2021

Upper Restigouche – Canadian Heritage Monitoring Report 2010-2020





Prepared for the Canadian Heritage Rivers Board

By Restigouche River Watershed Management Council Inc. March 31st, 2021



Executive summary

The Upper Restigouche River in New-Brunswick was designated a Canadian Heritage River (CHR) in 1998. This report reviews efforts made from the time of designation to 2020 according to the Canadian Heritage River system's integrity guideline and aims to describe the degree of advancement of the river management plan and achievements. In all, this determines whether heritage and recreational values are still intact and if the Upper Restigouche continues to merit the CHR designation.

Since its designation, stakeholder organizations have remained active in promoting dialogue; harmonizing different activities to pursue habitat and fisheries survey programs, education and habitat improvement.

The Restigouche River Watershed Management Council (RRWMC), created in 2002, took over the role of the original Restigouche River Management Committee, which is a stakeholder organization carrying out the objectives of improving the river.

In general, the heritage values of the Upper Restigouche River remain intact and the continuous work done by different stakeholders to preserve its integrity warrants the renewal of the designation of this section in the Canadian Heritage River System.





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1. Introduction

The Restigouche River is located in northern New-Brunswick and flows north-east towards the Bay of Chaleurs and the Gulf of St. Lawrence. The New-Brunswick portion of the Restigouche watershed covers approximately 735 900 hectares. The principal tributaries are the Kedgwick, Patapedia and Upsalquitch rivers.

The designated section of the Restigouche River starts at its junction with Jardine Brook and flows in a north-easterly direction, for a distance of 55 kilometers, to its junction with the Patapedia River where the Restigouche becomes the interprovincial boundary with the province of Quebec.

The Canadian Heritage River System (CHRS) is Canada's program to promote freshwater heritage conservation and recognize Canada's outstanding rivers based on heritage and recreation values. The program is a cooperative effort by federal and provincial/territorial governments, which works to ensure long-term management and conservation of Canada's river heritage. CHRS requires annual reports, monitoring, and ten-year reviews to ensure that CHRS Rivers maintain the values for which they were nominated.

The objectives of this report are to:

- Present chronology of significant events, actions and research that have occurred since the designation of the river;
- Describe positive or negative changes or threats to the state or condition of the values for which the river was originally designated (natural, cultural, recreational or integrity values);
- Present the status of actions and management measures called for in the designation document tabled with the Board;
- List and describe river conservation, stewardship, economic, and cultural benefits resulting from designation;
- Assess the river's ability to meet the criteria outlined in the designation document for continued designation as a Canadian Heritage River.

2. Nomination Process Background

The Upper Restigouche River was nominated to the CHRS in January 1995 after showing it met the guidelines for each of the values outlined by the integrity guidelines. The river was officially designated as a CHR in 1998 when the River Management Committee submitted the management plan.

This management plan was prepared based on extensive consultation with individuals interested in the Restigouche River, including local historians, non-governmental



organizations, naturalists, wood harvesting companies, fishing camp owners and managers, recreationists, relevant government departments and First Nations.

The planning process resulted in the establishment of a «River Management Committee» comprised of the various stakeholders within the Restigouche River System. A key objective of this group was to assist in the development and implementation of the management plan. Unfortunately, due to a lack of funding, the River Management Committee ceased to exist in 1999.

In 2002, another organization, the Restigouche River Watershed Management Council inc. (RRWMC) was created with the mission to protect the Restigouche's salmon population and habitat. The Listuguj and Eel River Bar First Nations, the Restigouche Salmon Club, the «Corporation de gestion des rivières Matapédia et Patapédia» and the Fraser Lodge (now Kedgwick Salmon Club) are the five founding members. The RRWMC is now composed of a total of 19 directors, nine appointed and 10 elected, all representing various groups from different sectors; eco-tourism, industries, municipalities, outfitters, guides, non-profit organizations and public. The RRWMC has been managing the Restigouche Recreation program since 2008 and continues to ensure there are consultations between the different stakeholders of the Restigouche River. Over the years, the RRWMC was offered to managed other province contracts for the maintenance of crown reserve waters infrastructures for public anglers and for pool guardians enforcement.

3. Methodology

The Restigouche River Watershed Managements Council was given the task of preparing this report in order to ensure the involvement of different user and to access up-to-date information on the situation.

The main tools used to gain information on the state of the river and the progresses made are:

- Reviews of CHRS reports and field reports provided by the department of Natural Resources
- Restigouche River Watershed Management Council annual report review
- Secondary source research
- Interviews with key individuals

All the Restigouche River Watershed Management Council (RRWMC) newsletters, scientific reports and recent annual reports were also reviewed to present the measures related to the Upper Restigouche River.

A new set of tables were provided by the CHRS to insure the conformity of the 10 year monitoring report with other designated Heritage Rivers.



4. Chronology of events

The following table presents the chronology of events since the nomination of the river in 1995.

Table 1: Chronology of Events since the nomination and designation

| Year | Significant Events, Actions, Research or Studies since 1995 | | | | |
|-----------|--|--|--|--|--|
| 1995 | Upper Restigouche River nomination is accepted | | | | |
| 1995-1998 | River Management plan preparation with the Restigouche River Management committee | | | | |
| 1998 | Finalization of the River Management plan and acceptance of the Upper Restigouche river as a designated Canadian heritage river | | | | |
| | One week of festivities from Belledune to St-Quentin to promote the designation | | | | |
| | Launch of a folk music CD of original songs pertaining to the Restigouche with 12 local artists | | | | |
| 1999 | Routine activities for the Restigouche River Recreation Program (campsite maintenance, cleaning crew and education) | | | | |
| | Bank stabilization along Kedgwick River | | | | |
| | Management Committee involved in the preparation of the management plan used to obtain CHRS designation ceased to exist (funding issues) | | | | |
| 2000 | Routine activities for the Restigouche River Recreation Program (campsite maintenance, cleaning crew and education) | | | | |
| 2001 | Routine activities for the Restigouche River Recreation Program (campsite maintenance, cleaning crew and education) | | | | |
| 2002 | Creation of the Restigouche River Watershed Management Council | | | | |
| 2003 | First observation of the <i>Saprolegnia</i> Fungus on salmon in the Restigouche System | | | | |
| | Four Mile and Jardine brook landing enhancement with cement pads by the Management of Salmon of Restigouche and its Tributaries (MSRT) | | | | |



