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ThamesRiver
CLEAR WATER REVIVAL



Committed to a Healthy and Vital Thames River

WISKI Water Quality / Quantity
Data Management Model –

Potential Component of the
Thames River Water Management
Plan



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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.



Project Components

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



Project Components

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.



Project Components

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



Project Components

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



Project Components

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.



Project Components

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

