Environment Canada Environnement Canada

# Atlantic Ecosystem Initiative

## Year in Review 2007/08
## Advancing Environment Canada's Strategic Outcomes

Canada

# About the Atlantic Ecosystem Initiative Year in Review

Environment Canada's Atlantic Ecosystem Initiative consists of two programs: the Atlantic Coastal Action Program (or ACAP) – a unique community-based partnership program between Environment Canada and 16 multi-stakeholder community organizations in the four Atlantic provinces; and a program with regional coalitions whose work positively impacts larger ecosystems such as the Gulf of Maine, the Southern Gulf of the St. Lawrence and the Bay of Fundy.

Both programs support initiatives that use local and regional expertise, and support people who are working in their own communities and regions to help build a better environment for Canadians.

The *Atlantic Ecosystem Initiative Year in Review* demonstrates how the Atlantic Ecosystem Initiative programs are achieving tangible environmental results for Canadians by delivering on Environment Canada's strategic outcomes.

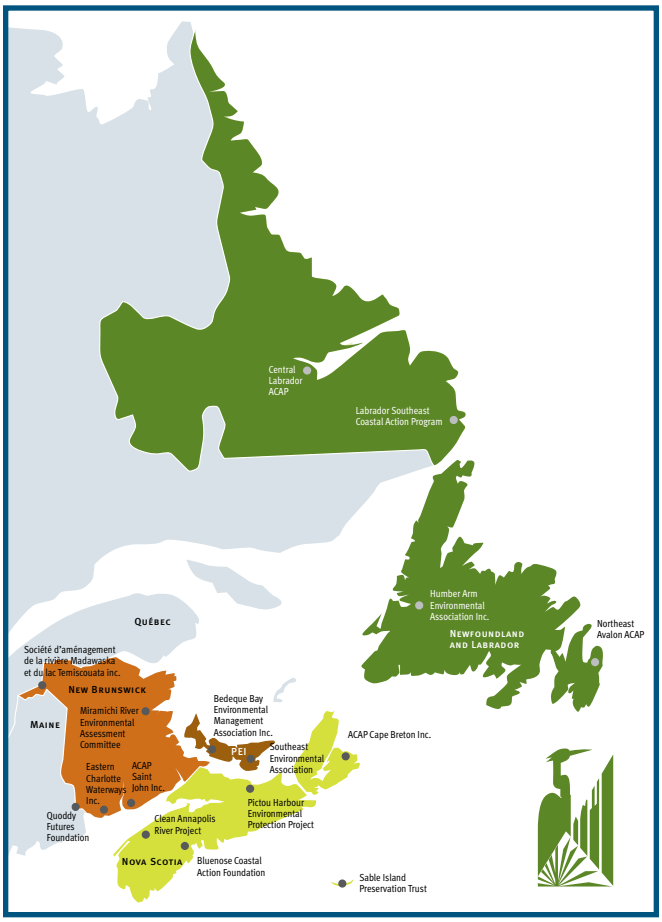
## Atlantic Coastal Action Program

The Atlantic Coastal Action Program (ACAP) is a unique community-based program initiated by Environment Canada in 1991 to help Atlantic Canadians restore and sustain local watersheds and adjacent coastal areas. There are currently 16 ACAP organizations in the four Atlantic provinces. Each one is an incorporated, non-profit organization that operates independently and is formally linked under the regional umbrella of ACAP. The work of ACAP organizations is made possible through project funding from a variety of sources including Environment Canada, with the majority of the direct financial and in-kind support coming from other federal government departments, provincial and municipal governments, local businesses and community partners. Local communities also support individual ACAP organizations through substantive volunteer labour and in-kind contributions.

The ACAP program recognizes that local organizations are the most effective champions to achieve environmental sustainability in their own communities. By empowering communities and taking on a holistic approach towards protecting and conserving the environment, ACAP organizations and their partners have achieved numerous successes.

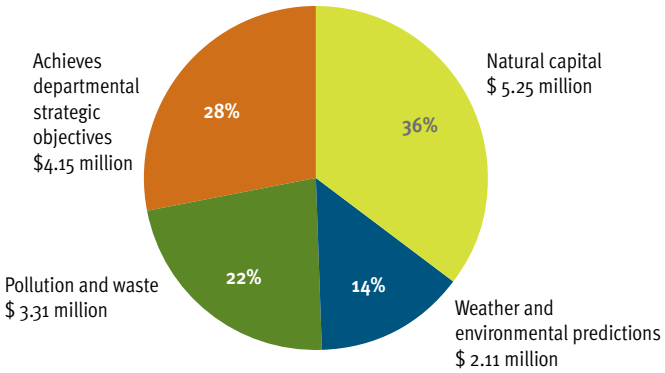
## Delivering on Environment Canada's Strategic Outcomes

Most of the work done by the 16 ACAP organizations produces results that deliver on Environment Canada's strategic outcomes. Each year the organizations submit an annual work plan that is designed to meet the collective objectives of each ACAP organization and the priorities of Environment Canada.




