

Clearwater River Saskatchewan  
Canadian Heritage River 10 year Monitoring Report  
April 2020



prepared for the  
Saskatchewan Ministry of Parks, Culture and Sport  
and the  
Canadian Heritage Rivers Board  
prepared by:  
Johnson & Weichel Consultants Saskatoon, Saskatchewan

Canadian  
Heritage  
Rivers  
System



Le Réseau  
des rivières  
du patrimoine  
canadien



## Contents

Executive Summary	2
Introduction	3
1.0 Chronology of Significant Events, Actions and Research since Designation	5
2.0 Changes and Threats to Natural, Cultural and Recreational Values since Designation	6
3.0 Integrity Guidelines since Designation	10
4.0 Designation Document Recommendations and Current Status	12
5.0 Summary of Benefits and Costs since Designation	17
6.0 Overall Assessment	17
7.0 Supplemental Information	18
Information Sources	19

## List of Figures and Tables

Figure 1. Location map	4
Figure 2. Wildfires in Clearwater River Provincial Park and area over the past decade	8
Table 1. Timeline since nomination and designation	5
Table 2.A Overview of changes and threats to heritage values since designation.	6
Table 2.B Changes to cultural heritage values and recreation values during the past decade.	7
Table 3.A Overview of changes and threats to integrity values since designation.	10
Table 3.B Changes to the integrity values during the past decade.	11
Table 4. Current status of recommendations in 1986 Clearwater River Management Plan.	12
Table 5. Summary of benefits since designation.	17

## Report Format

This report has been organized to adhere to the requirements provided in the 2016 revision of the *Canadian Heritage Rivers System: Principles, Procedures and Operational Guidelines* (PPOG). As such, use is made of the 10 year monitoring information table templates provided in the PPOG document, together with additional supplemental material.

## Executive Summary

The Canadian Heritage Rivers System (CHRS) program includes a decadal monitoring requirement to provide a basis for determining if a river's national designation should be maintained. The monitoring report consists of a review of the status and condition of the heritage values which formed the basis of the original nomination, and of the integrity values which serve as indicators of ongoing effectiveness of heritage conservation.

This document constitutes the third decadal monitoring report submission for the Saskatchewan portion of the Clearwater River since its CHRS designation in 1986. The previous two were in 1999 and 2010.

The outstanding natural, cultural and recreational heritage values which are represented by the Clearwater River were reassessed, as were the river's integrity values. For the majority of the values, no substantial changes or threats were identified which would diminish the overall suitability of the river's ongoing inclusion in the CHRS. One moderately significant recent change/threat was identified that currently impairs the cultural heritage value and the integrity value of the nationally-important, historic *Methye Portage* trail area. However, it is believed that this situation can be effectively remediated and the heritage value successfully restored.

On the basis of this review, it is concluded that the Saskatchewan portion of the Clearwater River merits both retention of its Canadian Heritage River designation and its continued inclusion as an integral component of an interprovincial heritage river.



Photo: Garry Dyck

## Introduction

The Canadian Heritage Rivers System (CHRS) program offers national recognition for outstanding Canadian rivers, thereby providing an impetus for the protection and conservation of the heritage values they represent. The program requires that rivers which receive formal designation will be monitored annually and reviewed on a decadal basis to ensure the values for which they were nominated remain intact and are not of diminished integrity.

Saskatchewan previously reported on the state of its portion of the river in 1999 and again in 2010. Both those previous decadal monitoring reviews concluded that all of the heritage values for which it was nominated remained intact and the CHRS Board thereby affirmed that the designation would continue.

This report fulfills the ongoing decadal monitoring requirement of the CHRS program and covers the period June 2010 to April 2020.

The Clearwater River arises in northwestern Saskatchewan, flowing generally southeast before turning abruptly west and continuing across the Alberta border to become a tributary of the Athabasca River at Fort MacMurray. From the outlet of Lloyd Lake, the river initially runs through a landscape of Precambrian Shield bedrock, partially blanketed by glacial drift and outwash deposits, and forested mainly with jack pine and black spruce. Numerous rapids and several falls and gorges occur as the river makes its way from the Shield onto the landscape of the Interior Plains region. As it does, it enters a broad, deep valley formed by the major meltwater spillway that drained a massive former glacial lake. Here the river alternately cuts through sedimentary bedrock or meanders through sandy floodplain deposits.

