

Stream Team News

FREE

OLYMPIA • LACEY • TUMWATER • THURSTON COUNTY

EDUCATE • PROTECT • RESTORE



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Discover Low Impact Development Near You



Next time you are stuck at a stoplight, look around and see if you can spot any low impact development, also known as LID. LID is an approach to stormwater management that mimics the natural environment. It helps capture and treat runoff using vegetation and soil rather than directing water to a storm drain where it flows, untreated, to the nearest body of water.

Low Impact Development follows these five principles:

1. Conserve natural areas when possible and minimize impervious surfaces like parking lots and roads.
2. Reduce the impact on site hydrology by working with the natural landscape.
3. Keep runoff on site, letting it soak into the ground where it falls, instead of flowing into a storm drain.
4. Create a variety of areas where water can infiltrate, evaporate, or be stored.
5. Practice pollution prevention by eliminating the source.

Low Impact Development can come in all shapes and sizes!

You may notice a few buildings with plants growing on their roofs around Olympia and Lacey. These green roofs are a type of LID that allow soil and vegetation to soak up rainwater, reducing the amount of stormwater runoff entering nearby streams and creeks.

Other examples include the LOTT Clean Water Alliance building in downtown Olympia that features more than 5,000 square feet of green roof. Not only does this help to treat and store rainwater, it helps cool the building in the summer. Green roofs also provide habitat for pollinators, and reduce the urban heat island effect.

St. Martin's University in Lacey recently added a green roof to their science building where students study the types of microbes that are in the soil to better understand how to make a successful green roof.

As you can see, low impact development can be found almost anywhere. Next time it rains, try following the runoff. You just might find an interesting LID!

ON THE COVER: Beach Seine at Priest Point Park. See article on page 7. Photo by Michele Burton Photographer.

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. 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.

FOLLOW US:

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

NEWSLETTER CONTRIBUTORS:

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DESIGN & LAYOUT:

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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: Emily Watts

Tel: 360-438-2687
TDD: 1-800-833-6388
ewatts@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: Meridith Greer

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

A Plastic Life

Look around for a moment. Try to count all the pieces of plastic you see. Now imagine every object broken into 5 millimeter pieces, about the size of a pencil eraser...try to count those. It may seem impossible, especially when you take into account the plastic floating in the air, your tea, your clothes, the list goes on!

Plastic, or more specifically microplastic which is under 5mm in size, is turning up everywhere. Some is the result of litter slowly breaking down, but much of it is manufactured to be extremely small. The most common microplastics are *polypropylene*, *polyethylene*, and *polyethylene terephthalate*, from plastic bottles, tires, clothing, and marine items like rope and fishing lines. Humans have created a use for plastic in every aspect of life. Plastic pollution does not only come from trash; in one load of laundry, clothing made of synthetic materials can release **up to 700,000 microfibers**. These microfibers, alongside other microplastics, make their way into the environment through the air or into waterways, passing through sewage filtration systems.

It is difficult to fully quantify how much plastic pollution exists in the world. Plastic has been mass-produced since the 1960's, with production roughly doubling every fifteen years. In 2015 alone, 448 million tons of plastic was produced. Currently, scientists estimate over 8.3 million metric tons of plastic are dumped in oceans annually. This is equivalent to five grocery bags full of trash per foot of coastline.

Unfortunately, about half of all plastics produced are single-use and nearly 80% of plastic ever produced is now considered trash, with less than 20% of that being recycled.

Once in the ocean, microplastics threaten the entire food chain. For example, when plankton digest microplastics, the plastic accumulates within the body. Even if the plastic is expelled, chemicals can remain. The same is true for most animals. The toxicity of plastic and associated chemicals increases as it moves up the food chain, bioaccumulating into greater concentrations of plastic. Plastic has been found to affect over 700 marine species at all levels of the food chain. For animals, plastic can look or smell like natural food.

Its surface attracts chemicals, mimicking food by harboring scents or creatures common to animal diets. Research shows that sea turtle species around the world have ingested plastic and that sea birds will be consuming plastic regularly by 2050. Even dead, beached whales have been found with bellies full of plastic and no sustaining nutrition.