**Atlantic Coastal Action Program (ACAP) Locations**

**ANNUAL PARTNER PROJECT CONTRIBUTIONS PER STRATEGIC OUTCOME**



Environment Canada Strategic Outcome:

# "Canada's Natural Capital is Restored, Conserved and Enhanced"

## LaHave Water Rescue Project

Bluenose Coastal Action Foundation, Nova Scotia

The LaHave River watershed encompasses an area of approximately 1,700 square kilometers and provides a diversity of habitats for both freshwater and anadromous fish and a variety of plant and wildlife species. Tourism, forestry, farming and fishing are common activities throughout the LaHave system. There are also avid boaters, cottagers, hunters and anglers who regularly use the LaHave system.

**ACAP FACT**

**Sixty projects were carried out in the 2007/08 fiscal year with a total value of $6.79 million.**

To ensure the watershed's health and continued sustainable use by future generations, the Bluenose Coastal Action Foundation spearheaded the LaHave Water Rescue Project. The main goal of the project was to address environmental impacts on the LaHave system by providing a long term record of the river's health and educating the local community about the watershed.

The project focused on ecosystem education, water quality monitoring and promoting environmentally friendly farming and forestry practices. An advisory committee, including people from a variety of backgrounds, provided regular feedback on each of these areas.

The foundation gave numerous public presentations at local festivals and events in addition to sector-specific information sessions to a variety of groups, such as local governments,

**The Bluenose Coastal Action Foundation promoted federal and provincial funding opportunities for sustainable farming/forestry practices and provided 50 business owners within the LaHave River watershed with environmentally friendly farming and forestry resource materials. They visited 280 farmers, who manage 1,300 fields.**

farmers and woodlot owners, whose activities directly impact the LaHave River watershed on a regular basis.

Another important component of the project was the development and implementation of a water quality monitoring program for the LaHave River. There are 15 sample sites monitored on a bi-weekly basis for the project. Water samples were collected from nine of these sites and analyzed at a certified laboratory on a monthly basis.

Thanks to a strong network of partners and collaborators, as well as buy-in from local residents, the project will be sustainable for many years to come.

The Bluenose Coastal Action Foundation also promoted federal and provincial funding opportunities and provided information materials on sustainable farming and forestry practices to interested businesses within the LaHave River watershed. Staff also assisted the Nova Scotia Department of Agriculture to spread the message about environmentally friendly farming practices to agricultural landowners through various outreach activities and materials.

The Clean Annapolis River Project established an avian monitoring program as part of its salt marsh restoration feasibility study.

## Annapolis Ecosystem Assessment Initiative

### The Clean Annapolis River Project, Nova Scotia

The Annapolis Ecosystem Assessment Initiative focused on three things: *E.coli* bacteria in the water column of the western Annapolis Basin and its impacts on the soft-shell clam industry; an investigation into the causes of dissolved oxygen depletion in the lower Annapolis River; and the collection of benthic invertebrate samples (organisms that live on the bottom of the Annapolis River) as part of Environment Canada's Canadian Aquatic Biomonitoring Network.

During the project, 15 bacterial water quality survey trips were completed; 270 water samples and 25 clam samples were collected; 46 dissolved oxygen profiles on the Annapolis River were completed; 114 nutrient samples were analyzed and 14 presentations were made to members of the public, schools and watershed managers.

**ACAP FACT**

The total value of Environment Canada's contribution to Atlantic Coastal Action Program projects in 2007/08 was $1.23 million.

Water and shell stock sampling allowed for the conditional opening of approximately 200 hectares of a clam harvesting area around Goat Island in the Annapolis Basin – an important local clam harvesting area which was historically accessible to independent, commercial clam harvesters.

The opening of this area allowed approximately 70 local clam harvesters to benefit economically from the commercial harvest of soft-shell clams. Positive economic spinoffs also extended to a number of local clam buyers and processors.

## Wintering Location and Breeding Success of Individual Ipswich Sparrows

Sable Island Preservation Trust, Nova Scotia

Ipswich Sparrows breed almost exclusively on Sable Island, Nova Scotia. Their wintering range extends from Nova Scotia to Florida and a few birds may even remain on Sable Island during the winter. Recent studies have shown that the bird's wintering decisions may have effects that carry over into the following breeding season, impacting reproductive success.

Researchers involved in this project used stable isotope analysis to determine the winter location of Ipswich Sparrows breeding on Sable Island. They also investigated whether this location was related to measures of reproductive success such as nest timing and the number of offspring. Preliminary results show that a greater number of Ipswich Sparrows than previously thought may be spending the winter in the northern part of the wintering range.

The study found there was no relationship between the incidence of the partial winter moult (or shedding) of Ipswich Sparrows and breeding performance. The moult also wasn't related to winter location. In addition, the research showed that males wintered further north than females, and winter location impacted reproductive success in both sexes. Males that wintered in the northern part of the wintering range were in better condition, established territories earlier, and tended to produce heavier nestlings than those that wintered further south. However, females

that wintered towards the southern part of the wintering range had earlier first egg dates than those wintering further north.

This study has important implications for the conservation of the Ipswich Sparrow, which is listed as a species of special concern by the Committee on the Status of Endangered Wildlife in Canada. While it's impossible to protect all coastal habitat from Nova Scotia to Florida, the research resulting from this project will help to identify areas of particular importance to Ipswich Sparrows, which in turn will be used to set conservation priorities.

