

Stream Team News

FREE

OLYMPIA • LACEY • TUMWATER • THURSTON COUNTY

EDUCATE • PROTECT • RESTORE

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<https://tinyurl.com/STNews2017>
and enter to win a Stream Team prize!

Inside...

Arbor Day Celebration | 2
Thurston County's Most "Precious" Frog:
The Oregon Spotted Frog | 3
Amphibian Egg Mass Monitoring | 3
Spring! And the Return of the Purple Martins! | 4
GREEN Congress to Mark 25 Years
of Watershed Education | 4

Discovering Birds! eBird Training & Bird Walks | 5
Downsizing Your Lawn | 6
The Safe Road to Spring Cleaning | 10
Juvenile Chinook Release Party | 11
Featured Waterbody: Woodard Bay | 12
Clean Cars Clean Streams | 13

Featured Creature: European Starling | 13
Kids' Corner | 14
Calendar of Events | 15
"Don't Drip and Drive" Offers Free Vehicle
Leak Checks and Repair Discounts | 16

SPRING EDITION
March–April–May 2017

Celebrate Arbor Day!

Arbor Day celebrates the many ways trees benefit our planet and community. Forests provide numerous functions, such as protecting water quality, providing habitat for hundreds of species of wildlife, stabilizing steep slopes and cleaning the air. Trees are especially important in the urban environment as they help keep our cities cool and provide habitat and migration corridors for wildlife. Besides all this, trees are beautiful and enhance our downtown areas and neighborhoods.

Join Stream Team and the City of Olympia for a day of celebration, tree-related workshops (topics include forest ecology, tree pruning and improving backyard habitat) and a forest stewardship work party. Come celebrate Arbor Day!

Registration recommended. Register online at www.streamteam.info For more information about the Olympia Arbor Day Celebration, contact Michelle at mstevie@ci.olympia.wa.us or, for general information, go to www.olympiawa.gov/arborday



OLYMPIA ARBOR DAY CELEBRATION & WORKSHOPS •••••

- Saturday, Mar. 25
- 9 a.m. – 3 p.m.
- Priest Point Park
2600 E. Bay Dr. NE
Shelter 4, Olympia



TREE SEEDLING GIVE-AWAYS FOR ARBOR DAY •••••

- Saturday, Apr. 15

LACEY:

- 10 a.m. – 1 p.m.
- Huntamer Park
618 Woodland Sq. Lp. SE

TUMWATER:

- 10 a.m. – noon
- Timberland Library
7023 New Market St SW

PHOTO BY MICHELE BURTON PHOTOGRAPHER

ON THE COVER: Pacific chorus frog. Photo by Rich Doenges.

STREAM TEAM MISSION

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

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.

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.

FIND US ON FACEBOOK:

 [ThurstonStreamTeam](https://www.facebook.com/ThurstonStreamTeam)

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STREAM TEAM INQUIRIES 360-438-2672 or streamteam@ci.lacey.wa.us

IN LACEY:

City of Lacey Water Resources Program
420 College St. SE, Lacey, WA 98503

Attn: Kim Benedict

Tel: 360-438-2687
TDD: 1-800-833-6388
kbenedic@ci.lacey.wa.us

IN OLYMPIA:

City of Olympia Water Resources Program
P.O. Box 1967, Olympia, WA 98507-1967

Attn: Michelle Stevie

mstevie@ci.olympia.wa.us

IN TUMWATER:

City of Tumwater Water Resources Program
555 Israel Road SW, Tumwater, WA 98501

Attn: Debbie Smith

Tel: 360-754-4148 TDD: 1-800-833-6388
dmsmith@ci.tumwater.wa.us

IN THURSTON COUNTY:

Thurston County Water Resources Program
929 Lakeridge Dr. SW, Olympia, WA 98502

Attn: Ann Marie Pearce

Tel: 360-754-3355 EXT 6857
TDD: 360-754-2933
pearcea@co.thurston.wa.us

DESIGN & LAYOUT: Azure Summers Graphic Design, design@azuresgd.com

Thurston County's Most "Precious" Frog:

The Oregon Spotted Frog (*Rana pretiosa*)

The Oregon spotted frog, *Rana pretiosa* (precious), inhabits only a few large marshes in Oregon, Washington and British Columbia. In Washington State, the frog occurs in only six sub-watersheds, including Thurston County's Black River and a few tributaries of Black Lake.

The frogs occupy wetlands that are characterized by a combination of habitats that support each life stage:

- Adult Oregon spotted frogs overwinter in deep wetlands. By February, they seek nearby shallow (3-4 inches) water to lay eggs (oviposition), which are sometimes laid in large communal clusters.
- Approximately 3 weeks later, larvae hatch and pool on surface of the egg jelly.
- Tadpoles feed on algae, diatoms, bacteria and small aquatic insects. Like other frogs, tadpoles develop lungs and legs and move to deeper water within about 4 months.
- Adult frogs feed and seek shelter in permanent water until the next spring.

The Oregon spotted frog is in decline due to loss of habitat. The species has been listed as threatened under the Federal Endangered Species Act. Factors contributing to its decline stem partially from its unique habitat requirements. This frog is highly aquatic, but lays its eggs in the shallowest portions of the wetlands. The slightest water level declines after egg deposition can leave egg masses high and dry, desiccating the egg masses.

