



# Bonnet Plume River

## Monitoring Report

1997 – 2007

Prepared for  
The Canadian Heritage Rivers Board

May 2008



Le Réseau  
de rivières  
du patrimoine  
canadien



## **Purpose of this Report**

This review of the Bonnet Plume Canadian Heritage River is being conducted to meet the requirements for a 10-year review of nomination values under the Canadian Heritage River System. This review is intended to examine the status of these nomination values. It is not intended to be a full review of the management plan but looks at the most pertinent sections of the plan. A full review would require the input of all signatory agencies. However, it is hoped that this report on the status of nomination values and actions taken under the original work plan will provide useful background for any future management plan reviews.

## **Acknowledgements**

We would like to thank all of the participants that made this 10-Year Monitoring report for the Bonnet Plume possible. Specifically, we would like to recognize the helpful input received from both the Na-Cho Nyak Dun First Nations and the Mayo District Renewable Resources Council. Appreciation is also extended towards Kelly Hayes Consulting who prepared this report in large part.

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## **Executive Summary**

The Bonnet Plume River has longstanding significance for both the Na-Cho Nyak Dun (NND) and Tetlit Gwich'in people. Rich fish and wildlife resources attracted hunters and trappers to the region throughout the year. It also provided an important transportation and trade link between the two First Nations and has enduring spiritual and cultural significance. As a result of the Na-Cho Nyak Dun Land Claim Agreement, the Bonnet Plume was nominated in 1993 as a Canadian Heritage River (CHR) for its significant natural, cultural and recreational values. The entire Bonnet Plume watershed, an area of approximately 12,000 square kilometres and was formally designated in 1998.

In the ten years since its designation, the river's unique natural, cultural and recreational values have been maintained. While some development has begun to occur in the watershed and in watersheds adjacent to the Bonnet Plume, the river valley still maintains its integrity and the values that provided the basis for its designation as a Canadian Heritage River.

As one of the first cooperatively managed areas under the Yukon's land claim agreements, the Bonnet Plume set the standard for the process for determining how these areas would be managed.

The initial management plan outlined the steps that should be taken to meet information requirements and management goals for the watershed. Some of these activities or steps were carried out, some were altered to meet emerging realities, and some were eventually determined to not be priorities. While not all of the priority items flowing from the plan have been implemented since the river's designation, extensive studies have occurred in relation to wildlife, fish, and habitat. Heritage assessments are underway and a recreational monitoring program has been established. All of these studies and programs that were implemented or completed were a direct result of the Bonnet Plume Canadian Heritage River Management Plan (BPCHRMP) and the river's subsequent designation as a CHR.

The Peel Watershed land use planning process, a regional planning initiative which is currently underway includes the Bonnet Plume watershed. Several of the outstanding action items in the management plan will likely be addressed at least in part through this broad regional planning process.

### ***Natural Resource Values***

Overall, the natural resource values identified for the Bonnet Plume River have changed little since it was first nominated as a Canadian Heritage River. However, there have been some changes in the watershed that have had an impact on the river and do pose a threat to some of the river's natural values. These changes include:

- Increased mining exploration activity within and adjacent to the watershed, including the construction of exploration camps and drilling programs involving regular flights over the watershed

- A proposal to develop a winter road into the southern boundary of the watershed to access mineral claims.
- Increased big game outfitting activity, particularly on the mid and lower sections of the watershed.

While none of these activities has directly affected the values identified in the designation of the Bonnet Plume River, it should be noted that these activities could potentially provide a threat to the CHR status of the Bonnet Plume, particularly those related to mining and access development.

### ***Cultural Heritage Values***

There have been no known direct impacts to the cultural heritage values of the Bonnet Plume River. However, increases in industrial activity may impact the cultural heritage values of the river. Many of the cultural heritage inventory and studies scheduled as part of the implementation of the BPCHRMP have not been carried out in any great detail. As a result, there is no clear identification of where these significant cultural areas are, nor is there an inventory of these sites that could be monitored to identify any change. A recent resurgence of interest in identifying and documenting these important cultural resources is underway.

### ***Recreational Values***

There have been a few activities or changes within the Bonnet Plume watershed that have had some impact on the recreational values of the river. These include:

- Increased mining exploration in the area, which has led to the construction of large work camps and regular helicopter and fixed wing flights throughout the region. This increase in air traffic will have an impact on the quality of visitor experience in the area.
- The construction of an outfitter lodge at Copper Point in the midsection of the river. This lodge is visible from the river and detracts from the wilderness experience many visitors are seeking.
- There has not been a marked increase in use of the Bonnet Plume since it has received CHRS status, but overall visitation to the region (Wind, Snake and Bonnet Plume Rivers) appears to have increased for both private and commercial wilderness tours.

While these changes have not had a significant impact on the recreational values of the river, there is a potential to see some effects if these values are not closely monitored.

### ***River Integrity Values***

Over the past 10 years there have been incremental changes that, while not having a direct impact individually, cumulatively have an effect on the overall integrity of the river. The expansion of mining exploration and the potential development of a winter road into the area may be disturbing wildlife, detracting from wilderness travelers experiences, and could be destroying important cultural sites. In order to fully understand these effects, monitoring programs and further research will be required.

As a result of the 10-Year Monitoring Report and a review of the workplan, six action items will be given high priority for future implementation by the appropriate agencies and include the following items:

- Preparation of a government wide base map for the entire watershed.
- Create a map notation of the designated area.
- Complete and maintain existing inventory and monitoring program.
- Increased monitoring and reporting of industrial developments in the area.
- Continue water quality monitoring in watershed.
- Participate in the Peel River Watershed planning process.

The seventh action item is to review the Bonnet Plume Canadian Heritage River Management plan and if appropriate, revise the plan. This initiative will follow the successful completion of the Peel River Watershed Planning process because several of the action items in the original work plan will be addressed through this regional planning initiative. The BPCHRMP could then be reviewed in a more complimentary manner to the regional plan and any outstanding management issues or shortfalls would be addressed at that time.

## 1. Introduction

The Bonnet Plume River winds its way through the remote north central Yukon as shown on **Map 1. Location and Regional Context**. This watershed has longstanding significance for both the Na-Cho Nyak Dun and Tetlit Gwich'in people. Its rich wildlife resources drew these people into the area throughout the year to hunt and trap. It also provided an important transportation and trade link between the two First Nations and has enduring spiritual and cultural significance. Today, the watershed supports healthy wildlife populations although it has experienced limited industrial development in the form of mineral exploration and has an active airstrip with a new, permanent outfitters camp at Copper Point. As one of Canada's premiere wilderness rivers, it continues to attract recreational and commercial travelers who are seeking a unique wilderness experience.