Health impairments from plastic ingestion include malnutrition, irritation or damage to organs, hormone disruption, and reduced immune and reproductive health. These are caused either by the irritation of plastic material, or by chemicals commonly manufactured or exposed in plastic; such as Bisphenol A (BPA), pesticides, and flame-retardants. However, scientists have decided that in order to fully understand the health impacts of plastic, studies must focus on individual types of plastic because various plastics have alternative implications. The greatest fear from scientists is plastics moving through organ walls and disrupting basic bodily functions. In fish, there is evidence that plastic can have intergenerational impacts on reproduction rates. Accumulated microplastics have been found in the liver and kidneys of mice resulting in increased levels of stress and potentially toxic molecules.

This means harmful microplastics, visible or not, may turn up on your table. Microplastics can be found in nearly all table salt around the world and they have been found in beer, honey, hygiene products, human lungs and stool. Scientists agree that the plastic problem necessitates a dynamic, cradle to grave global effort.



Are there any solutions?

- ▶ **Recycling** may help but lax recycling habits, material restrictions, and fluctuations in the recycling market are drawbacks.
- ▶ **Animals** that can digest plastic is another possible solution. However, the byproducts have potential for harm. This form of remediation and recycling, promote the continued use of plastic, which relies on fossil fuels and the release of excess carbon into the atmosphere, directly influencing climate change.
- ▶ **Bioplastics**, including cellulose, relies on environmentally degrading manufacturing processes. Though these materials encourage a “throw-away culture”, bioplastics are still the best plastic alternative, decomposing in under three months (as compared to 400+ years).
- ▶ **Skimming** the ocean to collect plastics is one more solution that is making an impact but engineers are still working out the kinks. Once again, this option treats the side effects of over consumption and does not address the issue of plastics.

Microbeads are manufactured solid plastic particles of less than one millimeter in their largest dimension. They are most frequently made of polyethylene but can be of other petrochemical plastics. They are used in exfoliating personal care products, toothpastes and in some over-the-counter drugs.

.....Continued on page 4 ▶

A Plastic Life

(Cont. from page 3)

What can be done?

As the market currently stands, plastic is the cheaper alternative to natural products for manufacturers. Local and federal initiatives have begun the march against plastic consumption banning the use of plastic grocery bags and establishing the Microbead-Free Waters Act of 2015. Yet these policies are still not enough. Reducing plastic use will take a conscious change from all of us. Here are suggestions on how you can help!

Follow the three “R’s”

▶ **Recycle**

It is critical to recycle properly as recycling contamination is a serious issue. Review and follow your garbage service’s recycling policies. For unusual objects not accepted by your waste service, visit www.search.earth911.com to find a drop-off location near you.

▶ **Reuse**

Seek as many uses for plastic objects before throwing them away. If possible, wash and reuse!

▶ **Reduce Use**

On the right, you will find impactful alternatives to reduce plastic use. In addition, supporting plastic-reducing initiatives like the ones mentioned above, can make a large impact.



Reduce Plastic Use

- ✓ **Check the label** to ensure products do not contain plastic. The most common plastics include polypropylene, polyethylene, and polyethylene terephthalate.
- ✓ **Buy whole foods with reusable produce bags** reducing your use of plastic, and exposure to plastics in your food.
- ✓ **Avoid tea bags** which are not biodegradable. Instead, switch to loose-leaf tea or use paper tea filters.
- ✓ **Carry reusable cotton bags** to reduce the need for single-use bags.
- ✓ **Wash and reuse!** Even if you are unable to bring your own flatware, opt to wash and reuse single-use plastic ware.
- ✓ **Ditch to-go containers** by bringing your own reusable cup or glass storage container.
- ✓ **Reject straws.** Either go without or carry a reusable metal straw.
- ✓ **Buy 100% cotton clothes** as synthetic clothing can release up to 700,000 microfibers into the environment.
- ✓ **Avoid glitter** as it is tiny pieces of shiny plastic. Instead, look for glitter made from biodegradable cellulose film.
- ✓ **Stop tossing butts.** Cigarette filters contain plastic and can take up to ten years to degrade, plus they are filled with toxins that pollute our environment.
- ✓ **Avoid wet wipes (even the “flushable” types).** Flushable or not, wipes do not break down and can clog sewer pipes and lift stations. Plus, the synthetic microfibers within them continue their path to the ocean.
- ✓ **Check your tire pressure.** Proper tire pressure reduces the amount of brake pad and tire rub-off produced from braking—a highly common microplastic.



