




AQUATERA[®]

WATER EARTH INNOVATION

**RESOURCE GUIDE
FOR HOME BUILDERS**



Aquatera Utilities Inc. is the provider of water, wastewater and solid waste services. Our core purpose is Growing Healthy Communities, with the best people providing the best service and value.

Our promise to our customers is trusted quality, valued service and peace of mind. Our first priority as a company is to ensure the communities we serve are provided with clean, safe drinking water. To keep this promise to you, we have some of the most qualified operators in Alberta on our team, working around the clock.

We are governed by a Board of Directors and four Shareholders: City of Grande Prairie, County of Grande Prairie, Town of Sexsmith, and Town of Wembley. For more information on other communities where Aquatera provides essential services, visit www.aquatera.ca/who-we-are/communities-we-serve

City of Grande Prairie - We provide water, wastewater treatment and solid waste services (garbage collection and recycling).

County of Grande Prairie - We provide water and wastewater treatment services. We also bill garbage collection services on behalf of the County of Grande Prairie.

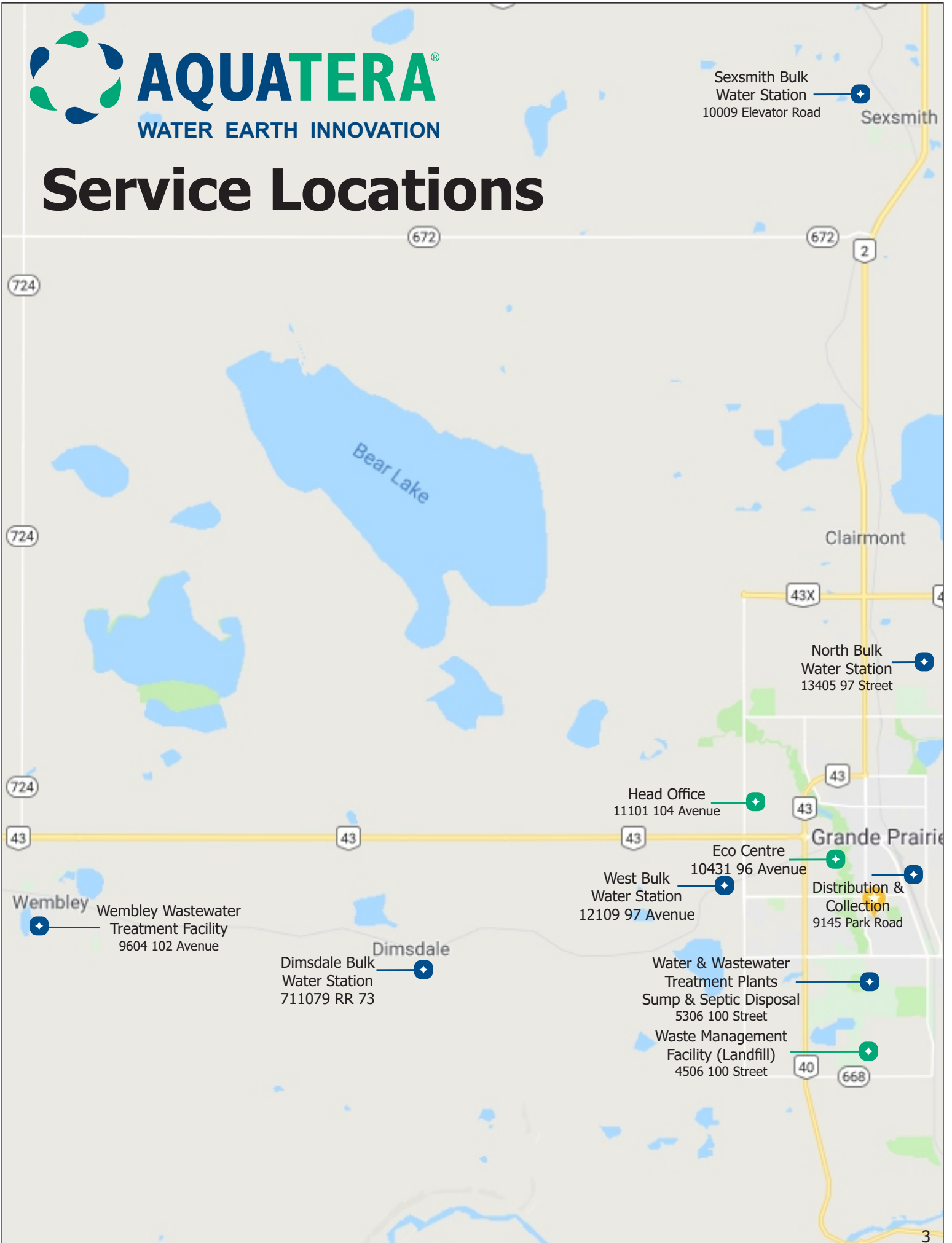
Town of Sexsmith - We provide water and wastewater treatment services. We also bill garbage collection and recycling services on behalf of the Town of Sexsmith.

