



Hamilton Port Authority
Administration Portuaire de Hamilton

Canada

INTERIM ENVIRONMENTAL REPORT

MAY 2007

INTERIM ENVIRONMENTAL REPORT

INDEX

1.0	OVERVIEW	3
2.0	ENVIRONMENTAL PROGRAMS AND PROJECTS	5
2.1	Sherman Inlet Revitalization	
2.2	Randle Reef Contaminated Sediment Remediation Project	
2.3	Clean Marine Program	
2.4	Port of Hamilton Spill Control Group	
2.5	Hwy H ₂ O	
2.6	Great Ships Initiative	
2.7	Green Marine	
3.0	HPA ENVIRONMENTAL OPERATIONS	10
3.1	Local Spill Response	
3.2	Environmental Assessments	
3.3	Eastport Confined Disposal Facilities	
4.0	ENVIRONMENTAL COMMUNITY INVOLVEMENT	12
4.1	Hamilton Harbour RAP	
4.2	Pier 27 CDF Meetings	
4.3	Local Stakeholder Groups	
5.0	MANAGER, ENVIRONMENTAL	14

1.0 OVERVIEW

The Hamilton Port Authority (HPA) serves global and local transportation needs by operating the largest Canadian port on the Great Lakes.

The HPA also takes a leadership role working towards environmental restoration for Hamilton Harbour and the Great Lakes.

The HPA believes that what is good for the environment is good for business. By protecting and properly managing the environment, the HPA and our community will benefit.

A recent study by York University reports that improving Hamilton Harbour would have direct and indirect benefits to the area economy through property values, downtown investment and helping attract top-flight workers, scientists and students – worth nearly one billion dollars.

(Source: *The Hamilton Spectator*, January 19, 2007).

The HPA carries out appropriate and responsible management techniques for the on-going and regular maintenance dredging activities. Initiatives to protect and restore fish and wildlife habitat such as Sherman Inlet are continuing in cooperation with other environmental groups and government agencies.

Many HPA projects undergo federal Environmental Assessment ensuring that environmental effects are considered during the project planning phase.

The Port of Hamilton Spill Control Group was pioneered in the early 1970's to protect the environment in the event of a spill, and recently, the Harbour-West Marina received the highest rating possible in the Clean Marine® program.

The HPA has committed to taking a lead in the remediation of Randle Reef, a toxic hot spot on the Great Lakes. In 2002 the HPA partnered with Environment Canada and the provincial Ministry of the Environment to develop the preferred option of containing and capping the contaminated area. The environmental remediation of Randle Reef also includes making the site aesthetically appealing and preparing it for future economic development. This is an essential project to complete as part of the Hamilton Harbour Remedial Action Plan (RAP).

The RAP began in 1986 as a long-term environmental restoration project involving all levels of government, industry, the former Hamilton Harbour Commissioners (HHC), and public organizations. The RAP's objective is the restoration of fish, plant and animal life in Hamilton Harbour and the adjoining Cootes Paradise marsh.

The HPA regularly provides financial and project management assistance to the RAP, and is actively involved in several RAP-related committees and organizations.

Beyond Hamilton Harbour, the HPA provides leadership throughout the Great Lakes by participating in the innovative Green Marine program and the Great Ships Initiative. The team members at the Port are industry leaders across the Great Lakes region.

In September 2006 the HPA further demonstrated its commitment to the remediation of the Hamilton Harbour and the environment by creating the full time position of Manager, Environmental. This environmental position is the first of its kind at a Great Lakes port.

The environmental restoration of Hamilton Harbour is a priority for the HPA.

2.0 ENVIRONMENTAL PROGRAMS AND PROJECTS

2.1 Sherman Inlet Revitalization

HPA identified Sherman Inlet for special status and revitalization in the 2002 Land Use Plan. This former natural creek provides a unique opportunity to combine ecological regeneration with an open space area, and appropriate public access to this central part of the industrial harbour.

Led by the Hamilton Conservation Authority, the Sherman Inlet Technical Steering Committee was formed in 2004 to plan the development and revitalization of the Inlet. The remediation or removal of the contaminated sediment, fish habitat enhancement, public trails, natural plantings and historical interpretation signage aspects of the project were examined. The next step in the process is an Environmental Assessment, which is scheduled for 2007.