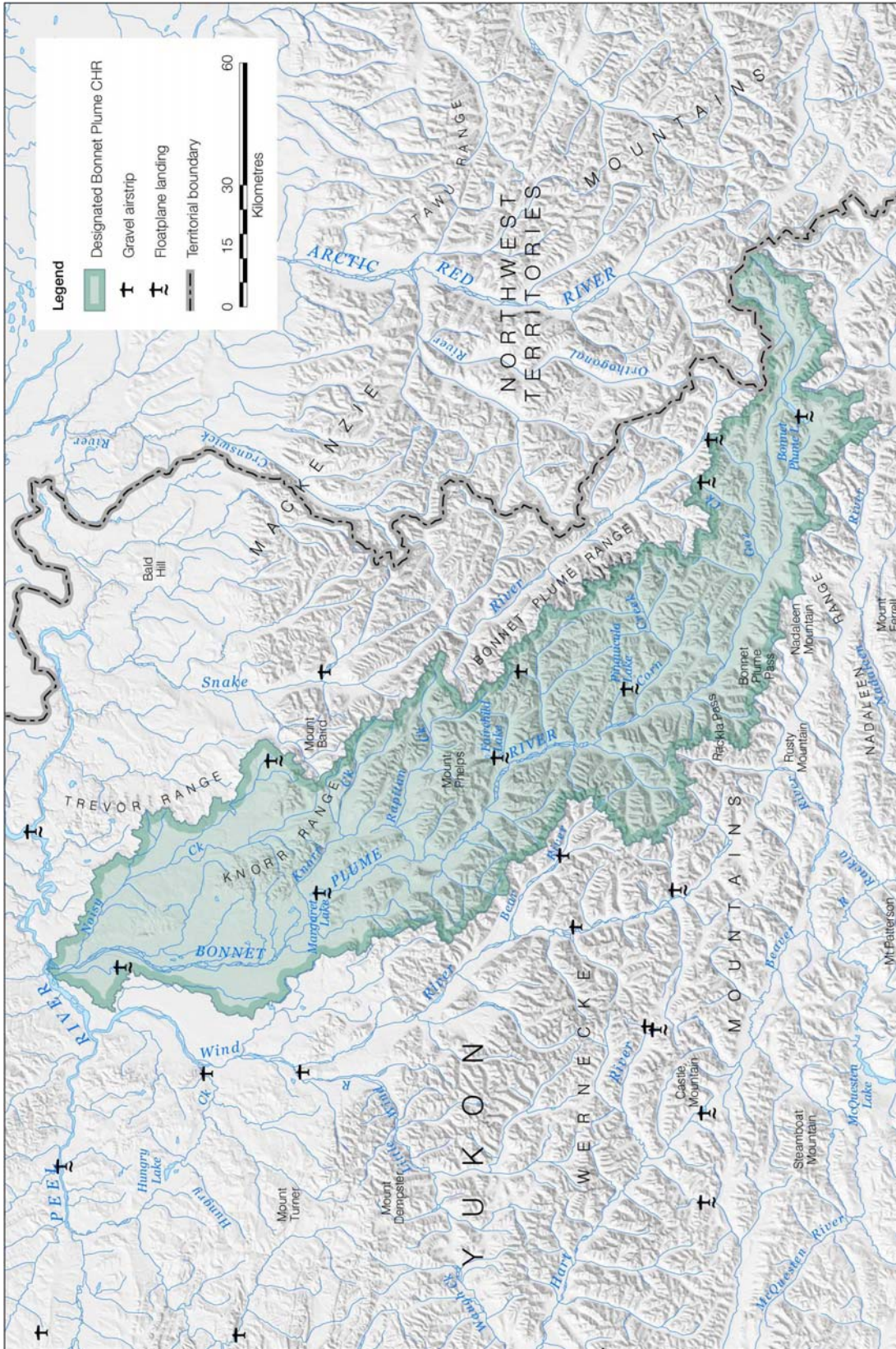
The Tetlit Gwich'in and NNDFN were given title to land within the watershed in their 1993 land claim agreement. When the Na-Cho Nyak Dun signed their Final Agreement in 1995, the Bonnet Plume was identified as an important heritage area requiring special management. As a result of the Na-Cho Nyak Dun Agreement, the Bonnet Plume was nominated as a Canadian Heritage River and was formally designated in 1998. It includes the entire watershed of approximately 12,000 square kilometres as show on **Map 2. Watershed/Designated Area**



**Map 1. Location and Regional Context**



## Map 2-Watershed/Designated Area



## **1.1. Canadian Heritage River System**

The Canadian Heritage River System (CHRS) was established in 1984 to give national recognition to rivers that have outstanding natural and human heritage values, and provide significant recreational opportunities. Federal, provincial and territorial governments in association with First Nations, local communities, and interest groups administer the co-operative program. Governments participating in the establishment and administration of a Canadian Heritage River retain their jurisdictional powers, including ownership of land, and the right to continue to manage designated rivers in accordance to the objectives of the CHRS.

The CHRS program objectives include:

- Building a comprehensive and representative system that recognizes Canada's river heritage.
- Conserving the natural, cultural and recreational values and integrity of designated Canadian Heritage Rivers,
- Engaging communities and partners to maximize the full range of benefits associated with the Canadian Heritage Rivers program, and
- Fostering excellence in river management

## **1.2. The Bonnet Plume as a Canadian Heritage River**

The Na-Cho Nyak Dun First Nation, whose traditional territory covers a major portion of the north central Yukon, identified the Bonnet Plume River as an area requiring special management in their land claim agreement (Chapter 13, Schedule B). The First Nation wanted to see the area managed in order to protect its “inheritance value”, supporting a belief that the land has both intrinsic and use values and that the responsibility for the care of the land is passed down through generations. The designation of the Bonnet Plume as a Heritage River recognized the inheritance value of the river and watershed, and the First Nation desire to use and manage this legacy in a sustainable manner. It was also anticipated that the Mayo District Renewable Resources Council would play a direct role in providing local-level input into subsequent decision-making within the watershed.

In addition to the values identified by the Na-Cho Nyak Dun, the Bonnet Plume was also identified in the 1987 Canadian Heritage Rivers Systems – Yukon System study as one of the top ten rivers in the Yukon that could warrant Canadian Heritage River status. As part of the land claims process, the parties agreed that Heritage River designation would meet the needs of the Na-Cho Nyak Dun, Tetlit Gwich'in and all Canadians. The Schedule in the final agreement outlines the primary objectives of the management plan, which includes:

- Establishment of river management area boundaries;
- Conservation and management of natural and human heritage resources;
- Recreation use;
- Water quality and waste management;
- Public information and interpretation.

### **1.3. The Bonnet Plume Canadian Heritage River Management Plan**

Following the ratification of the Na-Cho Nyak Dun Final Agreement, a steering committee consisting of two members of the Mayo District Renewable Resources Council and one member each from the federal and territorial governments oversaw the development of the management plan for the Bonnet Plume River. A stakeholder Advisory Committee was also established to provide direct input into the planning process and advise the Steering Committee.

Following a long process that involved extensive public and stakeholder consultation, the Bonnet Plume Heritage River Management Plan was officially signed in January 1998. The plan outlines three overall management objectives of conserving the rivers natural and human heritage values; allowing for interpretation of the heritage values; and providing recreational and heritage appreciation. A specific work plan that identifies actions to be completed during the following five-year period was included. The plan was intended to take an initial look at the resource values in order to determine future management needs and has raised attention to the need for protecting the watershed. Goals and objectives outlined in the plan must be achieved within existing federal and territorial legislation and their regulations, such as *Yukon Waters Act*, federal *Fisheries Act*, the *Yukon Quartz Mining Act* and *Historic Resources Act* among others.

Overall, the main priority of the management plan was to enhance the quality and quantity of resource information to facilitate long range planning. This focus was in response to the inability of the Advisory Committee to come to an agreement on the overarching management direction that should be followed for the area and the hierarchy of values at play within the watershed. Primarily, the conflict was between conservation and mining interests and as a result, the plan was simply identified as an “initial plan” that would be revised as more information and planning was carried out.

The Canadian Heritage River System requires 10-year reviews of Heritage River status, which is the intention of this report. The Bonnet Plume Heritage River Management Plan (1998) was designed as a five-year plan, with a review scheduled for 2003. Chapter 13, Schedule B of the Na-Cho Nyak Dun First Nation Final Agreement does not include a specific requirement for a management plan review schedule.

