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ONTARIO**
Natural Champions

If individual landowners are to be successful in protecting source water, they need access to water information for planning and decision making. It is essential for Conservation Authorities to know how to communicate with rural communities, to understand their information needs, and to anticipate the skills and effort required to realize this goal. This pilot project explores methods for transferring water resource information to a rural audience.

Improving Access to Water Resource Information

In Agricultural Watersheds



In December 2001, the Ministry of the Environment, Ministry of Natural Resources and Conservation Ontario formed a partnership to develop a series of watershed-based pilot projects. Phase I, completed in 2003, included six pilot projects that focused on new and innovative approaches to watershed stewardship. Phase II, with the objective to develop, implement and demonstrate place-based environmental management approaches, will provide some of the building blocks for the anticipated watershed-based drinking water source protection that will be undertaken in Ontario.

This is one of four pilot projects completed during Phase II seeking on the ground results, focusing on implementation, and the technical issues faced by practitioners when implementing drinking water source protection.

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

The Project at a Glance...

This pilot project was developed under the leadership of the Maitland Valley and Saugeen Valley Conservation Authorities to explore methods for transferring water-related information to a rural audience, and to report on each method's effectiveness, costs/benefits, and considerations for implementation.

Additional goals of the project were to document considerations for designing computerized mapping information, determine user responses to water information for their property, and discuss with landowners how they would use the information provided.

The three methods that follow were examined and evaluated on the basis of providing landowners with information that needs to be considered for source water protection:

- Over the Internet, using the My Land, Our Water website with a mapping application (<http://myland.mvca.on.ca> or <http://myland.svca.on.ca>)
- Kiosk in the MVCA and SVCA offices
- Extension visits with rural landowners in their homes to discuss water and how it relates to their property

Target Audiences for Pilot Project

- Landowners (farmers, non-farmers)
- Municipalities
- Agri-business professionals

Past Conservation Authority projects have demonstrated that people become involved in an issue or activity when they feel they have a personal connection to it. This project provided water information at the property or farm scale to strengthen landowner interest and engagement in water issues.

About the Watersheds

The combined Saugeen and Maitland watersheds have a land use distribution of 4% built-up area, 72% cleared agricultural land and 24% natural areas. There is a total population of 137,410 with 49% of the population using municipally supplied water in 26 settlement areas. Therefore, 51% of the population is privately serviced with an estimated 13,400 known private wells. From a land use perspective, most of the area is in its final land use, agriculture. The largest land use change is the intensification of agriculture. Since this intensification does not trigger source protection policies under the *Planning Act*, it is particularly crucial to engage these landowners in source water protection. It is also important to ensure that municipalities have the correct information for the building permit process, to enable them to direct development to the most appropriate areas.



Study Area: Location of Maitland and Saugeen watersheds in Southwestern Ontario

Assessing Landowner Needs

Based on the distribution of land use and people within the pilot project watersheds, and due to the fact that the municipal capture zones in the study area are relatively small and land use change under the *Planning Act* is not occurring, it was determined that actions to protect and improve water for all people within the Maitland and Saugeen watersheds need to be taken at the property or farm scale.

It is also suggested that source water protection in this area should focus on land management and on techniques to engage, inform, and assist property owners in adopting appropriate practices. If individual landowners are to be successfully involved in protecting water, they need access to water information for decision making as well as for the development of farm planning documents.

Effectiveness of Communicating Information

This pilot project focused on delivering basic surface and groundwater information to rural landowners and municipalities for the purpose of evaluating three communication methods: internet, kiosks in MVCA and SVCA offices, and extension visits. The purpose of testing the three communications strategies was to determine if users had a strong preference for one method over the others and to examine the costs and benefits associated with each one.

Website

The pilot project outlines the process undertaken to develop a website, "My Land, Our Water", intended to improve access to information on surface and groundwater for rural and agricultural landowners and municipalities in the Maitland and Saugeen watersheds. The final report includes an assessment of user requirements, a comparison of GIS web servers, and an evaluation of the website's usability based on focus group evaluations.

Kiosk

Workstations were set up in the MVCA and SVCA offices where visitors could access the My Land, Our Water website with assistance from Conservation Authority staff if necessary. The purpose of the kiosks is to evaluate if landowners without internet access, or those who experience problems with the site, will be willing to travel to the CA office for assistance. While the kiosk method continues to be tested, the final report provides a brief assessment of its usefulness.

Extension Visits

The third communication method tested with the My Land, Our Water project involved extension visits with farmers. Conservation Authority extension services staff presented the information that is available at the My Land, Our Water website in a kitchen table discussion format. Key issues of concern raised during extension visits as well as how landowners wish to receive information are discussed.



Lessons Learned

The feedback received from landowners involved with the pilot project to date indicates that a multiple communications approach is most effective in delivering information to rural landowners. Response to the My Land, Our Water website has been very positive, and participants were particularly enthusiastic about the mapping application. However, it is recognized that not every question can be answered through the website. In addition, most users were focusing on the mapping application and spending little or no time browsing the supporting material on the website.

In comparison, while the extension visits require a considerable amount of staff time, landowners were provided with a very personal service that allowed their specific questions and concerns to be addressed. In the MVCA watershed, there remains a substantial number of rural residents that are not regular internet users. The extension visits showed that the participants without internet access were not interested in using the project kiosks.

As a result, it appears that providing the website coupled with a limited extension program will meet the needs of identified target audiences.

Other Key Conclusions:

Private landowners have a critical role in protecting water quality and quantity. A key initial step in source water protection is to raise the awareness about how water moves over or through landowners' property and it is influenced by human and natural activities. Municipalities also play a role in ensuring development is compatible with water resources, and can use the information in this project to set priorities and communicate with landowners.

- It is extremely important to design a web-based mapping application for the average user. Initial versions of the mapping application created within the pilot projects were much too complex for users.
- Users had a strong preference for using their lot and concession information to find their property as compared to zooming in on a watershed map. Users were also appreciative of being able to easily access aerial photos of their property.
- Feedback from landowners who participated in the extension visits was very positive, and these visits also provided opportunities for staff to discuss programs and stewardship issues in detail with participants.
- Although it is hoped that My Land, Our Water will encourage users to think about the impact of their farming operations on water quality and quantity, participants in this project in general were not ready to make changes to their farming operations based on the information provided.



It is recognized that delivering basic water-related information to landowners will not, by itself, cause landowners to make substantive changes to their farming operations. Conveying this information is seen as one step toward building an awareness of water issues in watersheds and developing positive attitudes towards protecting water resources.

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