

Islands Trust Freshwater Footprint Project

Gabriola Island Pilot



Frequently Asked Questions about the Freshwater Footprint Project

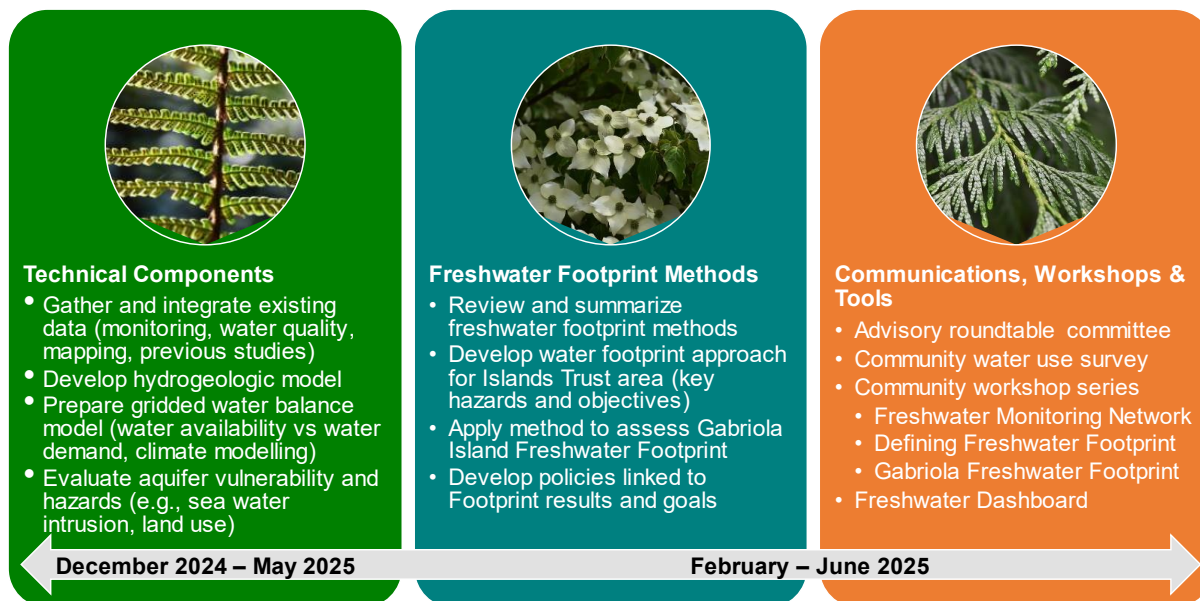
1. What is the Freshwater Footprint Project and why is it being done?

The Islands Trust initiated the Freshwater Footprint Project in December 2024. The purpose of the project is to develop methods to determine water availability on islands in the Trust area, and to understand how water quality and quantity are impacted by land use, climate change and other hazards. The pilot program is being undertaken on Gabriola Island and is intended to be applied in future to other islands in the Trust Area.

Water is critical for quality of life and a healthy environment. However we often lack the understanding and tools to integrate water knowledge into planning and actions. The project is intended to answer key questions about the current state of water resources on the island, and to develop realistic measures of sustainability – the community's "water footprint", that can help guide land use planning, assist with resource decisions, influence behavioural adaptation, and guide monitoring strategies and other initiatives.

2. What will the Gabriola Island Water Footprint project involve?

Project scope & timeline



A series of workshops facilitated during the project will gather input from the community and key representatives from First Nations, regional and provincial governments.

Data and analyses created during the project will be presented in a Dashboard tool.

The project will not include drilling of new wells, or collection of water samples.

3. What is the source of funding for the project?

The project is funded by the Islands Trust through the Gabriola OCP and LUB revision project budget.

4. Should I register my well in the Groundwater and Wells and Aquifers database.

The provincial [Groundwater Wells and Aquifers \(GWELLS\)](#) database records the locations and construction information for wells in BC. The database is an essential resource to understand the locations and sources of groundwater used by individuals and communities.

