



Project **DATA MANAGEMENT SYSTEM FOR PRIVATE WELL BACTERIA DATA**

Client **The City of Ottawa**

Objectives

- Build a system that can be used to readily assimilate daily results of up to 700 samples from local, private wells
- Automate the preparation of individual letters to well owners
- Geo-code data to enable spatial analyses.

Outcomes

- Taxpayers receive prompt service from the municipality
- Staff can carry out advanced spatial analyses of data for identification of possible problem areas.



Key Aspects

- Streamlined data-entry system with error and duplicate checking
- Geo-coding from sample results for spatial analyses.

Project Description

Following the Walkerton tragedy, rural residents in the City of Ottawa have regularly submitted water samples from their wells for analysis of bacteria. The city is copied on the data for the purpose of notifying the resident, and for the city's broader groundwater management plan. The city receives the results of up to 700 samples each day.

EarthFX was retained in the summer of 2000 to design a system to allow the city to effectively manage the date and optimize the value of the data. This was achieved with the following deliverables:

- A data model to accommodate the data
- Interface software to streamline data entry of results
- Internal verification and checking to manage duplicates and multiple samples from the same well
- Querying and reporting tools to search for specific data, and print reports for individual mailings
- Advanced geo-coding functions to assign UTM coordinates to each well based on the address provided and three reference databases.