

Stream Team

SPRING 2023 March–May



Beavers in the Urban Landscape Part 1

Volunteer to ***monitor***
purple martin nest boxes!

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

Contents

Spring and the Return of the Purple Martins	3
Beavers in the Urban Landscape Part 1	4 – 5
Farms and Streams	5
Street Sweepers—More than Meets the Eye	6
Using TAPE to Manage Stormwater	7
Earth Day Celebration: Honoring Michelle Stevie & Volunteers	8 – 9
Creature Feature: Ants	10
Managing Water Wisely	11
MS4, BMP, IDDE...Whaaaaat?!?!	12
Celebrate Earth Day and Spring: Be A Nature Sleuth	13
World Ocean Day Festival	13
Kids' Corner	14
Calendar of Events	15
Prairie Appreciation Day Tour	16



Newsletter News

Did you notice the Stream Team newsletter has a new look? Less text, bigger bolder images and a new color palette is what we were aiming for. We would love to hear from you. Please visit <https://lp.constantcontactpages.com/sv/Yx03ohv> and let us know what you think about the new design!

If you have a business, we are happy to supply you with free copies of the newsletter to share with your clients and the community. Email info@streamteam.com and provide us with the address where you'd like us to deliver them, and we will add you to our distribution list. Thanks for reading!

ON THE COVER: Photo Credit: Jen Vanderhoof, (she/her), Senior Ecologist, King County Water and Land Resources Division




Stream Team Mission

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

Special Needs

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

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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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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.

Spring and the Return of the Purple Martins

Purple Martin Monitoring Training



Purple Martin Monitoring Training

- April 13
- 5 – 6 p.m.
- East Bay: Marine Drive and Olympia Ave., Olympia

No Experience Necessary!

Purple martins are the largest swallow in North America and one of the largest in the world. Males are a brilliant glossy blue purple with females and juveniles being a subdued brown gray with a light-colored belly. These aerial acrobats measure 7–9 inches with a wingspan of 15 inches. Purple martins migrate from South America to nest along the Pacific coast and much of eastern North America. Like all swallows, they feed in the air feasting on insects such as dragonflies, bees, and butterflies. Many birds feed exclusively on insects, which is why it is so important to avoid the use of pesticides.

Purple martin populations are on the rise all over the United States as a result of conservation and monitoring efforts. These graceful birds once nested in the cavities of large dead trees (snags) in the forest. Due to urban development and sprawl, the purple martin's natural nesting habitat no longer exists in urbanized

areas. Loss of habitat and the use of pesticides create great challenges for purple martin survival. To restore failing populations, nest box programs have been developed throughout the US. These programs, such as the nest boxes located on East Bay, are contributing to the recovery of purple martin populations.

Interested in monitoring to track purple martin populations? Stream Team is looking for volunteers to monitor the nest boxes at East Bay in downtown Olympia from April to September. New volunteers will attend a short training on monitoring basics and bird identification, then commit to monitoring throughout the season.

To register, visit streamteam.info and click on register. For training information, please contact Michelle at mstevie@ci.olympia.wa.us.



Beavers in the Urban Landscape Part 1

Your Friendly Neighborhood Beaver

Weighing up to 50 pounds, the North American Beaver (*Castor canadensis*) is America's largest rodent. They are cousins of mice and squirrels; there is nothing on earth that resembles them. They have a lifespan of 10–20 years and strictly eat bark, leaves, and the roots of a variety of plants. Their front paws are five fingered and nimble, like a raccoon. Their back feet are webbed, like a duck. Using their paddle shaped tails like a rudder on a boat, they can propel themselves swiftly through the water at speeds up to 5 miles per hour. Their teeth grow daily, strong enough to carve through wood like it's corn on the cob. Thick fur coats and a layer of fat keep them warm in the coldest of conditions. This is the profile of the North American Beaver, and the start of a four-part series presented in the 2023 Stream Team Newsletter.

