CIER

CENTRE FOR INDIGENOUS ENVIRONMENTAL RESOURCES

First Nations Fish Habitat Program (FNFHP)

2007-2012

Maria M'Lot

About CIER

- CIER is a First Nations directed national environmental non-profit organization
  - Founded by a group of First Nations leaders in 1994
  - Vision: sustainable First Nations and a healthy environment
  - Participatory, partnership approach to projects

CIER's Program Areas

Taking Action on Climate Change

We understand the impacts of climate change on First Nations, identify adaptation solutions, provide information, and build public awareness about climate change effects on First Nations.

Building Sustainable Communities

We assist First Nations to build sustainable communities through sustainability planning and the development of environmentally-sustainable buildings and infrastructure.

Protecting Lands and Waters

We support First Nations in identifying threats to the health of their environment, develop sustainable resource use solutions, and promote restoration and protection.

Conserving Biodiversity

We assist First Nations in assessing the state of biodiversity in their lands and waters, develop biodiversity conservation solutions, and provide information.

First Nations Fish Habitat Program

Year 1

- Identifying issues
- Building internal capacity
- Developing communication tools
- Getting information out
- Assisting in writing proposals and designing projects

Year 2

- Strategic Planning
- Issues scan
- Sustainable cattle management training
- Information sharing
- Proposal development
  - Poplar River First Nation (nutrient management)
  - Fisher River Cree Nation (watershed planning)
  - Birdtail Sioux First Nation (restoration)
- Develop youth education initiatives

Year 3

- Habitat Restoration
  - Birdtail Sioux Model Farm
  - Sustainable Cattle Management guidebook
- Habitat Research & Monitoring
  - Poplar River Lagoon Assessment
  - Hollow Water TK Study
  - Macro-invertebrate sampling protocol development and training
- Habitat Protection
  - Share research
  - Communication tools
- Watershed Planning and Education
  - Interactive activities for students
  - Relationship building

Year 4

- Habitat Restoration
  - Sustainable cattle tours
  - Fish Habitat Assessment Training
- Habitat Research & Monitoring
  - Lab water sampling training
  - Macro-invertebrate sampling training
  - Youth water sampling

- Habitat Protection
  - Share information
  - Webcast (ROR)
  - Communication tools
- Watershed Planning and Education
  - Pine Creek Youth & Elder Fish Camp
  - Watershed school program
  - Network development

Year 5

- Habitat Restoration
  - Peguis First Nation Sustainable Cattle Management
- Habitat Research & Monitoring
  - Lab water sampling training
  - Macro-invertebrate sampling training
  - Youth water sampling
  - Pine Creek monitoring

- Habitat Protection
  - Issues scan with northern First Nations
  - Webcasts (algae, EA)
  - Share information
- Watershed Planning and Education
  - Share watershed planning tools
  - Watershed school program
  - Network development

CIER's FNFHP Vision

"*First Nation guardians holistically managing for healthy fish and fish habitat*"

