



Fundy Model Forest

~Partners in Sustainability~

Report Title: Aquatic Habitat Assessment, Eco-reach Identification and Fish Production Potential within the Fundy Model Forest

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Year of project: 2002

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File Name:

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***The Fundy Model Forest...
...Partners in Sustainability***

“The Fundy Model Forest (FMF) is a partnership of 38 organizations that are promoting sustainable forest management practices in the Acadian Forest region.”

Atlantic Society of Fish and Wildlife Biologists
Canadian Institute of Forestry
Canadian Forest Service
City of Moncton
Conservation Council of New Brunswick
Fisheries and Oceans Canada
Indian and Northern Affairs Canada
Eel Ground First Nation
Elgin Eco Association
Elmhurst Outdoors
Environment Canada
Fawcett Lumber Company
Fundy Environmental Action Group
Fundy National Park
Greater Fundy Ecosystem Research Group
INFOR, Inc.
J.D. Irving, Limited
KC Irving Chair for Sustainable Development
Maritime College of Forest Technology
NB Department of the Environment and Local Government
NB Department of Natural Resources
NB Federation of Naturalists
New Brunswick Federation of Woodlot Owners
NB Premier's Round Table on the Environment & Economy
New Brunswick School District 2
New Brunswick School District 6
Nova Forest Alliance
Petitcodiac Sportsman's Club
Red Bank First Nation
Remsoft Inc.
Southern New Brunswick Wood Cooperative Limited
Sussex and District Chamber of Commerce
Sussex Fish and Game Association
Town of Sussex
Université de Moncton
University of NB, Fredericton - Faculty of Forestry
University of NB - Saint John Campus
Village of Petitcodiac
Washademoak Environmentalists



**FUNDY MODEL FOREST
FINAL PROGRESS REPORT
2001-2002**

PROJECT TITLE:

Aquatic Habitat Assessment, Eco-reach Identification and Fish Production Potential within the Fundy Model Forest

PROJECT PROPONENT:

Faye Cowie
3 Elm Street
Doaktown, NB
E9C 1M9

BRIEF DESCRIPTION OF PROJECT OBJECTIVES:

This project will research and inventory aquatic habitat and fish population data available for the Fundy Model Forest. Stream data using the standardized DFO-DNRE methodology is available for all of the Kennebecasis River and 26 of its tributaries and the upper reaches of the Hammond River and 2 tributaries. The available habitat for these streams will be summarized and eco-reaches identified. In addition, potential salmonid populations will be estimated from the habitat. Finally, strategies will be suggested for the Fundy Model Forest, in concert with the local watershed conservation groups, to undertake standardized stream and electrofishing surveys that could subsequently be analyzed to show eco-reaches, fish assemblages, salmonid densities, and potential salmonid production.

SUMMARY OF ACHIEVEMENTS TO DATE:

Deliverable 1: Compile aquatic habitat and fish population data for the Kennebecasis River and Hammond River headwaters

Deliverable 2: GIS files of stream types from stream survey data for the Kennebecasis River and Hammond River headwaters (source: NB Aquatic Resources Data Warehouse).

A CD of data files and GIS layers has been delivered to the Fundy Model Forest. The CD contains the following tabular and spatial files for the Kennebecasis River and Hammond River headwaters:

Spatial Data:

Habitat GIS Layers – stream types (all habitat records), riffle type habitat, Pools with large substrate (rock+boulder+bedrock) \geq 30%, habitat units with overhanging vegetation, habitat units with beaver dams

Water Temperature Layers – habitat units where spring (groundwater) temperatures were recorded; Habitat units where seep spring (groundwater) temperatures were recorded; Habitat units where surveyed stream temperatures were recorded; and Habitat units where tributary temperatures were recorded

Ecoreach Layer - Ecoreaches within the Kennebecasis River system

ArcView Legend Files: Series of legend files for displaying the above layers in various categories to assist in interpreting/understanding the data.

Tabular Data: Stream habitat, redd count surveys, electrofishing data (DFO and Sussex Fish and Game Assoc.),

Reports: Stream habitat survey reports for the Shepody Bay watershed, including Little River, 1994 and 1995.

Deliverable 3. Series of habitat and potential production reports

Two binders, containing habitat summary reports and salmonid potential production reports, accompany the final report.

Deliverable 4. Final report summarizing the results of the project: available data; habitat and salmonid production reports; an assessment of potential salmonid production for the Kennebecasis River and Hammond River headwaters, and strategies for future aquatic habitat, fisheries assessments and monitoring programs within the Fundy Model Forest.

Aquatic and fisheries data was provided by the Kennebecasis Watershed Restoration Committee, the New Brunswick Department of Natural Resources and Energy (DNRE), the Federal Department of Fisheries and Oceans (DFO), University of New Brunswick (UNB), Hammond River Anglers Association and the New Brunswick Aquatic Data Warehouse. The final report is based on an analysis of this data, interviews with watershed group personnel, site visits, and literature reviews.

BUDGET:(FMF, other sources, inkind)

Project Budget **6000.00**

Expenditures

Site visits - 3 days @ \$350.00 1050.00

Data collection and analysis - 5 days @ \$350.00) 1750.00

Maps and GIS layers - 3 days @ 350.00 1050.00

Report - 12 days @ 350.00 4200.00

50% HST (of original budget) 419.00

Total Expenditures **8469.00**

Balance -(2469.00)

The proponent under estimated the effort of this project and absorbed the additional cost of its completion.

EXPECTED COMPLETION DATE: March 31, 2002

Final Report to be submitted by March 31st, 2001: YES X NO

ADDITIONAL COMMENTS: