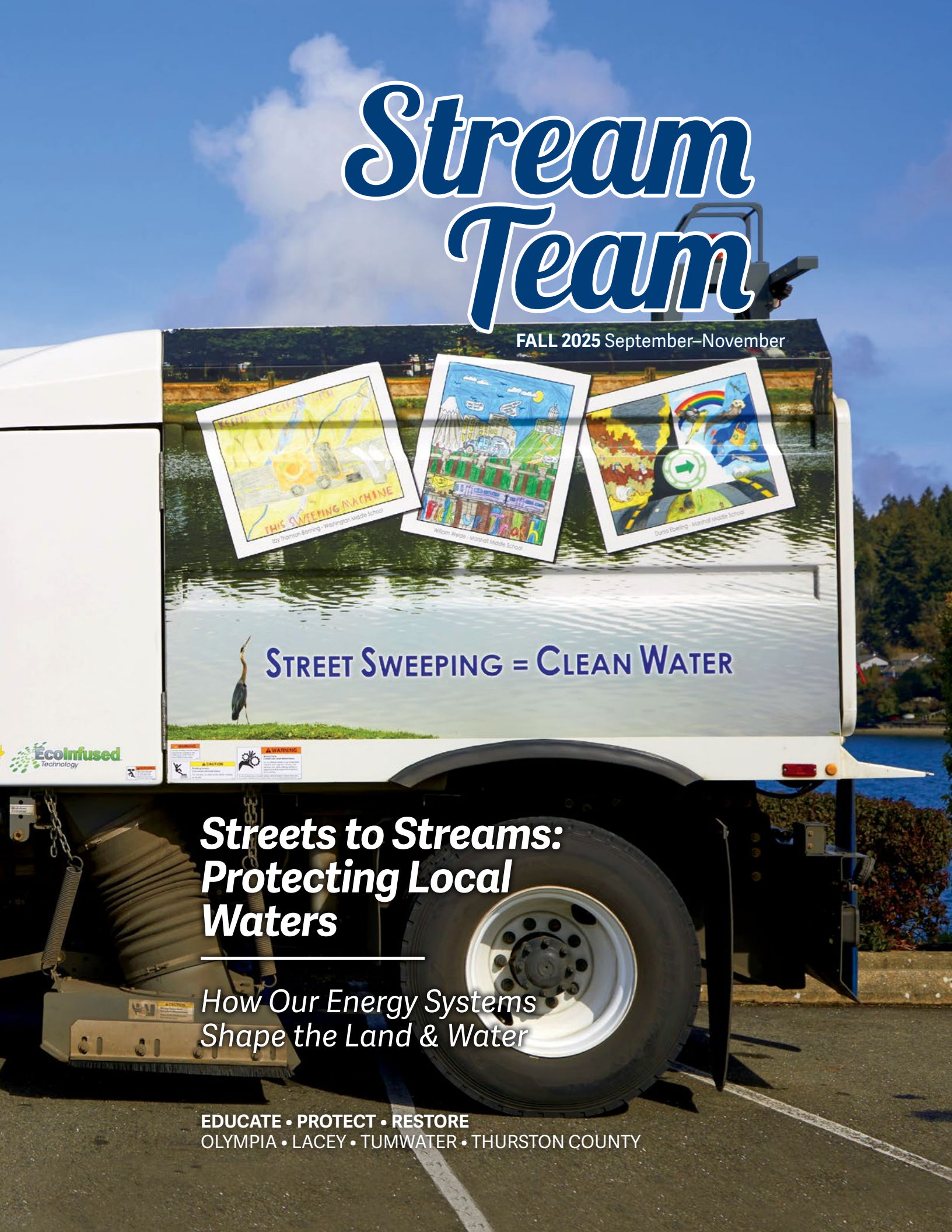
Stream Team

FALL 2025 September–November



Streets to Streams: Protecting Local Waters

How Our Energy Systems Shape the Land & Water

EDUCATE • PROTECT • RESTORE
OLYMPIA • LACEY • TUMWATER • THURSTON COUNTY

Contents

Did You Know? Articles marked with a damselfly icon, like the one on the left, will be posted on our website in the Reference Library.

If You See Something...Say Something

Report Spills

Have you seen a spill or an unknown substance near a storm drain, but didn't know what to do? It could be an oil slick on the road, accumulated mud, or debris tracked out from a construction site. It could be a leaking dumpster, or soapy car wash water, the list goes on. Who do we call? What do we say? Is it even worth reporting? When in doubt, just remember, "if you see something, say something."

Spills can pose a threat to human health and safety, and cause damage to our stormwater systems (ditches, swales, catch basins, ponds). When it rains, spills can get into these systems. From there, they drain into our surface waters. When a spill reaches our waters, it harms people, aquatic habitats, and wildlife like salmon, Orca, and amphibians. The goal is to catch and clean spills before they reach our lakes, streams, drinking water, and the Salish Sea. Quick reporting of spills goes a long way to keep our local waterways healthy and safe. Thanks for doing your part!

To report spills (you can be anonymous):

- In Lacey: 360-491-5644
- In Olympia: 360-753-8333
- In Tumwater: 360-754-4150
- In Thurston County: 360-867-2099

Any information about the spill is helpful, including material (if known), estimated size of spill, location, and photos.

Tips for Cleaning Up Small Spills at Home

Vehicle leaks, paint drips, and household or yard chemicals are easy to clean up safely. In these situations, it's best to clean up right away, using absorbent materials such as sand, kitty litter, and paper towels to soak up the spill. Then, put all materials in a garbage bag and dispose of the bag in the trash.

EcoPro Landscapers Use Natural Yard Care—Preventing Stormwater Pollution to Our Waters!

Wondering what ecoPro is? Here's what you need to know.

The ecoPro certification helps landscapers create healthier spaces with fewer toxins. It uses hands-on training and supports other green programs, like Leadership in Energy and Environmental Design (LEED) and Low-Impact Development (LID). ecoPro includes over 200 sustainable actions, grouped into eight key principles:

- Protecting & conserving soils
- Conserving water
- Protecting water & air quality
- Protecting & creating wildlife habitat
- Conserving energy
- Sustainable healthy plants
- Using sustainable methods & materials
- Protecting human health

ecoPro teaches that landscaping is an ongoing process. From design to maintenance, landscapes need regular care and smart planning. The program views landscapes as living systems with health needs, much like people. That's why ecoPro treats landscapers like care providers for the land.

ecoPro offers smart, sustainable landscaping solutions for Washington State. Even if you live in an HOA-managed neighborhood, you can help. Join your HOA board or leadership team. Encourage them to hire water-wise landscaping companies—ones that follow Natural Yard Care, especially those with ecoPro certification.

Landscaping businesses can get ecoPro certified this fall! Thurston County is partnering with the Washington State Nursery & Landscape Association (WSNLA) to offer an online training.

Visit wsnla.org/events to learn more and register.

ecoPro Certification Online Training for Landscaping Businesses

- Register at **wsnla.org/events**
- October 27–30

Certification Exam:
Must meet eligibility requirements.

- October 31
- 9 – 11:30 a.m.

The first 5 landscape companies to register will receive a partial scholarship! Only businesses based in Thurston County can qualify.

Streets to Streams: Protecting Local Waters

In our Summer 2025 newsletter edition, we gave you a primer on how our cities and county manage stormwater. Now, let's take a deeper dive into key program areas. We'll explore how our work keeps our communities and natural environments healthy. You'll find out how you can get involved, share your thoughts, and ask questions about the work we're doing!

Thurston County, Olympia, Lacey, and Tumwater follow state and federal protections to manage stormwater, as described in our Municipal Stormwater Permit. Our programs are designed to educate the community to take specific actions that reduce pollution, prevent flooding, restore habitats, and protect our waters. Success depends on the collaboration of many stakeholders, including residents, businesses, volunteers, local tribes, non-profit organizations, and local governments.

Stormwater

is rain or snow melt that runs off streets, rooftops, and parking lots. This runoff picks up chemicals, pet waste, and other pollution as it travels. It then enters our stormwater systems where it is moved, is temporarily held, is sometimes filtered, and drains to our local waters.

Water Health Guides our Work

Let's kick things off with a quick lesson on how we assess water health.

Water bodies are monitored for specific indicators of health. These include factors like temperature, turbidity, dissolved oxygen, nutrients, bacteria, and pH. The levels of each of these must be safe for humans and aquatic wildlife. If they aren't, they may require a Total Maximum Daily Load (TMDL). A TMDL includes a water clean-up plan. It's like a prescription that sets limits for how much pollution can enter a water body safely. In Thurston County, there are TMDLs in place for the Deschutes, Nisqually, and Chehalis Rivers, as well as Totten, Eld, Budd, and Henderson Inlets.

Following a TMDL water clean-up plan keeps our waters healthy for everyone. The 2024-2029 Municipal Stormwater Permit sets new requirements for us to reduce nutrients, like fertilizer and pet waste, in receiving waters. Too many nutrients in the water can lead to low dissolved oxygen levels. This is dangerous for aquatic life and their habitats.

What we are working on:

- Mapping where nutrients flowing into Puget Sound are coming from.
- Creating programs and actions to reduce nutrient inputs into our stormwater systems.
- Screening high priority areas to discover why nutrients are flowing into Puget Sound.

Clean Streets = Clean Water

Our operations and maintenance (O&M) crews work hard to keep stormwater clean by maintaining thousands of catch basins, pipes, grass-lined ditches, and ponds—helping to reduce both flooding and pollution.

In addition, all of our jurisdictions prioritize O&M efforts around source control and good housekeeping, like:

Street sweeping—Sweeping removes dirt, leaves, trash, and tire particles from roads before they can wash into storm drains. You can help by keeping cars off the road on sweeping days, so we can pick up as much debris as possible.

Spill response and clean-up—This is where community members can really help! Notify us if you see an accident, spill, or unknown substance that might enter the storm drain or a ditch.

Inspecting and cleaning storm drains—The grated drains you might see along roads collect rain runoff and help prevent flooding. It's important to keep them clear. Keeping leaves and trash off the street and clear of storm drains helps reduce flooding and pollution!

When people report spills, city and county staff can clean them up quickly. This stops harmful substances from reaching our waters.

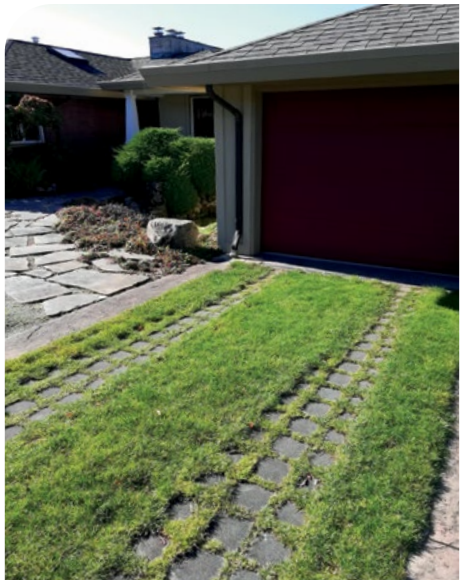
Runoff to Resilience: The Power of Going Green

Looking to the future is important when it comes to managing stormwater. Green infrastructure is becoming a key part of that plan. Green infrastructure uses engineered solutions that mimic nature. Examples are rain gardens, green roofs, and permeable pavement which all soak up and clean stormwater where it falls.

Our community is growing, and the climate is changing. We need to adapt in ways that ensure community health for many generations to come. By thinking long-term, stormwater managers, engineers, and planners can build smarter and more sustainably. Planning, designing, and maintaining green infrastructure systems can be challenging. It requires updating land use ordinances, building codes, and engineering specifications, as well as training.

Regardless of these challenges, green infrastructure brings many benefits to our community:

- Clean lakes & streams.
- Lower impacts of heat islands and flooding.
- Critical habitat for pollinators and birds.
- Healthier neighborhoods with more green spaces.



Join the Stormwater Conversation

Stormwater management is important and it affects everyone! The quality of our water, health of our streams, and flood-safety of our neighborhoods depend on how well we plan and maintain our stormwater system.

That's why we want your voice in the Stormwater Management Program Plan (SWMP Plan). Your input can help shape the programs that protect our natural environment. Public input usually happens once a year, but major projects like the 2024–2029 Permit can involve more outreach.

This fall, we're asking for your feedback on our draft 2026 SWMP Plans. We want to know your concerns and what matters most to you. Your ideas can help us build a healthier, more resilient future for all of Thurston County!

