



Groundwater Matters

March 2021



Announcement of BCGWA Annual General Meeting
Saturday, April 24, 2021 - 9:00 am to 12:00pm
Register at: secretary@bcgwa.org

IN THIS ISSUE

General Manager's Report.....	2
President's Report.....	5
BCGWA Annual Convention Details and Agenda.....	8
Richard Charles Reid Memorial Scholarship ..	15
BC Government Update on Groundwater	17

mintonf@napsteel.com', and 'www.napsteel.com'."/>

Napsteel
North American Pipe & Steel Ltd.
B.C.'s Largest
Stocking Distributor
of Steel Pipe
Call Us Toll Free:
1-800-665-PIPE (7473)
11933 Tannery Road, Surrey, BC V3V 3X1
Ph 604-588-0983 Fax: 604-588-0989
e-mail: mintonf@napsteel.com
www.napsteel.com

British Columbia Groundwater Association • 1334 Riverside Road, Abbotsford, BC V2S 8J2
Tel: 604-530-8934 • Toll Free: 1-855-530-8934 • secretary@bcgwa.org

www.bcgwa.org

General Manager's Report – March 2021

With the recent cold snap we've had across BC, it's hard to believe that Spring is right around the corner. Personally, I've used up all the days on my ski pass, so as far as I'm concerned Spring can't come soon enough!

At this time last year, we were excited about our 2020 Annual convention - and we all know what happened next. This year we're just as excited about bringing you our 2021 Convention, only this time virtually. The convention will consist of a single day of presentations and socializing on Friday April 16, followed by a pump installer course on Saturday April 17.

We realize that one of the reasons for having a convention is that it's social; it gives us an opportunity to put down our tools and get together to socialize with friends and colleagues. That's still our goal for 2021. We can't get together in person, but the BCGWA is setting up the next best thing for our members. We're using a format that's big on socializing while also providing lots of opportunities for presentations and learning. There's plenty of information about the convention elsewhere in this newsletter, and here are a few highlights:

It's Our 50th Anniversary!

It's hard to believe, but the BCGWA started out way back in 1971 as the Water Well Drillers Association. We're saving the celebration for when we can all meet together, but expect to see a few surprise birthday wishers just the same.

Technical Presentations

As with previous conventions, we will have a full slate of technical presentations on a wide variety of topics so there will be something of interest to everyone. We're very pleased to have two special speakers, including:

- Adam Rollins from The Neutral Zone who will be speaking on respectful workplaces. As we've mentioned previously, the BCGWA wants to ensure that our association is welcoming to everyone, and that our events emphasize respect for all attendees so we can learn and have fun together. This will be a great opportunity for all our members in attendance to hear from a leader in the field of workplace conflict management about what successful organizations are doing to promote healthy workplace environments for everyone.
- Tony Malyk who will be presenting on How to Build a Profitable Trades Business. Tony is a Certified Professional Business Coach (2019 "Coach of the Year", PBCA Canada) and author of Leaky Bucket of Profits. Tony specializes in helping people in trades understand their businesses in order to be successful and profitable.

Sponsorship Opportunities

Following the success of our online Fall Regional meeting, and the generous support of our meeting sponsors, we are expanding sponsorship opportunities for our 2021 convention. There won't be any tradeshow booths this year, so sponsorships are the best way to promote and provide exposure for your business while at the same time supporting the BCGWA in helping us to keep prices down for memberships and for our events. More details will be sent out in a sponsor's package and are described elsewhere in this newsletter.

Pump Installer Course

As in previous years, the 2021 Pump Installer course reviews those aspects of hydrogeology, well pumping systems, workplace safety, regulations, and industry best practices that pertain to the installation, troubleshooting, and repair of well pump systems. The course is designed to help individuals

prepare to challenge the ITA Well Pump Installer certification exam, but is also open to other groundwater practitioners, including consulting engineers, government agents, and well drillers. And, since this year the course will be offered virtually, there is no limit to the number of course attendees that we can accommodate! At the same time, there will still be plenty of time for raising questions and interacting with the instructor(s).

Richard Charles Reid Memorial Scholarship

We're always saddened when we learn of the passing of members of our association and long-standing contributors to our industry and profession. Yet this year, in conjunction with Omega Drilling, we celebrate and honor the life of Rick Reid with the announcement of the Richard Charles Reid Memorial Scholarship. Details are provided in this newsletter.

Enjoy the material we've put together for you in our March newsletter and remember to follow us on Facebook and Instagram to receive the latest information about our people and events.

