responsible for the region's unprotected lands and resources.


\textsuperscript{15} UNESCO, \textit{PROPERTIES INSCRIBED ON THE WORLD HERITAGE LIST (2001)}, available at http://whc.unesco.org/heritage.htm#debut (last updated June 27, 2002). World Heritage sites are areas of outstanding universal natural and/or cultural value administered by the World Heritage Convention. Convention Concerning the Protection of the World Cultural and Natural Heritage, done Nov. 23, 1972, 27 U.S.T. 37, art. 1. The Convention has been signed by 158 countries. Member countries submit nominations for sites to be included on the list and a detailed set of criteria is used to guide the selection process. There are currently 721 sites inscribed to the list, including such internationally renowned places as the Great Pyramids of Egypt, the Galapagos Islands, and the Grand Canyon.
National Parks and Equivalent Reserves

The four parks of the World Heritage Site act as the protected core of the St. Elias region. Despite their continuous nature, specific land designations in each of the four areas are very different and zoning within the two American parks is quite complex.

Approximately one half of Kluane National Park remains under reserve status, which is a designation granted to an area where aboriginal land claims have yet to be settled. In 1994, the Champagne-Aishihik First Nation settled their land claim in the southwestern portion of the Yukon and a portion of Kluane was released from reserve status.\(^\text{16}\) The remainder of Kluane is expected to be released from reserve status in the near future as soon as the Kluane First Nation finalizes their land claim incorporating the northern portion of Kluane National Park and Reserve. Most of Kluane is zoned as wilderness where only those activities requiring limited primitive facilities are allowed. A similar approach to zoning is taken in the Tatshenshini-Alsek Wilderness Provincial Park. With the exception of the Haines Highway corridor, the entire provincial park is zoned for wilderness preservation.\(^\text{17}\)

Wrangell-St. Elias and Glacier Bay comprise two broad designations: national park, where sport hunting is not permitted, and national preserve, where it is permitted. Superimposed upon this dual land designation is congressionally legislated wilderness where, amongst other things, motorized vehicle access is not permitted. This results in four general land classes in Wrangell-St. Elias: national park, national park wilderness, national preserve, and national preserve wilderness. These same classes are observed in Glacier Bay with the added levels of wilderness waters and non-wilderness waters within the National Park.

Land use in each of the four core protected areas is broadly similar in that much of it is centred on activities traditionally associated with parks and protected areas. This generally includes recreational activities such as hiking, backpacking, mountaineering, and fishing in each of the four parks. More intensive activities in each of the parks include rafting on the Tatshenshini and Alsek Rivers and vehicle sightseeing with associated day hiking along the Haines Road corridor in the Tatshenshini-Alsek Wilderness Provincial Park. Boating on Glacier Bay and kayaking along the Glacier Bay coastline are the predominant forms of recreation in Glacier Bay.

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17. See Danby, supra note 11, at section 4.2, "National Parks and Equivalent Reserves," for details on zoning within each of the four core protected areas.
National Park and Preserve. Vehicle sightseeing with associated day hiking is predominant in Kluane National Park by way of the Haines Road and Alaska Highway corridor along the Park's eastern periphery as it is in Wrangell-St. Elias National Park and Preserve along the Glennallen Highway, Nabesna Road, and McCarthy Road corridors. In short, virtually all visitor use in each of the four areas is concentrated along one or two linear areas.

Subsistence harvest is permitted in at least part of each of the four areas. However, the extent and definition of what constitutes subsistence use varies between them. It is the policy of Parks Canada to allow subsistence harvest by First Nations in national parks, which occupy areas subject to existing treaties or comprehensive land claims. Similar provisions are granted by the Government of British Columbia for provincial parks. A breakdown of this subsistence use as well as other consumptive use in all the parks and protected areas discussed here is provided in Table 2.

The rules governing subsistence use in the Alaskan parks are slightly more complex. One of the purposes for which Wrangell-St. Elias was established was to allow for continuation of subsistence lifestyles (Table 3). To this end, traditional resource use by local residents, not just First Nations, is permitted throughout the park and preserve. In contrast, with the exception of fishing, subsistence use of Glacier Bay National Park and Preserve is limited to the National Preserve. In fact, fishing of all types, including commercial fishing, continues on Glacier Bay despite the fact that it is prohibited in U.S. National Parks.

National Forests and Wildlife Preserves

The Tetlin National Wildlife Refuge, Kluane Wildlife Sanctuary, Chilkat Bald Eagle Preserve, and Chugach and Tongass National Forests are the five major areas adjacent to the four core protected areas that provide moderate levels of protection. While they are discussed together here, there are actually more differences between them than there are similarities.

Tetlin National Wildlife Refuge provides the most protection of these five additional areas. It was established under the Alaska National Interest Lands Conservation Act (ANILCA) in 1980 for a variety of

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purposes, mostly relating to the conservation of fish and wildlife populations and habitats and to provide for subsistence use of these resources. Habitat management for specific species groups, particularly waterfowl and ungulates,\textsuperscript{21} is practised extensively throughout the Refuge, primarily through prescribed burns to encourage new growth.

The Kluane Wildlife Sanctuary is administered by both the Canadian and Yukon Territorial governments. Like much of the Yukon, land and timber resources are federally owned and administered while wildlife is managed by the Yukon Department of Renewable Resources (DRR). The only restriction on resource use within the sanctuary is a territorially assigned prohibition of "hunting, trapping, killing, shooting at, wounding, injuring, or molesting any game."\textsuperscript{22} Apart from this, the area is open to any activity that would permissibly occur on any other territorial land. Designation of a portion of the northern section of the sanctuary as a territorial park is a possible outcome of current aboriginal land claim negotiations.

The Chilkat River State Critical Habitat Area, commonly known as the Chilkat Bald Eagle Preserve, protects habitat for the world's largest concentration of Bald Eagles (\textit{Haliaeetus leucocephalus}). The Chilkat River supports late salmon runs, which attract thousands of eagles from across southeast and south-central Alaska. Despite its smaller size it serves an important ecological role at both the local and regional scale. Land use in the area is managed for the purposes of protecting bald eagle populations and their habitats, protecting salmon spawning and rearing areas, protecting riparian ecosystems, protecting populations of other bird and mammal species, and providing opportunities for scientific study and research.\textsuperscript{23}

The Tongass and Chugach National Forests are managed under the canons of multiple use and sustained yield.\textsuperscript{24} Each forest is a patchwork of land designations where permitted land use ranges from intensive logging and resource extraction to legislated wilderness areas where all resource extraction and motorized access is prohibited. Key here to the protected areas of the St. Elias region are the Russell Fiord Wilderness and Endicott River Wilderness areas.

\textsuperscript{21} Hoofed mammals such as moose, caribou, deer, etc.


\textsuperscript{23} See \textit{ALASKA DEP'T OF NATURAL RES., ALASKA CHILKAT BALD EAGLE PRESERVE MANAGEMENT PLAN 1-2} (1985).