How to Share Your Ideas:

City of Lacey:
waterresources@cityoflacey.org

City of Olympia:
olympiawa.gov/swmp

City of Tumwater:
wrs@ci.tumwater.wa.us

Thurston County:
stormwaterutility@co.thurston.wa.us

Shoreline Buffers

Part 3 of a 4-Part Series

Stormwater, Site Drainage & a Strong Line of Defense

In Part 1 of this series, we talked about how European land use changed the western U.S. over the last 200 plus years. Forests and wetlands were cleared for towns and cities and the huge network of roads required to connect our increasingly spread-out communities. These changes turned soft, sponge-like land into hard surfaces that can't absorb water.

In Part 2, we explored shoreline dynamics: how wind and waves shape the land over time. We also learned that healthy nearshore areas are key to strong shorelines and thriving food webs.

Now let's consider another piece of the puzzle: site drainage and managing stormwater to protect our lakes and streams. When it rains, water picks up everything in its path—like car oil, lawn chemicals, and pet waste. All of that runoff flows downhill to the lowest point, often ending up in a lake, stream, or the Puget Sound. As water stewards, we should be aware of where these low points are.

If you're in a city or neighborhood, water enters storm drains, ditches, or ponds. These systems are designed to collect runoff to help prevent it from polluting our waterways. If your home or business is near a lake or stream, your site runoff flows directly into the water. Shoreline buffers serve as the last line of defense, preventing polluted water from entering our lakes, streams, and marine waters.

Modern community development cleared millions of acres of forested shoreline and connected forest ecosystems. Previously, natural landscapes slowed and soaked up water. In stormwater planning, we use the word "predevelopment" to describe how water moved before roads and homes were built.

Stormwater engineers use drainage rates to measure how much water flows through an area and how fast it moves. These rates help guide the design of systems that slow runoff, reduce erosion, and protect our streams.

Green Stormwater Infrastructure (GSI) is a design strategy that collects and treats rainwater, mimicking natural processes. In this way, stormwater management is moving towards a "design with nature" philosophy. These systems use trees, plants, soil, sand, gravel, fungi, and even charcoal to clean water where it falls. The cleaned water then soaks into the ground and refills underground water sources.

You can help by choosing safer products and using Natural Yard Care practices around your home or business. This protects your family, local wildlife, and the shoreline.

If you live near water, plant a mix of trees, shrubs, and groundcover. These plants catch and filter runoff before it reaches the lake or stream. As more people recognize how plants—especially deep-rooted trees and native species—act like natural infrastructure, they begin to see their true value. These plants help prevent erosion, protect wildlife, and clean water. Imagine the cascade of positive impacts this can have on our water-loving communities!

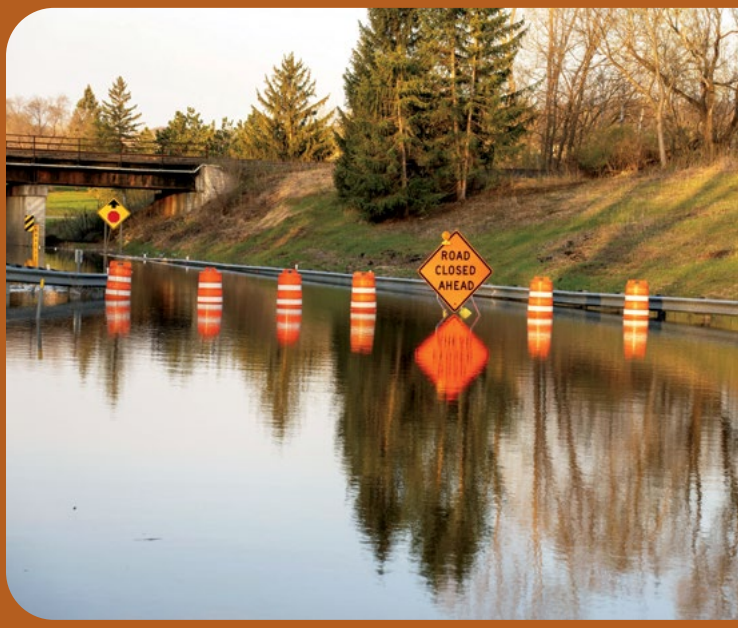
Stay tuned for Part 4, where we'll share best practices to restore your shoreline property's buffer and protect water, land, and wildlife.

