



Oak Hammock Marsh Interpretive Centre *A Model of Sustainable Development*

Mission

To foster public awareness and knowledge of the inherent values of wetlands and associated ecosystems; and to encourage public support for their conservation through innovative education and outreach programs.

The Interpretive Centre is a joint project of Ducks Unlimited Canada and the Province of Manitoba. It embraces the *principles of sustainable development* in all aspects of its construction, operation, programs, products, and services. Programs are designed to fulfill the Centre's overall mission, have minimal impact on the environment, meet the needs of society, and be cost effective.



Oak Hammock Marsh has welcomed over two million visitors since the Interpretive Centre opened in 1993. People visit the Centre to learn about its environmentally-sensitive design and operation, and to integrate these ideas into other facilities around the world.

Wetlands are a vital part of a healthy environment, society, and economy. Throughout history, people have actively converted wetlands to other uses in attempts to either improve the economy (farming, industry, forestry, tourism developments) or to serve society (housing, roads, dumps, sewage disposal sites, airports, recreation facilities, eliminate nuisance or disease-carrying mosquitoes). Decisions to destroy or degrade wetlands are often made because people simply do not know the benefits that healthy wetlands bring to the environment, society, and the economy (flood control, coastal protection, water quality protection, groundwater recharging, climate and air quality protection, tourism, recreation/education, habitat for wildlife, nursery for fisheries). The goal of the IC is to turn this around through education.

Awards

- 2008 Conservationist Award (The Wildlife Society – Manitoba Chapter)
- 2007 Science Achievement Award (Science Teachers' Association of Manitoba)
- 2007 Best Outreach Program (Canadian Association of Science Centre)
- 2006 Air Canada Business of the Year Award – Single Unit (National Awards for Tourism Excellence, Tourism Industry Association of Canada)
- 2006 Sustainable Tourism Award (Interlake Tourism Association)
- 2004 Award of Excellence for Environmental Education (EECOM – Canadian Network for Environmental Education & Communication)
- 2004 Finalist, Single-Unit Business of the Year (TIAC – Tourism Industry Association of Canada)
- 2003 Green Roof Award for Excellence: New Intensive Roof (Green Roofs for Healthy Cities)
- 2002 Global Winner: Environmental Experience (British Airways Tourism for Tomorrow)
- 2001 Highly Commended: Large Scale Tourism (British Airways Tourism for Tomorrow)
- 2000 "Best Outdoor Site in Canada" & "Best Outdoor Site in Manitoba" (Attractions Canada)
- 1999 Manitoba Tourism Service Excellence Award (Culture, Heritage, and Tourism)
- 1999 "Best Outdoor Site in Manitoba" (Attractions Canada)
- 1998 Manitoba Tourism Marketing Award (in partnership with the Interlake Tourism Association)
- 1996 Highly Commended (two categories): Americas & Long Haul Special (British Airways Tourism for Tomorrow)
- 1994 Award of Excellence in Education (Manitoba Round Table on Environment & Economy)

Consulting Services Provided by OHMIC (Tourism & Education)

Interpretive Centre Design and Interpretive Planning

- John E. Poole Memorial Wetland Interpretive Site (Big Lake, AB)
- Greenwing Legacy Interpretive Centre (Shubenacadie, NS)
- Bow Habitat Station Interpretive Centre (Calgary, AB)
- Bismarck Prairie Wetland Interpretive Centre (Bismarck, ND)
- Fredericton Conservation Centre (Fredericton, NB)
- Rancho Esquon Youth Camp (Sacramento, CA)
- Great Plains Interpretive Centre (Neepawa, MB)
- Second Marsh/McLaughlin Bay (Oshawa, ON)
- Wye Marsh Interpretive Centre (ON)

- Glenlea Agricultural Interpretive Centre (Glenlea, MB)
- Manitoba Model Forest (MB)
- Other centres in Minnesota, Wisconsin, Florida, Illinois

Wetland Exhibits & Remote Camera Installation

- Calgary Zoo (Calgary, AB)
- Vancouver Aquarium
- Ontario Science Centre
- Creston Valley Interpretive Centre (camera)
- Inglewood Bird Sanctuary (camera)



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Healthy Economy

The Interpretive Centre has contributed to a sustainable, prosperous economy through tourism and education since 1993.