Adjacent Unprotected Lands

Lands adjacent to the protected areas of the St. Elias fall into three broad categories of ownership: private, public, and tribal or native lands. As illustrated in Figure 2, the majority of these lands are publicly owned and are administered by state, provincial, territorial, or federal agencies. Figure 2 also illustrates differences in the patterns of ownership and administration of public lands between Yukon, Alaska, and British Columbia and these differences are discussed below.

Most public lands in the Yukon are federally owned and are administered by the Canadian Department of Indian Affairs and Northern Development. Natural resources such as water, forests, and minerals are also managed by federal agencies although some devolution is occurring. The one major exception to this is fish and wildlife, which are managed by the Yukon Territorial Government's Department of Renewable Resources.

As a Canadian province, most public lands in British Columbia are provincially owned and administered. There is little federal land in the vicinity of the St. Elias region in British Columbia, and several provincial agencies are responsible for the management of unprotected lands and natural resources in the region. These include the British Columbia Ministry of Environment, Lands, and Parks (BC MELP) and the British Columbia Ministry of Forests (MOF).

Alaska represents a median between the public land ownership extremes of Yukon and British Columbia, having a mix of both federal and state lands. This complicates land administration in the state by creating a veritable patchwork of jurisdiction and administrative agencies. As a result of ANILCA in 1980, a large portion of federal lands was conveyed to state authority.25 Additional lands remain under federal ownership but have been selected by the state for future conveyances. Local municipal governments have relatively small landholdings and virtually no role in resources management in any of the Yukon, Alaska, or British Columbia portions of the region. These are the unmarked areas on the map of Figure 2.

Lands held by aboriginal peoples comprise the second category of land outside of protected areas in the St. Elias region and the conveyance of land to aboriginal groups has followed very different routes in Alaska, British Columbia, and the Yukon. In Alaska, aboriginal claims were settled in 1971 through the Alaska Native Claims Settlement Act (ANCSA)26 before most of the region's protected areas were established by ANILCA. ANCSA

created regional native corporations and provided cash and land settlements to be administered by these corporations.\textsuperscript{27} Some corporations were then subdivided into village corporations while others remained solely as regional corporations. The regional corporations occupying portions of the St. Elias include Ahtna Inc., Doyon Ltd., Chugach Natives Inc., and SeaAlaska Corp.

Three Yukon aboriginal groups have traditional territory in the greater St. Elias region: the Klune, White River, and Champagne and Aishihik First Nations. Following extensive and difficult negotiations throughout the 1980s, an Umbrella Final Agreement for the Yukon comprehensive claim was signed in 1992.\textsuperscript{28} Local agreements specific to each band have been and continue to be negotiated from that. The Champagne and Aishihik signed their Final Agreement in 1993, and the White River and Klune First Nations are in the final stages of completing their respective agreements. Each of these agreements has and will convert land ownership to the First Nation groups as well as ensure their direct involvement in all resource management activities within their traditional territories.

The traditional territory of the Champagne and Aishihik First Nations includes the portions of the St. Elias region that extend into British Columbia and they are pursuing a land claim that includes much of this area.\textsuperscript{29} However, settlement of claims has only recently begun in British Columbia. As such, their actual land holdings within the province are, at least for discussion purposes here, insignificant.

Privately owned lands make up the final category of lands adjacent to the protected areas of the St. Elias region. Land status in this category may range from residential lots to state-university-owned lands to lands owned by industry. Despite the number of individual parcels of privately-owned land in the region, its total area is actually quite small in comparison to the total area of public and native-owned lands. This is particularly true in Alaska.

\textsuperscript{27} See generally NASKE & SLOTNICK, supra note 25.


\textsuperscript{29} On December 15, 1993, the Champagne and Aishihik First Nations filed a Statement of Intent with the British Columbia Treaty Commission and on August 14, 1995, they signed a Framework Agreement with the federal government to proceed with land claims negotiations in British Columbia. These documents are available at http://www.bctreaty.net/nations/champagne.html (as of June 23, 2002).
INTERAGENCY COOPERATION ACROSS THE ST. ELIAS

As Gray noted, collaboration in managing natural resources has a long history in the St. Elias region, beginning with cooperation between the native peoples of the Interior and the Coast. European settlement of the area required cooperation between Russian, French, Spanish, British, and American fur traders, and the governments of these countries were involved in a series of negotiations leading to allocation of the region's fur resources. The American purchase of Alaska in 1867 ushered in a new era in relations as the United States and Canada negotiated international boundaries. As discussed by historians such as Munro and Penlington, regional international relations during this period were tense. The discovery of gold in Alaska and the Yukon and the subsequent migration of people from the south further necessitated cooperation between the two nations but also contributed to existing tensions. Following resolution of the boundary dispute in 1903 and after much of the gold rush had passed, tensions eased somewhat and more amiable and cooperative regional international relations prevailed. However, the process of collaboration became significantly more complex as the twentieth century progressed, particularly following construction of the Alaska Highway in 1942 and even more so after Alaska achieved statehood in 1959.

As was illustrated in Figure 2, in addition to the two nations and their respective federal agencies, a U.S. state, Canadian territory, Canadian province, and several First Nations and local governments also govern the St. Elias region. Figure 3 summarizes the major cooperative relationships among these agencies as they relate to protected area management. As illustrated in Figure 3, cooperation between these agencies ranges from simple informal relationships to complex formal agreements. Degree of formality is based on the relative importance placed on written agreements such as legislation, international agreements, memoranda of understanding (MOUs), etc. in assuring the maintenance of, and commitment to, the relationship. Complexity is based on a combination of factors, primarily the number of agencies involved, the intricacy of the cooperative arrangement, and the relative effort it takes to maintain the agreement or relationship.

Figure 3 illustrates a relationship between the complexity and formality of intergovernmental cooperation in the St. Elias region. Generally, complex intergovernmental cooperation is accompanied by formal agreements. A second relationship not directly evident from the figure, but inferred through the listed examples, is that cooperation is significantly less frequent between agencies on opposite sides of the international border. These two trends are discussed further in subsequent sections.

For purposes of discussion, the cooperative relationships illustrated in Figure 3 can be grouped into five general categories based on common characteristics. In order of increasing complexity and formality these are (1) communication, (2) coordination and collaboration, (3) cooperative management, (4) legislated joint management, and (5) international agreements. Each of these categories along with typical examples from the St. Elias region is described in the following sections.

Communication

General communication and information sharing between agencies sharing a particular resource is the most common type of management cooperation. Communication varies from simple telephone conversations between peers in different agencies to more formal meetings involving several different agencies. For the most part, however, it is rather simple and informal in nature.