History of Beavers

Beavers are an integral part of our landscape, numbering between one hundred to two hundred million individuals throughout North America. Fossils found in Oregon show the presence of beavers dates back more than 7 million years. In the early 1800's, they were pushed to the brink of extinction for their meat, oils, and fur. In recent decades, changes have occurred to help protect beavers and restore beaver populations in an increasingly urbanized world. Salmon recovery efforts focused attention on stream health and riparian habitat, promoting restoration projects that favor beaver occupation. In 2000, there was a statewide ban of body gripping traps and a reduction in demand for beaver fur. This has all led to beavers re-inhabiting streams, lakes and wetlands—the natural places they call home.

The Benefit of Beavers

With beaver reintroduction comes a range of ecosystem benefits! Beavers create some of the most important habitat on earth, wetlands. Highlighted in our winter 2022 issue, wetlands are one of the most biodiverse super systems on the planet. In a short time, beavers can transform a dry landscape into a vibrant biodiverse ecosystem, making way for an abundance of insects, plants, and animals. They maintain water levels in order to create safe spaces to forage for food, build shelter, find a mate, and raise their young. These beaver associated wetlands allow water to slow down,

**Friday, April 7
is International
Beaver Day!**

Did you know?

- Beavers modify their habitat by building water tight dams.
- Beavers slap their tails on the top of the water to signal danger.
- Beavers can stay underwater up to 8 minutes.
- Beavers teeth are orange from an iron rich enamel coating.
- Beavers are the largest rodent in North America.
- Beavers eat wood. Their teeth continuously grow and daily use helps wear them down.

recharging underground aquifers, reducing sediment and helping to filter contaminants. In return for beaver created habitat, we get clean drinking water, healthy streams for fish, amphibians, insects, mammals, and birds which leads to greater biodiversity right in our own backyard.

Managing Beaver Population

What are the biggest obstacles to managing beavers in the urban landscape? Believe it or not, it's our own perceptions. Where beavers and landowners intersect, many landowners see them as a nuisance. After all, they eat their plants and trees, push the water level higher, turning dry land into wetlands, and even cause local roadways to flood during high rain events. The relationship between beaver and man has been tenuous at best; there are still misconceptions about beavers that get in the way of us embracing this potentially symbiotic relationship. Some believe beavers eat fish, or prevent fish from moving upstream, but this is just not true. Legend has it, beavers trained the salmon to leap. When it comes to flooding or managing vegetation, there are simple cost-effective methods to keep water flowing downstream. By implementing simple diversion tactics, we can detour beavers from taking certain trees and shrubs we choose to be left. Working with beavers has more benefits than working to remove them.

Stay Tuned for More

This is just the beginning of our journey into the world of beavers and the role they play in the urban landscape. As 2023 unfolds, we will share more details regarding beaver behaviors in the wild. We will learn how they construct their dams and build their beaver lodge, feeding preferences, and highlight communities around South Puget Sound working to manage beavers in the urban landscape. In the meantime, as you visit your local wetlands, keep an eye and an ear out for the one true wetland engineer, our friendly neighborhood beaver.

Get Out and Explore

Participate in the Black Lake Meadows Reserve Nature Sleuth treasure hunt and look for beaver evidence like gnaw marks on trees stumps! Learn more at streamteam.info/nature-sleuths/black-lake-meadows-reserve.

Farms and Streams

Thurston County is home to many small farms that use conservation best practices to benefit our community and our streams! Throughout 2023, we will be talking about gardening and farming methods that help the soil and streams.

Spring is a great time to remove invasive species from your farm or garden. Here are some methods to remove invasive species without harming water quality:

- Visit nwcb.wa.gov to learn how to identify and remove invasive plants, and restore your landscape with native species.
- Use a weed wrench to pull roots from the ground or dig out the entire root system of invasive species.
- Collect all invasive species in a garbage bag and dispose of them at the Thurston County Waste and Recovery Center. Do not compost invasive species, especially scotch broom plants, as their seeds can lay dormant for over 30 years!
- Avoid using chemical treatments for removal of invasive species, as herbicides and pesticides can pollute our streams.
- To make removal easier, lay a tarp over large areas to encourage dieback of invasives, making roots easier to pull.

Look for future newsletters as we explore local farms throughout Thurston County. Nominate a farm to be featured by contacting Linsey at lfields@ci.lacey.wa.us.



Street Sweepers—More than Meets the Eye

(enviro-robots in disguise?)