Dave Mercer



Aggressive Advantage

Quality Products, Technical Support & Service Excellence

Product	Model	Capacity	Pressure
Submersible Pump	4" GFK	100 GPM	100 PSI
Submersible Pump	6" GFK	200 GPM	100 PSI
Submersible Pump	8" GFK	300 GPM	100 PSI
Submersible Pump	10" GFK	400 GPM	100 PSI



GOULDS WATER TECHNOLOGY

a xylem brand



Water & Waste Water

Goulds Water Technology (GWT), a Xylem brand, is committed to providing industry leading products aimed to tackle today's toughest wastewater challenges. Here are the latest enhancements to our expansive wastewater portfolio:

- ◆ GFK Series of submersible sewage pumps expands to now include 4" models
- ◆ HAW-2 WiFi High Water Alarm is providing improved features and replacing the HAW-1
- ◆ The A2A Series Pump Switch is replacing the A2H Series

- ◆ Residential Water Products
- ◆ Submersible Well Pumps - 4", 6", 8" & Larger
- ◆ Texas Turbine Pumps to 30"
- ◆ Variable & Fixed Speed Pump Controllers
- ◆ Wastewater & Drainage Pumps
- ◆ Stainless Steel
- ◆ Cast Iron Centrifugal Pumps & Boosters
- ◆ AquaForce Variable Speed Pump Station
- ◆ AC Fire & Split Case Pumps



www.aggressivepump.com
sales@aggressivepump.com

#102 - 6592 176th Street
Surrey, B.C.
V3S 4G5
P: 604.574.4110

1985 B Kent Road
Kelowna, B.C.
V1Y 7S6
P: 250.861.1314



GOULDS WATER TECHNOLOGY

a xylem brand

Victoria • Surrey • Courtenay

DISTRIBUTORS OF EQUIPMENT & TECHNICAL ADVICE FOR:



**Ground
Water**



Wastewater

**Water
Treatment**



**Rainwater
Management**



Irrigation

**Pipes, Valves,
& Fittings**



VAN ISLE WATER

The Water System Experts
Since 1972

vanislewater.com

Presidents Report
By Morly Bishop, BCGWA

After discussions with many drilling and pump installation companies in the past few months, it seems as though activity for the coming year is starting to ramp up. Even though it may be slightly different in every region, continued signs of a healthy industry is welcomed news. It is also why I think it's important to touch on my chosen topic of discussion for this report.

Recently, CapriCMW Insurance Services benefit team held an important webinar for employers in BC. This webinar titled COVID-19 Vaccinations :HR & Legal Perspectives provided some valuable information regarding Mandating COVID-19 vaccinations in the workplace and potential exemptions, updated the latest directives from WorkSafeBC and our provincial authorities, and discussed the fallout when employees refuse to comply with workplace policies pertaining to COVID19. The discussion was led by two prominent industry experts; Colin Edstrom a Workplace Lawyer from Pushor Mitchell LLP, and Tanja Halsall Chief People Officer from Potenza HR.

I would like to share some information including Q & A's from this event, as vaccinations begin to roll out in the coming months there will be a lot of important decisions and information to consider as you put in place or alter your own COVID19 related work place policies.

Vaccines in the workplace engages many different areas of law including Privacy, Human Rights, Common Law/Employment Agreements, and Occupational health and Safety. It is important to discuss the legal principles noted above, as they provide the foundation for what employers can and cannot do in the workplace.

Here are some key questions and answers with Colin Edstrom, Workplace Lawyer:

Question 1. Can an Employer Compel an Employee to get vaccinated?

Answer: Very unlikely regardless of industry. In certain cases, "Vaccinate or Mask" or testing policies may be appropriate.

Question 2. Will employees need to wear masks after vaccination?

Answer: For now, yes. Will depend on when health authorities change the rules.

Question 3. What can I do as an employer if an employee refuses to wear a mask wearing (even after vaccinations)?

Answer: Employees must follow OH&S guidelines or risk discipline. If employees require accommodation, they may be accommodated up to the point of undue hardship but that does not include allowing them to not wear a mask.

Question 4. Do Employees have to tell Employers if they are vaccinated?

Answer: If a valid vaccinate policy in place (i.e., health care workers), then yes. Otherwise, unlikely because "unreasonable" intrusion into an individual's privacy

Question 5. Can employees refuse to work with unvaccinated employees under OH&S legislation?

Answer: Very unlikely. Employees have the right to refuse unsafe work. However, assuming the workplace is following proper OH&S protocols, the workplace is “not unsafe”.

Here are some key questions and answers with Tanja Halsall, Chief People Officer:

Question 6: How do we start to have conversations around vaccines as an employer?

Answer: Start with discussion with leadership • Align conversation with organizational values and the work that you do • Ensure there is a communication plan in place, including who people go to with questions

Question 7. Should we encourage employees to get the vaccine?

Answer: This is tricky. Provide employees the information as provided by health organization • Role of employer is to provide a safe working environment and vaccinations are one way to contribute to this • Information is power. Educate your employees and provide opportunity for vaccination • Would recommend against providing incentive for getting vaccinated

Question 8. Will my benefits plan cover the cost of the vaccine?

Answer: In 2021, COVID-19 vaccines will be provided by the Canadian Government at no charge, so there should be no need for benefits programs to cover the cost.