Town of Wembley - We provide water and wastewater treatment services. We also bill garbage collection and recycling services on behalf of the Town of Wembley.

To provide you more information, we have created the Resource Guide for Home Builders. In this guide you will find everything you need to know about our services including water, wastewater, garbage, recycling and so much more!

For more information, please visit us at www.aquatera.ca , email us at myaccount@aquatera.ca or phone us at 780.538.0340.

Service Locations



STANDARDS AND GUIDELINES

Our Engineering team works with developers, engineering consultants, contractors and other stakeholders to:

- Provide oversight of corporate interests within municipal planning and development processes
- Implement capital and major maintenance projects
- Prepare master plans and enforce design and construction standards
- Approve preliminary design reports and servicing studies
- Monitor, model and assess utility systems
- Update capital plans and infrastructure charge policies
- Maintain and update our asset inventories

For more information, contact us at:

- Water and/or Wastewater Connections/Disconnections and Water Meter Installations connections@aquatera.ca
- Inspection Requests inspection@aquatera.ca
- Alignment Requests and Crossing Permits alignment@aquatera.ca
- Development and Sub-Circulations dp&sub-circulations@aquatera.ca
- Servicing New Development devengineering@aquatera.ca
- Servicing Agreements tech@aquatera.ca

DEVELOPMENT PERMIT

Property owners, developers or their agents must contact Aquatera to address conditions noted on their Municipal Development Permit. It is important to discuss with us how the property is to be serviced and metered to ensure compliance with standards and avoid delays or unnecessary utility costs.

All Aquatera requirements noted on the Municipal Development Permit or otherwise must be satisfied before a meter is installed and the water turned on. Contact us at devengineering@aquatera.ca for more information.

REQUEST A LINE LOCATE

Safety is our number one priority. Whether your project is big or small, in a city or a town, it is essential that you request a line locate. Aquatera's water and wastewater services are not part of the Alberta One Call therefore they must be called directly. Visit www.aquatera.ca/services/distribution-and-collection/submit-a-request-form