- The original construction in the early 1990s injected \$10.8 million into the local economy
- A Winnipeg architectural firm was awarded the contract to design the building – used local companies, materials



- Regular bird banding demonstrations are a unique attraction for keen and amateur birders
- Local and international birders visit Oak Hammock Marsh to add to their life lists

A World-class Tourism Attraction

- One of Manitoba's feature tourist attractions
- Oak Hammock Marsh attracts roughly 200,000 visitors per year – including many Canadian and international tourists
- In 2006 alone, the Centre was visited by people from 85 countries, including Central and South America, Australia, New Zealand, Africa, Asia, Europe, and North America
- OHMIC facilities and programs (daily public programs, special events, canoe adventures, eco-tours, and recreational activities) encourage many tourists to extend their stay – spending more time and money in the local area
- The Centre employs between 15 and 30 interpreters per year
- Over the past 14 years, the Interpretive Centre has provided meaningful employment and training for over 20 full-time interpreters plus an estimated 250 seasonal or casual interpreters and 230 volunteers

Promoting Sustainable Tourism

- Very active in the tourism industry – serving on many organizations
- Participates in 25-75 community events and trade shows each year contributing 60-150 days (13 to 30 weeks) to promote OHMIC and other Manitoba attractions within Canada and key northern US markets
- Founding member of TEAM Winnipeg – a private group that formed to bring meetings and conventions to Winnipeg. This group brought over 400 delegates to Winnipeg for the national CMA Conference (2003)
- Works cooperatively with tourism agencies on promotion ventures – including a very successful cooperative program with Lower Fort Garry
- Part of CASC's reciprocal admission agreement to enhance tourism in Canada
- Initiated the "Passport to the Interlake" to encourage tourists to visit five regional attractions (OHM, Lower Fort Garry, Prairie Dog Central, and Pioneer Quest)
- Participated in "Passport to Adventure" with the Canadian Fossil Discovery Centre (Morden), Childrens' Museum (Winnipeg), the Winnipeg Mint, and the Costume Museum of Canada
- Participates in packages with bed and breakfasts and hotels
- "Green leader" within the Canadian Museums Association (CMA) – delivering presentations to encourage science centres and museums across Canada to apply sustainability concepts to gift shop products and food services

Geocaching

- Geocaching is the fastest growing sport in the world
- 15 geocaches at OHM to attract this growing tourism market
- Working with the Interlake Tourism Association to develop geocaching opportunities in the region
- Deliver workshops in the use of hand-held GPS units and geocaching for the tourism industry (ITA and Conseil de développement économique des municipalités bilingues du Manitoba)

Involvement in Tourism Community

Interlake Tourism Association (ITA) – Board member, Map Committee, OHM representative
Association of Manitoba Museums (AMM) – Interlake Region Councillor
Manitoba Geocaching Association (MBGA) – Board, Public Relations & Training Coordinator
TEAM Winnipeg – FAM Tour Committee, OHM Representative
Winnipeg Tour Connection – Promotion Committee, OHM Representative
Canadian Museums Association (CMA) – 2003 National Conf. Chair, Shop Symposium Committee
Interpretation Canada (IC) – National Awards judges
Canadian Association of Science Centres (CASC) – National Awards judge (2008)
Red River College Tourism Program – Curriculum focus group
West Indian Whistling-Duck and Wetlands Education Project – Watchable Wildlife
Winnipeg Rock and Mineral Club – Field Trip Chair (past)
Mineral Society of Manitoba – Field Trip Chair (past)

Individual Members:

Tourism Industry Association of Canada (TIAC)
Interlake Tourism Association (ITA)
TEAM Winnipeg
Canadian Tourism Commission (CTC)
Manitoba Geocaching Association (MBGA)
Association of Manitoba Museums (AMM)
Canadian Museums Association (CMA)
Canadian Heritage Information Network (CHIN)
Canadian Association of Science Centres (CASC)
Interpretation Canada (IC)
National Association of Interpretation (NAI)
Canadian Gift and Tableware Association



