

IV.6 Education and Public Information Component

Commitment to education and public information has been a strength of the Hamilton Harbour RAP since its inception. A variety of resources, money, and technical skills, are required to restore the Harbour. Similarly, public support and involvement in the remediation of Hamilton Harbour are essential for its eventual delisting as an Area of Concern.

During the production of the original Remedial Action Plan, some members of the community believed that efforts to restore the Harbour would be futile. Scientific and technical research provided evidence that contradicted that belief, indicating that some degree of restoration would be possible.

The creation of the Bay Area Restoration Council (BARC) in 1991 and the Hamilton-Halton Watershed Stewardship Program (HHWSP) in 1994 are both excellent examples of groups that engage the public in the RAP Process. BARC, which operates from space provided by McMaster University, provides a voice for the public on many committees and in the media. HHWSP provides an opportunity for landowners to personalize the RAP process by making positive environmental contributions on their own properties. BARC and the HHWSP are both conduits for relaying information about the RAP process to citizens in the watershed.

Attitudes towards the Harbour and its restoration have gone from doubting and resignation to enthusiasm, planning, and action. Improvements in public access and aesthetics have attracted people down to the Harbour to expose them to remediation efforts. This exposure to Harbour remediation efforts, as well as to other activities going on around the Harbour watershed, creates opportunities for education that provides information to empower people to make a difference by encouraging them to get involved. Measuring or quantifying the results of providing information and education can be challenging. As a result, it has been difficult to set quantitative goals for this component. Nevertheless, the targets that are associated with the recommendations for education and public information are intended to reach a wide audience and to engage as many people as possible in the RAP process.

Emerging issues and challenges for education and public information include:

- development and implementation of a communications plan for BARC,
- revival of the Yellow Fish Road Project, and
- finalization and implementation of a strategic plan for the HHWSP.

IV.6.1 Personal Impact Education Programs

Recommendation No. EPI – 1

(1992 Rec. 38)

Develop, maintain and evaluate public education programs with the direction of agencies to educate individual citizens within the Harbour watershed to take particular care to avoid polluting the Harbour and Lake, recognizing that everything we put down the drain, dump on our streets, use on our lawns or throw in a creek at home, at work and at play eventually reaches the Harbour.

Responsible Agencies

BARC, City of Hamilton, Conservation Halton, Hamilton Conservation Authority, Citizens

Short Term Targets

EPI – 1.1 (2003) Reactivate programs such as the Yellow Fish Storm Drain Marking Program.

EPI – 1.2 (2003) Continue programs such as the W.A.T.E.R. Stream Stewards.

Long Term Targets

EPI – 1.3 (2015) Mark and maintain markings of all urban watershed catchbasins.

EPI – 1.4 (2015) Develop and implement an education program about alternatives to hazardous waste products.

Status

This recommendation is aimed at involving citizens, unlike other recommendations that are aimed at businesses, institutions, and government agencies. The success of the activities recommended here is directly tied to the other recommendations identified for education and public information. As a result, it will be challenging to evaluate this specific recommendation.

Fisheries and Oceans Canada (DFO) piloted the Yellow Fish Road Program, which involved children marking of catch basins and storm drains in the urban portions of the Hamilton Harbour watershed. The program was adopted by BARC and approximately 4300 youths had participated in the program by 2001. There has been little activity in this program in the last few years. It is hoped that this visual reminder of our urban connection to watercourses is not only continued, but also expanded. Potential activities could include curbside painting, identifying watersheds on catch basins, or erecting signs explaining the Yellow Fish Storm Drain Marking Program.

The Watershed Planning Network (WPN) is working on a program to place signage throughout the watershed that will indicate to motorists when they enter a new stream watershed.

The Watershed Action Towards Environmental Responsibility (WATER) Stream Stewards program teaches high school students how to monitor waterways for water quality conditions. The work of the students is presented to local community members as well as government officials.

Environment Hamilton is a group launched in 2002 with a mandate to facilitate community environmental capacity building by empowering individuals with information to create change.

