

ENVIRO TALK

BIOGAS: CLEANER FUEL FOR A BRIGHTER CLIMATE FUTURE

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Spring/Summer 2022

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Air Quality Partnership Comes to Tacoma



The City of Tacoma's Office of Environmental Policy and Sustainability is leading an effort along with Tacoma Public Schools, University of Washington Tacoma, Tacoma-Pierce County Health Department, and Microsoft Research to get a better understanding of air quality issues and inequities in Tacoma. Tacoma was identified by the Microsoft Research "Project Eclipse" team as an ideal location to test their prototype air sensors because of the potential for measurable observations that can be compared to Tacoma's Equity Index.

Sensors have been installed outdoors at ten public schools in Tacoma. Schools were selected based on geographic proximity to one another and other equity considerations, such as including some sensors in lower opportunity areas as identified in the City's Equity Index. The locations selected aim to provide a broad picture of outdoor air quality across neighborhoods and school districts. The information collected will help enhance local data on air quality for the City's Equity Index and improve future local data.

Dr. Joel Baker, Professor and Port of Tacoma Chair in Environmental Science at the University of Washington Tacoma, is working with a group of students to create a public-facing web tool to

report sensor data close to real-time. "We hope to determine if these Microsoft sensors can provide useful, neighborhood-level air quality data as a complement to existing and more expensive sensors," Baker said.

Air quality affects all community members; however, some neighborhoods experience burdens based on proximity to industry, the built environment, or different housing types. The City plans to use data gathered from these sensors to prioritize infrastructure funding and program efforts to address climate change – such as mitigating heat islands, assessing impacts of heat and smoke events, and identifying tree planting priorities.

Additional information on Tacoma's Equity Index is available at cityoftacoma.org/equityindex.

For more information and program updates, contact sustainability@cityoftacoma.org or call (253) 591-5172.

FOCUS ON TAKING CHARGE OF YOUR BATTERY DISPOSAL

Did you know that small electronics often contain single-use or rechargeable batteries? These batteries can be found in laptops, tablets, and even personal medical devices. Environmental Services Resource Conservation Specialist, Sam Lake, answers questions about the importance of properly disposing of all electronics and not just throwing them in the garbage or recycling bin.

Why DON'T batteries and electronics belong in the recycling or trash?

When batteries and electronics are mixed with other materials in the solid waste truck, compressed, and dumped, they can become damaged and cause a fire or explode.

What types of batteries are currently accepted for safe recycling or disposal?

- Single-use alkaline batteries are AA, AAA, C, D, and 9-volt. These are the most common household batteries and can be found in toys, remotes, and flashlights. Alkaline batteries can hold a small charge even after they no longer function, it is best to dispose of them at a local battery collection site.
- Single-use button batteries can be found in watches, car keys, musical greeting cards, hearing aids, and other electronics. These batteries are made of hazardous metals and must be dropped off at a local collection site for disposal.
- Rechargeable batteries can be removable or embedded. They can be found in laptops, cellphones, tablets, and other electronics. These batteries are also made of hazardous metals and must also be dropped off at a local collection site for recycling.

How can I prepare single-use batteries for safe disposal?

Tape over the area where the battery connects with an electronic device since single-use alkaline and button batteries can hold a charge, even when no longer working.

Place taped battery in a plastic zipper bag and store in a plastic or cardboard container.

If a battery is damaged and is hot to the touch or deformed, place in a container with sand or kitty litter before dropping them off, for free, at the Household Hazardous Waste Center at 3510 S. Mullen St., in Tacoma, or call (253) 591-5418 for questions or concerns.

How can I dispose of electronics with embedded batteries?

Never remove embedded batteries from devices such as laptops, tablets, e-readers, and cellphones, instead recycle the whole device. Visit 1800recycle.wa.gov or call 1-800-RECYCLE to find an electronics recycling location near you.

Where can I learn more?

Visit cityoftacoma.org/HazWaste or call (253) 591-5418 for more information on battery and electronics disposal.

Do not store batteries for a long time. Instead, drop them off at a local collection site for free:

Household Hazardous Waste Center	cityoftacoma.org/HazWaste
Neighborhood Glass Drop-Off Station	tacomarecycles.org/Glass
Call2Recycle Drop-Off Location	call2recycle.org/Locator

The Sustainability Expo Returns to Tacoma

After a two-year pause, the South Sound Sustainability Expo is returning to downtown Tacoma. The Expo has been a signature community event since 2007, bringing together thousands of environmentally-minded attendees and dozens of community vendors.

