Draft Nomination Document for the Adams River
As a Canadian Heritage River

Prepared for

B.C. Ministry of Environment

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Version 1.2
1 The Canadian Heritage Rivers System

The Canadian Heritage Rivers System (CHRS) is Canada’s national river conservation system, aimed at promoting, protecting and enhancing Canada’s river heritage. The system has been established by the Federal, Provincial and Territorial governments for the purpose of recognizing outstanding rivers of Canada, and ensuring future management which will protect these rivers and enhance their significant heritage values for the long term benefit and enjoyment of Canadians.

The CHRS operates under a charter that describes rivers as “a priceless and irreplaceable part of our national heritage and identity”. In British Columbia, the Fraser, Kickinghorse and Cowichan Rivers have been designated as Heritage Rivers under the CHRS. To qualify for inclusion in the CHRS, a river (or section of river) must be of outstanding significance in one or more areas: natural heritage, human heritage, or recreational values.

The process of nominating a Canadian Heritage River requires an assessment of a river’s natural, cultural and recreational values against criteria set out by the CHRS.

While the CHRS is administered by the Canadian Heritage Rivers Board, a fundamental principle of the system is that it depends on voluntary participation, partnership, cooperation and community involvement. The CHRS has no legislative authority, and as such, Local, Provincial and Federal governments, and First Nations, retain their traditional jurisdictional powers and management responsibilities.
2 Nomination of the Adams River System

2.1 Whereas Statements

WHEREAS protection of the Adams River system’s natural, cultural, and recreational heritage values are considered extremely important by a number of individuals, including local First Nations, other local community members, forestry and fisheries interests, Local, Provincial and Federal government representatives, and many others who were consulted as part of this nomination process; and

WHEREAS it is recognized that much has already been done to protect the Adams River system; designation of the system as a National Heritage River will help maintain its integrity by raising its national profile, resulting in “more eyes on the river, and more voices at the table”. This is viewed as helping to maintain or even improve the current level of interest in protecting the river system; and

WHEREAS the local community understands that CHRS designation is a positive, non-threatening process, and that any resulting designation as a National Heritage River will not interfere with any First Nations and other Local, Provincial and Federal governance including management of existing parks and land use planning programs, nor will it affect any outstanding aboriginal land claims; and

WHEREAS the Adams River system was, and is, an area of central importance to the Secwepemc First Nations people and is in particular, part of the traditional territories of the Adams Lake, Little Shuswap, Neskonlith and North Thompson Indian Bands, with evidence of human occupation dating back many generations; and

WHEREAS the First Nations of the area maintain a relationship with the river, the land and resources of the watershed, deriving physical and spiritual sustenance from the land of their ancestors, and sharing that tradition with visitors to their homeland through involvement in community events such as the “Squilax Traditional Pow Wow” and other events and activities, including participation in the “Salute to the Sockeye” event; and

WHEREAS the Adams River system particularly the lower section is known internationally for its world class salmon runs and a unique cultural event “Salute to the Sockeye” held coincident with the salmon arriving, sometimes in the millions, during the dominant run every four years; and

WHEREAS it is understood that through a community-based process, management guidelines associated with designation as a National Heritage River will be prepared that will embrace community concerns, identify areas of consensus and provide an ongoing forum for dialogue and resolution of concerns and issues; and

WHEREAS the mainstem Adams River system is already designated as a BC Heritage River; program objectives are as follows:

• To raise awareness and promote good stewardship of British Columbia’s rivers.
• To encourage public discussion of the heritage values of rivers.
• To identify rivers in British Columbia that reflect a diversity of natural heritage, cultural heritage and recreational values.
• To ensure that river stewardship is addressed in existing and future plans and planning processes.
Operating principles of the BC Heritage River System are:

- To operate within existing legislation, policies and planning processes.
- To provide input and guidance that is not regulatory or directive in nature.
- To focus on the primary stem of the river.
- To reinforce the work of stakeholders and planning tables in addressing river stewardship.
- To encourage coordination and collaboration among stakeholders.
- To monitor river management, to determine whether river management guidelines are being achieved; and

**WHEREAS** more specifically the “Vision” declaration for the Adams River as a BC Heritage River states: “A carefully managed waterway, ensuring its integrity as the premier salmon spawning river in the province, and enabling its significant contribution to the protection of British Columbia’s natural heritage and contribution to widespread public education.” Associated management guidelines state:

- To establish and maintain water quality standards required to support salmon production.
- To manage forestry and other industrial uses to ensure that the volume, quality and timing of water flows meet the requirements of salmon production.
- To monitor and control recreational use of the river to avoid impacts on fish populations.
- To maintain human history values of the river, combined with ongoing industrial and recreational use.
- To implement educational programs that communicate the special value of the Adams River fish populations.
- To manage the river, where it flows through a protected area, to retain its free-flowing character. Otherwise, to consider maintaining its free-flowing character.
- To ensure that river recognition will not diminish or restrict the use and enjoyment of the river by aboriginal people.
- To ensure that these management guidelines are consistent with the management objectives of the protected area and special resource management zones outlined in the Kamloops Land and Resource Management Plan decision document; and

**WHEREAS** the comprehensive land use planning process known as the Kamloops LRMP (a consensus based process representing many interests) examined and reported on the many values of the area, and created various special protection zones. These included Protection Resource Management Zones identified for their natural heritage, cultural or recreation values, and Habitat Resource Management Zones. They also included Special Feature Protection Resource Management Zones which are small areas protected for their rare, scarce or unique features; and

**WHEREAS** forestry practices in the area currently include a Lakeshore Management Zone for Adams Lake and Riparian Reserve Zones along river edges in the upper Adams River, and that Visual Quality Objectives have been established; and

**WHEREAS** as a result of the LRMP process the Province of British Columbia created the following parks and special protected areas relative to the Adams River system:

- Upper Adams River Park
- Adams Lake Marine Park (Poplar Point, Spillman Beaches and Refuge Bay Sites – all for intensive recreational use)
- Oregana Creek Protected Area for its old growth antique forest and rare species, particularly lichens
• Momich Lakes Park
• Roderick Haig Brown Park increased in size; and

WHEREAS parts of the Adams River system, especially the lower river are highly accessible for the observation of salmon spawning at the end of their life cycle, and attract educational tours, tourists and local people every year during annual salmon runs; and

WHEREAS the upper Adams River and various associated tributaries represent some of the best opportunities in BC for salmon enhancement; and

WHEREAS the outstanding natural, cultural and recreational qualities within various sections of the Adams River system from its headwaters in the Columbia Mountains to its mouth near Squilax on Shuswap Lake (177 km) make it a logical and strong candidate to represent the river character and heritage of the southern interior of British Columbia, among other nationally recognized rivers; and

WHEREAS the Adams River system provides opportunities in certain parts for recreational activities of exceptional quality and variety such as wildlife viewing, fishing, kayaking, canoeing, rafting, tubing, swimming, horse riding, hiking, cross-country skiing, cycling, and viewing recreational activity on the water. This region attracts many visitors (Thompson Okanagan Shuswap) and is within reasonable proximity to major populations of the Province’s southern interior; and

WHEREAS the Adams River system is an outstanding example demonstrating the relationship of industrial interests (forestry and fisheries) and the natural environment in the southern interior of British Columbia; and

WHEREAS the CHRS is a cooperative program of Federal, Provincial and Territorial governments in Canada designed to give national and international recognition to Canada’s outstanding rivers and ensure long term management that will conserve their natural, historical and recreational value for the benefit and enjoyment of Canadians, now and in the future; and

WHEREAS the Adams River system will provide to the CHRS a representative southern interior river draining into the Shuswap Lake system, providing water, nutrients and salmon fry for other wildlife and people; and

WHEREAS there is support from local residents, the business community, and some First Nations people for the nomination of the Adams River system to the CHRS, and a background document was prepared, upon which this nomination document is based.

THEREFORE the Province of British Columbia, in cooperation with the BC Heritage Rivers Board, the Adams River Salmon Society and others, nominates the Adams River system for recognition on the basis of all heritage river criteria and because of its prominent place within the BC Heritage River system as a representative of southern interior of British Columbia rivers. It is recommended that upon meeting requirements for management planning, the entire mainstem of the Adams River, Adams Lake, and parts of some tributaries be designated to the Canadian Heritage River system for the purpose of providing recognition of this important part of British Columbia river heritage.
Location of the Adams River, British Columbia

Refer to Appendix 1 for map sheet sections of the Adams River.
3 Summary

The spectacle of the lower Adams River flashing red with the bodies of sockeye salmon is one which stays in the memory of anyone who has witnessed it. Here at their spawning grounds, the exhausted salmon complete the journey which they began 490 kilometres downstream at the Pacific Ocean. Their bodies already starting to decompose, the salmon fight the river’s downstream thrust and make their way to the gravelled beds of the river where they will spawn and die. Watching this circle of death and life, people often stand spellbound and in silent awe.

The lower Adams River in Roderick Haig-Brown Park
Photo: Sarah Weaver Kipp

The Adams River and its internationally-renowned sockeye salmon run, as well as other salmon runs, have sustained the Secwepemc First Nations peoples for many years. Significant archaeological sites have been identified on the Adams River as part of a larger area of provincial significance.

It is for its sockeye salmon run that the Adams River is perhaps the most celebrated. Because of it, the river has been recognized as one of the “World’s Greatest Natural Areas” by the International Union for the Conservation of Nature (IUCN) World Commission on Protected Areas. In 1995 the mainstem of the Adams River was nominated as one of a number of inaugural Heritage Rivers by the then newly-established BC Heritage Rivers Board. The awe-inspiring sockeye salmon run has stimulated books, internationally-broadcast documentary films, videos and art and is perhaps the most visible reason for proposing the nomination of the Adams River as a Canadian Heritage River.

However, as well as its sockeye salmon run, there are a number of very important other reasons why the Adams River is significant and would contribute substantially to the Canadian Heritage Rivers System; these are outlined in this document.
3.1 Location

The Adams River is part of the Fraser River system in British Columbia. It rises at approximately 2,000 metres, high in the partially ice-covered alpine areas of the Columbia Mountains of the southern interior, and flows for about 177 km before emptying into Shuswap Lake near Sicamous, in the vicinity of Chase (refer to Overview Map).

The river has three distinct sections:

- The upper Adams River which runs approximately 94 km from its source through a deeply dissected valley which includes a series of wetlands and two lakes (Tumtum and Mica); at times the river drops 5 metres per kilometre.
- Adams Lake, a 72 kilometres long, deep cold lake (elevation 407 metres, with a maximum depth of 397 metres, placing its bed just a few metres above sea level).
- The lower Adams River which drops 60 metres in the 11 kilometres from Adams Lake to its mouth at Shuswap Lake.

A key theme that emerges from the natural values framework is that many factors, including hydrology, hydrogeology, physiography, and geographical location in relation to both Adams Lake and the downstream Shuswap Lake all work in concert to contribute to the overall significance of the Adams River system for the salmon populations which breed in it.