WATER AND/OR WATER CONNECTIONS/DISCONNECTIONS AND WATER METER INSTALLATION

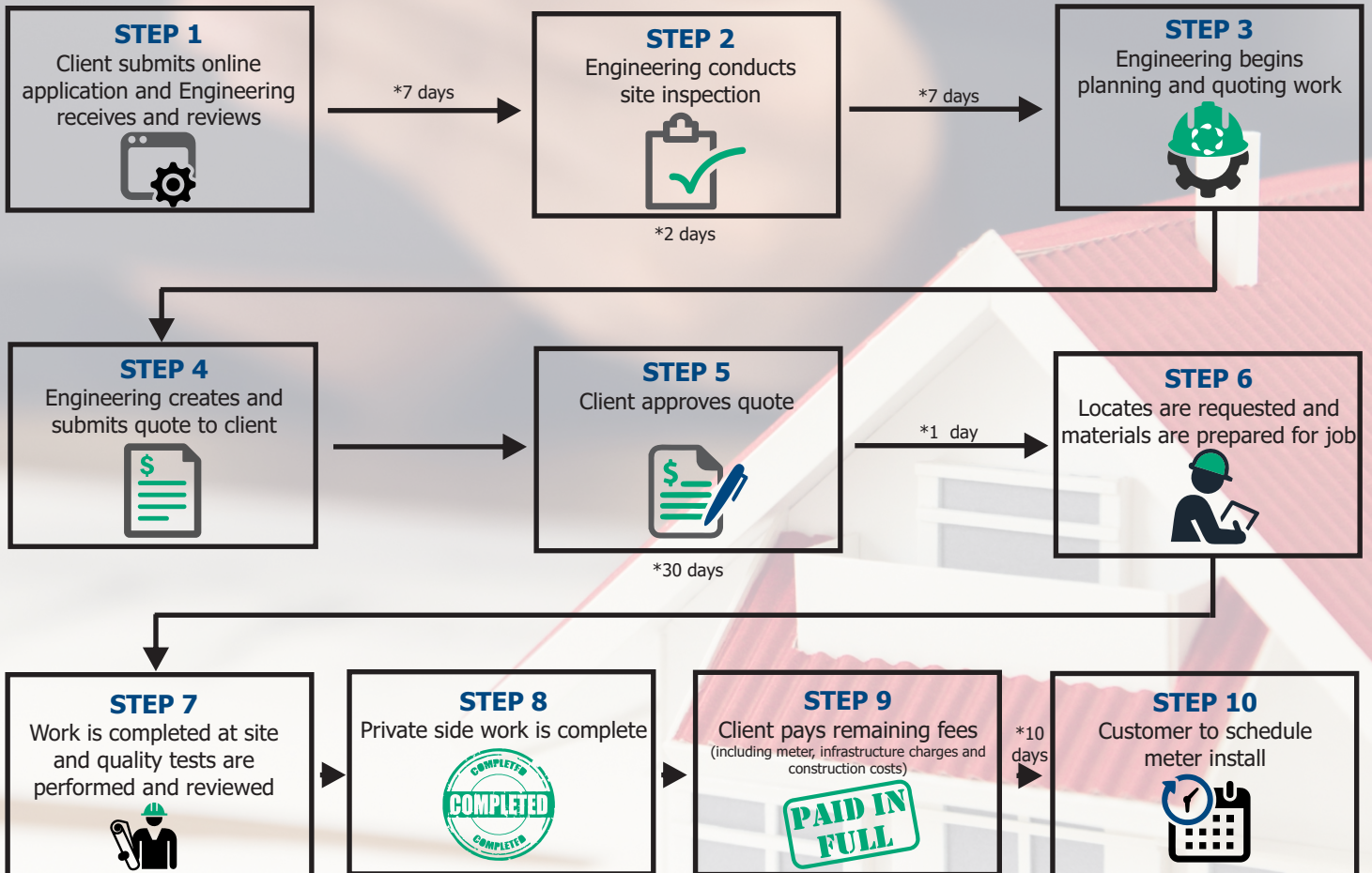
We are always looking for ways to improve the process of applying for a water and/or wastewater connections/disconnections and water meter installation. This allows us to serve customers better by bringing greater efficiency and accurate, detailed information in a timely manner.

The online service connection process is completed through a responsive and detailed web application form with an integrated cost calculator to provide customers with an estimated cost for their service request. If you require a water and/or wastewater connection/disconnection or water meter installation, you must first complete the online application form. There is also a kiosk at the Aquatera Head Office with hands-on assistance to complete the form.

Where can I go for more information about this process?

Visit us at www.aquatera.ca/services/engineering/service-connections-and-disconnections email connections@aquatera.ca, or call 780.538.0340 or 780.357.5941.

WATER AND/OR WASTEWATER CONNECTIONS/DISCONNECTIONS AND WATER METER INSTALLATION PROCESS



HYDRANT REPAIR AND SERVICE

Maintenance and testing of red fire hydrants on private property is the responsibility of the property owner. Home and business owners are also responsible for clearing snow and ice from hydrants on or near private property.