Marine Creature Mondays

From kelp crabs to sea worms, Puget Sound is home to many amazing critters! Join us as Stream Team pairs with local divers and Matt Balder- drone videographer, for hands-on viewing of some of the wonders of Puget Sound's marine life. Divers will demonstrate their equipment prior to diving to the bottom of the Sound and collecting various marine creatures for up close viewing. Our guest drone videographer will also be sharing his underwater real-time video so you can see first-hand the fascinating world below the docks!

Rarely do we get the chance to see what resides under the surface. At this popular, all-age-event, you will get to experience first-hand what lives below Puget Sound waters. Come see what wonders we will find!

To register for this workshop, visit www.streamteam.info and click on "register". For more information, contact Michelle at mstevie@ci.olympia.wa.us. Ages 10 and under must wear a life jacket. Please bring yours if you have one. A few loaners are available.



MARINE CREATURE MONDAYS

REGISTRATION REQUIRED

- Mon., July 15, July 22, July 29, Aug. 5, Aug. 12, OR Aug. 19
- Two sessions: 11:30 a.m. or 1 p.m.
- Please only sign up for one session, as space is limited.
- Open only to Thurston County residents.

New Website! www.streamteam.info

Stream Team is excited to announce that we have launched a new website! You can still find us at www.streamteam.info but now our site is not only compatible on desktops but also smart phones and tablets. Accessing our online resources and registering for events is easier than ever.

Our new website features:

- ▶ **Resource pages** that contain a vast variety of past Stream Team Articles organized by topic of interest
- ▶ **A brand new look** and new Stream Team logo
- ▶ **Simplified event registration**
- ▶ **User-friendly navigation**



Did you know?

Much of the information we reference in our quarterly newsletter can be found on our website!

Articles marked with a dragon damselfly icon, like the one above, will be posted on our website for easy access under the Library tab.

Visit www.streamteam.info today and check it out!

Stormwater Comprehensive Planning

We live in an area full of public infrastructure. This includes stormwater management facilities that capture and treat run-off resulting from all our wonderful Washington rain. More often than not though, we walk right by them without even noticing!

Did you know? Olympia has 160 miles of underground stormwater pipes, more than 7,000 catch basins, about 1,400 manholes, and over 130 stormwater treatment facilities including ponds and swales like Yauger Park, which is actually part of Olympia's stormwater management system!

We are dependent on this critical infrastructure to help prevent flooding of our homes, businesses, and roads. Stormwater management also minimizes the amount of pollution entering our water bodies and aquatic habitats. Things as common as storm drains play a vital role in our everyday life so it is important they are cared for and maintained. Managing complex stormwater systems is not easy but that's why your local stormwater utility uses something called a Stormwater Comprehensive Plan to help.

The Stormwater Comprehensive Plan guides stormwater utility projects and programs over a 5-10 year planning horizon. Every geographic area is different and the plan addresses the unique challenges that each jurisdiction or community may face when it comes to managing stormwater run-off. As the plans are developed, they undergo a public comment period and advisory committee review, then they are approved by governing bodies within each jurisdiction.

