

The Background

- Clean Water Act, 2006 establishes the Source Protection Program
- Watershed-based Source Protection Plans require implementing bodies, e.g., municipalities, to take action to protect municipal sources of drinking water

Part IV Responsibilities



Part IV refers to policy tools available to Risk Management Officials and Risk Management Inspectors to enforce Source Protection Plan policies.

Tools include:

- Prohibition
- Risk Management Plans
- Restricted Land Uses

The Challenge

- Municipalities require a tool to help meet information management needs related to Part IV of the Clean Water Act, including annual progress reporting

The Solution



Collaborative venture of local partners to develop a web-based information management system

Built to:

- meet Part IV operational information and reporting needs
- support annual progress reporting requirements

The Collaborators



MUNICIPALITIES:

- The City of Guelph
- Municipalities in Wellington County
- Oxford County

CONSERVATION AUTHORITIES:

- Upper Thames River Conservation Authority
- Grand River Conservation Authority

- Discussions ongoing with additional municipalities



The Collaboration Process

- Sharing experiences and capabilities
- Collaborators share responsibilities and are expected to provide input and guidance
- Examples of collaborative responsibilities:
 - ✓ development of collaboration agreement ● led by City of Guelph; participation by all
 - ✓ development of document templates ● by all
 - ✓ project management ● led by Upper Thames River Conservation Authority
 - ✓ Privacy Impact Assessment ● led by Wellington municipalities; participation by all

Achievements

PHASE	DESCRIPTION	STATUS
1	needs assessment	complete
2	preliminary database schema and interface	complete
3	preliminary system release - basic functionality	complete
4	mapping and spatial integration	substantially complete
5	communications and chronology	in development
6	administration and reporting	planned early 2017
7	tasks and workflow	ongoing



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The Cost

- Total in-kind from all ~\$300k
- Original funding ~\$35k per collaborator
- Estimated annual maintenance ~\$5k per collaborator
- New collaborators ~\$10k once + prorated maintenance

LSWIMS APP

DEVELOPMENT ENVIRONMENT



- Developed in .net/javascript/JQuery
- Running on MS SQL on a secure Microsoft Azure site
- Third party authorization tool used
- Transport level security using a TSL Certificate
- Open layers mapping using MS SQL database
- Can be used anywhere internet is available on a variety of mobile devices

Summary of Features

- ✓ Contact and location information
- ✓ Mapping to view: base mapping, aerial photos, well locations, wellhead protection areas and other data
- ✓ Ability to add multiple polygons to a site to represent specific activity locations
- ✓ Connection to municipal info on parcels and contacts

Summary of Features

- ✓ Automatic addition of zones, scores and potential significant threats through SB, spatial intersection
- ✓ Ability to associate documents (Risk Management Plans, reports, photos, letters, etc.) with a site
- ✓ Ability to create documents directly within the application

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POTENTIAL FUTURE WORK PRIORITIES

- Integrated email, automatic parsing and notification of responses
- Automated population of templates, e.g. Risk Management Plans
- Generation of annual reports
- Administration features and documentation
- Integration with other management systems

LSWIMS

Local Source Water Information Management System

A Collaborative Venture