## Watershed Action Project

### Northeast Avalon ACAP, Newfoundland and Labrador

Northeast Avalon is one of the fastest growing, most urbanized regions in Newfoundland and Labrador. Recognizing the area hasn't had a new water or land use plan in 30 years, Northeast Avalon ACAP is working towards the development of a plan which will focus the community's attention on issues within local watersheds including industrial inputs, quarry sites, landfills, non-point source pollution, increasing population growth, and septic systems.

To date, the Watershed Action Plan has involved water monitoring, scientific investigation and a thorough analysis of the present water/land use plans for Northeast Avalon. Residents and stakeholders were also consulted at public workshops to gather information towards building a more relevant, environmentally sensitive plan for the region.

Northeast Avalon ACAP continues to work with all levels of government, academia and the public on the action plan to expand the organization's database which consists of maps, local knowledge and archival material. The information gathered to date has been compiled and is readily available for the public and stakeholders in a local resource library.

**ACAP FACT**

**A total of 27 kilometers of land, freshwater and marine areas were restored, and 17 kilometers of coastline were cleaned-up throughout Atlantic Canada.**

In partnership with Fisheries and Oceans Canada, the provincial Department of Environment and Conservation's Water Resources Division, and other watershed environmental non-government organizations, Northeast Avalon ACAP also continued to develop a volunteer river ranger network for the various watersheds within the region. This work included a workshop with hands-on basic water monitoring techniques such as gauging temperature and turbidity, developing observation techniques and reporting.

The water monitoring has provided a clearer picture of the state of river systems in Northeast Avalon and has helped Northeast Avalon ACAP identify hot spots, set priorities, and take an intelligent, systematic approach for future action plans.

In addition to this work, with the help of the organization's Green Team and in partnership with the Kelligrews Environmental Enhancement Program and the Town of Conception Bay South, Northeast Avalon ACAP also completed habitat restoration work on four sites in the Kelligrews watershed.

## Water Quality and Watershed Management

### The Miramichi River Environmental Assessment Committee, New Brunswick

The Miramichi River Environmental Assessment Committee had a busy year implementing several successful projects dedicated to enhancing, preserving and protecting the health of the Miramichi River and Estuary.

Some of the many highlights over the past year include:

- Completing the annual juvenile striped bass stock assessment, in partnership with Fisheries and Oceans Canada, which saw 2000 juvenile bass captured and shipped to Quebec to re-introduce this species into the St. Lawrence River;
- Working towards restoring and protecting the badly eroded Little Southwest Miramichi Oxbow, a critical archeological resource adjacent to two National Historic Sites;
- Assisting in stabilizing a newly constructed 8.1 hectare wetland – successfully attracting nesting waterfowl in its first year;

- Completing the 15th year of Swim Watch which involves widespread water quality monitoring throughout the Miramichi watershed;

- Conducting two collections of water chemistry samples during high and low water flow conditions to assess various metals and pH levels in the Northwest Miramichi watershed;

- Working with partners to assess species diversity and population size as an indicator of local and regional ecosystem health in the Miramichi, through collection of beach seine, water and sediment samples;

- Sampling five land based sites, in partnership with Environment Canada, in hopes of determining the potential source of bacterial discharges and one day opening more areas of the Miramichi estuary to oyster harvesting. (In 2003/04, the committee and its partners successful opened 10 square kilometers of rich oyster habitat on the Miramichi estuary.);

- Continuing to monitor and addresses waste stream issues within industrial, municipal, agricultural and rural sectors to ensure discharge and performance standards are being met and illegal dump sites are identified and remediated; and,

- Working with rural residents to improve their residential waste management, especially on-site sewage systems, including monitoring of the Napan River and tributaries for bacteria levels related to the Skypark industrial park and retirement village.

**ACAP FACT**

**Over 300 presentations were given on a number of locally relevant environmental topics to 10,000 residents, students, government staff and businesses.**

## Status of Temiscouata/Madawaska wood turtle

Société d'aménagement de la rivière Madawaska et du lac Témiscouata, New Brunswick

A groundbreaking study on the restoration of the threatened wood turtle in the Témiscouata and Madawaska watershed was the focus of the Société d'aménagement de la rivière Madawaska et du lac Témiscouata's 2007/08 science project.

In collaboration with l'Université de Montréal and many specialists from various government departments and agencies, the group carried out an analysis of tissue samples to document the genetic makeup of the local wood turtle population within Témiscouata and in the Lake Baker region of nothern New Brunswick. In total, samples from 13 turtles were taken.

The Société documented its findings in a report on the habitat of the wood turtle in New Brunswick and Québec (the watershed crosses both provinces). The report also included a map created by program staff which documented the number of turtles and the locations in which they were found within the larger watershed from a ground inspection of 12 rivers.

The New Brunswick and Québec provincial departments of Natural Resources have expressed a great deal of interest in the results of this project. Société staff are currently developing a community awareness campaign about the status of the wood turtle, which was recently designated as a threatened species at the national level.

**ACAP FACT**

**The ACAP story was heard throughout Atlantic Canada thanks to 33 news releases, 27 articles and 16 media interviews. Organizations also contributed over 80 weekly columns and articles to local newspapers.**

Environment Canada Strategic Outcome:

# "Weather and Environmental Predictions and Services Reduce Risks and Contribute to the Well-being of Canadians"

## Pollution Prevention and Climate Change Project

### Pictou Harbour Environmental Protection Project

The Pictou Harbour ecosystem lies within the boundaries of six municipalities. In order to address pollution prevention and climate change, the organization led the development of a municipal environmental management system.