Question 9. Should an employer provide paid time off for an employee to go get vaccinated?

Answer: This would be up to the organization. For most, this would be in-line with how your organization manages time off for appointments. • Would recommend offering flexibility for employees where possible; this a way to demonstrate organizational values where appropriate.

This webinar saw over 700 register to attend, clearly a topic that is on many employers’ minds. If you would like me to send you a copy of the webinar recording, please feel free to email me and I will gladly send that over.

Finally, the 2021 Virtual Convention is fast approaching, so please set aside the dates and join in the celebration of the 50th year of the BCGWA. I am particularly excited for the lineup of presentations in our New Industry Technologies portion of the program. One of these new technologies could be game changers in regards to assisting our members with determining what they may find beneath the earth, prior to ever breaking ground. You will have to attend the convention to find out more!

Be well, be safe, and see you all soon.

Morly Bishop
President of the BCGWA
mbishop@capricmw.ca





Pinnacle

DRILLING PRODUCTS LP



- DTH Hammers and Bits
- Drill Rods
- Under Reaming Systems
- Ring Bits
- Crossover Subs and Adapters
- Air Compressor Rentals
- Manufacturing and Fabrication
- Discharge Heads/Rod Wipers
- Shock Subs
- Tricones

TWO LOCATIONS TO BETTER SERVE YOU

5037 Still Creek Ave
Burnaby, BC V5C 5V1
604-678-8505

7560-48th Street SE
Calgary, AB T2C 4J6
403-236-3393



To show our support of the water well Industry, Pinnacle will donate \$10 to the BCGWA from every pail of drilling fluids sold to water well contractors in BC



BCGWA 2021 Virtual Convention and Pump Installer Course

Friday and Saturday, April 16, 17

The 2021 BCGWA Convention is going online! We're planning a single day of presentations and socializing, followed by a one-day Pump Installer Course.

You'll find the agenda for the convention on the next page. We've put together a day full of presentations on a wide variety of topics. There's bound to be something for everyone – from special speakers to sessions on mining and water resources, if you work in the groundwater industry, we've got you covered.

We have a socially oriented meeting software set up where you sit at tables and can speak with the others at your table. This way you'll be able to find friends and colleagues and chat with them during breaks and social times.

Registration is open now at our website: <https://www.bcgwa.org/2021-convention-registration/>

Sponsorship opportunities are also available. Each sponsor will have a table in the convention room reserved with their company name and logo, and a seat at the table reserved for a sponsor representative. Get some exposure for your company while supporting your BCGWA! More sponsorship details available separately in this newsletter.

The Pump Installer Course on April 17 reviews those aspects of hydrogeology, well pumping systems, workplace safety, regulations, and industry best practices that pertain to the installation, troubleshooting, and repair of well pump systems. The course is designed to help individuals prepare to challenge the ITA Well Pump Installer certification exam, but is also open to other groundwater practitioners, including consulting engineers, government agents, and well drillers.

We hope to see you at the 2021 BCGWA Virtual Convention and Pump Installer Course!