If you're like most people, you haven't given street sweepers a whole lot of thought. Sure, they keep our streets looking tidy but there is a lot more to street sweeping than you might guess!

In the stormwater universe, street sweeping is recognized as a cost effective first line of defense in keeping pollutants out of our waterways. That's because heavy metals, nutrients and toxins that attach to street dirt particles can end up in stormwater runoff when rain washes these contaminants into storm drains. Although mostly unseen, these particles can be extremely harmful to fish and other wildlife and people if they end up in our streams, lakes and Puget Sound.

Street sweeping is effective for removing both large debris and small particles from roadways. Big things like leaves and trash to very small pollutants like sediment, microplastics and tire wear particles. Metal particles and other hazardous waste products including oil, antifreeze and brake dust are left by passing vehicles. Nutrients like phosphorus and nitrogen from leaves, grass clippings and fertilizers blow or run off our yards onto streets. When excessive amounts of phosphorus and nitrogen enter our lakes, streams and Puget Sound it can cause eutrophication, or the depletion of oxygen in water. Without ample oxygen many animals and fish cannot survive.

How Much Debris Are We Talking About?

While it would be extremely hard to accurately measure the pollutants our street sweepers are removing from our roadways, we can measure the total amount of contaminated debris collected:

- The City of Tumwater's three sweepers maintain 122 street miles and collect **700 tons of material annually**.
- The City of Lacey collected **2,790 yards of debris last year** and they average around 14,400–16,800 street miles per year.
- Thurston County's three sweepers collect between **15–25 yards a day** depending on time of year, and they cover 2,048 lane miles within the county.
- City of Olympia up until 2023 averaged around 4,000 miles and **650 tons annually**. With a new sweeper coming in 2023, the goal is to cover 800 miles and collect 1,000 tons of debris per year with two sweepers.

Street sweeping serves as one of our best management practices to control and improve water quality. But keeping pollutants from getting onto our roadways in the first place is an even better upstream solution!



What You Can Do to Help

We can all play an important role in keeping our streets clean and safe and keeping contaminants out of stormwater runoff. Here's what you can do:

- Keep leaves, branches and clippings off the street. Never blow yard debris into the street.
- If you hire a landscaper, direct them to keep landscape debris and materials off the street and protect permeable pavements, ponds, and storm drains.
- Sweep or vacuum your driveway and garage regularly so debris doesn't end up in the road.
- Reduce the number of miles traveled in your car by walking, biking or riding on transit.
- Keep neighborhood storm drains free and clear of debris.
- Trim shrubs and trees away from the street.
- Organize or participate in neighborhood cleanups.
- Pick up plastic and trash from gutters and drains when you are out for a walk.
- Move cars, trailers and bins off the roadway to help street sweeping crews with cleanup efforts.

Using TAPE to Manage Stormwater



This is not a story about sticky tape. Every day we wake up, get ready for school or work, pull up our socks, slip on our shoes, put on our coats and make our way out the door. No matter our destination, we find a need to travel by foot, bicycle, bus, car or even train. Whatever mode we choose, all of these produce waste. Cars, buses and trains drop oil, metal shavings and brake dust. Trash waste accumulates on sidewalks and streets, no matter how hard we try, not always ending up in the trashcan. Cigarette butts, food, and rubber compounds from tires all contain chemicals harmful to plants, fish, and amphibians. So how do we offset these negative impacts? Imbedded in our infrastructure, are innovations called stormwater technologies. Stormwater technology devices help reduce harmful pollution to our waterways by filtering out contaminants. Most modern-day road and sidewalk improvement projects and development projects include stormwater technologies.

What Do Stormwater Technologies Look Like?

Stormwater technologies can come in the form of many different designs. Some you can see and some you cannot. For instance, incorporated into some of our newer sidewalks, where trees grow, a specially designed concrete box holds soils, rocks and organic materials all designed and tested to filter out and treat stormwater pollutants, preventing them from entering our waterways. Nicknamed “tree in a box”, it is an effective tool to keep contaminants out of the environment. Other technologies go unseen and come in the form of large underground vaults containing filter canisters. These are storm filters which collect oil and other contaminants as they run off of parking lots. Many of the parking lots in modern-day developed shopping centers use underground storm filters to screen out unwanted contaminants before it can enter our waterways.

