



Drilling New Wells

What Administrators Need to Know

Cowichan Bay Waterworks District



670 Connections
Gravity fed system

3 Wells
Fully Metered

New Well - What Next?

- Hire an Engineer
- They will determine your needs by looking at what you have
- Flow modeling
- Storage and maximum daily use
- Fire Protection
- Be proactive
- Consider future growth



How will you pay for it?

- Are you an Improvement District?
 - ✓ Renewal Reserves can be used for replacing existing wells
 - ✓ Capital Expenditure Funds can be used for new wells added to a current system, or for increasing capacity
 - ✓ Borrow?
 - ✓ Imposing Tax Levies on Customers

Where to Drill?

- Hire a Hydrogeologist
 - ✓ Hydrogeologists study the distribution, flow and quality of water underground
 - ✓ They will do a study to determine the best place to drill your new well
 - ✓ Oversees the project including producing the Hydrogeological Report to VIHA, drilling supervision, 48 hour test pumping and water sampling
 - ✓ Can provide cost estimates for all of the above
 - ✓ Stays in touch with VIHA

Drilling on Private Land

- If drilling on privately owned land you must have a legal agreement complete with a Statutory Right of Way signed by your Board and the Property Owners
- VIHA will also require a Wellhead Protection Covenant. CBWD has this as a schedule within the legal agreement
- If Improvement District you also need a Bylaw to enter into an agreement in place, as well as a Bylaw for the entire project itself

Let the Drilling Begin!

- The chosen drilling company will start drilling.
- CBWD is approximately 200ft deep and will take about a week
- 48 Hour Test pump
- Water Sampling
- Lots of nail biting and grey hairs will occur!

Source Approval

- CBWD deals with Vancouver Island Health Authority
- VIHA's basic guidelines for determining Source Approval are:
 - ✓ Hydrogeological Report
 - ✓ 48 Hour Pump Test
 - ✓ Water Sample Results

VIHA's Procedure

- Inspect all locations
- Conduct a sanitary survey
- Prepare an internal review of the information
- Report on well provided to the Medical Health Officer
- Groundwater is either approved, approved with conditions, or rejected
- Applicant is informed of the decision

Connect to Existing System

- Once Source Approval has been received you can apply for the Construction Permit
- Engineer will have designed the specs to connect
- Inform your customers of the connection dates
- CBWD will use Level II Operators to connect the well to the existing water system as we are a Level II facility

Issues

- Time!
- Water Shortages
- Educating Users on Water Conservation
- Money
- Red Tape

Thank You!