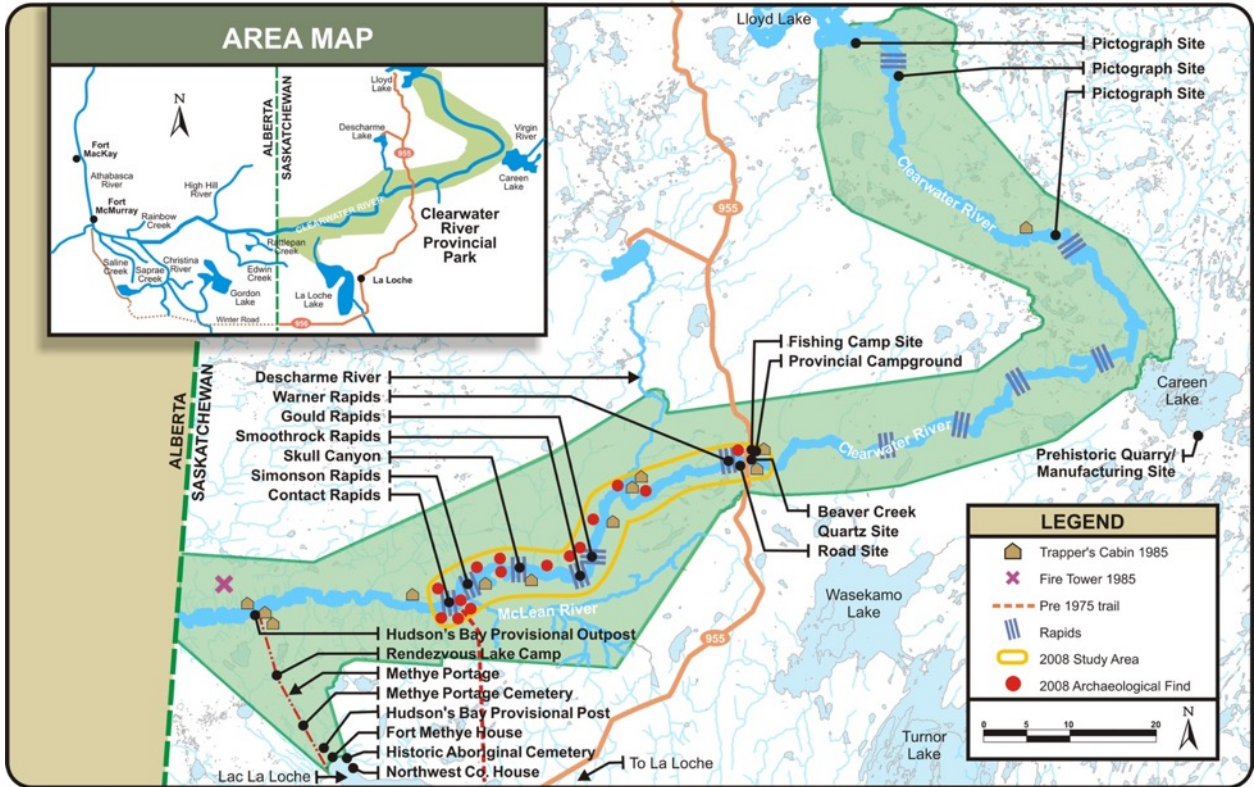
Photo: Colette Schmalz

In 1972 the Clearwater River was surveyed for its potential as an addition to the recreational canoe routes of Saskatchewan. The resulting booklet described the lower portion of river from Warner Rapids to the Alberta border, but also included the section the border to Fort MacMurray. In the same year, a 295 km section from Lloyd Lake to Fort MacMurray was evaluated for the federal Wild Rivers Survey program, the precursor to the CHRS.



Saskatchewan submitted a CHRS nomination for the 187 km section from Lloyd Lake to the Alberta border in 1984, followed by a management plan in 1986. Formal designation within the CHRS also occurred in 1986. Establishment of the Clearwater River Provincial Wilderness Park (Figure 1) provided the management foundation for protection and conservation of the river's outstanding combination of natural and cultural heritage values and recreational values.

Naturally, many of the heritage values for which the Clearwater River is significant do not terminate at the provincial border. Alberta has also been a CHRS program participant since 1994, and in 1996 nominated the lower 108 km section of the river, together with 31 km of the tributary Christina River. A management plan followed in 2003, formal CHRS designation occurred in 2004, and Alberta submitted its first decadal monitoring report in 2014.



Map source: Saskatchewan Ministry of Parks, Culture and Sport

Figure 1. Location map

The entire 187 km Saskatchewan section of the river, nominated to the CHRS in 1984 and designated in 1986, is now situated within the Clearwater River Wilderness Class Provincial Park.

## 1.0 Chronology of Significant Events, Actions and Research since Designation

Table 1. Timeline since nomination and designation.