3.2 Key Natural Features

Geology and Hydrogeology. Underlying bedrock in the Adams River watershed are some of the oldest rocks found in B.C. The result is a very complex geology of highly metamorphosed and very ancient rocks that is still being understood. These rocks represent a nationally significant portion of the Shuswap Highlands metamorphic rocks, as they are thought to represent the leading edge of the original Pre-Cambrian continental basement rock, that have been compared with Laurentian Pre-Cambrian rocks by more than one geologist.

There are extensive gravel beds in both upper and lower rivers that provide excellent spawning materials. Some sections of gravel in the upper river have been covered by sediment that has hardened, likely caused by lack of spawning by salmon since the early years of the last century. The reason for this situation is described on page 12. It is thought that once salmon have been successfully reintroduced into the upper Adams River, they will be able to restore the gravels themselves through the cleaning action which occurs when they dig their redds during spawning.

Historically, flows in the Adams River system peak in June and are at their lowest in February or March. This flow regime is typical of the BC Interior, dominated by snowmelt processes. Climate change, may, however, alter this historic flow pattern; impacts have yet to be determined. Discharge rates during the salmon-spawning season are typically about one quarter the size of annual maximum discharge rates. The Adams River supplies over 20 per cent of the water in the South Thompson River.
The upstream presence of Adams Lake has a regulating effect on flows in the lower Adams River; for example, “instantaneous maximum flows” are on average only 1 per cent larger than the daily peak flows. Adams Lake is very deep; this feature, combined with the lake’s size at 12,800 ha, keeps water cool and helps protect the quality of the water in the lower stretch for spawning. The lake also helps trap sediments brought into the system by tributaries, further protecting the quality of the lower river. The water draining from the lake flows out over and through coarse gravels, and few fines are added to the river bottom. Water quality in the lower Adams River is therefore generally very good. Turbidity levels tend to be elevated during the freshet, as in the majority of B.C. rivers. Agriculture and logging activity in the watershed have the potential to add sediments to the river.

Immediately downstream of the lower Adams River is Shuswap Lake, which provides excellent habitat to nurture sockeye salmon fry in their first year of life before they head downstream to the Pacific. (Sockeye salmon spend more time in lakes than do other species of salmon.) Between the cool waters of the Adams River, and the warmer shallower waters of Shuswap Lake bays, the area provides excellent salmon habitat. Each year, especially after a dominant run in the Adams, Shuswap Lake is enriched by the nutrients added from the decomposing carcasses of the salmon. These nutrients stimulate plankton production which provides the food source for the young sockeye salmon fry in their first year of life. After a peak spawning year many millions of salmon fry will spend their first year in Shuswap Lake, signifying its integral link to the Adams River system for sockeye production.

**Vegetation.** The Adams River system represents the Montane Cordillera ecozone. The valley provides important valley bottom riparian habitat, which is considered to be among the most biologically diverse, yet the most threatened ecosystem in the Southern interior.

The riparian areas along both the upper and lower Adams River are rich in diversity of plant species. In addition, the variety of landforms in the lower area helps contribute to a variety of micro-climate conditions that contributes to diversity of plants. The presence of both Adams and Shuswap Lakes influences climatic conditions and supports the relatively high biodiversity of the Adams River system.

The largely undisturbed floodplain forests of the 65-kilometre long Upper Adams River Park include some patches of old growth cedar/hemlock stands not found anywhere else in the Interior Cedar Hemlock zone. The area is characterized by large areas of deciduous forest with dense shrub layer including red-osier dogwood, thimbleberry and black twinberry. A variety of wetlands occur throughout including fens, marshes and swamps.
These “Antique Forests” ("... that is, forests that have escaped catastrophic disturbance for a period longer than the age of the trees within them") have some trees over 1000 years old, and have many species of plants and lichens that are normally associated with coastal forests, several hundred kilometres distant. Many oceanic lichen genera are found in these forests where they are old-growth dependent. Two small protected areas have been identified in the upper Adams River valley and are noted as the “Oregana Creek” Protected Areas. These are Species Richness Hotspots, or "ancient botanical civilizations", of which there are only six in the province. The possibility has been raised that some species may be relicts from the "Little Ice Age", when climatic conditions were presumably more favourable to long-distance dispersal by lichens outside their current primary ranges.

The last several kilometres of the lower river valley include mixed forests of black cottonwood, western red cedar, Douglas fir and paper birch, with an abundance of shrubs and flowering plants. Forests by the river mouth are dominated by trembling aspen, black cottonwoods and paper birch. Stands in some areas are age class 6 (100 years) and 7 (120 years).

**Fauna.** The Adams River, with its annual sockeye salmon run peaking every four years, is one of the most significant remaining natural sockeye salmon spawning channels in North America. The river is near the southern extreme for sockeye salmon in North America; the most productive tributary of the Fraser, it has been described as the “greatest salmon river on the planet”. When European settlers first arrived in the area, the run was in the millions in a peak or dominant year.

The Adams River, particularly the lower section, is also important for chinook; the lower reaches of the tributary Hiuihill Creek (Bear Creek) are important natural coho spawning beds.

The significance of the salmon to the animal populations of the Adams River valley and area is substantial, particularly in years of peak runs. During these years, reported numbers of eagles, ospreys and blue herons increase dramatically.

The salmon play a crucial role in both aquatic and terrestrial ecosystems. Recent research has shown that the nutrients salmon bring upstream are important for mammals such as bears, birds of prey like eagles, and even trees in the forest which benefit from the droppings of the predators that consume them. The dying carcasses, as they decompose, add important nutrients to the water that feed the next generation of salmon.
There is concern about the sockeye stocks that come to the Adams River to spawn, including the lower river stock. In some recent years, the normally returning late season spawning fish (October) have returned to the freshwater system early, and proceeded up the Fraser without delay. Associated with this early entry has been a very high mortality rate, the causes of which are not clear. High temperatures in the river, associated with lower water levels and higher than normal summer temperatures, may be a factor. The long term forecasts for climate change in the southern interior suggest that these trends may continue, with implications for the Adams River sockeye.