FNFHP Goals

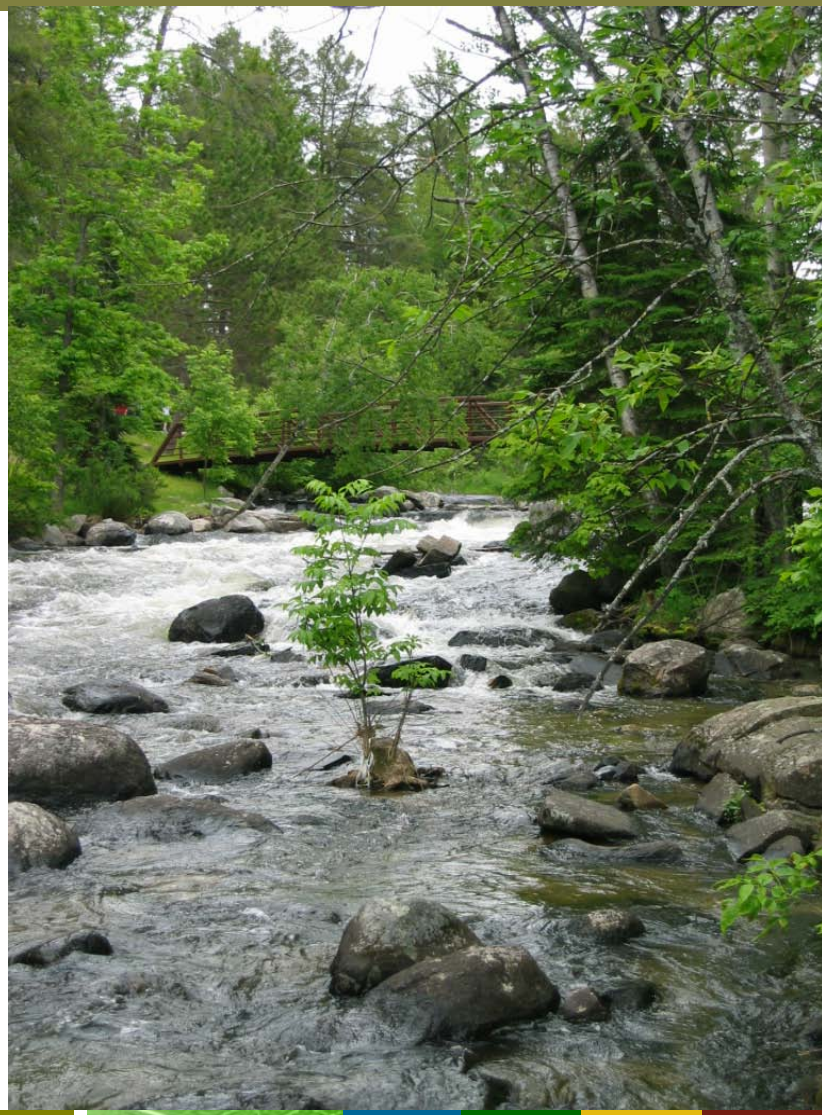
- Assist First Nations to restore, monitor, protect, and manage their fish habitat.
- Build the capacity of First Nation peoples to be guardians.

FNFHP Objectives

- Provide knowledge and skills to First Nations;
- Implement community-based monitoring;
- Build capacity for First Nations to understand and mitigate threats to fish habitat;
- Support greater First Nation involvement in fish habitat management, policy development, and decision-making
- Support environmental education of First Nation children and youth; and,
- Ensure FNFHP project team have the relevant training and skills.

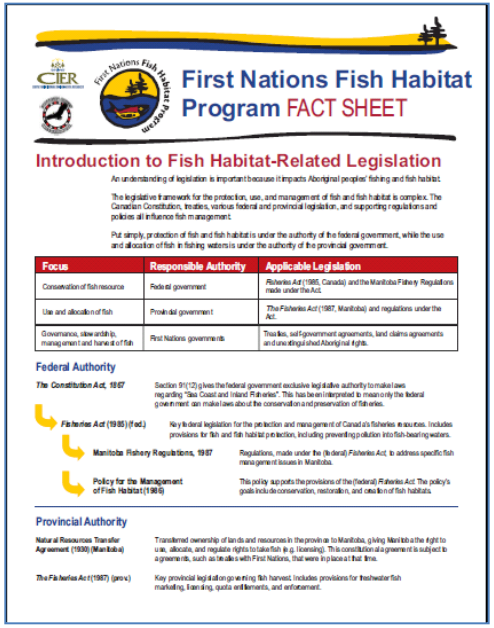
FNFHP Focus Areas

1. Habitat Restoration;
2. Habitat Research and Monitoring;
3. Habitat Protection; and,
4. Watershed Planning and Education.



Promotion and Information

- Brochures
- Factsheets
- Newsletters
- Workbooks
- Maps
- Mail outs
- Website



First Nations Fish Habitat Program FACT SHEET

Introduction to Fish Habitat-Related Legislation

An understanding of legislation is important because it impacts Aboriginal peoples' fishing and fish habitat.

The legislative framework for the protection, use, and management of fish and fish habitat is complex. The Canadian Constitution, treaties, various federal and provincial legislation, and supporting regulations and policies all influence fish management.

Put simply, protection of fish and fish habitat is under the authority of the federal government, while the use and allocation of fish in fishing waters is under the authority of the provincial government.

Focus	Responsible Authority	Applicable Legislation
Conservation of fish resource	Federal government	*Fisheries Act* (1985, Canada) and the Manitoba Fishery Regulations made under the Act.
Use and allocation of fish	Provincial government	The Fisheries Act (1987, Manitoba) and regulations under the Act.
Governance, stewardship, management and harvest of fish	First Nations governments	Treaties, self-government agreements, land claims agreements and unextinguished Aboriginal rights.

