

***Roles and Responsibilities
Water Sustainability Act
Groundwater Protection Regulation
Water Sustainability Regulation***

October 14, 2016



Roles and responsibilities well drillers and well pump installers

- Registration
- GWPR Division 2 qualifications for activities
- Wells regulated, well exempt from most requirements or not by the WSA and GWPR
- Water for drilling permitted in Part 4 of WSR; Use Approvals Sec 10 WSA
- Well siting and setback requirements
- Minimum standards for well construction, decommissioning
- Minimum standards for well pump installation; restricted activity or not
- Requirements for hand pumps
- **Requirements for flowing artesian wells**
- **Reports**

Requirements for Flowing Artesian Wells

Artesian flow must be stopped or brought under control (WSA s. 52, 53)

Responsible parties:

- Driller at time of construction
- Well owner or land owner for existing well

“Under control” means:

- Clear of sediment
- Entirely conveyed through casing (if applicable)
- Can be turned off indefinitely
- Does not pose a threat to property, public safety or the environment



“Qualifications” for controlling artesian flow are based on experience

To stop/control a flowing artesian well, a well driller must:

- Be qualified to work on the class of well
- Have competency based on their “training, experience, knowledge, or skills”

A driller who is not “qualified” can work under supervision

Additional requirements for artesian wells

- Equip wellhead prevent backflow
- Measure & report shut-in pressure
- Submit well construction & decommission reports

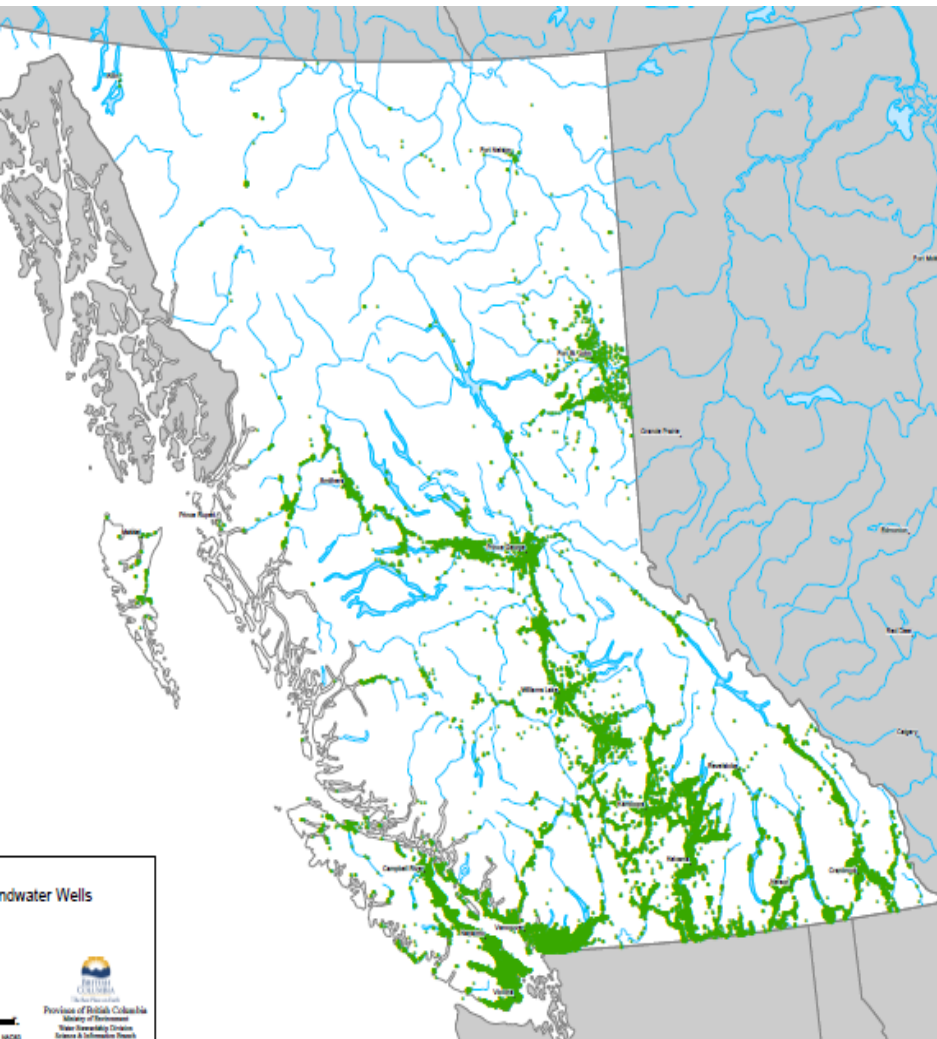


Non regulatory requirements for Flowing Artesian Wells

Province does not provide guidance on contracts, agreements of payment or insurance.



