

# Report from the Provincial Government

In this issue of the September 2017 GeoexchangeBC Newsletter, we will provide an update regarding:

- Regional groundwater program activities,
- Submission of records,
- Improvements related to the WELLS Database/Application,
- Registration requirements for geoexchange well drillers, and
- Current groundwater staff contacts with a regulatory role.

## Regional Groundwater Program Update – South Area

The following is a brief update on some of the activities being carried out by the Ministry of Forests, Lands, Natural Resource Operations and Rural Development (FLNR) South Area groundwater staff working within the Thompson, Okanagan, Cariboo, and Kootenay Boundary Regions.

### Science

Groundwater Program staff across the province are working to expand the understanding of groundwater resources within British Columbia to support the implementation of the *Water Sustainability Act (WSA)*. Groundwater science projects range from small, site-specific investigations to inform individual groundwater licensing or compliance questions to larger scale water budgets to inform regional scale groundwater management decisions and planning. Active projects of note in the South Area include an aquifer delineation project in Kelowna (to support a revised hydrogeological conceptual model) and a water budget project in the Nicola (to support water allocation decisions and expand our knowledge of groundwater flow).



Map showing Natural Resource Regional Boundaries

### Public and Environmental Safety

Flooding, forest fires and drought in the Southern Interior shifted the focus of some groundwater staff over the last few months to a more active role in the Provincial priority of public safety. In addition to monitoring water levels in several areas, groundwater staff have received a number of public questions regarding proactive flood-proofing of wells. The Ministry of Environment and Climate Change Strategy has a reference sheet available outlining appropriate steps for flood-proofing wells at [http://www.env.gov.bc.ca/wsd/plan\\_protect\\_sustain/groundwater/wells/factsheets/PFRA\\_wells\\_before\\_flood.pdf](http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/wells/factsheets/PFRA_wells_before_flood.pdf).

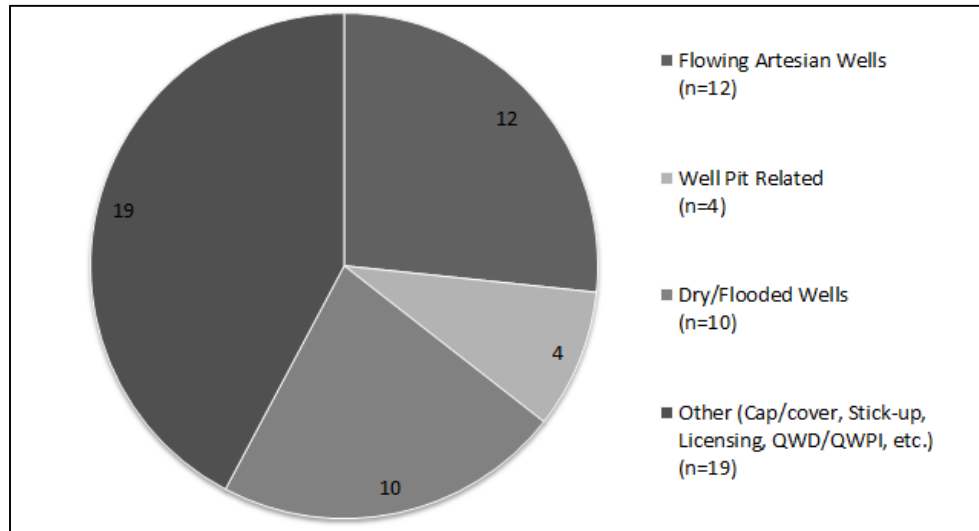
In the coming months, flowing wells may create a public safety hazard through uncontrolled water release near infrastructure or saturation of unstable soils. Please report flowing wells to your local provincial groundwater contact or through the emergency reporting line (RAPP 1-877-952-7277).

Information on known artesian flowing wells is available through publically available mapping platforms iMapBC (<http://maps.gov.bc.ca/ess/sv/imapbc/>) and the BC Water Resources Atlas (<http://maps.gov.bc.ca/ess/sv/wrbc/>). Further information and resources are available through the Provincial Groundwater page (<http://www2.gov.bc.ca/gov/content/environment/air-land->

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[water/water/groundwater-wells/information-for-well-drillers-well-pump-installers/well-drilling-advisories](#)).