Find more info at streamteam.info.

How Our Energy Systems Shape the Land & Water

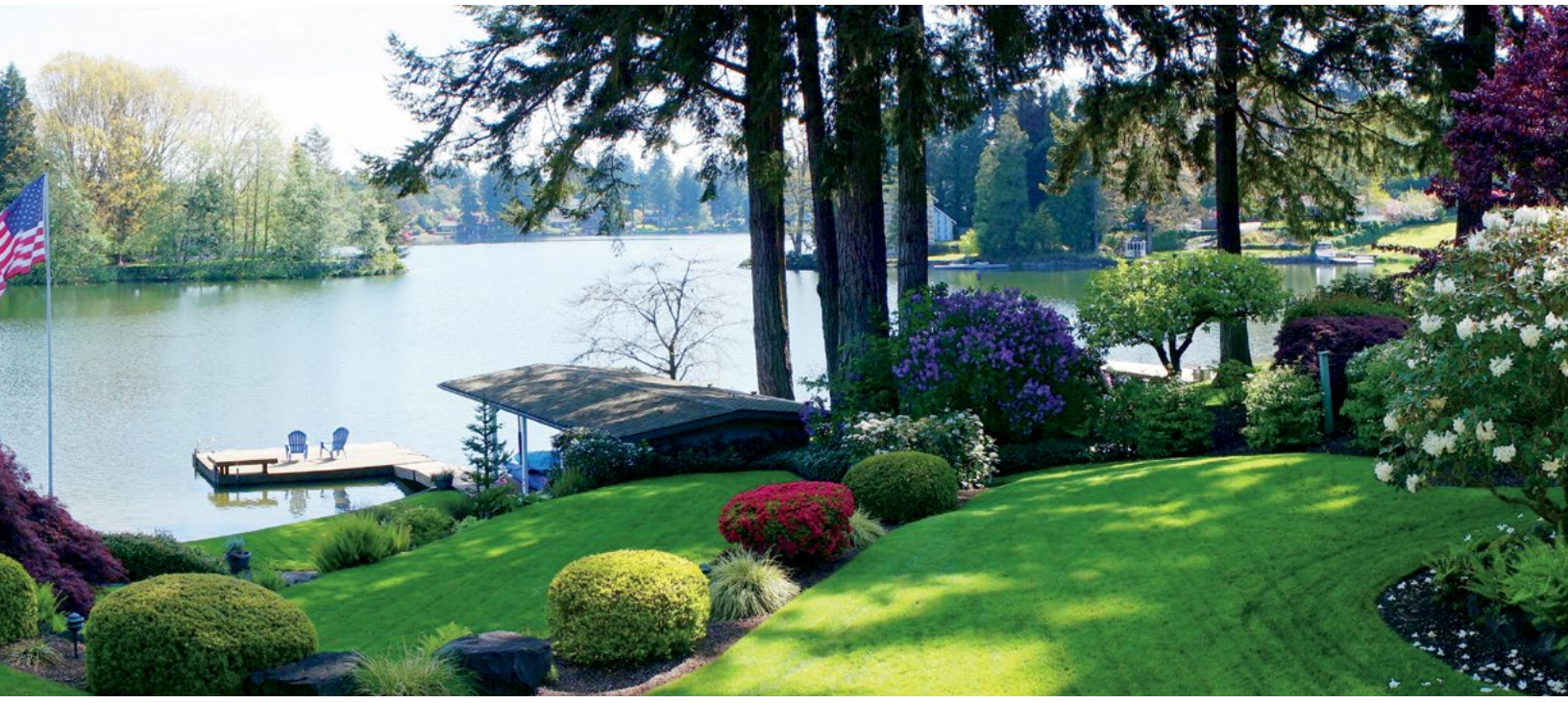
People have lived near the Salish Sea for over 12,000 years, drawn by its mild climate, abundant food, and rich natural resources. Coast Salish Tribes have lived along these rivers and streams for generations, relying on the Sea's resources. Today, these waterways remain vital but face new challenges. Shifting rainfall patterns, land use, and rising sea levels are damaging shorelines and increasing erosion.