Aquatera is highly qualified to repair and maintain all the public yellow fire hydrants in our service area. With this expertise and knowledge, we can also help you maintain your private red hydrant. We offer:

- Compliance
- Value-based pricing
- Excellent service and workmanship
- Assurance you will meet National and Alberta fire code regulations

For more information on commercial and industrial hydrant repair and maintenance please email accounts.receivable@aquatera.ca or visit www.aquatera.ca/services/municipal-services/hydrant-cart-rental



SANITARY SEWER, STORM LINE, AND WATERMAIN FLUSHING

Aquatera's sanitary sewer and storm line flushing and cleaning involves the flushing of sanitary and storm lines to remove debris. This is often done in conjunction with, and prior to, Closed Circuit TV (CCTV) video inspection services.

Watermain flushing keeps water lines clear of corrosion, sediment and stagnant water, to provide the highest quality water to our customers. During flushing time, water can be discoloured or cloudy. To clear the discolouration and/or cloudiness, simply run your tap until discolouration or cloudiness is removed.

A photograph showing a group of people in a meeting room. In the foreground, a yellow hard hat sits on a table. The people in the background are looking at documents and laptops.

Learn about Aquatera's
Capital Projects
www.aquatera.ca/transparency-growth/capital-projects

A hand is shown typing on a laptop keyboard. The background is a blue, digital-themed graphic with glowing lines and data points.

**OPEN
DATA PORTAL**
www.aquatera.ca/services/distribution-and-collection/open-data-portal

TESTING PLAN

A Testing Plan is a drawing and procedure outlining how a water service line will be disinfected prior to commissioning.

Requirements of a Testing Plan:

All water service lines 50 mm and greater from the property line to the building shall be tested in accordance with Alberta Water and Wastewater Association (AWWA) standards, including any hydrant leads.

Prior to initiating testing, Aquatera shall be contacted to assist with 5ntu turbidity flushing and 2ntu turbidity flushing prior to bacteriological testing. With Aquatera's written approval, water service lines 50 mm and smaller, equipped with a stop and drain valve, will only require two-day bacteriological testing; they will not require pressure testing. All results will be submitted to Aquatera for review and approval prior to commissioning.

Multiple water service lines (two or more) on any single site will require the full testing procedure and results as per AWWA. Required testing includes 5ntu turbidity flushing, pressure testing, chlorination testing, 2ntu turbidity flushing and two-day bacteriological testing. All results will be submitted to Aquatera for review and approval prior to commissioning.

It is recommended that an injection point be installed within three metres of the tie-in or new pipe construction to facilitate chlorination.

The engineer hired by the owner/developer is responsible for ensuring that testing is conducted as per the Testing Plan and for contacting Aquatera Distribution and Collection to request operation of boundary valves for flushing and turbidity testing.

For information on standards and guidelines, visit www.aquatera.ca/services/engineering/standards-and-guidelines

Prior to scheduling the water meter installation, the contractor/engineer is required to submit pressure testing and bacteriological testing results for review and approval to connections@aquatera.ca

Local Water Source

The water that Aquatera treats originates from the pristine Wapiti Lake in British Columbia. Your water travels 143 km to the Wapiti River, where we pump it to the treatment plant for processing.

FAQ's

Who can apply for a Water and/or Wastewater Connection/Disconnection and Water Meter Installation?

Builder, Developer, Mechanical Engineer, Engineering Consultant, Property Owner and any other authorized representative.

How do I open a new account, close an existing account, or transfer services to a new address?

Just answer a few simple questions on our online form and we'll take care of the rest! Visit www.aquatera.ca/your-bill/open-close-transfer-account email us at myaccount@aquatera.ca or phone us at 780.538.0340.

What are the requirements for the service connection application?

If you are applying for service for a commercial, industrial or residential (four units or more) property, you will be required to provide a Site Servicing Plan and Testing Plan.

Am I required to provide any documentation in my application?