1984	The CHRS is formally established as a national program. The Saskatchewan portion of the Clearwater, from Lloyd Lake to the Alberta border, is among the first to be nominated.
1986	A management plan is submitted to CHRS in support of the nomination. The CHRS provides formal designation of the Saskatchewan section as a Canadian Heritage River. As well, Saskatchewan establishes the Clearwater River Provincial Park as its first Wilderness Class park.
1996	CHRS nomination is submitted by Alberta for the section of the Clearwater River from the Saskatchewan border to the confluence with the Athabasca River at Fort McMurray.
1997	Completion of a recreational use management study for the river focussed on canoeists and whitewater rafters.
1998	The Clearwater River Dene Nation acquires the commercial whitewater rafting tours operation which had been operating on the river since 1984.
1999	First formal review report on the state of the river is submitted to the CHRS Board.
2002	A Stewardship Agreement is established between the provincial Parks Service and the Clearwater River Dene Nation. The agreement provides support for annual canoe trips on the river by local elders and youth, thereby enabling First Nations participation in river monitoring, site clean-up if needed, and interpreting the heritage values from a traditional perspective.
2004	The Alberta portion of the Clearwater, from the Saskatchewan border to the Athabasca River at Fort MacMurray, plus 31 km of the tributary Christina River, is also designated, thereby creating one of only two interprovincial Canadian Heritage Rivers in the CHRS.
2007	A reconnaissance of conditions along the Methye Portage is completed.
2008	Completion of a combined archaeological field study and river condition monitoring survey on the lower Clearwater River between Warner Rapids and Contact Rapids.
2009	Completion of a combined archaeological field study and river condition monitoring survey on the upper Clearwater River between Lloyd Lake and Warner Rapids.
2010	Second decadal report on the state of the river submitted to the CHRS Board.
2014	Two comparatively small wildfires occur along the river.
2015	Two large wildfires occur in the provincial park, with impacts along the Clearwater River itself. A number of portages, as well as campsite locations typically used by canoeists, are burned over.
2019	A new CHRS plaque is ordered to replace the one at the Warner Rapids bridge on Hwy 955.
2020	Second decadal monitoring report is submitted to the CHRS Board

## 2.0 Changes and Threats to Natural, Cultural and Recreational Values since Designation

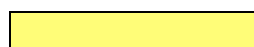
The basis for the Clearwater River’s CHRS designation is that it provides an exceptional combination of outstanding values across an array of heritage themes and subthemes in the candidate evaluation framework. The background documentation supporting nomination is therefore relatively lengthy. The purpose of Table 2.A is to provide a concise summary and a context for situating the findings of the current monitoring review. Further details are included below in Table 2.B, and in the report section numbers indicated in the table.

Table 2.A Overview of changes and threats to heritage values since designation.

Heritage Value Themes	Changes in Heritage Values	
	Since designation	Since 2010 report
<b>Natural Heritage</b>		
Hydrology		
Physiography		
River Morphology		
Biotic Environments		
Vegetation		
Fauna		
<b>Cultural Heritage</b>		
Resource Harvesting		
Water Transport		2.1
Culture and Recreation		
<b>Recreational Values</b>		
Angling		
Boating: canoeing / kayaking / rafting		2.2
Backcountry Camping		
Hiking		
Natural Heritage Appreciation		
Human Heritage Appreciation		



No change or threat identified



Minor change or threat identified



Moderate change or threat identified

Table 2.B Changes to cultural heritage values and recreation values during the past decade.

Natural, Cultural or Recreational Value	Describe Change	Reason	Action in Response
2.1 Cultural Heritage: Water Transport Theme	Degradation of historically significant Methye Portage route, especially the north terminus at river	Physical impact of motorized ATV traffic, garbage and remnant structures associated with episodes of seasonal hunting / trapping camps	Site and trail remediation actions are pending
2.2 Recreation: Boating	Deterioration of several portages around falls and major rapids due to fires	Two large wildfires have affected portions of the river in the past decade	Formal portage trail remediation actions are pending. Some downfall cutting by recreational paddlers has occurred

### 2.1 Cultural Heritage

The 20.5 km Methye Portage trail (a.k.a. Portage La Loche), connecting the Churchill River and Mackenzie River watersheds, is of national historic significance due to its importance to early European explorers, and as a pivotal fur trade route connection between major watersheds.

The portage now provides one access/egress option for recreational paddlers, and also receives some use by visitors to the historic monument on Lac La Loche, at the south end, who also hike the trail to experience the scenic vista of the Clearwater River valley at the north end.

In recent years (exact timing is unknown) visitors have reported finding considerable amounts of refuse abandoned at both the river valley trail terminus and at Rendezvous Lake along the trail. At the river valley, the debris appears to be associated with seasonal hunting and/or trapping camps, and includes remnants of temporary shelters. In addition, the portage trail have been subjected to motorized ATV traffic to the point, in some sections, of becoming deeply rutted and making hiking or portaging difficult.

This situation is considered to constitute a moderately significant negative change resulting in the degradation of a key cultural heritage value. However, the impacts are relatively localized and can most likely be successfully ameliorated through site clean-up and remediation efforts.