Technology Assessment Protocol Ecology (TAPE)

Technologies vary in design and application, but all have a specific purpose—to reduce pollutants in our waterways wherever possible. Before these technologies are considered for use, they undergo a two-year real-world assessment. This process is called Technology Assessment Protocol Ecology, referred to as the TAPE program. TAPE is managed through the Department of Ecology in partnership with the Washington Stormwater Center. The TAPE program has been actively testing and certifying technologies for over a decade. New technologies are submitted to the TAPE program for assessment. These new technologies are required to reach a certain standard, to reduce pollutants in stormwater runoff. Before final certification and approval for use, they need to prove they are capable of meeting federal and state guidelines for filtering out contaminants specific to their design. Use applications are related to transportation projects, construction projects, or are specific to treatment of certain contaminants, all performing to their intended use.

Washington State is leading the way with programs like TAPE through the assessment of emerging technologies designed for stormwater management. The Washington Stormwater Center helps provide a gateway to research and information that scientists and engineers can use as they look for ways to build infrastructure designed to keep contaminants away from our streams, lakes, wetlands, Puget Sound and critical wildlife habitat. For more information about TAPE and other stormwater initiatives, visit the Washington Stormwater Center at wastormwatercenter.org.



Farewell and Thank You!

After 46 years of working professionally and dreaming of retirement, the day has come! I will be leaving the City of Olympia May 15, 2023. Most of my career I worked as a habitat biologist, protecting and restoring forests, streams, wetlands and the nearshore of Puget Sound. Working with you as the City's Stream Team Coordinator these past years has been one of the highlights in my career. Many of you I consider friends as we have explored wetlands, streams and Puget Sound together. Thank you for your enthusiasm to participate, gather data, and learn new things, regardless of rain and sometimes snow! I will miss your comradery and hope to see you out exploring this beautiful place we call home!

Michelle





Earth Day Celebration

- Saturday, April 22
- 1 – 4 p.m.
- Squaxin Park, Rose Garden

Earth Day Celebration

Honoring Stream Team Coordinator Michelle Stevie & Stream Team Volunteers

What better way to honor Michelle and our Stream Team volunteers than getting together on Earth Day to celebrate? Please join us to share appreciation, congratulations, and memories while enjoying sweet treats and beverages at the Squaxin Park, Rose Garden.

Michelle is retiring after 14 years of devoted service to our community as a Stream Team Coordinator and Senior Habitat Biologist at the City of Olympia. Always eager to explore new program ideas, Michelle has engaged the community through a vast range of climate and ecological-related lectures, activities and workshops, hands-on science opportunities and community environmental art projects. With over 35 years of work specializing in natural resource and salmon-related habitat protection and restoration, she has served as Stream Team's go-to biologist and liaison to local environmental subject matter experts. She has been a rock for the Stream Team program and will be missed dearly by our Stream Team family.

We hope you can join us for this special occasion. Please RSVP at streamteam.info/events to let us know you are coming!





Ants!

Some Say Creepy. We Say Cool and Beneficial!

There are over 12,000 ant species worldwide. Six types of ants have been identified in Washington State; sugar (odorous house), moisture, carpenter, pavement, velvety tree, and pharaoh ants. Ants are social insects like termites, bees and wasps living in family groups or colonies. Like other insects, ants have 6 legs, their body includes a head, thorax and abdomen, but the thorax and abdomen are not obvious as portions are fused together. Many ants are harmless to humans and don't sting or bite. Others may deliver small amounts of venom in their sting causing burning, itching, or swelling.

How Ants Live

As a social colony, ants cooperatively build nests, find food, and care for young together. Colonies can consist of a few individuals to millions! Ants have a 4 stage life cycle which includes egg, larvae, pupa, and adult. Eggs are produced by queens, and once hatched, are cared for by other adult ants. After several weeks, the larva will wrap themselves in a protective silk cocoon becoming pupa where they make the transformation to

become adult ants. Most of the adults will emerge as sterile, non-reproductive, wingless females. These worker ants are the most commonly seen. Worker ants do the work for the colony such as cleaning, nest building, foraging for food, feeding and caring for larvae, and defending the nest against invaders. As social animals, ants communicate to each other using chemicals which they sense with their antennae. They also use touch and vibration to communicate.