If you are applying for service of a commercial, industrial or residential property (four units or more), you will be required to provide a Site Servicing Plan and Testing Plan.

What is a Site Servicing Plan?

A Site Servicing Plan outlines the location of all underground infrastructure including storm, wastewater and water services, and surface infrastructure including street frontage, sidewalks/curbs, driveways, utility poles and hydrants.

What is a Water/Wastewater Service Disconnection?

A Water/Wastewater Service Disconnection includes a temporary disconnection at the property line or a permanent disconnection at the main. When a municipality requires a demolition permit, Aquatera will sign the demolition permit once the disconnection has been completed. A Demolition Permit is an official municipal document, issued by the municipality, that authorizes the demolition of a structure.

How long does it take to temporarily disconnect my water service?

Typically, Aquatera doesn't conduct property line disconnections. It is the responsibility of the owner to hire a private contractor to disconnect the water and wastewater services at the property line. Aquatera must witness the property line service disconnection and requires a minimum of 24 hours notice to schedule a service disconnection witness.

How long will it take to install my meter?

If the meter is in stock, it takes between one and two weeks. If the meter is not in stock, one will be ordered and, upon arrival, scheduled for installation within one to two weeks.

How much does it cost to get water?

The cost of connecting to municipal water can vary from one property to another and depends on a number of factors including the property type, water and wastewater service size, meter size, whether this is a new development or re-development, and associated construction costs.

When do I pay and what are my payment options?

Payments will be made in two installments:

First payment: Within ten days of the site inspection, Aquatera will provide a quote that includes the installation of services to the property line and restoration of the site to its original condition.

Second payment: Upon completion of the service installation from the public portion to the building, the applicant is responsible for submitting the meter application. Upon receipt, Aquatera will provide an invoice for the Infrastructure Charge and Meter Fee. Upon payment, the meter installation will be scheduled. Payment is required prior to meter installation.

FAQ's continued

How long does it take to get water?

It typically takes up to three months from the initial application submission to receive water.

What is the Infrastructure Charge?

The Infrastructure Charge is a contribution by new development, or re-development if service size is increasing, towards the costs of providing major water and wastewater infrastructure needed to support community growth.

What is a County Cost Recovery Fee?

The County Cost Recovery Fee is a fee that helps the County recover the capital investment costs relating to water and/or wastewater infrastructure they have installed.

Does fire suppression service impact Infrastructure Charge fees?

No, fire suppression service does not impact Infrastructure Charge fees. Infrastructure Charge fees are based on the size of domestic water service from the fire tree to the building.

Can I use my own contractor?

Yes, you can hire any contractor to complete construction on the private side. Aquatera is only responsible for construction on the public side.

Why am I responsible for hiring a private contractor to disconnect water and wastewater services prior to building demolition?

Disconnection of the services at the property line (on the private property) ensures that Aquatera's infrastructure is not accidentally damaged during the demolition process.

UNDERGROUND SERVICES

Our Distribution and Collection team provides a variety of support and services across our service area. One of the larger tasks includes maintaining the Aquatera infrastructure.

This includes work on all underground pipes, replacing and servicing water meters, repairing water and wastewater mains, installing new services as needed and spot checking the infrastructure throughout the service area as a part of our commitment to quality. Visit www.aquatera.ca/services/distribution-and-collection for more information.

Aquatera Harnesses Solar Power

The installation of solar panels at the Zone 3 Reservoir and Pump Station contributes to an innovative and cost-effective energy strategy. This project reduces the power costs and minimizes the environmental footprint in generating clean and renewable energy. The solar panels are expected to produce approximately 80 per cent of the power required at the Zone 3 Reservoir and Pump Station, greatly reducing the reliance on traditional power source.

CHECK FOR LEAKS

Leak Detection

Water leaks can cause considerable and costly damage to your home if they are not detected early and handled quickly. Luckily, there are some ways to detect if you have a leak in your home before the damage is too far gone. Check out the most common causes of leaks in your home and how to detect them.