Wildlife data and information sharing is the most common form of intergovernmental cooperation in the St. Elias region. Most often this occurs in the form of telephone conversations and correspondence between government biologists. Such communication occurs freely across jurisdictional boundaries and among administrative agencies, particularly between federally protected areas and state/provincial/territorial agencies. For example, Parks Canada wardens undertake regular surveys of large mammals in Kluane National Park. Results of these surveys are passed on to the Fish and Wildlife Branch of the Yukon Department of Renewable Resources (DRR) and individual staff members from these branches sometimes meet to discuss wildlife population trends. Similar relationships exist between resources management staff at Glacier Bay and Wrangell-St. Elias National Parks and biologists at the Alaska Department of Fish and Game (ADF&G).

Although this article focuses on intergovernmental cooperation, communication is also the level of cooperation at which other types of actors and stakeholders are typically involved. This includes environmental NGOs such as the Canadian Parks and Wilderness Society, the Wilderness Society, and the Sierra Club, as well as private landowners, residents, and resource users and user groups such as the Yukon Chamber of Mines. Other
forms of communication, such as interpretive programs and public outreach, also fall under this category.

Coordination and Collaboration

Coordination and collaboration represent the next level in management cooperation in the St. Elias region. This is an extensive category that comprises a wide variety of cooperative relationships like activity coordination, joint programs, collaborative research and monitoring, infrastructure and resource sharing, and soliciting input from a neighbouring agency on a specific management issue. The rationale for such cooperation is also wide ranging. The existence of transboundary resources or shared management issues may be a factor, or coordination and collaboration may be necessitated because of expertise in one organization not shared by another. The benefits associated with economies of scale and reduced duplication of tasks may also initiate these relationships. In any case, the cooperation between agencies is almost always viewed as being equally beneficial to all parties involved.

For the most part, activity coordination and collaborative initiatives are not directed by legislated agreements. MOUs are often used but such agreements are not binding and do not require a substantial level of effort to maintain desired results. On the other hand, these cooperative relationships are not nearly as simple and informal as interagency communication. This is the level at which most of the interpark cooperation in the St. Elias region occurs.

A good example of interagency coordination and collaboration is the recent focus on management of the Alsek watershed. Given the rise in use of the Tatshenshini and Alsek Rivers in recent years, current efforts have focused on regulating river-based recreation to avoid ecological impacts and maximize visitors' wilderness experience. While the potential for an international management plan has been discussed, formal dialogue has yet to be initiated. Instead, Glacier Bay's Alsek River Visitor Use Management Plan,34 which was developed with consultative input from Kluane National Park, Tongass National Forest, and the government of British Columbia, as well as river users, has served as a framework for developing visitor use regulations for the entire river system. There are now common permit requirements, similar limits to group size, and common camping and access restrictions throughout all protected portions of the river system. Moreover, while the regulations are not enforceable on the unprotected portions of the river system, commercial operators have agreed

34. See generally NAT'L PARK SERV., DEPT OF INTERIOR, ALSEK RIVER VISITOR USE MANAGEMENT PLAN: GLACIER BAY NATIONAL PARK AND PRESERVE (1989).
to adhere to the park regulations outside of park boundaries. These regulations and guidelines are outlined in an informative brochure published jointly by Yukon DRR, Parks Canada, BC MELP, and the U.S. National Park Service (NPS).

**Cooperative Management**

The third level of cooperation is referred to simply as cooperative management. Examples of cooperative management are normally directed by a formal agreement between two or more resource management agencies and may include involvement of end users and user groups or special interest groups. The agreements are often initiated because of a common management issue or shared resource, or due to instances of deleterious environmental impacts across jurisdictional boundaries.

The Mentasta Caribou Herd Cooperative Management Plan is a good example of cooperative management in the St. Elias region. The Mentasta caribou herd is a small intermountain herd that ranges across a wide area administered by several different agencies. In response to an 80 percent decline in herd numbers, the annual recreational hunt on Mentasta caribou was closed in 1989, the annual subsistence hunt on the herd was closed in 1992, and NPS staff at Wrangell-St. Elias National Park and Preserve, Fish and Wildlife Service staff at Tetlin National Wildlife Refuge, and regional biologists from ADF&G collaborated to develop a management plan for the herd. Despite varying management philosophies, the three agencies agreed on common management goals and objectives for the herd and formalized the plan in 1995. In addition, the cooperative plan lays out a series of guidelines rooted in population biology to be used in determining what type and how much hunting on the herd may occur. The plan also calls for extensive cooperative monitoring of the herd and necessitates open dialogue and communication between the three agencies. Local citizen advisory groups have endorsed the management plan and the Yukon Department of Renewable Resources will be consulted when the herd winters in Canada.

36. *British Columbia Environment et al., Rafting the Tatshenshini and Alsek International Rivers: A Summary of Safety and Environmental Protection Standards* (n.d.).
Joint Management

The most formal and complex level of cooperation evident in the St. Elias region is joint management. This type of cooperation places a heavy reliance on one or more formal agreements to maintain a very specific arrangement. Moreover, these agreements are usually very intricate and detailed in nature and often have independent budgets established for their administration. The examples of joint management provided in Figure 3 are similar in that they were each initiated as a result of legislated requirements for public and/or First Nation involvement in natural resource management. This is instructive in differentiating them from examples of cooperative management that, although formal in nature, were established as a result of a shared resource or common management issues and are not legislatively mandated.

The settlement of aboriginal land claims in the Yukon has resulted in the establishment of a number of cooperative relationships in the St. Elias region that can be characterized as joint management. For example, the Kluane National Park management board is composed of two members from the Champagne and Aishihik First Nation and two members from Parks Canada. Two members of the Kluane First Nation will be added once their Final Agreement has been ratified. The board’s mandate is “to make recommendations to the federal Minister of the Environment respecting all matters pertaining to the development and management of the park.” A similar board, the Alsek Renewable Resources Council, is composed of three local representatives appointed by Yukon Renewable Resources and three representatives appointed by the Champagne and Aishihik First Nations. The Council’s mandate is to make formal recommendations to the Yukon Territorial Government on the management of renewable resources on traditional territorial land outside of Kluane National Park. A similar resources council is anticipated for the Kluane First Nation traditional territory.

Each of these bodies is still in its infancy and it is too early to accurately assess their effectiveness. Nevertheless, they have and will continue to significantly alter the manner by which land and resource planning and management is carried out around Kluane National Park and the greater St. Elias region as a whole. What is also apparent is that the settlement of land claims in the Yukon has formalized the First Nation as a new participant in government with a legislated right to take part in the management of natural resources.

41. *Id.* at 405-08.
International Agreements

International agreements are cooperative relationships that have been initiated outside of the St. Elias region. They are directed by formal agreements to which the United States and Canada are signatories and, therefore, to which management agencies in the St. Elias region must adhere. Examples include projects carried out under UNESCO’s Man and the Biosphere programme, international agreements such as the Convention on International Trade in Endangered Species (CITES), the International Boundaries Water Treaty and International Joint Commission (IJC), and the International Migratory Bird Convention. The most relevant in the St. Elias region is the World Heritage Convention to which both Canada and the United States are signatories. Kluane and Wrangell-St. Elias became the first bi-national World Heritage Site in 1979, the culmination of nearly 15 years of formal negotiations between Canada and the United States to establish an international park on the Alaska-Yukon Border. Glacier Bay was added to the list in 1992, and the Tatshenshini-Alsek Wilderness was added to the site in 1994, soon after its establishment. An ancillary motive associated with these two latter additions was prevention of the Windy-Craggy mine, illustrating the more uncommon but not unknown use of World Heritage designation as a tool in gaining protection for an area.