Climate change is changing how and when rain falls in our region. We expect the total amount of rain to stay the same, but heavy storms will become more common. In the South Salish Sea, this leads to more flooding and stronger flows during the rainy season. These fast-moving waters wear away the land, making it harder for plants to grow and thrive. Eroded shorelines put homes, roads, and vital riparian ecosystems at risk. These rich habitats support animals, plants, and healthy soil.



To protect our streams from extreme weather, we must reduce greenhouse gas emissions. In Thurston County, most emissions come from buildings (54%) and transportation (35%). But the biggest sources of pollution in Washington are large companies, like oil refineries.

Choosing alternative energy sources can contribute to protecting local streams, and protecting our streams goes hand in hand with climate resilience. While systemic change from industry and government is essential, community action still matters--whether that's restoring local streams, pushing for better policy, or supporting sustainable choices. Even individual actions, like riding your bike, growing your own food, supporting local businesses, and engaging in your local government can help build momentum for lasting change when part of a collective effort.



CREATURE FEATURE

Rainbow Trout, Steelhead Trout, or Steelhead Salmon?

Rainbow Trout (Resident)

Steelhead (Anadromous) Photo Credit: Oregon State University

A salmon or trout that **returns to sea again after spawning** is called a ***KELT!***

Oncorhynchus mykiss, or the rainbow trout, is a native fish to North America, historically living in cool Pacific waters ranging from Alaska to Mexico. They belong to the genus *Oncorhynchus*—which, awesome enough, also includes all species of Pacific salmon. Rainbow trout and Pacific salmon are in the same family—*Salmonidae*, with recent studies even finding evidence of them sharing a common trout ancestor!

Rainbow trout have two main types. One type is anadromous like salmon, meaning they live in the ocean for part of their life before returning to freshwater to spawn. This group is called steelhead. Let's consider them super salmon (but wait—they're trout!). Unlike their salmon relatives, steelhead don't die after spawning. They can return to the ocean and spawn again, sometimes up to three times.

The other type is freshwater rainbow trout, which live only in freshwater lakes or streams their whole lives. Thus, they don't grow as large as steelhead. They're called "rainbow" because of the pink-red stripe that runs along their sides. This also gives them the name "redband" in certain basins (Columbia included). Their bodies appear green, blue, and yellowish. They also have silver-white bellies and black spots along their back and tails. Steelhead look more silver and have a longer, sleeker body. Both fish eat whatever they can find—like bugs, eggs, small fish, and more.

Steelhead are strong and full of energy. Most live 4 to 6 years, but there are records of steelhead living to age 11! They can leap 11 feet up waterfalls and swim from 0 to 25 mph in just one second.

Like Chinook, steelhead have two spawning seasons each year—one in winter and one in summer. Because of their pink flesh, salmon-like taste, and fighting spirit, many anglers call them "steelhead salmon."

Rainbow trout usually grow 10 to 20 inches long and weigh 8 to 10 pounds. But there are reports of 45 inch long and 55-pound steelhead! These big guys and gals (aka kelt) likely spent longer periods of time foraging the ocean over several spawning seasons.

Despite what they may seem, steelhead and freshwater rainbow trout are genetically identical. The only way to tell them apart is by looking at their scales or ear bones. A rainbow trout's life path—whether it stays in freshwater or heads to the ocean—depends on things like genetics, environment, and access to the sea.

More than 10 populations of rainbow trout are listed as threatened, and one steelhead population is federally listed as endangered. Their struggles are similar to Chinook salmon. Challenges include erosion, sedimentation, low oxygen levels, loss of in-stream wood and riparian vegetation, warming stream temperatures, barriers like dams and culverts, poor logging practices, commercial fishing, septic leaks, and stormwater pollution.

We can help provide a more promising future for this important fish by protecting clean, cool streams. Spawning areas need gravel bottoms, steady water flow, and vegetated shorelines with deep rooting plants. It also helps to care for estuaries, separate livestock from fragile nearshore environments, and choose Natural Yard Care and landscaping practices.

Get involved! Learn more! Together, we make a difference. **streamteam.info**.