The Expo connects residents and businesses with services, products, companies, and agencies that address sustainability needs in our community. Attendees can explore a variety of sustainable living topics, enjoy environmental art displays, as well as discover actions we can all take in our daily lives to have a positive impact on the environment, and more. This year's event features an all-new outdoor venue – stretching from Tollefson Plaza and along the Prairie Line Trail through the University of Washington Tacoma campus.

As the Expo returns just in time for Earth Day, the event will celebrate the new 2030 Climate Action Plan, which details Tacoma's vision for a future

grounded in sustainability. Attendees will enjoy fun activities for all ages. Families can participate in interactive kids crafts, enjoy local art displays, and connect with regional environmental experts on a wide range of topics.

The City is committed to ensuring the health and safety of all Expo attendees, vendors, volunteers, and staff. The 2022 Expo will take place on the University of Washington Tacoma campus. As the hosting venue, the University may have additional health and safety requirements for Expo attendees. Read more about the Expo safety guidelines at southsoundsustainabilityexpo.org/healthandsafety.

The 14th Annual South Sound Sustainability Expo will take place on **Saturday, April 16, from 10 a.m. to 3 p.m.** on the University of Washington Tacoma Campus and Tollefson Plaza. Attending the Expo is always free and open to the public.

For the latest Expo news and updates, check out southsoundsustainabilityexpo.org follow facebook.com/tacomasustainability, or call (253) 591-5172.





Green Recipe

Cilantro Lime Dressing

Fresh flavors of the season are on display with this cilantro lime dressing. Corie Cameron, Owner of Crisp Greens, demonstrated making this dressing and pairing it with a salad on episode 34 of Urban Green. To find out more and to view this episode, visit cityoftacoma.org/UrbanGreen.

Ingredients

- 1 Clove Garlic
- 3 Scallions (rough chop them into two-inch pieces)
- 1/2 tbsp. Dijon Mustard
- 1/2 Cup Cilantro
- 1/4 tbsp. Salt
- 1/8 tsp. Pepper
- 6 tbsp. Vegetable Oil
- 1/4 Cup Lime Juice
- 2 tbsp. Water

Directions: Add all ingredients together in a blender and blend until smooth, for approximately 2 minutes. Enjoy with salads, tacos, vegetables, and more.



Earth Day

Mark your calendars for April 22, 2022, to celebrate Earth Day. Join us as we celebrate the successes of past environmental action and commit to a future dedicated to environmental justice and stewardship. Visit cityoftacoma.org/EarthMonth or call (253) 591-5172 for Earth Day 2022 events and information.

2030 Tacoma Climate Action Plan

At the end of last year, the Tacoma City Council adopted the 2030 Tacoma Climate Action Plan. This plan outlines 64 climate actions with a deadline of 2024 and outlines how Tacoma will take action for healthy, affordable housing, clean, reliable transportation, protections for public health, and green, good-paying jobs. It is designed to direct City funding, investments, and work over the next nine years to improve our communities and environment.

To find out more about the Climate Action plan or to review the plan in full, visit cityoftacoma.org/climateactionplan or call (253) 591-5172.

Litter Free 253

Sign up today for Litter Free 253's third annual litter event on Saturday, April 16, from 9 a.m. to 11 a.m. This socially distant event will be hosted Tacoma-wide so that you can pick up litter and beautify your neighborhood with your family and friends! Individuals, groups, schools, and workplaces are welcome to join. Giveaways will be awarded to litter-picker-uppers.

For more information on this year's event, visit facebook.com/LitterFree253 or email LitterFree253@gmail.com.

How-To: Selecting Pots and Tools

Create an attractive container garden to enhance your entrance, patio, or deck with flowering ornamentals, pollinator plants, herbs, and vegetables. Remember to size pots for the intended plants at full growth to avoid transplanting too soon. To allow space for more plants, consider adding a trellis to larger pots and planters for vertical growth, such as tomatoes, peas, and berries. Examples of good container plants include Thyme, Oregano, Parsley, Basil, Cilantro, Lettuce, Spinach, Greens, Bell Peppers, Chives, Lavender, and many flowers, among others. Spring is the perfect time to get started!