AGENDA

2021 BCGWA Annual Convention

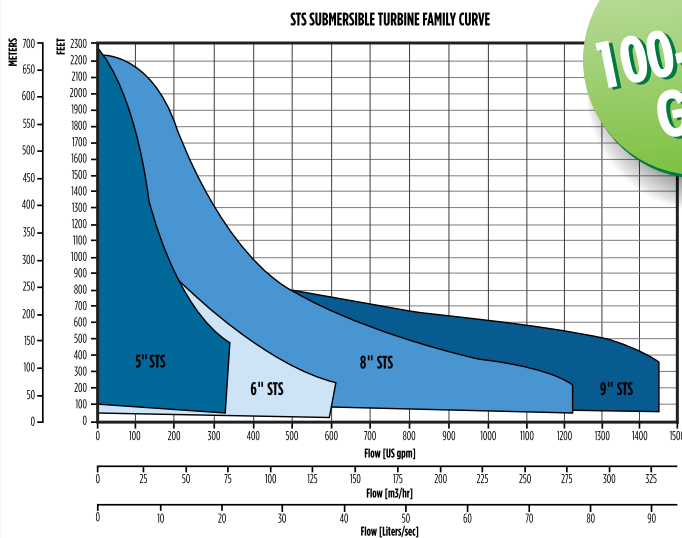
April 16, 2021

TIME	TOPIC	SPEAKER
8:30 am	Registration Opens	
8:50 am – 9:00 am	Meeting Housekeeping	
9:00 am – 9:10 am	Welcome and Opening Remarks	Dave Mercer, BCGWA General Manager
9:10 am – 9:30 am (20 mins)	Health and Safety Come First!	Mark MacNeil Geotech Drilling Services Ltd.
9:30 am – 10:00 am (30 mins)	Special Speaker Creating Respectful Workplaces	Adam Rollins The Neutral Zone Coaching and Consulting
10:00 am – 11:00 am (1 hour)	Mining Session The life of water at a mine Can Drillers and Pump Installers get along with Consultants?	Pattie Amison Teck Resources Ltd Michael Royle SRK Consulting
11:00 am – 11:15 am	Break and Social Time	
11:15 am – 12:15 pm (1 hour)	New and Innovative Technologies Session Remote sensing for groundwater applications A Diamondback Discussion with Epiroc	Julie McLelland Auracle Geospatial Cody Green Epiroc
12:15 pm – 12:45 pm	Lunch Break and Social Time	
12:45 pm – 1:15 pm (30 mins)	Special Speaker Build a Profitable Trades Business	Tony Malyk Certified Professional Business Coach/Author 2019 Business Coach of the Year, PBCA Canada
1:15 pm – 2:45 pm (1.5 hours)	Updates from Academia and the Ministries Mapping the Likelihood of Flowing Artesian Conditions in the Okanagan Basin and Fraser Valley Heritage Conservation Act WSA/GWPR Highlights and GWELLS demo	Diana Allen, Brynne Johnson Department of Earth Sciences Simon Fraser University TBA Leia Fougere, Amy Sloma Ministry of Environment and Climate Change Strategy
2:45 pm – 3:00 pm	Break and Social Time	
3:00 pm – 4:30 pm (1.5 hours)	Water Resources Session Hydraulic connection & stream depletion from well pumping: what contractors should know Decommissioning of a Flowing Artesian Well - Westwold, BC Surface Water - Groundwater Interaction: Lessons Learned from a Flood Control Project in Minnesota	Mike Wei HydroGeoLogic Doug Geller Western Water Associates Ltd. Chris Donnelly AECOM
4:30 pm – 5:30 pm	Closing Remarks & Happy Hour!	



Delta Water Products

Franklin 5", 6", 8", and 9" turbine pumps - *now built locally in-house at Delta* 24hr turn around



100-1450
GPM



Franklin
**FACTORY
APPROVED**
for in-house
assembly



Franklin Pump Systems

Toll Free 1-888-207-0211

444 Chilcotin Road, Kamloops, B.C.

Phone: (250) 372-9424 (Kamloops)

www.deltairrigation.ca

Sponsorship Opportunities

2021 BCGWA Convention

Everything is being done a little differently at our 2021 Annual Convention. There won't be any tradeshow booths this year, so sponsorships are the best way to promote and provide exposure for your business while at the same time supporting the BCGWA.

What there will be in 2021 is interactive meeting software that allows participants to sit at tables and chat with whoever else is sitting at that table. People can see who's sitting where so they can go find friends and colleagues. Once a participant sits at a table (clicks on a seat) they are automatically placed in a Zoom meeting with the others at that table. Everyone is free to move from table to table. Once presentations begin the zoom meetings end, and everyone watches the presenter and presentation together.

Sponsors for our 2021 Convention get a reserved table with their name and company logo on the table (see below, logos will be larger on a computer screen). There will also be a seat reserved for a company representative at each sponsored table.



2021 Sponsorships are **\$500** (includes delegate pass for company representative) and will be limited. Available on a first come first served basis. Sponsors will also be thanked and promoted at the convention and in the next BCGWA newsletter.

For more information or to secure your sponsorship opportunity, please contact:

Dave Mercer

General-manager@bcgwa.org

604.362.5132



TUNDRA SALES INC.

5349-273A Street, Langley, BC V4W 3Z4

Phone: (604) 856-5788 Fax: (604) 856-7674

E-mail: tundra@tundrasales.com Website: www.tundrasales.com

North American Customers Phone Toll Free: 1-800-859-1551

Your Drilling Solutions Partner

1. DOWN HOLE HAMMERS & BITS

- 3 inch to 30 inch DHH
- Reverse Circulation
- Overburden Drilling Systems
- Casing Advance Systems 90mm to 886mm

2. GEOTECHNICAL & SOIL SAMPLING

- Tri-Lok H.S. Augers and Bits
- Hex Core Flight Augers & Bits
- Sampling Tools Steel or Stainless
- Spade & Conical Bits for Augers
- Piezometers & Tilt Meters
- Inclinator Systems

3. ROTARY DRILLING

- Rotary Bits 2 15/16 to 36 inches
- Hole Opener Bits
- Re-Run Bits

4. EQUIPMENT

- Portable Retro-fit Air Compressors
- 150 PSI to 350 PSI
- Booster Compressors
- Triplex Pumps
- Water Line Heaters
- Grout Pumps

5. DRILL STEEL

- Drill String 2 inch OD to 11 3/4 inch OD
- Waterwell, Blasthole, Exploration
- Construction & Piledriving
- Deck Bushings and Subs
- Shock Subs and Roller Stabilizers

