

# Update on Groundwater



THIS REPORT IS PREPARED FOR YOU by the water management teams within the Ministry of Environment and Climate Change Strategy (ENV) and the Ministry of Forests, Lands, Natural Resource Operations and Rural Development (FLNRORD).

## IN THE MARCH 2022 ISSUE:

- Watershed Security Strategy and Fund
- Groundwater Licensing Update
- Provincial Government Groundwater Program Regional Update
- Provincial Groundwater Observation Well Network (PGOWN) Update
- GWELLS Data Entry Guideline
- Groundwater Staff Contact List

## REPORT NON-COMPLIANCE

- Have you noticed a well that does not meet the construction standards of the Groundwater Protection Regulation?
- Know of someone who is drilling a well or installing a well pump without being registered?

**RAPP**  
Report All  
Poachers and  
Polluters

24 Hr Hotline:  
**1-877-952-RAPP**  
Cellular Dial #7277  
(On Telus Network)

## CONTACT US

The contact information for various groundwater staff across the province is available in every newsletter. We look forward to industry reaching out to us directly with questions.

## Watershed Security Strategy and Fund: Public Engagement Discussion Paper

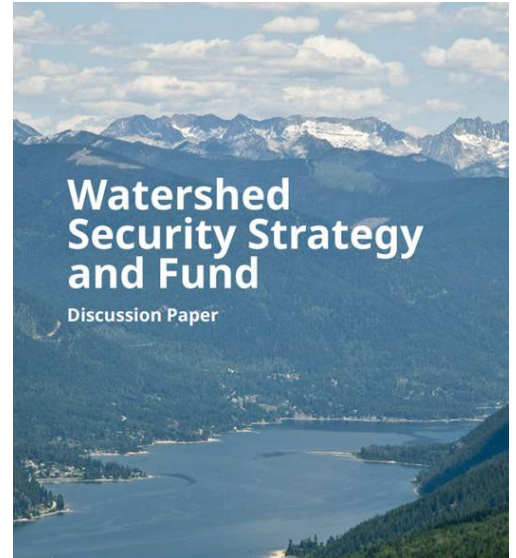
Protecting our watersheds is one of the most important things we can do as a province to create a healthier and more resilient future for all living things. There are many ongoing efforts inside and outside of the provincial government to help ensure that our water and watersheds are respected and valued: these efforts must be supported and built upon. Government's commitment to reconciliation with Indigenous peoples will be foundational to this work.

The Ministry of Environment and Climate Change Strategy is now inviting people living in B.C., governments, organizations, businesses, and other stakeholders to share opinions on the development of a new provincial Watershed Security Strategy and Fund. The Province is developing the strategy with Indigenous Peoples and in collaboration with other levels of government. **The engagement period is from January 25, 2022 to March 18, 2022.**

We have prepared a *discussion paper* with watershed security related themes, including watershed governance, data and science, reconciliation, drinking water, land use planning, supply and demand, among others.

Input received during this period of engagement will inform development of a draft strategy to be released in the fall, with additional opportunity for input following its release. The Province expects to release the final strategy in 2023.

**For more information and to make a submission please visit:**  
<https://engage.gov.bc.ca/watershedsecurity>



January 2022

## Groundwater Licensing Update

The deadline for “existing groundwater users” to apply for a water licence passed at midnight on March 1, 2022. Existing groundwater users who started using water on or before February 29, 2016 for non-domestic purposes must now **apply as a “New User”** before the water can legally be used or diverted. Non-domestic use includes purposes such as irrigation, commercial, waterworks, or industrial use.

Support is available from FrontCounter BC (1 877 855-3222 or [FrontCounterBC@gov.bc.ca](mailto:FrontCounterBC@gov.bc.ca)) for groundwater users looking to apply for a licence and more information is **available online**.

Continued unauthorized groundwater use by existing users after March 1<sup>st</sup> may result in fines and orders to cease diverting the water. A water licence is not required for a household well or groundwater used for **domestic purposes**, such as cooking, sanitation, and watering small lawns and gardens.

## Groundwater Licensing Update Cont.

Over the past decade, British Columbia has witnessed the increasingly dramatic impact that a changing climate is having on water and drought, and recent experiences demonstrate the need to strengthen water security and prepare for future climate conditions.

Groundwater licensing helps to ensure a fair and transparent process for sustainably managing water, especially during water shortages. Including groundwater in the licensing system helps protect the environment, as well as the businesses and livelihoods that depend on reliable access to water.

To learn more about groundwater licensing or to apply for a water licence, visit [www.groundwater.gov.bc.ca](http://www.groundwater.gov.bc.ca).