Interested in assisting Washington Department of Fish and Wildlife with monitoring and/or habitat enhancement for Oregon spotted frog? For more information, please contact Bonnie Blessing at frog habitat@gmail.com



PHOTO BY ANDY O'CONNOR



PHOTO BY MARC HAYES

Amphibian Egg Mass Monitoring

Interested in joining other adventurous Stream Team volunteers in counting frog and salamander egg masses this winter and early spring? If you missed our January amphibian workshop and training, no worries. Training will be provided in the field.

To register, visit www.streamteam.info and click on "register". For more information, contact Michelle Stevie at mstevie@ci.olympia.wa.us

AMPHIBIAN EGG MASS MONITORING

- Monday, Mar. 6
- 1:30 – 4 p.m.
-
- Saturday, Mar. 4
- Friday, Mar. 10
- 9 a.m. – noon
-
- Various locations.
- www.streamteam.info



Spring!

And the Return of the Purple Martins!

Join the East Bay Purple Martin Monitoring Team

No experience necessary!

In 2016, Stream Team installed 20 new boxes that have starling-resistant entrances to help prevent nest predation.

This construction modification appears to have worked, as no starlings were observed using the nest boxes. Summer observations paired with box cleaning data showed that 22 of our 26 boxes were used by purple martins! Due to the location

and survey timing, it is difficult to determine how many of these boxes successfully fledged young.

Interested in joining our monitoring team and monitoring the nest boxes at East Bay in downtown Olympia from April to September? Attend a short training on monitoring basics and bird identification. To register, visit www.streamteam.info and click on "register". For more information, please contact Michelle at mstevie@ci.olympia.wa.us.

Intensive Purple Martin (PUMA) Monitoring

This coming summer, Stream Team will partner with Washington Department of Fish and Wildlife for a day of intensive purple martin (PUMA) monitoring to try and capture nesting success. This will give us better data concerning population size, nest box occupancy and fledgling success. More details to follow in our summer newsletter and on our website.

PURPLE MARTIN TRAINING DATES.....

NO EXPERIENCE
NECESSARY



- Tuesday, Apr. 11
OR Tuesday, Apr. 18
- 5 – 6 p.m.
- Olympia City Hall
601 E 4th Ave, Olympia



PHOTO BY MICHELLE BURTON PHOTOGRAPHER

GREEN Congress to Mark 25 Years of Watershed Education!

Twenty-five years ago, on a Saturday in April, approximately 75 students attended the first ever Student GREEN (Global Rivers Environmental Education Network) Congress at the Evergreen State College campus. They were the first of many thousands of students to assemble to share and compare their water quality monitoring data, and to learn about the Nisqually, Deschutes and other local South Sound watersheds. The Congress was modeled to be similar to a professional science symposium.

Little did the original GREEN Congress coordinators from South Sound GREEN and the Nisqually River Education Project imagine that the Congress would have such a lasting impact on local teachers and students. I can safely say so, as I was one of the two original Congress coordinators in my capacity as the Nisqually River Education Project Director.



Bob Barnes and Ralph Munro assist GREEN students with a nest box installation project along McLane Nature Trail.

Discovering Birds! eBird Training & Bird Walks

Ever wonder what birds frequent our natural spaces and neighborhoods? Here's your chance to find out!

Stream Team will be partnering with Black Hill Audubon for scheduled Bird Walks. We will upload data on species seen into eBird, an online application that collects data from birders around the world. eBird tracks changes in bird populations and can give us information on the success of habitat enhancement projects. This easy-to-use application training will be taught by Bill Tweit, Washington Department of Fish and Wildlife biologist and birder extraordinaire.

What is eBird and how does it work?

eBird is a bird checklist program that is used on your smart phone or other electronic device such as an iPad. The program is jointly managed by Cornell Laboratory of Ornithology and National Audubon Society. The observations submitted by each participant are compiled in an international network of eBird users. Users simply enter when, where and how they went birding. Then they fill out a checklist of all the birds seen and heard during the outing. eBird shares these observations with a global community of educators, land managers, ornithologists and conservation biologists.

To register, visit www.streamteam.info and click on "register". For more information, contact Michelle Stevie at mstevie@ci.olympia.wa.us.

BIRD WALKS

■ 8 – 10 a.m.



LBA PARK:

■ Sat., Mar. 11, Apr. 8
& May 6

■ 3333 Morse-Merryman
Rd SE, Olympia

BLACK LAKE MEADOWS:

■ Sat., Apr. 15 & May 20
■ RW Johnson Blvd., Olympia

TAYLOR WETLANDS:

■ Sat., Mar. 25, Apr. 22 & May 27
■ 3505 Fones Rd. SW, Olympia



eBIRD TRAINING



■ Thursday, Mar. 23

■ 6 – 8:30 p.m.