Coho stocks in the interior Fraser River watershed were designated a species at risk by COSEWIC in 2002; a special effort has been made in the lower Adams River to provide new habitat. An artificial spawning channel was built in 1990 and has successfully reared substantial numbers of coho, chinook, sockeye and rainbow trout. Adams Lake Indian Band has been doing restoration work on the interior Fraser coho stock; the lower Hiuihill Creek (a tributary of the Adams) is one of the streams where work is taking place.

Another significant fish species found in the Adams River is the bull trout. The B.C. 2002 State of the Environment Report on the status of bull trout identified a conservation risk for the population of the Adams River watershed. The main threat to bull trout generally is resource development which alters habitat at the watershed level; in the Adams River watershed, this is logging. Road access also potentially opens up watersheds to overfishing and poaching.

One of the most significant mammals found in the Adams River valley is the mountain caribou, which depends on old growth trees with abundant arboreal lichens, such as those found in the most northerly reaches of the valley. Mountain caribou, red-listed by the BC Conservation Data Centre, are now considered threatened by the Committee on the status of endangered wildlife in Canada (COSEWIC).

Blue-listed grizzly bear are reported on both sides of Tumtum Lake in the middle valley and in the lower reaches of the river valley, where there is a continuing source of berries. Threatened, endangered and vulnerable species identified in the lower Adams River include great blue heron, flammulated owl, Townsend’s big-eared bat and Western painted turtle.

The upper Adams River, with its extensive gravel beds, is considered to be “the most significant sockeye enhancement opportunity in the Fraser Basin”. Work in re-establishing stocks in the upper Adams River, such as periodic egg-take programs, has been carried out with some success and is continuing.

There is no local information on the potential effects of climate change with respect to precipitation, implications for water volume in the river, and potential for changes in patterns of peak flows. It is
understood that the next phase for climate change modelling is to “downscale” the global models to regional levels.

### 3.3 Key Cultural Features

Salmon is the foundation of sustenance for many First Nations in the interior. The salmon of the Adams River played a central role in the lives of the First Nations of the area. The abundance of salmon that passed upstream every fall provided a reliable food source that would help sustain the people over the winter. As well as a food source, the sockeye were a trade good. Huge amounts of dried fish were packed in bundles and trekked by foot and on horseback to the Columbia River at Revelstoke and to Okanagan Lake. The fish were traded as far south as Washington.

Parts of the Adams River system fall within the traditional territories of the Adams Lake, Neskonlith, Little Shuswap and North Thompson Indian Bands. All groups still live in the area or in adjoining areas; the fish of the Adams system still play an important role in their lives.

Adams Lake and the lower river were very significant for the native peoples; the salmon were central to their lives. The gravelled river terraces along the lower Adams provided flat ground for villages; the mild climate and low snowfall provided good living conditions for surviving the winter.

It is thought that human occupation of the area dates back to the last ice age; the oldest known site in the area is at Blind Bay on nearby Shuswap Lake, where materials dating back 9,000 years were found in a cave. According to one source, prior to 1800, the Shuswap Lake area supported a native population of upwards of 2,000.

The Adams River sites are part of a much larger area of sites that has provincial significance. On the lower river alone, in Roderick Haig-Brown Provincial Park, 54 documented cultural heritage sites have been found. Some of the archaeological features that have been found include depressions remaining from pit houses, cache pits, fire-burned rock, basalt flakes, and lithic scatter. Two “petroforms” at the canyon area are thought to have been directional signs. Archaeological sites have been found along Adams Lake, along lower Momich River, and along the lower Adams River.

A site where the river exits from Adams Lake was spread over 15,000 square metres, with dozens of winter pit houses dug into the earth, each built to accommodate about 25 people. There were also smaller groups of dwellings down the length of the river.
Adams River is called ‘choo-choo ach’ on Archibald MacDonald’s 1827 map of “Thompson River District”. It was renamed Adams River after the Shuswap Indian Chief, Sel-how-t-kin who had been given the name “Adam” when he was baptised by the Oblate priest Father Nobli in 1849.

A significant element of the recent cultural history of the area is the logging industry which developed in the Adams valley. Both the river and the lake played crucial roles in transporting logs in the logging history of the Adams valley, and there are significant opportunities for public education and educational tourism about these topics.

Water flows on the Adams River were disrupted between 1907 and 1921 by the construction of a 4 ½ m (15 foot) high splash dam (above). This practice (not common in BC but more common in Washington and Oregon) was carried out to raise the water level in Adams Lake to spring freshet height. Stored water was released in the late summer to flush logs down the river to Shuswap Lake for hauling to a mill in Chase.

The splash dam had the result of impeding the early-summer sockeye run in the upper Adams River, so that it was unable to reach its spawning area. It also severely affected the late run sockeye of the lower river: when logs and water were released, they scoured the river bottom. In between releases, the lower river channel ran almost dry, killing salmon eggs. The dam was removed in 1945; historical data between 1907 and 1946 show the effects of the dam on flows, particularly in winter, when there would be a visible impact on the amount of water flowing in the South Thompson River past Kamloops.