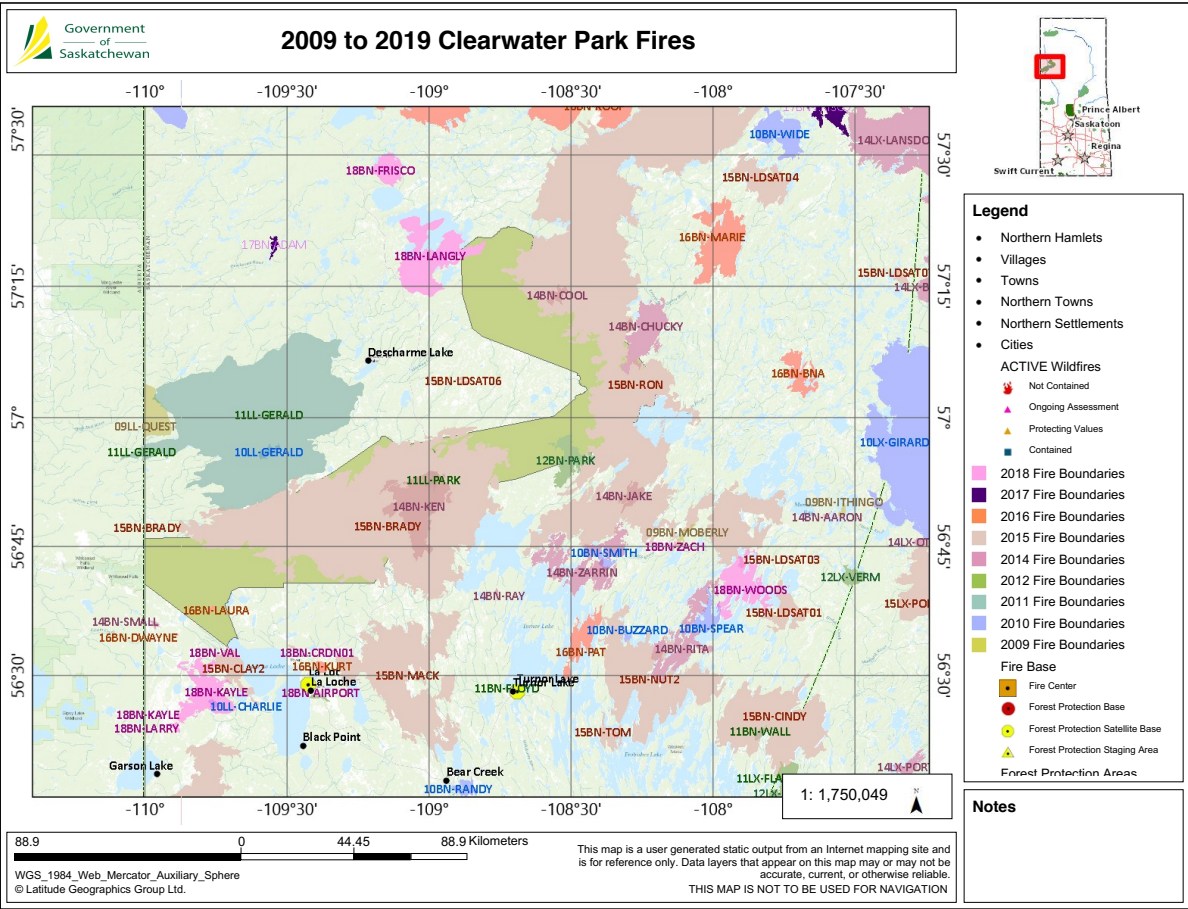
### 2.2 Recreation

The summer of 2015 brought severe wildfire conditions in northern Saskatchewan, and two large fires occurred along the Clearwater River; one east of the Warner Rapids bridge and the other to the west (Figure 2). Lightning-set wildfire is considered a natural disturbance and



ecological renewal process in the Boreal Forest ecosystem. In accordance with provincial wildfire management protocols, fires in remote locations are generally not actively fought unless they threaten communities or valued infrastructure. However, where fires have burned over portages around the major rapids and waterfalls, the portage trails become hard to locate and very difficult to nearly impossible to negotiate due to downfall of fire-killed trees. In some instances, conditions may result in safety concerns for recreationists.

The impact of the 2015 wildfires is considered to constitute a minor change or threat in the CHR Recreation Value themes category. The classification of *minor* is based primarily on the understanding that the change is a result of a natural ecosystem disturbance process, together with the fact that the required remediation is quite technically straightforward.



Map source: Government of Saskatchewan

Figure 2. Wildfires in Clearwater River Provincial Park and area over the past decade. The two most significant events were the 15BN-Brady and the 15BN-Ron fires in 2015.



The Smoothrock Falls area two years after a 2015 wildfire.

Photo: Scott Fraser



Fire-killed trees become tangled downfall making portaging very difficult.

Photo: Scott Fraser

### 3.0 Integrity Guidelines since Designation

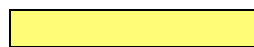
The CHRS designation of a river also requires that the integrity of specified natural, cultural and recreation values continue to be met. The purpose of Table 3.A below is to provide a concise summary and a context for situating the findings of the current monitoring review. Further details are included below in Table 3.B, and in report section 3.1.

Table 3.A Overview of changes and threats to integrity values since designation. The integrity value descriptions are paraphrased from the CHRS program’s 2016 PPOG document.