There were four principal activities undertaken in this project:

- Carrying out a "gap" analysis and development of a draft action plan to address pollution prevention and climate change;
- Cataloguing and evaluating environmental programs and plans which are currently in place to include them in the management system, and to avoid duplication;
- Gathering municipal input, including the use of interviews, surveys and questionnaires to identify environmental and sustainability issues;
- Drafting a sample municipal environmental management framework which reflects the unique circumstances and issues a municipality faces.

**ACAP FACT**

**Over 1,300 seedlings and 4,000 native trees and shrubs were planted along watersheds and within urban settings.**

These steps resulted in the development of a plan which helped to increase environmental protection at the ecosystem level; reduced environmental risk by instituting municipal environmental and sustainability management systems; improved air quality in the Pictou airshed; enhanced co-operation in environmental management among various stakeholders, including the municipality, local business and residents; and reduced greenhouse gas discharges through community-inspired airshed management targets.

The key goal accomplished by this project was the initiation and support of partner actions which helped to create and promote community sustainability through pollution prevention and reduction of green house gases and air pollution. The project was a tremendous vehicle for maintaining old partnerships, while developing new ones with the industrial and business communities, and the community at large.

## Demonstrating Local Sustainable Actions: How You Can Make a Difference in Protecting Your Community

### Southeast Environmental Association, Prince Edward Island

The Southeast Environmental Association increased awareness about climate change through three separate initiatives, each aimed at showing residents how they can take action to reduce their impact on the erosion of Prince Edward Island's shorelines.

The Association generated a lot of positive media attention and raised public awareness about beach litter thanks to the Great Canadian Shoreline Clean-up activities they organized at Tracadie beach, the Montague waterfront and New Port beach.

The Southeast Environmental Association also replanted marram grass on the reconstructed sand dunes at Panmure Island. Association staff used the project to illustrate the link between climate change and land protection to local junior high school students. The project was also the focus of a "protect your shoreline" brochure, which was distributed to the students and visitors to Panmure Island. Local junior high students also took part in a greenhouse gas imprint exercise led by the association, which measured their personal energy use and discussed ways to reduce their carbon footprint in relation to climate change.

**ACAP FACT**

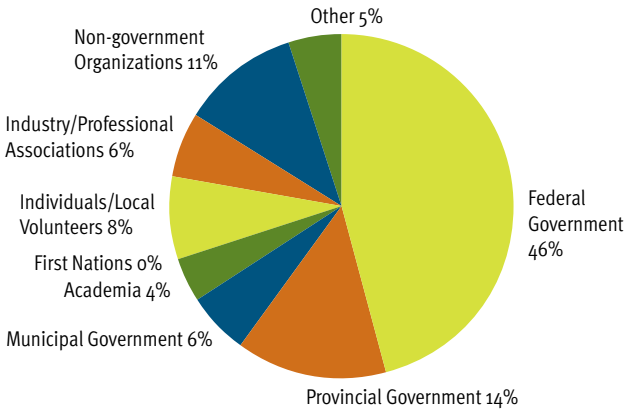
**Within two ACAP communities, 15,500 kilograms of garbage were cleaned up. Twenty-five kilometers of highway were cleaned up through the Adopt-A-Highway program.**

**The Southeast Environmental Association helped to retrofit 1,000 homes and 100 small businesses across Prince Edward Island with compact fluorescent light bulbs. The retrofits replaced approximately 47,000 watts of lighting which has the potential to save 97,760 kilowatt hours per year, $5,150 in electricity costs and 7,800 kilograms of greenhouse gases per year.**

The Southeast Environmental Association played a major role in Project Greenlight, which saw 1,000 Island homes and 100 small businesses refitted with compact fluorescent light bulbs. The retrofit program saw approximately 47,000 watts of lighting replaced, which has the potential to save a total of 97,760 kilowatt hours per year – that's $5,150 in electricity costs and 7,800 kilograms of greenhouse gases per year!

All three projects enabled the association to reach target audiences including students, families, and businesses to show the connection between everyday actions and their impacts on climate change. The project also enabled the organization to establish new relationships and build on existing partnerships with stakeholders such as the provincial Department of Transportation and Public Works, the Island Nature Trust and local schools.

**PROJECT CONTRIBUTIONS PER SECTOR***




* in-kind and cash

Environment Canada Strategic Outcome:

# "Canadians and Their Environment are Protected from the Effects of Pollution and Waste"

## Household Special Waste Education

ACAP Cape Breton, Nova Scotia

ACAP Cape Breton worked on various activities to help increase local knowledge about the potential environmental impacts of household special waste (bleach, anti-freeze, batteries, etc.). These activities included media campaigns, community presentations, and adding a column with household special waste information to the waste management sorting guide, available through the Cape Breton Regional Municipality's solid waste management hotline.

The overall campaign to help increase awareness about the potential dangers of household special waste products and environmentally friendly alternatives for residents of the municipality was a huge success. Throughout the project, ACAP staff gave 14 presentations to approximately 850 residents about the dangers of improper disposal and safer alternatives to these products.