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Healthy Environment

A Building Designed with the Environment in Mind

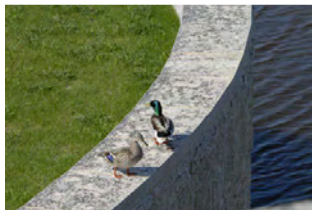
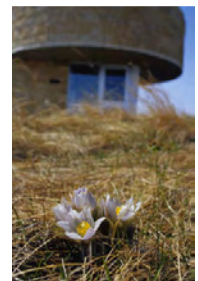
The Conservation Centre that houses the Interpretive Centre and the national headquarters of Ducks Unlimited Canada was designed by Number 10 Architectural Group of Winnipeg (Robert Eastwood). Oak Hammock Marsh Interpretive Centre is a model of sustainability. It was constructed according to the *principles of sustainable development*. The goal was to create a world-class tourism attraction (healthy economy) and education facility that benefits people (healthy society) while minimizing its ecological footprint (healthy environment).



- Innovative design pre-dated the LEED system of recognition
- Low ecological impact and reduced footprint
- Located on old farm fields at the edge of a restored wetland of international significance (Ramsar site)
- Extensive *environmental impact assessment* prior to design and construction
- Construction halted during migration periods to reduce disturbance to wildlife and visitors
- Low visual impact (bird's-eye view)
- No chimneys or vents on the rooftop
- Blends with the natural environment (curving lines, limestone facing, green roof)
- To compensate for the land occupied by parking lots and building, a quarter section of degraded farmland was purchased, *rehabilitated* as wet meadow, ponds, and nesting cover, and added to the Wildlife Management Area
- Extensive *environmental monitoring* ensures that high numbers of visitors do not negatively impact the plants, birds, or water quality

Prairie-on-the-roof (Green Roof)

- 98% of the building's roof is planted with prairie wildflowers (forbs) and native grasses (28,190 square feet) or is available for public use as observation decks (5,275 square feet)
- International award (2003): Green Roof Award for Excellence: New Intensive Roof (Green Roofs for Healthy Cities)
- Ducks Unlimited Canada responsible for planting and maintaining the green roof
- Prescribed burns are conducted on the roof every few years to manage the prairie species (control weeds and shrubs, enhance prairie grasses, etc.)
- Roof was re-done (spring of 1999) using new technology – heat sealed membrane



- Many animals use the rooftop and berms as habitat for feeding, sheltering, or resting (insects, jackrabbits, voles, ground squirrels, short-tailed weasels, shorebirds, raptors, sparrows, blackbirds and other songbirds, swallows, cormorants, ducks and geese)
- Birds successfully nest on the roof each year (ducks, killdeer, and/or geese)
- Temporary barriers keep curious visitors a safe distance away from active nests
- Rooftop camera allows people to view rooftop nesting activity on the Web site
- On-site biologists and seasonal ramps help young birds get safely to ground level

Natural Landscaping

- Landscape plan designed to *enhance species diversity* using native species
- New ponds were constructed to *increase habitat diversity*, edged with native grasses not sod (unlike urban ponds)
- Upland areas disturbed during construction were planted with native prairie grasses and wildflowers (spring 1994)
- Tall-grass species were selectively planted within the right microhabitats to provide a natural appearance
- Prairie wildflowers, grasses, native trees and shrubs were planted on the berms and the flower beds around the building and parking lots to increase habitat diversity, provide shade, and provide windbreaks
- Seeds were drilled into soil to protect them from drought and erosion and enhance germination
- Lawn is maintained using limited mowing and spot spraying in a few key areas for specific public purposes (courtyard, children's games area, group use area) and/or to prevent geese from damaging crops on neighbouring fields



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- Round walls with each window facing a slightly different direction, few corner windows and see-through spots

Enhanced Wildlife Viewing – While Minimizing Bird Strikes

- Floor-to-ceiling windows enhance wildlife viewing and act as a blind
- 18” overhang above windows to reduce reflection
- Vertical blinds can be drawn and partly closed to create a visual obstacle
- Falcon silhouettes and plastic owls to scare birds as needed
- Low, ground-hugging design, berms guide birds up over the building
- Minimal indoor and outdoor night-lighting
- No trees or feeders near the building
- Nets to cover windows if hotspots develop (never been needed)
- Window kills are monitored so that appropriate action can be taken
- Electrical lines to the building are buried to reduce obstacles
- Warning signs along access roads (wildlife crossing areas)
- Road kills are also monitored to identify hotspots