| 2004 | Waterways issues forum to consult the public on canoeing issues |
|------|--|
| | |
| | Restigouche Salmon Fishing plan |
| 2005 | Development and distribution of the canoeists Code of Ethics |
| | Signing of the Memorandum of understanding between the RRWMC with |
| | 5 governments (NB., Québec, Canada, Listuguj First Nation and Eel |
| | River Bar FN.) on salmon resource management |
| 2006 | Construction and installation of 15 picnic tables and 6 toilets on camping |
| | sites |
| 2007 | Initiation of the Zero-Garbage program which consist of the distribution of |
| | reusable garbage bags to canoeists associated with a prize draw to |
| | encourage them to carry-in carry-out |
| | «Others users» advisory committee created at the RRWMC |
| 2008 | First year the Restigouche River Recreation Program is managed by the |
| | Restigouche River Watershed Management Council. |
| | |
| | Development of the «Plan de gestion du programme récréatif de la rivière Destigouche» (Rectigouche River Recreation Program Management Plan) |
| | hy the Restigouche River Watershed Management Council |
| | by the Roolgodone River Waterened Management Council |
| | Confirmation of the presence of the invasive algae didymo |
| | (<i>Didymosphenia geminata</i>) on the designated portion |
| | Beginning of high-school conferences in 5 schools of the county to |
| | educate youth on the importance of respecting other users and on how to |
| | prepare a canoeing expedition |
| | Beginning of aerial surveys to locate sediment runoff causing increased |
| | turbidity after major rain events |
| 0000 | |
| 2009 | Major improvement of the campsites by adding 30 picnic tables and signs referring to outboard regulations, mapping of the river and garbage |
| | regulation |
| | |
| | Addition of a service office at Rafting Ground hosted by a student to |
| | increase education and facilitate contact with canoeists; |
| | Students hired at the starting point (Kedgwick River) to distribute code of |
| | ethic information and to register the canoeists. |
| | |
| | |



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| 2009 (Continued) | Siltation trap built in the Five Fingers sub-watershed to reduce sediment runoff from potatoes fields; Implementation of the Zero-Garbage program by developing a poster, by increasing quality of reusable garbage bags and by having a communication officer to promote the program; Improvement of 200 m of road leading to Down's Gulch landing |
|---------------------|---|
| 2010 | Improvement of the landing, access and parking lot at Down's Gulch landing Improvement of the road leading to the 4 Mile landing on the Little Main rises |
| | Implementation of the Zero-Garbage program by adding a number and a plastic tag on reusable garbage bags to follow-up on the program's success rate |
| | Study on the economic impact of Restigouche Fishing Camps by the University of New Brunswick |
| 2011 | Upper Restigouche-Canadian Heritage Monitoring report 1998-2010 |
| | High definition pictures and thermal imagery acquisition project (1st of 3 years); 320 km surveyed in 2011 |
| | LIDAR imagery acquisition of the Five Fingers brook watershed to locate and describe agricultural runoff problems |
| | Study on impact of forestry on watershed with the Equivalent Cut area methodology |
| 2012 | Feasibility study on the interprovincial designation of the Restigouche River (including 4 public consultations). |
| | High definition pictures and thermal imagery acquisition project (2nd of 3 years); 180 km surveyed in 2012 |
| 2013 | Restigouche Salmon Fundraiser supper (April 6th 2013) including Salmo Salar award recipients |
| | Four public consultations on the business plan for the Restigouche Wilderness Waterway proposal |



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| 2013 (Continued) | Booth at the Promotion Plus event in Campbellton and 4 conferences in high schools of the area |
|---------------------|---|
| | Forestry field visit with local politicians and forestry company representatives |
| | Last year of high definition pictures and thermal imagery acquisition project (3rd of 3 years); 180 km surveyed in 2013 |
| | Beaver dam location in relation with fish distribution surveys in the Little Main Restigouche River |
| | Tagging of kelts with sonar transmitters for migration study with Atlantic Salmon federation |
| 2014 | With the contribution of a Transport Canada program, two patrollers hired to promote boating safety |
| | Major works were done in the Five Finger book watershed to reduce soil erosion from potato farms |
| | Beaver dam location in relation with fish distribution surveys in the Little Main Restigouche River |
| | Tagging of kelts with sonar transmitters for migration stydy with Atlantic Salmon federation |
| | Business plan of the Restigouche wilderness waterway was completed and approved by the RRWMC |
| 2015 | The Department of Fisheries and Ocean implementation of a no retention rules for salmon angling – Daily catch and release limit of 4 fish |
| | Major works were done to restore and stabilize a 300m bank on the Little Main Restigouche river. |
| | Beaver dam location in relation with fish distribution surveys in the Little Main Restigouche River |
| | Tagging of kelts with sonar transmitters for migration study with Atlantic Salmon federation |
| 2016 | Canada 150 ceremony held on July 9th in Kedgwick River and July 24th in Robinsonville |
| | The business plan of the «Restigouche Wilderness Waterway» concept, which aims to create a 235 km linear park on most of the Restigouche |



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| 2016 | watershed canoable waters was presented to the New Brunswick Jobs board. |
|-------------|---|
| (continued) | Boating restrictions proceeding will be evaluated towards provincial organizations to address the increased size of motors and sea-doo activities. |
| 2017 | • A project design of the Restigouche Wilderness Waterway has been prepared by the province of New Brunswick. Within this design, a mapping of the view shed buffer along each side of the rivers was done. |
| | Government delegation visit on the river for the Restigouche Wilderness Waterway project |
| | Works on the Five Fingers watershed to reduce siltation runoff |
| 2018 | • Low water levels during July and August are lowering the traffic on the river and closing of private fishing camps on certain periods. This is impacting overall economic impacts of tourism in the region. |
| | Short heavy rain events have caused siltation runoff from the Five Fingers brook, tributaries of the Little Main Restigouche river. Water quality was impacted by these events. |
| | • The province of New-Brunswick, through the Tourism, Heritage and Culture Dept. held public open houses on the Restigouche Wilderness Waterway. Round tables with stakeholders group were also organized to consult on the concept and designs. The province is proposing a 20,000 ha of buffer and viewshed protection to be included in the Canada 2020 land conservation objectives. |
| 2019 | River Story map developed for the designated portion of the Restigouche |
| | A forestry harvest impact on salmon habitat as been approved in 2019 and will starts in 2020, under a supervised student thesis with Université de Moncton. |
| | Development of a warm water protocol for salmon fishing |
| | Environmental Impact assessment conducted in the Restigouche Wilderness Waterway development |
| 2020 | • "Restigouche: The Long Run of the Wild River", Philip Lee book launch. |
| | The report from the public open houses of 2019 and 2020, prepared by the consultant, was completed and government officials are waiting |



| 2020 (continued) | approval for release. Since government activities were slowed down by Covid-19 in spring and summer, the Restigouche Wilderness Waterway project development has been delayed. |
|---------------------|--|
| | • In the federal strategy to increase protected areas to 17% in Canada, the Government of New Brunswick have listed the 15,000 ha Crown land targeted for the Restigouche Wilderness Waterway. Those are made of riparian buffer zones and viewshed protection. This nomination is an important gain for the region to ensure increased protection of the Upsalquitch, Patapedia, Kedgwick, Little Main and Restigouche rivers and therefore the designated section. |
| | A forestry harvest impact on salmon habitat as been approved in 2019 and was initiated in 2020 and will continue in 2021-2022. |
| | Department of Fisheries and Oceans change daily salmon catch and release limit from 4 to 2 |
| | Wildlife assistant program initiated to increase presence and patrols |
| | |