## Provincial Groundwater Program Regional Update – South Coast Region

We hope everyone has a healthy and safe 2022. We appreciate that this has been a difficult year for many, especially those who were affected by the recent flood. We are grateful to have the opportunity to provide a brief report on some of the activities carried out by South Coast regional groundwater staff in FLNRORD.

### Groundwater Science Program Activities

- We have been working with ENV and SFU to enhance well and aquifer data in the Lower Fraser Valley, including identifying source aquifers of registered wells, and updating aquifer boundaries.
- The multi-year groundwater and surface water connectivity study in Otter Park, Langley is near completion. SFU is currently compiling a report on the Environmental Flows Needs of Bertrand Creek, including the relationships with aquatic habitat stressors.
- Hatfield Consultants have developed a coarse water balance for the Nicomekl and Serpentine watersheds to enhance our understanding of water availability in this area, and the report will be available soon.
- We are partnering with SFU on a multi-year study to analyze surface water and groundwater interaction in tidally-influenced, low gradient streams that are unique to the Coast Area, including identifying suitable approaches for determining the Environmental Flow Needs of these streams.
- We plan to build upon the above-noted study to analyze the effects of climate extremes, land use and

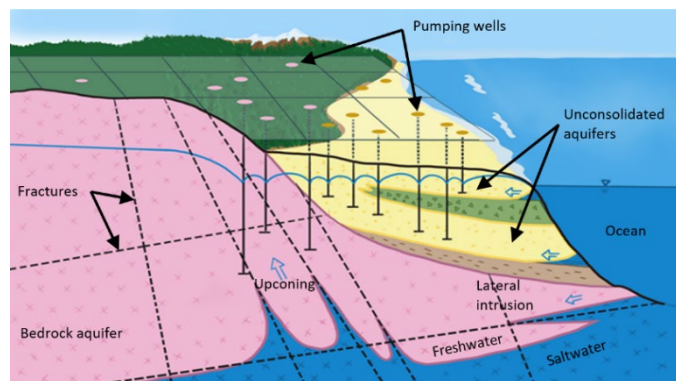
### SOMETHING ISN'T WORK PROPERLY?

Have you identified a bug or outage in the GWELLS application? Email [gwells@gov.bc.ca](mailto:gwells@gov.bc.ca)

- other factors to inform water allocation decision. This project will be carried out in the Blaney Creek/North Alouette Watersheds, led by SFU with funding from the Pacific Institute for Climate Solutions.
- A sea water intrusion risk mapping study has been completed in the Coast Area. The report is publicly available on the Water Science Series (Report 2021-06) and associated spatial layers will be published by Data BC.

Reports from our studies will always be available on the Water Science Series:

<https://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-science-data/water-science-series>.



*Schematic diagram showing intrusion of sea water in coastal unconsolidated and bedrock aquifers due to pumping. Credit: Western Water Associates Ltd (Sivak, T. and M. Wei), 2021. GIS Modelling of Sea Water Intrusion Risk along British Columbia's Coast. Water Science Series, WSS 2021-06.*

### Groundwater Protection Regulation Compliance and Outreach

In 2021, concerns were raised relating to lawn watering from overused aquifers in the Langley area. In February 2021, an outreach pilot initiative focused on “large lawn” irrigation was completed in the Township of Langley. The initiative involved letter mail outs informing non-domestic users of licensing requirements under the *Water Sustainability Act*. In 2022, a similar mail out was completed for selected land parcels in the Chilliwack area.

Since 2021, South Coast regional staff has been supporting other agencies including Emergency Management BC and Department of Fisheries and Oceans with drought and flood response initiatives.

Six new compliance complaints were reported in 2021, three of which are now closed. Two complaints related to unauthorized diversion, two related to wellhead completion and construction, one related to water quality concerns, and the remaining one related to flowing artesian conditions. We also received seventy-one groundwater enquiries. Enquiries were related to the *Water Sustainability Act* and its Regulations, Licensing, Groundwater Management and Groundwater Science.

## South Coast Region Update Cont.

### South Coast Provincial Groundwater Observation Well Network Updates

Currently, the South Coast Region has 59 active observation wells as a part of the Provincial Groundwater Observation Well Network (PGOWN). Seventy-five percent of our stations have telemetry, meaning they allow for “live” monitoring of the groundwater levels at those sites.

In 2021, three new observation wells were added to the PGOWN on the Sunshine Coast (Observation Wells 497, 498, and 499). Two new observation wells, one in Chilliwack and one in Langley, are planned for construction in March 2022.