Natural Sewage Treatment

- 3-cell lagoon system rather than a standard 2-cell treatment system
- Effluent meets or surpasses all federal and provincial standards before it enters the third compartment (a constructed wetland) for extra purification
- The lagoon cells and borrow pit attract many birds – including night-herons, pelicans, cormorants, shorebirds, ducks
- Equipped with interpretive trails, a viewing platform, and a remote-control camera
- Lagoon water and marsh water (destination) is tested regularly as part of the annual environmental monitoring program



- Lagoon tours showcase the constructed wetland technology for groups from around the world

Water Quality Protection

- All test wells dug during building construction were sealed properly to prevent contamination of groundwater
- Snow clearing is planned so that piles of snow with debris from the roads and parking lots melt into “decanting ponds” that are not linked to the marsh directly
- Green roof catches rain and snow and releases it through evaporation – reducing stormwater runoff from the building
- Cleaning relies on elbow grease and benign chemicals rather than chemicals to prevent water pollution
- Water softeners (salts) are only added to hot water supply (for cleaning purposes) rather than the total water supply
- Chemicals used in Wetland Ecology program are collected and taken to a chemical disposal site
- Annual water quality monitoring was expanded in 2000 to include the public artesian spring and drinking pump
- Boardwalk and observation blinds are made from untreated cedar to prevent toxic chemicals from entering the water

Solid Waste Reduction

- Floating boardwalk is supported using recycled pop bottles
- On-site recycling (aluminum, glass, paper) – including composting of yard wastes and café food scraps
- Educational programs are designed to re-use recyclable materials (film canisters, scraps of laminate, toilet paper tubes, empty milk cartons, etc.) – diverting these from landfill sites
- Green café: Washable dishes and cutlery, compostable take-away containers, composting of café food scraps, low phosphate soap – reduces solid waste and water pollution





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A Model of Sustainable Development

Improved Energy-efficiency

- Green roof and soil berms insulate the building frame in summer and reduce heat loss in winter
- Concrete building frame serves as a heat sink in winter
- Abundant natural light reduces need for artificial lights
- Low energy lights installed (retrofit)
- Heated using electricity
- Groundwater cooling system (groundwater loops and natural convection, no chillers or condensers needed, nothing added to the water before it is returned to the ground only 5.5 degrees warmer than it emerged)
- New computer system (CONTRO-LEC) was installed in 2001 to save energy, reduce demands during peak times, and ensure comfort. The computer controls the energy flow to heaters (e.g. every second baseboard heater), power outlets (timing the flow of electricity to cars during the winter), and water heaters

Reduced Greenhouse Gases & Air Quality Protection

- Corporate car-pooling (using 7 and 15-passenger vans) to reduce greenhouse gases – a leader in Manitoba
- Member of Manitoba's Climate Change Committee
- Anti-idling signs posted at key locations
- Emissions are minimized through the use of highly efficient outreach education during the winter – tens of thousands of students and teachers in over 125 distant communities (throughout Manitoba and from northwestern Ontario, eastern Saskatchewan, Alberta, Quebec and NWT) have received wetland education programs with minimal emissions (a single van compared to hundreds of school buses)
- Use of video-conference, computer, and Internet technology also provide opportunities for “emission-free” teaching
- Odours from the café are minimized (no deep fat fryer), noise from vents is also minimized

Important Bird Area Designation

The Interpretive Centre has enhanced Oak Hammock Marsh as a wetland of international significance (Ramsar site). In 2001, the Interpretive Centre worked with the Province of Manitoba and Ducks Unlimited Canada to have the marsh designated as an Important Bird Area (IBA). Oak Hammock Marsh is now recognized as a globally important wetland for several shorebirds (white-rumped sandpipers, short-billed dowitchers, Hudsonian godwits, lesser yellowlegs, greater yellowlegs) and a nationally important habitat for black terns and Forster's terns. A conservation plan was written for the management of Oak Hammock Marsh as an IBA and a gravel island was created to enhance the habitat for shorebirds.