In the spirit of the World Heritage designation, staff members from the four parks communicate with each other and occasionally meet. Information sharing figures prominently in this communication and is primarily related to exchange of information on park resources. The potential for collaborating on interpretive activities was discussed at a 1997 meeting between interpretive staff from each of the four parks and future meetings have been discussed. Of notable interest is a proposal by the Champagne and Aishihik First Nation to assign a common name to the World Heritage site that reflects the region’s common characteristics.

A more recent international agreement is a five-year memorandum of understanding signed between the U.S. National Park Service and Parks

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44. UNESCO, supra note 15.
The goal of the MOU is to act as a framework for cooperation in management, research, protection, conservation, and presentation of national parks and historic sites between the two countries. It provides for the establishment of an intergovernmental committee to review and discuss potential projects and relevant issues and identifies the scope and scale of activities likely to take place under the agreement. Although the St. Elias Mountain Parks are listed as one of twelve priority areas for possible collaboration between the two agencies, it is still too early to assess the MOU's effectiveness as a tool for promoting international cooperation in the region. While it is certainly a promising step, it remains to be seen whether such an agreement can effectively transfer itself to the local level.

Summary and Discussion

The St. Elias region is unlike many other regions in that much of its area is composed of parks and protected areas. These areas vary in the level of protection offered, from the four national parks and equivalent reserves, which form the protected core of the region, to peripheral wildlife sanctuaries and national forests. Management of these areas spans several federal and provincial/state/territorial agencies on each side of the international border. Land status and ownership outside of the parks and protected areas can be divided into numerous categories, adding an additional layer of complexity to the regional human-institutional environment.

The need for management cooperation and the benefits obtained from it are acknowledged by agencies throughout the St. Elias region. Cooperation occurs at a variety of levels, from simple informal communication to formal and complex agreements directing joint management of a particular resource or specific area. For the most part, however, interagency cooperation throughout the St. Elias region is informal. Although this type of cooperation can have numerous benefits, its success depends heavily on the individuals involved. Discussions with resource managers from numerous agencies across the St. Elias suggest that this presents a "Catch 22" situation. Without formal agreements for cooperation, the extent of interagency collaboration is entirely up to the individual involved. In addition, personality conflicts or rivalries between agencies can effectively eliminate informal cooperation. On the other hand, implementing formal agreements for cooperation can hinder the candid

nature of such relationships, making their use less attractive in some instances. Despite these opposing realities, management staff throughout the region are generally of the opinion that formal agreements are necessary if interagency cooperation is to occur at a level beyond communication.

Several factors are responsible for limiting cooperation between agencies in Canada and the United States and these are discussed at some length in the following section. Yet there are just as many obstacles to increasing—or at least improving the effectiveness of—cooperation between agencies within the same country. Wildlife management garners a substantial amount of attention in the region and is quite instructive in demonstrating these barriers. For example, Valkenburg states that the primary wildlife management problem in Alaska for caribou and other species is conflicting management authority between state and federal agencies.47 Farnell et al. note similar conflicts in the Yukon, where the Territorial government and First Nations co-manage wildlife resources, but where the federal government "retains jurisdiction over land, water, and timber resources, limiting the ability of Yukon to manage caribou habitats."48 Because of its international nature and the number of different agencies involved, these problems are magnified several times in the St. Elias region.

From an ecosystem perspective, there is, ultimately, a greater need to facilitate management cooperation between the four core protected areas and their surrounding less protected and unprotected lands than there is to facilitate cooperation with each other.49 This is especially evident given the fact that the surrounding unprotected lands are the areas where most of the threats to the protected areas are likely to originate. Yet cooperation among the four core parks—Kluane, Wrangell-St. Elias, Glacier Bay, and Tatshenshini-Alsek—remains paramount to achieving the goals of ecosystem-based management at a regional scale, particularly since these are the areas most likely to support the highest level of ecological integrity. Moreover, given that the four core protected areas share similar management objectives, a question begs asking: if these areas cannot serve as a model for coordinated interagency cooperation, which can? This question provides the basis for the next section.

49. See Danby, supra note 11, at 211-14, 240 (1999).
TOWARD IMPROVED INTERPARK COOPERATION

There is very little in the way of conflicting land use between Kluane National Park, Tatshenshini-Alsek Wilderness Provincial Park, and Glacier Bay and Wrangell-St. Elias National Parks and Preserves. Each of these areas has similar management goals and objectives based on preservation. Given these similarities, it seems that cooperation between the four parks would be natural. Yet, as illustrated in Figure 4, cooperation and coordination of activities is limited primarily to informal communication, particularly across the international border. In light of this, this section attempts to answer the following three questions: (1) What are the factors that have limited cooperation in the past? (2) How can these factors be overcome to improve cooperation? and (3) What approaches can be used to improve transborder cooperation?

Obstacles To Interpark Cooperation

There are several reasons why cooperation between the four core protected areas is not more prevalent. Certainly there are areas where interpark cooperation is—at least on biophysical grounds—not necessary. Yet, there are also areas where cooperation appears justified but is absent or lacking. Apparent reasons for this are described here.

Firstly, planning and management in the region is primarily issue driven and the need for cooperation is not seen until a specific issue arises. This reactive approach is commonly observed in resource management. Yet, while it may be suitable for minor "day-to-day" problems, it is poorly suited for issues of regional significance, which demand a more proactive and pre-emptive approach to be effective. Secondly, while they may realize the importance of cooperation, the priority of land management agencies is to their own lands. Often resources, funding, and staffing are strained enough as it is and increasing the level of interagency cooperation is perceived as extraneous to meeting specific management objectives. This perception is not surprising given the size of the St. Elias region and its parks and protected areas.

While management cooperation between the Canadian and American elements of the St. Elias region does occur, it is apparent that it is not nearly as extensive as that between agencies of the same nation. The reasons for this are varied and numerous. One of the factors hindering cooperation between the two American national parks and the Canadian

50. Gray, supra note 33, at 379-80, notes that this reactive approach is also prevalent in areas outside of resource and environmental management and includes issues surrounding economic development and trade, infrastructure, security and defence, and many others.
parks is the lack of staff equivalents in the area of resources management. Rangers in the American parks and wardens in the Canadian parks are roughly equivalent. However, resources management staff in the U.S. parks, such as zoologists, botanists, environmental analysts, etc., have no direct equivalents in the Canadian parks. Instead, Canadian equivalents work out of regional offices and Canadian wardens are often required to fulfil "double duty" and undertake activities related to both resources management and visitor services. Conversely, staff in U.S. national parks change so often that it is difficult for them to establish any cooperative relationships with Canadian wardens, regardless of whether or not there is an equivalent position.