Household special waste presentations were also held at 13 schools, reaching approximately 1,300 students from grade primary to grade 12. The presentations highlighted the dangers of improper disposal and safer alternatives to these products and focused on the impact household special wastes have on the environment, residents, workers and wildlife. Students, who are often the most effective means to bring about a change in their family's behaviour, took the lessons learned home.

ACAP Cape Breton also developed a community educational brochure on household special waste for distribution at a future date.

**ACAP Cape Breton is one of the organizations delivering a new $1.6 million low-income energy efficiency program in the eastern region of Nova Scotia. The program, being delivered as a bundled service, includes training and hiring of crews to carry out retrofits of 200 homes.**

**Fourteen homeowners registered for a septic tank pump-out under the Humber Arm Environmental Association's Pump-out Rebate Program, made possible through pre-negotiated agreement with local wastewater management companies.**

## On-site Septic System Education Program

### Humber Arm Environmental Association, Newfoundland and Labrador

ACAP Humber Arm's residential based on-site septic system education program had two important goals: to reduce potential environmental and human health impacts by educating the public on proper maintenance of on-site septic systems; and to increase public responsibility on the issue of on-site wastewater management.

**ACAP FACT**

**ACAP projects formed the basis of an honours and a masters thesis, and a proposal for an additional masters thesis.**

Malfunctioning on-site septic systems can contaminate the soil, groundwater, wells and surrounding water bodies. Surface pooling of inadequately treated wastewater creates a public health risk. And a clogged disposal field can cause the system to back-up into the home and cost a lot to clean-up.

In 1999, ACAP Humber Arm conducted a survey of homes throughout the Bay of Islands with on-site septic systems. The study clearly demonstrated that the majority of septic system owners were not properly maintaining their system, placing them at high risk to malfunction. The survey indicated that residents were avoiding regular pump-outs because of the cost. Research also indicated that residents were interested in receiving information on how to properly better maintain their septic systems.

The education program project involved the distribution of approximately 2,000 booklets to residents throughout the Humber Arm, Bay of Islands region. The Government of Newfoundland and Labrador through its Government Service Centres and the Department of Environment and Conservation is also distributing these booklets in both hard and digital format, and it made a financial contribution to the project.

ACAP Humber Arm also ran a three-piece series in local newspapers, reaching approximately 50,000 readers. In addition, 14 homeowners registered for a septic tank pump-out and town hall presentations were made to local residents.

The ACAP organization has entered into a partnership with the Conservation Corps of Newfoundland and Labrador and Northeast Avalon ACAP to expand the project in 2008/09.

**Preliminary water chemistry results from a scientific study the Bedeque Bay Environmental Management Association suggest that treating agricultural sprayer track rows with mulch may reduce the risk of run-off from fields into waterways.**

## Evaluation of a Best Management Practice for Reducing Risk from Sprayer Track Rows in Potato Production

### The Bedeque Bay Environmental Management Association, Prince Edward Island

Are the concentrated flows from pesticide sprayers in potato fields compromising the ability of "buffers" to prevent contamination? That's the question the Bedeque Bay Environmental Management Association's project tackled in 2007.

The objective was to measure the total volume of runoff water and associated contaminants leaving sprayer track rows compared to that of mulch-treated sprayer track rows and non-compacted rows in hopes of finding the best method to reduce runoff volume, sediment and contaminant loads in potato fields.

Early results from the study indicated that nitrate and total suspended solids were significantly reduced when mulch was applied to sprayer track rows compared to non-treated rows. Also, based on a limited data set, the mulch treatment appeared to reduce phosphorus levels, compared to the untreated rows.

The study's preliminary water chemistry results suggested that treating sprayer track rows with mulch may be a promising method for reducing the risk of runoff posed by these rows, especially concerning the run-off of nitrates into freshwater or estuarine systems close to land.

## Monitoring and Remediation Program

### St. Croix Estuary Project Inc., New Brunswick

The St. Croix Estuary Project Inc.'s Monitoring and Remediation Program is designed to help protect local citizens and their environment from the effects of pollution and waste and to lessen the impacts of climate change in the Quoddy Region of New Brunswick.

Since 2002, to help define the current environmental health of the estuary, water samples have been taken annually at 11 pre-selected sites between St. Stephen and St. Andrews, and analyzed for levels of pH, ammonia, phosphates, nitrites, nitrates, temperature, coliforms and *E. coli*. The results of this work, which were presented to residents and other stakeholders at various information sessions, helped to paint a picture of the current environmental health in the St. Croix Estuary and to flag areas of serious concern. The organization also presented information to the public regarding the current environmental status of the St. Stephen waterfront.

Commitments were made at these sessions by local authorities to continue remediation efforts, which have so far resulted in the clean-up of three sites.

St. Croix Estuary Project staff also worked with Fisheries and Oceans Canada to prepare a proposal for a HADD (harmful alteration, disruption or destruction) of fish habitat compensation project at Billy Weston Brook. They also conducted four site visits along with New Brunswick's Department of Transportation and the Department of Fisheries and Oceans and prepared a planting plan.

