

# CANADIAN HERITAGE RIVERS SYSTEM 10 YEAR REVIEW

*FOR THE*



Arctic Red River near forks with Cranswick River Photo: Ingrid Kritsch GSCI

## ARCTIC RED RIVER NORTHWEST TERRITORIES



***Canadian Heritage Rivers System***  
**10 Year Review**  
**(1993-2004)**  
**for the**  
**Arctic Red River,**  
**Northwest Territories**

Prepared for: Department of Resources, Wildlife and Economic  
Development of the Northwest Territories for the  
Canadian Heritage Rivers Board

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# Administrative Boundaries map

## **1.0 Executive Summary**

In short, much has changed, and little has changed, regarding the Arctic Red River since its designation in 1993.

A couple of changes do need to be noted immediately. The community of Tsiigehtchic is now the legal name for what was called the community of Arctic Red River. Hence, the term 'Arctic Red River' used throughout refers only to the river proper, not the community. Similarly, the term "Gwichya Gwich'in" is now the preferred term for what was used in the official nomination and management plans as 'Kwitchia Gwich'in'.<sup>1</sup>

The major change has been in the signing and ongoing implementation of the Gwich'in Comprehensive Land Claim Agreement (the Land Claim). This has changed the land and resource management regime completely, most notably with the signing of the Gwich'in Land Use Plan. In addition, there has been significant research and documentation of oral histories and archaeology along the river.

In other ways, little has changed. The Mackenzie Gas Project has produced frenzied activities around potential gas and pipeline developments, and a new diamond rush has meant the issuance of huge areas of prospecting permits. However, while the community of Tsiigehtchic is feeling the effects of the resource development pressures, the Arctic Red River itself remains mostly untouched. The natural, cultural and recreation values for which it was designated remain intact. There is seemingly diminished interest in the river now that the 'designation phase' is well behind us, and no real change in the tourism and recreation use.

Brief recommendations have been made. These should be discussed with the community of Tsiigehtchic, and relevant signatories to the Claim and Land Use Plan.

## **2.0 Introduction**

### **2.1 Background**

The Arctic Red River watershed lies fully within the Gwich'in Settlement Area within the NWT. The one community in the watershed is Tsiigehtchic.

The Nomination Document for the Arctic Red River was presented to the Canadian Heritage Rivers (CHR) Board in June, 1992 jointly by Tsiigehtchic, the Government of the NWT (Department of Economic Development and Tourism) and the Federal Government (DIAND). The nomination was accepted by the Board and became part of the CHR System. As required by nomination, the Management Plan for the Arctic Red River was prepared in June, 1993.

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<sup>1</sup> Another point is the Territorial Government department that was responsible for Heritage Rivers, including parks and tourism, was Economic Development and Tourism. The department is now Resources, Wildlife and Economic Development (RWED).

## **2.2 Purpose of Report**

This report fulfils the requirement of the CHR Board to review rivers designated under the CHR System every 10 years. This report is somewhat behind this required deadline, and indeed annual reports have not always been filed. This report should bring the designation up-to-date in reporting requirements.

## **2.3 Layout**

The CHR System has a national thematic framework used for organizing and classifying natural, cultural and recreational values represented by rivers. The framework is also useful for identifying unique or rare values of the river. The original “nomination values” set out in the 1992 Nomination Document have been organized according to this framework to evaluate the integrity of these values. These charts form the bulk of this report, section 4.0, Significant Changes to Natural, Cultural and Recreational Values.

Also discussed are the Management of the Arctic Red River (Section 3.0), Review of the Issues (Section 5.0) and Implementation Update and Recommendations (Section 6.0).

## **3.0 Management of the Arctic Red River**

### **3.1 Gwich'in Land Claim Agreement**

The Claim was signed April 22, 1992. Significant changes to the management system within the Arctic Red River watershed include:

- blocks of settlement lands (some surface, some subsurface, and some a combination of subsurface and subsurface rights).
- establishment of the Gwich'in Land and Water Board, to regulate the use of land and water resources and the deposit of waste in the Gwich'in Settlement Area (GSA)
- establishment of the Gwich'in Land Use Planning Board, to produce and implement a Land Use Plan for the GSA.

These have given much more Gwich'in control in the GSA, more local co-ordination and planning of land management.

### **3.2 Gwich'in Land Use Plan**

The Gwich'in Land Use Plan was produced by the Gwich'in Land Use Planning Board, and approved by the Gwich'in Tribal Council, the Government of the Northwest Territories, and the Federal Government. The final signature, that of the Federal Government, brought the Land Use Plan into effect on August 7, 2003.

The Land Use Plan has designated the headwaters of the Arctic Red River as a special management zone, and much of the river as either special management zone, conservation zone or heritage conservation zone. More specifically, starting at the mouth of the river, the zones are:

Arctic Red River Heritage River  
10 Year Review Report

a) Tsiigehnjik: Arctic Red River Special Management Zone (from mouth to beginning of mountains, except where there is a more stringent Heritage/Conservation Zone designation; 500 metres on either side of the river)

*Conditions on development activities:*

- non-interference with traditional fishing
- no activities during fish migration (unless can be proven benign)
- submission of plan regarding impacts on and protection of heritage resources

b) Swan Lake and Creek

*Conditions on development activities:*

- as above, plus:
- no adverse effects of waterfowl nesting and staging sites, including avoidance of such sites by at least 250 metres, and minimum flight altitudes of 650 m during June, July and August

c) Jackfish Creek Heritage Conservation Zone (approximately 2.5 km wide along ARR)

- no development allowed

d) Martin Zeh (Martin House) Heritage Conservation Zone (approximately 1km wide along east shoreline)

- no development allowed

e) Bernard Creek Heritage Conservation Zone (approximately 5-6 km wide, mostly on west side of ARR)

- no development allowed



Bernard Creek (*Hehnjuu deetl'yah tshik*) flowing into the Arctic Red River. photo Ingrid Kritsch, GSCI



## Map of Zones

f) Tsiigehtchic: Arctic Red River Conservation Zone (varies between about 3.5 and 4 km in width)

-no development

g) Headwaters of the Arctic Red River Conservation Zone

*Conditions on development activities:*

-no changes to water quality, quantity and rate of flow

While most of the river has some sort of special designation, the section between the Arctic Red River Special Management Zone and the Headwaters of the Arctic Red River Conservation Zone does not have any particular management conditions or restrictions.

Also, the conditions listed make no mention of the heritage river designation.

The Plan also states: “The Headwaters of the Arctic Red River may also be an area where a legislative protected area is appropriate. However, at the present time there is not enough scientific or traditional knowledge available to evaluate this area. More information needs to be collected during the life of the Gwich’in Land Use Plan.”

In 1996, members of the Government of the Northwest Territories, the Yukon Territorial Government, and the community of Tsiigehtchic flew into the Source Peaks at the headwaters of the Arctic Red River to conduct a preliminary evaluation of the area as a potential transboundary protected area. Four members of the party hiked along the NWT/Yukon border in the headwaters of the Bonnet Plume River, thus crossing from one Canadian Heritage River in the NWT to one in the Yukon. The knowledge gained from the trip is to be used to help in the evaluation of protected areas in the North Mackenzie Mountains. A second day trip to Jackfish Creek along the Arctic Red River also took place with a member of the GNWT, the Chief of Tsiigehtchic and Gwich’in Interim Land Use Planning Board.