6. TUNDRA THREADED PVC

- Slotted and Blank, 2 inches & Up

7. DRILLING FLUIDS

- Bentonite, Chips, Granuler, Coated
- Polymer Fluid Systems

8. TUNDRA ENVIRO OILS

- Hammer Oil, Rotary or Top Drive
- Hydraulic Oil
- Rotary Bit Lubricant
- Drill Rod Grease

9. BREAK OUT TOOLING

- Break Out Benches
- Chain Wrenches

WATERWELL

MINING

CONSTRUCTION

GEOTECHNICAL



2021 Well Pump Installer Course

(Pre-Certification Exam Study Session)

Title: Groundwater and Well Pump Fundamentals

Instructor: Ron Nelson, Precision Service and Pumps

Date: April 17, 8:30am - 4:30pm

Location: Virtual Meeting (login details made available following registration)

Course description: This course reviews those aspects of hydrogeology, well pumping systems, workplace safety, regulations, and industry best practices that pertain to the installation, troubleshooting, and repair of well pump systems. The course is designed to help individuals prepare to challenge the ITA Well Pump Installer certification exam, but is also open to other groundwater practitioners, including consulting engineers, government agents, and well drillers.

Cost: Early bird (before Mar. 1): \$450 Regular rate (up to April 10): \$500

Registration: <https://www.bcgwa.org/event/2021-bcgwa-convention/>

A recommended list of study materials will be distributed upon registration.

For more information on how to become certified through the ITA and registered with the Province of BC, visit our website:

<https://www.bcgwa.org/resources/contractor-certification/>

Contact the ITA for information regarding certification exam locations and times:

www.itabc.ca/exams/writing-your-exams



VR1 RESIDENTIAL SERIES 1 HP Automatic Grinder Pumps

SHREDDING WASTEWATER CHALLENGES



PATENTED AXIAL CUTTER TECHNOLOGY

Easily slice through solids and trash found in domestic wastewater without roping or clogging

EASY INSTALLATION

Automatic switch for quick installation and no external capacitor required

PERFORMANCE

VR1 delivers more flow than its competition at 20' of lift.

4-490 PINEBUSH ROAD
CAMBRIDGE, ON N1T 0A5
888.363.7867
ORDERS.CACAM@PENTAIR.COM

ADDITIONAL
INFORMATION
ONLINE

WWW.FEMYERS.COM



Announcing the Richard Charles Reid Memorial Scholarship



On behalf of Omega Drilling, the BCGWA is pleased to announce The Richard Charles Reid Memorial Scholarship

From Omega: "We were deeply saddened by the sudden loss of our very best friend and colleague Richard (Rick) Charles Reid on January 27, 2020. Rick dedicated his life to the environmental and geotechnical drilling industry. He worked tirelessly and always with a smile. Anyone that had the pleasure to work with Rick absolutely loved him for not only his knowledge and expertise but his good heart and kindness to everyone. In this capacity he mentored and supported every young driller that was lucky enough to work alongside him. He always loved to share and pass on his knowledge and talent to his younger co-workers. His impact had a ripple effect on helping drillers pursue their career path in this industry. Rick co-founded Omega Drilling in 2008. Omega Drilling would like to honor the life and work of Richard Reid and keep his legacy alive into the future by announcing and sponsoring the Richard Charles Reid Memorial Scholarship."

This scholarship will provide funding for one driller to attend the BCGWA's Drillers Course (held bi-annually) beginning at our Annual Convention in 2022. Further details about the scholarship will be made available in 2022 and on our website.



United. Inspired.

Your Productivity Partner.

- New Stock Units • Used Units
- Demo Units • Short & Long Term Rentals

Contact us to learn more and boost your profits. **+1 416 525-6416**



epiroc.com

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 2021 ISSUE:

- Registering as a Well Driller and Pump Installer
- Technical Assessment Guidance and Before You Drill Brochure
- Provincial Government Groundwater Program Regional Update
- Provincial Groundwater Observation Well Network Update (PGOWN)
- 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.

Technical Assessment Guidance and Before You Drill Brochure

The recently updated *Guidance for Technical Assessments in Support of an Application for Groundwater Use in B.C. (v.2)* (TAG) has been publicly posted on B.C.'s *Water Science Series* webpage.

In winter 2020 the *Before You Drill brochure* was approved as a plain language companion document to the TAG. The brochure ensures that landowners who are considering construction of a well are aware of licensing, other requirements and potential costs before construction begins. The brochure has been posted on B.C.'s public *water webpages*.

GWELLS Data Entry Guideline

We have heard feedback from the drilling community to provide a guideline to assist drillers while making their online well log submissions. We are pleased to announce the release of the *GWELLS data entry guideline* on our webpage.