Federal Authority

The Constitution Act, 1867

Section 91(12) gives the federal government exclusive legislative authority to make laws regarding "Sea Coast and Inland Fisheries". This has been interpreted to mean only the federal government can make laws about the conservation and preservation of fisheries.

Fisheries Act (1985) (Fed.) — Key federal legislation for the protection and management of Canada's fisheries resources. Includes provisions for fish and fish habitat protection, including preventing pollution into fish-bearing waters.

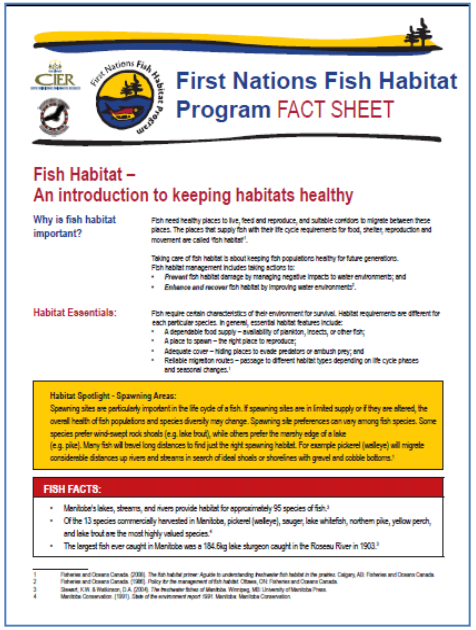
Manitoba Fishery Regulations, 1987 — Regulations, made under the (federal) *Fisheries Act*, to address specific fish management issues in Manitoba.

Policy for the Management of Fish Habitat (1986) — This policy supports the provisions of the (federal) *Fisheries Act*. The policy's goals include conservation, restoration, and creation of fish habitats.

Provincial Authority

Natural Resources Transfer Agreement (1930) (Manitoba) — Transferred ownership of lands and resources in the province to Manitoba, giving Manitoba the right to use, allocate, and regulate rights to take fish (e.g. licensing). This constitutional agreement is subject to agreements, such as treaties with First Nations, that were in place at that time.

The Fisheries Act (1987) (prov.) — Key provincial legislation governing fish harvest. Includes provisions for freshwater fish marketing, licensing, quota settlements, and enforcement.



First Nations Fish Habitat Program FACT SHEET

Fish Habitat –
An introduction to keeping habitats healthy

Why is fish habitat important?

Fish need healthy places to live, feed and reproduce, and suitable corridors to migrate between these places. The places that supply fish with their life cycle requirements for food, shelter, reproduction and movement are called 'fish habitat'[1].

Taking care of fish habitat is about keeping fish populations healthy for future generations. Fish habitat management includes taking actions to:

- *Prevent* fish habitat damage by managing negative impacts to water environments; and
- *Enhance and recover* fish habitat by improving water environments[2].

Habitat Essentials:

Fish require certain characteristics of their environment for survival. Habitat requirements are different for each particular species. In general, essential habitat features include:

- A dependable food supply – availability of plankton, insects, or other fish;
- A place to spawn – the right place to reproduce;
- Adequate cover – hiding places to evade predators or ambush prey; and
- Reliable migration routes – passage to different habitat types depending on life cycle phases and seasonal changes.[3]

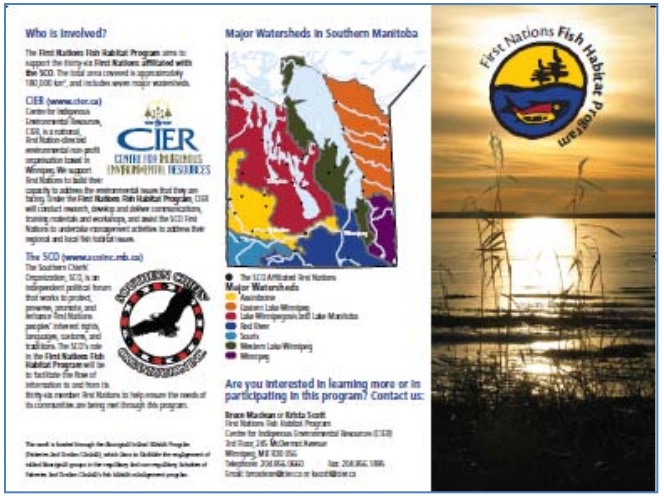
Habitat Spotlight - Spawning Areas:

Spawning sites are particularly important in the life cycle of a fish. If spawning sites are in limited supply or if they are altered, the overall health of fish populations and species diversity may change. Spawning site preferences can vary among fish species. Some species prefer wind-swept rock shoals (e.g. lake trout), while others prefer the marshy edge of a lake (e.g. pike). Many fish will travel long distances to find just the right spawning habitat. For example pickerel (walleye) will migrate considerable distances up rivers and streams in search of ideal shoals or shorelines with gravel and cobble bottoms.[4]

FISH FACTS:

- Manitoba's lakes, streams, and rivers provide habitat for approximately 95 species of fish.[2]
- Of the 13 species commercially harvested in Manitoba, pickerel (walleye), sauger, lake whitefish, northern pike, yellow perch, and lake trout are the most highly valued species.[4]
- The largest fish ever caught in Manitoba was a 184.6kg lake sturgeon caught in the Roseau River in 1903.[4]

1 Fisheries and Oceans Canada. (2006). The fish habitat primer: Aquide to understanding freshwater fish habitat in the prairies. Calgary, AB: Fisheries and Oceans Canada.
2 Fisheries and Oceans Canada. (1986). Policy for the management of fish habitat. Ottawa, ON: Fisheries and Oceans Canada.
3 Stewart, K.W. & Watkinson, D.A. (2004). The freshwater fishes of Manitoba. Winnipeg, MB: University of Manitoba Press.
4 Manitoba Conservation. (1991). State of the environment report 1991. Manitoba: Manitoba Conservation.



Who is Involved?

The First Nations Fish Habitat Program aims to support the thirty-six First Nations affiliated with the SCO. The total area covered is approximately 100,000 km², and includes seven major watersheds.

CIER (www.cier.ca)

Centre for Indigenous Environmental Resources, CIER, is a national, First Nation-directed environmental non-profit organization based in Winnipeg. We support First Nations to build their capacity to address the environmental issues that they are facing. Under the First Nations Fish Habitat Program, CIER will conduct research, develop and deliver communications, training materials and workshops, and assist the SCO First Nations to undertake management activities to address their regional and local fish habitat issues.

The SCO (www.scoinc.mb.ca)

The Southern Chiefs' Organization, SCO, is an independent political forum that works to protect, preserve, promote, and enhance First Nations peoples' inherent rights, languages, customs, and traditions. The SCO's role in the First Nations Fish Habitat Program will be to facilitate the flow of information to and from its thirty-six member First Nations to help ensure the needs of its communities are being met through this program.

Major Watersheds in Southern Manitoba

The SCO Affiliated First Nations

Major Watersheds

- Assiniboine
- Eastern Lake Winnipeg
- Lake Winnipegosis and Lake Manitoba
- Red River
- Souris
- Western Lake Winnipeg
- Winnipeg

Are you interested in learning more or in participating in this program? Contact us:

Bruce Maclean or Krista Scott
First Nations Fish Habitat Program
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3rd Floor, 345 McDermot Avenue
Winnipeg, MB R3B 0S6
Telephone: 204.956.0660 Fax: 204.956.1895
Email: bmaclean@cier.ca or kscott@cier.ca

First Nations Fish Habitat Program

FNFHP Promotion

Finding solutions – Potential projects

During the workshop sessions, participants identified many potential projects that would help better understand an issue, build capacity, or improve water quality or fish habitat near their communities.

Some projects suggested at the workshops included:

- Establishing water quality monitoring programs to monitor lagoon effluent;
- Building cattle fencing to keep cattle out of the rivers;
- Replacing perched culverts;
- Studying the impacts of pesticides and agricultural run-off;
- Examining the impacts of pulp and paper mill on fish;
- Establishing a First Nation conservation officer training program;
- Sampling and analyzing the algae on Lake Winnipeg;
- Encouraging sharing between Elders and youth to revive cultural importance of fishing; and,
- Developing a system for enforcing fishing licence quotas of non-Aboriginal peoples on reserve/traditional land.

"We need to stop treating the river as a dumping ground, and look at it as a life source."
Lyle Morrisseau, Sagkeeng First Nation

Next Steps

CIER is:

1. Working with interested First Nations to develop project ideas and prepare funding proposals; and,
2. Seeking interest form other First Nations who wish to develop a fish habitat-related project.

CIER is also working towards:

- Conducting research and responding to requests for information;
- Providing training opportunities; and,
- Developing educational and outreach materials for you.

How to get involved

It's not too late to get involved in the First Nations Fish Habitat Program!