The Board is in the process of gathering more information, with a Phase I Ecological Assessment and a Phase I Cultural Resource Assessment ongoing. Completion of these assessments is expected by March 31, 2005.

## **4.0 Natural, Cultural and Recreational Values**

There have been no significant changes to the condition of values associated with the Arctic Red River. The area has less industrial activity than in the 1970s (when there was oil and gas exploration work), less traditional use, and no increase in tourism or recreational use. Therefore local impacts of human use are minimal. Long-range impacts (such as climate change and long-range transport of airborne pollutants) or more regional effects (such as wildlife species harvesting) are less easily quantified, but to date there appears to be no significant impacts.

A summary of the nomination values has been included as Appendix 1.

## 4.1 Natural Values

The following chart gives the main natural values, the situation at designation, the changes since designation, and a listing of any actions or related research to that particular value. For all charts, the following abbreviations have been used:

ARR: Arctic Red River

ND: Nomination Document:

Canadian Heritage Rivers System Nomination Document for the Arctic Red River Northwest Territories, May 1992.

MP: Management Plan: Canadian Heritage Rivers System Management Plan for the Arctic Red River, Northwest Territories. June 30 1993



Left: Moose bathing in Cranswick River (*Ddhahzhit gwitsal*) near the forks with the Arctic Red River.

Photo credit: Ingrid Kritsch, GSCI

Below: Smoking Hills (*Juuk'an*) along Arctic Red River

Photo credit: Ingrid Kritsch, GSCI



### Natural Integrity Values Chart

Integrity Guideline	Situation in 1993	Situation in 2004 (positive/negative changes)	Actions and Related Research
<p><b>Geological:</b> Is the nominated area of sufficient size to represent the three landscapes and the canyons?</p>	<p>River management area extends 1 km on each side of the river from Archie Lake to the confluence with the Mackenzie River at the community of Tsiigehtchic. Boundary formed with the Peel River Preserve. (p.6, MP)</p>	<p>-full management boundary not included in Gwich'in Land Use Plan -the entire length of the river is within the Gwich'in Land Claim area; large parcels of land have been selected along the river.(p.8, MP)</p>	<p>-review of GLUP by August 2008 -research now by GLUP on the ecological and cultural values, with recommendations (completion March 05)</p>
<p>Have there been any measured changes (due perhaps to global warming) in the small glaciers found in the Backbone Range of the Mackenzie Mountains?</p>		<p>Glaciers have been inventoried, but no studies have been done documenting any changes</p>	<p>-may be in ecological evaluation</p>
<p>Have any changes been noted in the "Smoking Hills" area?</p>		<p>-no research or documentation</p>	<p>-may be in ecological evaluation</p>
<p>Fossil records and geologically unique formations (not noted in the original values)</p>		<p>-GSCI staff and archaeologists have noted large fossils areas, but not mentioned as a value; Bernard Creek is an area of particular interest -also have noted area downstream from Martin Zehh (called Nehtruh Chi') is a geologically unique area; research and tie the scientific/geological information with oral histories</p>	

Integrity Guideline	Situation in 1993	Situation in 2004 (positive/negative changes)	Actions and Related Research
<p><b>Hydrological:</b> Are there impoundments in the management area affecting flooding or break-up, either on the river or in the watershed?</p>	<p>-no impoundments in watershed</p>	<p>-no impoundments in watershed</p>	
<p>Has the water quantity and quality remained the same? Is the river's water uncontaminated to the extent that its natural aquatic ecosystem is intact?</p>	<p>-two gauging stations along the ARR established in 1968 (one near Martin Zeh/ House; one near the mouth) (p16 ND) -noted as "free from any sources of local pollution" "The river is now in essentially a pristine state" (p11, MP)</p>	<p>Results of the 2000 Arctic Red River Fish Contaminant Study prepared for the Gwich'in Renewable Resource Board indicates that contaminants found in fish in the ARR are well below accepted levels and the fish are considered safe to eat.</p>	
<p>Are there any changes in the freeze-up/break-up dates?</p>	<p>ARR typically froze in early to mid October</p>	<p>In 1996 the flow rates of the Mackenzie River are influenced by water releases at the Bennett Dam and the water levels in the fall are exceptionally high. The lower section of the Arctic Red is influenced by the water levels of the Mackenzie and both rivers freeze at very high levels. This creates very rough ice conditions (the worst ever for travelling) and river traffic is difficult through the winter.</p>	<p>-daily flow data for 1993 to 2003 showing flow levels and break-up and freeze-up times available from Environment Canada, but not compiled and analysed</p>

Integrity Guideline	Situation in 1993	Situation in 2004 (positive/negative changes)	Actions and Related Research
Are the effects of the 1970 flood still observed? Have there been subsequent major floods?		-debris from 1970 flood is still visible in the bush	-as above
<b>Vegetation:</b> Are the ancient spruce forests in the Peel Plateau oasis intact?		At a regional Gwich'in Renewable Resource Board meeting focusing on forestry, Tsiigehtchic RRC representative Dale Clark states that cutting along the Arctic Red will be allowed in any places except those identified in the Heritage River Management Plan	GRRB Forestry management plan is draft and unavailable to date
-do we know any more about the plants in the ARR area?	-“relatively little known about vegetation”	Gwich'in Social and Cultural Institute, Aurora Research Institute and Parks Canada have prepared a general ethnobotany report on plant use in the Gwich'in area	
Are the survey cut lines done by oil and gas exploration companies in the 1970s still visible? Have new areas been disturbed?	p. 29 seismic lines 4 m wide; 7 drills sites in water	-no new seismic work	
<b>Wildlife:</b> Has there been a change in the legal status of the wolverine or Peregrine Falcon? Have other species been added to the rare or endangered lists?	“These populations are currently not threatened by human use and occupy a wilderness where human presence is rare” (p17 MP)	- Federal <i>Species at Risk Act</i> is now in place. Woodland Caribou are also on list; research is being undertaken by the GRRB/RWED	

Integrity Guideline	Situation in 1993	Situation in 2004 (positive/negative changes)	Actions and Related Research
Have there been any agreements relating to the management of the Porcupine caribou herd or the Bonnet Plume woodland caribou herd?	Porcupine caribou herd may be threatened by oil and gas development in ANWAR (p. MP)	-Porcupine Caribou Herd Management Plan 2000/2001 to 2002/2003 says decline in herd of 4% per year 1989-1998, but “no reason to be overly concerned about the herd at the present time”	-Work Plans from the Porcupine Caribou Herd management plan need to be actioned
Have there been any impoundments or other activities which would affect fish migration and spawning?	No impoundments	No impoundments	
Have any (other) recent land uses or activities affected the Natural Values Integrity?		-generally no changes	

## 4.2 Cultural Values

There has been little change to the cultural values or cultural/heritage integrity of the Arctic Red River. There appears to be less use of the river, particularly the headwaters, for traditional subsistence activities. The archaeological and oral history resources are now much better documented than at nomination. This is mainly due to a series of studies undertaken by the Gwich'in Social and Cultural Institute (GSCI). The first main report was "Gwichya Gwich'in Place Names up the Arctic Red River and south of the Mackenzie River, Gwich'in Settlement Area, N.W.T.", Kritsch and Andre, 1993. This outlines 88 places along the river with associated stories, legends, trails, traditional campsites etc. This laid the basis for the second stage of work, which were archaeological surveys done in 1994 (Sheila Greer, reported 1995) and 1995 (Tom Andrews, PWNHC, no report). The Arctic Red River flats was already known as a stratified, multi-component site. The archeological survey found that Martin Zheh (Martin House) was another such important site. Given that, the third stage of work, additional detailed archaeological studies were undertaken in 1995 and 1996 (Damkjar reports 1996 and 1997). These studies included training of Gwich'in in archaeological field work.

