



GILLES WENDLING, Ph.D., P.Eng.

Dr. Wendling has been involved in the assessment of water supplies (drinking water) and in the protection of groundwater resources. His fields of interest and expertise are the following:

- design of production wells;
- monitoring, maintenance and rehabilitation of water wells;
- characterization and protection of aquifers and watersheds;
- education on water supply systems, hydrogeology, water conservation and water microbiology;
- water management and water demand assessment; and
- ground disposal of treated liquid wastes.

Gilles Wendling was in the organizing team of the CanWell 2004 PanCanadian groundwater convention and trade show (500 delegates). Dr. Wendling has been the Director -Technical and Professional Division of the BC Groundwater Association from 2001 to 2006, and its managing Director in 2006, 2007 and 2008. He has also been the Director -Technical and Professional Division of the Canadian Groundwater Association in 2003 and 2004.

Gilles Wendling is the president and founder of Global Aquifer Development Foundation, a Canadian charity creating partnerships with developing countries and assisting in the establishment of groundwater management systems.

Gilles Wendling has conducted and managed studies in many fields of hydrogeology such as:

- Environmental impact studies (commercial and industrial activities – mostly for the mining and petroleum industries);
- Impact assessments of municipal and regional solid waste and liquid waste disposal facilities;
- Geotechnical investigations (seepage and slope stability assessments);
- Etc.

This resume mainly focuses on water supply, aquifer and watershed studies and presents a selection of the various types of studies **most recently** completed.

PROFESSIONAL EXPERIENCE

Most Complex – Largest Projects (budgets ranging between \$ 100,000 and \$ 1 Million).

- Aquifer management for the second largest private water utility in BC for 7 years – project manager, Parksville, BC.
- Characterization and numerical modelling (using GIS and Visual Modflow) of watershed serving several municipalities, regional district and private water purveyors. Project conducted in partnership with the water purveyors and BC Ministry of Water, Land and Air Protection – project manager, Mt. Arrowsmith Watershed, East Coast of Vancouver Island, BC.
- Hydrogeological, hydrological, geotechnical and biophysical assessments of land proposed for large development (residential, commercial and golf course) – project manager, East

Coast of Vancouver Island, BC.

- Completed a review and critique of a large hydrogeological study on behalf of the Halalt First Nation for a proposed series of production wells (water supply for the District of North Cowichan) as part of a provincial and federal environmental assessment process, Chemainus River Aquifer, Halalt First Nation, BC
- Investigation of water needs and water resources of 120 villages (150 to 3,000 inhabitants). Duties included a visit of each village, meeting with the representatives, global socio-economical study in order to estimate the most appropriate techniques to meet water needs. Guidimaka region, Mauritania.

Other Projects (budgets up to \$ 100,000)

“Aquifer and Watershed” related projects

- Impact of proposed coal bed methane (CBM) development on salmon (via groundwater and surface water interaction) in the headwaters of the Skeena, Nass, and Stikine Rivers, BC
- Drinking Water – Watershed Protection Action Plan, Regional District of Nanaimo, BC
- Aquifer vulnerability assessment, associated with proposed large residential development, Cowichan Valley Regional District, BC
- Assessment of aquifer potential for water supply, Cumberland, BC
- Assessment of aquifer potential for water supply, Comox, BC
- Assessment of aquifer potential for water supply, Yellow Point, BC
- Assessment of aquifer potential for water supply, Cobble Hill, BC
- Expression of professional opinion on limitation of regional growth due to limitation of the water supply, Regional District of Nanaimo, BC
- Hydrogeological Assessment of land potentially developed for residential use, Comox, BC
- Aquifer delineation and characterization, Groundbirch to Dawson Creek, as art of BC Ministry of Water, Land and Air Protection aquifer mapping project, Northern BC
- Aquifer Mapping for BC Ministry of Water, Land and Air Protection, Qualicum Beach to Horne Lake and four of the Southern Gulf Islands, BC
- Aquifer modelling and preliminary aquifer protection plan, City of Merritt, BC
- Design of an aquifer protection plan, Ucluelet, BC
- Regional hydrogeological study and water supply assessment, Lantzville, BC

- Delineation of aquifers and definition of hydrogeological conditions in area of potential coal bed methane extraction, Courtenay-Comox area, BC
- Aquifer assessment, contamination risk assessment and input on by-laws for area proposed for industrial development, Parksville, BC
- Public presentations to educate the public, elected officials, and regulators on groundwater, aquifers, watersheds and groundwater sustainability (Parksville, North Cowichan, Victoria, Fort Saint John, Houdson's Hope, Tumbler Ridge, Princeton, Keremeos, Fernie, etc.)