Sockeye stocks have successfully been rebuilt for the lower Adams River; work continues on rebuilding the stocks in the upper Adams River. In the fall of 2000, a record 70,000 adult sockeye salmon returned to spawning grounds in the upper Adams River. These numbers were not attained in subsequent years and work is continuing on ways to increase the numbers.
Another element of the logging history linked to the river was the construction of log flumes. When timber became scarce near the shoreline of Adams Lake in 1912, the former Adams Lake Lumber Company built a 7.5 kilometre flume from Skmana Lake in the Hiuihill Creek (Bear Creek) valley to the Adams River. This V shaped flume was about 1 ½ m (5 feet) wide, and mounted on trestles 15 to 25 metres (50 to 80 feet) above the ground to cross the deep canyons. At the time, this flume was the largest and, at $120,000, possibly the most expensive in North America; it was also very efficient and was able to move logs to the river in just 15 minutes. About the same time a second flume, 4.5 kilometres long, was built in the Brennan Creek drainage, further up Adams Lake. The flumes also operated in winter and saved the burden on sleigh horses. Parts of the flume in Hiuihill Creek are still visible.

The history of the Adams valley has a link to the renowned geologist for the Geological Survey of Canada George Mercer Dawson. Dawson, who was also surveyor and geographer, ethnologist, naturalist and photographer, surveyed the area three times, in 1877, 1882 and 1898, compiling more detailed contour and geological maps with each visit. During his travels, Dawson also compiled ethnological information about the Secwepemc. “Dr. George”, as he was known, is referred to today as the Father of Canadian Anthropology. Dawson’s work became the basis for much of the geological and botanical knowledge of western Canada.
3.4 **Key Recreational Features**

Boating activities include tubing and rafting in the lower river, and canoeing and kayaking in both the lower and upper rivers. The lower river is considered a “great place for beginners to cut their teeth on a bit of whitewater”. Although stretches of the upper river can be paddled by canoe or kayak, its remoteness and sudden changes in river character make the trip unsuitable for novice paddlers. In addition to lengthy sections of rapids and waterfalls, dead heads and sweepers and large volumes of water in high water periods add to the challenge and make parts of the upper river extremely dangerous. At the same time, however, paddling the upper river has been described as a “fantastic wilderness experience”.

Angling is an important activity throughout the area, both recreationally and for sustenance for First Nations. Fishing is very popular at the mouth of the Adams in Shuswap Lake during salmon spawning season as the washed down eggs attract trout and burbot, which in turn attracts anglers.

There are many trails for both hiking, mountain biking and cross-country skiing in Roderick Haig-Brown Provincial Park on the lower river. Hiuihill Creek trails are popular for exploring the shady canyon where remnants of the old Bear Creek flume can be seen.

Wildlife viewing and educational tourism are two major recreational activities in the lower Adams River. While much of the upper Adams valley is accessible only by logging road, the lower Adams is highly accessible, being only a few kilometres from the Trans Canada Highway. Every four years, community groups, First Nations and government agencies in the area work together to host the “Salute to the Sockeye”. This wildlife viewing event, which commenced in 1962, takes place near the banks of the lower Adams River in Roderick Haig-Brown Provincial Park. It is a major event every four years during the dominant sockeye salmon run. Attractions include river-related food kiosks presented by First Nations (smoked salmon and bannock), educational displays by DFO and others, arts and crafts for sale, including many items with a “salmon” theme. Smaller events / displays occur in non-dominant years, especially during sub-dominant runs of salmon which are also on a four year cycle. Estimates of attendance at Roderick Haig-Brown Park are approximately 20,000 in a non-peak salmon run year to approximately 95,000 in a peak year. There is significant international tourism, as well as school visitation from local, other provincial, and out-of-province schools.

A local community-based group, the Adams River Salmon Society, has embarked on a two-stage plan to build an interpretive centre in Roderick Haig-Brown Provincial Park not far from the river. The first
phase of this project is being constructed in 2006, and will open in time for the 2006 fall dominant sockeye run.

Roderick Haig-Brown Park is named after the respected conservationist and author known for his writings, starting in the 1950’s, about the importance or protecting salmon rivers. At a time when conservation was not a popular movement, Haig-Brown wrote that “conservation means fair and honest dealing with the future, usually at some cost to the immediate present.” His poem “Pacific Salmon” is recorded in a plaque installed in the park; it closes:

…. Fullness spends itself, thrusting forth new life
To nurse in the stream’s flow. The old life,
Used utterly, yields itself among the river rocks of home.

The last paragraph of Haig-Brown’s book “A River Never Sleeps” seems fitting in this nomination submission for a river with a park that bears his name:

I still don’t know why I fish or why other men fish, except that we like it and it makes us think and feel. But I do know that if it were not for the strong, quick life of rivers, for their sparkle in the sunshine, for the cold grayness of them under rain and the feel of them about my legs as I set my feet hard down on rocks or sand or gravel, I should fish less often. A river is never quite silent; it can never, of its very nature, be quite still; it is never quite the same from one day to the next. It has its own life and its own beauty and the creatures it nourishes are alive and beautiful also. Perhaps fishing is, for me, only an excuse to be near rivers. If so, I’m glad I thought of it.

3.5 Jurisdictional Features

A considerable portion of the land along the Adams River, including Adams Lake, is Crown Land. In 1995 a multi-stakeholder planning process was completed for the broad Kamloops area, resulting in the Kamloops Land and Resource Management Plan (LRMP). As a result of this planning process a 65 km provincial park along the valley bottom of the upper Adams was created, Upper Adams River Park. The process also led to the establishment of Adams Lake Marine Park (boat access only, with three separate sites – Spillman Beach, Poplar Point and Refuge Bay), an expansion to Roderick Haig-Brown Park, and the establishment of Momich Lakes Park which connects through to Adams Lake by way of Momich Creek, and includes some foreshore on Adams Lake. Another element of the LRMP was the designation of Special Resource Management Zones for various purposes. Much of the land in the upper Adams River valley adjacent to the park is in the Special Resource Management Zone for managing mountain caribou habitat.

