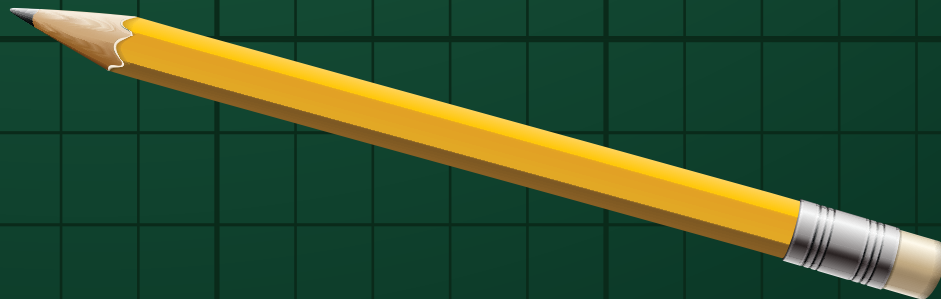


AQUATERA[®]

WATER EARTH INNOVATION

RESOURCE GUIDE

FOR TEACHERS, STUDENTS
& YOUTH GROUP ORGANIZATIONS





Thinking

creative

Space

Good Idea

$E=mc^2$

Eng

Inven

Knowledge

ecology

Study

Education

Solution

learning

Innovation

ideas

Science

research

Chem

Introduction

Aquatera needs your help!

We're on a mission to keep our planet safe and community clean but we can't do it without you!

You have the power to make a difference and be part of the solution that will keep our environment safe and healthy for years to come. There is no better time to start than right now. By learning how to Reduce, Reuse and Recycle, you will carry this habit for lifetime.

This guide outlines everything you need to know about garbage, recycling and water, what Aquatera is doing to help our planet, and what you can do to help to improve recycling and water conservation efforts every day.

Use this guide as a resource to teach the importance of becoming part of the recycling and healthy water revolution.

Let's do our part to keep our community and environment clean!

So, what do you say, do you want to join us?



Landfill

Bioreactor Landfill

Our Landfill isn't just an ordinary Landfill. It's called a Bioreactor Landfill! Using leading technology, we can capture naturally occurring methane gas from decomposing waste and convert it into gas to heat and power our Water and Wastewater Treatment Plants. This system:

- ✓ Reduces greenhouse gas emissions 
- ✓ Produces enough electricity to power 14,000 homes per year 
- ✓ Produces enough heat to heat 200 homes per year 
- ✓ Greatly improves air quality 

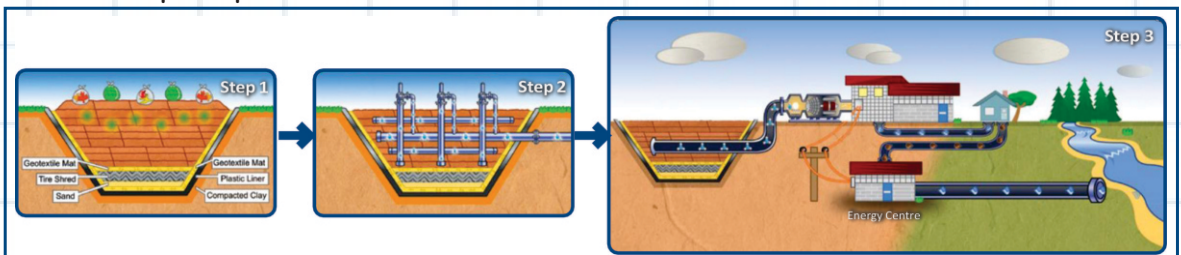
Share Area and Share Shed

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!



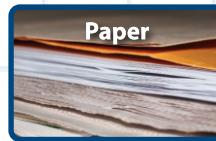
Compost

Aquatera doesn't have a compost program, but that doesn't mean we don't use it. This is because our Bioreactor Landfill acts as compost! This means that when you toss out food, organic materials and even pet waste, it goes to our Bioreactor Landfill. What makes it better, is you don't even have to separate it! Check out the diagram below to see how it works! You can also keep your organic materials for your own compost pile.



Contaminates

Whether you are recycling in your blue bag or at the Eco Centre, you should be sure that all recyclables are free of contaminants including food, grease, and garbage. Unfortunately, when an item is contaminated, it is no longer recyclable and if it encounters other items, those items will no longer be recyclable either. This means that they will go to the Landfill.



