

BONNET PLUME CANADIAN HERITAGE RIVER

TEN YEAR MONITORING REPORT 2008-2017



Government of Yukon

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Introduction:

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.

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; and
- Public information and interpretation.

The Bonnet Plume Heritage River Management Plan was officially signed in January 1998. The plan outlines three overall management objectives: a) conserving the rivers natural and human heritage values, b) allowing for interpretation of the heritage values and c) providing recreational and heritage appreciation.

The Canadian Heritage River System requires 10-year reviews of Heritage River status, which is the intention of this report. This is the second 10-year review for the Bonnet Plume Heritage River since it was originally designated in 1998. The primary purpose of the review is to “assess the river’s ability to meet the criteria outlined in the designation document” and recommend “that the river maintains its Canadian Heritage River designation, or that it be de-designated” (PPOG 2016). This report strongly recommends that the heritage designation is maintained, due to analysis indicating that the criteria are still being met, if not exceeded.

Section 1: Chronology of Significant Events, Actions and Research in the Past Ten Years

2008

July 2008:

Archaeological Research:

Description:

- Archaeological survey was conducted on the Bonnet Plume and adjacent rivers (Hart and Wind) over a four-day period.
- As a result of the survey, numerous localities were investigated for pre-contact and historic land use values.

Summer 2008:

Palaeontological Research

Description:

- Yukon Palaeontology Program, in partnership with the Royal Ontario Museum, conducted surveys near the Bonnet Plume River, in search of dinosaur fossils.
- Three duck-billed dinosaur fossils were recovered in this area in the 1960s and researchers were interested in determining if more fossils were present in the area. No new vertebrate fossils were found, although a number of good plant fossils were recovered.

2011

March 2011

Caribou Survey

Description:

- Survey of the entire Bonnet Plume watershed was conducted to map the winter range of the Bonnet Plume caribou herd.

2012

June 2012

Sheep Survey

Description:

- A survey was conducted that covered a small part of the upper Bonnet Plume watershed to map sheep lambing range.

2013

Summer 2013

Plaque Clean-up

Description:

The dedication plaque was inspected and documented. Substantial amounts of graffiti and paint were removed from the plaque, monument and interpretive panels.

2014

March 2014

Caribou Survey

Description:

- Survey was conducted that covered a small part of the upper Bonnet Plume watershed to map the winter range of the Rackla caribou herd.

2015

March 2015

Caribou Survey

Description:

- Survey was conducted that covered a small part of the upper Bonnet Plume watershed to map the winter range of the Rackla caribou herd.

2016

March 2016

Caribou Survey

Description:

- Survey was conducted that covered a small part of the upper Bonnet Plume watershed to map the winter range of the Rackla caribou herd.

March 2016

Sheep Survey

Description:

- Survey was conducted that covered a small part of the upper Bonnet Plume watershed to map the winter range of sheep.

July 2016

Backcountry Recreation Impact Monitoring Survey

Description:

In July 2016, Yukon Parks conducted a 10-day river trip from its headwaters to the Peel River. A member of the First Nation of the Na-cho Nyak Dun also participated. The purpose of the trip was to conduct a Backcountry Recreational Impact Monitoring (BRIM) survey at each of the camps along the route. This was the second BRIM survey on the Bonnet Plume; the previous survey was conducted in 2006. The conclusion of the survey was that environmental impact on shoreline camps had declined in the past ten years, due to an apparent decline in river traffic. Big game outfitter camps and one dormant mining camp continued to have a notable localized footprint and environmental impact. There was no active mineral extraction occurring in the Bonnet Plume watershed.

Of the 22 sites surveyed:

- 14 sites saw a decline in their impact rating from 2006.
- 2 sites maintained the same score.
- 2 sites saw an increase in their impact rating.
- 1 new site appeared that did not exist in 2006; and
- 2 sites disappeared between 2006 and 2016.