2.2 Randle Reef Contaminated Sediment Remediation Project

The Hamilton Harbour Remedial Action Plan (commonly called the "RAP") is a detailed strategy to clean up the Harbour, which would result in the "delisting" of the Harbour as an "Area of Concern". Remediation of contaminated sediment is one of the priorities of the Hamilton Harbour RAP.

Hamilton Harbour is one of 43 Areas of Concern identified in the *Great Lakes Water Quality Agreement* between Canada and the United States, and under the *Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem*. Randle Reef is considered to be one of the more complex and highly contaminated sediment sites throughout the Canadian Areas of Concern.

This site is a priority for remediation in the Hamilton Harbour RAP. The Randle Reef sediments contain elevated levels of polynuclear aromatic hydrocarbons (PAHs) and heavy metals. Environment Canada and its partners (Ontario Ministry of the Environment and Hamilton Port Authority) have developed a multi-partnered team for the Randle Reef Contaminated Sediment Remediation engineering design.

The proposed remediation of Randle Reef involves the construction of an engineered containment facility about 9.5 ha (hectare) in size. This would cover *in-situ* about 130,000 m³ of sediments contaminated with PAHs, and contain in total about 500,000 m³ of contaminated sediments from the immediate surrounding project area.

The sediment containment and cap facility will be multi-purpose. This new facility will perform an important environmental function by eliminating a dead zone at the bottom of the Harbour, and by preventing further water contamination. The facility will provide new habitat for nature along one edge and a marine terminal on the other. The entire facility will be owned and operated by the HPA.

The HPA plays an important supporting role by providing the oversight and financial assistance to engineering design work of the containment facility.

2.3 Clean Marine Program

The Clean Marine Program is a comprehensive environmental audit system for recreational marinas. The Ontario Marina Operators Association (OMOA), Environment Canada and the Ontario Ministry of the Environment developed standards for more than 200 environmental practices, covering all aspects of marine operations, from fueling to waste oil management and paper recycling.

The HPA is proud that the Harbour-West Marina holds the 5 Green Leaf Anchor Rating from the OMOA. The 5 Green Leaf Anchor Rating is the highest level that can be attained in the Clean Marine Program and shows a commitment to true environmental leadership. For more information see <http://www.marinasontario.com>.

2.4 Port of Hamilton Spill Control Group

In the absence of spill control contractors in the 1970s, the Hamilton Harbour Commissioners organized the Port of Hamilton Spill Control Group to provide a quick response capability for

containment and clean up of oil at a spill site, thereby protecting the environment. The response capability covered the Hamilton Harbour area.

With the advent of government spills legislation and regulations, private contractors have acquired specialized prevention and cleanup equipment and have developed the skills to respond to major spills. Certified spill response contractors stepped in and after assisting companies on the Harbour in ensuring that they have "first response" capabilities and trained personnel on-site, the Spill Control Group was dissolved in 2004. The Group's surplus balance of \$21,900 was donated to the Bay Area Restoration Council to further the goals of both groups - the protection of the Hamilton Harbour ecosystem.

2.5 Hwy H₂O

The HPA is leading the way with twenty Great Lakes Ports and over fifteen member industries in supporting the Hwy H₂O program. Hwy H₂O promotes the natural 3,700 km Great Lakes route because transporting cargo via ships makes economic and environmental sense.

The marine mode of transport eases traffic congestion, has an excellent safety record, and uses significantly less fuel per tonne of cargo thereby reducing air pollution and Green House Gas production. For more information visit <http://www.hwyh2o.com>

2.6 Great Ships Initiative

The Great Ships Initiative (GSI) launched a \$3.1 million research initiative in Duluth, Minnesota in July 2006 to accelerate the development and installation of technology on ships to prevent the introduction of aquatic invasive species into the Great Lakes. This newly formed group is a cooperative effort between the Great Lakes maritime industry, federal agencies and academia.

The GSI provides assistance to those companies doing research and development in this area. For example, the GSI has designed and built the first fresh water testing facility in North America. As the workable technologies are tested and verified at the facility, GSI will work with

ship owners to accelerate the installation of ballast treatment technology on their vessels. The HPA provides financial assistance and plays an active advising role in this cooperative venture.