There is also a vehicle-access provincial park on Adams Lake – Adams Lake Provincial Park (Bush Creek site, a former Ministry of Forests Recreation Site).
A number of planning protocols are in place to further guide development in the river valley and along the lakeshore. The west shore of Adams Lake is also under the jurisdiction of Thompson-Nicola Regional District (TNRD). TNRD has classified Adams Lake and Tumtum Lake as part of a lakeshore development planning process. Adams Lake has been classified as “General Use”, primarily used for public recreation with some cottaging, in a predominantly natural and rural landscape with conservation also being an important objective. Adams Lake is also noted as being a “Special Case” lake due to the significance of Native Cultural sites in the area. Tumtum Lake has been classified as “Natural Environment”, recognizing scenic, waterfowl, wildlife, vegetation, fisheries or other values worthy of conservation, with its accessibility providing quality recreational opportunities.

The British Columbia government has passed a “Riparian Areas Regulation” requiring local governments to follow setback requirements along watercourses and lakeshores. Through the Lakeshore Harvesting Regulations of the Forest Practices Code, the lakeshore of Adams Lake is further protected, although this is currently under review.

### 3.6 Role in the Canadian Heritage River System

The Adams River will provide the Canadian Heritage River System with outstanding representation of:

**A salmon producing river of international significance:** The habitats of the Adams River have come together to facilitate the production of the huge numbers of sockeye salmon that return every four years as the dominant run to spawn, and in varying numbers in intervening years.
- The coolness and clarity of the river’s water (rising in the partially ice clad Columbia Mountains) are ideal for salmon.
- The very deep Adams Lake acts as a cold storage reservoir to help keep waters cool, buffers the lower Adams river from extreme flows, and acts to settle out silts.
- The gravels of the river provide excellent substrate for spawning.
- Downstream Shuswap Lake is important for the rearing of salmon fry; after a peak spawning year many millions of salmon fry will be in the Shuswap Lake system before migrating down the Fraser system to the open ocean.

As well as sockeye, the river is used by chinook, coho and pink salmon. The upper Adams River and Adams Lake are integral to downstream habitat. As well, the upper Adams River provides the most significant sockeye enhancement opportunity in the Fraser Basin.

**The most significant, single largest spawning population in the Fraser River watershed.** The Adams River is internationally recognized for its runs of sockeye and other species of salmon. It is the most significant tributary of the Fraser system for salmon production.
Habitats and species at risk. Habitats and species at risk in the Adams River valley include mountain caribou, bull trout, interior Fraser coho. The lower 11 km of the river contains extensive riparian cottonwood ecosystems, one of the most endangered ecosystems of the southern interior of British Columbia. In Roderick Haig-Brown Provincial Park along the lower Adams, species at risk also include great blue heron, flammulated owl, Townsend’s big-eared bat, and Western painted turtle.

Rare interior rainforest in its valley. The upper Adams River valley contains examples of interior rain forests, referred to as ancient or “antique” forests, similar in structure and form to those on the coast. Some of the forests have not seen disturbance for over one thousand years. Cedar trees have been found that are over 1,000 years old and there are many examples of coastal plant and lichen species.

Some of the oldest bedrock geology in British Columbia. The area contains representative areas of some of the oldest bedrock geology in British Columbia; nationally significant portion of the Shuswap Highlands metamorphic rocks as they are thought to represent the leading edge of the original Pre-Cambrian continental basement rock that have been compared with Laurentian Pre-Cambrian rocks by more than one geologist.

Fluvial processes of erosion and deposition at work. The Adams River represents fluvial processes of erosion and deposition at work, from the sub-alpine, through a dry forest setting, to an alluvial fan at its outlet into Shuswap Lake. In fact, these fluvial processes pose challenges to managing spawning channels and viewing platforms in Roderick Haig-Brown Park; currently a recommendation is being reviewed to remove or relocate viewing platforms in the park due to its downstream erosive impact.

First Nations culture and its link to the salmon of the river. There are many archaeological sites, especially in the lower Adams River valley, as well as several pictograph sites. There is documented evidence of their reliance on salmon for food, trade and ceremonial purposes.

Interwoven links between the logging industry and the river. The Adams River is located in a valley that is part of British Columbia’s “working forest”, where the logging industry has operated for a century. Here, the river and the lake played a significant role in the operation of that industry, and in turn were affected by it.

Consequences of the disastrous building of a splash dam. This dam, now removed, had major destructive impacts on the Adams River in the first part of the 20th century. It is blamed for the loss of the upper Adams salmon run, as well as severe impacts on the stocks of the lower river. There are significant opportunities to provide important educational lessons with regard to the loss.

Canadian Heritage Rivers System March 31, 2006

Source: ©Advanced Satellite Productions Inc.

Note:
The sample satellite map to the left was prepared to show the area of Adams Lake and River. The map is illustrative only and requires further refinement. Its use is restricted pending licence agreement with the copyright holders, Advanced Satellite Productions. This version cannot be used for resale, for profit, or for widespread circulation.

ADAMS LAKE & RIVER
From Space
3.7 Natural Heritage Values

The four natural heritage guidelines adhere to the following common preamble: Outstanding Canadian natural heritage value will be recognized when a river environment meets one or more of the following guidelines:

Guideline 1. Is an outstanding example of river environments as they are affected by the major stages and processes in the earth’s evolutionary history which are represented in Canada.

This portion of the Shuswap Highlands that the Adams River system bisects is made up of metamorphic rocks that are nationally significant, as they are thought to represent the leading edge of the original Pre-Cambrian continental basement rock that have been compared with Laurentian Pre-Cambrian rocks by more than one geologist.