1. Choose a plant before selecting the pot to better gauge size and balance.
2. There are several container types to choose from, including terra cotta, ceramic, concrete, plastic, wood, and plant materials.
3. Pots need a hole in the bottom for good drainage or a concave bottom to hold excess moisture.
4. Use a plant saucer or surface protector to avoid stains and keep the pot free from moss or mold.
5. Some tools needed for plant care include gloves, a trowel, and a watering container with a long spout to reach into the plant.
6. Use 100% Potting Soil for proper nutrients drainage, aeration, and moisture retention abilities.
7. Add organic all-purpose or bud and bloom fertilizer when planting for strong root development.

Placement of Pots

1. Place near a water source with easy access and space to maintain the plant.
2. Choose a location according to the plant's needs. Some plants need morning or afternoon sun, mostly shade, or a mix of both.
3. Finally, locate the plant where it can be seen and enjoyed.

To watch this EnviroHouse How-To video, visit <https://bit.ly/3GoyuEI>, or to check out a list of videos, visit youtube.com/CityofTacoma/playlists and find the EnviroHouse How-To playlist.



Check out TAGRO Potting Soil, specially designed for container-grown plants. Visit TAGRO.com or call (253) 502-2150 to find out more about all available TAGRO products.

Events

Calendar of

A full calendar of events will return in a future issue of EnviroTalk. The EnviroHouse is also holding virtual workshops each month. To view a full list, visit cityoftacoma.org/workshops.

APRIL

- 16 South Sound Sustainability Expo**, FREE, 10 a.m. – 3 p.m., UW Tacoma Campus, 1900 Commerce St., for more information, visit southsoundsustainabilityexpo.org or call (253) 591-5172
- 16 Litter Free 253's Second Annual Litter Event**, 9 a.m. to 11 a.m., socially distant event, sign up as an individual, group, school, or workplace at facebook.com/LitterFree253
- 22 Earth Day**, celebrate the successes of past environmental action and commit to a future dedicated to environmental justice and stewardship, visit cityoftacoma.org/EarthMonth or call (253) 591-5172
- 23 Bugs, Diseases, and Non-toxic Alternatives**, FREE, 9:30 a.m. to 11 a.m., virtual class, advance registration required at piercecountywa.org/ediblegardens, or call (253) 208-8527
- 29 Arbor Day**, celebrate trees in the South Sound all year round by visiting earthdaysouthsound.org

MAY

- 1-31 Bike Month**, for bicycling-related resources, activities, and events throughout the month of May, visit bike253.com or call or call (253) 591-5000
- 07 Fall and Winter Gardening**, FREE, 9:30 a.m. to 11 a.m., virtual class, advance registration required at piercecountywa.org/ediblegardens, or call (253) 208-8527
- 30 Memorial Day**, the Tacoma Recovery & Transfer Center is open during normal business hours, and Curbside Collection is NORMAL

JUNE

- 06 TAGRO Summer Hours Begin**, Monday to Friday, 8 a.m. to 5 p.m. and Saturday, 8 a.m. to noon, 2301 Cleveland Way, Central Treatment Plant, Gate 6, visit TAGRO.com or call (253) 502-2150

JULY

- 04 Independence Day**, the Tacoma Recovery & Transfer Center is CLOSED. All curbside pickups will be one day later than normally scheduled this week

AUGUST

- 1-31 Metro Parks Tacoma Volunteer Opportunities**, for a full listing of volunteer opportunities or events in August and beyond, visit metroparkstacoma.org/volunteers or call (253) 305-1000



Biogas: Cleaner Fuel for a Brighter Climate Future



The Environmental Services Department recently completed a major upgrade to the Central Wastewater Treatment Plant, which allows the facility to produce and capture cleaner-burning biogas.

The next time you see a garbage or recycling truck rumble down your street, you might soon have your recent toilet flush or garbage disposal grind to thank. Tacoma's Central Treatment Plant can now produce and capture biogas, a renewable fuel that is naturally produced from the decomposition of organic waste.

Once processed, this biogas is known as Renewable Natural Gas or RNG, which can be used as an alternative to traditional fuel. That's right - the organic waste that we flush down the toilet and grind in our kitchen garbage disposals can be processed to help fuel Tacoma's Solid Waste collection trucks in the future.

Fueling our Solid Waste Fleet isn't the only practical use for RNG. This gas can be used in a variety of ways, including vehicle fuel, heating, or generating electricity. In addition to using this resource locally, the City can also produce RNG to help fuel other fleets on the west coast by establishing partnerships across the region.