The GSCI notes that stage 3 of archaeological work (namely detailed archeological field investigations) are not complete for Martin Zheh, the Arctic Red River flats areas, Bernard Creek and Weldon Creek. These areas are protected under the Gwich'in Land Use Plan, but there are no management plans associated with the areas, nor is there educational material specific to those sites. However, the GSCI has published *Gwichya Gwich'in Googwandak: The History and Stories of the Gwichya Gwich'in*, a book presenting the Gwichya Gwich'in life on the land from pre-contact times to the present, and a video '*Tsiigehnjiik: Life Along the Arctic Red River*'.

It is worth emphasizing here that the Gwich'in know that heritage resources are more than just archaeological sites or single sites but larger cultural landscapes. This is why the designation of a Canadian Heritage River was deemed important: it looked more broadly at an area than single sites. So while the detailed archaeological investigations are extremely important, they are so because they have been placed in the context of the oral histories and a broader designation.



Annie Norbert collecting spruce gum at Martin Zheh field school Photo: Ingrid Kritsch GSCI



### Cultural Heritage Integrity Values Chart

Integrity Guideline	Situation in 1993	Situation in 2004 (positive/negative changes)	Actions and Related Research
<b>Transportation corridor:</b> Is the river still used as a travel corridor by the Gwichya Gwich'in?		-still important, but people generally stay in the lower parts of the river <sup>1</sup>	
<b>Resource utilization:</b> What wildlife/fish or plants continue to be harvested by Gwichya Gwich'in?	-Dall's sheep played a crucial role -Wolverine was a prestige item -grizzly bear, black bear, moose, wolf, coyote, lynx, marten, mink, weasel, fisher, muskrat, beaver, fox, river otter all taken by local hunters and trappers (p 19 ND)	According to the Results of the 2000 Arctic Red River Fish Contaminant Study, inconnu, broad whitefish and burbot are considered safe to eat.	
Are traditional camps being used by Gwichya Gwich'in?	Martin Zeh and Bernard Creek in particular still being well used	-somewhat less use up river, particularly in the mountains, than before -Blake family main users of Bernard Creek area	
Is Tsiigehtchic still a primary fishing centre in the lower Mackenzie?		-continues to be an important centre, with people from Ft. McPherson and Inuvik coming each fall	

Integrity Guideline	Situation in 1993	Situation in 2004 (positive/negative changes)	Actions and Related Research
Have archaeological resources been identified? Are they sufficiently protected?	-small archaeological sites at mouth of river, and near Martin Zheh/House known	-oral history, archaeological survey and detailed archaeology work have recorded many more sites -protection under the Gwich'in Land Use Plan designations, but no management plans or monitoring -archaeological inventory not yet complete	-ongoing study to look at research gaps in the ARR headwaters by Planning Board -Martin Zheh (H06) Heritage Conservation Zone needs to include the west side of the river
Has Tsiigehtchic retained its traditional knowledge?		-traditional use continues; though less use farther upstream -interest in traditional knowledge in community, particularly in trying to pass it on to youth	
Has the establishment of the Heritage River helped support Gwich'in heritage in the region and beyond?	-this was a hope of the nomination (p 30 , ND)	-has helped GSCI in funding some oral history and archaeological research, but further support is needed to complete research and develop products out of this research	-GSCI currently working with Parks Canada on the Commemorative Integrity Statement for the Nagwichoonjik National Heritage Site designation which includes the ARR flats area, but not completed to date
Have any (other) recent land uses or activities affected the Cultural Values Integrity?		-none to date	

Integrity Guideline	Situation in 1993	Situation in 2004 (positive/negative changes)	Actions and Related Research
Has the Land Claim ensured that the land and water within the claim area remain in a natural state for the use of the Gwich'in people?	-p. 37 ND	-very few changes in watershed; not know whether this is Claim related	

***Special Considerations/Recreation map***

### 4.3 Recreation Values

The recreational and tourism integrity of the river has been maintained since designation. There has been no development of recreational resources. Though records are not specifically kept, it can be said that the use of the river by wilderness canoeists has not increased, and continues to be only sporadic. There has been no significant change in the one tourism operation in the area, Arctic Red River Outfitting.

#### Recreation Values Integrity Chart

Integrity Guideline	Situation in 1993	Situation in 2004 (positive/negative changes)	Actions and Related Research
General water-based recreation: Is the water suitable for drinking and recreation?		-full management boundary not included in Gwich'in Land Use Plan	
Wilderness boating: Has use affected the wilderness qualities of the river?	1 group of canoeists every 2 years (p5, MP)	-use continues to be sporadic	
Wilderness hiking/hunting: Has use affected the wilderness qualities of the area?	30 big game hunters per year (1992) p5, MP	-generally no change in wilderness hunting	
Wilderness hunting: Are there changes in the species being hunted?		-same, though fewer moose	
Have the aesthetic values been affected by any recent land uses or activities?		-no changes	
Have any (other) recent land uses or activities affected the Recreational Values Integrity?		-no changes	

Integrity Guideline	Situation in 1993	Situation in 2004 (positive/negative changes)	Actions and Related Research
Are there any tourism and/or interpretation facilities or resources in the ARR area? Have the recreational opportunities been developed?	map of recreational opportunities -Kelly Hougan’s Arctic Red River Outfitting has exclusive non-resident hunting rights” (p24, MP)	Arctic Red River Outfitting continues to operate in the watershed area. -no other facilities/resources developed	
Are there any conflicts between subsistence use and tourism or recreation use?	“Non-native access to certain lands in the management area is also limited by the terms of the Gwich’in Land Claim Agreement” (p23, MP)		
Are any changes to the river noted quickly?	Tsiigehtchic people informally monitor the river frequently and notice any damage before it becomes serious (p 38 ND)	-fewer Tsiigehtchic residents are traveling up the river, and in particular fewer people in the headwaters	

## **5.0 Review of Implementation Priorities from 1993 Management Plan**

### **5.1 Water Resources Actions**

The water quality and quantity continues to be monitored.

A poster was done of soil and water sampling work done at Bernard Creek and Martin House. A contaminated site survey of the Martin Zheh/House area was done, but the report is only draft, so has not yet been released.

The importance of the Arctic Red River's unique hydrology is somewhat captured in the Land Use Plan. The Planning Board is undertaking a study at this time which should add to the knowledge of the hydrological and other resources.