The Benefit of Ants

Ants are a key part of many ecosystems and are beneficial to humans. They eat many insects, help pollinate plants, disperse seeds, aerate soil (increasing air and water circulation) and add organic matter and nutrients to soil. They are also food for many animals including birds, frogs and mammals.

Ant Prevention

Ants mostly nest in soil and wood and turn into pests when they use our homes for their shelter and food. Most ants will not become pests if you keep food and water sources out of their reach.

There are steps that you can take around your home and property to deter ants and prevent them from getting

inside without the use of harmful pesticides. Pesticides can enter our ground water sources, polluting our drinking water, and can flow into our water ways after rain events.

How to prevent ants:

- Keep exterior trash cans away from your home's exterior, sealed with tight-fitting lids and empty often.
- Fix leaking pipes and appliances.
- Replace water damaged wood.
- Clean gutters and remove vegetation away from the exterior of your home.
- Store wood and compost piles well away from the home's exterior, lifted off the ground if possible.
- Seal cracks and crevices in your home's walls, floors, and foundation.
- Close and seal the spaces around utilities and pipes that enter your home.
- Install door sweeps underneath exterior doors.
- Caulk gaps around windows and doors.
- Keep the kitchen free of spilled food and water that attract ants.
- Store food in the refrigerator or in airtight containers.

Photo Credit: Michele Burton

Managing Water Wisely

After going through a typical Pacific Northwest winter, it's easy to forget clean water is a finite resource. Sheets of water run off driveways, patios, and sidewalks. Roads flood. Many of us tire from what seems like an endless deluge of WET. As spring dawns, we begin to realize all of this water is truly a gift and what makes living in the Pacific Northwest so special. But managing, protecting, and conserving it takes work.

Not long ago, much of Thurston County was covered with multi-layered forests. When it rained, much of the rainwater never reached the ground because it was intercepted by leaves and branches and evaporated. The rainwater that did reach the ground did so by slowly dripping through layers of branches and leaves and then onto the forest floor. The forest floor acted like a sponge because the decaying matter and the plant root network soaked up much of the rainwater. In this way, the rainwater was managed by Mother Nature.

Now that there are rooftops, driveways, roads and parking lots, much of the surface area that once worked as a sponge now acts as a racetrack to the nearest stream, lake or Puget Sound. As the rain travels these tracks, it picks up pollutants along the way including animal waste, chemicals in yard care products, brake dust, oil, and other yucky stuff.

As a community, it is up to all of us to steward our water resources. There is much we can do at home to slow down water and manage it on-site, using techniques that will act like nature's sponge effect. Some easy and affordable solutions include:

- **Plant native trees or shrubs** in your yard. They are drought-resistant, adapted to our maritime climate and less likely to need bug killers.
- **Add compost to your soil** to improve water retention. Improving soil health will also reduce the need for pesticides.
- **Aerate your lawn** to reduce soil compaction and improve the health of the grassroots.
- **Direct downspouts into a rain garden, rock-filled trench, or a grassy area.**
- **Collect rainwater from your roof** using a rain barrel or a cistern.

Other rain management techniques may require more funds, planning, and engineering, such as installing a rain garden, permeable pavers, or a green roof. Incentives may be available. To learn more, check out these online resources:

Natural Yard Care:

tinyurl.com/bde2jk95

Naturescaping:

tinyurl.com/wmefbu3p

Rainscaping:

snhomishcountywa.gov/4149/RainScaping

Common Sense Gardening:

tinyurl.com/mryj4ydh



Photo Credit: Erica Guttman

Reclaimed Water is the Future



LOTT recently completed a multi-year study about reclaimed water and chemicals that remain in it after it is treated as waste water. Learn more about the future of our water supply at lottcleanwater.org/projects/reclaimed-water-infiltration-study.

Many jurisdictions offer incentives for water conservation, including rebates!