Involvement in the Environmental Community

International Basin Institute – Canadian Coordinator
Canadian Water Resources Association (CWRA), National – Board member, National Water Strategy Committee
Canadian Water Resources Association (CWRA), Manitoba Branch – Board member
Ducks Unlimited Canada (DUC) – Various fundraising dinner committees
Manitoba Naturalists Society (MNS) – Board member & Rare Bird Alert
MB Climate Change Connection – Steering Committee
City of Winnipeg Civic Environmental Committee – Committee member, Land Use Sub-committee – (from 2001 to 12/2005)

Individual Members

Manitoba Naturalists Society (MNS)
Federation of Ontario Naturalists (FON)
The Water Caucus
Manitoba Eco-Network (past)
The Wildlife Society, Manitoba Chapter
Royal Astronomical Society of Canada
The Mineral Society of Manitoba
The Winnipeg Rock and Mineral Club
The Native Orchid Conservation Society
Orchid Society of Manitoba
Manitoba Fly Fishing Association
American Birding Association (ABA) – past



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Healthy Society

The Interpretive Centre's main contribution to a healthy society is through the delivery of a wide variety of interpretive programs (education programs, special events, workshops, public programs, day camps, volunteer program, and wetland recreational activities) – both on-site and off-site. These programs not only fulfill the Centre's mission, they also benefit society by raising awareness, understanding, and appreciation of wetlands as a key component of our natural and cultural heritage – past and present. Hundreds of thousands of students and youth received educational programming both on-site and off-site. In addition, hundreds of interpreters and volunteers have gained valuable knowledge and skills that they have taken to other jobs – many in education and resource management, museums, and tourism.

Wetland Education

Through wetland education, the Interpretive Centre is actively working toward:

- Having wetland values *integrated into future economic and social decisions*
- *Stewardship* of wetlands for the benefit of present and future generations of wildlife and people
- Greater *understanding* that wetlands are an important part of the physical environment that we share and that we *share responsibility* for their continued existence
- *Prevention* of wetland destruction and degradation that may pose long-term and serious threats to the economy, the environment, human health, and social well-being
- *Conservation and enhancement* of wetlands to maintain ecological processes, biological diversity, and life support systems; and to make wise use of wetland resources
- *Rehabilitation and reclamation* of wetlands
- Widespread public recognition that we have a *global responsibility* for wetlands and that we must work cooperatively within Canada and internationally to ensure wetland conservation while developing solutions to other economic and social problems



- Environmental monitoring is an integral part of all programs
- While delivering guided canoe adventures with a strong ecological or historical message, the interpreters watch for disturbance to wildlife and modify tours as needed
- Visitors experience wildlife first-hand by assisting with wildlife surveys (frogs, fish, dragonflies, bird banding, bird counts, etc.) while the Centre collects valuable baseline data
- Opportunities for relaxation, recreation, and spiritual pursuits

Public Education, Recreation & Healthy Living

- Emphasis in on guided programs – to ensure both a strong message and protection of resources
- Interpretive programs include: special events, daily public programs, guided walks, tours, demonstrations, canoe adventures, slide shows, theatre presentations, musical performances, recreational activities, workshops, and eco-adventures – as well as interactive exhibits
- Special programs for eco-tourists
- Programs designed to meet the needs of the people of different languages, ages, experiences, and ethnic backgrounds
- Most programs are available in English and French
- The “TryScience Around the World” kiosk conveys a wetland message to international tourists in eight languages
- Decoy carvers visit the marsh weekly in winter to hone their artistic skills
- Families search for geocaches hidden throughout the marsh
- Kiteboarders experience the marsh in winter as they practice their aerial tricks
- Aboriginal themes and content integrated into programming (exhibits, public and school programs, and eco-tours)
- Elders honoured OHMIC with a Blessing Ceremony and medicine bundle
- Setting for Full Moon Ceremonies
- Volunteer program provides meaningful work opportunities and social experiences for seniors, youth (Katimivik), and people with special needs



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Wetland Education for School and Youth Groups

- Over 75 different education programs related to wetlands and watersheds to meet the curriculum needs of the teachers and youth group leaders at all levels (pre-school to university and adult education)
- Over 350,000 students and youth have received a total of 760,000 hours of educational programming (14 years)
- On-site education programs (class field trips to the marsh) and outreach (interpreters visit classrooms)