### **5.2 Vegetation Actions**

The unique vegetation has not been studied. There is a GRRB forestry management plan in draft form, but it has not yet been released.

### **5.3 Wildlife and Fish Actions**

The Renewable Resources Board has conducted a "Harvest Study" which should assist in maintaining the Gwich'in sustainable harvest practices.

Spawning areas have been identified to some extent, but more research is called for.

No peregrine falcon nesting inventory is known to have been undertaken within the management area.

The Renewable Resources Board have published (jointly with others) management plans for:

-Moose

-Coney

-Grizzly Bear

-Porcupine Caribou Herd

All indicate that additional research is needed.

The GRRB are undertaking a Dall's Sheep Management Plan at this time, which is expected to be completed in a couple of years.

### **5.4 Landscape Actions**

No developments have occurred in the area, so no visual impacts have been recorded.

## **5.5 Traditional Use Actions**

Tsiigehtchic is consulted prior to any recreation development. The only change in this area has been the sale of an interpretive tourism site to the community by RWED. The community has not yet used or moved the facility.

The GSCI had hoped that the GNWT would be more supportive of research and education regarding traditional knowledge and use of the land, and promotion of traditional lifestyles.

The GSCI has pursued the designation of a portion of the Mackenzie River as the Nagwichoonjik National Historic Site (designated as such in 1997). Part of the designation includes the Arctic Red River flats. Their hope in this designation was for additional research, production of educational and interpretive materials, and promotion of traditional lifestyles. Unfortunately, that has not worked to date. Currently, the GSCI and Parks Canada are working on the Commemorative Integrity Statement, which is an integral part of moving ahead with Parks Canada on research, educational programmes and interpretation. A National Historic Sites and Monuments Board of Canada plaque has been produced and is to be erected in Tsiigehtchic in 2005.

The dry fish demonstration listed was not done.

No RRC cabin was set up at Weldon Creek or Cranswick River.

## **5.6 Recreation and Tourism Management Actions**

The Management Plan only refers to recreation management actions, using 'commercial recreational use' when referring to what would more commonly be called tourism. To be consistent with other documents, the term 'recreation and tourism' is used here.

The Gwichya Gwich'in Renewable Resources Council has not noticed particular use conflicts to date.

Tsiigehtchic has not been pursuing tourism opportunities with the GNWT within the last 8 years or so. Files record that perhaps in the fall of 1994 the town of Tsiigehtchic endorses the idea that Jackfish Creek is a potential site for a territorial park, and the community arranges for the purchase of a boat with the hope of providing boat tours on the Arctic Red and Mackenzie rivers. There has been no follow-up on the Jackfish Creek park idea by RWED or the community. A boat was bought and used for a short time, but was not really a successful venture. There needed to be more planning and more long-term commitment for this to work.

The Gwich'in Land Use Plan (finalized August 2003) makes two recommendations in this regard that would have some bearing on Arctic Red River tourism:



1. The Planning Board recommends that the Gwich'in Tribal Council in cooperation with the Department of Resources, Wildlife and Economic Development develop a regionally specific Tourism Code of Ethics for the Gwich'in Settlement Area.
2. The Planning Board recommends that the Department of Resources, Wildlife and Economic Development develop, with the assistance of the Gwich'in Tribal Council and co-management boards, a tourism economic plan for the Gwich'in Settlement Area.

Neither have been actioned.

Regarding the action "The GNWT will consult the Canadian Coast Guard to take measures that will encourage safe travel on the Arctic Red River," the GNWT Department of Transportation have worked with the Coast Guard regarding safe boating practices/rules in general, not referring to any specific river. The Department of Transportation have traveled to all the communities in the NWT to teach the Water Safety Program in a general sense (and it is something that they been doing for quite a few years), but again not related to a particular river.

In general, there is no commercial 'product' along the river, except for the big game outfitting. A trip outline called "Arctic Red River Canoe and Small Boat Trip" from 'Arctic Red River Business Plan', RT & Associates Ltd. June 1991 is the only information held on the ARR by Inuvik Parks and Tourism (GNWT). There are no other trip reports, because firstly so few travel the river and secondly as there is no incentive for them to send in trip reports. Also, though the river is a 'mountain river', much of it is not. If canoeists want a mountain river experience, then there are other rivers that offer more of that experience than the Arctic Red. Inuvik and the Dempster are the two main request items to Parks and Tourism; very few requests come in about the ARR.

A local air charter company says canoeists would more typically go into the ARR from Norman Wells rather than Inuvik.

The idea of a Territorial Park around Jackfish Creek has been discussed on and off. At this point, RWED has said that if the community comes forward again on this, they would re-open discussions, as the area has many attributes making it potentially suitable for a Territorial Park.

## **5.7 Access Action**

There has been no brochure on pontoon aircraft landing sites produced.

## **5.8 Interpretive Actions**

Following is a list of the promotional and interpretive events that have occurred since the Arctic Red River was designated a Canadian Heritage River in 1993.

1. November 1993: *Focus North* did a 10 minute feature about the process of having the river designated a Canadian Heritage River based on footage gathered in the community during the ceremony.
2. May 1994: Ingrid Kritsch presented to the Canadian Archeological Association Annual Meeting in Edmonton at a session 'Traditional Knowledge and Archaeology' about work done on the ARR. Paper developed from this presentation was published in '*At a Crossroads: Archaeology and First Peoples in Canada*'. (Simon Fraser University, 1997)
3. August 1994: filming done with archaeologist Sheila Greer, Tsiigehtchic community members, and Gwich'in Social and Cultural Institute staff of an archeological survey between Tsiigehtchic and Weldon Creek, and interviews in Tsiigehtchic and up the river for video '*Tsiigehnjik: Life Along the Arctic Red River*'; community presentations about survey work by Greer
4. October 1994: Alestine Andre travels to the National Heritage River System Conference in Peterborough Ontario and presents GSCI work to a national audience.
5. December 1994: The Heritage River Fact Sheet is completed and distributed throughout the Western Arctic, the Yukon and nationally.
6. 1994: article by Kritsch, Andre and Kreps presenting an overview of the oral history work carried out in 1992 and 1993 of the Gwichya Gwich'in called "Gwichya Gwich'in Oral history Project" published in *Bridges Across Time: The NOGAP Archaeology Project*
7. May 1995: the Western Arctic Visitor Centre opens in Inuvik, with one large panel about the Arctic Red River as a Heritage River.
8. June 1995: the native newspaper *Windspeaker* publishes a full page article on the Arctic Red River as a Canadian Heritage River.
9. December 1995: the book *Voyages* is released, with a chapter about the Arctic Red. The article sparks the interest of a film company and in May 1996 Leaps and Bounds Incorporated from Ottawa attempts to film the break-up of the Arctic Red River at the Mackenzie River. This attempt fails because of a late break-up but Leaps and Bounds returns in the summer for further filming.
10. 1995: Community presentations on Tom Andrews archeological survey work (no report) and on Eric Damkjar's Martin Zeh archeological work are done (report published by Damkjar, prepared for GSCI); also poster done
11. Approx time (actual date unknown): The Prince of Wales Northern Heritage Centre asked to permanently display a cross-section of a 750 year old white spruce cut by George Niditchie from along the Arctic Red River. It is displayed in the Natural History Gallery with event dates marked at tree rings (e.g. 1496 Frobisher voyages). However, there is no label in the exhibit to say where the piece came from, nor is it catalogued.