**ACAP FACT**

**Over 2,000 water, sediment and benthic samples were collected and analyzed at 320 watershed sites in the four Atlantic provinces. Sample data is used for local monitoring programs as well as Environment Canada initiatives such as the Canadian Aquatic Biomonitoring Network (CABIN) and the Shellfish Water Quality Protection Program.**

## Reducing Effects of Pollution and Waste in Greater Saint John

ACAP Saint John, New Brunswick

ACAP Saint John expanded its successful Green Network program to continue encouraging community ownership of waste management issues. The organization's water quality monitoring program continues to increase community awareness of surface water contamination, while the outreach, engagement and education program added new depth to stakeholder knowledge on locally relevant issues.

Highlights of the Green Network's many successes in 2007/08 include:

- coordinating 23 cleanups in greater Saint John, involving 1,353 volunteers removing 15,000 kilograms of garbage;
- conducting classroom presentations and on-site information sessions pertaining to litter and debris to more than 1,500 participants;
- participating on the municipal Solid Waste By-law Review Committee, where input resulted in new, more environmentally considerate solid waste management proposals for Saint John, which were endorsed by city council;
- working with municipal and provincial regulators to alleviate the potential sources of illegal dumping, including a new focus on the fate of used syringes within southern New Brunswick;
- providing five students with hands-on, work-related experience;
- engaging more than 1,000 youth in environmental education initiatives at ACAP Saint John's summer day-camp, and classroom presentations; and,

**ACAP Saint John sat on the city's Solid Waste By-Law Review Committee. The organization's input resulted in new, more environmentally considerate solid waste management proposals for Saint John, which were endorsed by city council.**

**In 2007/08, ACAP Saint John celebrated involving over 10,000 students since its inception in environmental education sessions, training and field work/ monitoring programs.**

- continuing to be a community leader in promoting awareness of the status of construction on the Saint John Harbour Cleanup project.

The increase in stakeholder awareness, acceptance and participation in community Green Network cleanup initiatives continues to be a source of community pride. Corporations are sponsoring community event days in which their staff members assist with cleanups, encouraging provincial government staff to follow suit. The media continues to present this initiative as one of importance to the community.

**ACAP FACT**

**ACAP reached over 2,300 students throughout Atlantic Canada, through education sessions, training and monitoring programs.**

Environment Canada Strategic Outcome:

# "Contributes to Achieving Departmental Strategic Objectives"

## Integrated Coastal Management and Stewardship Program

Eastern Charlotte Waterways, New Brunswick

Eastern Charlotte Waterways' goal is to establish cost-effective and feasible methods for industry to create a sustainable, managed and marketable soft-shell clam resource in southern New Brunswick.

Over the past year, staff have chaired two clam resource committee meetings, which included harvesters, processors, and federal and provincial agencies who manage five conditional winter harvesting areas under a Memorandum of Understanding.

As part of a contract with Environment Canada's shellfish section, Eastern Charlotte Waterways completed 46 sampling runs at 121 stations for a total of 563 samples analyzed at their microbiology lab.

The organization was also instrumental in assisting local harvesters establish the first Clam Harvesters Co-operative in New Brunswick. The co-op received its letter of incorporation in October 2007 and staff from Eastern Charlotte Waterways continue to chair and assist with the development of a business plan and best management practices to ensure the long term viability of the soft-shell clam industry in southwest New Brunswick.

A soft shell clam seeding technique introduced by Eastern Charlotte Waterways in Lepreau Harbour, Lepreau Basin and Mill Cove could potentially result in the return of the harvest of approximately $38,000 worth of soft-shell clams per acre. This process is expected to take approximately three to four years.

If successful, this technique has the potential to provide southwestern New Brunswick, specifically the Charlotte Country Clam Harvester Cooperative and independent harvesters, with the tools they need to enhance clam stocks, and when accompanied with rotational digging on various beaches, sustainable and profitable harvest practices for generations to come.

## Development of a Comprehensive Environmental Management Plan

### Central Labrador Environmental Action Network, Newfoundland and Labrador

One of two new ACAP sites developed last year in Labrador, the Central Labrador Environmental Action Network (CLEAN) was busy beginning its strategic planning work this year: the development of a comprehensive environmental management plan.

To get the process underway, Network staff focused on four main areas: community consultation, capacity building, community awareness and building a network of stakeholders.

Staff hosted three community meetings with local residents. The feedback collected at these sessions will be used to develop an environmental vision and management plan for the Upper Lake Melville watershed.

In it's first year, the Central Labrador Environmental Action Network participated in many activities which raised the community's awareness and knowledge of the Atlantic Coastal Action Program in central Labrador, including Earth Day activities, local media promotions, attending various community functions, meeting with various organizations and agencies to recruit board members, developing a website and a Green Guide for Upper Lake Melville and developing information pamphlets about the network.

The Central Labrador Environmental Action Network has also successfully identified individual and group stakeholders with vested interests in the Upper Lake Melville area. They have recruited representatives from many organizations to be on their board of directors in an advisory capacity including Inuit organizations. Representatives from the Nunatsiavut government, the Department of Fisheries and Aquaculture, the Department of Agriculture, and the town of North West River were appointed advisory chairs on the board of directors.


Saving the planet, one step at a time

Grade three students hit the pavement for Earth Day

## Development of a Comprehensive Environmental Management Plan

### Labrador Southeast Coastal Action Program, Newfoundland and Labrador

Another newcomer to ACAP, the Labrador Southeast Coastal Action Program also concentrated its efforts on the development of a comprehensive environmental management plan.