In 2016, when the *Water Sustainability Act* came into effect, driller submission of construction records for new and altered wells became mandatory. Before this, submission was voluntary.

If an older domestic well is not in the GWELLS database, [a registration form](#) can be submitted by the well owner to the province, using information on its location, depth and other characteristics.

For more information on well registration see: [Domestic Well Registration - Province of British Columbia \(gov.bc.ca\)](#)

5. What are the requirements for groundwater licensing?

The Freshwater Footprint study will provide information to participants to understand regulatory requirements.

Under the *Water Sustainability Act*, a groundwater license is required for use of groundwater for non-domestic purposes, such as for municipal water supply systems, commercial and industrial use, and agricultural irrigation.

A groundwater license is not required for domestic purposes, such as water used in a private household or dwelling, watering of a household garden with an area up to 1000 m² or 0.25 acres, for fire prevention, and water used for domestic pets or poultry kept for household use.

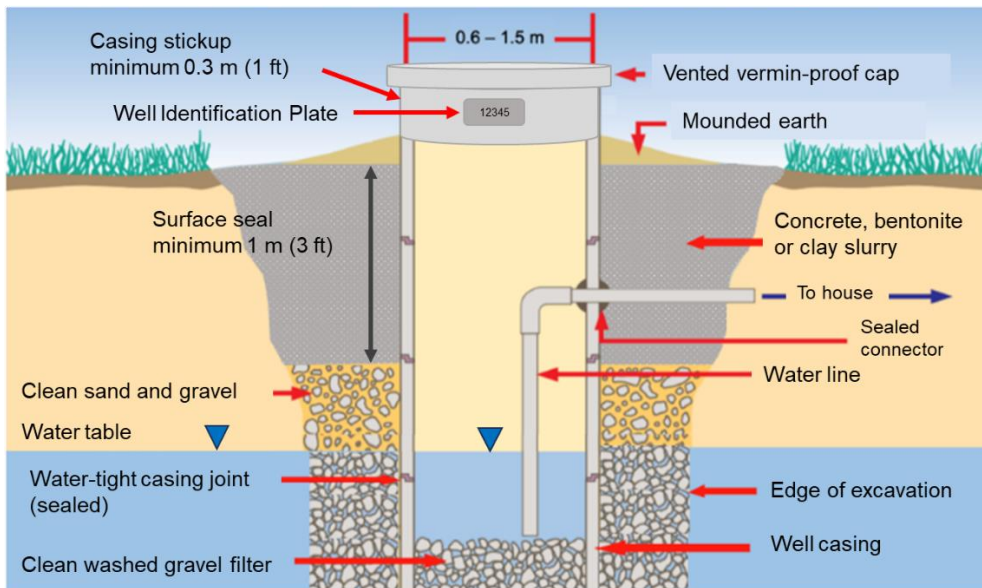
Licensing groundwater is important to protect aquifers, streams, and water users, including businesses that require water for their operations. A license indicates the source, amount and timing of when water can be used. The effects of groundwater pumping on others, including domestic users, and on hydraulically connected streams are considered in water licence decisions, and influence the conditions included in the license.

For more information see [Requirements for Groundwater Users - Province of British Columbia \(gov.bc.ca\)](#)