“Water supply” related projects

- Design of large production municipal well – Senior review, Merritt, BC
- Professional opinion on potential groundwater supply for irrigation of agricultural land, Lantzville, BC
- Design and preliminary testing of water wells, Nanoose, BC
- Assessment of water supply for land development, using an artesian well completed in a bedrock aquifer. The assessment included aquifer protection recommendations. Garden Bay (Sunshine Coast), BC
- Assessment of water supply for land development, using a surface water pond, Garden Bay (Sunshine Coast), BC
- Assessment of a water supply to provide base flow for fish habitat, as part of requested mitigative measure for a storm water management plan for a land subdivision, Township of Langley, BC
- Retained as the main consultant for aquifer characterization and protection and for system operation of a large water purveyor relying only on groundwater, Clearbrook, BC
- Assessment of potential impact to the water supply of a ski resort of a proposed open loop geothermal system, Sun Peaks, BC
- Water source assessment, residential development, Ucluelet, BC
- Water supply assessment for 70-lot subdivision, Nanaimo, BC
- Assessment of part of drinking water supply system (Regional District of Comox-Strathcona) and design, construction and testing of new production well, Oyster River, BC
- Salt water Intrusion study and design of monitoring plan for production well, Parksville, BC
- Assessment of failure (collapse of large cavity created by fine migration) of large production well for Canadian Forces Base, Comox, BC
- Decommissioning of municipal well, Lantzville, BC
- Development of a wellhead protection area, risk identification and well survey, Gold River, BC

- Hydrogeological assessment of bedrock well, Regional District of Lake Country, Ellison Ridge, BC
- Testing of a water supply well for a school and design of re-injection structure, Mayo, Yukon.
- Water supply, licensing review and preliminary study of potential new groundwater resources, Mount Washington Alpine Resort, Courtenay, BC.
- Characterization of water sources (water well and infiltration gallery) used by a bottled water processing plant. The study was completed to satisfy the requirements of provincial health officers and to apply for an exporting license to California, Fanny Bay, BC.
- Water demand and population growth assessment in preparation for treaty negotiation, Hul'Qumi'Num Treaty Group, central and southern Vancouver Island, BC
- Preliminary hydrogeological study for Olympic facility (Whistler Sliding Centre), CEAA screening, Whistler, BC
- Data review and recommendations for rehabilitation and maintenance plan for municipal well field, Ucluelet, BC
- Hydrogeological investigation for the potential development of a groundwater supply source for a proposed water bottling facility, Gold River, BC.
- Water Supply study for provincial park facility, Little Qualicum River, Qualicum Beach, BC
- Development of a wellhead protection area, risk identification and well survey, Gold River, BC
- Water supply monitoring and assessment of potential salt water intrusion, two municipal water supply wells, Regional District of Nanaimo, Nanaimo, BC
- Hydrogeological assessment to identify origin of hot spring and possibility of using hot water as a geothermal source (for Kaska Deena Council) without impacting sensitive ecosystems, Liard Hot spring, BC
- Regional hydrogeological study and assessment of artesian municipal production well with large discharge rate at elevated temperature to be used as a source of energy - senior technical input and review, Haynes Junction, Yukon
- Well efficiency and microbiological assessment followed by design and implementation of well rehabilitation plan, Agriculture Canada Facility (well used for geothermal energy), Agassiz, BC
- Regional hydrogeological study (including numerical modelling) and development of water supply system for 150 lots subdivision, Parksville, BC
- Hydrogeological assessment (water supply and liquid waste assessment) for large residential development (80 lots) in preparation for preliminary layout (PLA) application, regional District of Alberni-Clayoquot, BC
- Hydrogeological study (water supply & liquid waste disposal) of large property proposed for



residential development. Low impact development solutions proposed to counter adverse hydrogeological conditions encountered, Lantzville, BC

- Hydrogeological study for residential development (including 2D modelling) and promotion of low impact development solutions, Parksville, BC
- Literature review to assess impact of forest harvesting on water table fluctuation, Western BC