In addition to flowing artesian well files, other compliance activities related to: dry or flooded wells,



issues with well pits, and other Groundwater Protection Regulation (GWPR) violations (Figure 1).

For more information related to the GWPR, please visit: [http://www.bclaws.ca/civix/document/id/complete/statreg/39\\_2016](http://www.bclaws.ca/civix/document/id/complete/statreg/39_2016).

Figure 1: Distribution of recent South Area compliance files

## Staffing Update

**John Pogson** has started in the position of Groundwater Protection Officer covering the FLNRO South Area. John is a Professional Geoscientist with a strong background in contaminated sites and engineering design. John will primarily focus on compliance and enforcement work within the South Area.

## Well Record Submission and EWELLS Training

Well records can be submitted electronically (EWELLS) or by mail to the Ministry of Environment and Climate Change Strategy. Electronic submission of well records will replace paper submission to allow for more efficient processing and information accessibility. Paper records will now only be accepted on a Ministry form.

### Did You Know?

Drillers constructing closed-loop geoexchange wells are required to submit one well construction report per geoexchange system to the comptroller.

A report for every well in a geoexchange system must be submitted to the well owner.

- EWELLS: <https://a100.gov.bc.ca/ext/ewells/>
- Mail: **Ministry of Environment and Climate Change Strategy, PO Box 9362 ST PROV GOVT, Victoria BC V8W 9M2.**

If you or your company would like to learn more about EWELLS or are interested in EWELLS training, please contact [Groundwater@gov.bc.ca](mailto:Groundwater@gov.bc.ca) to indicate your interest.

## WELLS Database/Application

### GWELLS

An exciting new project is underway to re-develop and modernize the WELLS Application. The project is called “GWELLS” and is being developed using a DevOps/Agile systems approach and is being led by a core team of staff. This approach encourages a more rapid and flexible development process that integrates user feedback at regular intervals.

To date, we have approached a small number of government staff and individuals from outside government representing a cross-section of users of the WELLS application to gather feedback on the use of the current application. As the project progresses we will be reaching out to additional individuals as part of a citizen-centric design approach to product/application development.

If you have any questions regarding the project or are keen to provide feedback on some aspect of the current WELLS or future GWELLS application, please feel free to contact Lindsay Macfarlane at [Lindsay.Macfarlane@gov.bc.ca](mailto:Lindsay.Macfarlane@gov.bc.ca).

## Registration of Geoexchange Drillers

Construction of closed-loop geoexchange wells is a restricted activity in the Province of BC. To recognize this change, a new classification of well driller was created called geoexchange driller, which qualifies an individual with that classification to construct closed-loop geoexchange wells in B.C.

A certificate program is being offered through the Industry Training Authority (ITA) that allows individuals to obtain their certificate of qualification as a Geoexchange Driller. For more information, please visit [www.itabc.ca/program/geoexchange-driller](http://www.itabc.ca/program/geoexchange-driller).

Construction of open-loop geoexchange wells remains a restricted activity and requires a well driller who holds a certificate as a water well driller and is registered to construct these types of wells.

The register of well drillers and well pump installers can be found online at <http://www2.gov.bc.ca/gov/content/environment/air-land-water/water/groundwater-wells/information-for-well-drillers-well-pump-installers>.

If you would like to become registered or if you would like to update your contact information, please email [Groundwater@gov.bc.ca](mailto:Groundwater@gov.bc.ca).

## New Staff in Victoria

We would like to welcome Maria Nguyen to the Aquifer & Watershed Science team in Victoria. Maria started on August 14 as a Groundwater Data Specialist and is filling in for Erin McGinnis who is currently on maternity leave. Maria graduated this year from Simon Fraser University in the Earth Science Program, specializing in environmental geosciences with a focus in hydrogeology.