Award-winning Community Outreach

- Extensive outreach education program since 1996 (“Ecovan”)
- Involves the entire community (school groups, day care centers, youth groups, seniors homes, teacher training, etc.)
- Ecovan travels to distant locations every second week between November and April delivering educator workshops, classroom and community presentations, water quality monitoring, and water festivals
- 4 talented interpreters take a large van filled with teaching materials needed to deliver programs in distant communities (200 to 700 kilometres from OHM) for up to 10 days at a time
- “Ecovan” outreach projects have reached over 125 communities in MB, AB, SK, ON, QC, and NWT (including rural, remote, northern, Aboriginal, French-language, Hutterite colonies, etc.)
- Energy-efficient program reaches tens of thousands of people with a single van compared to thousands of vehicles that would be needed to bring the same number of people to the marsh
- The goal of the winter 05/06 project was to increase awareness of water-related resources as a key component of Canada’s natural and cultural heritage and to create an interactive watershed map to showcase the unique cultural landscape of each community



- Awarded “2007 Best Outreach Project” in Canada (CASC)
- During the six months of the 05/06 outreach, the IC delivered wetland and watershed programs to over 31,000 students in 106 geographic communities throughout the Lake Winnipeg watershed (MB, eastern SK, northwestern ON, and AB)

“Emission-free” Education

- Two live Web cameras (rooftop and main exhibit hall) for people who are unable to visit the marsh in person
- Through the TryScience Web site, people can explore exhibits via the Web camera located in the exhibit hall
- In 2008, people visiting the OHMIC Web site (www.oakhammockmarsh.ca) watched a Canada goose nesting on the green roof (over 20,000 hits on hatching day)
- Interactive watershed map (<http://arcntsrv.ducks.ca/public/WLP/viewer.htm>) allows virtual visitors to explore the Hudson Bay watershed to learn about the unique natural, cultural, and historical features found in different parts of this vast watershed – including OHM
 - Most popular page of the Centre’s Web site
 - Students from across Canada use the map to learn about GIS (Geographic Information System)
- Education via video-conference: Students in Jasper Alberta were able to interact directly with interpreters at Oak Hammock Marsh, view the feed from the Web cameras, view lab mounts and live specimens, and complete an exercise using the interactive map on two occasions

Involvement in the Educational Community

Red River Centre for Watershed Education – Steering Committee, Manitoba Coordinator
Manitoba Envirothon – Steering Committee, Test-writing Committee, Orals Committee (past-Chair)
Youth Stewardship for Environmental Sciences Project (YSESP) – Steering Committee
Project WET (Water Education for Teachers) – Manitoba Coordinator
West Indian Whistling-Duck and Wetlands Education Project (Caribbean Project) – Workshop Facilitator
Katimivik – Worksite for volunteers
Wetland Link International (WLI) – Organizational member

Individual Members

Manitoba Teachers Society (MTS)
Science Teachers Association of Manitoba (STAM)
Canadian Network for Environmental Education and Communication (EECOM)
Science Council of Manitoba (SCM)
Manitoba Camping Association
Volunteer Centre of Winnipeg
Manitoba Volunteer Sector Initiative
French Volunteer Resource Network



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OHMIC – Thinking Globally, Acting “Locally”

Lake Winnipeg Watershed Education

Lake Winnipeg is suffering from nutrient overload. Its water quality has declined dramatically in recent years. It is so polluted that algae blooms cause beach closures and threaten the commercial fishing industry. The health of this huge lake is tied to the human activities within its vast watershed – including wetland drainage. Cleaning up Lake Winnipeg will require basin-wide action. Since the flood of 1997, the Interpretive Centre has worked with the Red River Centre for Watershed Education and the International Basin Institute to raise public awareness and train teachers from Manitoba, North Dakota, and Minnesota in all aspects of the life within this international part of the Lake Winnipeg watershed. The Paddle-to-the-Sea activity of releasing mini-canoes on the river draws attention to the recreational use of the Red River while reinforcing the river's direct link to Lake Winnipeg. The IC's community outreach brings a similar message to much of the lake's vast watershed that stretches from Alberta to Ontario. Locally, the Centre is working with groups (such as Manitoba Envirothon, Youth Encouraging Sustainability, Canadian Water Resources Association, and Project WET Canada) to turn the tide by teaching Manitoba educators, students, and the public about wetlands, water, watersheds, and sustainable development.