## **2. Chronology**

In the 10 years since its nomination, the watershed of the Bonnet Plume River has seen an increase in activity by researchers, mining exploration companies, outfitters, and recreational paddlers. In addition, the land management structure of the Yukon has changed substantially as a result of the devolution of land management powers from the federal to the territorial governments. Implementation of land claims has also brought about a new focus on the management and use of the entire Peel Watershed and the role the Bonnet Plume will play in this has increased the profile of the river.

**Table 2.1 Activities Affecting the Bonnet Plume (1998-2007)**

Year	Activity
1998	<ul style="list-style-type: none"> <li>• Management Plan Approved</li> <li>• Grizzly Habitat Evaluation (Grant McHutcheon, CPAWS (CANADIAN PARKS AND WILDERNESS SOCIETY))</li> <li>• NND/Tetlit Gwich'in overland winter trip.</li> </ul>
1999	<ul style="list-style-type: none"> <li>• Field survey of fish in the Bonnet Plume River and selected tributaries (YG Environment)</li> <li>• Vegetation field surveys (YG Environment)</li> <li>• Sheep surveys (GMS 2-74, 2-75, 2-80, 2-83, and part of 2-84) (YG Environment)</li> <li>• Ecosystem Classification Study (YG Environment)</li> <li>• Wilderness Tourism Licensing Act approved</li> </ul>
2000	<ul style="list-style-type: none"> <li>• Sheep surveys (GMS 2-85, 287, 2-93) (YG Environment)</li> <li>• Fish survey on upper Bonnet Plume River, Bonnet Plume Lake, Goz Lake and Duo Lake (YG Environment)</li> <li>• Peel River Watershed Study (CPAWS)</li> <li>• Wilderness Tourism Licensing Act Regulations approved</li> </ul>
2001	<ul style="list-style-type: none"> <li>• Late winter distribution of moose, caribou and sheep (YG Environment)</li> <li>• New mapping around the Slab iron oxide-copper-gold occurrence, Wernecke Mountains (Yukon Geology Program)</li> </ul>
2002	<ul style="list-style-type: none"> <li>• Ecological assessment of Chappie Lake wetland (YG Environment)</li> <li>• Water Resource Inventory (DIAND)</li> </ul>
2003	<ul style="list-style-type: none"> <li>• Yukon Environmental and Socio-economic Assessment Act approved</li> <li>• Federal government transfers responsibility for public lands, forestry, mineral resources and environmental assessment to the Yukon government.</li> <li>• Three Rivers Journey (CPAWS)</li> </ul>
2004	<ul style="list-style-type: none"> <li>• Peel Watershed Planning Commission established</li> </ul>
2005	<ul style="list-style-type: none"> <li>• Yukon Environmental and Socio-Economic Assessment Board established.</li> <li>• Igor mineral exploration program approved (Slats Creek), tent camp</li> <li>• Peel Watershed Issues and Interests report completed (PWPC)</li> <li>• Fish surveys completed for remaining lakes in watershed (YG (YUKON GOVERNMENT) Environment)</li> <li>• Blende winter drilling and exploration program approved.</li> </ul>
2006	<ul style="list-style-type: none"> <li>• BRIM baseline information collected and monitoring program commenced (YG Environment)</li> <li>• Exploratory survey to assess opportunities for the interpretation of natural and heritage resources. I (YG Tourism)</li> <li>• Outfitter constructs lodge at Copper Point</li> </ul>

	<ul style="list-style-type: none"> <li>• Igor drilling and exploration program, tent camp construction</li> <li>• Curie Property mineral exploration and drilling program, tent camp construction (Bear River)</li> <li>• Peel River Watershed Fisheries Information Summary Report - Preliminary Assessment (EDI Environmental Dynamics Inc.)</li> <li>• Strategic Overview of Possible Mineral Development Scenarios, Phase 1. Peel River Watershed Planning Region (Gartner Lee Inc.)</li> <li>• Habitat suitability maps generated for entire Peel Region (PWPC)</li> </ul>
<b>2007</b>	<ul style="list-style-type: none"> <li>• Three Rivers Journey cross Canada multi-media tour (CPAWS)</li> <li>• Mapping of key late winter habitat for moose, sheep and caribou as part of the Peel River Watershed land use planning process (YG Environment).</li> <li>• Freshwater fish distribution assessment for the Peel River watershed (YG Environment)</li> <li>• Werneckes drilling program approved (Fairchild Lake) 30 person camp, trenching, drilling, use of explosives, clearing of land, fuel storage.</li> <li>• Odie Property exploration and drilling program approved (Ausi Lake) 25-person camp, clearing of drilling and helipads, cutting 20 km skidoo trail.</li> <li>• Conservation Priorities Assessment - Criteria and Indicators Report (PWPC)</li> <li>• Genetic sampling of lake whitefish from Margaret Lake (YG Environment)</li> <li>• Survey, assessment and mapping of built heritage resources and archaeological resources on lower Bonnet Plume north of Fairchild Lake (YG Tourism)</li> </ul>

## **3. Assessment of Nomination Values**

The Bonnet Plume is identified as an outstanding example of a northern river system that meets the requirements for designation under the CHRS. This section includes an assessment of original Canadian Heritage River values identified in the original nomination of the Bonnet Plume River.

### **3.1. Natural Resource Values**

#### ***3.1.1. Bonnet Plume Heritage River Natural Resource Values***

The natural resource values of the Bonnet Plume River are the primary reason for its designation under the CHRS. Under the previous guidelines for nomination, the following selection criteria was identified and met by the Bonnet Plume River:

#### **Representation of the Earth's History**

- A complex structure covering the interface region of three mountain systems: the Mackenzies, the Werneckes, and the Richardsons;
- An overlay of north-south trending strike slip faults and easterly trending folds and thrusts of the Mackenzie Mountains
- The thickest and most extensive coal deposits in the Yukon as well as other mineralization of iron, lead, zinc and uranium;
- A proliferation of rock glaciers in the uplands of the tributary drainages;
- Extensive representation of glacial landforms such as arêtes, cirques and moraines.

#### **Representation of Ongoing Processes**

- The erosion processes creating hoodoos along the middle sections of the river;
- The fluvial processes illustrated by extensive river braiding and old river courses along the broad valley bottom and canyon sections created by river action;
- The plentiful evidence of an active fire history in the area;
- The massive erosion slopes along the valley walls;
- The proliferation and size of avalanche tracks along the valley walls.

#### **Areas of Exceptional Natural Beauty**

- The unique structure of the basin as a composite physiographic and structural depression in the Cordilleran Orogenic System of Northern Canada;
- The exceptionally large and visible landslide north of Bonnet Plume Lake;
- An internationally significant discovery of duck-billed dinosaur bones;
- Year round ice free locations along the river;
- The mountain peaks, ridges, canyons and small lake setting of the Bonnet Plume, Margaret and Quartet Lakes areas.

### **Rare, Endangered or Outstanding Concentrations of Plants and Animals**

- The presence of a large sedentary Bonnet Plume woodland caribou herd;
- The occurrence of rare vascular plants (e.g. *Papaver walpolei*)
- The occurrence of range extensions of some plants (e.g. *Bykiniia richardsonii*)
- The concentration of grizzly bears;
- The occurrence of Beringia refugium relict lake white fish populations in Margaret Lake.

Table 3.1 outlines the current status of these different values and any subsequent actions that may be required for monitoring or research. The table is formatted to meet the requirements of the *Canadian Heritage Rivers System Principles, Procedure and Operational Guidelines* (January 2001).