**VEHICLES POWERED BY
BIOGAS PRODUCE ABOUT
70% FEWER GREENHOUSE
GAS EMISSIONS**

(US EPA, "An Overview of Renewable Gas from Biogas," July 2020).



The cleaner fuel produced by this project will eliminate over 900 tons of greenhouse gas emissions per year. This is equivalent to removing 170 diesel trucks from the road.

“This project demonstrates that a healthy environment can also support a healthy economy,” said Jim Parvey, Chief Sustainability Officer who has led the biogas project for over a decade. “The revenue generated from this project will cover the costs while reducing carbon emissions and helping us achieve our Climate Action Plan goals.”

The biogas project represents a significant step toward achieving the City’s climate goals as outlined in the 2030 Tacoma Climate Action Plan (CAP). The CAP includes a clear “Municipal Carbon Neutrality Strategy.” In other words – these are actions that the City must take to reduce our climate footprint as an organization. The treatment plant upgrades also included other necessary energy-related improvements. These elements include heating and cooling improvements and cleaner, more efficient boilers.

Looking to the future of a more climate-resilient Tacoma, the City is committed to identifying areas within the organization where more efficient, renewable, and environmentally friendly resources can be used. This biogas project is a clear step toward achieving the City’s 2050 greenhouse gas reduction goals of net-zero.



Learn more about how the biogas project contributes to the Tacoma Climate Action Plan at cityoftacoma.org/climateactionplan or call (253) 591-5172.

EnviroKids

What's that Word?

Complete the sentences below (you'll find the answers in this issue of EnviroTalk) and then find the word or phrase in the word search below. If you get stumped, the answers are at the bottom.

1. The organic **WASTE** that we flush down the toilet and grind in our kitchen garbage disposals can be _____ to help fuel Tacoma's Solid Waste collection trucks in the future.
2. Do not store old _____ for a long time. Instead, drop them off at a local _____ site for free.
3. Air _____ have been installed outdoors at ten public schools in Tacoma.
4. As the Expo returns just in time for Earth Day, the event will _____ the new 2030 Climate Action Plan.
5. The Electrical Upgrade Project is _____ and expanding the electrical _____ at the treatment plant.

W	E	N	W	J	R	E	M	W	Q	M	F	M	Y	Q
A	T	J	L	N	M	T	T	J	Z	U	S	E	T	S
S	A	C	O	L	L	E	C	T	I	O	N	T	I	E
T	R	R	M	T	J	J	R	C	N	A	G	S	L	S
E	B	C	R	W	E	X	I	P	S	B	M	Y	I	E
X	E	B	X	W	I	T	R	U	Y	I	O	S	B	I
G	L	J	P	M	Z	B	K	O	Z	C	D	I	A	R
F	E	Q	X	F	Y	A	I	U	K	W	E	V	N	E
Z	C	X	Q	H	S	R	O	S	N	E	S	C	I	T
Z	K	U	A	U	S	M	N	U	X	T	S	S	A	T
J	N	N	A	Q	V	G	F	J	Q	A	E	N	T	A
R	G	B	G	Z	X	F	J	A	E	B	C	U	S	B
G	D	D	T	U	I	A	H	M	R	B	O	A	U	J
G	Y	C	I	P	F	F	X	L	E	D	R	R	S	G
U	O	G	H	S	G	N	I	V	O	R	P	M	I	E

(1) WASTE, PROCESSED, (2) BATTERIES, COLLECTION (3) SENSORS, (4) CELEBRATE (5) IMPROVING, SYSTEM.

SUSTAINABILITY ANALYST

Patrick Babbitt

Pat has worked with the City in a community engagement role since he began through the AmeriCorps national service program in 2014. He has organized various public events and knocked on over 5,000 doors in Tacoma's Hilltop, South Tacoma, Lincoln, and Dometop neighborhoods. He brings that experience to the City's Office of Environmental Policy and Sustainability, where he has worked on the recently adopted 2030 Tacoma Climate Action Plan.

"It's fulfilling to meet community members who are ready to work together. I'm excited to engage with people about what climate investments could mean for Tacoma's communities – especially those who will benefit most from more reliable energy, housing, transportation, clean air, and more," Pat said about his job.

For a position like this, it's important to have education and experience in government, environmental studies, policy, program management, and research.