Stormwater Comprehensive Plan Purpose:

- Guide the Utility's work to fulfill its mission to reduce flooding, improve water quality, and protect and enhance aquatic habitat
- Provide policy and guidance to operate, maintain and improve built infrastructure and natural systems
- Describe the Utilities' current finances, summarize financial policies (including rates and structures and capital funding strategies) needed to implement the plan
- Meet all federal, state, and local requirements including the Western WA Phase II Stormwater Permit
- Explain future challenges and make recommendations to address those challenges

Find the Stormwater Comprehensive plan for your community:

CITY OF LACEY

Lacey's Stormwater Comprehensive Plan is currently being updated! Visit www.ci.lacey.wa.us/storm for more information about the update process including opportunities for review and public comment.

CITY OF OLYMPIA

Olympia's Storm and Surface Water Plan was updated in 2018 and can be viewed at <https://tinyurl.com/yxzn5nvd>.

CITY OF TUMWATER

Tumwater's Stormwater Management Program was updated in 2016 and can be viewed at <https://tinyurl.com/y4huy7sq>.

THURSTON COUNTY

Thurston County's Stormwater Management Program Plan was updated in 2018 and can be viewed at <https://tinyurl.com/yyn5nd79>.

A paper copy of your jurisdiction's Stormwater Comprehensive Plan can be requested.



Bats of the Pacific Northwest

More than 15 species of bats live in Washington State. Bats are a very important part of our ecosystem. Each species has a little different life history strategy, some have powerful jaws to eat beetles and others eat softer insects, such as moths, flies and mosquitoes.

Intrigued by our only flying mammal? Join us and local bat expert Greg Falxa for a fun, fact-filled bat talk and walk to learn about bat habitat needs, basic bat biology and their unique life strategies.

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

BAT TALK •••••

REGISTRATION REQUIRED

- Fri., June 7
- 7 p.m.
- Traditions Café & World Folk Art, 300 5th Ave SW, Olympia

BAT WALK •••••

REGISTRATION NOT REQUIRED

- Fri., June 7
- 9 p.m.
- Heritage Park on Capitol Lake, across from Traditions Café

It's Time To Get Your Boots Wet!

Monitor Local Streams this Summer No Experience Necessary!

Benthic macroinvertebrates or “stream bugs” are an essential part of the stream food web and make up a large percentage of a juvenile salmon’s diet. Macroinvertebrates can be used as indicators of stream health, while some species are tolerant of stream pollution and habitat disturbance, others are very intolerant of disturbances and changes in water quality.

Sign up for the training and learn how and why “stream bugs” are used as indicators for water quality. The training will also cover the monitoring protocol used to gather samples and special guest speaker, Dave Spiller will discuss how fishermen replicate the “hatch” when fishing local streams.

After the training, sign up to monitor at one or more of our local stream sites. Volunteers will be accompanied by Stream Team staff at each monitoring location. Monitoring dates vary, to help accommodate diverse schedules. Youth under the age of 14 must be accompanied by an adult. Monitoring takes about 2 hours per site, depending on the site location. This year’s monitoring window begins in late June and runs through July. See the calendar for various times and locations.

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

**Please note: The McLane Creek Nature Trail is managed by the Department of Natural Resources. A Discover Pass is required for parking at this trail. For information about purchasing a pass, go to www.discoverpass.wa.gov.*



CREDIT: MICHELE A BURTON PHOTOGRAPHER

STREAM BUG MONITORING TRAINING

- Tues., Jun. 18
- 6 – 8 p.m.
- McLane Nature Trail, Delphi Road
- Main beach trail
- Discover Pass Required *
- See our online calendar for additional stream bug monitoring events in Thurston County.

Stream Bug Monitoring Schedule

Tues., June 25

10 a.m. – 1 p.m. • Black Lake Ditch

Tues., July 2

4-6:30 p.m. Mission Creek

Tues., July 9

4-7 p.m. Schneider Creek

Wed., July 10

4-6:30 p.m. Ellis Creek

Sat., July 13

10 a.m. – 1 p.m.
Percival Creek @ SPSCC

Directions to sites will be sent prior to sampling date.

Register online. For more information, contact Michelle at mstevie@ci.olympia.wa.us.

For Percival Creek event, contact Meridith at 360-754-4148 or mgreer@ci.tumwater.wa.us.