Finally, and perhaps most significantly, there is a perception among some government representatives that increasing cooperation somehow means relinquishing control. Such a perception has been observed in other transborder parks and acts as a substantial stumbling block in creating formal agreements between parks. Alaskan parks are reluctant to increase the amount of activities carried out under the flag of the World Heritage or Biosphere Reserve designations because of a general state-wide apprehension about these international designations, and the original decision to stop short of joint management between Kluane and Wrangell-St. Elias appears to have been made by Canadian government officials who felt that such an approach would not mesh with popular nationalistic feelings at the time. More recently, Alaska representative Don Young has twice introduced an American Land Sovereignty Protection Act to Congress to curtail U.S. participation in UNESCO's World Heritage Convention and Man and the Biosphere program, charging that such programs are "United Nations experiments within sovereign U.S. borders."

Fostering Improved Cooperation

Overcoming these hurdles is an important step in improving interpark cooperation and taking a step toward integrated management of the region. At the international level this relates to increasing trust between the two nations. Canadians are typically fearful of having their identity


52. See Press Release, U.S. Dep't of State, the President's Meeting with Prime Minister Trudeau (Apr. 22, 1972) (on file at Wrangell-St. Elias National Park & Preserve, Copper Centre, Alaska).


absorbed by American culture, and Americans tend to be wary of relinquishing any control on issues of an international nature. Overcoming these broader, almost philosophical, obstacles must involve the recognition by each nation of the other’s concerns and efforts to improve cooperation must be accompanied with assurances that working together will not lead to a loss of identity or liberty.

Transcending the binational nature of the St. Elias are the First Nations, which call the entire region home. The interconnected cultures of these peoples span both spatial and temporal boundaries, as well as the permeable boundaries between the biophysical and cultural environments, thereby providing what is perhaps the most comprehensive regional linkage of all. On an ideological level many of these peoples consider themselves citizens of North America rather than Canada or the United States. First Nation peoples could play a significant role in bridging the international border, helping to reduce some of the broader obstacles to international cooperation and bringing Canadian and American agencies closer together for mutual benefit. This was suggested by Fuller but has yet to be realized to its fullest potential.

Reinforcing the general benefits of cooperation, building consensus among agencies, identifying common goals and objectives, and identifying shared resources are all ways to overcome obstacles to international cooperation. Recognizing and building upon commonalities appears to be the most important step in fostering improved interpark cooperation and regional integration of these areas.

For purposes of discussion, these commonalities can be divided into two categories: shared resources and common issues. The physical and biological resources shared by the parks have recently been identified and described. These resources and the activities carried out in managing them certainly provide a focus for improving interpark cooperation. As an example, species inventories and status assessments, monitoring of specific wildlife populations, and mapping and analysis of vegetation communities are activities common to each park. Each of these could be coordinated under a multi-park initiative aimed at assessment and management of biodiversity within the four parks. Experience and information could be shared, methods and data standardized, and future tasks coordinated, shared, and even integrated. Given the commonalities in each of their physical environments, a similar approach involving geology, physiography, climate, glaciers, hydrology, and water resources is also

56. See Danby, supra note 11.
feasible. Universities and government research agencies could be a valuable component of such collaborative efforts, providing research and monitoring expertise as well as assisting in attaining and sustaining additional funding.

The four parks also share historical and cultural resources. The common regional heritage includes occupation of the area by First Nations for thousands of years, early exploration of the region along coastal and interior routes, mountaineering, scientific research and modern exploration, settlement of the region during the nineteenth and early twentieth centuries, and mineral exploration over the past 150 years. Relics of this shared heritage exist throughout the region, ranging in age from prehistoric archaeological sites to abandoned mines and mills. This common heritage and its existing relics are additional resources that transcend the international border and provide an additional foundation for fostering interpark cooperation and coordination.

The use of shared historical and cultural resources in fostering interpark cooperation is clearly illustrated in the example of the Klondike Gold Rush National Historic Park (Alaska) and Chilkoot Trail National Historic Site (British Columbia), designated as part of the Klondike Gold Rush International Historical Park in 1998. Although these two parks are much smaller than the four core parks of the St. Elias region, they are located just beyond the constellation of parks and protected areas discussed here and therefore include several of the same government agencies in their management. They serve as a good model in using cultural and historic resources as a basis for international cooperation and could actually provide something of a foundation for expanding cooperation among the four St. Elias Mountain Parks.

As detailed earlier, the four St. Elias Mountain Parks were established for similar reasons, permit similar levels of use, provide similar levels of protection, and are experiencing similar management issues and concerns. In combination with the fact that each area is managed with the same overall objective in mind (i.e., preserving wilderness and ecological integrity), these commonalities certainly act as a broad foundation for coordinated cooperation between the four parks. Sharing resources and expertise and drawing on common experiences can only improve planning and management in the four parks and could assist in resolving transboundary issues.

There are numerous cases where a management problem or issue experienced in one park is the same as, or similar to, that experienced in the others. For example, each of the four parks has experienced an infestation of spruce bark beetle in the past several years. Kluane and Wrangell-St. Elias have each faced local criticism for allowing this natural process to occur because of the potential for it to spread to adjacent unprotected forests, the increased potential for fire in infested areas, and the loss of economically valuable timber. Each of the two parks has undertaken significant programs in research and monitoring as well as public outreach to assist in related resource planning and decision making. The experiences in these two parks should be shared with each other as well as with Glacier Bay and the Tatshenshini-Alsek, where outbreaks could lead to similar problems.

Visitation in the form of both backcountry and front-country use is increasing throughout the region, and similar demands associated with this increasing use are faced by each of the four core parks in the region. These include pressure to increase and/or improve roads, trails, and visitor facilities, as well as demands for expanding the range of activities permitted within the parks. The dual nature of parks and protected areas and the preservation versus use conflict this creates is certainly not unique to the St. Elias region. Yet, given that the four parks are experiencing analogous situations, there is an obvious opportunity for cooperation in the form of improved communication and collaboration.

Less immediate but nevertheless significant issues related to environmental change also illustrate potential foci for cooperation. For example, the need for cooperation in planning for climate change is particularly evident given the fact that each park has a significant portion of its area under ice. Yet the consequences of global warming on the park environments have received surprisingly little attention given the potential impacts on not only the physical and biological environments, but also human use and occupancy of the region. Clearly there is an avenue here for joint funding of research and collaborative monitoring.

These foundations for fostering improved cooperation certainly extend beyond interpark cooperation and are applicable to the efforts necessary in integrating management of the parks with their less protected and unprotected surroundings. Yet, as noted above, the four parks of the World Heritage Site provide a fertile ground for cooperation because of their common purpose and management objectives as well as associated common issues (Table 2).