Staff carried out a number of projects to ensure residents in the region had input into the plan and to find out more about their major environmental priorities. They designed questionnaires, which were sent to every mailbox in the project area, including the communities of Port Hope Simpson, Mary's Harbour, St. Lewis, William's Harbour, Pinsent's Arm, Cartwright, Black Tickle, Paradise River, Norman's Bay, Charlottetown and Lodge Bay. The questionnaires were also distributed by e-mail.

**ACAP FACT**

**Twenty-seven reports were produced on the scientific and research activities conducted within the ACAP organizations. Several projects were conducted in collaboration with Environment Canada's scientists and directly address the Government of Canada's environmental priorities. These reports were distributed to decision makers, government offices and local residents.**

The Labrador Southeast Coastal Action Program also held a series of public meetings to develop a community vision for the region and to evaluate the major environmental concerns in each community. In addition, staff also connected directly to residents throughout the region by phone, mail and email to ensure local feedback was reflected in the overall plan.

Staff built on this research by completing seven community environmental profiles. This involved recording information on the locations of businesses, sewage outfalls, dumps, major woodcutting operations, and other points on interest. The information gathered from this work will be used over the next three to four years to develop the overall environmental management plan for the region. This plan will outline the most effective ways of dealing with environmental problems so that residents can enjoy a good quality of life and preserve and enhance the local environment.

In addition to these steps, the Labrador Southeast Coastal Action Program also completed and distributed a newsletter to area residents and launched a website to raise awareness about the Atlantic Coastal Action Program, and its work in the region.

# The Atlantic Coastal Action Program: A Sound Investment in the Environment and Economy

Atlantic Coastal Action Program (ACAP) organizations across Atlantic Canada are not only contributing to the health of the region's ecosystems, they are also making significant contributions to the Canadian economy.

*An Update of the Economic Impact of the Atlantic Coastal Action Program* report, prepared by Gardiner Pinfold Consulting Economists Limited for Environment Canada in spring 2008 found that over a six year period from 2001/02 to 2006/07, 14 ACAP organizations spent a total of $21.7 million to implement and administer their programs and projects. This investment resulted in 700 person years of employment across Atlantic Canada, a total gross domestic product impact in the region of $35.47 million, and a total tax impact of $12.9 million split between the federal and provincial governments.

The report found that since the 1996/97 budget year, total employment as a result of the work of ACAP organizations increased 20 per cent and total gross domestic product increased by over 30 per cent. It also found that in order to achieve the same program outputs over the six year period, it would cost Environment Canada in excess of $79 million – ten times more than the actual expenditures of $7.0 million.

*An Update of the Economic Impact of the Atlantic Coastal Action Program* report is available on the ACAP website at http://atlanticweb1.ns.ec.gc.ca/community/acap/.

## Facts About the Economic Impact of ACAP 2001 – 2007

### Nova Scotia

$10.07 million to implement and administer programs, resulting in:

- 350 person years of employment (240 direct and 110 spin-off);
- Total gross domestic product impact in the province of $17.35 million ($7.67 million direct and $9.68 million spin-off);
- Total tax impact of $6.42 million split between the federal ($3.60 million) and provincial ($2.82 million) governments.

### New Brunswick

$7.82 million to implement and administer programs, resulting in:

- 232 person years of employment (154 direct and 78 spin-off);
- Total gross domestic product impact in the province of $11.82 million ($5.45 million direct and $6.37 million spin-off);
- Total tax impact of $4.25 million split between the federal ($2.33 million) and provincial ($1.92 million) governments.

### Newfoundland and Labrador

$1.44 million to implement and administer programs, resulting in:

- 38 person years of employment (24 direct and 14 spin-off);
- Total gross domestic product impact in the province of $2.35 million ($1 million direct and $1.35 million spin-off);
- Total tax impact of $.86 million split between the federal ($.46 million) and provincial ($.40 million) governments.

### Prince Edward Island

$2.39 million to implement and administer programs, resulting in:

- 80 person years of employment (55 direct and 25 spin-off);
- Total gross domestic product impact in the province of $3.95 million ($1.80 million direct and $2.15 million spin-off);
- Total tax impact of $1.42 million split between the federal ($.77 million) and provincial ($.65 million) governments.

## Kudos Received by Atlantic Coastal Action Program Organizations

ACAP organizations throughout Atlantic Canada continue to be recognized for their outstanding contributions to ecosystem health and environmental leadership in their communities:

- ACAP Saint John, New Brunswick, received a 2007 Environmental Leadership Award from the province of New Brunswick in the communities, groups and organizations category;

- Steve Hawboldt, Executive Director of the Clean Annapolis River Project, was appointed to the Nova Scotia Round Table on Environment and Sustainable Prosperity.

- Northeast Avalon ACAP, in Newfoundland and Labrador, received a Capacity Building Award at the Newfoundland Environmental Industry Associations Conference and annual general meeting.

- Nova Scotia's Volunteer Youth Award of 2008 was awarded to Katie Brousseau, a student volunteer performer in the Sable Island Preservation Trusts' educational Island Adventure play.

# Atlantic Ecosystem Initiatives

As part of the third phase of the Atlantic Coastal Action Program (ACAP), Environment Canada made a strategic decision to build on our successful approach with site-specific partners by working in a similar way with larger, ecosystem-based coalitions.