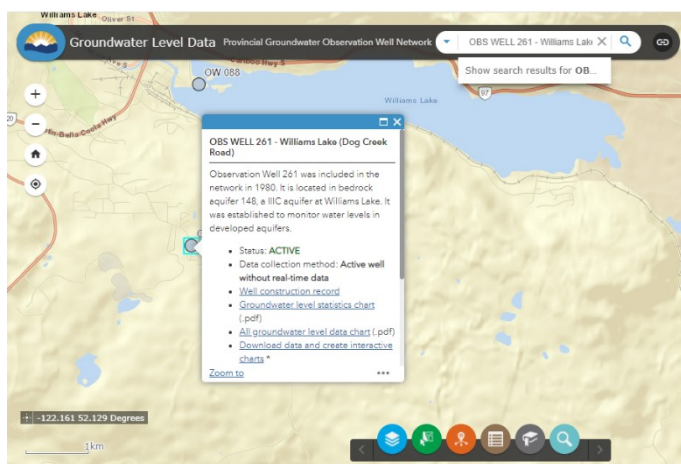
In addition to expanding the PGOWN through the drilling of new wells, regional staff continue to partner with local governments to accelerate the network expansion.

## Provincial Groundwater Observation Well Network (PGOWN) Update

There are several ways to access groundwater information collected through the PGOWN. In this newsletter we explore a few of the options.

### PGOWN Interactive Map

The *interactive map* is a visual tool displaying the location of observation wells across the province. Clicking on a well, displayed as a blue dot, will open a box describing the well status (active/inactive), location, and the aquifer monitored. Links also lead to the well construction record, the water level data, charts containing statistical information, and the EMS water chemistry database.



### List of Active Wells

There are over 220 active observation wells in the province. A list of active wells is available on the [PGOWN website](#).

To use this list, click on the arrow next to the header of each column (see red circle to the right). This will sort the list

according to the well ID#, well location or the provincial government natural resource area (with natural resource maps available for reference). Clicking on the well location name will open a new window which provides access to well information on the PGOWN Interactive map. Use the search tool (red square) to find a well, even using a partial name.

### List of active groundwater observation wells

Browse our list below or use our [interactive map](#) to find active groundwater observation wells.

Using the search field box on the right, type in the partial or full name of the groundwater observation well location to get filtered search results. Well locations are organized by [natural resource areas \(view map\)](#).

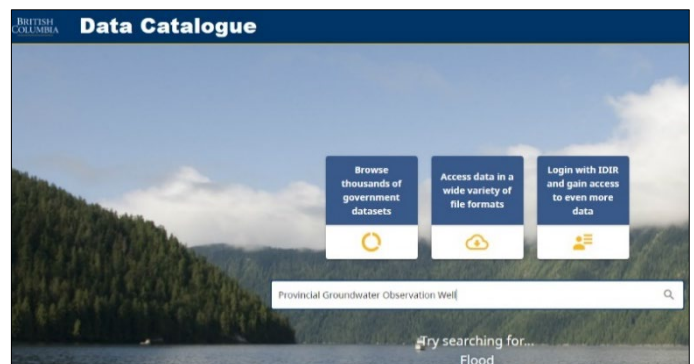
Show  entries

List of active groundwater observation wells

ID #	Location	Area	Data*
002	<a href="#">Abbotsford (Airport, Huntingdon Rd W Of Clearbrook Rd)</a>	South coast region	<a href="#">Data Set</a>
008	<a href="#">Abbotsford (Vye Rd E Of McCallum Rd)</a>	South coast region	<a href="#">Data Set</a>

### BC Data Catalogue

Searching the *BC Data Catalogue* for ‘Provincial Groundwater Observation Well’, results in groundwater level datasets available for each well in the following categories: the daily mean, the daily average, hourly water levels for the past year, or the entire dataset.



## Do you have questions about the PGOWN?

Contact [groundwater@gov.bc.ca](mailto:groundwater@gov.bc.ca)

The webpages linked in this article can be found:

### Interactive Map:

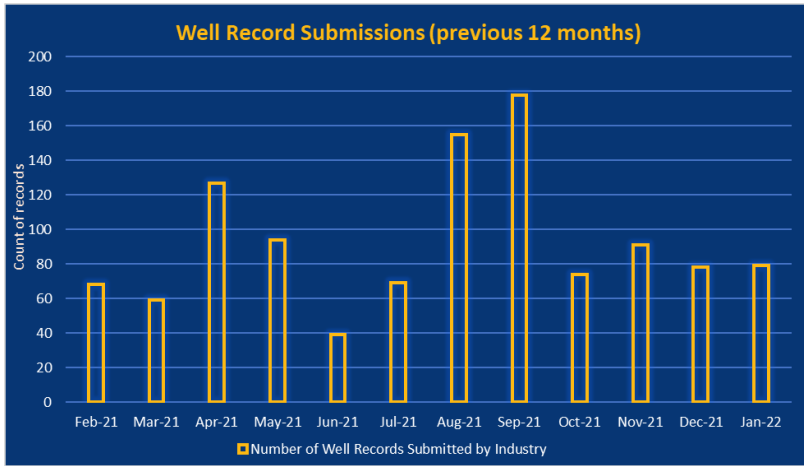
<https://www2.gov.bc.ca/gov/content/environment/air-land-water/water/groundwater-wells-aquifers/groundwater-observation-well-network/groundwater-level-data-interactive-map>

### List of Active Wells:

<https://www2.gov.bc.ca/gov/content/environment/air-land-water/water/groundwater-wells-aquifers/groundwater-observation-well-network/active-wells>

**BC Data Catalogue:** <https://catalogue.data.gov.bc.ca/>





## GWELLS Data Entry Guideline

Are you struggling to make your online well log submissions through GWELLS?