12. May 1996: Gwich'in Social and Cultural Institute releases draft history of the Gwichya Gwich'in, including an exhaustive history of the use of the Arctic Red River watershed by the Gwichya Gwich'in
13. June 1996: the Alaska/Dempster Highway Tourist Guide "Milepost" has expanded section on the community of Tsiigehtchic and the Arctic Red River as a Canadian Heritage River;
14. July 1996: Leaps and Bounds Inc., returns to the river to continue filming their video profile. Produce video *Great Strides, Episode 8: Archaeological Dig*, which was part of a series showcasing women in different professions.
15. 1996: Air photos are flown along the lower section of the Arctic Red River to help with Gwich'in Renewable Resource forestry management plan work; community presentations of Eric Damjkar's Martin Zheh archeological work and field school
16. "**Seasons of the Arctic Red River**" is played on the Discovery Channel in the fall of 1997. It profiles the seasonal cycle of the Arctic Red River based on filming conducted in the spring and summer of 1997.
17. 2001: **Gwichya Gwich'in Googwandak: the History and Stories of the Gwichya Gwich'in** published by the Gwich'in Social and Cultural Institute. The book, written by M. Heine, A. Andre, I. Kritsch, A. Cardinal and the Elders of Tsiigehtchic, present the story of Gwichya Gwich'in life on the land from pre-contact times to the present (final of the 1996 draft)
18. 2002: '**Canada's Western Arctic**' (a tourism guidebook describing the western arctic including the Dempster Highway) includes a paddling description for the Arctic Red River, mentioning its heritage river status.
19. August 2004: Kerkoven do filming along the Arctic Red River specifically to film bears, but included filming of various heritage sites along the river; some footage may be used for an educational video by GSCI

Tsiigehtchic has been sold the interpretive display that was on the Dempster Highway for use within the community. However, the community has not yet moved it into Tsiigehtchic for any displays.



Excavations at Martin Zheh 1996 field season. Photo: Eric Damkjar

## 6.0 Recommendations

In updating the status of the ARR's values, discussions took place with a number of individuals. Recommendations were made by them concerning work that they believe needs to be done. These have been noted here, along with some points on implementing the recommendations. This is done with the reminder that this study was not to produce a new management plan, the recommendations are not ranked for importance or timing, and other recommendations and implementation ideas are no doubt 'out there'. Hopefully this section will at least give a starting point to ongoing discussions.

- **Archaeological Interest:** Bernard Creek was a village area with at least 5 known archaeological sites. Weldon Creek is another important site. Detailed archaeology work at both these sites, along with more detailed archaeology at Martin Zheh and the Arctic Red River flats, is recommended by GSCI.

-ongoing study to look at research gaps in the ARR headwaters by Planning Board

Martin Zheh (H06) Heritage Conservation Zone needs to include the west side of the river to match the described 'badlands' that are to be protected, as well as the archeological and grave sites recorded to date.

- **Geological and paleontological research.** Paleontological research should be carried out along the length of the river to inventory this resource and determine its significance. Geological research and then tying the scientific/geological information with oral histories is recommended. Most specifically, the area downstream from Martin Zheh (called Nehtruh Chi') is a geologically unique area, with many oral histories explaining the unique formations. Another geologically unique area which deserves scientific investigation is the area right around Martin Zheh. It seems much less prone to

erosion than other areas along the river, and a geological explanation for this should be investigated.

- **Tourism Recommendations:** Begin the recommendation in the Land Use Plan “The Planning Board recommends that the Department of Resources, Wildlife and Economic Development develop, with the assistance of the Gwich’in Tribal Council and co-management boards, a tourism economic plan for the Gwich’in Settlement Area.” Tsiigehtchic is very involved in understanding the effects of the Mackenzie Gas Project. Planning for something that is not as immediate therefore has taken a lower priority in the community. Therefore, work within the context of the oil and gas developments is needed, and an acknowledgement that while community-based tourism is needed, assistance is needed from the GNWT in basic planning. Being part of the “Tsiigehtchic Community Action Plan Project (TCAPP; [www.tcapp.org](http://www.tcapp.org)) which is now being worked on should be considered.

Some points to consider include:

- ‘Re-promoting’ the Arctic Red River as a heritage river, simply because it has faded from the minds of many Gwich’in, is one step. An approach may be to help Tsiigehtchic with developing the display (moved from highway to community) using the Heritage River status for the sign.
- A “passport of Heritage Rivers” or similar programme, tying the Arctic Red River into other Heritage Rivers.
- Consider how to promote the river: perhaps not as a mountain river?
- Setting up a co-ordinated method within the GNWT to answer questions and share tourism information about the ARR, tying at least Inuvik, Tsiigehtchic, Norman Wells and Yellowknife into the system.
- Production of well-illustrated heritage booklet on archaeological sites and oral history of the river, suitable for communities, schools and tourists (also for traditional use ).

- **Traditional Use Recommendations:** Go through, first with GSCI, and then with the community, the original ideas on culture/education, and determine an updated direction

Combine various video footage and interview to interpret the heritage river status of the ARR (e.g., footage from 1994 ethnoarchaeological work, unused footage from ‘*Summer of the Loucheux*’ filming by Gordon MacRae, the 2004 Kerkovan work) (also for tourism)

- **Heritage River Status**

Publish and use annual reports to remind the community and the governments of the Heritage River designation

Keep up (or re-initiate) the profile as a heritage river, such as:

- plan for some events celebrating the heritage river status
- take this report to the community

Assist with and track carefully the work by the Gwich'in Land Use Planning Board, particularly in regards to recommendations on the headwaters and the management of the heritage conservation zone resources

For the next annual report:

- include a list of updated contacts in each annual report (Parks Canada, RWED, co-management boards, others as required)

### **Implementing the Recommendations**

Funding is an important part of implementing the listed recommendations. Generally funding for all Canadian Heritage River projects is 'pieced together' from various funding sources. Projects to date on the Arctic Red River are no exception, and implementing these recommendations will likely follow a similar pattern. Therefore, funding the recommendations is not a matter of "Project A: Funding Source A, Project B: Funding Source B". Rather, what follows is a discussion of some agencies that may have partial funding available for one or several of the projects.

As important as that is, some things can be done within existing programmes, just through co-ordination and awareness. Heritage River programmes are co-operative by design, but this needs to be extended beyond the designation stage.

#### *Lead Agency*

There is no one main funding source, and co-ordination is needed even on internal projects. To pull these aspects together, a main proponent or leader is necessary.

In the past, the GSCI has pulled together funding from a variety of sources to do work along the river. While they continue to be interested in the area, they must focus on other areas of the Gwich'in Settlement Area as well. As such, the huge work of piecing together funding sources is not likely to come from GSCI, even in terms of strict cultural/heritage initiatives.

Tsiigehtchic itself could lead in pulling together these sources. Realistically, there isn't the community capacity to take this task on, particularly as Tsiigehtchic is under considerable pressure right now to deal with the impacts of development. However, identifying a community co-ordinator (perhaps within the Renewable Resource Co-ordinator's job) would help.