#### **3.1.2. Condition of Natural Resource Values**

There have been some changes in the Bonnet Plume watershed that have had a direct impact on the river and pose a significant threat to some of the values identified in the designation of the Bonnet Plume as a Canadian Heritage River. These changes include:

- Increased mining exploration activity within and adjacent to the watershed, including the construction of temporary exploration camps and intensive drilling programs involving regular flights over the watershed
- A proposal to develop a winter road into the southern boundary of the watershed to access mineral claims was approved for a five year period.
- The construction of a large permanent base camp at Copper Point and increased big game outfitting activity, particularly on the mid and lower sections of the watershed.

These activities have directly affected the values identified in the designation of the Bonnet Plume River. It should be noted that these activities could potentially provide a threat to the CHR status of the Bonnet Plume, particularly those related to mining and access development. The Bonnet Plume management plan clearly outlines the three greatest land use activities that could potentially degrade natural resource values in the watershed. These include overuse by recreational paddlers, road construction, or mineral exploration and subsequent mine production.



**Table 3.1 Condition of Natural Resource Values 2007**

<b>CHRS Values</b>	<b>Nomination Value</b>	<b>Changes</b>	<b>Notes</b>
<b>Hydrology</b>			
<b>Water Content</b>	Natural state	Baseline water study done in 2000	Intermittent ongoing monitoring required
<b>Seasonal Variation</b>	Peak flow in late May after spring melt 80% of runoff between May and September	No known change	Possible monitoring required
<b>Drainage Basin</b>	MacKenzie River-Beaufort Delta	No change	None
<b>Physiography</b>			
<b>Geological Events</b>	Interface region between three mountain systems: Mackenzie, Wernecke and Richardson Mountains	No change	None
	An overlay of north-south trending strike faults and easterly trending folds and thrusts of the Mackenzie Mountains	No change	None
	The thickest and most extensive coal deposits in the Yukon, as well as other mineralization of iron, zinc and uranium	No change	None
	A proliferation of rock glaciers in the uplands of the tributary drainages	No change	None
	Representation of glacial landforms such as arêtes, cirques and moraines.	No change	None
	Hoodoos along the middle sections of the river	No known change	Monitor river features
	Discovery of duckbilled dinosaur remains near confluence of Bonnet Plume and Peel Rivers	No known changes	Paleontological survey required

<b>CHRS Values</b>	<b>Nomination Value</b>	<b>Changes</b>	<b>Notes</b>
<b>Physiographic Region</b>	Cordilleran Orogenic	No change	None
<b>Topography</b>	Upper river steep/rugged with 50% > 1500 m. Lower reaches more subdued terrain < 600 m.	No change	None
<b>River Morphology</b>			
<b>Valley Types</b>	Extensive river braiding and old river courses along the broad valley bottom	No change	None
<b>Lakes and Ponds</b>	Small lakes in watershed include Bonnet Plume, Quartet and Margaret Lake.	No change	None
	Wetlands found throughout lower reaches of the river valley	No known change	None
<b>Waterfalls and Rapids</b>	Series of canyons and rapids (Class II – III with isolated Class IV & V) between Bonnet Plume Lake and Knorr Creek. Rapids of note at Landslide Canyon and Kohse Creek.	No change	None
<b>Fluvial Landforms</b>	Canyon sections created by river action	No change	None
	Massive erosional slopes along valley walls	No change	None
<b>Other</b>	Ice free area at the confluence of the Bonnet Plume and Peel Rivers as a result of nearby hot spring	No known change	Specific area should be identified
<b>Biotic Environments</b>			
<b>Aquatic Ecosystems</b>	Not classified	No change	None
<b>Terrestrial Ecosystems</b>	Taiga cordillera	No change	None
<b>River Vegetation</b>			
<b>Significant Plant Communities</b>	Major vegetation communities include white spruce and paper birch mixed with dwarf birch and willows, mosses, and lichens. Alpine tundra composed of shrubs, lichens, and saxifrages occur at higher elevations.	Vegetation field studies (1999-2000) have provided more detailed understanding of the area	None

<b>CHRS Values</b>	<b>Nomination Value</b>	<b>Changes</b>	<b>Notes</b>
<b>Rare Flora</b>	Occurrence of rare vascular plants: Papaver walpolei; Erigeron hyssopifolius; Cypripedium calceolus ssp; parvifloru; and Potentilla pensylvanica.	No change	None
	Occurrence of range extension of: Boykiniia richardsonii; Oxytropis campestris ssp. jordalli; Carex fillifolia; Senecio sceldonensis; Goodyera repens; and Actaea rubra	No change	None
	Occurrence of range extension for tamarack near the mouth of Slats Creek	No change	None
<b>River Fauna</b>			
<b>Significant Animal Populations</b>	Presence of a large sedentary Bonnet Plume woodland caribou herd	No change. Late winter study (2002) has provided information on important habitat for the herd	Continue winter habitat studies
	Sheep population in middle valley	No change. Habitat use and census data gathered (1999, 2001).	None
	Wetlands at lower reaches provide excellent habitat for caribou, moose, waterfowl	No change. Field studies conducted at Chappie Lake (2002)	None
	Furbearers include marten, lynx, beaver, river otter, wolverine, fox and wolves	No change	None
<b>Rare Fauna</b>	Concentration of grizzly bears in river valley	No change. Grizzly bear habitat evaluation conducted in 1998. Habitat suitability maps developed for regional land use planning	None
	Occurrence of Beringia refugium relict lake white fish populations in Margaret Lake	No change. Fishery study completed Margaret Lake (2007)	None

## **3.2. Cultural Heritage Values**

### **3.2.1. Bonnet Plume River Cultural Heritage Values**

The cultural heritage resource values of the Bonnet Plume River are of great importance to the Na-Cho Nyak Dun and Tetlit Gwich'in people. The watershed functioned as their larder, travel and trade corridor and places of spiritual renewal. The river has also been an important travel corridor for non-First Nations and has played a role in the economic development in the Yukon as both a trapping and hunting area and an important region for mineral exploration. The following cultural heritage values for the Bonnet Plume River met the criteria for CHRS designation:

#### **First Nation Cultural Values**

- Area served as an important cultural link for the travel, meeting and inter-tribal trade of the Na-Cho Nyak Dun (NND) and Tetlit Gwich'in;
- The area functions as an important spiritual and cultural link for the Na-Cho Nyak Dun and Tetlit Gwich'in people;
- Special places include traditional subsistence areas, camps, grave sites and sites of spiritual renewal.

#### **Euro-Canadian Historic Values**

- Klondike Gold Rush stampeders, trappers and prospectors traversed and occupied the valley.
- Exploration and economic activity related to post-1930 trapping and hunting concessions. Mayo area outfitter Louis Brown and NND guides

Table 3.2 outlines the current status of these different values and subsequent actions that may be required for monitoring or research. The table is formatted to meet the requirements of the Canadian Heritage Rivers System Principles, Procedure and Operational Guidelines (January 2001).

### **3.2.2. Status of Cultural Heritage Values**

An inventory of built heritage sites and an archaeological overview along the Bonnet Plume River north of the Fairchild Lake to the Peel River was conducted in 2007. The banks of the Bonnet Plume were explored as were Fairchild and Margaret Lakes. Built sites or their remains, have been assessed, mapped and included in the Yukon Historic Sites Inventory and a report is underway. The cabins are used by outfitters, trappers and First Nations. This use can help ensure the preservation of the sites as long as the occupants recognize the heritage values inherent in the sites and renovations or demolition is undertaken with consultation and endorsement from Historic Sites, Tourism & Culture. The drainages into the Bonnet Plume and the upper Bonnet Plume should be inventoried, including the lakes identified in the Management Plan as having potential heritage resources. The use of a helicopter to access these areas would be the most effective method of travel.