CHRS Integrity Values	Changes in Integrity Values	
	Since designation	Since 2010 report
<b>Natural Heritage</b>		
Sufficient size to represent natural features		
Contains required ecosystem components		
Includes no human-made impoundments		
Key elements unaffected by external impoundments		
Uncontaminated water and natural aquatic ecosystem		
Natural aesthetic character unaffected by developments		
<b>Cultural Heritage</b>		
Sufficient size to represent cultural features		
Visual character enables uninterrupted appreciation		
Key artifacts and sites unimpaired by human uses		3.1
Water quality does not detract from experiences		
<b>Recreation</b>		
Suitable water quality for contact recreation		
Visual appearance enables river travelers’ experiences		3.1
Supports recreational experiences without loss of values		



No change or threat identified



Minor change or threat identified



Moderate change or threat identified

Table 3.B Changes to the integrity values during the past decade.

Natural, Cultural or Recreational Integrity Value	Change in the Value	Threat or Stressor	Action(s) Taken to Address Threat	Threat Still Present?
3.1 Cultural Heritage: The key artifacts and sites comprising the cultural values for which the river is nominated are unimpaired by impoundments and human land uses	The condition of Methye Portage route has been degraded	Motorized ATV traffic has caused significant trail rutting; debris associated with past hunting / trapping camps abandoned at the north portage terminus and at Rendezvous Lake	Site and trail remediation actions are pending	Site impacts currently remain, but the potential for the deleterious activities to reoccur is unknown
3.1 Recreation: The river's visual appearance provides travelers with a continuous natural experience, or a combined natural and cultural experience, without significant interruption by modern human intrusions.	The condition of Methye Portage route has been degraded.	Motorized ATV traffic has caused significant trail rutting; debris associated with past hunting / trapping camps abandoned at the north portage terminus and at Rendezvous Lake	Site and trail remediation actions are pending	Site impacts currently remain, but the potential for the deleterious activities to reoccur is unknown

### 3.1 Cultural Heritage Integrity Value and Recreation Integrity Value

As Table 3.B indicates, both instances of changes to integrity values pertain to the same circumstances, previously identified and described in report section 2.1 above, in which land use activities were found to have site-specific detrimental effects at the historic Methye Portage. However, impact on the recreation integrity value is deemed to be the lesser of the two, and thus to constitute a minor change relative to the impact on cultural heritage value. This judgement is based on the fact that the integrity of the river's visual appearance is essentially intact for virtually its entire length in Saskatchewan, and the situation at the Methye Portage's north terminus is the only notable visual intrusion which recreational paddlers may encounter. Only those river users travelling beyond Contact Rapids would be affected.

#### 4.0 Designation Document Recommendations and Current Status

Following the 1984 nomination of the Clearwater River for inclusion in the CHRS, the province commissioned the preparation of a management plan. The plan proposed that the river corridor and adjoining lands be protected by means of the creation of a new provincial park. In 1986 the Clearwater River Provincial Park became Saskatchewan's first Wilderness Class park. Thus the establishment of the park and the CHRS designation of the river functioned as mutually reinforcing initiatives. The management plan included a total of 62 recommendations in 8 categories of objectives. The status of those recommendations is summarized in Table 4.

Table 4. Current status of recommendations in the 1986 Clearwater River Management Plan.

Recommendation or Key Action	Degree of Achievement	Comments
<b>Objectives Related to Human Heritage Values</b>		
1. Designate a [protected] corridor along the Clearwater River between Lloyd Lake and the Alberta border.	Completed	Achieved by the combination of CHRS designation and creation of a Wilderness Class Provincial Park
2. Designate an area beyond the river corridor in order to provide necessary protection and enhancement of the resources of the corridor.	Completed	Achieved by creation of a Wilderness Class Provincial Park
3. Establish heritage resource management policies for the Clearwater River and surrounding lands.	Completed	Provincial heritage resource protection policies and regulations apply within the entire Park
4. Develop resource extraction policies which recognize the potential for long term resource development and local community utilization practices.	Not initiated	
5. Establish a suitable area within which cultural resource extraction and industrial resource extraction (including mining, forestry and oil and gas development) would be prohibited.	Completed	Achieved by creation of a Wilderness Class Provincial Park
6. Delineate specific sites containing high value heritage resources and recommend site specific management policies and programs	Not initiated	
7. Protect fragile or sensitive heritage value sites from detrimental use	Not initiated	
8. Explore the potential of designating the Methye Portage as a World Heritage Site	Not initiated	
9. Determine, through archaeological research, the significance of pictograph sites, cave sites, and other cultural heritage resources located along the river	Initiated, not completed	Preliminary reconnaissance archaeological surveys carried out in 2008 and 2009
10. Explore the potential impact of increased river recreation use on significant human heritage sites	Not initiated	