The regional ecosystem-based partnerships we currently focus on are the Canada-US Gulf of Maine Council on the Marine Environment; the Bay of Fundy Ecosystem Partnership and the Southern Gulf of St. Lawrence Coalition on Sustainability.

## The Canada-US Gulf of Maine Council on the Marine Environment

The Gulf of Maine Council on the Marine Environment was established in 1989 by the Governments of Nova Scotia, New Brunswick, Maine, New Hampshire and Massachusetts to foster cooperative actions within the transboundary Gulf watershed. Its mission is to maintain and enhance environmental quality in the Gulf of Maine and to allow for sustainable resource use by existing and future generations.

Projects carried out in 2007/08 included:

- an analysis of public opinion research and analysis in regards to conservation and environmental issues in the Gulf of Maine, which will support the development of a values-based marketing strategy for the council; and

- the development of a communications plan for the sub-committees working on the Ecosystem Indicators Project.

The two main goals of these projects are to strengthen coastal decision-making by increasing the use of scientifically rigorous indicators by coastal managers; and to increase awareness of coastal law-makers about pressing coastal management issues in the Gulf of Maine–Bay of Fundy region.

## The Bay of Fundy Ecosystem Partnership

The Bay of Fundy Ecosystem Partnership is a "virtual institute" open to individuals and groups that want to protect and enhance the health of the Bay of Fundy by promoting the integrity, vitality, biodiversity and productivity of the Bay of Fundy ecosystem, and the social well-being and economic sustainability of its coastal communities. The organization also facilitates communication and co-operation among individuals and organizations interested in understanding, sustainably using and conserving the resources, habitats and ecological processes of the Bay of Fundy.

The partnership had a productive year with a number of initiatives underway including:

- **Supporting working groups** such as the Biosphere Reserve, which successfully submitted an application to the United National Education, Scientific and Cultural Organizations (UNESCO) for designation of the Upper Bay of Fundy, on the New Brunswick side, as a Biosphere Reserve. UNESCO approved the designation of the Fundy Biosphere Reserve in early October 2007.

- **Continuing outreach efforts** such as initial planning for a 2008 workshop to develop a dialogue between native and non-native communities on the meaning of conservation; and securing a contract with the New Brunswick Department of Energy to hold public and marine stakeholder strategic environmental assessment information sessions on tidal power development in the Bay of Fundy through the newly developed Marine Energy Working Group;

- **Sharing knowledge** about the Bay of Fundy ecosystem through preparing and circulating a quarterly electronic newsletter and 2,000 printed copies of Fundy Issue No. 28 (on the Windsor Causeway) and Fundy Issue No. 29 (discussing sewage in the Bay of Fundy). The organization also secured three new promotional display units, which were used throughout the year at promotional events and developed a communications strategy and a press/promotional kit.

Also of note was the group's presentation before the Environmental Impact Assessment Panel on the proposed Whites Cove Quarry on Digby Neck and the signing of a new Co-operation Agreement with the Gulf of Maine Council to work together in areas of mutual concern in the Bay of Fundy and surrounding communities.

## The Southern Gulf of St. Lawrence Coalition on Sustainability

The coalition is a multi-stakeholder regional body representing the parts of Nova Scotia, New Brunswick, Prince Edward Island and Québec that are within the southern Gulf of St. Lawrence ecosystem.

The southern Gulf region is an important ecological, economic and socio-cultural region of North America. Communities along the Gulf coast depend on its resources for income and their quality of life. The Gulf region supports key ecosystems such as salt marshes, beaches, estuaries and forests. It provides critical habitat, including spawning, feeding and nursery grounds, for numerous land and marine species.

Many successful projects were carried out in 2007/08, including:

- **A community aquatic monitoring program** which saw 21 community groups from across the southern Gulf of St. Lawrence participate in activities such as counting fish, determining the richness and biodiversity of various fish species and sampling for dissolved oxygen, nutrients and temperature to determine water quality. A collective database of all estuaries sampled was developed and analyzed by the University of New Brunswick. The program is a great tool to better understand the state of ecological health of estuaries in the southern Gulf which is extremely useful to support decision-making with respect to restoration action plans;

- **A communications and education plan** which included the production and distribution of three newsletters to all coalition members and partners. The newsletters helped to encourage citizens to take direct action in support of sustainability throughout the ecosystem by providing relevant education and ways to become involved;

- **Collaboration of partners for environmental priorities** which involved coordinating four steering committee meetings which were very well attended by a diverse group of southern Gulf stakeholders including government representatives, First Nations, academia, community groups, industry and planning commissions. The project resulted in increased collaboration with new partners, including various government agencies, which also served to diversify the coalition's net funding base and the undertaking of a new strategic plan for the coalition towards achieving sustainability in the southern Gulf.

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This web site provides information on ACAP and links to the 16 organizations:
www.atl.ec.gc.ca/community/

Atlantic Ecosystem Initiatives – Year in Review 2007/08
January 2009


Catalogue No:
En1-44/2008E-PDF
978-1-100-11554-2

Aussi disponible en français sous le titre:
Bilan de l'année 2007-2008 de l'initiative pour les écosystèmes de l'Atlantique

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