MEET

A top-down view of various gardening items on a light-colored, textured concrete surface. In the top left, a portion of a metal trowel is visible. Below it, a pair of yellow-handled pruning shears lies horizontally. To the left of the center, a ball of light brown twine sits next to a black-handled hammer. In the bottom left, a black-handled shovel is partially visible. The central focus is a clump of green plants with small purple flowers, some of which are being worked on by the tools. A mound of dark brown soil is also present near the plants.

Virtual Spring Workshops

Learn more and register at
cityoftacoma.org/workshops
(253) 341-2331

Improving Safety and Reliability: Electrical System Upgrades

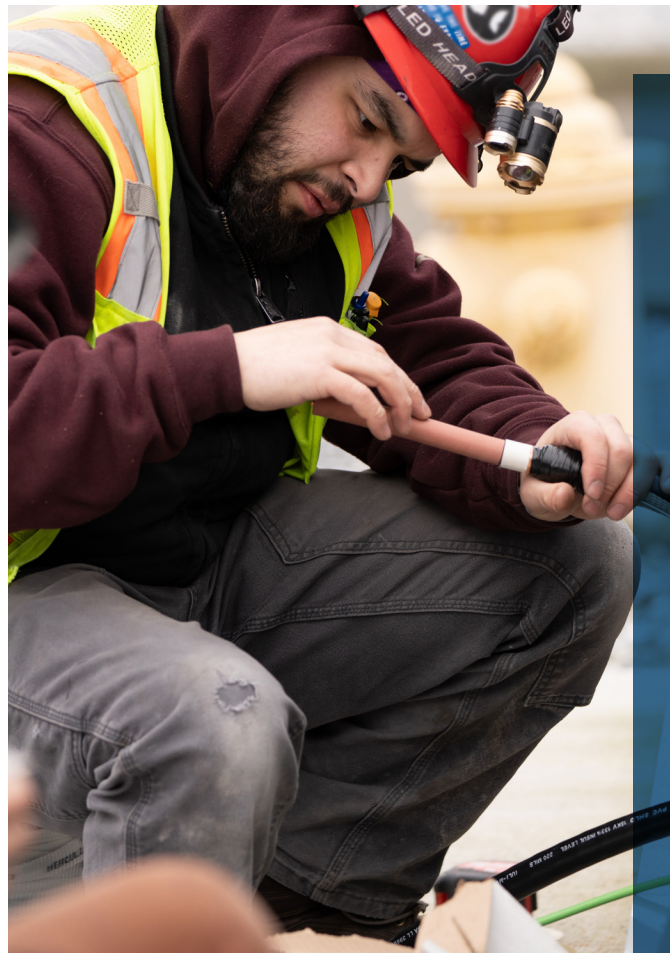
A project is underway at the City's Central Wastewater Treatment Plant, a facility that treats the majority of Tacoma's wastewater. An electrical system that is reliable and up to date is important for this facility as it treats over seven billion gallons of wastewater annually.

"The Electrical Upgrade Project is improving and expanding the electrical distribution system at the facility," said Max Drathman, project manager. "The new system includes over 3,000 feet of underground, concrete-reinforced duct banks and over 20 miles of electrical cables."

The project is improving the reliability and enhancing the safety of the plant's electrical distribution system. These upgrades have brought equipment indoors and provides dedicated large industrial circuit breakers to every wastewater treatment process area and other critical equipment.

"Adding these extra breakers reduces the areas of the plant that would be impacted by a fault within the system. Previously a fault would disrupt the entire plant, but now an outage would be limited to a single area or specific equipment," Drathman said.

Customers may not notice a benefit at first glance, but the existing system is past its design life and has experienced several outages in recent years. Fortunately, these outages did not occur at critical points in the distribution system.





"The main objective of this project is preventing an electrical outage from stopping operations at the plant, which could put staff at risk or cause damage to the environment and the facility. This project is protecting the plant, ratepayers, and the natural waterbodies surrounding Tacoma," Drathman continued.

Construction on the Electrical Upgrade Project started in August 2020, with some equipment already in service. The upgrades will power the entire plant by the summer of 2022.

For more information on Wastewater Management, visit cityoftacoma.org/wastewater or call (253) 502-2100.

NEWS BRIEFS

Washington State Single-Use Serviceware Law

At the start of this year, the Washington State Single-Use Serviceware Law went into effect. What this means is customers may request, confirm, or select their own single-use items and that businesses may not provide single-use items by default. Single-use items or utensils include cutlery, stir sticks, straws, cold beverage cup lids, and condiment packets.