CREDIT: MICHELE A BURTON PHOTOGRAPHER

BEACH SEINE

- Mon., July 29
- 6 p.m.
- Priest Point Park: East Bay Drive, Olympia
- Main beach trail past Shelter #2

Priest Point Park Beach Seine

Puget Sound is a complex estuarine ecosystem with diverse, highly interconnected food webs. Together they support more than 200 species of fish, 100 species of marine birds, 26 types of marine mammals and thousands of smaller organisms. Join Stream Team and Washington Department of Fish and Wildlife biologists as we cast the net to see what critters we will find off the shores of Priest Point Park! Participants can help pull the net to shore to see the different species caught. Biologists will identify and talk about each species found in the net, and discuss their importance to the health of our nearshore ecosystems and the challenges they face to survive.

Bring your friends and family, for a fun educational evening at the beach!

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

Featured Creature

California Sea Cucumber

(*Parastichopus Californicus*)



California Sea Cucumber (*Parastichopus Californicus*)

Range: Gulf of Alaska to Baja California.

There are over 1200 species of sea cucumbers identified worldwide. On the west coast of the United States, the California sea cucumber is the largest of the sea cucumbers and one of the most beautiful. They have a long leathery (yet slimy) body that can measure up to two feet and are usually a bright reddish-orange color with projected tentacles. The wall of their bodies is formed by collagen which enables them to loosen or contract, allowing them to fit into tight places to escape predators.

Sea cucumbers do not have a brain or sensory organs, but a complex nervous system. They can be found in low intertidal areas to depths of 250 feet. They prefer hard surfaces and calm water. They feed as they move along

the bottom of the sea, scavenging food such as decaying matter from the ocean bottom sediments. The California sea cucumber has few predators including sea otters, crabs, sea stars, and humans. Sea cucumbers, when threatened, react violently by rearing back and flexing their bodies to avoid being eaten. They will also expel their internal organs and then hide to recover and regenerate their body parts.

The California sea cucumber becomes dormant after mating season, from September to March. Reproductive maturity occurs around age four and it is estimated that they live approximately twelve years. Once mature, they will migrate to shallow waters to spawn which usually occurs late April to August. Sea cucumbers are broadcast spawners and fertilization takes place in open

water. Their free-swimming larva feed on plankton for 35-52 days before settling to the bottom to grow into their adult form. Sea cucumbers go dormant during winter. Prior to which, they will expel their internal organs and regenerate them during dormancy.

California sea cucumbers are commercially harvested for meat and are often dried for shipping to foreign markets. Little is known about their population size, making them susceptible to over fishing. Other potential impacts from fishing include damage to their habitat and being caught in non-selective gear as bycatch.

For an up close and personal look at California sea cucumbers, visit us this summer at Marine Creature Mondays! See page 5 for details.



DRAGONFLY LECTURE ••

- Sat., Aug. 10
- 10 – 11:30 a.m.
- LOTT WET Science Center,
500 Adams St. NE, Olympia
- Field trip to follow at a
local wetland

The Amazing Life of Dragonflies with Dennis Paulson

Dragonflies and damselflies are stunningly beautiful insects that can be observed like birds and butterflies, each specie uniquely identifiable.

Join Stream Team and guest speaker Dr. Dennis Paulson, for a fascinating talk and field trip covering species identification and the life history of dragonflies.

Dr. Paulson is the retired Director of the Slater Museum of Natural History and biology professor at the University of Puget Sound. One of his primary goals as a biologist has been to blend the science of biology with the study and appreciation of nature. His special research subjects include dragonflies and birds, which he has observed and photographed all over the world.

Dr. Paulson is also the author of Princeton Field Guides, Dragonflies and Damselflies of the West and Dragonflies and Damselflies of the East.

To register for this workshop, visit www.streamteam.info and click on “register”. For more information, contact Michelle at mstevie@ci.olympia.wa.us.

Be a Salmon Steward!

Kings, Silvers, Tyee, Blackmouth, Blueback, Reds, Pinks & Humpies... What do these names all have in common? Salmon!