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

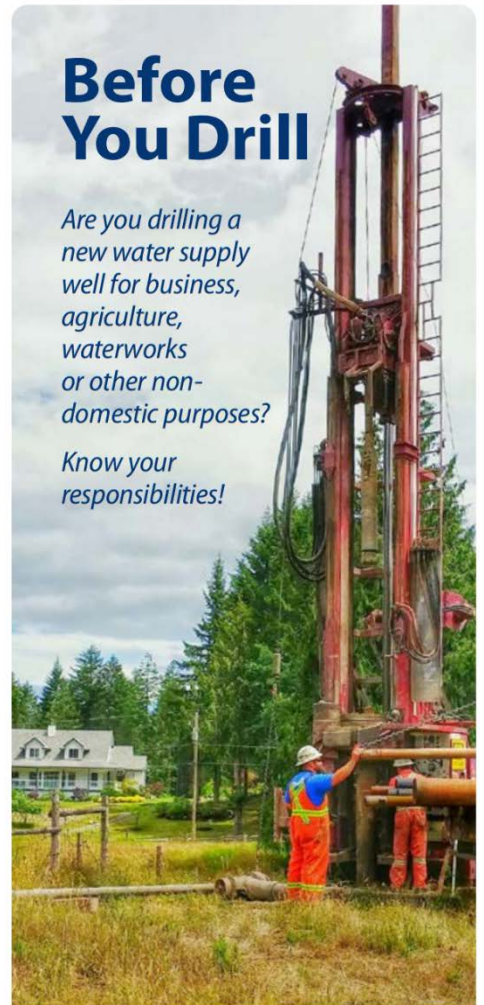
<https://www2.gov.bc.ca/gov/content/environment/air-land-water/water/groundwater-wells-aquifers/groundwater-wells/information-for-well-drillers-well-pump-installers>

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

Before You Drill

Are you drilling a new water supply well for business, agriculture, waterworks or other non-domestic purposes?

Know your responsibilities!



Did you know?

There were an average 3,976 original well records accessed per month through GWELLS in 2020.

You can maintain this excellent resource by uploading your original well log when you submit your well records online.



Offices in Vernon – Prince George – Victoria

Providing Practical Solutions For:

- Groundwater Development
- Source Water Protection
- Pumping Test Analysis
- Flowing Artesian Wells
- Groundwater Monitoring
- Well Setback Letters
- Environmental Monitoring, Assessment & Permitting

www.westernwater.ca



**PUMP &
WATER SYSTEMS**

3905 14TH Avenue N
Lethbridge AB T1H 6P6
P | 403-328-1770

18916 111TH Avenue NW
Edmonton AB T5S 0B6
P | 780-496-9753

SEGO.CA

GET READY FOR SPRING 2021 DEALS

With Spring around the corner, we want our clients to be ready and stay ahead of the spring rush. Buy your pumps now to ensure that you have enough supply ready for spring!

Here's a 10% discount voucher for you! Simply point your camera to the code on the right to claim the discount voucher. Limit one per person.



GRUNDFOS 





Dug Well. Photo: Laurie Lyons

Registering as a Well Driller and Pump Installer

Drilling wells and installing well pumps are restricted activities, and in most cases, must be performed by a registered well driller or a registered well pump installer.

To be a registered well driller or registered well pump installer under the Water Sustainability Act (WSA), you must:

- be at least 19 years old,
- certified by a recognized authority, and
- listed on the provincial registries.

If you are not already listed on the provincial registries, then you need to complete the registration form available at https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/water-wells/application_for_registration_well_driller_and_well_pump_installer.pdf.

There is no fee to become registered!

If you are not registered with the province, you are not legally permitted to perform most well drilling or pump installation activities in B.C. However, you can work as an unregistered well driller or well pump installer under the direct supervision of a registered well driller, registered well pump installer, or a professional with a competency in hydrogeology or geotechnical engineering.

If you are unregistered and work without direct supervision, you are in contravention of the WSA and may be subject to enforcement procedures (WSA Section 48-51).

HAVE SUGGESTIONS FOR IMPROVEMENTS?

Do you have ideas on how the application can be improved? Email gwells@gov.bc.ca

Provincial Groundwater Program Regional Update – South Coast Region

We hope everyone has a healthy and safe 2021. We are pleased to provide a brief report on some of the activities related to groundwater protection and monitoring being carried out by South Coast regional staff in Ministry of Forests, Lands and Natural Resource Operations and Rural Development.

Groundwater Protection Regulation Compliance

In March 2020, just prior to the COVID lockdown, groundwater compliance and enforcement staff and Natural Resource Officers initiated a Flowing Artesian Wells Project focused in the Township of Langley, specifically the Glen Valley Area (GVA). This project was intended as the second phase (field inspections) of the Phase 1 assessment completed in 2011 by the Ministry of Environment and Climate Change Strategy. Field inspections were conducted to assess and identify the current condition of identified (at the time of drilling) flowing artesian wells and additional non-compliance with the Water Sustainability Act and Groundwater Protection Regulation. Twenty-two wells were inspected over four days in the GVA. Of the 22 wells, 13 were confirmed as Flowing Artesian, 10 of which were identified as Uncontrolled Flowing Artesian, meaning the flow cannot be stopped or controlled at any given time. Other non-compliance issues were identified including missing well identification plates, surface around the wellhead not adequately graded, foreign matter within 3 m of wellhead and insufficient well cap/cover. Advisory letters were issued to landowners in September 2020 and the project has since resumed in February 2021.

