



# Peace River, British Columbia – Water Baseline

## What is unique about this project?

- Built partnerships between local government (Peace River Regional District) and First Nations (Treaty 8 Tribal Association).
- Created an understanding of water flow, both at surface and in the subsurface in the Peace River watershed.
- Compiled one standardized database from multiple sources of data from different sectors (ministries, Northern Health, BC Hydro, etc.) that had used different measurements and formats.
- Information is now fully transparent, adaptable to other software, easy to understand, and public.
- Provides a status of water quality and how it has changed over the last 60 years.
- Results “peer” reviewed by panel including Simon Fraser University (SFU), Ministry of Forests Land and Natural Resource Operation (FLNRO), and the Oil and Gas Commission of British Columbia (OGC).

## Funding Partners and Duration

- Budget of ~ \$ 450,000.
- This project is predominantly funded by the Real Estate Foundation of British Columbia (REFBC) and the Peace River Regional District. Other contributors include Treaty 8 Tribal Association, GW Solutions Inc., Interraplan Inc., and Moberly Lake Association.
- Duration of two years. Public presentations organized in the spring of 2015 to provide preliminary information about the project. Final database and reporting scheduled in spring/summer 2016 accompanied by a series of public presentations to share the results.

## Achievements

- Groundwater: Aquifers (type, boundaries, depth, thickness) were identified and groundwater flow (water table, direction) estimated. 3D models and images were created to illustrate the groundwater regime.
- Interpretation of quality of surface water (12,000 samples from 1955 to 2014) and groundwater (over 1,000 samples from 1943 to 2015).
- 27 watersheds covered for which the data shows the evolution of surface water and groundwater quality over time, and elements with concentrations exceeding standards and guidelines.
- Comparative assessment of water quality trends (Is the water quality getting better or worse?) using a water quality index.



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