For all years from 2010 to 2020, annual work plan of different departments included:

- Smolts salmon monitoring (smolts wheel survey) (except 2020 because of COVID) Dept. Fisheries and Oceans Canada
- Juvenile salmon survey and spawners snorkel count Dept. Fisheries and Oceans Canada
- Water sampling and analysis (Department of Environment of New-Brunswick)

5. Condition of the Values since Designation

5.1 Natural Heritage Values

5.1.1 Background and integrity guidelines

Habitat for the Canadian lynx and eagles, both provincially endangered species, are located adjacent to the designated section. In addition, a wide variety of rare or uncommon vascular plants, mosses and lichens are found in this area. The major natural value of the river is certainly the Atlantic salmon. The Southern Gulf region population is candidate to be listed on the Species at Risk as specie of special concern. Restigouche River is considered as one of the best salmon rivers in North America.



The designated section of the Restigouche provides an outstanding example of a river environment resulting from the earth's development during the Silurian and Ordovician Periods of the Palaeozoic Era and from the ice flow of the Pleistocene Epoch of the Cenozoic Era. It is a gently meandering river with areas of continuous natural erosion. Notable features include islands, flood plains, terraces, dykes, pools, rocky outcrops, gravel bars and depositional features. The topography ranges from low floodplains, to rolling hills, to sheer rock faces. Together with the spruce-fir forest and its diverse lesser vegetation and the opportunities for wildlife viewing, areas of exceptional natural beauty are presented along the river corridor.

The nominated area is of sufficient size and contains all or most of the key interrelated and interdependent elements to demonstrate the key aspects of the natural processes, features, or other phenomena which give the river its outstanding natural value.

5.1.2 Changes and Threats to Natural Values since Designation

The following table presents changes and threats to the natural values that have been observed since the designation, and identify how/if they were addressed. The values reflect those that were identified in the nomination and designation for the heritage river.

| NATURAL VALUE | DESCRIPTION OF CHANGE IN VALUE (e.g. Magnitude, Positive or Negative Change, Immediate or Long-term) | REASON FOR CHANGE (e.g. Threat, Stressor, Management Action) | ACTIONS TAKEN IN RESPONSE |
|---|--|---|---|
| 1. HYDROLOGY | | | |
| 1.1 Drainage Basins: River channel within the area is not negatively impacted by any man- made structures. | None | NA | NA |
| 1.2 Seasonal Variation: Spring runs often raise the river levels several meters over the mean high- water mark. July and August are generally noted for their low water levels resulting in hard going for canoeists | Variation to extreme high and low conditions are more common. Moderate negative long terme change | Climate changes | Equivalent Cut area calculation for all watershed of 1000 to 2000 hectares was done in 2012. In 2020, a research project to link forestry and size of cuts per watershed as been initiated |

 Table 2: Natural Heritage Values since Designation



| NATURAL VALUE | DESCRIPTION OF CHANGE IN VALUE (e.g. Magnitude, Positive or Negative Change, Immediate or Long-term) | REASON FOR CHANGE (e.g. Threat, Stressor, Management Action) | ACTIONS TAKEN IN RESPONSE |
|--|--|---|--|
| 1.3 Water Content: Water quality is rated as good to excellent and is characterized by negligible alteration from natural water quality. | Moderate negative change However, water quality is still rated as good to excellent and is characterized by negligible alterations in natural water quality and a natural aquatic invertebrate community. | Extreme rain events is causing sediment runoff on some period | Sampling and water content analysis done annually (normally 4 times/year) by the Department of Environment on the Kedgwick River (tributary of the Upper Restigouche) and at Rafting Ground on main Restigouche River Restauration work on going with farms and industries on the Five Finger brook and forestry roads |
| 2. PHYSIOGRAPHY | | | 10000 |
| 2.1 Physiographic Regions: Restigouche Upsalquitch Ecodistrict of the Uplands Ecoregion | None | | |
| 2.2 Geological Processes: Representations of the following stages of surface geology development are found within the area: alluvial, glaciofluvial, morainal and pre-quaternary sediments. | None | | |
| 2.3 Hydrogeology: <i>River features include</i> <i>floodplains, terraces,</i> <i>islands, dykes, rocky</i> <i>outcrops, depositional</i> <i>feature and deep pools.</i> | Moderate negative change | Natural erosion caused by earlier ice run and peak flows resulting of climate changes | Bank stabilization on a section of the designated river to reduce bank erosion and prevent pool filling. Assessment of cutting area sizes in sub watershed |



| NATURAL VALUE | DESCRIPTION OF CHANGE IN VALUE (e.g. Magnitude, Positive or Negative Change, Immediate or Long-term) | REASON FOR CHANGE (e.g. Threat, Stressor, Management Action) | ACTIONS TAKEN IN RESPONSE |
|--|--|---|--|
| 2.4 Topography: Characterized by a rolling topography with elevations ranging approximately from 50 m to 400 m. Mean river gradient of 1,3 m/km | None | | |
| 3. RIVER MORPHOLOGY | | | |
| 3.1 Valley Types: Streams entering the river are characterized by sharp V shaped valleys | None | | |
| 3.2 Channel Types: Not negatively impacted by any man-made structures | None | | |
| 3.3 Channel Profile: Series of rapids, runs, pools and riffles | None | | |
| 3.4 Fluvial Landforms: <i>Experiencing reduced</i> <i>elevation through a</i> <i>series of rapids and</i> <i>runs</i> | None | | |
| 4. BIOTIC ENVIRONMENTS | | | |
| 4.1 Aquatic Ecosystems: <i>Prime</i> <i>freshwater ecosystem</i> <i>suitable for salmonids</i> <i>and macro invertebrates</i> | Long term negative changes | Climate changes are changing the pattern of precipitation and warming temperature. Water temperature is increasing. Dept. Fisheries and Oceans data confirms that climate change is affecting the region with a significant long term trend water temperature increase from 1.5°C to 2.6°C per decade | Aerial survey of cold water sources and refuge was conducted. Cold sources were identified. Warm water protocol was developed for fishing management |