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## Contact Information for Groundwater Staff with Statutory Designation under the WSA

Office	Name	Statutory Designation	Phone	E-mail	Ministry
<b>West Coast (Nanaimo)</b>	Pat Lapcevic, P. Geo. Graeme Henderson Sylvia Barroso, P. Geo. Ben Robinson	Assistant Water Manager Officer Assistant Water Manager Officer	250-751-3149 250-751-7119 250-751-3265 250-751-3266	<a href="mailto:Pat.Lapcevic@gov.bc.ca">Pat.Lapcevic@gov.bc.ca</a> <a href="mailto:Graeme.Henderson@gov.bc.ca">Graeme.Henderson@gov.bc.ca</a> <a href="mailto:Sylvia.Barroso@gov.bc.ca">Sylvia.Barroso@gov.bc.ca</a> <a href="mailto:Ben.Robinson@gov.bc.ca">Ben.Robinson@gov.bc.ca</a>	FLNRO
<b>South Coast (Surrey)</b>	Mike Simpson, P. Geo. Bryan Jackson Michele Lepitre, P. Geo.	Assistant Water Manager Officer Assistant Water Manager	604-586-2809 604-586-2801 604-586-4413	<a href="mailto:Mike.Simpson@gov.bc.ca">Mike.Simpson@gov.bc.ca</a> <a href="mailto:Bryan.Jackson@gov.bc.ca">Bryan.Jackson@gov.bc.ca</a> <a href="mailto:Michele.Lepitre@gov.bc.ca">Michele.Lepitre@gov.bc.ca</a>	
<b>South Area (Penticton)</b>	Skye Thomson, P. Geo. Nicole Pyett, P. Geo. Twyla Legault, P. Eng. John Pogson, P. Geo.	Assistant Water Manager Assistant Water Manager Officer Officer	250-490-8276 250-490-2285 250-490-8287 250-490-8220	<a href="mailto:Skye.Thomson@gov.bc.ca">Skye.Thomson@gov.bc.ca</a> <a href="mailto:Nicole.Pyett@gov.bc.ca">Nicole.Pyett@gov.bc.ca</a> <a href="mailto:Twyla.Legault@gov.bc.ca">Twyla.Legault@gov.bc.ca</a> <a href="mailto:John.Pogson@gov.bc.ca">John.Pogson@gov.bc.ca</a>	
<b>South Area (Vernon)</b>	David Thomson, P. Geo.	Assistant Water Manager	250-260-4641	<a href="mailto:David.Thomson@gov.bc.ca">David.Thomson@gov.bc.ca</a>	
<b>South Area (Kamloops)</b>	Melissa Wade, P. Geo. Laurie Lyons	Assistant Water Manager Officer	250-371-6206 250-371-6280	<a href="mailto:Melissa.Wade@gov.bc.ca">Melissa.Wade@gov.bc.ca</a> <a href="mailto:Laurie.Lyons@gov.bc.ca">Laurie.Lyons@gov.bc.ca</a>	
<b>North Area (Prince George)</b>	Jun Yin, P. Geo.	Assistant Water Manager	778-693-3015	<a href="mailto:Jun.Yin@gov.bc.ca">Jun.Yin@gov.bc.ca</a>	
<b>North Area (Smithers)</b>	Cody Cameron, P. Geo. Barry Watson	Assistant Water Manager Officer	250-847-7326 250-847-7329	<a href="mailto:Cody.Cameron@gov.bc.ca">Cody.Cameron@gov.bc.ca</a> <a href="mailto:Barry.Watson@gov.bc.ca">Barry.Watson@gov.bc.ca</a>	
<b>Victoria</b>	Mike Wei, P. Eng. Lindsay Macfarlane	Deputy Comptroller Officer (Sr. GW Data Specialist)	250-356-5062 250-953-3408	<a href="mailto:Mike.Wei@gov.bc.ca">Mike.Wei@gov.bc.ca</a> <a href="mailto:Lindsay.Macfarlane@gov.bc.ca">Lindsay.Macfarlane@gov.bc.ca</a>	ENV