City of Olympia:

olympiawa.gov/services/water_resources/drinking_water/water_conservation

City of Lacey:

cityoflacey.org/water-conservation-program

Thurston Public Utility District: thurstonpud.org/water-systems.htm

City of Tumwater:

ci.tumwater.wa.us/departments/water-resources-sustainability/water-resources/water-conservation

MS4, BMP, IDDE...Whaaaaat?!?! Acronyms can stump the smartest monkey.

I mean, as if the term "stormwater" isn't confusing enough, right? What does it even mean? Is it water from storms that could flood my property? How about the rainwater running off my roof and driveway? Does snowmelt running off the roadway play a role? The short answer is YES.

As soon as rain or snow hits hard surfaces, we change its name to stormwater, like how we call water we flush down the toilet wastewater. Stormwater runoff is basically precipitation that lands upon hard surfaces and flows downhill. Along its path, it picks up and carries pollutants (animal poop left on the ground, oil and gas leaks, tire wear particles, sediment built up along the curb line, and landscaping debris left on sidewalks) to outfall pipes that discharge into our local lakes and streams.

In Thurston County, some of this stormwater seeps into our underground drinking water storage (the aquifer). Stormwater is almost always untreated when it hits local water bodies, as the majority of Thurston County operates within an **MS4 – Municipal Separate Storm Sewer System**, and our city and county storm pipes are separate from our sewer pipes. Urbanized areas with more impermeable surfaces typically have more stormwater systems to manage runoff. Without these storm facilities, our neighborhoods and cities would be at a much higher risk of flooding. Areas that receive large amounts of rainfall (and snowpack in local mountains) are particularly vulnerable.

We are incredibly blessed in Thurston County with over 400 beautiful lakes, several salmon bearing streams, 2 majestic rivers, and over 90 gorgeous miles of Puget Sound shoreline. Thurston County gets roughly 650 billion gallons of rainfall annually. We rely on this (in addition to snowpack) to replenish our surface and groundwater. Approximately 90% of our community depends on water stored underground (the aquifer) for our drinking water source. The rest of us drink lake water.

With this mighty gift of water comes great responsibility, and we all share it. So, how do we do our part as residents and businesses to make sure our actions keep pollution out of local stormwater?

Here are a few impactful **BMPs – Best Management Practices** that you can use:

1. **Protect storm drains** with a catch basin insert, wattle or heavy-duty garbage bag BEFORE doing activities (like pressure washing your house or business exterior) where dirty water could get into the stormwater system. If possible, divert wash water into a vegetated area away from the storm drain.

IDDE (Illicit Discharge Detection and Elimination) programs are required within WA State municipal (city/county) stormwater permits. Staff and community learn to prevent, report and respond to spills to ensure quick and effective clean up before harm to the stormwater system can occur. If a spill gets into the stormwater system, this is called an illicit discharge.

Illicit discharges can also look like intentionally dumping something like dirty carpet cleaning water or restaurant grease into a catch basin or pond to "get rid of" it. Not a good idea. An illicit discharge could also be a leaking dumpster outside your business contributing nasty leachate into a storm drain. Either way, it is an illegal act and **MUST** be reported, and as we have discussed above, can end up in our local lakes and streams or drinking water. Yuck.

When in doubt, remember: **ONLY** rain down the storm drain. Learn how to report spills at streamteam.info/report-spills.

2. **Carefully purchase, use and dispose of home and landscape products.** Always opt for the safer household and landscape products. As we have mentioned, whatever you put on the ground, roof, or driveway has the potential to be washed into our lakes and streams during the next rain. Find safe products for your landscape using the Grow Smart Grow Safe website at growsmartgrowsafe.org. And remember, you can dispose of unused chemicals, batteries, light bulbs, etc. at the Thurston County HazoHouse in Lacey.
3. **Choose (or hire out) natural yard care practices for your home and business.** If you have a lawn, using slow-release fertilizer instead of quick-release fertilizer (and the weed & feed products they contain) will lessen chemical runoff and increase the amount accessible for your lawn. It's also the safer option for your family, pets and our local waters. Before applying fertilizer, be sure to do a soil test to see if your lawn needs lime (it probably does if you live in Thurston County). For more Natural Yard Care tips, visit streamteam.info/yard-care.

Together, our everyday actions add up to a collective force that truly makes a difference! Learn more by visiting streamteam.info/actionsforcleanwater.