Toilets

The leading source of a leak in your home is your toilet because they use the most amount of water. Sometimes its easy to tell if a toilet is leaking because you will be able to hear it, but leaks can also be dangerously silent. There are several causes for these leaks, but the most common is due to the flapper valve not creating a tight enough seal to keep water from escaping.

Detection

Conduct routine visual checks around your toilet to see if there are any signs of a leak such as puddles, mold or mildew. You can also detect leaks using food colouring or dye tablets (dye tablets available at Aquatera for free).

Simply flush your toilet, remove the tank lid, and drop 10 drops of food colouring or one dye tablet into your tank. Let it sit for 30 minutes, without flushing. After 30 minutes, if you see coloured water in the bowl this indicates you have a leak. If the water is colourless, then you don't.

Showers and Bathtubs

Shower and bathtub leaks are very common in the bathroom and, while they sound minor, can cause extensive damage if the source isn't repaired quickly. These leaks can be caused by easily fixable issues such as re-caulking, or something more serious such as damaged pipes behind walls and tile.

Detection

You may notice visual signs of leaks quite easily such as standing water on the floor, lifting tiles or curling vinyl, peeling paint, water stains and mold or mildew.

If you don't notice these signs but want to be proactive, there are a few simple tests you can use. If you have a glass shower door, splash water around the frame. Wait a few minutes to see if water starts seeping out – this will indicate any gaps around the frame or rubber gasket. You should also inspect the caulking around your shower/bathtub.

Washing Machine

Laundry rooms have the second highest usage of water, coming in next to bathrooms, which makes them a common source of leaks in your home. Whether you have a front load washer or top load washer, leaks can occur at the front/top, back or bottom. This can be a result of the machine being off-balance, over-filled, using too much detergent, loose or blocked hoses, or damaged water pumps.

Detection

If your washing machine is leaking, you will know it! But you can prevent it from happening or address it as soon as it does happen. The most common source of leaks on washing machines are the hoses (internal and external) so be sure to check them to ensure the fittings are tightly secured and the hoses themselves aren't defective.

Water pumps drain water from the tub after the washing cycle. They will have an outlet or a drain hose, so look for signs of leaks from the hose connected to the pump. If the hose is in good condition then the leak could be originating from the pump, in which case it will need to be replaced.

Water Heaters

Water heaters most often leak when they have reached their life expectancy and the tank starts to disintegrate. A deteriorated tank leads to a slow leak or a sudden rupture.

Detection

To determine if your water heater has a leak, there are five common sources to inspect: water supply lines, water heater nipples, temperature and pressure relief valve, drain line, and tank. In most cases, these issues can be easily resolved by replacing the lines, valves, nipples, and caps but if the leak is originating from the tank, the water heater can't be fixed and will need to be replaced. Be proactive and conduct monthly maintenance.

Sewer/Sump Pump

Sewer/sump pumps are a homeowner's first line of defense against a basement flood. Unfortunately, they can fail, leading to leaks and costly damage to your home. The most common causes of leaks are cracked sump pumps, damaged hoses and clamps, and issues with the sump pit (size).

Detection

While some leaks will be obvious, not all leaks will be apparent, so it is important to conduct routine inspections, so you don't suffer from sewer/sump pump failure. Assess your sump pump for cracks, check your hoses and hose clamps for holes and damage, and examine your sump pit. If water continues to overflow from your sump pit then it is likely not big enough and, chances are, your home is experiencing more water underneath it.

Refrigerators and Dishwashers

Your fridge and dishwasher are two of the most important appliances in your home. After all, the kitchen is gathering centre in most people's homes. While you may spend most of your time near them, these leaks generally occur out of sight so you may not even be aware of them.

Detection

To detect refrigerator leaks, inspect the water supply line and tube to ensure they are not damaged, and are securely attached to their connections. Check the back of the fridge a few times a year for any signs of moisture, wall damage or leaks.

For dishwashers, you will want to examine the hose, seals and valves. Check under the dishwasher a few times a year (while it is running) for any signs of dampness or dripping water.