An archaeological overview carried out in 2007 identified two new archaeological sites, one carbon dated to 2700 years old, near Fairchild Creek and at Margaret Lake; however, the dynamic nature of the Bonnet Plume River has significantly impacted the archaeological potential of the river corridor because of substantial and ongoing shoreline erosion.

Helicopter survey of higher elevation areas may provide a more valuable assessment of pre-contact cultural heritage values in the region. Future helicopter travel will also allow the participation of First Nation elders.

There have been some direct impacts to the cultural heritage values of the Bonnet Plume River. Increases in industrial activity, such as those listed in the Natural Resource Values section, also impact the cultural heritage values of the river. In particular, many of the cultural heritage inventory and studies scheduled as part of the implementation of the Bonnet Plume Heritage River have not been carried out in any great detail. As a result, there is no clear identification of where these significant cultural areas are, nor is there a detailed inventory of these sites that could be monitored to identify any change. There is however a growing interest in identifying, documenting and preserving these existing human heritage values.

**Table 3.2 Condition of Cultural Resource Values 2007**

<b>CHRS Values</b>	<b>Nomination Value</b>	<b>Changes</b>	<b>Notes</b>
<b>Resource Harvesting</b>			
<b>Fishing</b>	Traditional fishing areas along river and larger lakes in the watershed (including camps, weirs, smoke houses)	No change	Complete an inventory of traditional fish camps in partnership with NND and TG
<b>Hunting and Trapping</b>	Area used by Na-Cho Nyak Dun and Tetlit Gwich'in for hunting purposes	No change	None
	Long history of trapping in the area, particularly around Margaret Lake	No change	Inventory of heritage sites identified in Management Plan completed in summer 2007. Outfitting and trapping cabins mapped and documented
	Hunting of caribou at river crossings	No change	Archaeological survey of a site near Fairchild Creek found evidence of a camp. The hill shows signs of historic erosion.
	Hunting of waterfowl (including the gathering of eggs)	No change	None
<b>Resource Gathering</b>	Collection of seeds, roots, plants for food and medicine	No change	None
<b>Water Transport</b>			
<b>River Navigation</b>	Traditional use by First Nation people primarily by foot or dogsled during winter with the construction of moose hide boats once reaching	No change	Necessary to have involvement from FN to identify potential sites and

<b>CHRS Values</b>	<b>Nomination Value</b>	<b>Changes</b>	<b>Notes</b>
	the confluence with the Peel		inventory
	Use by some Klondike stamperders between 1898 and 1910 who traveled up the Mackenzie and Peel Rivers, then up the Wind River to the Rachla River via Bonnet Plume Pass.	No change	Bonnet Plume pass not investigated
<b>Riparian Settlement</b>			
<b>Dwellings</b>	Remains of old trapping, hunting and exploration cabins along river valley	Exploratory survey of interpretation opportunities 2006	Complete an inventory of heritage sites along the lower Bonnet Plume, upper Bonnet Plume and drainages within Management Plan area. A preliminary inventory was completed of built heritage sites along Bonnet Plume north of Fairchild Creek
<b>Culture and Recreation</b>			
<b>Spiritual and Symbolic Uses</b>	Area still functions as an important spiritual and cultural link for the Na-Cho Nyak Dun and Tetlit Gwich'in people	No change	Need to partner with FN to locate significant areas in order to map and document
	Hot springs located near the confluence with the Peel River traditional spiritual location	No change	Need to partner with FN to locate hot springs, record significant histories of area
	Important spirit-dwelling places	No change	Need to have FN locate
	Burial grounds	No change	Necessary to have FN identify and locate
<b>Artistic Expression</b>	Not one of the original nomination values	Three Rivers Journey sponsored by CPAWS encouraged extensive artistic interpretations of the Bonnet Plume and other rivers in the	None

		watershed	
<b>Environmental Regulation</b>			
<b>Aboriginal Rights</b>	NND Final Agreement establishes rights associated with water use and entitlements	None	None
<b>Pioneering Access and Use Regulation</b>	Not one of the original nomination values	Area currently included in the Peel River Watershed Land Use Planning region.	Participate in the planning process



### **3.3. Recreational Values**

#### **3.3.1. Bonnet Plume River Recreational Values**

A diversity of natural resource values throughout the Bonnet Plume watershed contributes to a high level of water and land-based recreational potential within the region. The area attracts both private and commercial boat trips, outfitter guided hunting trips and some hiking and mountaineering. The following recreational values identified for the Bonnet Plume River helped meet the requirements for CHRS designation:

##### **Water-Based Activities**

- Canoeing, rafting and kayaking on the entire length of the river;
- Fishing, nature study, wildlife viewing, photography and human heritage appreciation

##### **Land-Based Activities**

- Unorganized wilderness hiking and camping
- Mountain climbing
- Outfitting

##### **Interpretation**

- Diversity and high quality of scenic views
- Wilderness and nature appreciation
- Off-site interpretive values

Table 3.3 outlines the current status of these different values and subsequent actions that may be required for monitoring or research. The table is formatted to meet the requirements of the Canadian Heritage Rivers System Principles, Procedure and Operational Guidelines (January 2001).

#### **3.3.2. Status of Recreational Values**

There have been a few activities or changes within the Bonnet Plume watershed that have had some impact on the recreational values of the river. The first change is the increased mining exploration in the area, which has led to the construction of large work camps and subsequent increases in helicopter and fixed wing flights throughout the region. This increase in air traffic will have an impact on the quality of visitor experience in the area. The second change is the construction of an outfitter lodge at Copper Point in the midsection of the river. This lodge is visible from the river and detracts from the wilderness experience many visitors are seeking. There has not been a marked increase in use of the Bonnet Plume since it has received CHRS status, but overall visitation to the region (Wind, Snake and Bonnet Plume Rivers) appears to have increased for both private and commercial wilderness tours. Overall, these values may be threatened by increased industrial development in the region.

**Table 3.3 Condition of Recreation Resource Values 2007**

<b>CHRS Values</b>	<b>Nomination Value</b>	<b>Changes</b>	<b>Actions</b>
<b>Recreation Values</b>			
<b>Capability for Outstanding Recreational Experiences</b>	Premiere Canadian wilderness canoeing, rafting and kayaking river	Slight increase in use since designation	Develop methods for monitoring use levels
	Fishing throughout drainage, particularly Bonnet Plume, Duo, Goz, Quartet, Chappie and Margaret Lakes.	No change.	None
	Unorganized wilderness camping on gravel beds and creek deltas along river corridor and throughout the watershed	Slight increase in the development of camp sites.	Implementation of BRIM.
	Alpine hiking opportunities along the upper reaches of the valley.	No change	None
	Mountain climbing potential (Mt. McDonald and Mt. Gillespie)	No change	None
	Some hunting (resident and First Nation), but is limited because of access challenges	No change	None
	Two Big Game Outfitting concessions cover the area, catering to predominantly international clients.	Possible increase. Outfitting concession has a new owner.	Implementation BRIM.
	Opportunities for nature study, wildlife viewing, photography, etc...	No change	None
<b>Capable of Supporting Recreational Use Without Loss of Heritage Values</b>	Diversity and outstanding quality scenic views Heritage values – area served as an important cultural link for travel, meeting and inter-tribal trade of the NND and TG. Area functions as an important spiritual and cultural link for NND and TG	No change	Implementation of BRIM, inventory and monitor cultural resources. Provide brochure to travelers on protection of heritage resources in Yukon

	Special places include traditional subsistence areas, camps, gravesites, places of spiritual renewal Gold Rush stampeders, trapping, prospecting, and early scientists – (GSC.)		
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## 3.4. River Integrity Values

### 3.4.1. Bonnet Plume River Integrity Values

The original nomination document for CHRS status for the Bonnet Plume assessed existing watershed conditions to determine the river's integrity and "evaluate the suitability of the river for nomination to the CHRS with reference to CHRS guidelines." The following summarizes those integrity values identified for the Bonnet Plume River in 1997:

- Giving CHRS status to the entire watershed (12000 sq km) captures interrelated and inter-dependent elements in the area and the boundary provides viable protection of species, features and objects. This was seen to be particularly important to the Tetlit Gwich'in and Na-Cho Nyak Dun First Nations who feel protection of any part of the drainage basin can only be achieved if the entire area is protected.
- Although remote, the watershed supports traditional and ongoing land use activities such as hunting, fishing, and trapping as well as guide outfitting and commercial and recreational river expeditions. These activities are felt to support the overall intent of the river's designation.
- Tetlit Gwich'in and Na-Cho Nyak Dun First Nations have long standing interest in the watershed based on traditional and current use. Their primary concern is potential impacts to the river's integrity from mineral or hydroelectric developments.
- The water in the Bonnet Plume River drainage is of very high quality.