Photo Credit: Michele Burton

Celebrate Earth Day and Spring

Be A Nature Sleuth

Spring is the perfect time to get outdoors and see all the new flower and leaf buds and other seasonal changes in our parks. Discover hidden natural treasures and learn about the animals that call our parks and natural areas home.

Choose from more than 30 local park trails to explore as a solo adventurer or as a family. Simply download the GooseChase app on your mobile device and let the fun begin!

Complete missions and receive a park-specific sticker, plus be entered into an end of the year drawing to win a pair of Bushnell binoculars! Remember, you must complete the first mission and submit your address to receive stickers and be entered into the drawing. Learn more at streamteam.info/nature-sleuths.



**Happy
World Ocean Day!**

World Ocean Day Festival

Save the Date!
June 10, 2023

Our oceans nourish and support human life. They bring us beauty and joy, food, air, transportation and they distribute heat and moisture around the globe. They contain a wealth of biodiversity, representing 90% of the earth's biosphere. Oceans store 20 times more carbon than terrestrial plants and soil combined, playing a significant role in sustaining life on our planet.

Each June, World Ocean Day is celebrated to amplify the vital importance of our oceans and the actions we can all take to help protect them.

We are inviting everyone to come together on Saturday, June 10th to celebrate, collaborate and deepen our connection with our oceans and the beautiful creatures that depend on them to survive. Stay tuned for more details about this community building event. We hope to see you there!



SPRING Bucket List

BINGO

Spring is the perfect time of year to get outside and enjoy nature! Trees and flowers are blooming, sleepy animals are waking up from a long winter's nap and the birds are twittering about.

Use this bucket list bingo card to complete as many spring activities as you can. Challenge your friends and family to play along and see how many bingos you can get.

PLANT
A NATIVE
PLANT

TAKE YOUR
DOG FOR A
WALK, PICK UP
AND TRASH
THEIR POOP

PICK UP
LITTER
IN YOUR
NEIGHBORHOOD

HAVE
A ZERO
PLASTIC
PICNIC

GO ON A
STREAM TEAM
**NATURE
SLEUTHS**
ADVENTURE

VOLUNTEER
IN YOUR
COMMUNITY

GO ON A
**NATURE
WALK**

MAKE A
**BEE
HOUSE**

PARTICIPATE
IN AN
EARTH DAY
EVENT

**PLANT A
TREE**

HELP YOUR
FAMILY CHECK
THE AIR
PRESSURE IN
THEIR **TIRES**

VISIT THE
**PURPLE
MARTINS**
ON EAST BAY
DRIVE

**FREE
SPACE**

TEACH
YOUR FAMILY
ABOUT USING
LESS WATER

**HELP SPRING
CLEAN** WITH
ECO-FRIENDLY
CLEANING
SUPPLIES

**PLANT A
GARDEN**

HELP YOUR
FAMILY
CHECK FOR
**CAR
LEAKS**

VISIT A
LOCAL
BEACH

VISIT A
**FARMER'S
MARKET**

PARTICIPATE
IN **SURVIVE
THE SOUND**
[l1tk.org/project/
survive-the-sound/](http://l1tk.org/project/survive-the-sound/)

GO
**WHALE
WATCHING**

LEARN
ABOUT
**STREAM
BUGS**

DRAW
THE WATER
CYCLE

LEARN
HOW YOU
CAN PROTECT
THE BEES

GO **BIRD
WATCHING**

Calendar of **Events**



APRIL

Spring Arts Walk: The Disappearing Kelp Forest Mural

April 1 - 30 • City of Olympia's City Hall front windows

In honor of Earth Day, experience the beauty of the Salish Sea's kelp forest and the animals that depend on this disappearing habitat. Mural art includes students from: ORLA, Nisqually Middle School, Dolphin Healing Arts & Nature

Purple Martin Monitoring Training

April 13 Thursday • 5 – 6 p.m. • East Bay: Marine Drive and Olympia Ave., Olympia

Stream Team is looking for volunteers to monitor the nest boxes at East Bay in downtown Olympia from April to September. New volunteers will attend a short training on monitoring basics and bird identification then commit to monitoring throughout the season. See pg. 3 for details.