In the Township of Langley, there are concerns relating to lawn watering from overused aquifers. An existing use groundwater licensing outreach pilot initiative in the



Township of Langley focused on “large lawn” irrigation was completed in February 2021. This involved letter mail outs informing non-domestic users of licensing requirements under the Water Sustainability Act.

In 2020, 26 new compliance complaints were reported. Six complaints are considered complete and 20 are ongoing. Seventeen of the complaints are from pro-active inspections driven by Ministry staff (flowing artesian project), 6 are from public complaints, one relates to licensing compliance and the remaining two are attributed to self reporting from professionals.

In 2020, South Coast Groundwater received 46 enquiries. The majority of enquiries were related to questions regarding licensing and the *Water Sustainability Act* and Regulations and its application.

Groundwater Science Program Activities

We have been working with Ministry of Environment and Climate Change Strategy to undertake additional aquifer mapping in areas including Abbotsford. During 2020, our groundwater and surface water connectivity study in Otter Park, Langley has progressed to Phase 3, and Simon Fraser University (SFU) is analyzing the environmental flows needs of Bertrand Creek to better understand how aquatic habitat responds to stressors. We have also been working with SFU in a study in the Fraser Valley area to map and identify factors controlling where flowing artesian risks occur. Furthermore, we will be completing our groundwater study in the Nicomekl and Serpentine watersheds soon; Hatfield Consultants have compiled a coarse water balance for these two watersheds to enhance our understanding of water availability in this area. Reports from our studies will be available on the Water Science Series:

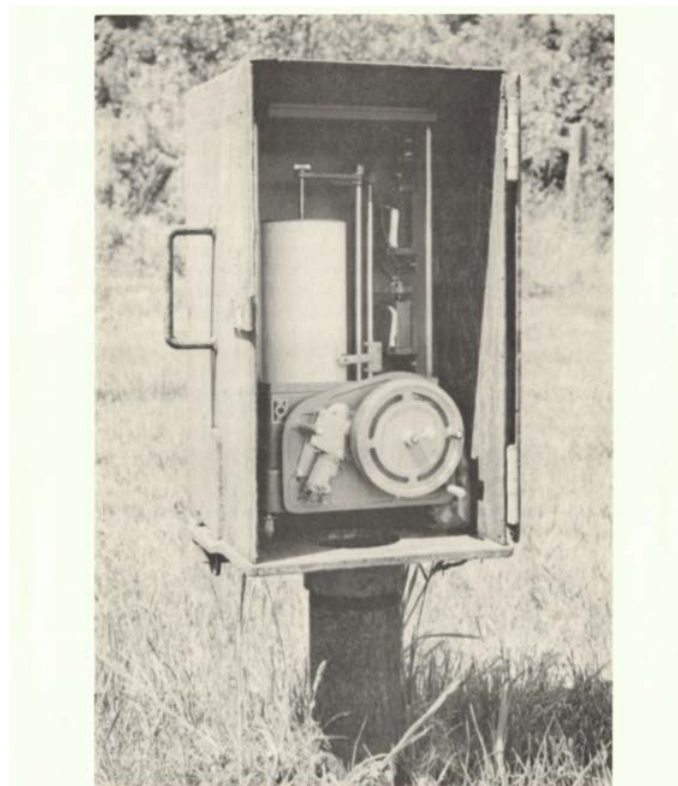
<https://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-science-data/water-science-series>.

South Coast Provincial Groundwater Observation Network Updates

Currently, the South Coast Region has 56 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 2020, three new observation wells were added to the PGOWN, including: Observation Well 490 in Langley (Aquifer 24); Observation Well 491 in Maple Ridge (Aquifer 26); and Observation Well 492 in Columbia Valley (Aquifer 20). Furthermore, a pair of clustered observation wells in Sechelt (Aquifer 566), and an observation well in the Sunshine Coast Regional District (Aquifer 560) are planned to be drilled in early March of this year.

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.



Observation Well 13 shown with a T.B.E. water level recorder. Located in Langley (Fraser Watershed) - Active 1964-2003.

Provincial Groundwater Observation Well Network (PGOWN) Update

The Provincial Groundwater Observation Well Network program celebrates 60 years in 2021! In each BCGWA newsletter this year, we will be highlighting various aspects of the history, interesting stories, photos and facts from this important network.

If you have a story about the network, contact Jillian.Kelly@gov.bc.ca and it may appear in a future newsletter!

To download data, create your own charts, and view groundwater, hydrometric and snow stations, please visit the Real-Time Water Data tool at:

<https://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-science-data/water-data-tools/real-time-water-data-reporting>

Do you have questions about the PGOWN?

