SCEK Project Profile

Project Name:	Web-based GIS Interface to Water Data in Northeast BC
Project Number:	EI-2014-04
Proponent:	BC Oil and Gas Commission (BCOGC)
SCEK Funding Envelope:	Environmental Impacts
Timeframe:	January 1, 2014 to March 31, 2014

Project objectives

The objectives of this project are as follows:

- create a web-based GIS interface that provides free and open public access to an array of water-related data that have been collected by government agencies and external groups, and that has flexible charting and analytical tools allowing users to understand and use the data for a variety of purposes; and
- create a repository and database of surface water and ground water data collected by industry, the BCOGC, and others that can be accessed publically via the web-based GIS interface.

Project background

Access to water-related monitoring and information, and the ability to store and retrieve water-related information, is key to enhancing and supporting resource development in NorthEast BC. The information is required by statutory decision-makers and by oil and gas operators working in the region. Public access to this information is also critical in fostering public understanding and support for resource development.

This project will create and provide a web-based GIS interface with flexible and interactive charting and analysis tools, to allow users to access and understand an array of water-related data. Linked to the interface will be a database and data repository that can be used for various surface water and groundwater quality and quantity data. The system will reside on a BC Oil and Gas Commission server and will be linked and publically-available through the BC Oil and Gas Commission website.

The system can provide access to:

1. **Hydrometric Data:**
    - Water Survey of Canada archive data;
    - Water Survey of Canada “real-time” data;
    - Geoscience BC / HRBPG Horn River Basin data;
    - Data reported to OGC as condition of permit;

- Data reported to FLNRO as condition of water licence; and
- Industry-operated station data.

2. **Weather / Climate Data:**
   - Environment Canada archive and active station data;
   - FLNRO Fire Weather data;
   - MOTH Road Weather data;
   - Geoscience BC / HRBPG Horn River Basin data;
   - MOE Snow Survey and Snow Pillow data; and
   - Industry-operated station data.
3. **Groundwater:**
   - MOE observation well data;
   - Groundwater level/quality data reported to OGC as condition of permit; and
   - Miscellaneous Commission, industry or government groundwater level and quality data.

Project approach

The project is led by the BC Oil and Gas Commission with assistance by Foundry Spatial Ltd. Funding for the project is provided by the BC Oil and Gas Commission, Geoscience BC and the SCEK Fund.

Project activities will include the following:

1. Identify data sources and secure access to hydrometric, weather, groundwater, and other information.
2. Develop database structures to store relevant data from:
   - Federal / provincial monitoring agencies; and
   - BC Oil and Gas Commission.
3. Develop and test map based interface.
4. Develop, test and refine info-graphics.
5. Integrate tool with existing BCOGC web ecosystem.
6. Reporting.
7. Extension.

Project deliverables

The major deliverables from this project include the following:

1. A web-based GIS interface installed and operating on a BCOGC server, with flexible and interactive charting and analysis tools.
2. A data repository and database containing the surface water and groundwater quality and quality data.
3. A user guide to offer instructions on how to use the map interface, explain the various data sources reliability, and view and understand the various graphs and analysis.