Recommendation or Key Action	Degree of Achievement	Comments
11. Develop interpretive programs which adequately address the significant human heritage sites so that the program needs of a World Heritage classification are fully met	Not initiated	
<b>Objectives Related to Recreation</b>		
12. Minimize recreation development impacts on the river and environs by designating recreation campsites	Not initiated	Most of the recreational camping tends to occur at previously used sites
13. Restrict recreational camping to preselected managed sites	Not initiated	Minimal facilities exist only at the Hwy 955 bridge at Warner Rapids
14. Develop specific management policies and interpretive use guidelines for all significant natural and human heritage features	Not initiated	Provincial Park policies and guidelines are applicable
15. Develop impact monitoring programs for all recreation sites including portages, campsites, viewsites and other user-oriented sites	Not initiated	
16. Promote wildlife viewing opportunities through control of game harvesting	Partially complete	Regulations on sport hunting in Provincial Parks apply, but local traditional subsistence hunting is allowed
17. Prohibit mechanized access within the river corridor except for snowmobiles and rescue equipment	Not initiated	Provincial Park policies and guidelines are applicable, but are not currently enforced
18. Designate off-corridor float plane access points	Not initiated	Low levels of float plane activity occur on the river for recreational access/egress
19. Promote whitewater canoeing, kayaking, hiking and horseback riding	Initiated	Horseback riding is not currently a promoted or allowed activity
20. Prohibit power boating on the river	Not initiated	Very minimal power boat activity occurs near the Hwy 955 bridge
21. Exclude sport hunting in the corridor and adjacent lands	Complete	Regulations on sport hunting in Provincial Parks apply
22. Publish a concise river route and hiking brochure	Partially complete	Existing river route guides are in need of updating / revision
23. Emphasize interpretation of human heritage values in relation to natural history elements	Not initiated	Interpretive programming is not currently provided for Clearwater River Provincial Park
24. Develop both on-site interpretive opportunities and off-site information	Not initiated	
25. Ensure local residents' involvement in any heritage interpretation program	Not initiated	
26. Place emphasis on creation of an off-river heritage experience of the Methye Portage	Not initiated	
27. Minimize non-resident impacts on the visual and heritage resource	Ongoing	Only the access site at Hwy 955 is periodically maintained
28. Provide local residents with alternative summer campsites and cabin locations off the river corridor	Ongoing	Provincial Park policies and guidelines are applicable

Recommendation or Key Action	Degree of Achievement	Comments
29. Prohibit future permanent campsite and cabin development on the Clearwater River	Ongoing	
30. Develop specific cooperative management programs with local residents to reduce domestic big game hunting and fishing	Not initiated	
31. Monitor commercial fishing and direct such activity to lakes off the Clearwater River	Ongoing	Provincial Park policies and guidelines are applicable; commercial fishing is not known to occur on the river <i>per se</i>
<b>Objectives Related to Resource Extraction</b>		
32. Restrict mineral exploration and development to the Careen Lake area within the Clearwater River corridor	Ongoing	Careen Lake is outside but adjacent the Provincial Park; provincial environmental regulations apply
33. Develop mineral exploration and development guidelines for lands lying outside the river corridor	Ongoing	Both Provincial Park policies and guidelines and provincial environmental regulations are applicable
34. Monitor and minimize mineral exploration disruption	Ongoing	
35. Exclude all commercial forestry operations within the river corridor	Ongoing	Provincial Park policies and guidelines are applicable
36. Develop forestry operation guidelines for lands lying outside the river corridor	Ongoing	
37. Increase fire control protection for the area	Ongoing	The current regional management strategy does not include actioning fires except when they threaten communities or valuable infrastructure
38. Monitor forestry management programs and undertake prescribed burning where natural heritage values will be promoted	Not initiated	
<b>Objectives Related to Tourism</b>		
39. Develop tourism development policies and guidelines for the Clearwater River	Not initiated	Tourism development initiatives specific to the Clearwater River have not yet been undertaken
40. Maximize local development benefits	Not initiated	
41. Ensure maximum local input into specific tourism development proposals	Not initiated	
42. Stipulate local resident participation as a criterion for tourism development funding	Not initiated	
43. Recognize the need to integrate tourism development with heritage value protection	Not initiated	
<b>Objectives Related to Traditional Activities</b>		
44. Involve local Indigenous communities in the preparation and implementation of specific management and development programs	Initiated, not currently active	A 2002 Stewardship Agreement between the Parks ministry and the Clearwater River Dene Nation supported participation in river monitoring, site clean-up if needed, and interpreting the heritage values from a traditional perspective.