6. How do I know what kind of well I have?

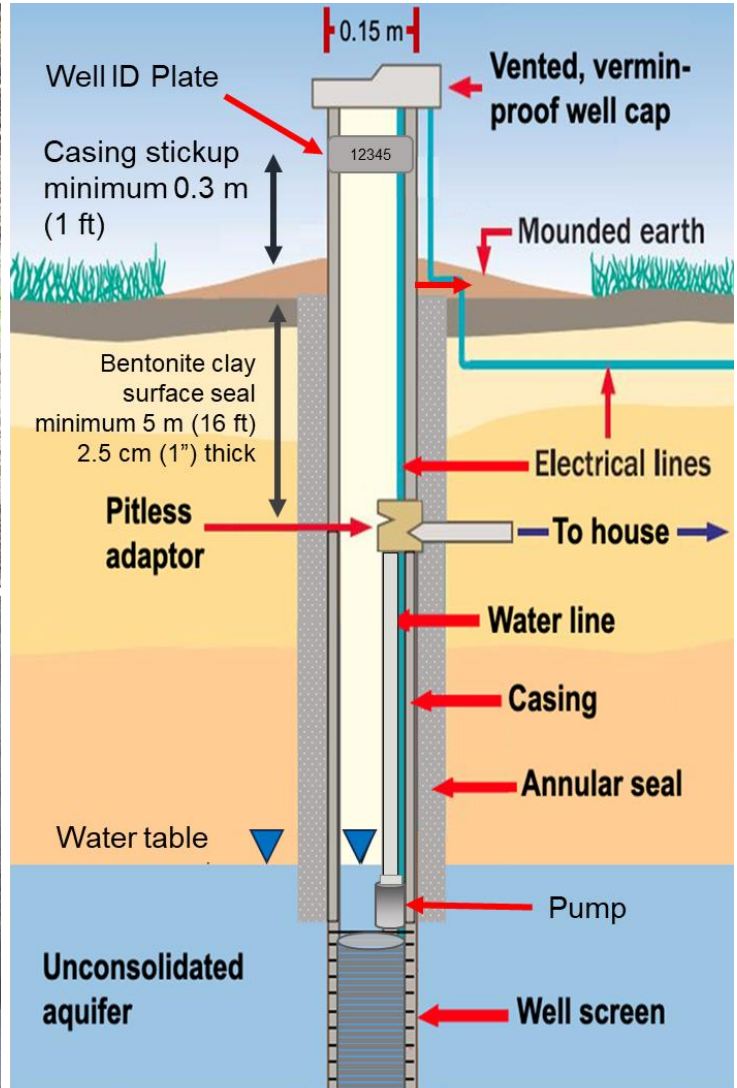
The pictures and diagrams below show different types of wells. Your well may look slightly different than this. A well construction record obtained from the well driller will contain information on the depth of the well and the materials it is constructed in. You can also look up your well record to see if it is in the GWELLS database.