Guideline 2. Is an outstanding representation of significant ongoing fluvial, geomorphological and biological processes.

The Adams River represents fluvial processes of erosion and deposition at work, from the sub-alpine through a dry forest setting to an alluvial fan. In fact, these processes pose challenges to managing spawning channels and viewing platforms in Roderick Haig-Brown Provincial Park.

Guideline 3. Contains along its course unique, rare or outstanding examples of natural phenomena, formations or features.

The area contains representative examples of some of the oldest bedrock geology in British Columbia.

The upper Adams River valley contains examples of interior rain forests, referred to as ancient or “antique” forests, similar in structure and form to those on the coast. Some of the forests have not seen disturbance for over one thousand years. Cedar trees have been found that are over 1000 years old along with many examples of coastal plant and lichen species.

The Adams River is internationally recognized for its dominant sockeye salmon run; also other species of salmon spawn in the system. It is one of the most significant tributaries of the Fraser system for salmon production.

Guideline 4. Contains along its course habitats of rare or endangered species of plants and animals including outstanding concentrations of plants and animals of Canadian interest and significance.

The habitats of the Adams River have come together to facilitate the production of huge numbers of salmon that return in a dominant cycle every four years to spawn. The coolness and clarity of water are ideal for salmon production. As well as sockeye, the river is significant for the interior Fraser coho salmon. The upper Adams River and Adams Lake are also significant, for their dual role as being integral to the downstream habitat, and for the potential opportunities afforded for re-establishing stocks in the upper reaches of the river system.

The river and its watershed contain habitats and species at risk that include porcupine sedge, crested wood fern, giant helleborine and a number of epiphytic lichen genera that are old-growth dependent, bull trout, mountain caribou, grizzly
bear, fisher, wolverine, great blue heron, flammulated owl, Townsend’s big-eared bat and Western painted turtle.

3.8 Cultural Heritage Values

A river environment is judged to possess outstanding Canadian human heritage value if it meets one of the following four selection guidelines:

Guideline 1: [The river environment] is of outstanding importance owing to its influence, over a period of time, on the historical development of Canada through a major impact upon the region in which it is located or beyond; this would include its role in such significant historical themes as Native people, settlement patterns, and transportation.

The Adams River played a significant role for the Secwepemc (Shuswap) peoples of the interior of British Columbia. They relied upon the salmon they harvested from it for sustenance, and for trading with other bands and nations. Their culture was built around the salmon; the salmon in the river continue to be very important for the First Nations bands in the area.

The early fur traders and gold seekers also relied on salmon from the Adams River.

The logging industry which developed in the Adams River valley relied heavily upon both the lake and the river for its operation. The river was used for running logs down to Shuswap Lake, and at one time, a splash dam was built at the outlet of Adams Lake and two flumes up tributaries in the valley.

Guideline 2: [The river environment] is strongly associated with persons, events, movements, achievements, ideas or beliefs of Canadian significance;

The great cannery era on the lower Fraser depended greatly on the sockeye of both the upper and lower Adams; the loss of the upper Adams stock in 1907 and the lower Adams stock in 1913 contributed to the decline of the coastal cannery industry. The cannery era is a significant recent historical period in Canada.

The Adams and its tributaries were a focus of gold panning activity of Chinese railroad workers. The impact of Chinese immigrants on British Columbia’s settlement history is only recently being recognized.

George Mercer Dawson, renowned geologist for the Geological Survey of Canada, and ethnologist, surveyed the area three times, in 1877, 1882 and 1898, compiling more detailed contour and geological maps with each visit. During his travels, Dawson also compiled ethnological information about the Secwepemc. Dawson’s work became the basis for much of the geological and botanical knowledge of western Canada.

Roderick Haig-Brown, the respected conservationist and author, had connections to the river and fought to protect salmon rivers in British Columbia.
Guideline 3: [The river environment] contains historical or archaeological structures, works or sites which are unique, rare or of great antiquity;

There are already over 54 identified First Nations cultural heritage or archaeological sites in the lower reaches of the river and other sites have been identified along Adams Lake and the Momich River. Pit houses and pictographs are of interest.

Guideline 4: [The river environment] contains outstanding examples or concentrations of historical or archaeological structures, works or sites which are representative of major themes in Canadian history.

Remnants of an early 20th century log flume are located in the area of Hiuihill Creek inside Roderick Haig-Brown Park. At the time of construction, this log flume was one of Canada’s (in fact, North America’s) largest and most expensive.

3.9 Recreational Values

The selection guidelines for recreational values are the following:

Outstanding Canadian recreational value will be recognized when a river and its immediate environment possesses a combination of river-related recreational opportunities and related natural and / or cultural values which together provide a capability for an outstanding recreational experience.

- Recreational opportunities include water-based activities such as canoeing and other forms of boating, swimming and angling, and other activities such as camping, hiking, wildlife viewing, and natural and cultural appreciation which may be part of a river-touring experience.
- Natural values include natural visual aesthetics, and physical assets such as sufficient flow, navigability, rapids, accessibility, and suitable shoreline.

Sections of the Adams River system provide outstanding, globally significant and accessible (especially the lower Adams River) opportunities for wildlife viewing of a spectacular natural event. Along with the wildlife viewing are opportunities for recreation, environmental education, wildlife appreciation, cultural appreciation of First Nations and early European settlement, and ecotourism. The river’s natural attributes, along with those of Adams Lake, provide many recreational opportunities. These include angling (both upper and lower stretches of the river, as well as Adams Lake), hiking, cycling, riding, snowshoeing, cross-
country skiing, snowmobiling, canoeing and kayaking (in specific sections only of the upper Adams River due to some dangerous conditions), white water rafting (lower Adams River), swimming (lower Adams River and Adams Lake), and camping (Adams Lake).