Overcoming barriers related to time and resources is difficult, especially in times of fiscal restraint. Yet there are real opportunities here for collaboration and cooperation that could be cost effective over both short and long terms. Strengthening relationships in the absence of major issues can assist in preventing serious problems from arising or having
smaller issues erupt into much larger ones. The advantages associated with economies of scale are perhaps the most apparent benefit of cooperation in the short term, given the potential for improved cooperation to save money through the sharing of resources and expertise as well as reducing the duplication of tasks. While it is these monetary benefits that may provide an immediate rationale for improving and coordinating cooperation, the broader benefits associated with creating an example of international cooperation that other regions can look towards should not be overlooked.

Approaches for Coordinating Interpark Cooperation

The four core St. Elias Mountain Parks have formally recognized the need for international cooperation in their management plans. The Wrangell-St. Elias General Management Plan states that "the NPS will continue to work cooperatively with Parks Canada at Kluane National Park on search and rescue, resource management, visitor information, and other areas of mutual concern." Even before its inclusion in the World Heritage site, Glacier Bay's management plan asked, "How should management direction for backcountry use, resource management and river management be coordinated with other state and federal agencies and with the Canadian government?" The Kluane National Park Management Plan commits the park to cooperation with the NPS by stating that "cooperation with United States National Park Service authorities for the joint UNESCO World Heritage Site will be continued." Finally, the management direction statement for the Tatshenshini-Alsek states that a priority objective for B.C. Parks is to "ensure coordinated approaches for management with adjacent jurisdictions in recognition of the World Heritage Site Status." Each of these statements reinforces the fact that the agencies responsible for the four parks recognize the importance of participating in management cooperation with their international neighbours.

59. See Gray, supra note 30, at 2.
64. Recognition of the need for international cooperation in resource and wildlife protection is not a recent phenomenon in the St. Elias region. The establishment of the original Kluane National Park Reserve (later the Kluane Game Sanctuary) by the Canadian government in 1942 appears to have its origins from a suggestion by Harold Ickes, U.S. Secretary of the
Given some of the barriers to cooperation that were described previously, the key to successfully improving interpark cooperation in the near future is to ensure that coordinated planning and management is carried out at a level that best serves the common objective of the four parks (i.e., preservation of wilderness character and qualities) without jeopardizing jurisdictional sovereignty. At one extreme, this could mean the formation of a broad alliance between the four parks. This could entail the sharing of resources, staffing, and facilities; joint programs in operations, monitoring, resources management, and scientific research; and shared features in visitor management and operations such as complementary interpretive programs.

Such an alliance would be complex in nature and might require a formal umbrella management plan and management board as well as an international agreement to guarantee commitment to the park. In turn, it is probable that such complexity and formality would detract from its desirability as a method of improving cooperation. However, the individual components outlined above could certainly exist independent of the alliance. A relevant comparison here is the Australian Alps National Parks Cooperative Management Programme, established by way of an MOU between the governments of Australia, New South Wales, Victoria, and the Australian Capital Territory. A group of senior government administrators known as the Australian Alps Liaison Committee is responsible for the MOU, and four working groups have been established to address issues and projects related to natural heritage, cultural heritage, tourism and recreation, and community relations. An annual budget allocates funds towards cooperative projects and activities.

At the other end of the spectrum is the task of simply improving communication. At the very least, the four parks of the St. Elias should undertake communication and information sharing with each other on a regular and more frequent basis. Similarly, meetings between park managers and/or staff should also occur on a regular and more frequent basis. The recent MOU on international cooperation between Parks Canada and the U.S. National Park Service provides a tenable framework for such an approach. Whether it is capable of transferring itself effectively to activities at the local scale remains to be seen.


65. See generally Scott Slocombe, Complexity, Science and Interjurisdictional Cooperation in Two Very Large Regions, in MANAGING PROTECTED AREAS IN A CHANGING WORLD 710 (Soren Bondrup-Nielson et al. eds., 2002).

66. See generally J.C. Mackay, The Australian Alps, in TRANSBORDER PROTECTED AREA COOPERATION, supra note 12, at 49.
One definite and easily attainable objective that could be pursued by the four core parks is the development of a common interpretive program to educate visitors about the linkages and resources shared by the parks. This could include common interpretive themes and programs (e.g., World Heritage status) as well as joint publications. Experience with this type of collaboration in other transborder protected areas has been quite positive. In fact, some thought has already been given to this notion. A preliminary meeting was held in 1997 between the four parks to discuss the possibility of coordinating interpretive programs and the Champagne and Aishihik First Nation has suggested giving the world heritage site a single name and logo.

There has been longstanding discussion about the possibility of having Kluane, Wrangell-St. Elias, and nearby areas designated a biosphere reserve. This designation and associated managerial framework appears to have promoted cooperation in other transboundary protected areas, and the entire St. Elias region already has a zoning structure similar to that of biosphere reserves. Yet, assigning an international designation does not necessarily ensure successful cooperation. Instead, a true commitment must be made to work towards common goals and objectives. If designating the St. Elias region as a biosphere reserve would ensure this type of commitment, then it should be pursued. However, given that the region already expresses characteristics of a biosphere reserve (i.e., protected core with buffer areas), it is the institutional arrangements required to facilitate regional integration that should be emphasized.

67. See generally L.S. Hamilton et al., Transborder Protected Area Cooperation, supra note 12.
70. For example, Glacier Bay National Park and Preserve and Admiralty Island National Monument are part of the Glacier Bay Biosphere Reserve. But the type of collaboration and cooperation normally facilitated through the establishment of a biosphere reserve has actually been carried out under the flag of the more recently established Glacier Bay Ecosystem Partnership. See Ryan K. Danby, Fostering an Ecosystem Perspective through Intergovernmental Cooperation: Lessons from Two Alaskan Examples, in MANAGING PROTECTED AREAS IN A CHANGING WORLD, supra note 65, at 722. Similarly, although World Heritage status has promoted communication and coordination of some activities between the St. Elias Mountain Parks, it seems probable that this level of cooperation would have occurred regardless of the UNESCO designation.
CONCLUSION

The theory and practice of ecosystem management, conservation biology, and environmental policy and law are increasingly pushing environmental planning and management in several linked directions: greater spatial scales, greater integration, and greater cooperation. Greater spatial scales serve to include whole ecosystems and watersheds and better protect ecological functions and biodiversity. Greater integration of information improves management by making better use of existing and new knowledge, and greater integration of institutions improves management of these large, diverse areas. Greater cooperation supports institutional integration, reflecting interests and drawing on the knowledge of diverse groups of stakeholders both locally and regionally.