One of the most interesting observations from the 2016 survey was the remarkable increase in vegetation cover that occurred – mostly likely due to climate change. With photographic data, the surveyors replicated the same photos from 2006, which was very effective at highlighting the vegetation change. Bare gravel bars in 2006 were now growing a consistent cover of dryas or willows; thick aspen forests replaced grasses or willows.

2017

February 2017

Caribou Survey

Description:

- Survey was conducted that covered a small part of the upper Bonnet Plume watershed to map the winter range of the Rackla caribou herd.

Summer 2017

Canada 150 Celebrations

Description:

The First Nation of the Nacho Nyak Dun hosted a series of events throughout the summer of 2017, as part of the Canada 150 celebrations. Events included elder talks, storytelling, and a fashion show.

2005-Present

Peel Watershed Land Use Planning

Description:

Since 2005, the Peel Watershed – which includes the Bonnet Plume River and its sub-watershed – has been undergoing a regional land use planning process that will define which areas are open to industrial activity and which are deemed to be protected areas. The Peel land use planning process was challenged in the courts, and on December 1, 2017, the Supreme Court of Canada released its decision, supporting the position of the appellants - First Nations and environmental organizations. The Yukon Government responded immediately and committed to adopting and implementing the Final Recommended Land Use Plan. This will result in the permanent protection of 36,905 km² of land and water, including the Bonnet Plume, Wind and Snake watersheds, the Peel River corridor, as well as interim protection of Hart River watershed. The entire Bonnet Plume Heritage River will reside within a protected territorial park.

- February 2010: a moratorium on mineral staking was implemented for the entire Peel watershed, including the Bonnet Plume sub-watershed
- December 2017: Supreme Court of Canada decision and subsequent commitment from the Yukon Government to implement the Final Recommended Land Use Plan, which includes permanent protection of the Bonnet Plume watershed.

Section 2: Changes and Threats to Natural, Cultural and Recreational Values in the Past Ten Years

NATURAL, CULTURAL OR RECREATIONAL VALUE	DESCRIPTION OF CHANGE IN VALUE (e.g. Magnitude, Positive or Negative Change, Immediate or Long-term)	REASON FOR CHANGE (e.g. Threat, Stressor, Management Action)	ACTIONS TAKEN IN RESPONSE
Hydrology	Possible reduction in flood events occurring on the river. (Based on observations of dryas cover getting established on gravel bars that had been bare ten years before.)	Possibly due to climate change (i.e. reduction in snowmelt or glacial melt), or the surge run-offs are not as common as they once were.	Identified for future monitoring and potential research.
Extended Canoe Tripping	Reduction in recreational paddling activity on the Bonnet Plume. (Based on verbal report from charter airline) Paddling activity may rise once the Bonnet Plume River is within a Territorial Park and greater marketing and outreach occurs.	The river is a rather challenging paddling river (Class III-IV, and two Class V rapids); recreational paddlers tend to choose the Wind or Snake rivers.	Identified as a need for monitoring.
Trail Use	Trails in the river corridor are primarily portage routes. Most trails were still identifiable but some had grown in with low vegetation/ground cover. Trails were clean.	There is no exclusive hiking activity in the river corridor; all trail use is associated with paddling traffic. With a significant decline in paddlers, the trails have likewise seen a decline in their use.	No action taken.
Vegetation and Campsites	BRIM survey results concluded that: <ul style="list-style-type: none"> • 14 of 25 sites had a decrease in impact; • 5 of 25 sites had an increase in impact; • 2 of 25 sites remained stable; • 4 of 25 sites were newly surveyed in 2016. • Total net change in impact was -41 points • Through comparison of 2006 and 2016 photographs, it was very apparent that previously barren shoreline is now thickly covered with tall willows (~ 2-3 m) or even stands of aspen trees (~ 4m high), and gravel bars are sometimes covered with dryas. Much of this ground cover occurs in places where no camping or foot traffic was occurring in the past ten years. • The campsites continue to provide a wilderness experience. 	The increase in ground cover may be related to climate change and an increase in average annual temperatures and warmer winters/longer growing seasons. (See Appendix 1 for a comparison of vegetation between 2016 and 2006)	No action taken.