Each year, adult salmon make their journey back to the stream in which they hatched or imprinted to spawn. Some species travel a short distance, while others swim thousands of miles to complete their lifecycle.

Imagine learning about this northwest icon and being able to share the excitement of their return with others! Interested? Join Stream Team at our upcoming trainings, and become a Salmon Steward!

At the trainings, Salmon Stewards learn basic salmon life history, the 4 H's limiting salmon survival and co-management of the salmon fishery. Stewards will also learn about the Deschutes River hatchery Chinook and South Sound Chum salmon.



CREDIT: MICHELLE BURTON PHOTOGRAPHER

Salmon Stewards "staff" three popular salmon viewing locations:

Late August/September	▶ 5th Avenue Bridge
Mid September/early October	▶ Tumwater Falls Park
November/early December	▶ McLane Creek Nature Trail off Delphi Rd SW

Each location has a unique story related to the history of salmon and people in the South Sound. These trainings are designed to provide the information needed to be successful as a beginner Salmon Steward.

Required Training:

All new Salmon Steward volunteers must attend the three basic trainings and at least one of the field trainings.

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



Date	Time / Location	Content
Tues., July 16	6 – 8 p.m. / Olympia City Hall	Basic Training Part 1: Life History Cycle
Tues., July 23	6 – 8 p.m. / Olympia City Hall	Basic Training Part 2: The 4 H's: Habitat, Hatcheries, Hydro-Dams, Humans
Tues., July 30	6 – 8 p.m. / Olympia City Hall	Basic Training Part 3: Harvest Management
Fri., Aug. 16	9:30 – 11 a.m. / 5th Avenue Bridge Dam	Field Training: Docent Skills, Dam Operation
Sat., Sept. 14	10 a.m. – 1:00 p.m. / Tumwater Falls Park	Field Training: Docent Skills, Hatchery Operation, History Walk

McLane Creek Chum Training:

Trained Salmon Stewards who would like to steward at McLane Creek Nature Trail must attend a brief indoor training in November and an onsite docent training at the McLane Creek Nature Trail. Look for dates and times in the fall newsletter or on Stream Team's calendar at www.streamteam.info/getinvolved/calendar/. For more information on the McLane Creek Chum Training, contact Ann Marie Pearce at ann.marie.pearce@co.thurston.wa.us

Kids' CORNER

MARINE CREATURE MONDAY



WORD SEARCH

All of these creatures live in Puget Sound. See if you can find them in this word search too!

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

Moon Snail
Barnacle
Sea cucumber

Shore crab
Harbor seal
Octopus
Anemone

Jellyfish
Sea star
Dock shrimp



JUNE

McLane Creek Trail Maintenance

Thursdays, June 6, June 20, July 18, Aug. 15
3 – 5:30 p.m.
McLane Creek Nature Trail, 5044 Delphi Rd
SW, Olympia

Spend an afternoon with us as we help maintain the trails while appreciating the diversity of this wonderful Puget lowland forest. We mindfully trim back growth along the trail, clear the paths of downed limbs, and keep the boardwalks clear—all while enjoying the beautiful plants and wildlife at McLane Creek Nature Trail!

Register online. For more information, contact Samantha at info@nativeplantsalvage.org.

Bats of the Pacific Northwest

BAT TALK (Registration Required)
Fri., June 7 • 7 p.m. • Traditions Café and
World Folk Art, 300 5th Ave SW, Olympia

BAT WALK (Registration NOT Required)
Fri., June 7 • 9 p.m. • Heritage Park on
Capitol Lake, across from Traditions Café

Join us and local bat expert Greg Falxa for a fun, fact-filled bat talk and walk to learn about bat habitat needs, basic bat biology and their unique life strategies.

Register online. See page 6 for details. For more info., contact Michelle at mstevie@ci.olympia.wa.us

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

To Register a Group

go to: [http://streamteam.info/getinvolved/
calendar/register-steps.php](http://streamteam.info/getinvolved/calendar/register-steps.php)



Visit [www.streamteam.info/getinvolved/
calendar/](http://www.streamteam.info/getinvolved/calendar/) for up-to-date events.