| NATURAL VALUE | DESCRIPTION OF CHANGE IN VALUE (e.g. Magnitude, Positive or Negative Change, Immediate or Long-term) | REASON FOR CHANGE (e.g. Threat, Stressor, Management Action) | ACTIONS TAKEN IN RESPONSE |
|--|--|---|---|
| 4.2 Terrestrial Ecosystems : Vegetation pattern of the area is believed to be the result of a complex interaction of the landform structure and a history of fires and logging. River corridor is well protected and characterized by a mix of plants and trees of the Acadian forest. | Positive long term changes | Delimitation of view sheds and land protection natural area | Province of New Brunswick selected Restigouche River corridor for the increased percentage of the Federal land protection objective |
| 5. VEGETATION | | | |
| 5.1 Significant Plant Communities: Mixed forest including eastern white cedar, balsam fir, and white spruce with scattered white pine. Hardwood species including white and yellow birch, trembling aspen and balsam poplar 5.2 Rare Plant Species: Crawe's sedge, variegated scouring-rush, green spleenwort and nodding foraue | None | | the designated section is protected within the actual Crown land forestry management plan |
| 6. FAUNA | | | |
| 6.1 Significant Animal Populations: Combination of forest cover and associated ground vegetation supports an abundance of wildlife. Section long been recognized as being one of the best Atlantic Salmon rivers in North America. | Negative change for salmon long term | Fish stocks are variable from one year to the other. 2020 fish count was above average. Reasons for decline are many; oceans dynamic changes, predation, climate changes, habitat disconnectivity and quality, illegal harvesting | Annual surveys done within the section (Electrofishing surveys, snorkel count of spawners). Habitat restoration, obstruction removal, enforcement, water quality improvement and many other project to improve overall salmon population |



| NATURAL VALUE | DESCRIPTION OF CHANGE IN VALUE (e.g. Magnitude, Positive or Negative Change, Immediate or Long-term) | REASON FOR CHANGE (e.g. Threat, Stressor, Management Action) | ACTIONS TAKEN IN RESPONSE |
|---|--|---|---|
| 6.2 Rare Animal Species : Restigouche River provides habitat for Canada Lynx and eagles which are provincially endangered species | Positive change; Lynx population seems to have increased considerably and expanded its range | Long term management measures | Maintaining effort to increased protected natural areas |

5.2 Cultural Heritage Values

5.2.1 Background and integrity guidelines

The Restigouche River System is synonymous with the regional history and is significant from a national and provincial perspective. The river was initially used as a transportation route by Micmacs who reaped the benefits of the abundant fish and wildlife resources while using it as a transportation link to other watersheds and coastal routes in Canada and the United States. The river was used by American Loyalists fleeing the war of independence in search of farmland in the Bay of Chaleurs and in the Restigouche area.

The early salmon anglers, adventurers in search of Atlantic salmon, contributed to the local history by establishing salmon angling camps which today reflect an historic architectural style. These camps welcomed notable people. Personalities associated with the designated section include: Dean Sage, W.F. Ganong, Stanford White, King Edward and G.F. Clarke.

The Battle of the Restigouche took place within the Bay of Chaleurs in front of the actual town of Campbellton. The battle is noteworthy both from a Canadian and regional perspective due to the impact it had on the people and their cultures and the subsequent settlement in the region. It marked the arrival of English speaking immigrants to the region, some of whom settled within the nominated section.

The Restigouche River has long been used by the forest industry to transport logs to mills located in the estuary. This industry has played a major role in the history of the region and local community development.

5.2.2 Changes and Threats to Cultural Values since Designation

The following table presents changes and threats to the cultural values that have been observed since the designation, and identify how/if they were addressed. The values reflect those that were identified in the nomination and designation for the heritage river.



Table 3: Cultural Heritage Values since Designation

| CULTURAL VALUE | DESCRIPTION OF | REASON FOR | ACTIONS TAKEN IN |
|--|---|---|--|
| | (e.g. Magnitude, Positive or Negative Change, Immediate or Long-term) | CHANGE (e.g. Threat, Stressor, Management Action) | RESPONSE |
| 1. RESOURCE HARVESTING | | | |
| 1.1 Fishing: Salmon fishing camps since mid 1800s in the section. Four camps namely: Down's Gulch, Larry's Gulch, Kedgwick Lodge and Carter Hall Lodge. Crown waters on the upper section permit public access to salmon angling. Micmac fishing prior to sport fishing. | Negative change long term | Decrease of stocks and management restriction causing disinterest in fishing | Annual fish stock monitoring (surveys, inventory of spawning salmon, catch data) The Department of Fisheries and Oceans implemented a full catch and release for recreational fishing in 2015 |
| 1.2 Shoreline Resource Harvesting: Lands cleared for agriculture on the banks became ideal spots for the establishment of the fishing camps. Log slides on steep slopes that were used for the log drive still visible. | None | | |
| 2. WATER TRANSPORT | | | |
| 2.1 Commercial Transportation: River system was used extensively to transport logs to the mills which were built adjacent to the river estuary. | None | | |
| 2.3 Exploration & Surveying: Originally, Micmac and Maliseet nations used the river system as a transportation corridor, later utilized by Europeans settlers, loggers and sport fishermen. | None | | |



| CULTURAL VALUE | DESCRIPTION OF | REASON FOR | ACTIONS TAKEN IN |
|-------------------------------------|--------------------------|---|---------------------------|
| | (e.g. Magnitude Positive | CHANGE (e.g. Threat, Stressor Management | RESPONSE |
| | or Negative Change, | Action) | |
| | Immediate or Long-term) | | |
| 3. RIPARIAN SETTI EMENT | | | |
| 3.1 Sitting of | None | | |
| Dwellings: <i>River were</i> | | | |
| used by Europeans fleeing | | | |
| the war of independence in | | | |
| the United-States to reach | | | |
| 2 2 Piver based | Nono | | Interpretation poster on |
| S.2 River-based | NOTE | | the subject posted in the |
| Forestry and Salmon | | | river offices |
| angling (using rivers for log | | | inver offices |
| drive) were the two major | | | |
| economic activities that | | | |
| permitted development in | | | |
| the area. | | | |
| 3.3 River-influenced | None | | |
| Capacing is part of the | | | |
| heritage (fishing | | | |
| transportation route for | | | |
| Micmac and Europeans, | | | |
| logging). Major Micmac | | | |
| transportation route which | | | |
| provided connections to | | | |
| in Canada and in the | | | |
| United States (St.John | | | |
| River) | | | |
| | | | |
| 4. CULTURE & RECREATION | | | |
| 4.1 Spiritual | None | | |
| Associations: Salmon | | | |
| and forest from the | | | |
| Restigouche is the base of | | | |
| Micmac culture and | | | |
| spirituality | Nono | | |
| Fine Sign Multi-Ethnic | NULLE | | |
| culture (Micmacs. Acad- | | | |
| dians, Scottish, Irish, | | | |
| French Canadians and | | | |
| English) | | | |
| 4.3 Early Recreation: | None | | |
| Major cultural influence of | | | |
| of salmon sport fishing | | | |
| or sumon sport norming | | | |



| CULTURAL VALUE | DESCRIPTION OF CHANGE IN VALUE (e.g. Magnitude, Positive or Negative Change, Immediate or Long-term) | REASON FOR CHANGE (e.g. Threat, Stressor, Management Action) | ACTIONS TAKEN IN RESPONSE |
|---|--|--|--|
| 5. JURISDICTIONAL USES | | | |
| 5.1 Environmental | Positive long term | Deleniation and | The province has |
| Regulation: Crown Land administered under the province's Crown Lands and Forest Act, by the Department of Energy Natural Resources Development | changes | nomination of the Restigouche corridor for natural protected area | committed to doubling its protected and conserved land and freshwater from 4.6 per cent to 10 per cent |

5.3 Recreation Values

5.3.1 Background and integrity guidelines

The Upper Restigouche River provides ample opportunity for recreation. The unique setting of the river system provides a feeling of remoteness while still being close to civilization. The river offers excellent opportunities for high quality sport fishing, recreational canoeing, kayaking, sightseeing, nature interpretation, cultural and historical interpretation, camping and trail development.