■ Olympia City Hall
601 E 4th Ave, Olympia



Every year since then, the GREEN Congress has brought together students from far and wide to share data, discuss the health of their local watersheds, and to participate in workshops and classes on a variety of topics about their local water resources. To date, more than 8,500 students from Eatonville to Olympia and beyond have attended the GREEN Congress! This longevity is a remarkable testament to the dedicated teachers who have worked to engage their students in learning about the importance of their local watersheds and the need for clean water and intact habitat.

Current Nisqually River coordinator, Sheila Wilson, who brought her students to the Congress when she was a high school science teacher, observes that, "I still run into ex-students that I taught 15 years ago. The first thing they say is that they remember the GREEN Congress as the best day of their entire high school academic experience". Current South Sound GREEN coordinator, Stephanie Bishop states that, "...it's gratifying to know that after all these years, we continue to build a community of citizen-students who care about water resources".

Close to 400 students now attend the Congress each year, and this year's 25th anniversary Congress will be on March 23rd. Lacey, Olympia, Tumwater and Thurston County Water Resources Departments continue to support the GREEN Congress, as they have since the beginning. Stream Team congratulates both South Sound GREEN and the Nisqually River Education Project for this remarkable achievement and continuing excellence in environmental education.

Written by Chris Maun, retired Thurston County Stream Team Coordinator.



Joe Jauquet leads a salmon dissection workshop with GREEN students.

Downsizing Your Lawn

Getting Rid of the Grass

Are you re-thinking your landscape? Do you want to replace your tired lawn with a beautiful, low-maintenance garden bed or natural area? The first step is getting rid of the grass. Below are a few ways you can remove lawn without using herbicides, which can end up in our local waterways. Each method has its benefits and drawbacks, but all will help you achieve the lovely garden bed or natural area that you've been dreaming of!

Method #1: Hand Dig

Digging up grass with a shovel is hard work, but may make sense when removing small areas of lawn. All you need is a sharp shovel and a wheelbarrow to get started. When you remove sod, you lose valuable organic matter and topsoil, and it may activate weed seeds buried in the soil. To offset these problems, mulch your new bed with 4" of compost.

- Sharpen shovel to reduce strain on your joints and muscles.
- Use marking material (or a hose) to outline shape of bed.
- Dig deep enough to remove grass roots.
- Shake topsoil (good stuff!) off of grass roots back into bed and dispose of remaining sod.
- Plant bed. Native and/or water-wise plants recommended.
- Cover soil with 4" of compost, and, voilà, a beautiful new landscape!

TIP:

When soil beneath the lawn is moist, removing lawn is much easier.

Method #2: Use a Sod Cutter

The quickest way to get rid of lawn is to strip the grass and root surface layer with a sod cutter. This method will slice under the grass, cutting it into strips about 18" wide. The sod cutter will leave you with a clean, edged bed that's ready for planting.

Drawbacks include the heavy weight of sod cutters, and needing muscle power to turn corners. Renting a sod cutter may also require access to a vehicle that can transport the equipment (some rental shops may deliver equipment for a fee). Rental costs generally run about \$100–\$120 per day. Removing and disposing of cut sod is hard work. Taking out sod also removes organic matter and valuable topsoil and may activate weed seeds buried in the soil. To allay some of these drawbacks, you can compost the cut sod by turning it over and stacking it (lasagna-style) to build bermed beds.

- When renting a sod cutter, ask for operation instructions.
- Use marking material to outline the shape of your bed as your guide for cutting.
- Mark the location of irrigation heads to avoid damage.
- Soil should be moist, but not soggy, to get a good cut.
- Adjust cutting blade depth to ensure removal of grass roots.
- Cut directly adjacent to previous strip to avoid uncut areas.
- Divide strips into pieces that are manageable to compost or roll up and remove.
- Cover soil with 4" of mulch to avoid erosion and suppress weed growth.
- If composting sod, turn sod over, cover with cardboard, moisten cardboard and add 4" of mulch.

TIP:

To save your back, ask for loading/unloading ramps when renting a sod cutter!

Method #3: Smother . . .



1. Before



3. Organic mulching over cardboard

Method #3: Smother

Sheet mulching uses cardboard and mulch to block light. This causes the lawn underneath to slowly break down. It's the lowest cost method to get rid of grass, and it's easy to do! With sheet mulching, valuable nutrients, microorganisms and organic matter found in the topsoil and grass stays in place. As the grass decomposes, it improves soil health and fertility in your new planting bed.

TIP:

Start collecting large pieces of cardboard now, so you have a good supply when you are ready to begin.

....Step-by-Step!



2. Cardboard sheet mulching



4. Native plants in the ground

- Apply sheet mulch in winter or spring when the soil is wet.
- If applying in summer, wet the soil thoroughly before laying down cardboard.
- Cut grass as short as possible before applying the sheet mulch.
- Use marking material or a hose to outline the shape of your bed.
- Dig out an 8" strip of grass along inside edge of bed outline; this will give your bed a clean edge and prevent grass from creeping into your new bed.
- Cover entire bed area with cardboard, overlapping edges to completely block sunlight.
- Moisten cardboard and cover with at least 4" of organic mulch (arborist chips work well).
- If planting immediately, pre-dig planting holes, removing lawn before laying down cardboard and mulch. Leave a six-inch gap between the base of the plant and cardboard.
- If planting later, dig holes (leaving a 12" ring around each plant) through mulch, cardboard and sod.