For more information, including an education and outreach toolkit, visit the Washington State Department of Ecology site at ecy.wa.gov/serviceware or call (425) 213-3565.

Get Ready to Ride for Bike Month 2022

Bike Month is back in May 2022! This celebration invites all Tacoma and Pierce County community members to enjoy a wide variety of bicycle-related activities and events. For more information about Bike Month, visit bike253.com, follow Tacoma Mobility on social media (Facebook @Mobility253 / Twitter and Instagram @TacomaMobility), or call (253) 591-5000.

Have students in K-12? Check out safe routes to school resources at cityoftacoma.org/walkandroll and coordinate with your school to host a Bike to School event.



TIP OF THE DAY

Mold Remover for Outdoor Furniture and Covers

Ingredients

1

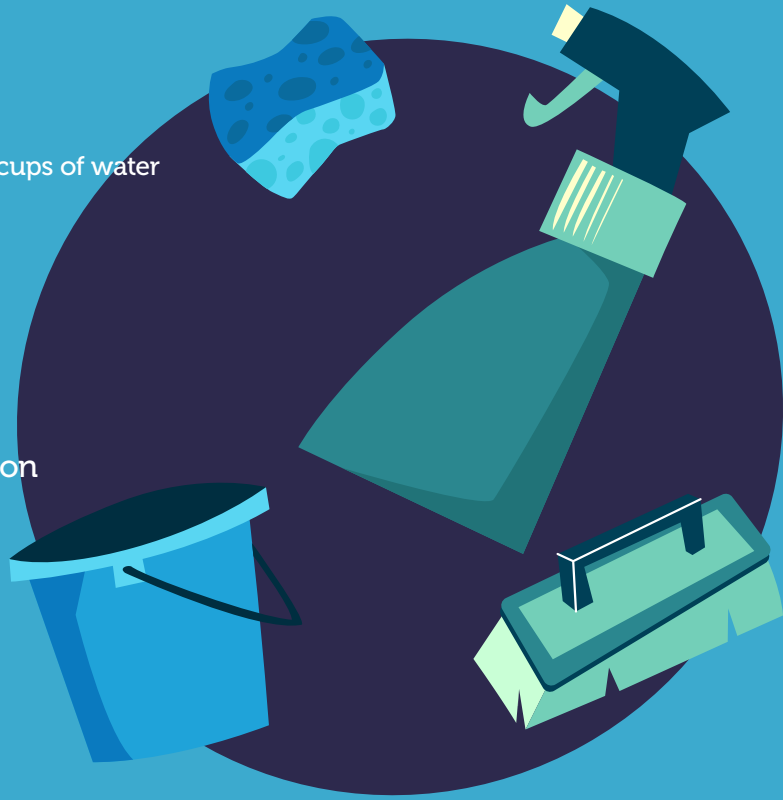
2 tsp. tea tree oil
(found at natural food stores)

2

2 cups of water

Directions

- Combine ingredients in a spray bottle.
- Spot test the recipe on the underside of a cushion to make sure there's no discoloration.
- If there's no discoloration, spray the mixture wherever you see mold or mildew.
- Don't rinse.
- The smell of the tea tree oil and the mold will begin to fade in a few days.



Community members can utilize TacomaFIRST 311 online resources to access more than 700 answers to commonly asked City-related questions. By visiting cityoftacoma.org/TacomaFIRST311, community members can submit and track more than 100 types of requests for City services and direct questions to City departments, including the Environmental Services Department.

For more information on City services, contact the TacomaFIRST 311 Customer Support Center by dialing 311 within Tacoma city limits or (253) 591-5000 from anywhere else or email csc@cityoftacoma.org.

U R B A N GREEN

Spotlighting South Sound environmental efforts and showcasing fun and easy ways to get involved in sustainable living practices is the TV Tacoma program Urban Green. To watch the latest episode or to view a list of airtimes, visit cityoftacoma.org/UrbanGreen.

On Rainier Connect, TV Tacoma is available via cable TV on channel 512 in High Definition and on channel 12 in Standard Definition within the Tacoma city limits and in Pierce County. In the City of University Place, the Standard Definition channel is 21. TV Tacoma is also available on channel 12 via Rainier Connect Stream TV.

On Comcast, TV Tacoma is available in High Definition on channel 321 in Tacoma and Pierce County. The Standard Definition channel is 12 within the Tacoma city limits and channel 21 in Pierce County. TV Tacoma is not available on the Comcast system in University Place.



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