The river’s natural values include visually aesthetic appeal, ecological richness, sufficient flow, navigability for appropriate watercraft, rapids, and accessibility (particularly lower section and parts of Adams Lake).

The river’s recreational values are enhanced by the activities and plans of a local community-based group, the Adams River Salmon Society, which is building an interpretive centre in Roderick Haig-Brown Provincial Park.

4 Proposed Boundaries

It is proposed that the boundaries of the Adams River System as a national heritage river consist of the following elements:

- Lower Adams River, and the lower part of a tributary known as Hiuihill (Bear) Creek, all of which are situated within Roderick Haig-Brown Provincial Park. Where the river borders on First Nations land, the boundary shall be to the river’s high water mark.

- Adams Lake and its riparian area shoreline and the Lakeshore Management Zone which generally lies between the main Adams Lake forestry road and the lake edge and includes the following provincial parks:
  - Adams Lake Park (Bush Creek site)
  - Adams Lake Marine Park (Poplar Point, Spillman Beaches and Refuge Bay sites)
  - Part of the main tributary that lies within the boundaries of Momich Lakes Park.

- Upper Adams River mainstem including associated lakes (such as Mica and Tumtum) and associated wetlands, all that lie within the boundaries of Upper Adams River Provincial Park.

- Oregana Creek Protected Areas, and associated Riparian Reserve Zone (as currently designated under forest practices legislation).

- All remaining riparian areas outside of any provincial park or protected area, up to the source of the river’s mainstem.

5 Integrity Values

In addition to meeting specific heritage value guidelines, a river and its immediate environment must meet Integrity Guidelines in order to be admitted to the Canadian Heritage Rivers System. These include:
5.1 Natural Integrity Values

In addition to meeting one or more of the natural heritage value guidelines, for a river to be judged to have outstanding Canadian natural heritage value, it must meet all of the following natural integrity guidelines:

- The nominated section is of sufficient size to include significant representations of all of the natural processes, features, or other phenomena which give the river its outstanding natural value;

  The nominated sections run from the river’s headwaters in some of the remnant icefields and glaciers of the Columbia Mountains to its mouth at Shuswap Lake; the river’s integral lakes and wetlands, and parts of some major tributaries are included (as outlined in section 4.0 “Boundaries”).

- The nominated section includes those ecosystem components which contribute significantly to the provision of habitat for species in need of protection;

  The nominated sections are significant for salmon species, bull trout, antique forest areas, southern interior riparian ecosystems, mountain caribou and other species.

- There are no human-made impoundments within the nominated section;

  No. In the past, a splash dam acted to impound water in Adams Lake; as well, wing dams impounded waters in sections of the upper Adams River. However these have all been removed and water now flows unimpeded, and this provides educational opportunities under “lessons learned”.

- All key elements and ecosystem components are unaffected by impoundments located outside the nominated section;

  Not relevant; no impoundments.

- The water in the nominated section is uncontaminated to the extent that its natural aquatic ecosystem is intact;

  Water remains of sufficiently good quality for salmon to spawn. The various jurisdictions involved in monitoring and protecting the river for its salmon habitat are assisting in protecting the river’s natural values for the future. It is not known what the long term effects of climate change will be, but this might be a future concern for all of Canada’s heritage rivers.

- The natural aesthetic character of the nominated section is free of, or not adversely affected by, human developments.

  Human developments exist along limited parts of the river corridor, and the river generally retains its natural aesthetic character, notwithstanding the presence of cutblocks in the watershed. There are minimal hardened shorelines along Adams Lake and current forest management practices include visual quality objectives with regard to harvesting.
5.2 Cultural Integrity Values

In addition to meeting one or more of the above cultural value guidelines, for a river to be judged to have outstanding Canadian cultural value, it must meet all of the following cultural integrity guidelines:

- The nominated section is of sufficient size to include significant representations of all of the features, activities or other phenomena which give the river its outstanding cultural value;
  
  Yes. Within the proposed boundaries there are a number of existing provincial parks, including linear ones along the river, as well as two specially protected areas.

- The visual character of the nominated section enables uninterrupted appreciation of at least one of the periods of the river's historical importance;
  
  Elements of the river's historical importance include First Nations historical sites, salmon spawning, and logging. There are many visually appealing natural areas within the proposed boundary.

- The key artifacts and sites comprising the cultural values for which the river is nominated are unimpaired by impoundments and human land uses;
  
  Generally yes.

- The water quality of the nominated section does not detract from the visual character or the cultural experience provided by its cultural values.
  
  The quality of water generally is considered excellent. Occasional silting from some tributaries occurs; however the lake is deep enough to buffer the river and act as a settling pond for upstream tributaries.

5.3 Recreational Integrity Values

In addition to meeting both of the recreational value guidelines, for a river to be judged to have outstanding Canadian recreational value it must meet all of the following recreational integrity guidelines:

- The river possesses water of a quality suitable for contact recreational activities, including those recreational opportunities for which it is nominated;
  
  Yes. However, from a safety perspective, in some sections of the river, especially in the upper Adams River, there are severe rapids, waterfalls, an exceptionally dangerous canyon, sweepers and also remains of old wing dams that create hazards to all paddlers.

- The river's visual appearance is capable of providing river travellers with a continuous natural experience, or a combined natural and cultural experience, without significant interruption by modern human intrusions;
  
  Yes, provided care is taken as indicated above.

- The river is capable of supporting recreational uses without significant loss of, or impact on, its natural and cultural values or its visual character.
  
  Yes, with the caveat that recreational, educational and tourism uses are very carefully managed.
Appendix 1. Maps

Six map sheet