2.7 Green Marine

Led by industry CEOs and the Chamber of Maritime Commerce, the Green Marine program is a voluntary, bi-national program designed to strengthen the marine sector's environmental performance.

Keith Robson, HPA President and CEO is on the Steering Committee of Green Marine along with the following industry partners:

- Canada Steamship Lines
- Duluth Seaway Port Authority
- Fednav Limited
- Groupe Desgagnés
- Hamilton Port Authority
- Hapag-Lloyd
- Logistec Corporation
- Maersk Canada Inc
- Montreal Port Authority
- Saint Lawrence Seaway Development Corporation
- The St. Lawrence Seaway Management Corporation

The goal of Green Marine is to help the marine industry take charge of the environmental agenda by:

- Strengthening environmental performance through a process of continuous improvement
- Building stronger relations with Great Lakes - St. Lawrence Waterway stakeholders
- Improving the awareness of the marine industry's environmental activities and benefits

Numerous marine associations representing over 500 member companies in the Great Lakes and St. Lawrence Waterway in Canada and the United States will take collective action to deal with important environmental issues. These Associations are:

- American Great Lakes Ports Association
- Canadian Shipowners Association
- Chamber of Maritime Commerce
- Seaway Great Lakes Trade Association
- Shipping Federation of Canada
- SODES
- St. Lawrence Shipoperators
- United States Great Lakes Shipping Association

Marilyn Baxter, HPA's Manager, Environmental is Co-Chair of the newly formed Great Lakes Environmental Committee (GLEC). The following priority issues have been identified and are being addressed in the short-term: aquatic invasive species, air emissions, and cargo residues.

For more information visit: <http://www.cmc-ccm.com/cmc/english/greenmarine.asp>

3.0 HPA ENVIRONMENTAL OPERATIONS

3.1 Local Spill Response

The HPA, through the Harbour Masters Office (HMO), is available to respond to water and/or shore spills and emergencies on a 24-hour basis. If a spill occurs, the HPA staff are trained to initiate “first response” to contain the spill, and call the HPA’s spills control contractor and the Ontario Spill Action Centre (SAC) if required.

Likewise, if a spill occurs on HPA property and/or into Hamilton Harbour, our industrial partners follow the spills protocol above, and also inform the HMO. The HMO may assist where needed, and provide security as required. 24-hour Spills Control Notification Numbers are as follows: SAC 1-800-268-6060, HMO 905-525-3412.

3.2 Environmental Assessments

The HPA operates under the Canadian Port Authority Environmental Assessment (EA) regulations. Under these regulations, a federal EA screening is undertaken for most HPA projects, ensuring that environmental effects and mitigation are considered during the planning phase. Projects that typically require EAs include building construction and demolition, security fencing, dockwall construction and maintenance dredging. HPA tenants conduct appropriate Environmental Assessments for their construction projects.

3.3 Eastport Confined Disposal Facilities

The Confined Disposal Facilities (CDF) are engineered for the disposal of material dredged from navigation projects. Several were built along Eastport Drive to protect the environment by physically containing dredged material. The closed CDFs along Pier 25 and 26 are now reclaimed land which is leased primarily to industries that benefit by having marine access.

The Pier 27 CDF is available for dredging projects related to Hamilton Harbour. The sediment that is to be dredged is sampled, and the dredging project undergoes a federal Environmental Assessment process before the project begins.

The dredged material is placed within a CDF sub-compartment, or cell. When a cell reaches capacity, it is capped with clean fill. The HPA operates a registered landfill for this purpose. The HPA pre-screens the clean fill material and conducts random sampling to ensure compliance with its criteria for capping material, which are more stringent than the provincial regulations.

As part of planned maintenance operations, the Emerald, Wentworth and Strathearne slips required routine dredging to ensure navigational depths. The HPA launched a federal Environmental Assessment at the screening level to evaluate the environmental aspects of the project in 2006. Sediment samples from the bottom of the slips were tested and the data reviewed by governmental agencies through the screening process. Additional testing of the sediments, the T-CLP test, showed that contaminants in the materials being dredged were not susceptible to leaching. The project was approved under the Federal EA process, and the project began with the necessary mitigation measures in place to protect the environment. The dredged material was placed in the CDF at Pier 27.