Method #4: Solarize

Solarization is one of the easiest ways to get rid of lawn. This method uses heat from the sun and plastic sheeting to cook the lawn. The process works best if started in late spring when temperatures begin to climb. The soil can heat up to 140°F, which also kills some insect pests, plant diseases, nematodes and pathogens in the top layer of soil. Drawbacks include that it can take up to 8 weeks to completely kill the lawn, and you may find the plastic unattractive. You will need to purchase plastic sheeting, and dispose of it when you're done.

TIP:

Make sure there are no holes in plastic that allow heat to escape.

- Cut grass as short as possible.
- Cover bed area with sturdy plastic.
- Hold in place with rocks or metal staples.
- Leave plastic until grass is dead (6-8 weeks).
- Remove plastic; dead grass can be left to compost in place.
- Cover new bed with 4" of mulch to avoid erosion and suppress weed growth.

TIPS

IRRIGATION TIP: If you have an underground irrigation system in areas where removing lawn, consider converting some sprinkler heads to a drip system that can water new plants.

CAUTION: A few days before doing any digging in your yard, call 811 to get utility lines marked!

CAUTION: Avoid using heavy machinery or digging holes on septic drain fields.

Get Ready to Plant!

Once you've smothered, baked or removed your lawn, you are ready to plant! But wait! How will you know what plants to choose? First, you'll need to gain an understanding of the growing conditions of your new bed. Having this information will help you choose plants wisely by selecting plants with growing needs that match the existing conditions of your bed. Creating a well thought out planting plan will help you reduce plant maintenance, avoid costly mistakes and support plant health.

Consider the following factors before making plant choices so you can enjoy a beautiful, carefree garden:

- ☐ How many hours of sunlight or shade?
- ☐ What soil type is it?
- ☐ How well does the soil drain?
- ☐ Are there large trees blocking access to water or sunlight?
- ☐ Are there walls close by that reflect heat?
- ☐ Will the bed be used for screening?
- ☐ What colors, sizes and foliage textures compliment your house or surroundings?
- ☐ Do you want to include edibles, fragrance or wildlife habitat?
- ☐ Have you thought about four seasons of interest in your bed?
- ☐ Do you want a mix of evergreen and deciduous plants?
- ☐ How much time, effort and money do you want to spend on the bed?
- ☐ To avoid the need for fertilizers, pesticides and excess water, think native! Native and water-wise plants are the easiest to care for and provide habitat for our native wildlife.

Below are resources to native and non-native plant suggestions that will help you create a lovely garden bed that harmonizes with nature. Look for plants that are known to thrive in Pacific Northwest gardens, while naturally offering resistance to pests and diseases:

For more information on plant selection visit:

www.greatplantpicks.org/plantlists/nw_native/yes

www.wnps.org/landscaping/landscaping_why.html

http://depts.washington.edu/hortlib/resources/hort_web_sites/plant_selection.php

Plants For Sun



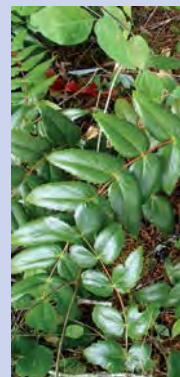
Coastal Strawberry



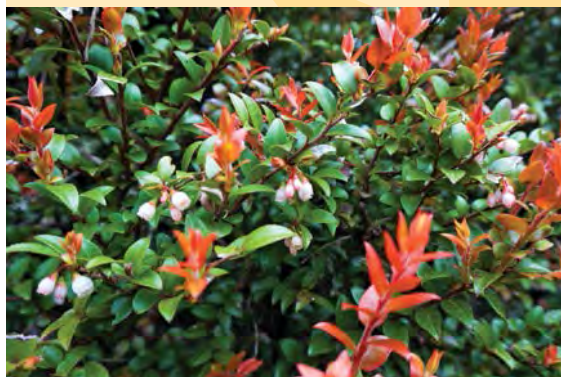
Plants for Shade



Bleeding Heart



Plants for Part Sun/Shade Mix



Evergreen Huckleberry



PLANT PHOTOS BY KARIN STELIOFF



Kinnikinnick



Mock Orange



Pacific Ninebark



Red-flowering Currant



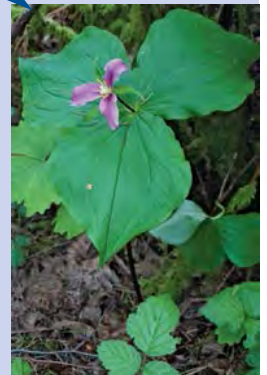
Low Oregon Grape



Red Huckleberry



Sword Fern



Trillium



Rhododendron



Salal



Snowberry



Vine Maple

The **SAFE ROAD** to Spring Cleaning

101: How do I know my Household Products are Hazardous?