Section 3: Integrity Guidelines since Designation

NATURAL, CULTURAL OR RECREATIONAL INTEGRITY VALUE	CHANGE IN INTEGRITY VALUE (Brief Description)	THREAT OR STRESSOR (Current, Immediate, Long-term)	ACTION(S) TAKEN TO ADDRESS THREAT	THREAT STILL PRESENT?
No values under threat	N/A	N/A	N/A	N/A

Section 4: Management Plan Recommendations and Current Status

A series of recommendations were developed as part of the Bonnet Plume River Management Plan in 1998 and later reviewed in the 2008 Bonnet Plume Ten Year Report. These recommendations were not binding.

RECOMMENDATION OR KEY ACTION	DEGREE OF ACHIEVEMENT <ul style="list-style-type: none"> • Not yet initiated; • Initiated / underway; • Completed / addressed; • On-going 	COMMENTS
Create base map for Bonnet Plume Heritage River management area	Completed	
YG Parks request map notation for Bonnet Plume Heritage River be added to government maps	Ongoing	It has been inconsistently applied, depending on the theme of the mapping. Expected to be resolved with park establishment.
Prepare report on cultural and heritage surveys conducted to date	Addressed, underway. Historic and archaeological field surveys completed in 2006, 2007 and 2008.	
Complete comprehensive survey of cultural and heritage resources, including a written report and mapping of sites	Completed, report underway.	Sites documented, photographed and mapped.
Complete comprehensive inventory of geographical features and recreational features, including a written report and mapping of sites	Recreational features inventory completed in map format.	
Continue winter habitat surveys (annual), provide written reports and GIS data for possible mapping (every three years)	Surveys are not conducted annually. Periodic surveys by species (caribou, sheep) have been conducted in parts of the Bonnet Plume watershed.	
Continue Backcountry Recreation Impact Monitoring Program (every three to five years)	Ongoing	Adjusted to occur every 10 years. Completed in 2006 and 2016.
Provide list of all land use permits issued for the area (annually), including their location for mapping	Not initiated.	

Monitor YESAB website for assessment applications in the area	Ongoing	
Continue water monitoring on the river	Ongoing	Water monitoring occurs at a single gauge. Data is available from 1981 to present (2017).
Review of the Bonnet Plume Heritage River Management Plan after the ratification and implementation of the Peel Watershed Land Use Plan	Not yet initiated.	Implementation of the Peel Watershed Land Use Plan will begin upon approval of the plan.

Section 5: Summary of Benefits and Costs since Designation

TYPE OF BENEFIT	DESCRIPTION
Community Engagement and Collaboration	<ul style="list-style-type: none"> Yukon Parks worked with the Na Cho Nyak Dun First Nation to select a team member from the first nation. Geri-Lee Buyck was a vital member of the survey team and is a prominent member of the community of Mayo, where she sits as the Youth member on the tribal council.
Education	<ul style="list-style-type: none"> Upon completion of the BRIM survey in 2016, the team immediately presented the highlights of their work in Mayo, YT and described the history and significance of the heritage river designation to youth volunteers from Ontario. The baseline work that has been collected over the past 20 years is primarily due to the heritage river designation. That knowledge will play an important role in the management of the anticipated territorial park that will include the Bonnet Plume watershed.
Cultural	<ul style="list-style-type: none"> During the regional land use planning process, the heritage river designation was identified as a prominent attribute and was part of the rationale for recommending full protection to the watershed.

Have there been any downsides to obtaining the designation? (ex. perceived regulatory barriers, etc)

DETRIMENTAL EFFECTS	DESCRIPTION
None.	

Section 6: Overall Assessment

The designation as a Canadian Heritage River should

- ☒ remain in place
- ☐ be reviewed by the board due to the following concerns:

APPENDIX 1: COMPARISON OF VEGETATION ALONG BONNET PLUME CORRIDOR

2016



2006

