REGENERATE Water Inc.

PROJECT EXPERIENCE

Assignment Name: Municipal Engineering Services	**ID#: 26**
Country: Canada **Location within Country:** British Columbia	**Approx. value of the contract:** Variable (ongoing).
Name of Client: City of Fernie	**Approx. value of the professional services provided under the contract:** US$ variable (project dependent)
Address:	**Total No. of staff-assigned to Project:** 4
Start date (month/year): March 2005	**Total No. of staff-months of the assignment:** 20
Completion date (month/year): October 2008	**Duration of assignment (months):** 44

Narrative description of Project:
Ongoing support to the City of Fernie for all municipal, water and land development related engineering services.

Description of actual services provided by professional engineering staff within assignment:
Reviewed the water source and supply situation based a number of previous reports and made a presentation to Council on the risks associated with the current surface water source of supply and provided various recommendations on a staged course of action. Report accepted by Council and following 3 years resulted in the implementation of the report with the following projects:

- Quantify the drought risk faced by the District and developed / prepared a Drought Management Strategy (implemented) ;
- Reviewed the entire utility finance plan and recommended updates and changes to the District billing and utility structure (implemented);
- Review and enhancement to the In-line chlorination and treatment system
- Significant projects included in-situ utility upgrades required for 2 proposed housing developments (combined impact – doubling the utility demand for the District). These projects included:
- Identify, test and confirm the availability of groundwater source not subject to surface water contamination and design the inclusion of the groundwater into the existing raw water supply (surface water) to ensure no cross-contamination form differing raw water quality;
- Design of the raw water bulk transmission main from borehole to reservoir, design of command reservoir and design of booster pump system from command reservoir to high-lying areas of the District;
- Design of new in-line chlorination and treatment system for the command reservoir;
- Outside of the raw water supply line, the bulk collector sewer was upgraded to double carry-capacity (maximum trench depth – 6m) with significant care on construction safety on eliminating impact on infrastructure outside the road reserve.

Additional engineering support included:

- Engineering input on the proposed revitalisation of the main street in the District core (implemented; including pedestrianisation of the centre);
- Develop 20 year capital investment and renewal plan for all utilities

Description of Activities provided by RWI
Led the design team for the solution development for all the identified projects in the District of Invermere. Design services included hydraulic modelling (water systems), sanitary and storm sewer network modelling, C3D and Cad drawings, urban planning, land use mapping and planning, support to developers.

Provided input and direction on management of scope changes and project deviations, with site and construction supervision being undertaken by others.