This section of the river has been used as a recreational waterway for the past 200 years for sport fishing, and more recently in the past 40 years, for recreational canoeing. The increased canoe traffic on the Restigouche River system has resulted in the Department of Natural Resources' decision to initiate and maintain a recreation program on the river. This program, now managed by the Restigouche River Watershed Management Council, is designed to address issues related to the increased recreational use of the river. Designated campsites, four in the Upper Restigouche river section, have been maintained to direct the users away from sensitive areas and fishing pools, and to provide toilets, fire pits and tables to canoeists.

5.3.2 Changes and Threats to Recreational Values since Designation

The following table presents changes and threats to the recreational values that have been observed since the designation, and identify how/if they were addressed. The values reflect those that were identified in the nomination and designation for the heritage river.



Table 4: Recreational Values since Designation

| RECREATIONAL VALUE | DESCRIPTION OF CHANGE IN VALUE (e.g. Magnitude, Positive or Negative Change, Immediate or Long-term) | REASON FOR CHANGE (e.g. Threat, Stressor, Management Action) | ACTIONS TAKEN IN RESPONSE |
|--|---|--|--|
| 1. BOATING | | | |
| 1.2 Extended Canoe Tripping (motor & non-motor): 3 day canoe trips from the Kedgwick River to Rafting Ground is still the most popular canoe activity | Positive changes | Education program and Code of Ethics, Zero-garbage program, registration of canoeists. | Annual recreation program managed by the RRWMC to maintain and improve facilities |
| 1.3 Day Paddling & Rowing: Day paddling occurs in the section | None | | |
| 1.5 Motorized Pleasure cruising/Houseboats | Negative changes | The proportion of jet boats (turbine with 15hp motor or more) on the river increased in the time period covered by this report and generate some conflict with other user Boating is more technical during extreme low water periods | Code of Ethics for outboard users distributed Signs of Code of ethic and laws placed at boat launches. Government agencies enforcing boating regulation consequently |
| 2. ANGLING | | | |
| 2.1 Day Angling: Open water is available in the section for salmon fly fishing | Negative long term changes | No retention (2015) and reduction of daily catch and release from 4 to 2 (2020) is affecting angling interest | Many projects to improve salmon habitat and salmon population stocks |
| 2.2 Weekend Angling Same as 2.1 | Negative long term changes | No retention (2015) and reduction of daily catch and release from 4 to 2 (2020) is affecting angling interest | Many projects to improve salmon habitat and increase salmon population stocks |
| 2.3 Extended Angling Vacation: 4 salmon fishing camps still in activity in the section | Negative long term changes | No retention (2015) and reduction of daily catch and release from 4 to 2 (2020) is affecting angling interest | Many projects to improve salmon habitat and increase salmon population stocks |



| RECREATIONAL VALUE | DESCRIPTION OF CHANGE IN VALUE (e.g. Magnitude, Positive or Negative Change, Immediate or Long-term) | REASON FOR CHANGE (e.g. Threat, Stressor, Management Action) | ACTIONS TAKEN IN RESPONSE |
|---|---|---|--|
| 2.4 Fly Fishing: Private access, outfitters, public open water and crown reserved 3-day fishing trips are drawn in the section (salmon) | Negative long term changes | No retention (2015) and reduction of daily catch and release from 4 to 2 (2020) is affecting angling interest | Many projects to improve salmon habitat and increase salmon population stocks |
| 2.5 Specific Fish Species: Salmon is the most important fish resource on the river | None | | |
| 3. WATER- ASSOCIATED ACTIVITIES | | | |
| 3.1 Camping: 4 campsites along the river are accessible for free, one privately owned campground in Kedgwick River | Positive change | Improvement of campsite in general | Maintenance of the 4 campsites located on this section. Addition of facilities and equipment on campsites |
| 4. NATURAL HERITAGE APPRECIATION | | | |
| 4.1 Wildlife : Offers outstanding opportunities to view wildlife such as moose, bear, osprey, waterfowl, birds and of course the majestic Atlantic Salmon. | None | | |
| 4.2 Vegetation: 150 m buffer zone is protected on both sides of the river on Crown lands (80 % of the section). Private lands also provide a natural environment along the river. | Positive long term change | Increase of the size of buffer zone (minimum 200m + viewshed) within the government Protected natural areas proposition | Equivalent cut area study for all 1000- 2000 ha watershed started in 2012 |



| RECREATIONAL VALUE | DESCRIPTION OF CHANGE IN VALUE (e.g. Magnitude, Positive or Negative Change, Immediate or Long-term) | REASON FOR CHANGE (e.g. Threat, Stressor, Management Action) | ACTIONS TAKEN IN RESPONSE |
|--|---|---|--|
| 4.3 Vistas/Scenic Quality: The river's outstanding natural heritage features are neither environmentally nor ethically impacted by developments. | None | | 150 m buffer will be included again in the next forestry management plan 2012-2017 |
| 4.4 Geological Features/Water Features: Floodplains, steep rock outcrops and the clear and cold water of the river | None | | |
| 5. HUMAN HERITAGE APPRECIATION | | | |
| 5.1 Historic Sites: Pool and camp names and camp architectures awaken imagination to the life of the early river travelers. | None | | |
| 5.2 Cultural Landscapes: Impact of the Kedgwick River community and fishing camp are minimal. Represent the waterway as it was in the past. | None | | |
| 5.3 Sporting Events/Activities: Fly fishing and canoeing remain the main sporting activities in the designated section | None | | |



6. Integrity Guidelines since designation

The following table present more in details the specific integrity values that have experienced changes since the designation.