Look for the key words **POISON, DANGER, WARNING** or **CAUTION** on the label. Examples include oil paints and thinners, solvents, used motor oil and some cleaning supplies. In addition to being harmful to pets and family members, hazardous products can harm the environment if they are not properly stored and disposed of. For a guide to safer household products, go to <http://tinyurl.com/hpyc8w8>

EXIT 108

EXIT 107

EXIT 105

105: Carpet Cleaning Tips

When cleaning your carpet, make sure to dispose of the dirty wash water properly. If on a sewer system, filter out debris and flush dirty wash water. If on a septic, filter and spread dirty water over a landscaped area. The cleaning agents can harm your septic system. Place filtered debris into the trash. If contracting a service, ask the company about their wash water disposal policy.

EXIT 104

104: What is an Illicit Discharge? How can I Prevent one?

An illicit discharge is defined as anything other than stormwater going into the stormwater system. Examples of illicit discharges are carpet cleaning or pressure washing waste water, paint, oil, pet waste, sewage, grease, sediment and garbage.

EXIT 103

103: How do I Properly Dispose of Hazardous Household Products?

HazoHouse offers safe and free disposal for Thurston County residents. There is a small charge for businesses. Open Friday through Tuesday from 8 a.m. to 5 p.m., HazoHouse is located at the Thurston County Waste and Recovery Center, 2418 Hogum Bay Road NE in Lacey. For more information about what materials are accepted at HazoHouse, and how to properly pack and transport items, call 360-867-2912 or go to: <http://tinyurl.com/zavp386>

EXIT 102

102: How do I Safely Store Hazardous Household Products?

Store in original container. Do not remove the label. Keep in a large plastic tote to contain any spills or leaks. Follow the label instructions for cleaning up any spilled or leaked products. Never combine different products.

EXIT 101

EXIT 109

107: Pressure Washing Tips

If your home was built before 1978, test your paint first to find out if it contains lead or heavy metals, which may require that paint flakes be disposed of at HazoHouse. Before pressure washing, cover the ground with tarps to capture paint flakes, and direct dirty wash water into a grassy or graveled area to keep contaminants from washing into storm drains or roadside conveyance ditches.

108: Clean Up Pet Waste

Pet waste contains harmful bacteria and viruses that can make young children sick, pollute our waterways and contaminate shellfish. Bacteria and viruses in pet waste can persist in the soil for a long time. Dispose of pet waste by scooping, bagging it and trashing it. Every dog, every doo, every time.

109: Reporting Spills

To report a small-scale spill or illicit discharge, call the 24-hour hotline for the jurisdiction where the spill occurred. You can do so anonymously.

Olympia: 360-753-8333

Lacey: 360-491-5644

Tumwater: 360-754-4150

Thurston County: 360-867-2099

To report a large-scale spill, also call the Washington Department of Ecology at 360-407-6300. For life-threatening spill emergencies, call 911.

Juvenile Chinook Release Party!

The offspring of the adult Chinook salmon who returned to the Deschutes River last fall are now ready for their migration from fresh water out to salt water. These juvenile hatchery fish are about six months old ("sub-yearlings"), and they have been imprinting on the water of the Deschutes at the holding ponds at Tumwater Falls Park. Imprinting helps them find their way back as adults to the place they were born. They are getting ready to start the first leg of their journey to the sea by entering the Deschutes River.

The public is invited to help release some of these fish on Sunday, May 7. Look for the Stream Team booth near the holding ponds at Tumwater Falls Park. Volunteers will assist people in carrying buckets of juvenile Chinook down to a shallow part of the river to be gently released. This is a great family activity, with many children choosing to name their fish and wishing them a safe journey.

Children will be able to make Salmon Stamper calendars at the booth, and Salmon Stewards will be on hand to answer the public's questions about the Deschutes salmon run. Those who wish to participate in the booth activities or fish release do not need to register for this free event.

Volunteers who would like to work a shift in the Stream Team booth do need to register. Volunteers will receive a free Stream Team t-shirt. Volunteering with Stream Team is a great opportunity for high school students to earn community service hours. See the calendar on page 15 for details on how to register.

For more information, contact Debbie Smith at dmsmith@ci.tumwater.wa.us or 360-754-4148.

JUVENILE CHINOOK RELEASE PARTY.....

■ Sunday, May 7



■ Noon – 4 p.m.