Contact groundwater@gov.bc.ca

Learn more about the Provincial Groundwater Observation Well Network by using the **interactive map** available at:

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

TALIK INDUSTRIAL SERVICES INC.



Talik Industrial Services has earned a reputation for supplying only the highest quality products to the drilling industry. Our product line includes Baroid IDP Drilling Mud Products and Lubricants, Down-The-Hole Hammers, Drill Pipe, Grout Tubing and Breather Tubing.



TALIK Industrial Services, #102 - 17910, 55 Avenue, Surrey, B.C. V3S 6C8 CANADA
Toll Free: 888-535-4033 Phone: 604-575-4023 Fax: 604-575-4025 Email: talikman@telus.net

Definitions and Interpretations under the Groundwater Protection Regulation (GWPR): Geotechnical Wells

Under the GWPR a *geotechnical well* has two subclasses (Part 1, Section 5(2) a & b):

- "borehole" - means a drilled geotechnical well, other than a test pit, that is intended to remain in service for a period of not more than 30 days after construction (Part 1, Section 1);
- "test pit" - means an excavated geotechnical well that is intended to remain in service for a period of not more than 30 days after construction (Part 1, Section 1).

Decommissioning of boreholes and test pits is defined in Section 74 (1) & (2) of the GWPR.

Contact Information for Groundwater Staff with Statutory Designation

Office	Name	Statutory Designation	Phone	Email	Ministry
West Coast (Nanaimo)	Graeme Henderson	Officer	250-751-7119	Graeme.Henderson@gov.bc.ca	FLNRORD
	Sylvia Barroso, P. Geo.	Assistant Water Manager	250-751-3265	Sylvia.Barroso@gov.bc.ca	
	Jessica Doyle, P. Geo.	Assistant Water Manager	778-693-3035	Jessica.Doyle@gov.bc.ca	
South Coast (Surrey)	Emma Webster, P. Geo.	Officer	778-572-2160	Emma.Webster@gov.bc.ca	
	Michele Lepitre, P. Geo.	Assistant Water Manager	778-572-2168	Michele.Lepitre@gov.bc.ca	
	Shirley Wang, P. Geo.	Assistant Water Manager	778-572-2167	Shirley.Wang@gov.bc.ca	
South Area (Penticton)	Skye Thomson, P. Geo.	Assistant Water Manager	778-622-6907	Skye.Thomson@gov.bc.ca	
	John Pogson, P. Geo.	Assistant Water Manager	778-622-6876	John.Pogson@gov.bc.ca	
South Area (Vernon)	David Thomson, P. Geo.	Assistant Water Manager	778-943-6924	David.Thomson@gov.bc.ca	
South Area (Kamloops)	Laurie Lyons	Officer	250-312-7262	Laurie.Lyons@gov.bc.ca	
North Area (Smithers)	Johanna Wick, P. Geo.	Assistant Water Manager	778-693-2671	Johanna.Wick@gov.bc.ca	
North Area (Prince George)	Ed Bryson, P. Geo.	Officer	778-693-3177	Stuart.Bryson@gov.bc.ca	
Victoria	Amy Sloma, P. Eng.	Deputy Comptroller	778-698-4866	Amy.Sloma@gov.bc.ca	ENV
	Leia Fougere, P.Eng.	Officer (Sr. GW Data Specialist)	236-478-3730	Leia.Fougere@gov.bc.ca	
	Uelun Tuvshinjargal	Officer (GW Data Specialist)	236-478-0448	Uelun.Tuvshinjargal@gov.bc.ca	

For general enquiries, contact Groundwater@gov.bc.ca



**BRITISH
COLUMBIA**

Langley

Welding & Machine Shop Ltd.

Distributors of:

Johnson

Filtration Systems

World Leader through Talent and Technology

REVERT & NU-WELL

GOPHER DRIVE SHOES

**Stainless Steel Vee-Wire
Screens**

**PVC Vee-Wire
Screens**

CASING

High Tensile

☐ **Water Well** ☐ **Environmental**
☐ **Industrial**

Telephone

(604) 534-1224

Fax

(604) 534-1763

The Solution to Iron Oxide and Iron Bacteria



BEFORE

SEE

well coated with
iron oxide



TREAT

with the power of
BoreSaver Ultra C



AFTER

VERIFY

the results with the
R-CAM 1000 XS
Dual View Water Well Camera

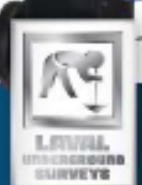
Does Your Well Need REHAB?

BORESAVER
ULTRA C



ABILITY
PUMP & EQUIPMENT

4825 36th St. S.E., Calgary, AB T2B 3N2 • Tel: 800-263-5353 • www.abilitypump.com





1334 Riverside Road, Abbotsford, BC V2S 8J2 T: 604 530 8934 F: 604 630 8846
bcgwa.org