4.0 ENVIRONMENTAL COMMUNITY INVOLVEMENT

4.1 Hamilton Harbour RAP

The HPA invested \$1.1 million in financial and service contributions to the Hamilton Harbour Remedial Action Plan (RAP) from 2001 to 2004. These contributions were applied to projects such as to public access, educational and habitat restoration. In addition, since 1986, the HPA (formerly the Hamilton Harbour Commissioners) participated as a stakeholder in the groundbreaking work of developing and implementing the Hamilton Harbour RAP report and recommendations.

Since 1991 the HPA has been active in the Bay Area Implementation Team (BAIT), and the RAP Forum (1998 to 2002). The Forum concluded that Hamilton Harbour could be cleaned up, and that with sufficient effort, the work could be completed by 2015. HPA also contributes time and expertise to a number of RAP committees including:

- Randle Reef Sediment Remediation
- Sherman Inlet Restoration
- Fish and Wildlife Habitat Restoration
- Wildlife Management
- Aquatic Plant Control
- Watershed Planning Network.

4.2 Pier 27 CDF Meetings

The HPA made a presentation on October 27, 2006 to local politicians, community members, and government officials in order to answer questions from the community from an earlier meeting held on September 9, 2005 about the Confined Disposal Facility (CDF) at Pier 27.

The HPA participated in two smaller group meetings in 2006, and three more in 2007 to share data, and ensure the active participation of key stakeholder groups.

Water quality tests were run on the Pier 27 CDF water cap, and compared to the nearby Hamilton Harbour water. The data was compared to the Ontario Regulation 153/04. The results showed that most parameters were well below regulation limits, however there were some exceedances found in both locations; there was not a clear difference between the two sites.

Outside opinions from two knowledgeable Environment Canada staff were called upon for their interpretation and comments. They noted that the Hamilton Harbour and CDF test results were about the same and typical of the Harbour and for an urbanized area. It was also noted that the Harbour saw improvements in the 1980's, then leveled off. The biological testing of the water cap using water fleas indicated that the water cap was safe for wildlife.

4.3 Local Stakeholder Groups

The Bay Area Restoration Council (BARC) is a community stakeholder group that is devoted to the revitalization of Hamilton Harbour and its watershed. The HPA has sat on BARC's Board of Directors since 2005, and has participated in its annual community workshops since 1992. For more information see <http://www.hamiltonharbour.ca>.

The HPA made a presentation on "Hamilton Harbour Spills Prevention & Environmental Protection" to the Spill Prevention Conference held in Hamilton on March 22, 2007, outlining maritime pollution prevention and HPA's programs.

The HPA also participates in various community meetings and City of Hamilton planning processes, including trails development, traffic studies, and the West Harbour Waterfront Recreational Master Plan.

5.0 MANAGER, ENVIRONMENTAL

Marilyn Baxter is HPA's Manager, Environmental. This environmental position is the first of its kind at a Great Lakes port. She brings her strong background in the environmental restoration of Hamilton Harbour, and a commitment to protecting the Great Lakes to her new role.

Marilyn began a career in air quality research in the 70's, after receiving her diploma from Fanshawe College. That was followed by a time at Procter & Gamble in the product research department. All the while, she was sailing dinghies with her husband and winning sailing regattas right here at Hamilton Harbour, and across the province. This truly piqued her interest in the Great Lakes ecosystem.

During the past 11 years (until September 2006) Marilyn Baxter was the Executive Director of the Bay Area Restoration Council, a local community stakeholder group devoted to revitalizing Hamilton Harbour and its watershed. Under her leadership, BARC expanded its vital role of increasing public awareness of, and engagement in, the restoration of Hamilton Harbour through volunteer plantings and workshops, and more.

A past recipient of the Conservation Halton's *Award of Excellence*, Marilyn was also the first chair of the Hamilton Area Eco-Network.

Marilyn is leading the industry's Green Marine *Great Lakes Environment Committee*, on behalf of the HPA. She is also the HPA representative on several Hamilton Harbour RAP committees. Guiding the Clean Marine Program and federal Environmental Assessments are also key programs in her environmental portfolio at the Port.

Marilyn Baxter
Manager, Environmental
Hamilton Port Authority
Phone: 905-525-4330 x 240
Email: mbaxter@hamiltonport.ca
Web: <http://www.hamiltonport.ca>