Salmon Stewards Spotlight

Every year, Stream Team's volunteer Salmon Stewards shine a bright light on Pacific salmon, highlighting two distinct salmon runs within the South Sound: Chinook (*Oncorhynchus tshawytscha*) and chum (*Oncorhynchus keta*). Thousands of visitors every year step into this spotlight to hear the story of these local salmon runs—the history, cultural context, and human impacts. They learn from Salmon Stewards that salmon depend on clean water, healthy habitat, and a balanced management approach. They learn fun facts and statistics that help them understand the health of the fish runs.

Photo credit: Michele Burton Photographer

This late summer/late fall, be sure to meet a Salmon Steward (or two!) at strategic viewing locations:

Where	When
5th Ave Bridge	mid-August to mid-September
Brewery Park at Tumwater Falls	mid-September to mid-October
McLane Creek Nature Trail	early November to early December

Stream Team is proud and grateful to have over sixty trained docents. Let's hear from a few on why they volunteer!

Jen Daniel started as a Salmon Steward in 2024. She says that her favorite thing about being a Salmon Steward is "witnessing moments when individuals or families learn something new and connect with the life cycle of salmon and its importance to our ecosystem. It's incredibly fulfilling to know that my efforts contribute to sparking awareness and stewardship in others."

Lena Kirkendall started as a Salmon Steward in 2024 but she was first exposed to Salmon Stewards on field trips in elementary school. She credits seeing salmon at that young age as a reason she decided to volunteer as a college student. Lena says, "Being a Salmon Steward puts you in the position of both a teacher and a learner. Education is empowerment. Salmon Stewards provide the public with the knowledge to enter the world of salmon conservation with confidence."

Jeffery Collins has been Salmon Stewarding since 2023. Jeffery reports, "As a salmon steward, I enjoy sharing information about our great fish with the variety of visitors we see. I enjoy dropping 'salmon tidbits' of information to figure out how much each person already knows and how I can help them learn and enjoy more. I am no longer surprised at how many people are aware of Stream Team and what its volunteers are doing. The people of our community care about our area, our fish, and our people."

Welcome, Cameron Coronado!

Senior Outreach & Engagement Specialist, City of Olympia

Cameron Coronado was born and raised in a town so nice they named it twice, Walla Walla, WA. He first earned a Bachelor of Science from Western Washington University. Most recently, he completed two master's degrees at the University of Oregon. One master's in Landscape Architecture, and the other in Community and Regional Planning. Cameron brings over seven years of professional experience. He has worked in both local and regional government. Projects include salmon recovery, low-impact development, green stormwater infrastructure, environmental education, and racial equity. Cameron commits to serving his community. He is eager to work with community members to create a healthier and sustainable future. Outside of work, Cameron enjoys spending time outdoors. Some of his favorite activities include camping, swimming, kayaking, biking, and gardening. He also loves being with his wife, young son, and two dogs. Cameron is excited to return to protecting local waterways and the Salish Sea.

Stream KIDS' Team CORNER

Fall Streamside

Scavenger Hunt

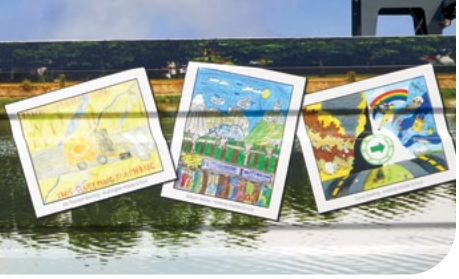
Explore. Discover. Draw what you find!

Fall is a magical time to explore nature! Head out with an adult to your favorite stream, forest, or park and see how many of these autumn treasures you can spot. Use the checkboxes to keep track—and draw a picture of each one in the box. You don't need to collect anything—just use your eyes, ears, and imagination!

- ☐ A Red, Orange, or Yellow Leaf
- ☐ A Salmon or Sign of Salmon (like a sign, sculpture, or info plaque)
- ☐ Mushrooms or Fungi Growing on a Log or Tree
- ☐ A Squirrel Gathering Nuts or Leaves
- ☐ Animal Tracks in the Dirt or Mud
- ☐ A Bird Flying South or Sitting on a Bare Branch
- ☐ A Fern Turning Brown
- ☐ Falling Leaves Landing in the Water
- ☐ A Spider Web with Dew on It
- ☐ A Quiet Spot Where You Can Hear Water Flowing

Nature Notes:

Did you notice anything else interesting? Use this space to write or draw your favorite part of your adventure!