From a practical perspective, the St. Elias experience is instructive in shedding light on cooperation in both frontier and non-frontier settings. There are lessons here that can be generalized to other places and that provide interesting comparisons with other examples such as the Australian Alps. For example, cooperation at the field or ranger/warden level is relatively easy and may even have quick benefits, but deeper cooperation on things like standards and large-scale research projects requires higher level commitment and even some special funding. Distrust of government and/or other jurisdictions is a major impediment not easily overcome. Formal ongoing consultation between jurisdictions such as through an advisory or liaison committee is important. Local co-management and participation in planning and management is a significant component of regional management and is facilitated by trends toward public involvement but may complicate large-scale collaboration at least initially. Specific projects and high-profile resources, such as wildlife and the Tatshenshini and Alsek Rivers in the St. Elias, provide an easy focus for initial collaboration and facilitate awareness of region-wide issues. The subsequent challenge is to extend collaboration and participation beyond these high profile initiatives.

Transborder protected areas provide a unique opportunity for implementing large-scale, integrative environmental planning and management initiatives. Similarities in land use and management objectives result in fewer barriers to the collaboration required for a successful ecosystem-based approach. Yet, as described here, many stumbling blocks still exist. Interagency cooperation in resource and environmental management is often reactionary and single-issue based and this is

71. See e.g., Les Alpes Australiennes/The Australian Alps: Revue de Geographie Alpine (Phillipe Grenier & Roger B. Good eds., 1992); Janet Mackay, The Australian Alps, in Transborder Protected Area Cooperation, supra note 12, at 49; Slocombe, supra note 65.
particularly true in international situations. However, there is a real opportunity in the St. Elias region to take a different approach. Improving cooperation between the St. Elias Mountain Parks now could act to prevent problems from arising in the future. The basis for such cooperation already exists in the form of a United Nations designation of the area as a World Heritage Site, in the form of a transboundary ecosystem of global significance, and in the form of one of the most peaceful bi-national relationships in the World.
<table>
<thead>
<tr>
<th>Park/Protected Area</th>
<th>Management Agency</th>
<th>km²</th>
<th>IUCN Class</th>
<th>Year Est. and Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kluane National Park &amp; Reserve</td>
<td>Canadian Department of Heritage - Parks Canada</td>
<td>22,013</td>
<td>II</td>
<td>1943- Game Sanctuary 1976- National Park Reserve 1994- National Park &amp; Reserve</td>
</tr>
<tr>
<td>(National Park)</td>
<td></td>
<td>(32,765)</td>
<td>(II)</td>
<td></td>
</tr>
<tr>
<td>(National Preserve)</td>
<td></td>
<td>(19,655)</td>
<td>(V)</td>
<td></td>
</tr>
<tr>
<td>(National Park)</td>
<td></td>
<td>(13,053)</td>
<td>(II)</td>
<td></td>
</tr>
<tr>
<td>(National Preserve)</td>
<td></td>
<td>(234)</td>
<td>(V)</td>
<td></td>
</tr>
<tr>
<td>Tatshenshini-Alsek Wilderness Provincial Park</td>
<td>BC Ministry of Environment, Lands and Parks - BC Parks</td>
<td>9,580</td>
<td>II</td>
<td>1993 - Provincial Class “A” Park</td>
</tr>
<tr>
<td>Tetlin National Wildlife Refuge</td>
<td>USDI Fish and Wildlife Service</td>
<td>3,739</td>
<td>IV</td>
<td>1980 - National Wildlife Refuge</td>
</tr>
<tr>
<td>Kluane Wildlife Sanctuary</td>
<td>Yukon Department of Renewable Resources</td>
<td>6,368</td>
<td>IV</td>
<td>1943 - Game Sanctuary</td>
</tr>
<tr>
<td>Chilkat River Eagle Preserve</td>
<td>Alaska Department of Natural Resources (ADF&amp;G)</td>
<td>199</td>
<td>II</td>
<td>1982 - State Critical Habitat Area</td>
</tr>
<tr>
<td>Chugach National Forest</td>
<td>USDA Forest Service</td>
<td>27,959</td>
<td>VI</td>
<td>1907 - National Forest</td>
</tr>
<tr>
<td>Tongass National Forest</td>
<td>USDA Forest Service</td>
<td>70,606</td>
<td>VI</td>
<td>1902 - Forest Reserve 1907 - National Forest</td>
</tr>
<tr>
<td>(Russell Fiord Wilderness)</td>
<td></td>
<td>(1,411)</td>
<td>(I)</td>
<td></td>
</tr>
<tr>
<td>(Endicott River Wilderness)</td>
<td></td>
<td>(400)</td>
<td>(I)</td>
<td></td>
</tr>
</tbody>
</table>
Figure 1. Parks and Protected Areas of the St. Elias Region
### Table 2. Purpose, Management Objectives, and Current Management Issues & Foci.

