

Buying a Property With a Water Well

Seek out and share information about water wells before completing property transactions.

If you have always relied on a municipal water system, buying a home with a water well can be overwhelming. Well water may look, taste and smell different than city water and, beyond water quality, there are other things to be aware of before purchasing a property with a well.

Water is a vital asset and significant investment may be required if any problems arise with the well.

What should I ask the seller?

Properties can have more than one water well. The seller should be transparent about all water wells located on the property.

A prospective buyer has the right to ask for the details about the entire water system, just as they would about the construction of the home or condition of any equipment within. Gather as much information as possible about the well(s) and water system from the current owner.

What should be included in a well inspection?

Consult with a licenced water well contractor before you finalize your purchase. If you hire a home inspector, be sure they are familiar with rural water systems.

A well inspection should include:

- a collection of water samples for analysis of water quality,
- an assessment of water quantity - the amount of water the well is currently capable of producing and at what pumping rate,
- an assessment of the physical state of the well,
- an assessment of the rest of the water system, including the pump, pressure tank and distribution pipes that bring the water from the well into the home.

As a buyer, exercise due diligence by gathering as much information as possible about the quality (i.e., is it safe to consume) and the quantity (will you will have enough to meet your needs) of water.

Why should water quality be tested?

If you are financing your purchase, your mortgage provider will request a water test be done. It is a good idea to ensure the sales contract is contingent on the water test results. You don't want to find out after the purchase that there are issues that could have been identified by testing the water and inspecting both the well and the rest of the water system.

Water testing should be performed by an accredited, commercial laboratory to ensure reliable test results. Two water quality tests should be conducted for water potability; one to screen for **microbiological contamination** and another to identify the **chemical and physical characteristics**. Both tests identify parameters of concern that could negatively impact your health, be an aesthetic nuisance or impact the operation of a water system. Refer to the *Taking Water Samples* fact sheet or watch the *Taking Water Samples* video online at workingwell.alberta.ca.

Has the water been tested before? Can the results of previous testing be made available to you? Compare current test results to previous records to determine if there have been any changes in the water quality. Changes could indicate issues that should be further investigated.

Why should water quantity be assessed?

Testing to determine the current capacity of a well will tell you if the well can produce enough water to meet your household needs now and in the future. An average household of two to four people will use about 550 to 1,100 litres (120 to 240 imperial gallons*) per day. You should also consider additional water needs such as livestock watering, recreational purposes or yard watering.

To confirm the current capacity of the well and a safe, sustainable flow rate, a yield test should be conducted by a qualified groundwater professional. The flow rate is the amount of water pumped from the well, measured in litres per second (L/sec) or gallons per minute* (gpm). Most homes need at least 5 gpm to meet peak demands, however lower yielding wells can be effectively managed with additional water storage. There are many regions in Alberta where aquifers do not yield high amounts of groundwater, yet water wells have been successfully used for decades.

* Water volumes are referenced in Metric or Imperial measurements; flow rates are in Metric or US measurements.

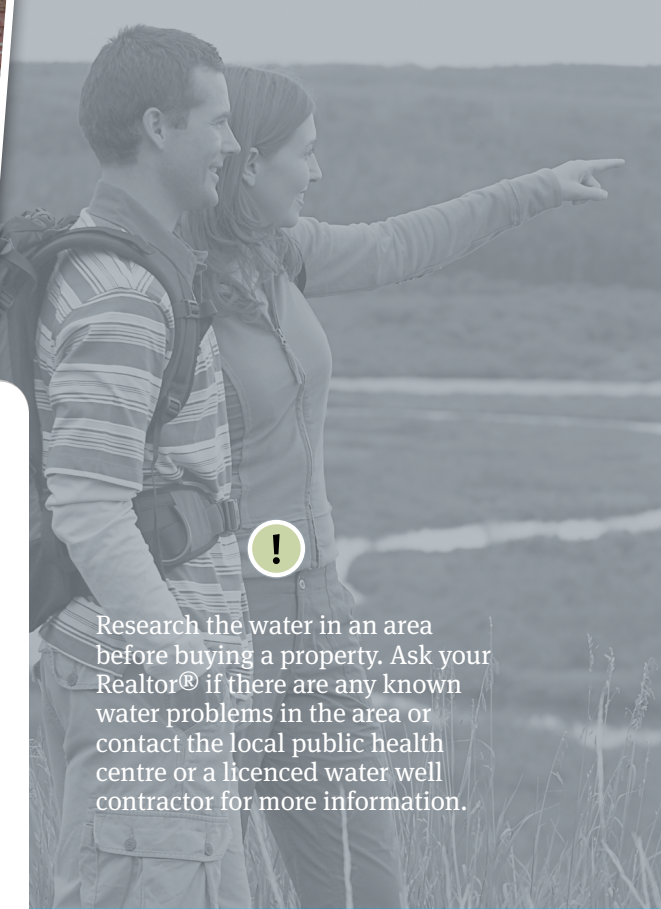
What causes well capacity to decline?

