

SITE EVALUATION GUIDELINE FOR NEW GROUND WATER SOURCES

1.0 INTRODUCTION

The intent of the site evaluation process is to obtain information to evaluate potential health risks and support source protection planning. The information provided should include the following elements:

1. Proposed well site. The site should be evaluated before the well is drilled.
2. Identification of potential sources of contamination that may impact water quality.
3. Identification of wellhead protection measures to be considered or implemented.

2.0 INVESTIGATION CRITERIA

The following items should be considered during the site assessment of a proposed groundwater source. This list is not exhaustive, but is intended to stimulate thought:

Does the water supplier own the land that the proposed well will be located on?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Has a water license application been submitted for this source through FrontCounterBC?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is the aquifer in the general area considered confined and not vulnerable to contamination? (e.g. Ministry of Environment Aquifer Vulnerability Maps)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does the proposed well location have the potential to be Groundwater at Risk of Containing Pathogens (GARP)?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are there any contaminated sites in proximity to the proposed well location? (e.g. Ministry of Environment Contaminates Sites Registry)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are there any on-site sewerage disposal systems within 30 metres?	<input type="checkbox"/> Yes <input type="checkbox"/> No
For community wells*, are there any sewerage systems within 90 metres? * supplies more than 500 persons and/or is pumped for more than 3 months at a rate greater than 190 L/min.	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are there any cemeteries, landfills or dumping grounds within 120 metres?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is the area low lying or potentially subject to flooding (i.e., within the 20 year flood level)?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Interior Health would like to recognize and acknowledge the traditional, ancestral, and unceded territories of the Dākelh Dené, Ktunaxa, Nlaka'pamux, Secwépemc, St'át'imc, Syilx, and Tšilhqot'in Nations where we live, learn, collaborate and work together

Are any of the following occurring within the estimated capture zone or within 100m of the proposed well?		
Animal grazing and/or manure stockpiles	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Agricultural operations and fertilizer use	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Wells on neighbouring properties	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Fuel storage	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Salt storage	<input type="checkbox"/> Yes	<input type="checkbox"/> No

The investigation and amount of information required to support system design can vary for each situation. In general, water suppliers should provide the following:

- Comprehensive water quality analyses.
- A GARP assessment done using the most recent version of the provincial GARP guidelines.
- For water systems serving more than 500 persons, a source protection plan using the BC Comprehensive Source-to-Tap Assessment Guideline or Well Protection Toolkit.
- For small water systems (i.e., those serving less than 500 persons), an assessment equivalent to that described in the BC Drinking Water Source-to-Tap Screening Tool or Water Systems Assessment: User's Guide.

3.0 REFERENCE DOCUMENTS

No one process for assessing ground water will be appropriate for all systems. However, the following provincial documents provide guidance regarding the collection of information to support water system design:

- Guidance Document for Determining Ground Water at Risk of Containing Pathogens (GARP):
https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/waterquality/how-drinking-water-is-protected-in-bc/garp_assessment_oct_2017.pdf
- BC Drinking Water Source-to-Tap Screening Tool (Section B1):
https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/documents/bc_drinking_water_screening_tool.pdf
- BC Comprehensive Source-to-Tap Assessment Guideline (Modules 1, 2, & 7):
<https://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-quality/drinking-water-quality/resources-for-water-system-operators#source-to-tap-assessment>
- BC Well Protection Toolkit:
https://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/wells/well_protection/wellprotect.html

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