Groups within the NWT tend to look to RWED (or its successor department), as a lead, particularly as they at least have some staff time dedicated to Heritage Rivers. DIAND, as the signatory to the Heritage Rivers in the NWT and Parks Canada, with an overall mandate for the Canadian interest, could take on the role, but with their federal focus, this

isn't happening. Also, Parks Canada, though they administer the national programme, has no jurisdiction over the lands or water.

The Gwich'in Land Use Planning Board, in their document *Implementing the Gwich'in Land Use Plan: Five year Work Plan (2003 to 2008)*, August 2004, indicate they are planning to get various groups together (such as GRRB, GSCI, DIAND, RWED) who have an interest in the headwaters of the Arctic Red River. The discussions would be on research for the headwaters area. This could be extended to the entire ARR, with the Planning Board taking the lead in pulling together groups and funding sources.

#### *Interest in Area*

Another key consideration in funding the recommendations is how much work can be done 'in-house' by the various agencies, done through academic institutions, or what work would be contracted out. If we take for example an archaeological survey, there would typically be 2-3 weeks of field work by the lead archeologist. The ratio of field work to office/lab work is about 1:4, so those 2-3 weeks of field work mean 8-12 weeks of additional work. A contract archeologist charges \$500-\$800/day (\$2,500 - \$4,000/week). Thus the costs for the one archeologist would be about \$25-60,000 range. This cost could be reduced if the archeologist was on staff with a government agency tasked with heritage research (such as PWNHC or the Canadian Museum of Civilization). Another way to reduce these costs would be through use of academic researchers (e.g., PhD candidates; professors). However, whether using either contractor, staff or academic researchers, there are still costs for field crews, guides, food, transportation etc. These types of costs are less likely to be reduced.

As noted above, a lead agency could help to bring forward interest in the area, so academics and institutions are more likely to want to work in this area. Boreal archeology in general has a relatively low profile. It is not seen as an 'exciting/exotic' destination, finding of artifacts is difficult due to types of materials used and the acidic soils, and the culture is oriented to oral history rather than a material culture. All this combines for making it relatively difficult to get archaeological work done by those other than consulting archeologists. However, as research is done, it becomes better known, and is more likely to attract more attention from other researchers.

In a more general sense, there seems to be a bit of a 'catch-22' to some of the research: pure science is needed first; without a known economic hook or 'media hook', it is often difficult to get things started. Yet, until some of that research is done, it is hard to figure out what some of the economic benefits or 'media fascination' might be.

#### *Prince of Wales Northern Heritage Centre*

Tom Andrews, PWNHC, said the Centre has no plans for ARR, and any work is up to the community. Further, they have no archaeological programme funding. The Historic Places Initiatives programme is a matching funding programme. Mr. Andrews stated firstly, it is unknown whether this programme will continue, and secondly that the heritage river would not be eligible since created under Federal legislation. Boris Atamenenko, Community Programmes Manager, noted that their oral traditions and

cultural enhancement programme funding is administered through the regions (Education, Culture and Employment). The funds are typically dedicated to the key organizations doing this type of work, and only about \$30K is available for the Inuvik/Norman Wells area.

#### *DIAND*

David Livingstone, Renewable Resources and Environment, DIAND, noted four possible areas for getting work done in along the ARR:

a) Protected Areas Strategy: the PAS Secretariat has funding available for studies and recommendations relating to a network of protected areas, and Heritage Rivers falls within the PAS area of interest. Funding may be available for aspects of Heritage River studies.

b) Water Resources: in-house water quality and quantity monitoring work may be possible, depending on the interest for this

c) Contaminated Sites: in-house work and potential funding for various aspects of contaminated sites (assessment, plans, clean-up, monitoring) may be possible

d) Taiga Environmental Laboratory work: usually there are costs to laboratory tests, but this may be able to be done in-house depending on the aspect of work being done. Training opportunities in sampling techniques and analytical methods also exist.

In general, a river such as the Arctic Red River is seen as an important area, and work on maintaining its values (or cleaning up historic contamination) falls within DIAND responsibilities.

#### *Gwich'in Renewable Resources Board*

Jari Heikkila, Executive Director, Gwich'in Renewable Resources Board, Inuvik, noted that the Board allocates about \$200,000 each year for various renewable resources (wildlife, forestry, culture and education) research projects. The allocations are done once a year, with a Board meeting each February to allocate funds for upcoming fiscal year. Whether it is work on their own initiatives, or work by other organizations, the Board works very closely with the Department of Fisheries and Oceans and with RWED Wildlife Management. The bulk of the funding goes to joint initiatives with these departments, funding on-going initiatives. They also receive funding applications from communities, research institutes, academics, and other. There are more calls on the funding than what is available (for instance, this year there were \$350K of applications v.s. \$200K to allocate). Mr. Heikkila noted that the Board always is looking for partnerships and co-operation. In particular, closer co-operation between the various Gwich'in boards would be desirable. For instance, while there has been no application to date from the Gwich'in Land Use Planning Board, such an application, co-ordinated with others, would be welcome. The Board does have on-going (multi-year) projects of their interest (such as a Dall's sheep research project and fish movements in the Travaillant Lake area) that take precedence over new projects.



### *Parks Canada*

Discussions with Alan Fehr, Field Unit Superintendent, Western Arctic, Parks Canada, were quite positive in terms of interest in the Arctic Red River Heritage River. Though the Heritage River is not within the area's direct responsibility, Mr. Fehr noted many aspects of co-operation that are possible. For instance, Parks Canada is working with local schools to develop various school field trips. Eventually, annual or biennial trips are the goal, and the Arctic Red River could be one of the locations that classes go to. The long term educational benefits of taking children and youth out on the land are important to emphasize.

Research co-operation is also a possibility. Parks Canada brings various researchers up to the region for work in the Parks. With co-ordination, these researchers, with their way already paid to the area, could do additional work along the Arctic Red River.

Better tourism co-ordination and priority setting is needed in the area in general. A small group of people from different agencies are now trying to get together to set priorities for tourism, e.g., what are the top 5 initiatives over the next few years? Priorities will need to have two main aspects addressed; first, is there someone willing to work on it, and second, is it a reasonable priority from the tourism market perspective. Setting up some success stories is important. Care must be taken against trying to do a little bit for everyone (spreading initiatives too thinly to do any good). Also, private sector involvement is necessary.

For greatest co-operation, dovetailing cultural/heritage, environmental, and economic aspects of the Heritage River should be an overall goal. Parks Canada would be interested in participating in aspects of the Arctic Red River Heritage River project, but would not take on a co-ordinating role.

Walt Humphries, a consulting geologist, noted that geotourism may be an important aspect of studies for the area. Though Canada is well behind nations such as the United States and Britain in this field, Parks Canada has some good examples of it. For instance, in Gros Morne they "have a great programme with geologists as guides, and in their marketing they push geological uniqueness as well as beauty". However, for geotourism to be worthwhile, there needs to be solid research done first, before the interpretation is done to visitors. Also, the interpretation needs to be done well, such that if there is guided tours, the guides would be geologists or very knowledgeable in the field of geology or paleontology.