Recommendation or Key Action	Degree of Achievement	Comments
45. Minimize detrimental disruption to local Indigenous communities	Ongoing	
46. Permit ongoing trapping of the Clearwater River area	Ongoing	Provincial regulations and trapping management policies apply
47. Develop cooperative management programs which will increase big game populations in the river corridor	Not initiated	
48. Incorporate traditional subsistence use of the area as an integral part of the river's interpretive program	Not initiated	See comment at recommendation 44 above.
<b>Objectives Related to Safety and Protection</b>		
49. Promote a workable visitor monitoring program	Not initiated	Visitation levels are considered low and are not currently monitored
50. Explore the feasibility of a fee-for-service rescue program	Not initiated	
51. Minimize excessive safety enforcement	Ongoing	Visitation levels are considered low and no enforcement occurs
52. Develop a forest fire management program	Completed	The current regional wildfire management strategy does not include actioning fires except when they threaten communities or valuable infrastructure
53. Explore methods of restricting recreational open fires	Not initiated	Applicable provincial regulations enable open fire bans in emergency conditions
<b>Objectives Related to Access</b>		
54. Prevent any further road access into the Clearwater River corridor	Ongoing	Provincial Park policies and guidelines are applicable
55. Upgrade access into Lloyd Lake	Not initiated	Access to Lloyd Lake remains as an informal, unmaintained track
56. Develop increased access with existing local area lodge/outfitter operators	Not initiated	
57. Monitor any mining related access to Careen Lake	Ongoing	Careen Lake is outside but adjacent the Provincial Park; provincial environmental regulations apply
58. Promote the opportunity of access being provided through and by the local communities of La Loche and Turnor Lake	Not initiated	Some recreationists access the river via La Loche
<b>Objectives Related to Ongoing Maintenance</b>		
59. Develop realistic garbage disposal programs	Not initiated	Backcountry recreationists are expected to follow pack-in/pack-out procedures
60. Ensure that maintenance access is kept to a minimum	Ongoing	Only the access site at Hwy 955 is periodically maintained
61. Relate maintenance programs to overall Park goals so that Park values are protected	Not completed	



Recommendation or Key Action	Degree of Achievement	Comments
62. Minimize apparent maintenance efforts so that the wilderness character of the corridor is protected	Initiated but not ongoing	There are currently no formal maintenance programs for remote areas in the Park



Photo: Scott Fraser



Photo: Bob Wilson

## 5.0 Summary of Benefits and Costs since Designation

The decadal monitoring requirements include identification of benefits resulting from the Canadian Heritage River designation in relation to the program goals.

Table 5. Summary of benefits since designation.

Type of Benefit	Description
Environmental	<ul style="list-style-type: none"> <li>The designation served as the impetus for establishment of Saskatchewan's first Wilderness Class Provincial Park.</li> <li>The presence of the park provides the mechanism for protection and conservation management of the river corridor and adjacent habitats.</li> </ul>
Cultural	<ul style="list-style-type: none"> <li>The designation has served to increase awareness of, and appreciation for, the river's cultural heritage significance</li> </ul>
Recreational	<ul style="list-style-type: none"> <li>The CHRS designation has raised the profile of the Clearwater River, attracted recreational users, and enhanced their experience from a heritage appreciation perspective</li> </ul>
Improved Knowledge	<ul style="list-style-type: none"> <li>Preliminary archaeological surveys have been completed and identified a number of additional cultural heritage sites</li> </ul>
Stewardship	<ul style="list-style-type: none"> <li>A 2002 Stewardship Agreement between the provincial Parks ministry and the Clearwater River Dene Nation supported participation in river monitoring, site clean-up if needed, and interpreting the heritage values from a traditional perspective.</li> <li>The agreement facilitated travel on the river by groups of elders and youth from the local community to foster appreciation of traditional land use and the cultural heritage associated with the river.</li> </ul>
Community Engagement and Collaboration	
Education	

## 6.0 Overall Assessment

The essential conclusion from this decadal review is that the identified changes during the past decade are ones which can be successfully remediated, and therefore, the Canadian Heritage River status of the Clearwater River in Saskatchewan merits retention. The river continues to provide the outstanding *combination* of natural heritage, cultural heritage and recreational values which supported its designation in 1986. In addition, the Saskatchewan section still augments the 2004 designation of the Alberta section, and continues to function as a fundamental component of the Clearwater River interprovincial Canadian Heritage River.

## 7.0 Supplemental Information

### Water Quality

Water quality is of particular importance and is included in 3 of the 13 CHRS integrity guidelines. In the previous decadal monitoring report it was noted that annual sampling and analysis of the Clearwater River water had not been ongoing during the review period. However, sampling of a number of lakes in the river's watershed had been occurring as part of studies of the potential impacts of Alberta oil sands development on aquatic ecosystems in northwestern Saskatchewan.

Since then, the Hwy 955 bridge at Warner Rapids has become a primary site for annual water quality sampling (site # SK07 CD001) as a source of data for contribution to the Canadian Environmental Sustainability Indicators program. The sampling is carried out by the provincial Water Security. The most recent data indicate that the Clearwater River continues to merit a water quality rating of *Excellent*.