If you are interested in finding out more or discussing potential project ideas, contact CIER:
Bruce Maclean or Krista Scott
First Nations Fish Habitat Program (CIER)
Telephone: 204-956-0660 or Fax: 204-956-1895
Email: bmaclean@cier.ca or kscott@cier.ca

The FNFHP is funded through the Aboriginal Inland Habitat Program (Fisheries and Oceans Canada).

CIER is a national, First Nation-directed environmental non-profit organisation based in Winnipeg. CIER supports First Nations to build their capacity to address the environmental issues they are facing.
www.cier.ca

First Nations Fish Habitat Program

Taking Action to Impro Fish Habitat

The First Nations Fish Habitat Program Update

What is the First Nations Fish Habitat Program?

Fish need healthy places to live, feed and reproduce, and corridors to migrate between these places. Taking care of fish habitat is about keeping fish populations healthy for future generations.

The First Nations Fish Habitat Program (FNFHP) is available to assist First Nations, affiliated with the Southern Chiefs' Organization (SCO), to protect, recover, and manage their fish habitat. The First Nations Fish Habitat Program is an initiative of the Centre for Indigenous Environmental Resources (CIER), in partnership with the SCO.

CIER's goals in implementing the FNFHP are to:

- Identify and understand fish habitat management issues of First Nations in southern Manitob
- Assist First Nations in taking action to improve or protect fish habitat;
- Provide education and training opportunities related to fish habitat; and,
- Support involvement of First Nations in fish habitat management, policy development, and o

What has happened to date?

Activities of the FNFHP, have included:

- Inviting (in Spring 2008) the First Nations of southern Manitoba to participate in the program;
- Conducting research on fish habitat management issues and solutions;
- Sharing information and resources; and,
- Facilitating four regional fish habitat workshops.

What were the Regional Fish Habita

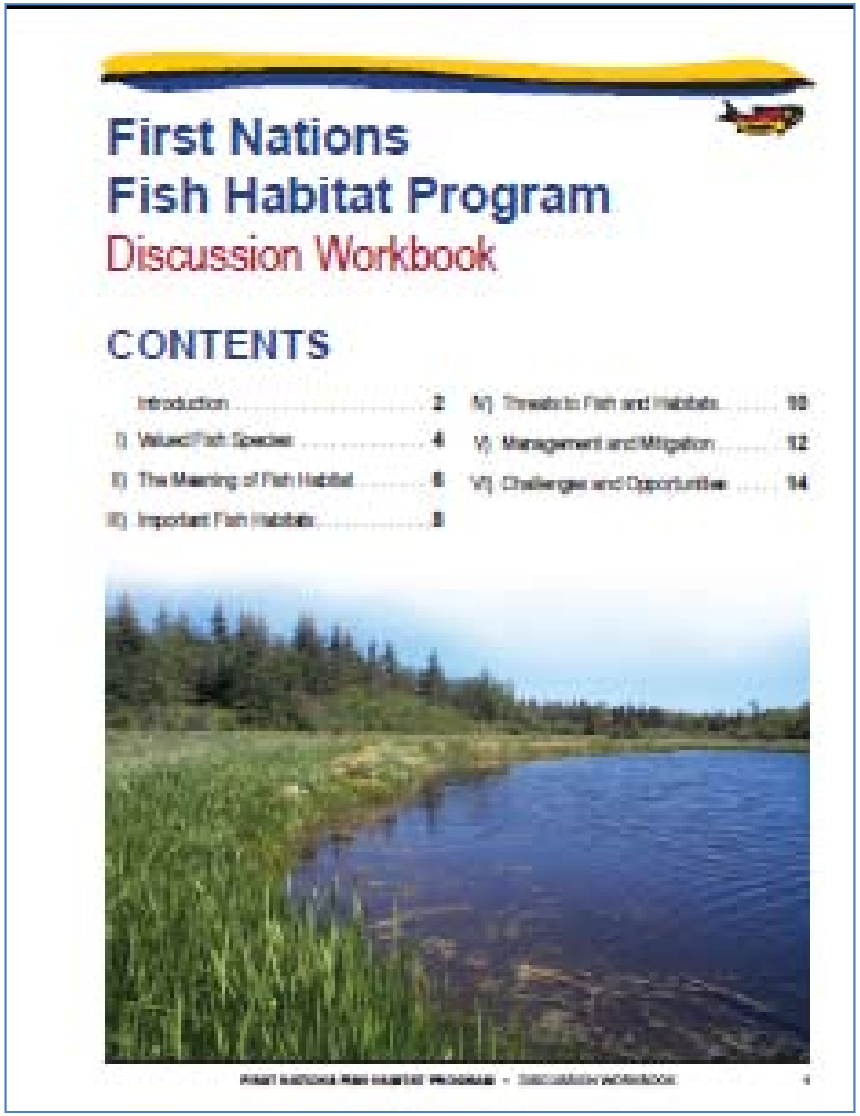
CIER hosted four regional fish habitat workshops Nations about their local and regional fish habitat issues and concerns and to identify information n required, and possibilities for training.