### *Aurora Research Institute*

Bill Crossman, Aurora Research Institute, noted that along with licensing scientific research, they also seek funding for research. As is generally the case, they take their lead from the communities. Every few years the Institute does a corporate plan of activities by going to the communities and seeking their areas of interest. For instance, Inuvialuit communities, through the Joint Secretariat, expressed an interest in wind

power. The Institute sought and obtained funding to do wind assessments in 4 Inuvialuit communities.

Funding is done by third party agreements; and often funding is through the federal government. As such, they have no 'funding cycle' per se; the Institute will search out funding as necessary and appropriate. To initiate funding, a request (such as a checklist) from a legitimate community authority (such as the Band Council), would need to be given to the Institute. They would then discuss the ideas further with the community, and may mount a research project with new money if it can be pulled together.

#### *Universities*

Both Ingrid Kritsch, Research Director, GSCI, and Walt Humphries, private consulting geologist, described the importance and difficulties in getting universities and other academic institutes involved in research. In both cases, research must be rigorous and defensible. This involves highly qualified scientists to lead the studies, additional researchers, and field time spread over several years. The procedure for a typical archeological survey is listed above (see Interest in Area), and a similar process would be needed for a geological or paleontological research. This is not inexpensive.

Scientific research that in some cases would have been done 'in-house' several years ago, is now no longer being done. For instance, the Geological Survey of Canada would have, in the past, taken initiative and done basic geological mapping. Now, they are looking for private funding, and they are following up on areas of mineral discovery (i.e., looking at areas that have economic interest). Also, as with subarctic archaeology, this area is not a high profile one for geologists right now, so there isn't the 'excitement' around it that other areas invoke. Getting initial interest often invokes further interest; sparking the initial interest is still needed.

# Appendix 1 – Summary of Nomination Values

Listed below are values for which the Arctic Red River was nominated to the Canadian Heritage Rivers System.

As noted in the main report, the settlement of Arctic Red River changed to the Charter Community of Tsiigehtchic as of 1993, with an official name change April 1, 1994. The term Arctic Red River in this document refers to the river itself, and Tsiigehtchic is used for the community.

The term “Kwitchia Gwich’in” was used in the nomination document and management plan. The term “Gwichya Gwich’in” is now preferred by the people of Tsiigehtchic, so will be used in this document.

## 1. Natural Heritage

### 1.1 *Geological*

The Arctic Red River watershed shows **outstanding examples** of the geological processes, with classic examples of folded sedimentary mountain features (p. 20 ND)

The watershed contains two identifiable geological regions: the Mackenzie Fold Belt of the Mackenzie Mountains, and the Northern Interior Platform of the Mackenzie Plain. The folding of the sedimentary rock layers during the Laramide orogeny formed the Mackenzie Mountains, and examples of **visible rock layers** may be easily seen from the Arctic Red River. The Northern Interior Plain is an extension of the sedimentary plain which covers a large part of the interior of the North American continent. **Sedimentary layers** which make up the plain may be seen from the upper reaches of the river (p.14 ND).

The **Smoking Hills**, which are permanently burning sulphide formations, are located adjacent to the river (p.22 ND)

The area contains **outstanding examples** of three types of landscapes during a trip down the river: **continental glaciation, alpine glaciation and unglaciated landscapes.** (ND 21)

### 1.2 *Landforms*

Three physiographic regions may be identified in the Arctic Red River watershed area. They are the North Mackenzie Mountains, the Peel Plateau and the Mackenzie Lowlands.

The area contains some of the **highest** mountains in the north Mackenzie Mountains. The **highest peak** in the Backbone Range rises to **2593 meters**, and has an impressive **west**

**face rising 1500 meters from the river valley.** The highest mountains of the Canyon Range are about 2000 meters high. In contrast to the Backbone Range, the Canyon Range was not glaciated and so shows landscapes common to fluvial erosion such as **deep-cut V-shaped valleys.**

The Peel Plateau contains rolling hills of 600 to 800 meters in height which are cut by **V-shaped valleys and straight-walled canyons.** The Arctic Red River valley itself is 200 to 300 meters deep. (p. 15-16 ND)

### *1.3 Hydrology*

Several small glaciers flow from the Backbone Range; they are the **most northerly glaciers** of the western cordillera, and the **only glaciers** of the north Mackenzie Mountains. Typical landscape features of glaciated areas such as moraines and marginal lakes may be seen here. (p. 15 and 22, ND)

Numerous kettle holes can be seen on the Peel Plateau, and two significant **land slumpages** caused by permafrost degradation can be seen adjacent to the river itself. Large fissures of **ground ice** can also be seen along the river banks. (p. 22 ND)

During spring break-up, the flow of the Arctic Red River is **reversed** by the rising water of the Mackenzie River, sometimes for as far as 40 to 50 km. The level of the river during break-up can be as much as 4 meters above summer levels. Evidence can be seen of a **catastrophic flood** which occurred in 1970 (p.17, ND).

### *1.4 Vegetation*

The valleys of the Arctic Red River and major tributaries contain **riparian communities** with superior growing conditions compared to the generally harsher conditions of the Mackenzie Plain and Peel Plateau. Above the treeline, vegetation typical to alpine tundra such as dwarf shrubs, lichens and alpine flowers may be found (30% of watershed) (p.17-18, ND) (NOTE: white spruce forest p.2 MP, black spruce p. 21 ND)

### *1.5 Land Animals*

A portion of the **wintering grounds of the Porcupine caribou herd** is found at the headwaters of the river. This herd is of **international significance**, being important to the aboriginal peoples of both Canada and Alaska. Some of the **Bonnet Plume woodland caribou herd** also winter in the Arctic Red River watershed area.

Large numbers of **Dall's sheep** are found in the mountain areas of the Arctic Red River watershed, bands of which can be seen from the river valley.

**Wolverine** are found in the upland areas outside of the mountains. They have been classified as "rare" by the World Wildlife Fund and Committee on the Status of Endangered Wildlife in Canada.

Many other mammals inhabit the Arctic Red River valley, including grizzly bear, black bear, moose, wolf, coyote, lynx, marten, mink, weasel, fisher, muskrat, beaver, fox and river otter. (p.18-19, ND)

### 1.6 *Birds*

**Peregrine falcons** are numerous along the river valley, and have been identified as “vulnerable” by COSEWIC. **Golden eagles, bald eagles, gyrfalcons** and other large birds of prey may be seen along the river. **Sandhill cranes, whistling** swans and many varieties of ducks and geese migrate through the area (p.19, ND)

### 1.7 *Fish*

The Arctic Red River is a **major spawning area** for most of the fish species found in the lower Mackenzie River basin. This is due in part because the Arctic Red River is the first major tributary found along the Mackenzie River, and also because there are no serious impediments to prevent upstream migration of fish. (p. 20, ND)

## 2. Cultural Heritage

Dall’s sheep played a **crucial role** in the history of the Gwichya Gwich’in, as an annual hunt of the sheep was part of their migration cycle. (p 19, ND)

The community of Tsiigehtchic was a **primary fishing centre** for the lower Mackenzie River region (p 20, ND)

The Arctic Red River was the **traditional route** used by the Gwichya Gwich’in as they travelled seasonally to hunt Dall’s sheep and caribou. Two major archaeological sites are located within the watershed area, one at the mouth of the river near the historic **Roman Catholic Mission**, and another around Martin House (p26-27, ND).