a. Excavated wells



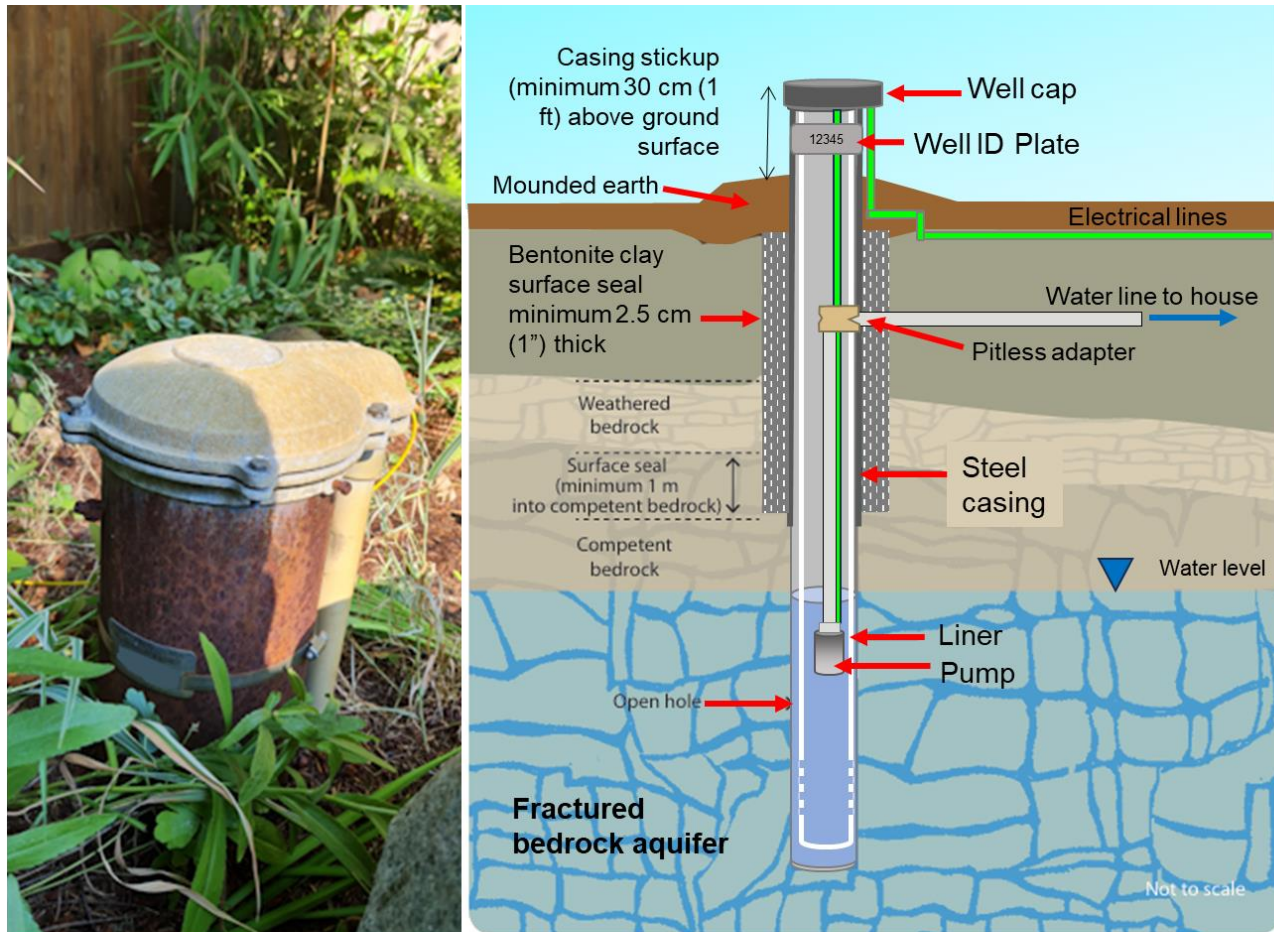
Excavated (dug) wells are typically large diameter, shallow, with sides made of cement or wood cribbing. These types of wells are considered highly vulnerable to contamination and seasonal water supply may be limited.

b. Drilled wells in unconsolidated aquifers



Domestic drilled wells in unconsolidated (sand and gravel) aquifers are often 0.15 m (6") in diameter with steel casing and stainless steel well screen (bottom left). The wells vary in depth, water production and vulnerability depending on the aquifer characteristics.

c. Drilled wells in bedrock aquifers



Domestic drilled wells in fractured bedrock aquifers are often 0.15 m (6") in diameter. The steel casing extends to the depth of hard bedrock, with open hole (no casing) below this. A PVC liner is sometimes installed to protect the pump from damage from rock debris. The wells vary in depth, water production and vulnerability depending on the aquifer characteristics.

Photos: S. Barroso & A. Barroso. Diagrams modified from 3.2 Dug Wells – Domestic Wells – Introduction and Overview (gw-project.org) and Groundwater Protection Regulation Handbook (2017)(bcgwa.org)

7. Where can I find out more about wells and groundwater protection?

Please see the links for recommended resources below.

[Regional District of Nanaimo Drinking Water and Watershed Protection Program](#)

[Groundwater Level Interactive Website \(Provincial Observation Well Monitoring Network\)](#)

[Groundwater Wells and Aquifers Database \(GWELLS\)](#)

[iMap BC Web-Mapping Tool](#)

[Information for well owners \(BC Ministry of Water, Land and Resource Stewardship\)](#)

[Qualified Well Driller and Well Pump Installer Registry](#)

[Well Water Testing Guidance \(BC Ministry of Health\)](#)

8. How can I find out more about the project?

Visit the [Islands Trust Gabriola Official Community Plan Review](#) webpage and [subscribe for updates](#), delivered straight to your inbox.