Well capacity can be reduced over time for many reasons, such as:

- The well has historically been pumped at a higher flow rate than the aquifer recharge rate (over-pumped).
- Natural drought conditions have caused regional decline in static water levels in shallow water wells.
- The well screen or perforated casing has become plugged with sediment, mineral incrustation, bacterial fouling, or corrosion.
- The well has become partially filled with sediment or debris over time, or has collapsed due to structural failure.

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If a water supply problem is identified, consult a licenced well contractor before completing any property transaction to discuss options and associated costs. Solutions may include unplugging a well screen or perforated casing, replacing a corroded well screen or casing, water conservation in the home or digging a deeper well. The cost of fixing any of these problems should be considered when negotiating the sale price of the property.

Things to look for when assessing the physical state of a well

- What is the age of the well?
- How was the well constructed? Is it a drilled well or a bored well? Is the casing plastic or steel?
- Where is the well located? If it is in a well pit, consult a licenced well contractor about what is required to bring it up to current standards.
- Are there any visible holes or cracks in the well casing?
- Is the top of casing at least 20 cm (8 inches) above the established final grade?
- Is the well cap securely attached to the casing?
- Is the well cap a standard cap or vermin-proof?
- Is the well located uphill from any spots where surface runoff might occur?
- If the property is flood-prone, is the top of casing at least 60 cm (24 inches) above the highest flood record for the area and is the well cap suitably watertight to withstand possible flood events?
- Are there any visible gaps around the well casing at ground surface?
- Does the well meet the recommended setback distances from possible sources of contamination - refer to the *Water Wells that Last* publication.

Things to ask about the rest of the water system

- How old is the pump and pressure tank? Has either ever been replaced?

- Where are the water distribution pipes buried?
- Is there any visible corrosion on the pressure tank?
- When was the last time the pressure tank was tested? Tanks should be tested for pump cut-in and cut-out pressure, and the pressure differential.
- Is there any water treatment equipment? Make sure operational manuals are available. Has the equipment ever been serviced?
- Are there any yard hydrants on the property? Hydrants are useful on rural properties but must not be located directly on top of the well head to avoid contamination risk to the groundwater.

Is there anything else to consider?

When considering buying a property with a well, ask the seller for copies of all records related to the water well and water system, including:

- water test results
- water well drilling or decommissioning reports
- maintenance or repair records
- warranties and operation manuals

Well owners are responsible for ensuring the safety of their water.

Test your well water regularly, operate your well in a sustainable way, maintain your well in good condition and keep good records.



Alberta law requires property owners to decommission abandoned wells because they can be a serious safety hazard or a contamination risk to groundwater. Unused or abandoned wells not properly decommissioned prior to the purchase of a property become the new owner's responsibility.

Research the water in an area before buying a property. Ask your Realtor® if there are any known water problems in the area or contact the local public health centre or a licenced water well contractor for more information.

FOR MORE INFORMATION:

Working Well
workingwell.alberta.ca

Water Wells that Last
<https://open.alberta.ca/publications/9781460143414>

A comprehensive water well management guide.

Alberta Water Well Drilling Association
<https://www.awwda.ca/>

For a list of licenced water well drillers in your area, visit the Association's website.

Alberta Water Well Information Database
<http://groundwater.alberta.ca/WaterWells/d/>

Search for water well drilling and decommissioning reports.

CONTACT US:

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 Alberta Environment and Parks Information Centre
 Phone: 310-3773 toll free
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Technical Questions?
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