Humidifier

Unfortunately, leaks can be quite common in humidifiers, particularly if they have not been well maintained. Leaks typically occur due to blocked drainpipes, clogged evaporator pads, and defective solenoid valves.

Detection

Check your drainpipes to see if there is a blockage or a kink. Not only could there be an air lock, but if the line is twisted, it won't drain properly. Inspect your evaporator pads for the formation of hard water scales. This can prevent the pad from absorbing water, and it must go somewhere. Examine your solenoid valve to ensure it is not damaged and it is properly adjusted.

Faucets

Some faucet leaks are obvious and an easy fix, but that's not always the case. The most common locations for faucet leaks are the spout, the base of the faucet and underneath the sink.

Detection

Leaks from the spout are usually visible if they've been there for a while, but you may not notice them in the early stages. If you suspect a leak, place a cup or bowl underneath the spout and check after a few minutes to see if there is water in it.

Leaks around the base of the faucet are less obvious because water is constantly splashing around the base. To check for a leak here, start by cleaning up all the standing water so you have a dry surface. Turn on the handles and check for water seeping out around the base.

Leaks under the sink often go unnoticed yet are one of the most damaging. Detect a leak by removing everything from underneath the sink, then run some water to see if it is leaking. If it is, check the water supply connections and sink drain connections to see if they are loose.

HYDRO EXCAVATION

The hydrovac excavator uses high pressure water to loosen soil. A vacuum is then used to transfer the soil or debris to a debris tank. This equipment is the least invasive and most accurate way to excavate soil and locate underground utilities.



CATCH BASIN AND MANHOLE REPAIR

Aquatera has the experience and expertise in the provision of catch basins and manhole repairs. Manholes and catch basins collect water and debris from the environment into the wastewater system. We can provide ongoing maintenance to repair manholes and catch basins, or respond to emergencies in our service area. Please contact dcadmin@aquatera.ca for more information or call 780.882.7800 to report an emergency.

SHARE AREA AND SHARE SHED

Check out the Share Area at the Aquatera Eco Centre and the Share Shed at the Aquatera Landfill and you might find some great treasures and help to repurpose and reduce waste!



PLEASE DISPOSE OF WASTE RESPONSIBLY

SMART IRRIGATION TIPS

Water and wastewater charges reflect the amount of water you consume. If you compare this to another essential household expense, like groceries, you'll notice your grocery bill displays the cost of each item you purchased, GST, and any deposit fees that apply. That's it. What you don't see detailed on your grocery bill is what goes into calculating each item's shelf price: the cost of production, packaging, labels, distribution, wages and more.

Water and wastewater charges are like your groceries - you pay for what you need. Each month, we calculate the cost by multiplying the amount of water consumed (cubic metres) by the current water and wastewater rates. We can't differentiate between water that is coming out of your kitchen tap, water that is being flushed, or water that is being used to tend to your outdoor space, therefore all water is treated.

To uphold our Core Purpose of Helping Grow Healthy Communities, we want to encourage our customers to conserve water. So, we have come up with some smart irrigation tips and tricks to help you conserve water and save money during the summer months.

Pencil it in

Create a schedule to meet the specific needs of your landscape. Remember, the needs of plants vary, and this can also depend on other conditions such as time and weather.

Get in the Zone

Divide your yard into zones so each zone can be watered separately, preventing over-watering on areas that do not require it, such as trees and shrubs.

Drop in the Bucket

Use recycled/reclaimed water for small gardens and plants. Collect rainwater in a bucket or water from your sink or shower tap while you're waiting for the temperature to adjust. This way the water will not go down the drain, but actually be very useful.

Watch the Clock

Ensure you are watering in the morning to avoid water loss due to evaporation. The best time to water is between 4 a.m. – 10 a.m. when the sun is still low, and the temperatures are still cool. Watering mid-day can result in a loss of 30 per cent of water to evaporation.

Inspect Your Gadgets

Inspect your system on a regular basis. Checking for leaks and damaged or clogged heads helps you conserve water and save!

Get Low

Consider installing a low volume drip, spray jets/misters or micro-sprinklers to slowly irrigate and reduce over watering, runoff and evaporation.