Table 3.4 illustrates the application of integrity values identified at the time of nomination to the CHRS integrity guidelines.

### 3.4.2. Status of River Integrity Values

Over the past 10 years there have been incremental changes that, while not having a direct impact individually, cumulatively have an impact on the overall integrity of the river. The outfitter's settlement at Copper Point is of particular concern as it is visible from the river. The expansion of mining exploration and the potential development of a winter road into the area may be leading to more disruption of wildlife, detracting from wilderness travelers experiences, and could be disturbing important cultural sites. In order to fully explore this concept, monitoring programs and further research would be required.

**Table 3.4 Condition of River Integrity Values 2007**

<b>CHRS Values</b>	<b>Nomination Value</b>	<b>Changes</b>	<b>Notes</b>
<b>Natural Integrity</b>			
<i>Area is of sufficient size to include representations of all the natural processes, features, or other phenomena which give the river its outstanding natural value</i>	The Bonnet Plume Heritage River Management Plan encompasses the entire Bonnet Plume watershed (approximately 12,000 sq. kms)	There has been an increase in mineral exploration in the area. There are now three sizable exploration camps in the watershed. While the impact from the exploration activities has a minimal impact on the river, future mine development could be a major threat.	Develop monitoring system for mineral exploration and other industrial land uses.
<i>Area includes those ecosystem components which contribute significantly to providing habitat for ongoing species protection</i>	Several rare plant species are found within the Bonnet Plume drainage (see Natural Values section) as well as a significant grizzly bear population and a relict population of lake whitefish.	There are no direct threats at this time, however, the cumulative impacts of various developments within the watershed and beyond may affect the ability to provide required habitat for species protection.	Completion of regional land use planning will provide a greater context for the management of the Bonnet Plume.
<i>No human-made impoundments within the nominated area</i>	There are no human-made impoundments within the watershed	No change	None
<i>All key elements and ecosystem components are unaffected by impoundments outside the area</i>	There are no impoundments that affect the watershed or adjacent watersheds	No change	None
<i>Water in the area is uncontaminated</i>	The water quality of the river is excellent as it is in its natural state	No change	Ongoing monitoring.

<b>CHRS Values</b>	<b>Nomination Value</b>	<b>Changes</b>	<b>Notes</b>
<i>Natural aesthetic character of the river is not adversely affected by human development</i>	There is minimal development within the watershed. Some remnants from mineral exploration, trappers cabins, outfitting cabins.	There have been mostly minor changes related to the development of mineral exploration camps and some new outfitter spur camps on the lower reaches of the river. Major changes include construction of a large outfitting lodge near Copper Point and an airstrip. Increased air traffic as a result of mineral exploration.	Develop method for determining visitor expectations and satisfaction.
<b>Cultural Integrity</b>			
<i>Area is of sufficient size to include significant representations of all features, activities, or other phenomena which give the river its outstanding cultural value</i>	The Na-Cho Nyak Dun and Tetlit Gwich'in people used the entire river valley for hunting, travel, and spiritual reasons. A variety of traditional sites are found within the watershed.	No change	None
<i>Visual character of the area enables uninterrupted appreciation of one of the periods of the river's historical importance</i>	The Bonnet Plume watershed is in a predominantly natural state and has not changed significantly over the past several thousand years, except due to natural processes.	Exploration activities (helicopter use) are becoming more visible for river travelers. The construction of a large outfitting lodge near Copper Point has created a visual change.	Develop method for determining visitor expectations and satisfaction. Ask outfitters at Copper Point to plant a screen between their camp and the river.
<i>Key artifacts and sites comprising the cultural values are unimpaired by impoundments and human land uses</i>	The Bonnet Plume watershed is primarily in a natural state. No impoundments are in place. Some limited mineral exploration development and cabins are the	No major changes have occurred, although increases in exploration may lead to further development in the area. Trapping and outfitting cabins	Complete cultural sites inventory as per work plan. Prior to any development of heritage sites, site users to contact Historic Sites

	only permanent structures.	continue to be used as they were prior to CHR designation	office.
<i>Water quality does not detract from the visual character or cultural experience</i>	The Bonnet Plume is a pristine river with excellent water quality	No change	None
<b>Recreational Integrity</b>			
<i>River possesses water suitable for contact recreational activities</i>	The Bonnet Plume is in its natural state and is suitable for a variety of water-based recreational activities, such as canoeing, kayaking, rafting and swimming.	No change	<i>None</i>
<i>River's visual appearance provides travelers with a continuous natural experience without interruption by modern human intrusions</i>	There are no major developments within the Bonnet Plume watershed and only minor developments (cabins, etc) visible from the river itself.	There have been mostly minor changes as a result of mineral exploration, including camps and helicopter traffic, and some new outfitter spur camps. A major change is the outfitting lodge near Copper Point.	Develop method for determining visitor expectations and satisfaction. Ask outfitters at Copper Point, to plant a screen between their camp and the river.
<i>River can support recreational uses without loss of natural and cultural values or its visual character</i>	There are few recreational visitors to the area at this time.	There appears to be a slight increase in visitation to the Bonnet Plume region since its designation.	Evidence of use by river travelers is only very evident at portage sites.

## 4. Assessment of Management Plan Activities

The Bonnet Plume Heritage River Management Plan includes a work plan for each of the CHRS nomination sectors: natural resources, cultural heritage resources and recreational resources. This initial work plan was to be carried out between 1997 and 2003. A variety of management agencies and community organizations were tasked with carrying out different aspects of the work plan.

### 4.1. Natural Resources

The following section outlines the intent of the Natural Resources Work Program included in the Bonnet Plume Heritage River Management Plan. The goal of the initial work plan was to maintain the integrity of the watershed ecosystem. In order to achieve this goal, the work plan called for the completion of baseline inventories of natural resources in the watershed. This was identified in the work plan as there was an absence of comprehensive, integrated biophysical information for detailed watershed planning, management and assessment. There was also a need for information on species composition, health and distribution. This was identified as an immediate priority, to be completed within three to five years with a minimum annual budget of \$50,000 to \$75,000 in order to complete two or three studies a year.

Table 4.1 outlines the activities undertaken between 1997 and 2007 in order to achieve the specific actions included in the Natural Resources work plan.