One of the tools available is a boat dedicated to look for problems within Hamilton Harbour. The boat will also be used as a floating classroom for local citizens.

Since 1994, the Hamilton-Halton Watershed Stewardship Program, has contacted over 3000 landowners in the Harbour watershed providing information and advice that assists them in protecting, enhancing and rehabilitating natural areas, creeks and streams on their properties. Further information is provided under the status report for Recommendation EPI – 6.

IV.6.2 Distribution of Information on Harbour and Watershed Conditions

Recommendation No. EPI – 2

(1992 Rec. 33)

To inform the public and students of the past and present condition in the Harbour and its watershed and to encourage them to support the efforts being made to clean-up the Harbour and the watershed.

Responsible Agencies

BARC, RBG, Conservation Halton, Hamilton Conservation Authority, McMaster University, Parks Canada, City of Hamilton

Short Term Targets

- EPI – 2.1 **(2005)** To develop and implement a communications plan Harbour for the community at-large, elected officials and the media to promote the vision of a vibrant, healthy, accessible, multi-use harbour.
- EPI – 2.2 **(2005)** Develop and implement an information program to inform the public on the water cycle throughout the Hamilton Harbour watershed including inputs, outfalls, wastewater treatment plants, landfills and the impact on water quality in the Harbour.

Ongoing Target

- EPI – 2.3 To continue to offer various programs to the public and students.

Status

BARC is the focus of information distribution on conditions of the Harbour and its watershed conditions as well as RAP progress. BARC is “a confederation of community stakeholders devoted to revitalizing Hamilton Harbour and its watershed” (BARC Slogan, 2002). The public is reached through a website, newsletters, brochures, meetings, and hands-on programs. By the end of 2001, BARC had:

- held 40+ public meetings and annual community workshops;
- involved 700+ participants in marsh and shoreline volunteer planting programs;
- held two large scale general public shoreline plantings with 1100+ participants;
- produced 35 issues of a quarterly newsletter, “Bringing Back the Bay”;
- developed a full day bus tour, “Bring Back the Bay”, in conjunction with the Hamilton Conservation Authority for local groups and visitors to the area;
- developed a half-day walking tour, “Restored Shores”, with an optional slide show at RBG;

- hosted several volunteer “nature nurturing days” at LaSalle Park and West Harbour Waterfront Trail; and
- partnered with the Hamilton Conservation Authority and Conservation Halton in the delivery of the Hamilton Harbour Watershed Stewardship Project, which has shared information with over 3000 Harbour watershed landowners about the RAP.

The annual community workshop is now a half-day event that focuses on a topic of interest to the public at large. For example, in 2002 the 10th annual workshop dealt with the “State of the Bay: Hamilton Harbour’s Past, Present and Future”. The workshop contained breakout sessions on Harbour water quality, habitat restoration, and impacts on recreation. Over 200 people participated in the successful and informative event.

The Classroom Mini Marsh Program held in partnership with BARC and the RBG, had reached 45,000+ students (1,800 classes) in four school boards by the end of 2001. This program brings the marsh ecosystem into classrooms, so that teachers can link this into the Science and Technology Ontario Curriculum. Students learn about local habitat restoration through the growth of native marsh plants.

BARC received a Trillium Foundation Grant in 2001 to support the enhancement of public communication opportunities. Funds from Trillium have been used in part to hire a communication consulting firm. One result of this is that BARC worked with the RAP Office to create a single website dealing with Hamilton Harbour issues (www.hamiltonharbour.ca).

The opening of the Hamilton Waterfront Trail has significantly increased the number of people exposed to the Cootes Paradise Fishway. In order to reach a wider audience, the RBG operates the Fishway/Carp Barrier on a select number of Sundays throughout the spring season to complement the normal weekday operation. There are educational signs explaining the process and there are enhanced design elements to better observe the fish sorting. The knowledgeable RBG staff working at the Fishway also try to answer questions from the crowd when possible.

The Hamilton Industrial Environmental Association (HIEA), which has some RAP stakeholders as members, provides funding for the Hamilton Public School Board to run an Environmental Field Workshop for public school children.