■ Tumwater Falls Park
110 Deschutes Way SW,
Tumwater



Featured Waterbody

Woodard Bay

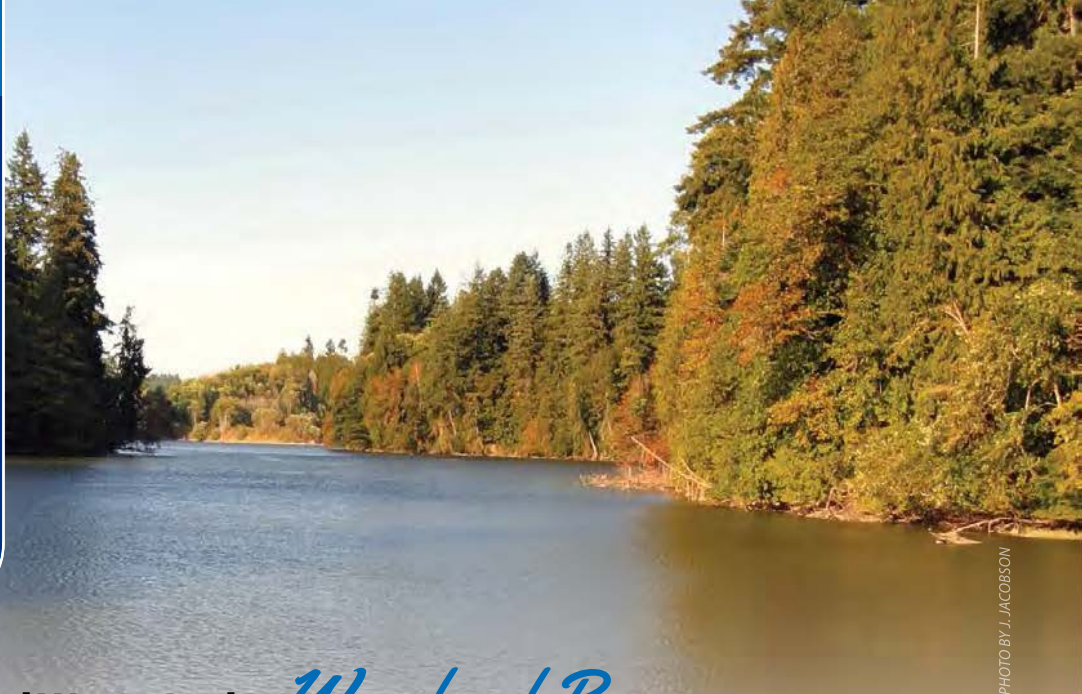


PHOTO BY J. JACOBSON

Featured Water Body: *Woodard Bay*

Do you feel like taking a hike, or maybe just a scenic walk? Want to see beautiful wetlands, or perhaps you prefer bird watching? Well, Woodard Bay has got it all! The Woodard Bay Natural Resources Conservation Area, located in northeastern Thurston County, was created in 1987 when the Washington State Legislature signed the Natural Resources Conservation Act. With five miles of undeveloped shoreline, three different hiking trails (including a paved one), and countless native Puget Sound species, it's worth the visit!

The purpose of the Natural Resources Conservation Act is to protect outstanding examples of native ecosystems, habitat for endangered, threatened and sensitive plants and animals, as well as scenic landscapes. Since its establishment, the Department of Natural Resources (DNR) has purchased 870 acres that now make up Woodard Bay Natural Resources Conservation Area. The area itself holds Woodard Bay, Chapman Bay, and their tributaries. Beyond protecting these areas, DNR has also made improvements to the shallow estuarine intertidal area.

Historically, Henderson Inlet has had extensive development, causing the drainage patterns within the basin to be altered. Woodard Bay is no different, with Woodard Creek now being the only perennial stream flowing into the

bay. Remnants of the bay's logging days, including a railroad trestle that went across the estuary, remained even years after becoming a conservation area. Starting in 2010, these industrial additions were partially removed in an effort to restore more natural tidal flows and minimize pollution from leaching creosote-treated pilings. Half of the railroad was retained to provide roosting habitat for bats. Further restoration efforts included the removal of 12,000 cubic yards of fill to restore tidal flow, the installation of 50 purple

martin nesting boxes on pilings retained to provide seal haulouts, and the revegetation of 30 acres of riparian and upland habitat.

Local forest vegetation includes Douglas-fir, western redcedar, red alder and big leaf maple. Understory species range from native species such as sword fern and Oregon grape to invasives like holly, English ivy and Himalayan blackberry. These and more can be seen as you walk the forest loop trail.

The wildlife in Woodard Bay is the most impressive part. Avian species



PHOTO BY DYANNA LAMBOURN, WDFW



Thinking about holding a charity car wash? Please consider selling car wash tickets instead!

Modern car washes filter and reuse wash water, and send dirty water to a treatment facility. This conserves water and protects our local water bodies.

To buy car wash tickets for your charity fundraiser, go to www.charitycarwash.org



include numerous waterfowl, passerines (perching birds), great blue herons and bald eagles. Woodard Bay is home to a large colony of bats which travel to Capitol Lake and back for their evening insect feast.

River otters, harbor seals and Olympia oysters are just a few of the aquatic species you may encounter! Please note, if you spot the seals, do not approach them. Stay at least 150 feet away. All sea mammals, including seals, are protected under the Marine Mammal Protection Act. Young seals are often left alone while the mother gathers food. They have not been abandoned!

The Conservation Area is open year-round for day use. The kayak launch is closed September 1 – April 15 each year. Pets and bike riding are not allowed at Woodard Bay, but the area is accessible by bike from the nearby Chehalis Western Trail.

Directions from Olympia: Travel north on East Bay Drive, which becomes Boston Harbor Road. Turn right onto Woodard Bay Road. Travel about 1.5 miles. Follow Woodard Bay Road to the bottom of the hill. The parking area is on your left, just before the bridge.

A Discover Pass is required to park at the site. To obtain a Discover Pass, go to <http://discoverpass.wa.gov/>



Featured Creature

European Starling
(*Sturnus vulgaris*)

The Ubiquitous European Starling

Range

Worldwide. Early in the 19th century, Shakespeare enthusiasts released about 60 starlings in New York's Central Park. The offspring of the original 60 birds have spread throughout North America and are now estimated at 150 million starlings in the United States. Starlings are considered to be the most numerous songbird in the U.S.