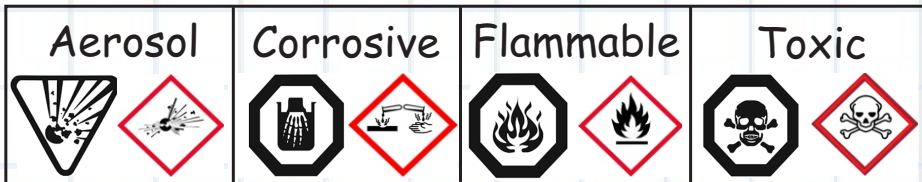
Risky Recycling

Some items can be harmful to people and our environment when they are not disposed of correctly.



Household Hazardous Waste

The Eco Centre is always improving its site operations to make sure that customers can easily understand and identify proper disposal instructions for household hazardous waste. Disposal zones are clearly identified with signage to indicate how and where to properly dispose of hazardous waste. The Eco Centre will accept household hazardous waste in four categories:



Products must be properly sealed in their original containers with intact labels. If products are not in their original containers, customers must ensure the chemicals are safely and securely sealed, properly labelled, and not mixed with other chemicals.

Batteries

Batteries are another hazardous item that must only be disposed of at the Eco Centre. Improper disposal is harmful to the environment, people and can cause fires if they are taken to the Landfill. Our Eco Centre accepts consumer batteries weighing less than five kilograms, including alkaline batteries, cell phone batteries and vehicle batteries.



Recycling



Blue Bag Recycling

Once a week, Aquatera collects residential recycling in blue bags. This includes paper, cardboard, hard plastic (#1-7) and some metal. You don't even have to separate them, you just need to make sure they are clean and free of grease, food and garbage. Once collected, your recycling is processed at a Materials Recovery Facility (MRF) that separates the items. This makes it easier for everyone to recycle! Make sure your blue bags are placed one metre from your garbage cart and at the curb at 7 a.m. on your collection day. For more information, visit www.aquatera.ca/services/curbside-collection-calendar.



Why Blue Bags?

Recycling is placed curbside in blue bags versus bins as they are easy to see through to determine if the bags have contaminants and cuts down the space used curbside for collections.



Eco Centre Recycling

The Eco Centre is Grande Prairie's largest recycling depot for residential customers. Not only can you recycle items that go in your blue bag, but also Styrofoam, electronics, batteries, tires, household hazardous waste and fluorescent light bulbs at the Eco Centre.



Items must be separated in the marked blue bins as each material type is separated and bulked in Grande Prairie and then sent to processing facilities that do not have a Materials Recovery Facility. Please ask before you place an item for recycling if you are unsure.

Holiday Recycling

It is so easy to reduce waste and recycle over the holidays but unfortunately, Canadians throw out 25% more waste during the holidays than at any other time! Here are some great tips to keep in mind during your next celebration:

- **Reuse** gift boxes, tissue paper and gift wrap
- **Shred** leftover paper and use it in gift baskets
- **Make** cards using recycled paper and cardboard
- **Create** an imaginative Halloween costume using materials you already have!

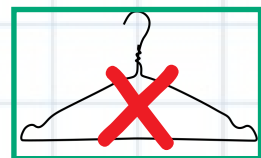
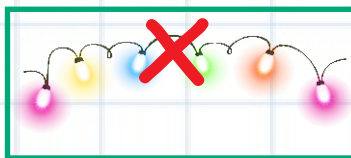


Nespresso Capsule Recycling

The Green Bag solution allows citizens of Grande Prairie to place their used aluminum Nespresso capsules in a fully recyclable green bag, then place them by their blue bags at the curb or bring them to a drop-off point in the city. Once bags are collected at the sorting centre, they are then sent to a Nespresso recycling partner that separates the coffee grounds from the aluminum. The aluminum is recycled, and coffee grounds are transformed into a high-quality compost for local farms.

What We Can't Recycle

Unfortunately, there are some things we just can't recycle. This includes glass, Christmas lights and metal clothing hangers, just to name a few. But just because they can't be recycled doesn't mean they can't be reused! Wondering which waste items go where? Search in our directory and it will tell you if it goes to the Landfill, Eco Centre, your garbage cart or in your blue bag for curbside collection at www.aquatera.ca/services/wheredoesmywastego or check out 'Get Down with Upcycling' on the next page to see how you can give these items, and many more, a second chance!



Get Down with Upcycling

Upcycling is a great way to reuse materials that would otherwise be thrown away. By giving these items a second chance, we send less to the Landfill and help the environment by reducing our carbon footprint. Check out our top five products to upcycle and, if you want to try out any of these projects, please ensure an adult is present.

Egg Cartons



Grow flowers: Fill each cup with potting soil, flower seeds and just enough water to help them grow. As they sprout, you can move them to your yard and watch them bloom!



Feed birds: Thread string through each side of the egg carton. Fill the cups with birdseed and hang it from a tree.