Ecowise was a multi-disciplinary research program from 1993-1996 that brought together researchers from five universities, five faculties, and fifteen departments. The Ecowise research groups included: Human Values and Perceptions, Economics and Policy Analysis, Contaminants, Restoration, and Communications. The description of the program below comes from the Ecowise website which also contains the final report (<http://www.mcmaster.ca/ecowise>):

Ecowise approach, relating human economic-social activities to the natural environment, was directed at understanding the harbour ecosystem in better ways, so as to more adequately predict the ecosystem consequences of human action and inaction. Results gained from Ecowise research have general implications for the study and management of ecosystems, and in particular, other urban-industrial ports in the world. (Ecowise Website, cited 2 April 2002)



In addition to the final report, the Ecowise team:

- created public service announcements,
- produced a bi-annual newsletter,
- established a Geographic Information System,
- set up public displays, and
- initiated the community volunteer planting program now carried on by BARC.

Ecowise also conducted the Hamilton Harbour Watershed Survey in 1995-1996 as a mail-out survey of more than 2800 households in the watershed to obtain a “database of people’s attitudes and values with respect to the environment and environmental issues” (Ecowise Website, cited 2 April 2002).

The Conservation Authorities develop and distribute information about the RAP, as well as information to assist watershed residents in the important role they play in the RAP. This has been undertaken through the Hamilton-Halton Watershed Stewardship Program with individual landowners. The Conservation Authorities have also initiated ongoing workshops with municipal planning and engineering staff on the subject of addressing the RAP in their work.

IV.6.3 Centres for Dissemination of Information

Recommendation No. EPI – 3

(1992 Rec. 34)

That centres such as: the BARC office, the RBG, the Conservation Authorities, municipal civic centres, the planned Canada Marine Discovery Centre, and other appropriate publicly accessible locations be used as points from which to disseminate information on Hamilton Harbour, its watershed, the RAP, and generally to encourage a more informed ecosystem perspective in peoples day to day lives.

Responsible Agencies

BARC, RBG, Conservation Halton, Hamilton Conservation Authority, City of Hamilton, City of Burlington, Regional Municipality of Halton, Parks Canada, Universities, Colleges, School Boards, Library Boards

Short Term Targets

- EPI – 3.1 **(2002)** Incorporate appropriate level of information for students at all levels stressing the ecosystem approach.
- EPI – 3.2 **(2002)** That copies of the following be made available to the public, on the Internet, and in hard copy form, at the Hamilton and Halton Public Libraries subject to Privacy and Freedom of Information legislation:
- WWTP and Landfill Certificates of Approval,
 - Overstrength Agreements,
 - Compliance Agreements,
 - Sewer Use Bylaws,
 - Relevant contracts and how they were arrived at (i.e., minutes of relevant City Council/Committee meetings),
 - Wastewater Treatment Plant Annual Reports,

- Landfill Performance Reports,
 - Project File Reports for Environmental Assessments that impact the Harbour
 - Environmental Study Reports for Environmental Assessments that impact the Harbour
- EPI – 3.3 **(2002)** A collection of documents on environmental investigations, citizen’s guides, etc, be established at the Hamilton and Halton Public Libraries.
- EPI – 3.4 **(2002)** Develop an education/outreach program focused on providing display material and Health Canada's one page “Guide to the Guide Summary” on eating Ontario sportfish sheets in various languages to schools/school boards in the RAP area and at RAP community events.

Ongoing Targets

- EPI – 3.5 Continue to offer publicly accessible locations for the dissemination of information materials on Hamilton Harbour, its watershed, and the RAP.
- EPI – 3.6 Promote the Harbour and the RAP through the use of displays at appropriate events.

Status

BARC is the largest centre for dissemination of information about the Hamilton Harbour RAP to the public. The BARC Office maintains a Great Lakes/Hamilton Harbour Resource Centre, which is open to the public and is also used by students from McMaster University and local high schools. BARC has a display that is taken to various events throughout the year.

