



WISKI Water Quality / Quantity Data Management Model –

Potential Component of the Thames River Water Management Plan





Background

 Goal of the Thames River Water Management Plan:



"Improve water quality of the Thames River watershed and reduce the river's impact on Lake St. Clair, Detroit River and Lake Erie".

- Need to understand nutrient enrichment in the Thames River Watershed through identification of baseline conditions, trends and gaps.

Purpose



- "Compilation of water quality and quantity data" identified as a priority by the Water Quality and Quantity working group in 2013.
 - Data needs to be:
 - Compiled in a standardized and comprehensive manner
 - Assembled and Maintained in a reliable, secure and flexible web-based database.
 - Managed and shared through greater coordination by partners in the watershed.

Kister's / WISKI



 Industry standard, environmental data management and reporting software.

 Used by several conservation authorities and agencies in Ontario

 UTRCA / LTVCA have implemented water quantity data and begun looking at for water quality and ecological data.

Proposed Implementation

- Team formation of members from the watershed using or working with water data.
- UTRCA lead, using and adding to existing infrastructure (related to Flood Forecasting and Warning) to create central shared repository and tools.

 Comprehensive project proposed, approximately 1 year duration with 8 components including some optional elements.

1. Project Initiation

- Identify all water based groups in watershed to serve on project team.
- Develop and recruit a
 dedicated contract position
 dedicated to work on technical
 components of data
 management related to
 project.
- Software acquisition and setup





2. Background Data Compilation

 Develop a water quality data inventory, including meta-data for Thames River Watershed (current and historical)

3. Evaluation of Data

 Develop a database development strategy that will be used to prioritize what is incorporated into system.







4. Database Development / Data Import

 Structure and import data into the system (KiWQM), user training for partner agencies.

5. Data Processing

- Development of interfaces and security protocols to allow ongoing import and export of data through web interface.
- Identification and development of analysis routines



6. Data Maintenance



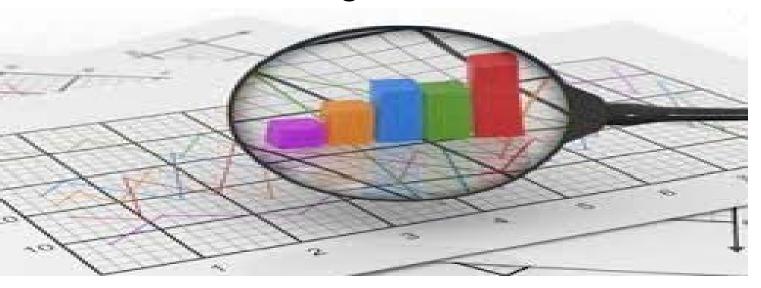
 Develop a process for maintaining the database and applications which will allow for ongoing data transfer from various partner "custodians"

 Seek endorsement from partners



7. Data Collection

- Assessment of data collection methods that could benefit from use of mobile water measurement applications associated with the system
- Examine the feasibility of community based monitoring network.







8. Partner Workshop

- Conduct a workshop to demonstrate the structure and uses of the database and web application / basic training
- Foster broad participation from those with data.







Deliverables



Inventory of all surface and groundwater quality data

 Populated database of surface water quality, groundwater and ecological parameters

Interactive website for output and input of data

Deliverables



 Feasibility study of a community-based monitoring network for water quality

 Development and implementation of collaborative data submission, data management, data protection and data access procedures

Training session and workshop