Earth Day Celebration

April 22 Saturday • 1 – 4 p.m. • Squaxin Park, Rose Garden

Honoring Stream Team Coordinator Michelle Stevie & Stream Team Volunteers

We will be honoring Michelle and our many Stream Team volunteers by getting together on Earth Day to celebrate! Please join us to share appreciation, congratulations and memories while enjoying sweet treats and beverages!

To R.S.V.P., visit streamteam.info/events.

Celebrate Earth Day and Spring

Be a nature sleuth! Discover hidden natural treasures and learn about the animals that call our parks and natural areas home. Choose from more than 30 local parks and trails in Thurston County. Simply download the GooseChase app on your mobile device and let the fun begin! To learn more, visit streamteam.info/nature-sleuths.

MAY

Prairie Appreciation Day

May 13 Saturday • 10 a.m. – 3 p.m. • Glacial Heritage Prairie, Mima Rd, Littlerock

Enjoy fields of blooming camas while you stroll between information stations. Fun for all ages! See pg. 16 for details.

Prairie Appreciation Day – Vanpool

May 13 Saturday • 9:30 a.m. – 12 p.m. and 12:30 p.m. – 3 p.m. • Glacial Heritage Prairie, Mima Rd, Littlerock

Join our vanpool! Bring your lunch and enjoy a fun outing to the prairies at Glacial Heritage for Prairie Appreciation Day! Register for either trip at streamteam.info/events. See pg. 16 for details.

JUNE

World Ocean Day Festival – Save the Date!

June 10 Saturday

Celebrate and deepen your connection with our oceans and the beautiful creatures that depend on them to survive. Stay tuned for more details about this community building event.

Salmon Steward Training – Coming Soon

We are bringing back the popular 3-part training for volunteer Salmon Steward docents. Docents are needed to staff shifts at our salmon viewing locations summer-late fall. Stay tuned for more information on dates and how to register in the summer issue or contact Cynthia.taylor@co.thurston.wa.us to be added to a list of interested people.

How to **Register** for Events

- 1 Visit streamteam.info and click on "Register"
- 2 Select the event for which you plan to register
- 3 Click on the register button near the bottom of the "Event Detail"
- 4 Follow the instructions to either log in as an existing volunteer or create a new secure profile

To Register a **Group**

Go to streamteam.info/getinvolved/calendar/register-steps.php



EDUCATE • PROTECT • RESTORE



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Olympia, WA 98501
streamteam.info



Prairie Appreciation Day

Around 17,000 years ago, Thurston County was covered by a sheet of glacier ice. When the glacier retreated 15,000 years ago, deep deposits of gravelly soils remained. As these soils dried, grasses, forbs and shrubs were able to adapt to the harsh conditions and thrive. Puget Sound's prairie ecosystem is one of the rarest ecosystems in the region.

Prairies thrive in a mild climate with moderate rainfall. Unique wildflowers such as camas, lomatium, and shooting stars adorn the prairie landscape. Butterflies, like the endangered Taylor's checkerspot, feed upon these prairie wildflowers. Slow-growing Oregon white oak, the only native oak in Washington, dot the landscape.

Humans have been managing this biological treasure for thousands of years. To prevent trees or other unwanted plants from encroaching on the prairie, fire is used as a management technique to restore native vegetation.

Bring your lunch (there will be no food available for sale at the event) and have a picnic among pollinators. Stroll leisurely between educational stations learning about this fragile ecosystem and the decades of volunteer efforts to restore local prairies. Biologists will share management efforts and answer your questions.

Domestic dogs are not allowed on the prairie.

Prairie Appreciation Day

- Sat., May 13
- 10 a.m. – 3 p.m.
- Glacial Heritage Prairie, Mima Rd, Littlerock

Let Stream Team do the driving!

A Prairie Appreciation Day Vanpool is available from 9:30 a.m. – 12 p.m. and 12:30 p.m. – 3 p.m. 11 people max per trip. Vanpool location TBA. Please register in advance at streamteam.info/events. For more information, contact Cynthia at cynthia.taylor@co.thurston.wa.us.

Your opportunity to help protect and enhance the water resources and associated habitats and wildlife in Thurston County.