The RAP Office also has a library of information pertaining to Hamilton Harbour issues that is available to the public and a display that is taken to various events throughout the year.

Many of the Hamilton Harbour RAP Stakeholders that have direct contact with the public (RBG, conservation authorities, municipalities) are obvious locations for informative brochures, fact sheets and media contacts. In addition, the RBG is currently reconfiguring its corporate website to include Project Paradise and other RAP related content.

Every two years, the provincial Ministry of the Environment (OMOE) and the Ministry of Natural Resources (OMNR) jointly produce the Guide to Eating Ontario Sportfish to provide advice to anglers on the consumption of sport fish in Ontario's waters. The availability of the information to local ethnic communities needs to be expanded, particularly where issues of health are pertinent to women of childbearing age and children under 15 who, due to language barriers, may not have access to relevant information contained in the guide.

Planning is currently underway for the Canada Marine Discovery Centre located on Pier 8. The proposed opening date by Parks Canada is September 2003.



IV.6.4 Public Education on Reduction of Pesticides

Recommendation No. EPI – 4

(2001 Rec. E)

Develop, maintain and evaluate public education programs to reduce the use of pesticides and/or fertilizers aimed at individuals, businesses, recreational facilities, and institutions to:

- *Encourage expansion of naturalized areas,*
- *Encourage the exploration and use of non-toxic alternatives to pesticides and/or alternatives to fertilizers,*
- *Encourage reduction in the use of pesticides and/or fertilizers,*
- *Encourage the proper use of pesticides and/or fertilizers if used, and identify the implications of their misuse.*

Responsible Agencies

BARC, OMOE, EC, City of Hamilton, City of Burlington, Regional Municipality of Halton, Conservation Halton, Hamilton Conservation Authority, RBG, and other appropriate agencies

Short Term Targets

- EPI – 4.1 **(2005)** Private individuals, businesses, and institutions be contacted to encourage using only the minimum necessary amount of pesticides and fertilizers.
- EPI – 4.2 **(2005)** Evaluate the program of contact initiated above.

Long Term Targets

- EPI – 4.3 **(2015)** Sustain the program of contact initiated above.
- EPI – 4.4 **(2015)** Generic education programs be developed province-wide by OMOE to encourage limiting landowners use of pesticides and fertilizers, and reducing areas of mowed grass by converting them to naturalized areas.

Status

In this report pesticides is used as a general term to cover: pesticides, herbicides, fungicides, and insecticides. Fertilizers were added to this recommendation because improper use or overuse of these substances can be harmful to the natural environment and water courses.

There are many local groups providing information to the public encouraging the reduction of pesticides. Green Venture, the Hamilton-Halton Watershed Stewardship Program, the Hamilton Naturalists' Club, and the Hamilton Coalition of Pesticide Issues are a few examples of groups that provide information to citizens on the benefits of reduced pesticide use and habitat restoration. All of these groups, and others, disseminate information through the production of brochures and the development of workshops and presentations. The pesticides reduction program being developed by Action 2020, the Conserver Society, and the Hamilton Naturalists' Club will be an important contribution to the implementation of the public information and education component of the RAP.

The RBG has created and distributed brochures about pesticide reduction and alternatives. The RBG centre hosted a full-day symposium open to the public on "Green Gardening: Alternative Lawn & Garden Care" in 2002 which featured Canadian experts in environmentally friendly gardening practices.

Municipal initiatives include the City of Burlington finalizing a community education program on the importance of reduced pesticide use, and the Region of Halton conducting residential surveys on community awareness of this issue.

IV.6.5 Adoption Program for Stream Sections

Recommendation No. EPI – 5

(2001 Rec. Q)

Investigate the feasibility of establishing an “adoption program” to allow individuals, groups or organizations to assist public authorities in the upkeep, enhancement, and ongoing monitoring of specific sections of urban, publicly owned streams, waterfronts and watersheds.

Responsible Agencies

BARC, OMNR, Burlington, Hamilton

Short Term Target

EPI – 5.1 **(2003)** Start a pilot watershed adoption project in urban, publicly owned stream sections.