<table>
<thead>
<tr>
<th>Park</th>
<th>Purpose of Establishment</th>
<th>Primary Mgmt. Objectives</th>
<th>Issues &amp;/or Management Foci (examples in no particular order)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kluane NP</td>
<td>&quot;To protect for all time, and to present to the public, a natural area of Canadian</td>
<td>&quot;To preserve the wilderness character of Kluane National Park Reserve. &quot;</td>
<td>▶ Increasing backcountry use</td>
</tr>
<tr>
<td></td>
<td>significance representative of the Northern Coast Mountains Natural Region&quot;</td>
<td></td>
<td>▶ Increasing frontcountry use and visitation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▶ Native land claim settlements</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▶ Local participation in resources management</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▶ Territorial wolf kill</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▶ Spruce bark beetle infestation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▶ Development along park periphery</td>
</tr>
<tr>
<td>Wrangell-St. Elias</td>
<td>To maintain scenic beauty of the landscapes in their natural state; To protect wildlife</td>
<td>&quot;To manage the park in such a manner that the purposes for which the park was established remain unimpaired.&quot;</td>
<td>▶ Increasing backcountry use</td>
</tr>
<tr>
<td></td>
<td>habitat; To provide opportunities for wilderness recreational activities; To provide an</td>
<td></td>
<td>▶ Increasing frontcountry use and visitation</td>
</tr>
<tr>
<td></td>
<td>opportunity for traditional subsistence use.</td>
<td></td>
<td>▶ Hunting limits</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▶ Defining &quot;customary and traditional&quot; use</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▶ Spruce bark beetle infestation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▶ ATV impacts</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▶ Land use on inholdings</td>
</tr>
<tr>
<td>Glacier Bay</td>
<td>To protect tidewater glaciers, surrounding mountain peaks and forests, and provide</td>
<td>To manage the park and its use as to conserve the area and &quot;its continuing natural succession processes in a natural condition&quot;.</td>
<td>▶ Commercial fishing</td>
</tr>
<tr>
<td></td>
<td>&quot;opportunity for scientific study of glacial behaviour and of resulting movements and</td>
<td></td>
<td>▶ Marine vessel access and use</td>
</tr>
<tr>
<td></td>
<td>developments of flora and fauna&quot;</td>
<td></td>
<td>▶ Increasing backcountry use and visitation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▶ Spruce bark beetle infestation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▶ Outreach to native peoples</td>
</tr>
<tr>
<td>Tatshenshini-Alsek</td>
<td>&quot;To protect &quot;for future generations&quot; an area &quot;representative of the best natural features</td>
<td>To conserve natural diversity, wilderness quality, and cultural values and provide compatible recreation activities</td>
<td>▶ Increasing backcountry use</td>
</tr>
<tr>
<td></td>
<td>and diverse wilderness environment of the province&quot;.</td>
<td></td>
<td>▶ Spruce bark beetle infestation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▶ Continued mining lobbying</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▶ Impacts from rafting expeditions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▶ Sport hunting</td>
</tr>
</tbody>
</table>
Figure 2. Land Ownership and Administration in the St. Elias Region
### Table 3. Permitted Consumptive Resource Use in Protected Areas of the St. Elias Region.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Kluane</th>
<th>Wrangell</th>
<th>Glacier Bay</th>
<th>Tat-Alsek</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sport Fishing</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Commercial Fishing</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Subsistence Hunting</td>
<td>Limited to Local First Nations.</td>
<td>Local residents by customary and traditional means.</td>
<td>In National Preserve only.</td>
<td>Limited primarily to first nations.</td>
</tr>
<tr>
<td>Sport Hunting</td>
<td>No</td>
<td>In National Preserve only, in accordance with park specific regulations.</td>
<td>In National Preserve only, in accordance with park specific regulations.</td>
<td>Yes, in accordance with provincial hunting regulations.</td>
</tr>
<tr>
<td>Subsistence Forestry/Wood Harvest</td>
<td>In support of subsistence hunting.</td>
<td>Firewood cutting by park residents only. Greenwood harvest can occur only in support of subsistence hunting.</td>
<td>Preapproved harvest of hazard trees by local residents for firewood only.</td>
<td>In support of subsistence hunting.</td>
</tr>
<tr>
<td>Commercial Forestry</td>
<td>No</td>
<td>On private inholdings only</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Mining</td>
<td>No</td>
<td>Permitted on private inholdings, &gt;700 valid claims.</td>
<td>One set of valid claims.</td>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activity</th>
<th>Tetlin</th>
<th>Kluane WS</th>
<th>Tongass</th>
<th>Chugach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sport Fishing</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Commercial Fishing</td>
<td>Permitted on private inholdings, potentially on refuge land</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Subsistence Hunting</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Sport Hunting</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Subsistence Forestry/Wood Harvest</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Commercial Forestry</td>
<td>Permitted on private inholdings, potentially on refuge land</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Mining</td>
<td>Permitted on private inholdings, potentially on refuge land</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Figure 3. Primary Examples of Interagency Cooperation in the St. Elias Region
Table 4 (supplement to Figure 3).
Primary Examples of Intergovernmental Cooperation.

Communication and Information Sharing is the most extensive type of intergovernmental cooperation to occur in the St. Elias Region. Common examples include exchange of publications, data, and information between agencies as well as telephone conversations, correspondence, and informal meetings among peers.

Examples of Joint or Shared Resource Monitoring/Inventory are numerous and include joint and shared fish and wildlife monitoring by federal protected area management agencies (i.e. Parks Canada, US NPS, and US FWS) with state/territorial fish and wildlife departments (i.e. YDRR and ADF&G); joint water quality analysis and snow survey plots by DIAND and Parks Canada; shared spruce beetle and forest fire monitoring and research projects in Yukon between Parks Canada and DIAND and in Alaska between ADNR, USFS, and US NPS; and marine resource monitoring shared between Wrangell-St. Elias and Glacier Bay National Parks.

While much less extensive today than in the past, Kluane and Wrangell St. Elias National Parks occasional undertake Joint Patrols and Search and Rescues. Meetings between Kluane Wardens and Wrangell-St. Elias Rangers regarding remote boundary issues such as poaching, mountaineering, and border crossing have also occurred.

Multiagency cooperation in Tatshenshini-Alsek River Management has received significant attention, particularly since the Windy-Craggy mine proposal. Since establishment of the provincial park and prevention of mining in the area, efforts have focussed on cooperating on management of river-based recreation such as rafting.

Parks Canada and BC Parks have an Agreement on Infrastructure Sharing whereby Kluane National Park provides office space, equipment, and personnel support for Tatshenshini-Alsek PP rangers and staff. Parks Canada also provides assistance with wildlife surveys and other resource inventory activities.

The Glacier Bay and Prince William Sound-Copper River Ecosystem Initiatives are administered by the USGS Biological Resources Division (BRD) to promote an ecosystem perspective for use and management of natural and cultural resources in the region. The initiatives have been formally adopted through multiagency memorandums of understanding (MOU). Collaborative projects such as GIS databases, resource bibliographies, and public outreach have been used to assist in information dissemination and education, and meetings between representatives of the various land administration agencies occur regularly.
The Aishihik Wolf Control Agreement is a formal agreement between Parks Canada and the Yukon Territorial Government. Wolves that were known to spend 50% of their time within Kluane National Park or den in Kluane National Park were not to be killed in the wolf control program that took place from 1993 to 1997. In addition, a no-kill zone was established around the perimeter of the National Park. Collaborative monitoring by Parks Canada and YTG staff was undertaken to assess the residency status of wolves.

The Mentasta Caribou Management Plan is a formal plan developed by the US National Park Service, US Fish and Wildlife Service, and Alaska Department of Fish and Game to cooperatively manage the declining Mentasta woodland caribou herd.

The southwest Yukon Multi-Agency Moose Management Board is a multi-partner agreement between Kluane NP, Tatshenshini-Alsek PP, Yukon DRR, Champagne and Aishihik First Nation, BC MELP, and the Alsek Renewable Resources Council (RRC) established for the purpose of cooperatively managing moose harvest in the southwest Yukon and northwest British Columbia. It has a greater range of formality than the previous two examples because not all parties have signed the formal agreement.

Kluane, Wrangell-St. Elias, Glacier Bay, and the Tatshenshini-Alsek Wilderness are each part of the St. Elias Mountain Parks World Heritage Site and Glacier Bay and Admiralty Island to the south are designated as a Biosphere Reserve. Each of these international designations are granted by UNESCO but do not change the site’s jurisdictional status. Although such designations are given a higher status in other parts of the world, they are largely symbolic in the St. Elias Region and have little influence on the specifics associated with planning and managing the protected areas.

The Kluane National Park Management Board and Alsek Renewable Resources Council were established after settlement of the Champagne and Aishihik First Nations land claim. They are formal boards that facilitate the First Nations’ negotiated right to active participation in natural resource planning and management. The Kluane First Nation will be involved in a similar fashion following settlement of their land claim. A similar body, The Tatshenshini-Alsek Park Board was formed between British Columbia and the Champagne and Aishihik First Nations to guide management of the Tatshenshini-Alsek Provincial Park.
Figure 4.
Direct Cooperation Between Parks of the St. Elias World Heritage Site

Key

Formal Agreement

Informal Agreement

Note

Communication and information sharing is categorized under the World Heritage Designation.