Description

Stocky black songbird with iridescent purplish-green plumage in summer, white spots in winter, short tails, triangular wings and long, pointed, yellow bills.

Behavior & Habitat

Starlings flock in large, boisterous groups and roost in coniferous trees. Starlings are common in urban areas and other human settlements. They forage on grassy areas, feeding on insect larvae such as the marsh crane fly. They also eat fruit and seeds.

Starlings are opportunistic nesters, nesting in any suitable hole or crevice in decaying trees, utility poles and buildings. The males are aggressive when claiming nest sites, and they frequently take over nesting sites of native cavity-nesting birds such as swallows, blue birds and woodpeckers, which can decrease nesting success in native birds. Nesting takes place February – July. Starlings lay 4-6 pale blue, glossy eggs, which hatch in 11-13 days. Adults typically begin a second nest after the first young fledge.

Cool Facts

Starlings are amazing vocal mimics and can mimic many bird species, such as red-tailed hawk and killdeer.

Starlings change the coloring of their features without molting: a term called "wear molt". The new feathers they grow in each fall have bold white tips – that's what gives them their spots. By spring, these tips have worn away, and the rest of the feather is dark and iridescent purple-black.

Starlings can fly up to speeds of 48 mph.

Starlings lack the ability to digest sucrose (table sugar) and are able to distinguish between sucrose and other types of sugar.

Kids' CORNER

10 Ways Kids Can Protect the Planet

Hey kids! Did you know that you can help protect our planet? It's true! Here are our top ten ways that you can help out.

FACT:

The LONGEST River in the United States is the MISSOURI River. It is 2,340 miles long!

2

Always pick up your dog's poop. We don't want that in our water—yuck!

8

Cut down on trash by recycling and composting. Recycle plastic, glass, metal and paper. Use a compost bin or yard waste service for food scraps and yard clippings.

Keep

learning about science and engineering in school. You might be the one to come up with new ways to help plants, animals and our waterways!

10

Pass it on! Teach your friends and family about how important protecting our planet is and ways they can help out.

9

4

Keep a pitcher of tap water in the refrigerator, so you always have a cold drink ready. Use the pitcher to fill a reusable water bottle for when you're on-the-go.

6

Learn about Washington animals, and take action to protect them. Build a bird or bat nesting box, plant a bee and butterfly-friendly garden, or come to one of Stream Team's tree planting parties.

TO DRINK & USE!

= 1.3%

1.7% FROZEN + 97% SALT WATER

5

Choose something other than a carwash for your group's fundraiser (or sell car wash tickets). Dirty water from parking lot carwashes often goes straight into rivers, lakes and streams. Car wash tickets can be purchased at www.charitycarwash.org

1

Shut the faucet off while brushing your teeth.

7

Turn off the lights when you leave a room. That's an easy one!

3

Take shorter showers - did you know a 15-minute shower can use 120 gallons of water?

FACT:

Dairy cows can drink up to 50 GALLONS OF water per day. How much water do you drink in one day?

FACT:

Earth's surface is 70% water, BUT we can ONLY use a tiny bit of it. 97% of water is salt water in our oceans and, out of the 3% that's left, 1.7% is frozen in glaciers and icebergs. That leaves ONLY about 1% of fresh water for us to drink and use. That's why water conservation is so important!



Stream Team *Events*

For additional events, event details or to register, please visit our website and click on "Calendar" or "Register": www.streamteam.info



For maps and directions to any of these events, go to: streamteam.info/getinvolved/directions/

MARCH

Amphibian Egg Mass Surveys

Sat., Mar. 4 • 9 a.m. – Noon

Mon., Mar. 6 • 1:30 – 4 p.m.

Fri., Mar. 10 • 9 a.m. – Noon

Various locations listed on Stream Team website registration page.

For more info., contact Michelle at mstevie@ci.olympia.wa.us

See page 3 for details. Register online.

Forage Fish Surveys

Sat., Mar. 11 • 9 a.m.

The Evergreen State College

Thurs. Apr. 6 • 9 a.m.

Priest Point Park

Sat., May 6 • 9 a.m.

The Evergreen State College

Mon., June 5 • 9 a.m.

Priest Point Park

Survey various local beaches for surf smelt and sand lance eggs. Then help analyze samples in the lab. Surveys are tide dependent, so survey times may be variable. Trained and untrained volunteers welcome! For more info., contact Michelle at mstevie@ci.olympia.wa.us Register online. Directions to monitoring sites provided upon registration.

Bird Walks

LBA PARK:

Sat., Mar. 11, Apr. 8 & May 6 • 8 – 10 a.m.

3333 Morse-Merryman Rd SE, Olympia

BLACK LAKE MEADOWS:

Sat., Apr. 15 & May 20 • 8 – 10 a.m.

RW Johnson Blvd., Olympia

TAYLOR WETLANDS:

Sat., Mar. 25, Apr. 22 & May 27 • 8 – 10 a.m.