Status

The recommended adoption program in urban, publicly owned stream sections is intended to provide opportunities for general garbage cleanups and maintenance efforts or a source of fundraising for rehabilitation projects.

BARC has held volunteer “nature nurturing days” at LaSalle Park and the Hamilton Waterfront Trail. BARC partners with the RBG on marsh planting for Project Paradise. There are also opportunities to involve the conservation authorities and WATER program (local students monitoring water quality conditions). OMOE encourages citizen participation in both adoption and stewardship programs.

IV.6.6 Hamilton-Halton Watershed Stewardship Program

Recommendation No. EPI – 6

(2001 Rec. R)

The Hamilton-Halton Watershed Stewardship Program should continue on an ongoing basis to encourage and assist private landowners in the protection, enhancement and restoration of the significant natural features, creeks and streams within the watersheds of the Hamilton Harbour Area of Concern.

Responsible Agencies

Conservation Halton, Hamilton Conservation Authority, BARC, OMNR

Short Term Targets

- EPI – 6.1 **(2005)** All landowners adjacent to designated wetlands, creeks, streams, and other significant natural ecosystems (as identified by the conservation authorities and municipality), be covered by a Stewardship program.
- EPI – 6.2 **(2005)** All private landowners that have part of their land holdings as “natural areas” or are adjacent to “natural areas” will be contacted to make them aware of the importance of the natural environment.

Status

The Hamilton Harbour Watershed Stewardship Project began in 1994 as a joint program between the two local Conservation Authorities (Conservation Halton and Hamilton Conservation Authority) and BARC. Its main purpose to educate and actively involve private and public landowners, and the broader community, in the protection, enhancement and restoration of local land and water resources, especially significant natural areas, fish and wildlife habitat, creeks and streams. The success of this project in the Hamilton Harbour Watershed allowed for the creation in 1999/2000 of the Hamilton-Halton Watershed Stewardship Program (HHWSP). Under the HHWSP the original Hamilton Harbour Watershed Stewardship Project continues as well as an expansion of its work into neighbouring watersheds including Stoney Creek, Fifty Creek, and Bronte Creek.

From 1994 through 2001 the following has been accomplished in the Spencer and Grindstone Creek watersheds by the HHWSP:

- over 3000 rural and urban landowners contacted,
- 375 verbal stewardship agreements with landowners,
- 6500 + hectares (ha) of land protected under the stewardship agreements including 120 km of riparian habitat and 2900 ha of significant wetland and upland habitat,
- 205 landowners involved in various rehabilitation projects (Figure 52) including 11 km of riparian habitat and 44 ha of significant wetland and upland habitat, and
- a further 900 + landowners are considered conservation minded.

In 2001, the HHWSP produced fact sheets for six area watersheds giving an overview of:

- watershed characteristics,
- breakdown of land use,
- watershed management issues including emerging issues,
- present priorities for action,

- progress to date in education/landowner contact, and
- breakdown of stewardship agreements and rehabilitation efforts.

A HHWSP brochure about stewardship for landowners living along the Niagara Escarpment was also produced in 2001 and is distributed by other organizations along the escarpment. Two workshops were held in cooperation with the Hamilton-Wentworth Stewardship Council – one on Environmental Golf Course Management and the other on Woodlot Management. Award Ceremonies are organized for watershed stewards, usually on an annual basis, as are newsletters. In 2002, HHWSP staff are coordinating a study on the “Conservation and Economic Values of Watershed Stewardship Programs”.

Future endeavours for the HHWSP include:

- producing the watershed factsheets on an annual basis,
- finalization and implementation of a three year strategic plan for the HHWSP,
- developing partnerships with local and other organizations to implement various initiatives - including the development of a partnership with the City of Hamilton and others to implement further rural water quality projects, and
- establishing targets to assist in performance measurement and progress reporting.

Figure 52. Distribution of Landowner Rehabilitation Projects

Source: Hamilton Conservation Authority