The **GWELLS data entry guideline** can be found in a few locations on our water webpages and in GWELLS:

<https://www2.gov.bc.ca/gov/content/environment/air-land-water/water/groundwater-wells-aquifers/groundwater-wells/information-for-well-drillers-well-pump-installers>

## Contact Information for Groundwater Staff with Statutory Designation

Office	Name	Statutory Designation	Phone	Email	Ministry
West Coast (Nanaimo)	Jessica Doyle, P. Geo.	Assistant Water Manager	778-693-3035	<a href="mailto:Jessica.Doyle@gov.bc.ca">Jessica.Doyle@gov.bc.ca</a>	FLNRORD
	Sylvia Barroso, P. Geo.	Assistant Water Manager	250-751-3265	<a href="mailto:Sylvia.Barroso@gov.bc.ca">Sylvia.Barroso@gov.bc.ca</a>	
	David van Everdingen, P. Geo.	(Regional Hydrogeologist)	250 739-8503	<a href="mailto:David.vanEverdingen@gov.bc.ca">David.vanEverdingen@gov.bc.ca</a>	
	Graeme Henderson	Officer	250-751-7119	<a href="mailto:Graeme.Henderson@gov.bc.ca">Graeme.Henderson@gov.bc.ca</a>	
South Coast (Surrey)	Emma Webster, P. Geo.	Officer	778-572-2160	<a href="mailto:Emma.Webster@gov.bc.ca">Emma.Webster@gov.bc.ca</a>	
	Michele Lepitre, P. Geo.	Assistant Water Manager	778-572-2168	<a href="mailto:Michee.Lepitre@gov.bc.ca">Michee.Lepitre@gov.bc.ca</a>	
	Shirley Wang, P. Geo.	Assistant Water Manager	778-572-2167	<a href="mailto:Shirley.Wang@gov.bc.ca">Shirley.Wang@gov.bc.ca</a>	
South Area (Penticton)	Skye Thomson, P. Geo.	Assistant Water Manager	778-622-6907	<a href="mailto:Skye.Thomson@gov.bc.ca">Skye.Thomson@gov.bc.ca</a>	
	Nicole Pyett, P. Geo.	Assistant Water Manager	778-622-6974	<a href="mailto:Nicole.Pyett@gov.bc.ca">Nicole.Pyett@gov.bc.ca</a>	
	John Pogson, P. Geo.	Assistant Water Manager	778-622-6876	<a href="mailto:John.Pogson@gov.bc.ca">John.Pogson@gov.bc.ca</a>	
South Area (Vernon)	David Thomson, P. Geo.	Assistant Water Manager	778-943-6924	<a href="mailto:David.Thomson@gov.bc.ca">David.Thomson@gov.bc.ca</a>	
South Area (Kamloops)	Melissa Wade, P. Geo.	Assistant Water Manager	-	<a href="mailto:Melissa.Wade@gov.bc.ca">Melissa.Wade@gov.bc.ca</a>	
	Laurie Lyons	Officer	250-312-7262	<a href="mailto:Laurie.Lyons@gov.bc.ca">Laurie.Lyons@gov.bc.ca</a>	
North Area (Prince George)	Jun Yin, P. Geo.	Assistant Water Manager	778-693-3015	<a href="mailto:Jun.Yin@gov.bc.ca">Jun.Yin@gov.bc.ca</a>	
	Ed Bryson, P. Geo.	Officer	778-693-3177	<a href="mailto:Stuart.Bryson@gov.bc.ca">Stuart.Bryson@gov.bc.ca</a>	
Victoria	Amy Sloma, P. Eng.	Deputy Comptroller	778-698-4866	<a href="mailto:Amy.Sloma@gov.bc.ca">Amy.Sloma@gov.bc.ca</a>	ENV
	Uelun Tuvshinjargal	Officer (GW Data Specialist)	236-478-0448	<a href="mailto:Uelun.Tuvshinjargal@gov.bc.ca">Uelun.Tuvshinjargal@gov.bc.ca</a>	

For general enquiries, contact [Groundwater@gov.bc.ca](mailto:Groundwater@gov.bc.ca)



BRITISH  
COLUMBIA