Participants shared insights, concerns, and ideas

1) Which fish species are most important to their
2) What makes good fish habitat?;
3) What is threatening fish habitat in their area?;
4) Potential mitigation/management measures th regional and local threats to fish habitat; and,
5) Project ideas to address fish habitat.

A key goal of the workshops was to, with the inpu identify potential fish habitat-related project ideas support First Nations in securing funding for and

FNFHP Issues Identification


First Nations
Fish Habitat Program
Discussion Workbook

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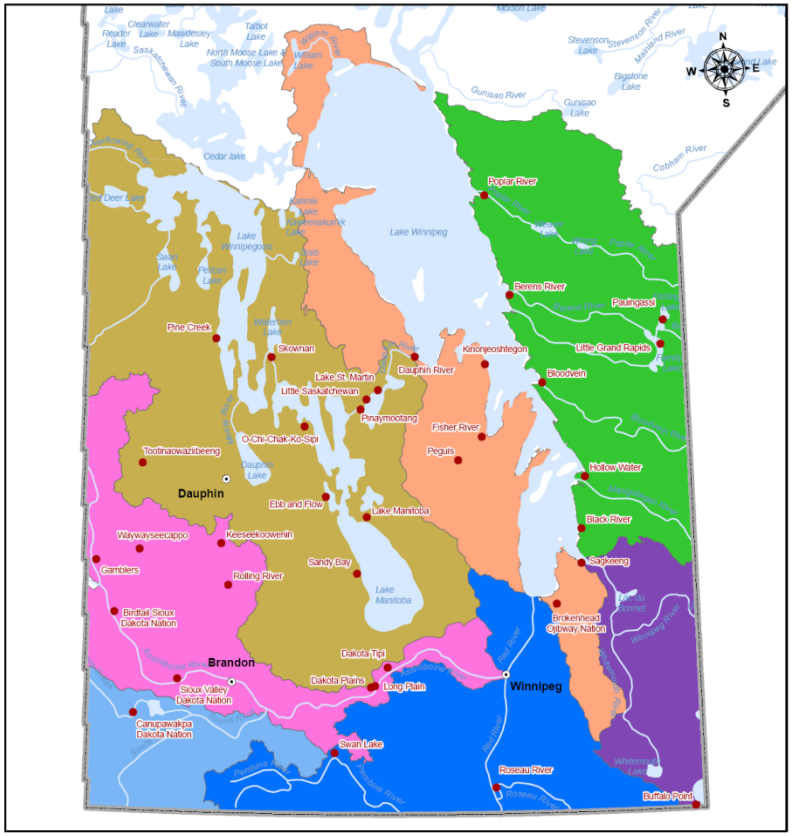
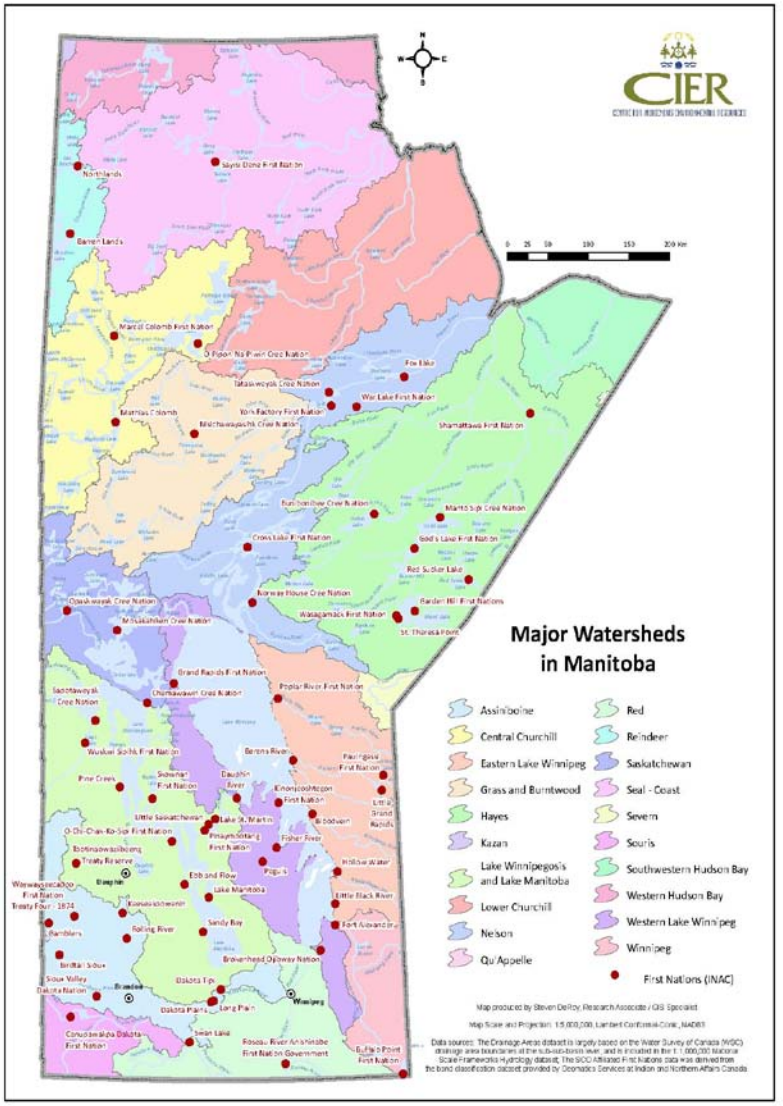
TOPICS