The community of Tsiigehtchic has retained its traditional knowledge and lifestyle while successfully incorporating aspects from the larger ‘cash’ economy.” (p 32, ND)

## 3. Recreation Values

The Arctic Red River is one of the longest navigable tributaries on the lower Mackenzie River; the river is navigable for more than 200 km upstream without portage, making it ideal for **canoes and small motor boats**. (p.34, ND) There is very little whitewater (p.35, ND)

**Recreational fishing** opportunities are plentiful along the length of the river, and in some of the lakes of the watershed. Species of interest include northern pike, arctic grayling, inconnu and lake trout (p. 34, ND)

The Mackenzie Lowlands region is a rolling plain only slightly higher than the river, dominated by an **immense number of small lakes** which represent excellent fishing opportunities (p.16, ND)

There are outstanding **wilderness hunting** opportunities in the Mackenzie Mountains, particularly for big game hunters interested in Dall's sheep, moose and caribou (p. 35, ND)

**Mountain hiking and backpacking** opportunities exist in the area, with floatplane access provided by four mountain lakes (p. 35, ND)

There are no permanent settlements on the river other than Tsiigehtchic.

The Source Peaks area and the canyon area between Sven Lake and 'the Grand Bend' offer **outstanding wilderness scenery** (p. 26 ND)

#### ABBREVIATIONS:

ND: Nomination Document:

Canadian Heritage Rivers System Nomination Document for the Arctic Red River Northwest Territories, May 1992.

MP: Management Plan: Canadian Heritage Rivers System Management Plan for the Arctic Red River, Northwest Territories. June 30, 1993

## **Appendix 2 – Sources of Information**

### **Client Group**

Larry Adamson  
Devolution Advisor, Directorate  
Department of Resources, Wildlife and Economic Development  
GNWT  
(867) 873-7123

Raquel Cli-Michaud  
Heritage River/Protected Areas Strategy (Intern)  
Department of Resources, Wildlife and Economic Development  
GNWT  
(867) 873-7385

Brian Grimsey  
Canadian Heritage Rivers Senior Planner  
Parks Canada  
(819) 953-9497

### **Major Information Sources**

Below are contacts that should be considered as contacts for the next annual Review Report, as their work pulls together a great deal of information from other sources:

Sue McKenzie  
Land Use Planner  
Gwich'in Land Use Planning Board  
P.O. Box 2478  
Inuvik, NWT X0E 0T0  
Phone: (867) 777-7936  
Fax: (867) 777-7970  
[planner@gwichinplanning.nt.ca](mailto:planner@gwichinplanning.nt.ca)  
Follow-up to include:  
-Ecological and Cultural Assessment Reports  
-changes to status within Land Use Plan

Ingrid Kritsch  
Research Director  
Gwich'in Social and Cultural Institute  
Suite 202B, 4912-49<sup>th</sup> Street  
Yellowknife, NWT  
Phone: (867) 669-9743  
Fax: (867) 669-7733  
[Ingrid\\_kritsch@learnnet.nt.ca](mailto:Ingrid_kritsch@learnnet.nt.ca)

Arctic Red River Heritage River  
10 Year Review Report

Follow-up to include:

-any cultural research started or being considered in area

### **Other Contacts**

Gail Cyr, MACA, 873-7672 and Andrew Gaggie, PWNHC, 873-7368 (Tsiigehtchic name change)

Derek Forestbloom, Water Survey, Environment Canada, 669-4700 (Water gauging station at mouth of Arctic Red River)

Kerry Walsh, Environment Canada, 873-4747 (Water quality data)

Michele Culhane, DIAND Contaminants, 669-2452 (Martin House contaminated site study)

Jari Heikkila, Executive Director, Gwich'in Renewable Resources Board, Inuvik, 777-3429 (Harvest studies, Dall's sheep studies, forestry plan, funding)

John Cournoyea, Manager, Parks and Tourism, Inuvik 777-7353 (in person; tourism and parks)

Julie Ann Andre, Gwich'ya Gwich'in Renewable Resource Council, 953-3201 (community update)

Kelly Hougan, Arctic Red River Outfitting, Whitehorse, (867) 633-4934 (headwaters/environmental update)

Alestine Andre, Gwich'in Social and Cultural Institute, Tsiigehtchic, 953-3613 (community background and update)

Joanne Bird, Prince of Wales Northern Heritage Centre, Yellowknife (spruce display)

Darren Campbell, Gwich'in Land and Water Board 777-4945 (in person; leases and permits)

Dwayne Semple, Gwich'in Lands and Resources, GTC 777-7900 (in person; contaminated sites reports)

Alan Fehr, Field Unit Superintendent, Western Arctic, Parks Canada, Inuvik, 777-8800 (funding)

Bill Crossman, Acting ED, Aurora Research Institute, Inuvik, 777-3298 (funding)

Walt Humphries, private geologist, 873-5486

Tom Andrews, Territorial Archaeologist, PWNHC, 873-7688 (funding)

Boris Atamenenko, Community Programmes Manager, PWNHC, 920-6370 (funding)

David Livingstone, Renewable Resources and Environment, DIAND, 669-2647 (funding)

### **Major Papers**

**Gwich'ya Gwich'in Googwandak: The History and Stories of the Gwich'ya Gwich'in Heine, Michael, Alestine Andre, Ingrid Kritsch, Alma Cardinal and the Elders of Tsiigehtchic**

Published by GSCI, Tsiigehtchic 2001

**Gwich'ya Gwich'in Place Names up the Arctic Red River and south of the Mackenzie River, Gwich'in Settlement Area, N.W.T.**

*Kritsch, Ingrid and Alestine Andre*

Published by Gwich'in Social and Cultural Institute, Tsiigehtchic, N.W.T., 1993

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**Gwich'in Oral History Project." In: Bridges Across Time: The NOGAP Archaeology Project, pp. 5-13. Edited by Jean-Luc Pilon.**

*Kritsch, Ingrid, Alestine Andre and Bart Kreps*

Published by Canadian Archaeological Association Paper No. 2., 1994

**Tsiigehnjik Ethno-Archaeology Project MeTp-4 Excavations - 1996: Permit Report, Archaeologists Permit 96-825**

*Damkjar, Eric*

Prepared under contract for Gwich'in Social and Cultural Institute, 1997

**Tsiigehnjik Ethnoarchaeology Project - 1995: Permit Report, Archaeologists Permit 95-800**

*Damkjar, Eric*

Prepared under contract for Gwich'in Social and Cultural Institute, 1996

**Tsiigehnjik Ethno-Archaeology Project Final Reports 1994/95: Archaeology Report and Oral History Report**

*Greer, Sheila, Alestine Andre and Ingrid Kritsch*

Prepared under contract for Gwich'in Social and Cultural Institute, 1995

**Hydrological Overview of the Gwich'in and Sahtu Settlement Areas,**

*Kokelj, Shawne*

Published by Water Resources Division, DIAND, 2001

**Gwich'in Harvest Study Data Report: 2000**

*Rose, Charlie*

Published by Gwich'in Renewable Resource Board, 2002

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