Make ice: If you have a Styrofoam egg carton, you can fill it with water and place it in the freezer. This is a great makeshift ice cube tray and will give you ice in a very cool shape.



Storage: You can use any kind of egg carton to store little trinkets such as jewelry, buttons, or nuts and bolts.



Metal Hangers

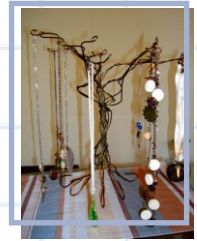
Bubble wand: Using pliers, twist the metal hanger into the shape you want, making sure no sharp points are poking out. Fill a bucket with water and soap, dip your bubble wand then wave it around and watch the bubbles float!



Floral wreath: Twist the metal hanger to form a circle, making sure the hook is still intact. Using floral wire, attach flowers to the hanger by wrapping the wire around the hanger and the flowers. When the hanger is completely wrapped, hang the hook on your door and check out your beautiful wreath!



Storage: Keep your metal hangers hung up in your closet and use them to store jewelry and accessories. They make for a great place to hang necklaces, bracelets, earrings and sunglasses.



Buttons



Make jewelry: There is no limit to the jewels you can create with buttons. Using string, floss or elastic cord, loop string through the button holes and fasten both ends. You can make these as long or short as you want, ending up with a bracelet, anklet, necklace or even a headband! Alternatively, you can pick up ear wires at your local craft store and attach buttons to create earrings.



Decorations: If you're looking for a way to brighten your space, buttons are a great and simple way to do that. Glue them to glass jars and fill them with flowers, glue them to lampshades to add some colour, or create cool artwork by using them in your paintings.



Magnets: Display that cool artwork on your fridge using button magnets. Simply glue a button to a magnet, or a magnet strip, then use them to hang your artwork for everyone to see.

Glass

Flower vase: Make a pretty flower arrangement and put it in a glass jar instead of a vase.



Storage: Use glass jars as a place to organize your school supplies such as pens and crayons, make a sewing kit with your thread and needles, or store your art supplies such as paint and brushes.



Pack your lunch: Mason jars are the perfect size to store everything you need for a healthy lunch. Fill one with fresh fruits and vegetables to snack on, one with a delicious salad that you can shake up over lunch, and top one off with fresh tap water to keep you hydrated throughout the day!



Make a snow globe: You can make an awesome snow globe using a mason jar and lid. Hot glue a figurine to the inside of the lid, fill the jar with water and sparkles, then put the lid on. Shake it around and you have your very own homemade snow globe!



Potato Chip Tubes

Kitchen canisters: Store food items such as pasta, flour or sugar in chip tubes. To give them a fun look, paint the chip tubes with chalk paint and use chalk to label the contents of the container.

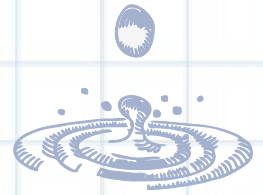
Gift container: You know what fits perfectly in chip tubes? Cookies! Gift someone you care about with delicious homemade cookies stacked in a chip tube. Wrap the tube in festive wrapping paper that's right for the occasion and top it off with a bow or some ribbon.

Storage: Mini chip tubes are the perfect size for organizing your desk, office or craft space. Wrap them up in fun, patterned paper and store pens, pencils, crayons, paper clips, and even tubes of wrapping paper!

Bowling: If you're looking for a fun activity, why not try bowling with chip tubes? Simply paint six tubes in a fun and bright colour and, once dry, paint a white bowling pin on it. When they are ready, use any round ball such as a soccer ball or a baseball to start bowling!



Water



It might seem harmless to flush things down the toilet such as fish, wet wipes, hair or grease but these items can be very damaging to our sewer systems. When they are flushed, these items don't break down, get trapped and clog our pipes and can lead to costly and disruptive repairs. They are also harmful to our waterways and can harm our environment and aquatic life.



Remember, only the 4 P's can be flushed down the toilet: Pee, Poo, Paper (toilet) and Puke! To learn more about the 4 P's visit www.aquatera.ca/blog.

Contain It - Don't Drain It



Many people think it's okay to dispose of oil and grease down the drain, but this is extremely damaging to sewer systems. While it starts off as a liquid, it quickly solidifies in pipes and turns into a sticky mess that gets stuck in pipes. This is what we call a 'fatberg'. Over time it causes backups and clogs, leading to costly repairs and excavation.



In Britain, a 17-ton fatberg was removed from a sewer system. Can you imagine? That is equal to the weight of two fire trucks!