- Valued fish species
- Meaning of fish habitat
- Important fish habitats
- Threats to fish and habitats
- Management and mitigation
- Challenges and opportunities

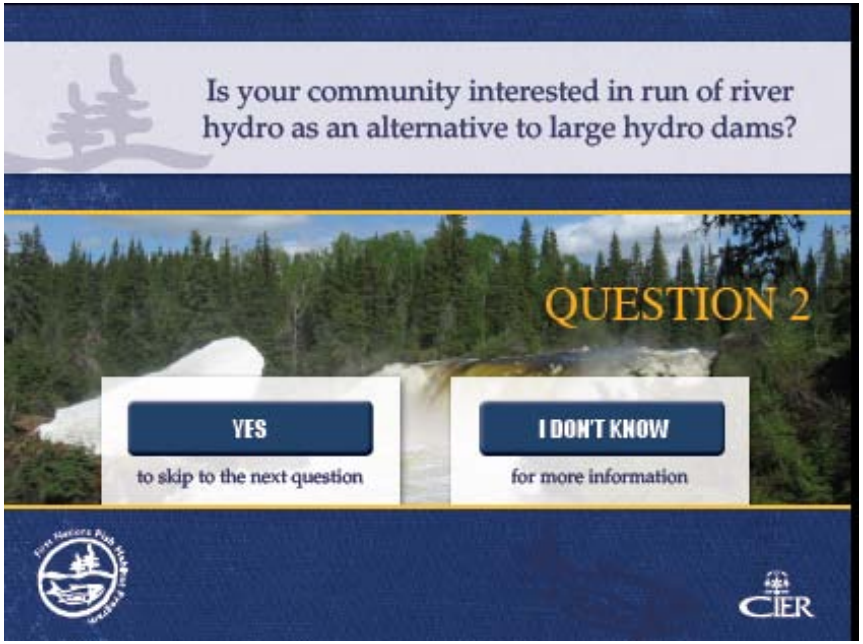
Watershed Maps

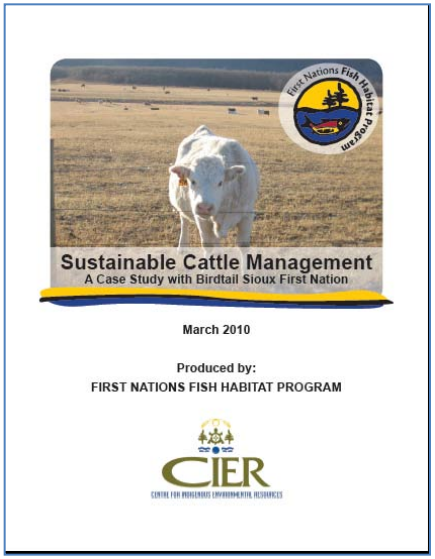


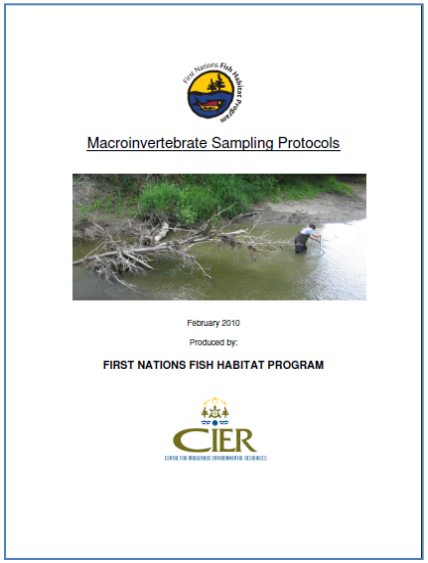


Training Tools

- Sustainable Cattle Management
- Macro invertebrate sampling protocols
- Lab Water Sampling methodologies
- Fish Habitat Site Assessment Training
- Webcasts







Training

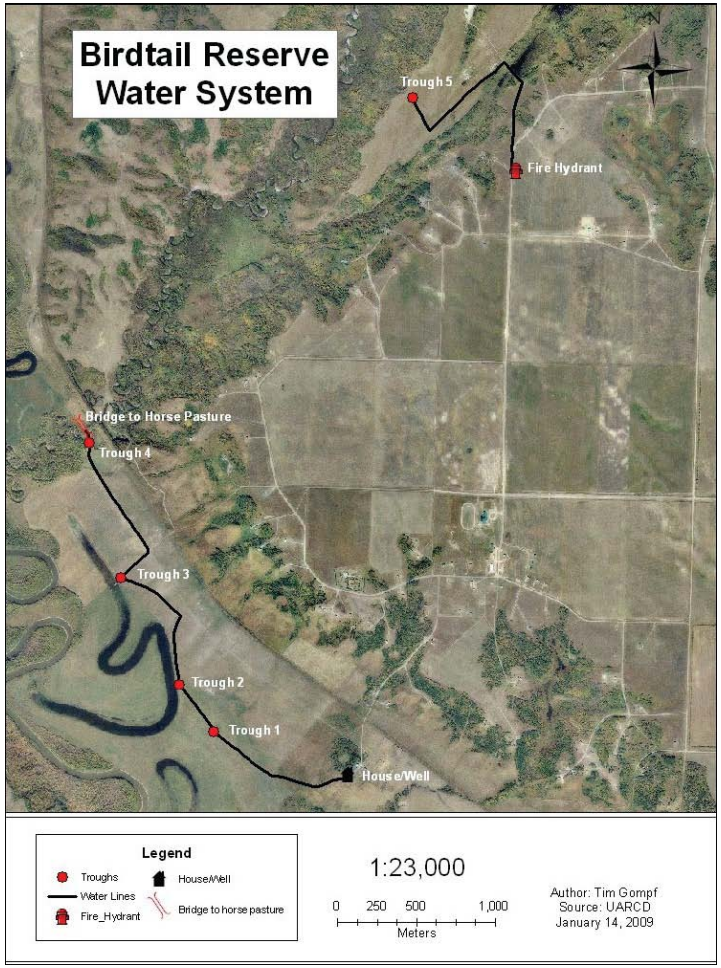
- Water Sampling Training

Training

- Fish Habitat Assessment Training

Projects

- Birdtail Sioux First Nation Model Farm



Projects

- Poplar River Lagoon Assessment

Projects

- Hollow Water Traditional Knowledge (TK) Study

Projects

- Pine Creek Landfill Site Assessment

Figure 2. Sampling sites. (map from Google Earth)

Projects

- Peguis First Nation Sustainable Cattle Management

Youth Education Tools

- 3D Watershed Models (Enviroscape)
- Wetlands demo
- Lake Stratification demo
- Stream table
- Aquifer kits (JUG)
- Water quality testing kits (AQWA)
- Tree ring kits
- Bioaccumulation games

Pine Creek Youth/Elder Fish Camp

- 127 students from Pine Creek First Nation and Duck Bay attended over 2 days.
- Students learned from elders, fishers, and CIER staff about the importance of fish and fish habitat from both cultural and scientific perspectives.
- A 10 minute video was developed for the students and community to remember their experience.

Pine Creek Youth & Elder Fish Camp Video

Watershed School Program

- Pine Creek First Nation
- Sagkeeng First Nation
- Skownan First Nation
- Northlands Dené First Nation

Thank You!

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