**Table 4.1 Natural Heritage Resources Work Plan**

Action	Responsible Agency	Status	Possible Action
Ecosystem Classification Study prepared	YG Environment lead, DIAND (DEPT. INDIAN & NORTHERN AFFAIRS) and CPAWS support	Field work 1999/2000. Ecosystem map of entire Peel Watershed now complete.	None
Survey and update water resource information	DIAND Water Resources and Environment Canada	Water quality and flow studies (1980-1999). Peel River Basin Water Quality Report 2002	None
Complete baseline habitat inventories for wildlife; coordinating surveys with Management Plan priorities, and cultural history inventories	YG Environment, MDRRC lead; participation from local users	Data collected on plants, fish, sheep, and waterfowl 1999-2002. Winter distribution of caribou, moose and sheep 2002 & 2007. Detailed study of Chappie Lake wetland 2002. Interviews with trappers and outfitters help identify key wildlife areas. Habitat	Continue gathering winter habitat information



		suitability maps developed as part of the Peel Watershed Land Use Plan.	
Complete wildlife population census and coordinate with data compiled from annual harvest surveys, visitor sightings and First Nation research	YG Environment, MDRRC (MAYO DISTRICT RENEWABLE RESOURCES) lead; participation from local users	Sheep census taken 1999 for 2/3 of watershed. Upper watershed not surveyed. No other surveys conducted.	No further data collection. May no longer be a priority.
Update and refine natural features and recreation potential inventory, correlate with other natural and cultural resource inventories; complete visual resource assessment along river	YG Environment lead, CPAWS, Industry and MDRRC support	Not initiated	This information would be helpful for planning and development assessment.
Complete land use capability assessment of the watershed, including the associated impacts that could result if the renewable and non-renewable resource extractive potential is realized.	YG Environment, DIAND lead, MDRRC, Industry and land users support	Not initiated	May be part of the Peel River Land Use initiative.
Hold workshop involving all stakeholders to assess completeness of resource inventories and resource capability assessments and determine implications of resource values for watershed management, protection	YG Environment, DIAND lead, NND, MDRRC	Not initiated	Partial completion as part of this 10-Year Monitoring Report
Develop <i>Limits of Acceptable Change</i> guidelines and watershed monitoring procedures for resource management, planning and assessment	YG Environment, DIAND lead, NND, MDRRC	Not initiated	May be part of the Peel River Land Use initiative.

## 4.2. Cultural Heritage Resources

The following section outlines the intent of the Cultural Heritage Resources Work Program included in the Bonnet Plume Heritage River Management Plan. The overall goal of the workplan was to identify and reflect First Nation culture in all aspects of watershed management. In order to achieve this, the workplan set out ways of identifying, recording and reflecting the cultural history of the Bonnet Plume in watershed management. During the management planning process, this was identified as a need since there was an absence of a systematic inventory of First Nation current and traditional land use within the watershed. There was also a need to integrate traditional knowledge into resource assessment, management planning and the land use decision-making process. The work plan for cultural resources was identified in the management plan as an immediate priority, to be completed within two to three years with a budget between \$40,000 and \$60,000.

Table 4.2 outlines the activities undertaken between 1997 and 2007 in order to achieve the specific actions included in the Cultural Heritage Resources work plan.

**Table 4.2: Cultural Heritage Resources Work Plan**

Action	Responsible Agency	Status	Possible Action
Undertake systematic survey of main stem of the river; collect oral history and inventory culturally significant sites, place names	YG Tourism & NND lead, GSCI support	Initiated in 2007. Preliminary survey of the river complete. Only sites identified in the Management Plan below Fairchild Creek on the main stem of the river were documented. Further research and input from FN may identify other sites. Historic sites above Fairchild Creek have not been inventoried. Further surveys including archeologists and paleontologists to be conducted in the future	Collection of oral histories should be a priority for management agencies. To complete a comprehensive inventory of heritage resources, it will be necessary to include the NND and the TG. Oral histories, place names, routes, significant traditional or spiritual sites and other more contemporary heritage resources need to be identified, located and documented to assist with management
Develop interpretive themes for the Bonnet Plume reflecting its cultural significance	YG Tourism & NND lead, GSCI support	Draft interpretive plan for the Bonnet Plume is underway	Oral histories, research and inventories of historic sites, archaeological and paleontological resources required

			first
Revise and update CHRS Cultural Heritage Assessment	YG Environment, Tourism and NND lead, GSCI support	In process.	Oral histories, research and inventories of historic sites, archaeological and paleontological resources required first
Define monitoring standards for historic resources to ensure in-situ protection	YG Tourism, NND, GSCI support.	Annual river trip currently the only monitoring being conducted.	Oral histories and research and inventories of historic sites, archaeological and paleontological resources required first  Assessment and analysis of types of resources and potential impacts is necessary to develop a schedule of monitoring and condition reporting for heritage resources. This to be done after inventory work completed.

### 4.3. Recreation and Tourism Resources

The following section outlines the intent of the Recreation and Tourism Resources Work Program included in the Bonnet Plume Heritage River Management Plan. The goal of the recreation and tourism section of the workplan was to provide visitors with the opportunity to discover a distinctive ecological region of the Yukon and experience a wilderness river environment. In order to achieve that goal, the work plan set out ways of adopting appropriate management strategies and watershed protection measures to ensure a high quality wilderness river experience. During the planning process, there was an identified desire for backcountry and wilderness travel experience in the area, but the potential for land and resource use conflicts. Strategies for defining resource and user carrying capacity for the river and limits of acceptable change was identified as a medium term priority and was to have a budget of between \$25,000 and \$50,000 over two years.

Table 4.3 outlines the activities undertaken between 1997 and 2007 in order to achieve the specific actions included in the Recreation and Tourism Resources work plan.

**Table 4.3 Recreational Resources Work Plan**

Action	Responsible Agency	Status	Action
Complete an assessment of the recreation and tourism market potential to determine appropriate carrying capacity and visitor use management measures	YG Environment/Tourism lead, CPAWS, WTAY, MDRRC support	Not done	With low visitor use, may no longer be a priority
Prepare Wilderness Tourism Licensing Act	YG Environment/Tourism lead, WTAY support	Act passed in 2000. Regulations put in place, 2001.	Complete
Develop recreation use monitoring procedures	YG Environment, DIAND lead, PC, MDRRC, NND and WTAY support	BRIM initiated 2006	Maintain monitoring program (every 3 to 5 years)
Prepare Visitor Use Information, Backcountry Use Guidelines	YG Environment, DIAND lead, PC, CPAWS, NND and WTAY support	Completed Leave No Trace literature	Hard to distribute, so may not be a priority.
Develop procedures to track visitor use and recreational expenditure	YG Tourism and Statistics lead, MDRRC, Operators support	Partially done through WTL requirements	Formal and Informal monitoring through local air charter and mandatory trip reports under WTL legislation.

## 5. Conclusion

The Bonnet Plume River has been designated as a Canadian Heritage River because of its unique and significant natural, cultural and recreational values. In the ten years since its designation, all of these values have been maintained. The watershed continues to hold spiritual and cultural significance for both the Tetlit Gwich'in and the Na-Cho Nyak Dun First Nations. It also continues to draw recreational paddlers looking for quiet solitude in the Canadian wilderness. While some development has begun to occur in the watershed and in watersheds adjacent to the Bonnet Plume, the river valley still maintains its integrity and the values that provided the basis for its designation as a Canadian Heritage River.

As one of the first cooperatively managed areas under the Yukon's land claim agreements, the Bonnet Plume set the standard for the process for determining how these areas would be managed. The initial management plan outlined the steps that should be taken to meet information requirements and management goals for the watershed. Over the past 10 years, some of these activities were carried out, some were altered to meet emerging realities, and some were eventually determined to not be priorities. The Peel Watershed land use planning process includes the Bonnet Plume River and some of the management priorities for the area may be answered through this process.