Just What I Needed

Water only when needed. Over-watering can result in shallow roots, weed growth, fungus and disease.

That's a Wrap

Using plumbers' tape to seal the faucet connection to the hose and the hose to the sprinkler will minimize the chances of a leak.

CARDBOARD DIVERSION PROGRAM

Blue cardboard recycling bins have been placed at several commercial locations throughout the city. There is no direct charge to businesses for the servicing or rental of these recycling bins, however, each month commercial customers pay a cardboard recycling fee on their utility bill. This charge helps support the diversion program.

To qualify for this service you must:

- Be a commercial business that does not generate enough cardboard to warrant renting a waste container
- Share the container with other businesses; the location of the waste container must be accessible to all businesses involved
- Ensure the container is adequately maintained according to the criteria below

If a commercial customer receives their own personal cardboard recycling bin and can provide proof (invoice/agreement from the disposal company) the charge can be waived from their bill.

To apply for a cardboard diversion bin visit

www.aquatera.ca/services/garbage-and-recycling/cardboard-diversion



BATTERY SAFETY

Improper battery disposal can be dangerous to waste disposal workers and the environment.

Take care and take charge by properly disposing your batteries.



AQUATERA LANDFILL

Aquatera's Landfill Gas-to-Energy project reduces greenhouse gas emissions by capturing landfill gas collected from decomposing landfill waste. Our Landfill converts this gas to energy, providing heat and electricity to our Water and Wastewater Treatment Plants. For more information visit

www.aquatera.ca/services/garbage-and-recycling/landfill and for hours and location visit www.aquatera.ca/contact



LITTERING

Did you know that, under the provincial Traffic Safety Act, operators can be fined for transporting an unsecured load?

An unsecured load is any shipment of solid waste in or on a vehicle that is not covered, enclosed, tied down or otherwise secured, including waste contained in bags that could potentially spill onto roads.



WORK WITH US

Aquatera Utilities Inc. is honoured to be named among Alberta's Top Employers which recognizes employers who lead their industries in offering progressive workplaces and forward-thinking programs for their employees. For career opportunities, please visit www.aquatera.ca/who-we-are/careers



One stop for everything you need to know

www.aquatera.ca

WIN OR GIVE!

Take the Aquatera Customer Satisfaction Survey and you could Win your water, or Give water to a local, non-profit organization (with an Aquatera account), or anonymously to another Aquatera customer! If you choose to Give your water to a local, non-profit organization that doesn't have an Aquatera account, a donation will be made in the winner's name. Its YOUR choice!

To be eligible, you just need to:

- Be an active Aquatera customer
- Fill out the Win or Give survey
- Submit your survey by the last day of the quarter (March, June, September, December).

We will be randomly selecting four winners a year! Visit www.aquatera.ca/transparency-growth/customer-engagement/win-and-give

WHAT'S ON TAP

Want to stay in the loop of everything going on at Aquatera? Subscribe to our quarterly newsletter for the latest news, updates, contests and special offers! Visit www.aquatera.ca and subscribe!

LIVE CHAT

Aquatera is here to help! Visit www.aquatera.ca to chat with us online!



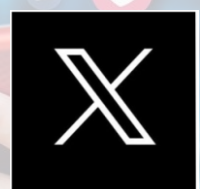
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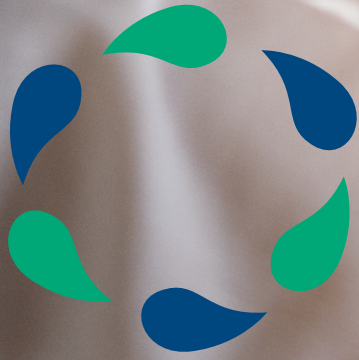
BLOG

www.aquatera.ca/multimedia-and-stories/the-drop-blog

Learn more about Aquatera and the team that brings you water, wastewater and solid waste services. Be sure to check out Aquatera's social media for up-to-date information, contests and give-a-ways. Check us out at:

Like us on Facebook





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