3505 Fones Rd. SW, Olympia

For more info., contact Michelle at mstevie@ci.olympia.wa.us

See page 5 for details. Register online.

Deschutes River Revegetation Project

Sat., Mar. 18 • 10 a.m. – Noon

Capitol Blvd. and E St., Tumwater

Come plant native vegetation along the banks of the Deschutes! For more info., contact

Debbie at 360-754-4148 or dmsmith@ci.tumwater.wa.us

ci.tumwater.wa.us Register online.

Discovering Birds! eBird Training

Thur., Mar. 23 • 6 – 8:30 p.m.

Olympia City Hall, 601 E 4th Ave, Olympia

For more info., contact Michelle at mstevie@ci.olympia.wa.us

See page 5 for details. Register online.

Priest Point Park Arbor Day Celebration & Workshops

Sat., Mar. 25 • 10 a.m. – 3 p.m.

Priest Point Park, 2600 E. Bay Drive NE, Olympia, Shelter #4

For more info. on Olympia Stream Team Arbor Day events, contact Michelle at mstevie@ci.olympiawa.gov. For general info. on Olympia Arbor Day, go to www.olympiawa.gov/arborday See page 2 for details.

APRIL

Purple Martin Monitoring

TRAINING DATES:

Tues., Apr. 11 OR April 18 • 5 – 6 p.m.

East Bay: corner of Marine Drive and Olympia Ave., Olympia

For more info., contact Michelle at mstevie@ci.olympia.wa.us

See page 4 for details. Register online.

Work Party at McLane Creek Nature Trail

Tues., April 11 • 3:30 – 6 p.m.

Delphi Road, Olympia

Help Stream Team maintain the nature trail. Tools, gloves and refreshments provided, as well as a temporary parking pass. For more info., email nativeplantsalvage@gmail.com Register online.

MAY

Juvenile Chinook Release Party

Sun., May 7 • Noon – 4 p.m.

Tumwater Falls Park, 110 Deschutes Way SW, Tumwater

For more info., contact Debbie at 360-754-4148 or dmsmith@ci.tumwater.wa.us

See page 11 for details. Register online for volunteer shifts in the Stream Team booth.

Work Party at McLane Creek Nature Trail

Tues., May 9 • 3:30 – 6 p.m.

5044 Delphi Rd. SW, Olympia

Help Stream Team maintain the nature trail. Tools, gloves and refreshments provided, as well as a temporary parking pass. For more info., email nativeplantsalvage@gmail.com Register online.

COMMUNITY EVENTS

Thurston Conservation District Annual Native Plant Festival

Sat., Mar. 4 • 10 a.m. – 3 p.m.

2918 Ferguson St. SW, Tumwater

For more info., call 360-754-3588 or email nwhite@thurstoncd.com

How to Maintain Your Stormwater Pond Workshop

Sat., Apr. 15 • 9 a.m. – Noon

Tumwater City Hall, 555 Israel Rd. SW, Tumwater

Learn how to inspect and maintain your neighborhood's stormwater pond and other stormwater facilities in the FREE workshop. To register, contact Cathe at linnca@co.thurston.wa.us or 360-867-2095.

Lacey STEM Fair

Sat., May 20 • 10 a.m. – 3 p.m.

Huntamer Park, 618 Woodland Square Loop SE, Lacey

For more info., go to: www.ci.lacey.wa.us/stem-fair

Visit the Lacey Water Resources booth!

How to Register for Events

Visit: www.streamteam.info and click on "Register"

Select the event for which you plan to register

Click on the register button near the bottom of the "Event Detail"

Follow the instructions to log in as an existing volunteer or create a new secure profile



Stream Team

EDUCATE • PROTECT • RESTORE
Olympia • Lacey • Tumwater • Thurston County

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www.streamteam.info

Car Leak?



We can help!

“Don’t Drip & Drive” Offers Free Vehicle Leak Checks and Repair Discounts

Did you know 1.7 million vehicles in the Puget Sound region leak 7 million quarts of oil per year? That’s equal to a tanker truck per day! Vehicle leaks can cause havoc for drivers and the environment. Fixing the problem can help drivers avoid more costly repairs down the road, while keeping pollutants such as oil from traveling into our local waterways and Puget Sound.

Now, motorists around Puget Sound, including the Cities of Lacey, Olympia, Tumwater and Thurston County can find an affordable fix for vehicle leaks and keep pollutants out of Puget Sound thanks to the “Don’t Drip & Drive” campaign!

As part of the campaign, participating repair shops around Puget Sound will conduct a FREE visual leak inspection (a diagnostic service valued at up to \$80). If a leak is detected, the customer will receive 10 percent off repair service (up to \$50) to fix the problem—a total savings of up to \$130! The program runs through the end of 2017.

Studies show that 67 percent of drivers who find a leak will fix it within three months. In an effort to increase that percentage, Stream Team encourages you to get your vehicle checked out!

The “Don’t Drip and Drive” program was designed to build awareness and educate people throughout the state that it is important to check for vehicle leaks regularly to protect local waters. For more information, or to find a participating repair shop, visit www.fixcarleaks.org

WHAT DOES THE COLOR OF YOUR DRIP TELL YOU?