### Petroleum and Minerals Extraction

At the time of the 2010 monitoring report it appeared that the development of in-situ oil sands extraction operations was imminent in the Firebag Hills uplands, within the Clearwater River watershed, and including the area immediately north of the provincial park boundary. Exploration, drilling and some pilot extraction activities, together with access trails and other infrastructure development, were underway. Had the full scale development of those operations proceeded, as was then expected, there was some potential for the associated environmental impacts to have implications for the provincial park and for the Clearwater River corridor, potentially including its CHRS status.

The possibility of an operational oil sands extraction industry in northwestern Saskatchewan has greatly diminished. The original corporate entity, Oil Sands Quest, no longer exists and Cenovus is currently involved in decommissioning work, including well capping and various related reclamation activities. Given the current global economic circumstances facing the petroleum sector, it is reasonable to conclude that this potential source of environmental impact on the Saskatchewan portion of the interprovincial Canadian Heritage River is now unlikely to be a near term possibility.

On the other hand, mineral exploration activity, principally for uranium, gold and diamonds, has been actively occurring in recent years elsewhere in the Clearwater River watershed. The majority of this type of exploration has been in area upstream of Lloyd Lake, and east of Hwy 955, in the vicinity of the river's headwaters around Broach, Patterson and Forrest lakes. Should any subsequent mining operations eventually result, their presence and implications will need to be factored into the annual and decadal CHRS monitoring process.

## Information Sources

### Publications and Reports (listed chronologically)

Johnson, R.H. & B.J. Weichel. *Clearwater River Saskatchewan: Analysis of Canadian Heritage River and Wilderness Park Potential, Broach Lake to Alberta Border*. ARC Branch, Parks Canada, and Program Planning Branch, Saskatchewan Tourism & Renewable Resources. 1982.

*Canadian Heritage Rivers System Nomination Document for the Clearwater River, Saskatchewan*. Saskatchewan Parks & Renewable Resources. 1984.

Hilderman Witty Crosby Hanna & Associates. *Clearwater River Management Plan*. Parks Branch, Saskatchewan Parks & Renewable Resources. 1986.

*The Clearwater River, Saskatchewan 1986 - 1999. Report to the Canadian Heritage Rivers Board on the State of the River*. Saskatchewan Environment & Resource Management. 1999.

*Clearwater - Christina Rivers Management Plan*. Clearwater River Committee. Rural Municipality of Wood Buffalo, Alberta. 2003.

Scace, R. and M. Croot. *Clearwater River History sheet*. Governments of Alberta and Saskatchewan. 2007.

Canadian Heritage River System. *Strategic Plan 2008-2018*. Parks Canada. 2008.

Weichel, B. *Clearwater River Saskatchewan 10 year CHRS Monitoring Report*. Sask. Ministry of Tourism, Parks, Culture and Sport and Canadian Heritage Rivers Board. 2010.

Downie, B. *Clearwater – Christina Canadian Heritage River Ten Year Monitoring Report*. Alberta Tourism, Parks and Recreation. 2014.

Canadian Heritage Rivers System *Principles, Procedures and Operational Guidelines*. Parks Canada. 2016.

### Personal Communications

*The authors gratefully acknowledge the assistance and input provided, via interviews or correspondence, by the following persons with subject matter expertise:*

Cliff Speer. CanoeSki Discovery Company, Saskatoon SK.

Ric Driediger. Churchill River Canoe Outfitters, Missinipe, SK.

Jim MacDonald. Pawistik Paddling, Saskatoon, SK.

Scott Fraser. Wilderness canoeist, Saskatoon, SK.

Jim Lewis. Clearwater Heritage Society, Fort McMurray, AB.

Alan Korejbo. Heritage Division Manager / Senior Archaeologist, Canada North Environmental Services. Saskatoon, SK.

Amber Stewart. Integrated Land Use Planner. Parks Canada, Jasper National Park, AB.

Brian Joubert. Senior Parks Planner. Alberta Environment and Parks, Edmonton, AB.

Robbie Gardiner. Senior Fire Manager. Sask. Public Safety Agency, Buffalo Narrows, SK.

Morgan Gutek. Environmental Project Officer. Sask. Water Security Agency, Meadow Lake, SK.

Lorelei Ford. Ecologist. Sask. Water Security Agency. Saskatoon, SK.

Barry O'Brien. Owner-operator. Voyage Air Charter Services, Buffalo Narrows, SK.

Personnel in Saskatchewan Ministry of Environment:

Katie Rasmussen. Area Wildlife Ecologist. Meadow Lake, SK.

Rayelle Schamber-Brown. Ecological Protection Specialist. Meadow Lake, SK.

Kyle Drumheller. Compliance Manager. Beauval, SK.

Personnel in Parks Division, Saskatchewan Ministry of Parks, Culture and Sport:

Deanna Jacobs. Director. Visitor Experience and Public Programming, Regina, SK.

Colette Schmalz. Senior Park Advisor. Meadow Lake, SK.

Chris Potter. Senior Park Planner. Regina, SK.

Marj Matchee. Resource Coordinator. Meadow Lake, SK.