Calendar of Events Fall 2025

SEPT

McLane Creek Trail Maintenance | **Friday, September 12, 9:30 a.m.–12:30 p.m.** | McLane Creek Nature Trail

Second Saturday @ Sapp Road Park | **Saturday, September 13, 10 a.m.–2 p.m.** | Sapp Rd Park

4th Annual Tumwater Falls Fest | **Saturday, September 27, 10 a.m.–4 p.m.** | Brewery Park at Tumwater Falls

OCT

Lacey Children's Day | **Saturday, October 4, 11 a.m.–2 p.m.** | Huntamer Park

Second Saturday @ Sapp Road Park | **Saturday, October 11, 10 a.m.–2 p.m.** | Sapp Rd Park

McLane Creek Salmon Steward Field Training | **Saturday, October 18, 11:30 a.m.–2:00 p.m.** | McLane Creek Nature Trail

NOV

Olympia Habitat Restoration | **Saturday, November 8, 10 a.m.–1 p.m.** | Karen Fraser Woodland Trail, Frederick Road Entrance

Second Saturday @ Sapp Road Park | **Saturday, November 8, 10 a.m.–2 p.m.** | Sapp Rd Park

Eagle Kayaking Tour | **Saturday, November 15, 11 a.m.–3 p.m.** | Alison Springs

DEC

Habitat at Home Workshop | **Saturday, December 6, 1–3 p.m.** | Olympia Timberland Library

Second Saturday @ Sapp Road Park *(weather dependent)* | **Saturday, December 13, 10 a.m.–2 p.m.** | Sapp Rd Park

Scan for complete event info & registration!

*Visit **StreamTeam.info** and click Register*

Register

ON THE COVER: Local street sweeper featuring student artwork.

Stream Team Mission

To protect and enhance the water resources and associated habitats and wildlife in Thurston County through community action and education.

Special Needs

Participants requiring special accommodations can contact one of the coordinators listed at least one week prior to an event to make special arrangements.

Follow Us

Thurston Stream Team
thurston_stream_team
Thurston County Stream Team

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Stream Team is funded and jointly managed by the stormwater utilities of the Cities of Lacey, Olympia, and Tumwater and Thurston County. Stream Team programs meet the requirements for the National Pollutant Discharge Elimination System (NPDES) permit for stormwater.

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Stream Team

EDUCATE • PROTECT • RESTORE

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Adopt-a-Drain

As autumn leaves fall all around, have you noticed them piling up in the street? Among the leaves, other icky things like trash, sediment, and residential waste might start to accumulate. Considering how streets are designed to direct water into storm drains, these blockages can cause issues.

Storm drains in our streets are strategically placed to capture the water that runs off of our houses, sidewalks, and other buildings to help prevent flooding. When the drain is clogged with leaves and other debris, they won't work properly.

This is why the Adopt-a-Drain program is so beneficial! Adopt-a-Drain asks you to take responsibility for a storm drain in your neighborhood, committing to keeping it clean and clear of debris. This helps prevent local flooding and also protects local waterways from harmful pollutants.

When you join the Adopt-a-Drain program, you receive a welcome kit that will help guide you to keep your drain clean year-round. You can name your drain—the sillier the better! You can view the interactive map to see who else in your area has adopted a drain. You can get scientific with your cleaning and report what you cleared from your drain. You can even compete for fun prizes!

At the end of the year, participating cities will send out updates highlighting the work our communities achieved!

Whether or not your city participates in the Adopt-a-Drain program (like Olympia, Lacey, Tacoma, or Seattle), you can still help by keeping storm drains clear and free of pollutants.

1. **Always take caution to clear drains that are not in busy streets.** Consider a buddy system, someone to look out for cars that might pass by while you are raking or sweeping your drain.
2. **Use gloves or a broom and dustpan to protect yourself from harmful objects.**
3. **Dispose of anything you remove from the top of a storm drain into the garbage.** Even leaves become contaminated with road grime and should not be composted.
4. **Celebrate your good work!** Share what you are doing with neighbors or passers-by. You might encourage them to adopt a drain near their own home!

ADOPT A STORM DRAIN

Stay tuned as the cities of Olympia and Lacey roll out their Adopt-a-Drain programs this year!