Table 5. Specific integrity values that have experienced changes since the designation.

| NATURAL, CULTURAL OR RECREATIONAL INTEGRITY VALUE | CHANGE IN INTEGRITY VALUE | THREAT OR STRESSOR (Current, Immediate, Long- term) | ACTION(S) TAKEN TO ADDRESS THREAT | THREAT STILL PRESENT? |
|---|---|--|--|--------------------------|
| NATURAL 1.2 Seasonal Variation: Spring runs often raise the river levels several meters over the mean high-water mark. July and August are generally noted for their low water levels resulting in hard going for canoeists | Variation to extreme high and low conditions are more common. | Climate changes is in cause with cumulative effect of clear cutting | Equivalent Cut area calculation for all watershed of 1000 to 2000 hectares was done in 2012. In 2020, a research project to link forestry and size of cuts per watershed as been initiated. Forestry plan could mitigate impact of climate change | Yes |



The Upper Restigouche

| NATURAL, CULTURAL OR RECREATIONAL INTEGRITY VALUE | CHANGE IN INTEGRITY VALUE | THREAT OR STRESSOR (Current, Immediate, Long- term) | ACTION(S) TAKEN TO ADDRESS THREAT | THREAT STILL PRESENT? |
|---|--|---|---|--------------------------|
| NATURAL 1.3 Water Content: Water quality is rated as good to excellent and is characterized by negligible alteration from natural water quality. | Extreme rain events is causing sediment runoff on some period However, water quality is still rated as good to excellent and is characterized by negligible alterations in natural water quality and a natural aquatic invertebrate community. | Sediments are entering watercourses that flows in the Restigouche River from potato farms, industrial sites and forestry roads | Sampling and water content analysis done annually (normally 4 times/year) by the Department of Environment on the Kedgwick River (tributary of the Upper Restigouche) and at Rafting Ground on main Restigouche River Sediment runoff sites identification is on going Restoration works on going with farms and industries in the Five Finger brook and forestry roads in other area of the watershed | Yes |
| NATURAL 2.3 Hydrogeology: River features include floodplains, terraces, islands, dykes, rocky outcrops, depositional feature and deep pools. | Erosion caused by earlier ice run and peak flows are causing changes to hydrogeology | Climate changes and deforestation is affecting hydrology pattern in general | Bank stabilization on a section of the designated river to reduce bank erosion and prevent pool filling. Assessment of cutting area sizes in subwatershed | Yes |



| NATURAL, CULTURAL OR RECREATIONAL INTEGRITY VALUE | CHANGE IN INTEGRITY VALUE | THREAT OR STRESSOR (Current, Immediate, Long- term) | ACTION(S) TAKEN TO ADDRESS THREAT | THREAT STILL PRESENT? |
|--|--|---|--|--------------------------|
| NATURAL 4.1 Aquatic Ecosystems: Prime freshwater ecosystem suitable for salmonids and macro invertebrates | Water temperature is increasing. Dept. Fisheries and Oceans data confirms that climate change is affecting the region with a significant long term trend water temperature increase from 1.5°C to 2.6°C per decade | Climate changes are changing the pattern of precipitation and water temperature. | Aerial survey of cold water sources and refuge was conducted. Cold sources were identified. Warm water protocol was developed for fishing management | Yes |
| NATURAL 4.2 Terrestrial Ecosystems: Vegetation pattern of the area is believed to be the result of a complex interaction of the landform structure and a history of fires and logging. River corridor is well protected and characterized by a mix of plants and trees of the Acadian forest. | Delimitation of view sheds and land protection natural area is enlarge | Positive long term changes | Province of New Brunswick selected Restigouche River corridor for the increased percentage of the Federal land protection objective | No threat |
| NATURAL 6.1 Significant Animal Populations: Combination of forest cover and associated ground vegetation supports an abundance of wildlife. Section long been recognized as being one of the best Atlantic Salmon rivers in North America. | Salmon stocks are variable from one year to the other but on decline in the perion. | Reasons for decline are many; oceans dynamic changes, predation, climate changes, habitat disconnectivity and quality, illegal harvesting | Annual surveys done within the section . Habitat restoration, obstruction removal, enforcement, water quality improvement and many other project to improve overall salmon population | Yes |



| NATURAL, CULTURAL OR RECREATIONAL INTEGRITY VALUE | CHANGE IN INTEGRITY VALUE | THREAT OR STRESSOR (Current, Immediate, Long- term) | ACTION(S) TAKEN TO ADDRESS THREAT | THREAT STILL PRESENT? |
|---|--|---|---|--------------------------|
| NATURAL 6.2 Rare Animal Species: Restigouche River provides habitat for Canada Lynx and eagles which are provincially endangered species | Long term management measures have favoured an increase of lynx population expanded its range | Positive change; | Long term management measures Maintaining effort to increased protected natural areas | Yes |
| CULTURAL 1.1 Fishing: Salmon fishing camps since mid 1800s in the section. Four camps namely: Down's Gulch, Larry's Gulch, Kedgwick Lodge and Carter Hall Lodge. Crown waters on the upper section permit public access to salmon angling. Micmac fishing prior to sport fishing. | Decrease of stocks and management restriction causing disinterest in fishing | Reasons for decline are many; oceans dynamic changes, predation, climate changes, habitat disconnectivity and quality, illegal harvesting | Annual fish stock monitoring (surveys, inventory of spawning salmon, catch data) The Department of Fisheries and Oceans implemented a full catch and release for recreational fishing in 2015 | Yes |
| CULTURAL 5.1 Environmental Regulation: Crown Land administered under the province's Crown Lands and Forest Act, by the Department of Energy Natural Resources Development | Delineation and nomination of the Restigouche corridor for natural protected area | Positive long term changes | The province has committed to doubling its protected and conserved land and freshwater from 4.6 per cent to 10 per cent | No threat |



| NATURAL, CULTURAL OR RECREATIONAL INTEGRITY VALUE | CHANGE IN INTEGRITY VALUE | THREAT OR STRESSOR (Current, Immediate, Long- term) | ACTION(S) TAKEN TO ADDRESS THREAT | THREAT STILL PRESENT? |
|--|--|---|---|--------------------------|
| RECREATION 1.2 Extended Canoe Tripping (motor & non-motor): 3 day canoe trips from the Kedgwick River to Rafting Ground is still the most popular canoe activity | Education program and Code of Ethics, Zero-garbage program, registration of canoeists. | Positive changes | Annual recreation program managed by the RRWMC to maintain and improve facilities | No threat |
| RECREATION 1.5 Motorized Pleasure cruising/Houseboats | The proportion of jet boats (turbine with 15hp motor or more) on the river increased in the time period covered by this report and generate some conflict with other users. Boating is more technical during extreme low water periods | Marketing, technology development and equipment adaptation to low water conditions | Code of Ethics for outboard users distributed Signs of Code of ethic and laws placed at boat launches. Government agencies enforcing boating regulation consequently | Yes |
| RECREATION 2.1 Day Angling: Open water is available in the section for salmon fly fishing | Change in regulation to no retention (2015) and reduction of daily catch and release from 4 to 2 (2020) is affecting angling interest | Decline of salmon stocks | Many projects to improve salmon habitat and salmon population stocks | Yes |
| RECREATION 2.2 Weekend Angling Same as 2.1 | Change in regulation to no retention (2015) and reduction of daily catch and release from 4 to 2 (2020) is affecting angling interest | Decline of salmon stocks | Many projects to improve salmon habitat and salmon population stocks | Yes |