Resources for pre-drilling assessments



- Flowing artesian advisory
- BCWRA & iMap
- EcoCat



☒ Well Construction Report
☐ Well Closure Report
☐ Well Alteration Report

Stamp company name/address/
phone/fax/email here, if desired.

Ministry Well ID Plate Number: _____
Ministry Well Tag Number: 55800
Existing Well Tag Number: _____
☐ Confirmation/alternative specs. attached
☐ Original well construction report attached

Red lettering indicates minimum mandatory information

See reverse for notes & definitions of abbreviations.

Owner Name: C/O DARRIN MCCORMACK (MANAGER) COBBLE HILL IMPROVEMENT DISTRICT

Mailing address: _____ Town COWICHAN BAY Prov BC Postal Code V0R 1N1

Well location: Street 1135 HUTCHINSON RD Town COBBLE HILL

Legal description: Lot Plan 1957SW D.L. Block Sec. 12 Twp. Rg. 7 Land District SHAWNIGAN

PID: 18177042 and Description of well location (attach sketch, if nec.): _____

NAD 83 Zone: 10 and UTM Northing: 5392816 m Latitude (see note 3): 0° 00' 00.00"
(see note 2) UTM Easting: 457248 m Longitude: 0° 00' 00.00"

Method of drilling ☒ air rotary ☐ cable tool ☐ mud rotary ☐ auger ☐ driving ☐ jetting ☐ excavating ☐ other (specify): _____

Orientation of well: ☒ vertical ☐ horizontal Ground elevation: _____ ft (asl) Method (see note 4): _____

Class of well (see note 5): _____ Sub-class of well: _____

Water supply wells, indicate intended water use: ☐ private domestic ☐ water supply system ☐ irrigation ☐ commercial or industrial ☐ other (specify): _____

Lithologic description (see notes 7-14) or closure description (see notes 15 and 16)

From ft (bgl)	To ft (bgl)	Relative Hardness	Colour	Description	Material Description (use recommended terms on reverse; list in order of decreasing amount, if applicable)	Water-bearing Estimated Flow (USgpm)	Observations (e.g. fractured, weathered, well sorted, silty wash), closure details
0	14				Coarse brown gravel and sand		
14	25				Brown silty sand		
25	88				grey silty clay		
88	134				Very silty grey gravel and sand		
134	143				Brown gravel and sand		
143	146				Silty brown sand		
146	158				Coarse brown sand		

Casing details

From ft (bgl)	To ft (bgl)	Dia in	Casing Material/Open Hole	Wall Thickness in	Drive Shoe
0	153	6	Other	0.25	

Screen details

From ft (bgl)	To ft (bgl)	Dia in	Type (see note 16)	Slot Size
153	158			18

Surface seal: Type: _____ Depth: _____ ft
Method of installation: ☐ Poured ☐ Pumped Thickness: _____ in
Backfill: Type: _____ Depth: _____ ft
Liner: ☐ PVC ☐ Other (specify): _____
Diameter: _____ in Thickness: _____ in
From: _____ ft bgl To: _____ ft bgl Perforated: From: _____ ft bgl To: _____ ft bgl

Developed by:

☐ Air lifting ☐ Surging ☐ Jetting ☐ Pumping ☐ Bailing
☐ Other (specify): _____ Total duration: _____ hrs
Notes: DEVELOPED BY BAILING

Well yield estimated by:

☐ Pumping ☐ Air lifting ☐ Bailing ☐ Other (specify): _____
Rate: _____ USgpm Duration: _____ hrs
SWL before test: _____ ft (bgl) Pumping water level: _____ ft (bgl)

Obvious water quality characteristics:

☐ Fresh ☐ Salty ☐ Clear ☐ Cloudy ☐ Sediment ☐ Gas
Colour/odour: _____ Water sample collected: ☐

Well driller (print clearly):

Name (first, last) (see note 19): GARTH DOEGE
Registration no. (see note 20): _____

Consultant (if applicable name and company): _____

DECLARATION: Well construction, well alteration or well closure, as the case may be,
has been done in accordance with the requirements in the Water Act and the Ground
Water Protection Regulation.