Beep Beep



To properly dispose of fat, oil and grease, pour it in an empty container and once it solidifies bring it to the Eco Centre. To learn more about garbage and recycling visit www.aquatera.ca/services/garbage-and-recycling.

Water Conservation

When it comes to conserving water, small changes can have a great impact! Here are some helpful tips to conserve water:



- Turn off the water when you are brushing your teeth and while you lather as you wash your hands.
- Choose showers over baths and keep them to five minutes or less if you can.
- Learn how to check for leaks at www.aquatera.ca/services/metering-services/leak-detection
- Instead of turning on water and waiting for it to get cold, fill a pitcher with water and put it in your fridge. Then you'll have cold water ready when you need a glass.



Spring Run Off

When spring rolls around you may notice an earthy smell and taste in your tap water. This is because the ice in the mountains starts to melt, flushing a large amount of natural water into our watershed. But not to worry, this is completely normal, and the water is completely safe to drink! If you want to reduce the earthy smell in your tap water, here are some tips:

- Run your tap a little bit longer before getting a glass of water.
- Pour water from your tap into a pitcher and let it sit on the counter or in the fridge.
- Add lemon or ginger into your water to eliminate smells and taste and add some flavour!

Water Safety

We deliver 20 million litres of water to our customers and return about 80% back to the Wapiti River, which is where our water is sourced. We need to take care of our natural resources and practice water safety. For more information visit <https://www.aquatera.ca/services/water-and-wastewater-treatment/drinking-water-safety>.

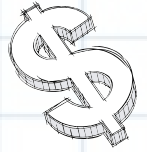
Also, by knowing where the water intakes are when boating, it will keep you and our infrastructure safe. For locations of where intakes are located, visit www.aquatera.ca/transparency-growth/wapiti-river-bank-stabilization



Community Corner



Aquatera takes great pride in Growing Healthy Communities. The Bottle Donation Program and Litter Pickup Program are great ways to help our environment and support local initiatives.



Bottle Donation Program

In partnership with Recycle Plus, we accept bottles and cans specifically for the purpose of giving back to our community. Items can be donated at the Aquatera Eco Centre, the Aquatera Landfill, or at either of the Recycle Plus I and Recycle Plus II Bottle Depots. This program has provided over \$1M to local charities. To learn more about this program, eligibility requirements and to apply, please visit

www.aquatera.ca/community/bottledonationprogram.



Litter Pickup Program

It's important to us to keep our community clean and litter-free! The Litter Pickup Program is intended to do just that, while providing a sponsorship opportunity to local groups and organizations.

As soon as the snow melts and conditions are safe, we sponsor local groups to do on-site litter pickup at our Landfill, along Highway 40, the Correction Line and Resources Road. To learn more about this program, eligibility requirements and to apply, please visit www.aquatera.ca/community/litterpickupprogram.



Education

At Aquatera, our passion is engaging and encouraging youth to keep our communities clean and healthy.

School and Youth Community Group Presentations

At this time, Aquatera is not offering school or youth community presentations, but virtual tours are available to those who can't attend an on-site facility tour.

Facility Tours

We offer two interactive facility tours of the Aquatera Water and Wastewater Treatment Plant and the Aquatera Landfill, where we make learning about our environment fun and inspiring. To request a tour, visit

www.aquatera.ca/community/facilitytours



Student Co-op, Internship and Mentorships

In partnership with the Northern Alberta Institute of Technology (NAIT), Aquatera offers the Water and Wastewater Operations Pathway Program, a two-year program that allows students to receive credits toward a high school diploma while also meeting requirements for a Fundamentals of Water and Wastewater Operations Certificate through NAIT. Students get an authentic classroom experience combined with real-time industry experience, a paid summer internship and post-secondary and government certification leading to employment as a Water and Wastewater Operator.

Aquatera also offers co-op and mentorships for students. For more email hr@aquatera.ca



Check us Out

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 .



facebook.com/aquateradotca/



twitter.com/aquateradotca/



www.youtube.com/aquateradotca



ca.linkedin.com/company/aquatera-utilities-inc.

The Drop Blog

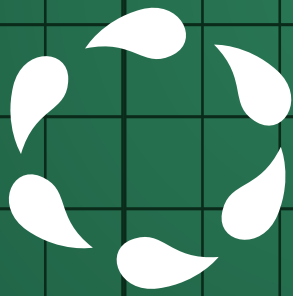
Learn about everything from waste to water reduction and more in our popular blog by visiting www.aquatera.ca/multimedia-and-stories/the-drop-blog

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. Just visit www.aquatera.ca and subscribe!

Want to know about all the communities Aquatera's serves?

Visit www.aquatera.ca/who-we-are/communities-we-serve



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