| NATURAL, CULTURAL OR RECREATIONAL INTEGRITY VALUE | CHANGE IN INTEGRITY VALUE | THREAT OR STRESSOR (Current, Immediate, Long- term) | ACTION(S) TAKEN TO ADDRESS THREAT | THREAT STILL PRESENT? |
|--|---|---|--|--------------------------|
| RECREATION 2.3 Extended Angling Vacation: 4 salmon fishing camps still in activity in the section | Change in regulation to no retention (2015) and reduction of daily catch and release from 4 to 2 (2020) is affecting angling interest | Decline of salmon stocks | Many projects to improve salmon habitat and salmon population stocks | Yes |
| RECREATION 2.4 Fly Fishing: Private access, outfitters, public open water and crown reserved 3-day fishing trips are drawn in the section (salmon) | Change in regulation to no retention (2015) and reduction of daily catch and release from 4 to 2 (2020) is affecting angling interest | Decline of salmon stocks | Many projects to improve salmon habitat and salmon population stocks | Yes |
| RECREATION 3.1 Camping: 4 campsites along the river are accessible for free, one privately owned campground in Kedgwick River | Improvement of campsite in general | Positive changes | Maintenance of the 4 campsites located on this section. Addition of facilities and equipment on campsites. Investment of capitals into camping facilities | No threat |
| RECREATION 4.2 Vegetation: 150 m buffer zone is protected on both sides of the river on Crown lands (80 % of the section). Private lands also provide a natural environment along the river. | Increase of the size of buffer zone (minimum 200m and + viewshed) within the government Protected natural areas proposition | Positive long term change | Equivalent cut area study for all 1000-2000 ha watershed started in 2012 Conservation promotion and Restigouche Wilderness Waterway concept promotion | No threat |



7. Designation Document Recommendations and Current Status

After the nomination in 1995, a river management plan was presented in 1998 by the Department of Natural Resources assisted by the Restigouche River management committee. Since 1998, many initiatives have been followed-up by the Restigouche River Watershed Management Council. The following table details the recommendations presented in the original management plan with the degree of achievement of each action since the designation to date of March 2021.

Table 6: Recommendations and Current Status

| RECOMMENDATION OR KEY ACTION | Degree of Achievement | COMMENTS |
|-----------------------------------|-----------------------|----------------------------|
| | | |
| To identify the roles and | On-going | Since organisations, |
| responsibilities of the | | stakeholders and |
| stakeholders | | representatives are |
| | | changing, the board of |
| | | directors of the RRWMC |
| | | insures a good |
| | | communication between |
| | | stakeholders |
| To consider the implementation of | On-going | Some Restigouche river |
| a «River watch/guardian» | | Recreation program staff |
| program | | received the Dep. of |
| | | Fisheries and Oceans |
| | | River watch training. In |
| | | 2020, a wildlife assistant |
| | | program has been initiated |
| | | to increase presence of |
| | | trained resources on |
| | | rivers. |
| To develop and implement a | Complete | Map and code of Ethic was |
| «Code of Ethics» | | updated in 2013 and is |
| | | printed and distributed |
| | | every year |
| | | |
| | | Motor canoes Code of |
| | | Ethic was developed in |
| | | 2014 and is distributed |
| | | |
| | | |



| RECOMMENDATION OR KEY ACTION | Degree of Achievement | COMMENTS |
|--|-----------------------|---|
| To develop and implement a communications strategy pertaining to the Upper Restigouche River as a Heritage River | On-going | Story Map project and 2016 ceremonies were promoting Heritage river system |
| To maintain the Recreation Management program of the Department of Natural Resources and Energy | On-going | Management of the program transferred to the Restigouche River Watershed Management Council in 2008 |
| To monitor the quality of the river through periodic sampling and analysis | On-going | Samples and water analysis taken three time annually by the Department of Environment NB in the designated river section |
| To monitor activities which have the potential to impact on the river's water quality and quantity | On-going | Monitoring of sediment runoff from agriculture and annual mitigation measures are taken |
| | | Forestry/watershed study on-going related to siltation and flow regime |
| To encourage and support relevant research into Atlantic Salmon within the Restigouche River System | On-going | Department of Fisheries and Oceans is supported by different stakeholders to conduct annual density surveys and research. |



| RECOMMENDATION OR KEY ACTION | Degree of Achievement | COMMENTS |
|--|-----------------------|--|
| To work co-operatively with stakeholders having objectives related to the management of Atlantic Salmon | On going | Restigouche River Watershed Management Council board of director's composition allow stakeholder cooperation. Many groups, universities and Government departments participate to Atlantic Salmon management through RRWMC science sub committee |
| To determine the direct and indirect economic benefits associated with angling for Atlantic Salmon within the Restigouche River System | Complete | University of New- Brunswick study done in 2010 demonstrates fishing camps supply 535 jobs and \$11.2 million in the local economy. |
| To determine the carrying capacity of the river system for canoeing | Complete | The 2008 management plan determined the maximum daily departure capacity to 74 canoes, based on the campsite capacities. The Restigouche Wilderness Waterway concept studies, business plan and consultation have integrated the canoeing carrying capacity |
| To maintain/enhance current business opportunities based on sustainable management practices | On-going | Effort to reduce conflicts between users still a priority and on-going work at the RRWMC. Restigouche Wilderness Waterway concept studies, business plan and consultation have integrated ecotourism opportunities |



| RECOMMENDATION OR KEY ACTION | Degree of Achievement | COMMENTS |
|---|-----------------------|--|
| To consider the feasibility of a user fee system for canoeists through public consultation | On-going | Survey of canoeists demonstrates they would accept a daily fee. Restigouche Wilderness Waterway concept studies, business plan and consultation have |
| | | surveyed this consideration |
| To continue joint enforcement initiatives with the Royal Canadian Mounted Police | On-going | Joint patrols done most year with RCMP and Sûreté du Québec and Public and Safety NB |
| To monitor issues which are subject to current legislation, policies and agreements | On-going | The RRWMC is consulted for any legislation and policies |
| To maintain and supplement inventories of the natural and cultural values of the Upper Restigouche river | On-going | |
| To conduct periodic surveys of the flora and fauna with emphasis on rare and endangered species | On-going | Environmental Impact assessment was conducted in line with the Restigouche Wilderness Waterway development |
| To maintain/enhance the visual quality of the river environment | On-going | Part of the task of Recreation program employees is to remove all garbage/graffiti and repair vandalism |
| In co-operation with First Nations, identify archaeological sites and document the native history of the river | On going | |



| RECOMMENDATION OR KEY ACTION | Degree of Achievement | COMMENTS |
|---|-----------------------|---|
| To develop interpretive material, brochures, displays and signage for the Upper Restigouche River | Completed | Posters located in river offices, signs with map of the river are posted at all access and exits points, code of Ethic brochures reprinted every year |
| To consult with interested stakeholders regarding the feasibility of pursuing this concept (CHRS); this will include the Province of Quebec | Not yet initiated | |
| To consult with interested stakeholders regarding the feasibility of pursuing this designation (linear provincial park under Parks policy. | On-going | Feasibility study on the concept conducted in 2011, business plan produced in 2014 including public consultations. Design concept and public open houses held in 2018 |