Signature of Driller Responsible

Intake: ☐ Screen ☐ Open bottom ☐ Uncased hole
Screen type: ☒ Telescope ☐ Pipe size
Screen material: ☒ Stainless steel ☐ Plastic ☐ Other (specify): _____
Screen opening: ☐ Continuous slot ☐ Slotted ☐ Perforated Pipe
Screen bottom: ☐ Ball ☐ Plug ☐ Plate ☐ Other (specify): _____
Filter pack From: _____ ft To: _____ ft Thickness: _____ in
Type and size of material: _____

Final well completion data:

Total depth drilled: _____ ft Finished well depth: 158 ft bgl
Final stick up: _____ in Depth to bedrock: _____ ft bgl
SWL: 90 ft (bgl) Estimated well yield: 25.00 USgpm
Artesian flow: _____ USgpm, or artesian pressure: _____ ft
Type of well cap: _____ Well disinfected: ☐ yes ☒ no
Where well ID plate is attached: _____

Well closure information:

Reason for closure: _____
Method of closure: _____
Sealant material: _____ Backfill material: _____
Details of closure: _____

Date of work (YYYYMMDD):

Started: 1998/03/05 Completed: _____

Comment: _____

Well Reports

Responsibility:

- QWD, QP, QWPI
- Submit to well owner
- Submit water supply, permanent dewatering, 1/geoexchange system, & all artesian flow

Important for:

- Pre-drilling assessments
- Pump installation
- Delineation & classification of aquifers
- Water Licensing
- Domestic user rights
- Water shortages
- Water budgets
- Water Sustainability Plans

Roles and responsibilities of professionals/consultants

- Alternative specifications for siting and decommissioning only
- Must be prepared by a professional and accepted by engineer (government)
- Engineer may apply terms and conditions
- Well owner must operate the well in accordance with the design and operating instructions of the professional and any terms and conditions set by the engineer.





Alternative means of controlling artesian flow

- Exceptional circumstances; “not practicable”
- Report on alternative management
 - Prepared by professional
 - Assess conditions, evaluate options, propose management strategy
 - Report requirements listed in Schedule 1, GWPR
 - Submit to comptroller or water manager
- SDM must be satisfied of no threat to property, public safety, or the environment



Pumping tests must be carried out by a professional if required



Must not construct well pit for new/alterd water supply wells



Well owners must maintain wells in good condition and promptly carry out repairs

Store contaminants
>3m away and
prevent from traveling
within 3m of wellhead

Maintain 0.3m stick
up and protect from
damage

Keep ground sloped so
water does not pond
and is conveyed away
from wellhead



Maintain access to
wellhead for inspections

Keep area clear of
obstructions and
vegetation

Replace ID plate if lost
or damaged

Maintain surface seal
and fill any visible
annular space with
sealant

Apply at www.frontcounterbc.ca


B.C. Home
Forests, Lands and Natural Resource Operations
FrontCounter BC

FrontCounter BC Links

- [INFO about Natural Resource Applications](#)
- [START a Natural Resource Application](#)
- [MANAGE your Natural Resource Applications](#)
- [WHAT is FrontCounter BC](#)
- [WHERE FrontCounter BC Locations](#)
- [HOW to contact FrontCounter BC](#)
- [NEWS FrontCounter BC](#)


Helpful Links

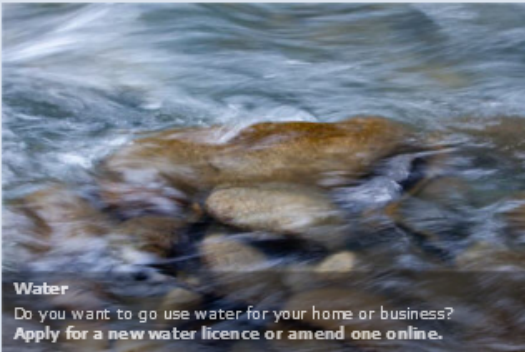
- [BCeID](#)
- [BC Land Title & Survey](#)
- [BC Online](#)
- [Discovery Tool](#)
- [Minerals Title Online \(MTO\)](#)
- [Integrated Land and Resource Registry](#)
- [IMapBC](#)
- [Help](#)