Frog Plain

Several years ago, the Interpretive Centre encouraged a local developer to integrate an existing wetland into a proposed housing development in Winnipeg. The wetlands in the area known as Frog Plain are uniquely linked to the early history of the Red River Settlement and the Battle of Seven Oaks. Today, the remnants of these wetlands are valuable habitat for frogs (declining around the world). Once the ecologic and historic values of the wetlands were fully realized, the decision was made to retain the wetland within the new development. Today, many large developers in Winnipeg realize that they can economically integrate wetlands into urban developments. They recognize that wetlands provide many benefits to the urban environment and society, and they can even enhance housing sales by providing an aesthetically-pleasing and relaxing atmosphere.

OHMIC – Thinking Globally, Acting Globally

Migratory birds – including many wetland species – are an international responsibility. They depend on a healthy network of wetlands and associated habitats throughout their entire migratory range (including Canada, the United States, Central America, the Caribbean, and South America). Development pressure throughout the Caribbean is intense. Although wetlands provide a multitude of environmental and societal benefits, they are often sacrificed for short-term economic gain. OHMIC has embraced its *global responsibility* to spread its wetland conservation message beyond North America. Since 1997, OHMIC has been a partner in the West Indian Whistling-Duck and Wetlands Education (WIWD-WE) project. Working cooperatively with the Society for the Conservation and Study of Caribbean Birds (SCSCB) and countless government and non-profit agencies, the Interpretive Centre has co-delivered wetland education workshops in 22 locations throughout the Caribbean region, encouraged the development of Watchable Wildlife Wetlands, and promoted eco-tourism and sustainable development. Through this project, the Interpretive Centre is not just thinking globally – it is acting globally – so that the migratory birds treasured in Manitoba will continue to have adequate wetland habitat throughout their entire migration routes.



Bahamas
Cuba
Tobago & Trinidad
Antigua/Barbuda
Jamaica
Cayman Islands
St. Vincent & the Grenadines
Anguilla
Tortola
Montserrat
Guadeloupe/Haiti (French)
Martinique (French)
French Guiana (French)
Grenada & Carriacou



Wetland Education Workshops in the Caribbean

- Participants learn the value of wetlands & how to integrate wetland concepts and activities into classroom lessons
- Workshops stress the need for considering the environment, society, and economy in all decision-making
- Intensive day of classroom learning, demonstrations, and peer teaching
- Full-day field trip to local wetlands for some first-hand experience
- Education kit packed with materials to conduct activities from the Teacher's Resource Book is left at each location
- Workshops and materials (resource book, education kit) are available in English, French, and Spanish



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Although the ultimate goal of wetland education is wetland conservation, it is often difficult or impossible to attribute wetland conservation directly to education. On rare occasions, direct links between education and conservation are observed – as was the case following a recent workshop on the island of Grenada. Here is how the Project Coordinator summarized the events that transpired.

For the first time ever, we had four developers attend the workshop. They listened carefully to all of the presentations about mangroves and wetlands, their ecology, and their many functions and values, including their value as critical habitat for birds and potential for nature tourism (Watchable Wildlife Ponds). They then rushed back to their office to stop construction of a road that was heading right through one of the wetlands on the property. On Saturday, June 6th, we met with them to visit the site and review the current resort plan. As a result of our meeting they have dramatically changed their master plan, including reducing by 16 the number of homes being built, moving the road away from the wetlands, and redesigning the golf course, all to save the two wetlands which were slated to be destroyed.

We visited the two wetlands and various other mangrove areas on the estate and talked with them about the environmental issues. We suggested many ways that they could modify their plans to minimize impacts and enhance the golf course for birds (e.g., how to design and manage the ponds including pond depth, vegetation, using the new ponds for wastewater treatment, nesting islands, etc.). The developer took detailed notes and said he would follow up on all of our suggestions. He commented that “they learned an incredible amount at the workshop” and that “wetlands were much more important than we realized.” He said they now plan to make the wetlands a feature of the resort.

This is one example of how Oak Hammock Marsh has advanced sustainability on an international level through wetland education. In this case, Grenada will obtain economic and societal benefits from the proposed development while retaining the ecological benefits of the conserved wetlands.

*Through Interpretation,
Understanding
Through Understanding,
Appreciation
Through Appreciation,
Conservation*