The following recommendations are submitted as part of the review of both the nomination values and the work plans included in the initial Bonnet Plume Heritage River management plan. These are suggestions for further work, but are not intended to be binding on any of the responsible management agencies. The intent is to put forward ideas for further discussion and possible integration into future work planning and budgeting processes.

### 5.1. Recommendations

#### 1. Create base map of the designated area

At present, there is no map that clearly delineates the watershed boundary, which is the area included under the Canadian Heritage River designation. This will help clarify that the entire watershed is subject to the management plan, not just the river corridor itself. This will be useful in assessment processes, such as YESAB, and will provide information to other management agencies. It will also assist in monitoring efforts.

#### Suggested Implementation Strategy

Action	Responsible Agency	Timeline
Create base map for Bonnet Plume Heritage River management area.	YG Parks Branch and Information Management and Technology	2008

## 2. Map notation of the designated area

The area included in the management plan should be identified on all government maps. This will assist in future planning and management processes.

### Suggested Implementation Strategy

Action	Responsible Agency	Timeframe
YG Parks Branch request map notation for Bonnet Plume Heritage River be added to government maps	YG Lands Branch	2008

## 3. Complete and maintain inventory and monitoring programs

There are several inventories that were identified under the management plan, including an inventory of important river features, cultural and historical sites, significant ecological sites, and recreation sites. Some of these have been initiated, but no coordinated information sharing has been established. Baseline inventories should be completed, and important areas should be mapped, using the baseline map created for the area. In particular, the identification of cultural and heritage sites should be a priority. Yukon Parks should be the agency responsible for compiling and mapping this information. As some sites may be culturally sensitive, the compilation and mapping will be completed in partnership with NND and TG. YG may protect the specific location of some sites from the public. The mapping and monitoring of these different features will assist in management planning and development assessment.

### Suggested Implementation Strategy

Action	Responsible Agency	Timeframe
Prepare report on cultural and heritage surveys conducted to date	YG Tourism and Culture	2008
Complete comprehensive survey of cultural and heritage resources, including a written report and mapping of sites	YG Tourism and Culture in cooperation with Nacho Nyak Dun First Nation and Tetlit Gwitch'in	2009 – 2010
Complete comprehensive inventory of geographical features and recreational features, including a written report and mapping of sites	YG Parks Branch	2009 – 2010
Continue winter habitat surveys (annual), provide written reports and GIS data for possible mapping (every 3 years)	YG Fish and Wildlife Branch	2009 – 2012
Continue Backcountry Recreation Impact Monitoring Program (every three to five years)	YG Parks Branch	2009 and 2012

#### 4. Monitor industrial developments in the area

Most of the natural, cultural and recreational features of the area are identified or monitored over time. In order to manage the area, industrial developments should also be monitored. These developments could also be mapped on an annual basis to show changes over time.

##### Suggested Implementation Strategy

Action	Responsible Agency	Timeframe
Provide list of all land use permits issued for the area (annually), including their location for mapping.	YG Energy, Mines and Resources	2008 and ongoing
Monitor YESAB website for assessment applications in the area	YG Parks Branch	2008 and ongoing

Develop an information package to provide to permit holders regarding the protection of natural, cultural, and historic resources.

#### 5. Continue water quality monitoring in the watershed.

This is one of the activities outlined in the management plan. While there has been no change in the overall water quality, if there are increases in industrial activity in the area it will be important to identify any changes. Possible intermittent testing (every 5 years, depending on local activity levels) will show if any changes are occurring.

##### Suggested Implementation Strategy

Action	Responsible Agency	Timeframe
Continue water monitoring on river	YG Water Resources	2012

#### 6. Participate in the Peel River Watershed Planning Process

The Bonnet Plume Heritage River already has a management plan and specific values and objectives identified for the watershed. These values and objectives should be included in the overall land use planning for the Peel River watershed. Responsible agencies should be clearly articulating these values as the land use planning process moves forward.

##### Suggested Implementation Strategy

Action	Responsible Agency	Timeframe
Contact the Peel River Watershed Planning Council and ensure Parks Branch is included in any relevant planning exercises	Department of Environment Parks Branch	2008

## **7. Review and Revise Bonnet Plume Heritage River Management Plan**

The Bonnet Plume Heritage River Management Plan is no longer current. However, in light of the work being done on the Peel River Watershed Land Use Plan, it may not be useful to conduct a full review of the management plan until the regional plan is complete. This will ensure that there is no duplication and that the two plans compliment each other. It should be noted here that the Peel River Watershed Land Use Plan may provide an overriding management goal for the area, but may not include specific management actions. Therefore, a re-examination of the Bonnet Plume Heritage River Management plan will be useful and timely once the regional land use plan is complete. The review would include participation from all agencies.



## 6. Appendix-NND Letter of Support

**First Nation of NaCho Nyäk Dun**  
P.O. Box 280  
Mayo, Yukon Y0B 1M0  
Ph: (867) 996-2415 Fax: (867) 996-2828  
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April 16, 2008

Dave Ladret  
Special Projects Officer  
Wilderness Tourism Licensing Deputy Registrar  
Yukon Government  
PO Box 2703, Whitehorse, YT  
Y1A 2C6  
Fax 867 393 6223

RE: Bonnet Plume River Canadian Heritage River Management Plan (BPRCHRMP)

Dear Mr. Ladret

The First Nation of Na-Cho Nyak Dun (NND) would like to provide some preliminary comments regarding the ten-year Bonnet Plume River monitor report. Our first fundamental issue is that during the proposed five-year review, the plan outlined some basic management principles that includes a number specific work plans that identifies actions that need to be followed in order to gather all relevant data. NND believes that during this period, there was supposed to be a full review of the management plans, principles, and to re-define the primary objectives of the management plan. These actions were to be prioritized within a budgeted process and a timeframe scheduled for completion. The plan was to identify who was responsible for what section of the plan and how the plan would be implemented.

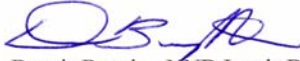
We are now in the ten-year review and still today, we are not fully addressing the document without any commitments for conducting a full review of the management Plans. As pointed out in the monitor report, the BPRCHRMP must be consistent with the Peel River Watershed Planning Commission (PWPC) land use plans. The only requirements for the Heritage River status is; any development within the watershed must exercise a higher level of care and that they must consult (capital C) with all stakeholders within in the Peel River watershed region. NND is concerned that the higher level of care stated in the principles is not strong enough and that the heritage status or the PWPC -LUP will need better protection for the area. NND recognizes that whatever legislation is developed, it must be consistent with all Federal and Territorial legislation and their

regulations as it applies. A concern is; by the time it takes a heritage river to get its recognition and full protection, the land leases and authorizations will have tied up a major portion of the region and predetermine the outcome of the land use planning process.

NND respectfully request that all signatories of the BPRCHRMP conduct a full review of the management plan while incorporating a community vision of the Peel Watershed. The planning principle priorities are to enhance the quality & quantity of resource information to facilitate long range planning. NND would like to see the full protection of the heritage values, the natural landscape features and human/cultural heritage resources, the wildlife populations and their habitat ranges, the rare plant species found within the watershed, the conservation and sustainable uses of the area, raising public awareness, and to develop limits of acceptable change guidelines and watershed monitoring procedures. Unfortunately, little or no discussion has occurred to date regarding what changes, if any, are acceptable within the watershed.

Thank you for your time and consideration to this matter and we look forward to discussing these issues with you and all of the parties involved in more detail.

Sincerely,



Dennis Buyck – NND Lands Director

CC: NND – Chief and Council  
Mayo District Renewable Resource Council  
Gwitchin Tribal Council