**Help protect B.C.'s natural resources**

Report Natural Resource Violations, including damage or illegal use of Crown Land, forest or water:

- Fill out a [Report of Natural Resource Violation form](#)
- or call 1 844 NRO-TIPS (1 844 676-8477)
- To report poaching or pollution violations, contact the Conservation Officer Service at 1 877 952-7277 or visit their [website](#).



**Water**

Do you want to go use water for your home or business?
Apply for a new water licence or amend one online.

12/24/2015
Groundwater Licensing coming in early 2016

The provincial government intends to bring the [Water Sustainability Act \(WSA\)](#) into effect in early 2016. The Act will bring in new licensing requirements for non-domestic groundwater users as well as [new fees and costs](#). Groundwater licence applications will not be accepted until the WSA comes in effect.

Visit the [WSA website](#) for more information on the upcoming changes. Detailed information on how to apply for a groundwater licence will be available at [FrontCounter BC](#) in early 2016.

INFO
about Natural Resource Applications

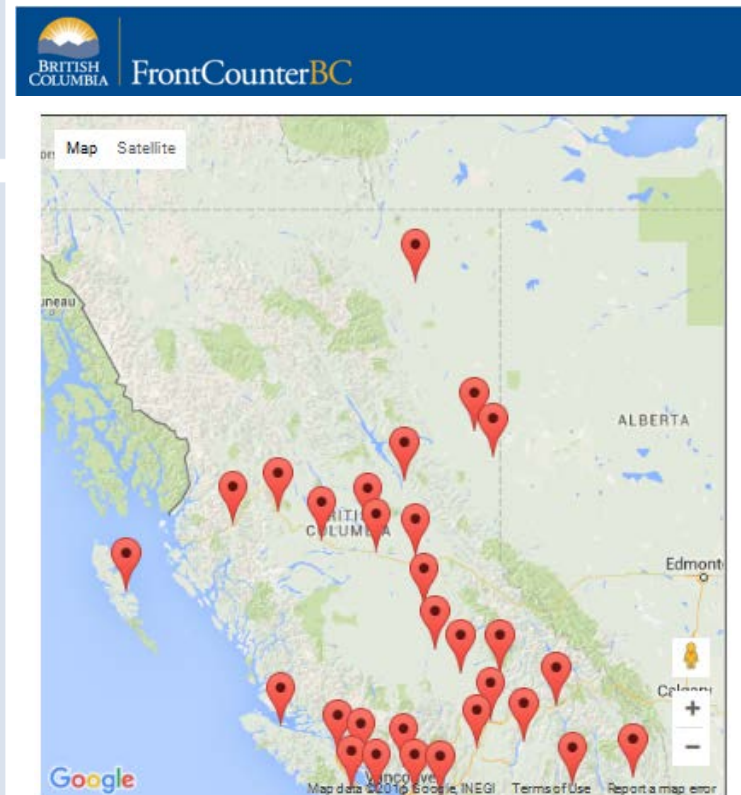
START
a Natural Resource Application

MANAGE
Your Natural Resource Applications (with BCeID)

WHAT
is FrontCounter BC

WHERE
FrontCounter BC Locations

HOW
to contact FrontCounter BC



29 Office Locations

South Area Groundwater Team

Penticton

Skye Thomson – Section Head (hydrogeologist)

Nicole Pyett – Regional Hydrogeologist

Hiring – Groundwater Protection Officer

Twyla Legault – Groundwater Technician



Vernon

Dave Thomson – Regional Hydrogeologist



Kamloops

Melissa Wade – Regional Hydrogeologist

Laurie Lyons – Groundwater Protection Officer



Questions?



Apply for a water licence at:
FrontCounterBC
www.frontcounterbc.gov.bc.ca
FrontCounterBC@gov.bc.ca
1-877-855-3222