



Conservation
ONTARIO
Natural Champions

WEB-BASED

Communications for
Watershed Information Sharing



Clean and plentiful water supplies are among the most important natural resources. As the population grows and development intensifies, the challenge to maintain high quality and quantities of water has grown in scope and complexity. The Ontario government is working with many partners including conservation authorities, stewardship councils, farmers, environmental groups, other stakeholders and interested citizens to address these challenges.

From this collaboration, a series of watershed-based demonstration projects were carried out using new and innovative approaches to environmental stewardship. The project reports are intended to assist both practitioners and non-practitioners in applying the results in other local watersheds.

The full reports and fact sheets are available on Conservation Ontario's website.

OVERVIEW

This 36-page guide was developed as part of a Web-based communication project designed to encourage information sharing among watershed stakeholders. The project was carried out by the Lake Simcoe Region Conservation Authority (LSRCA) who designed an interactive Web site to promote the Lake Simcoe Environmental Management Strategy (LSEMS) program. Throughout the project, the Grand River Conservation Authority was instrumental in providing advice and assistance to the LSRCA.

The Web development project originated in response to the need for greater public awareness and involvement in the LSEMS program. Because of its potential for direct interaction, a web site was deemed the most appropriate means to transfer information to stakeholders. The Internet has quickly become the new standard for information exchange because of its unique capabilities as a platform whereby the public can interact and be more involved in information sharing. Through an interactive Web site, watershed managers are able to disseminate information geared to diverse target audiences, ranging from professionals to elementary students, on a wide range of topics such as watershed features, water quality, monitoring programs, healthy indicators, and geographical or natural heritage features.

This guide is a step by step resource for the development of interactive Web sites in other watersheds.

WHY DEVELOP A WEB SITE ?

The Internet...

- ▶ Provides the ultimate showcase to promote programs, product and services: the Web is open 24 hours a day, providing the user with unlimited access. The user's ability to interact with the presentation and communicate with the host makes the Web a powerful tool.
- ▶ Can cut costs by reducing advertising, direct mail and printing costs.
- ▶ Allows the host to reach a wider target audience within the watershed - and around the world.
- ▶ Allows direct interaction with users through communication tools such as on-line surveys, quizzes or chat rooms.
- ▶ Enables on-line application forms, which offer users an easy way to make a donation, join a mailing list, apply for funding or order products.
- ▶ Enhances information through a multimedia format with animation, text, pictures, sound, and video.
- ▶ Also allows the host to collect data from clients: the ability to poll the users and obtain their input is extremely useful in community outreach, marketing and promotion.

TIPS FOR DEVELOPING A WEB SITE

The key to having an exceptional web site is proper planning and development to ensure it will satisfy the needs of both the host and, more importantly, the target audience. Before designing the Web site, it is helpful to pull together a team of stakeholders, including technical advisers, potential users, educators, and other practitioners to assist in clearly defining its purpose and uses.

Some questions to guide the web site design are:

- ▶ What are the objectives for the Web site ?
- ▶ Who is the target audience ?
- ▶ How should the information be organized and presented ?
- ▶ What information and graphical resources are needed to produce the Web presentation ?
- ▶ What infrastructure (hardware) requirements are required to host and drive the site ?
- ▶ What resources are available for development ?
- ▶ What resources are required and available to maintain the site into the future ?

Key steps in the technical development of a Web site include:

1. Selecting a host.
2. Establishing a domain name.
3. Programming the site.

Content and presentation

Visitors to the site will range from novice and occasional to expert and frequent users, and may include:

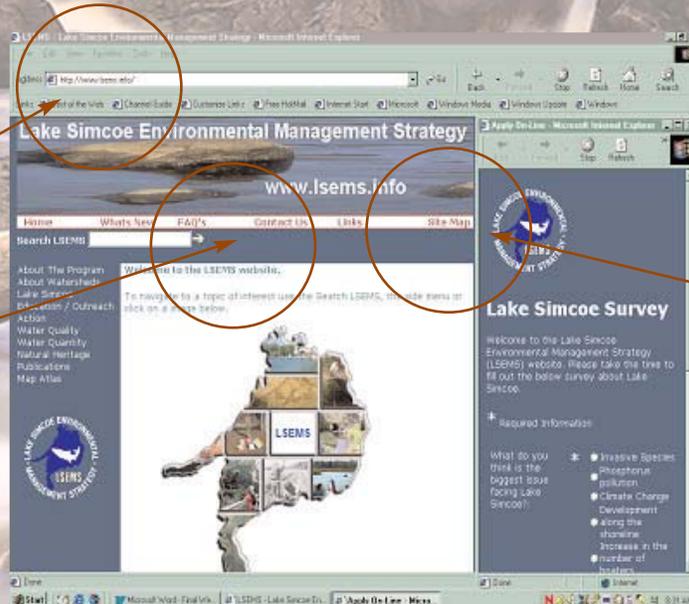
- ▶ watershed residents
- ▶ cottagers and businesses
- ▶ elementary, high school and post-secondary students
- ▶ tourists
- ▶ professional engineers
- ▶ resource managers
- ▶ environmental science practitioners, both locally and internationally.

Given the wide diversity in the target audience, the content of the site should vary from easily understood to highly detailed and comprehensive technical information. The key is to enable users to choose which information types they wish to view.

There is also a wide range of presentation features and navigational aids available, such as quick links and search engines - to satisfy both novice and expert users. These features are more complex to develop initially but are extremely useful, and will satisfy a range of user needs.

Domain name

Quick links



Navigational aids
(site map)

THE LAKE SIMCOE EXPERIENCE

Located less than an hour's drive from half the population in Ontario, Lake Simcoe has been estimated to generate more than \$200 million annually for the local economy through recreational activities alone. The lake also provides a source of drinking water for five lakeshore communities and is used to assimilate municipal waste from fourteen water pollution control facilities.

Due to growing concerns about the health of Lake Simcoe, the Lake Simcoe Environmental Management Strategy (LSEMS) Implementation Program was launched in 1990. As the program enters its third phase, the LSEMS partners are working to obtain the support and assistance of the entire community. Providing information on the Web increases general awareness about the LSEMS program and provides opportunities for the community to get directly involved.

INFORMATION TRANSFER VIA WEB-BASED TOOLS

There are numerous Web-based tools which help with the transfer of information. The LSEMS site offers a variety of applications targeted to different audiences.

Frequently Asked Questions (FAQs) are convenient to the user, reducing the time to get simple answers to their questions.

Short digital clips provide an alternative to reading text. These entertaining clips feature environmental "how-to tips" of actions individuals can take around their homes to reduce pollution and enhance the environment.

An interactive Map Viewing Application allows users to display information spatially for the entire watershed area.

An interactive map and database depict environmental monitoring stations across the entire watershed. The user can download data such as surface water and ground water quality and quantity, lake level information, benthic invertebrate sampling data, and climate information.

More than 25 Technical Reports are available on the LSEMS Web site. These reports are written by resource managers and scientists for a more technical audience.

Microsoft PowerPoint slide shows are easily compiled for active viewing or downloading.

LSEMS Web site will continue to improve and evolve over time and a number of future initiatives are being planned. Web sites need to be treated as "living" projects, which require constant maintenance and upgrading to keep them of interest to the user. As Web technology continues to change and improve, it will provide new and unique opportunities to communicate with the community in an effort to influence environmental change.

<http://www.lsems.info>

PROJECT PARTNERS



This guide was made possible by the Government of Ontario and Conservation Ontario in partnership with the Lake Simcoe Region Conservation Authority and the Grand River Conservation Authority.

FOR MORE INFORMATION:

Conservation Ontario

120 Bayview Parkway, Box 11

Newmarket, ON L3Y 4W3

Tel: 905-895-0716 Fax: 905-895-0751

E-mail: info@conservation-ontario.on.ca

www.conservation-ontario.on.ca