8. Summary of Benefits and Costs since Designation

The designation of the Upper Restigouche River since 1998, and primarily the commitment of the Government of New Brunswick, has resulted in benefits for the preservation of natural, cultural and recreational values. A review of the current situation on the Upper Restigouche River allows us to identify more specifically the benefits related to the designation of the Restigouche River. The following table outlines the main benefits

| Type of Benefit | Description |
|-----------------------|--|
| Environmental benefit | The 150m buffer protection implement since designation improved habitat and wildlife corridor. The designation has instigated increased protection and a local desire to expand conservation to a larger area that is being developed through the Restigouche Wilderness Waterway concept |
| Cultural benefits | The designation improved the overall appreciation of the river and have |
| Recreational benefits | Recreation program funding allowing resource for |

Table 7: Benefits of the designation



| | education, code of Ethic and signage. It changed canoeist behaviours and improved ecotourism organisation and safety of users. |
|---|---|
| Monetary benefits | The designation permitted to have a provincial recurrent funding engagement to allow resource for the maintenance of infrastructures, education and stewardship. Designation also permitted to access special funding program for heritage projects such the river story map and Canada 150 events |
| Community engagement and collaboration | Visibility of the river designation improved collaboration projects and recognition of the Restigouche among government departments. |
| Community Engagement and Collaboration | The designation favoured the recognition of the river habitat biodiversity among partners and stakeholder |

On the other hand, the designation can generate direct or indirect disadvantages. In the current context, and in light of the information obtained, few detrimental effects have been identified. The following table presents the identified detrimental effects of the designation.

| DETRIMENTAL EFFECTS | DESCRIPTION |
|----------------------------|--|
| Commercial development | A maple syrup producer's application for a permit to install a |
| restriction (1 case) | power line over the river was denied by the Department of |
| | Natural Resources |
| Perception of a regulatory | Heritage River designation is sometime seen as a tool to |
| tool | implement regulation of boating |

9. Overall Assessment and Conclusions

This report has verified all of the current conditions of the elements identified in the cultural natural and recreational integrity guidelines and values of the Canadian Heritage River System. The actions proposed in the 1998 River Management Plan were also reviewed. The items were listed and presented in the format submitted by the CHRS and all documents used for the nomination process as well as the key persons involved since the designation have been consulted.

The Upper Restigouche River, with its historic fishing camps, quality salmon fishing, preserved landscape and important recreational activities, has a heritage and cultural significance for Canada. The Restigouche's history will soon to be presented by the Restigouche River experience Center in Campbellton. Consultation efforts by the Restigouche River Watershed Management Council ensure public involvement in the river's management in order to enhance and preserve all natural resources and heritage assets.

Even though climate changes are affecting natural processes and conditions, this report confirms that all of the heritage and recreational values of the Upper Restigouche River remain intact and that this portion of river deserves to maintain its status under the



Canadian Heritage Rivers System program. The Restigouche River recreational program must be continued to ensure proper supervision of canoeing and boating activities and to avoid user conflicts. Monitoring of the sediment runoff, mainly from the Five Finger Brook and mitigation works are required in the midterm. Assessment of the impact of logging and size of harvest blocks should develop a watershed management approach to mitigate climate changes impact on hydrology.

The development of the Restigouche Wilderness Waterway holds promise for the long-term conservation of the natural, cultural and recreational values of this portion of the river.

For all these consideration, the designation as a Canadian Heritage River should remain in place.



10.References

Department of Environment and Local Government River Water Quality Data, <u>https://www.elgegl.gnb.ca/WaterNB-NBEau/en/SamplingLocation/Index</u>

Department of Natural Resources and Energy, 1994, Background study of the Restigouche River System, Province of New Brunswick. 21 p.

Department of Natural Resources and Energy, 1994, Nomination document for the Restigouche/ Lust-a-gooch River, New Brunswick, Province of New Brunswick. 28 p.

Department of Natural Resources and Energy, 1998, Managing the upper Restigouche River as a Canadian Heritage River, Province of New Brunswick. 44 p.

Groupe SALAR, 1992. Plan de mise en valeur du potentiel salmonicole du Bassin de la Ristigouche. Rapport présenté à la Corporation de gestion des rivières Matapédia et Patapédia, 153 pages.

LANTZ, Van, 2010, Economic contributions of salmon fishing camps along the Restigouche River in Eastern Canada. Faculty of Forestry and Environmental Management and Department of Economics, University of New Brunswick. 6 p.

Restigouche River Watershed Management Council, 2008. Plan de gestion du programme récréatif de la Rivière Restigouche. 30 p.

Restigouche River Watershed Management Council, Le Ristigouche Newsletter, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020.

Restigouche River Watershed Management Council Science Committe Report: 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020.

Restigouche Wilderness Waterway Design brief, Glenn Group and Gagnon Strategix, 2018, 18 p.

Restigouche River Wilderness Waterway Business Plan, Gagnon Stategix, 2014, 70 p.

Restigouche: The Long Run of the Wild River, Philip Lee, 2020, 272 p. Wilderness Corridors of the Restigouche <u>https://www2.gnb.ca/content/dam/gnb/Departments/nr-rn/promos/pathway/restigouchee.pdf</u>



People interviewed:

Daniel Caissie, Research Scientist, Department of Fisheries and Oceans

Graham Forbes, professor of biology at the University of New Brunswick

Sullivan, Donald, Ex-President of the Restigouche River Management committee

Danny Bird, Manager of the Kedgwick Lodge, Kedgwick River.

Jacque Héroux, Manager of the Larry's Gulch Lodge

Manon Arpin, Owner of the Chalet Resigouche in Kedgwick River

Andrew Foster, Project manager of the Restigouche Wilderness Waterway project at Toursim, Heritage and Parks, New Brunswick.

André Arpin, Ex-Treasurer of the Restigouche River Management committee and ecotourism entrepreneur 1997-2016

François Arpin, Supervisor of the Restigouche river Recreation program crew from 2008 to 2020.

MacNeish, Allan. Former employee of the Department of Natural Resource in charge of the Recreation program and volunteer with the citizens group working on the Restigouche river museum.

Carole-Anne Gillis, Research Director and RRWMC Science committee Chair, Gespe'gewaq Mi'gmaq Resource Council.

Bouchard, Stephane. Acadian Timber

Mazzetta, Pierre. Forest Planner AV Group (AV Nackawic and AV Cell)