Stream Team *Events*



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

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

JUNE

World Oceans Day

**Sat., June 8 • 10 a.m. – 2 p.m. • Tumwater Falls Park,
 110 Deschutes Way, Tumwater**

Learn about plankton, salmon and more with fun, hands on family friendly activities!

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

Monitor Local Streams this Summer

STREAM BUG MONITORING TRAINING
No experience necessary!

**Tues., Jun. 18 • 6 – 8 p.m. • McLane Nature Trail,
 Delphi Road (Discover Pass Required *)**

Sign up for this training and learn how and why "stream bugs" are used as indicators for water quality.

Register online. See page 7 for details. For more info., contact Michelle at mstevie@ci.olympia.wa.us.

**Please note: A Discover Pass is required for parking at this trail. For information about purchasing a pass, go to www.discoverpass.wa.gov.*

STREAM BUG MONITORING SCHEDULE

Tues., June 25 • 10 a.m. – 1 p.m. • Black Lake Ditch

Tues., July 2 • 4 – 6:30 p.m. • Mission Creek

Tues., July 9 • 4 – 7 p.m. • Schneider Creek

Wed., July 10 • 4 – 6:30 p.m. • Ellis Creek

Sat., July 13 • 10 a.m. – 1 p.m. • Percival Creek @ SPSCC

Directions to sites will be sent prior to sampling date.

Register online. See page 7 for details. For more info., contact Michelle at mstevie@ci.olympia.wa.us. For Percival Creek location, contact Meridith at 360-754-4148 or mgreer@ci.tumwater.wa.us. See our online calendar for additional stream bug monitoring events in Thurston County.

Plankton Monitoring Hands-On Science

WHAT'S BLOOMING IN BUDD (Registration NOT Required)

Thurs., June 20 – Aug. 29 • 1 – 2 p.m.

First, second and third Thursdays of the month

Port Plaza Dock near Anthony's Homeport, Olympia

WHAT'S LIVING IN LONG LAKE (Registration NOT Required)

Thurs., June 27, July 25, Aug. 22 • 1 – 2 p.m.

Long Lake Park, 2790 Carpenter Road, Lacey

Join Stream Team as we partner with Pacific Shellfish Institute (PSI) to see what plankton is present and blooming in Puget Sound and Long Lake. PSI will perform weekly citizen monitoring activities on Thursday afternoons where participants assist in collecting plankton samples, measuring temperature, salinity and other water quality parameters. Samples are then viewed under a field microscope to identify what is found.

See page 12 for details. For more info., contact Michelle at mstevie@ci.olympia.wa.us.

JULY

Priest Point Park Beach Seine

Mon., July 29 • 6 p.m.

Priest Point Park, East Bay Drive, Olympia

Main beach trail past Shelter #2

Join Stream Team and Washington Department of Fish and Wildlife biologists as we cast the net to see what critters we will find! Participants can help pull the net to shore to see the different species caught.

Register online. See page 7 for details. For more info., contact Michelle at mstevie@ci.olympia.wa.us.

Marine Creature Mondays

Mon., July 15 or July 22 or July 29

Mon., Aug. 5 or Aug. 12 or Aug. 19

Two sessions: 11:30 a.m. or 1 p.m.

Open only to Thurston County residents.

(Registration Required)

At this popular all-age-event, you will get to experience first-hand what lives below the surface of Puget Sound. Come find out what wonders the divers will find!

Register online. Please only sign up for one session, space is limited. Open only to Thurston County residents. See page 5 for details. For more info., contact Michelle at mstevie@ci.olympia.wa.us.

Be A Salmon Steward!

BASIC TRAINING

Tues., July 16, 23, 30 • 6 – 8 p.m. • Olympia City Hall

All new Salmon Steward volunteers must attend the three Basic Trainings and at least one of the field trainings. These trainings are designed to provide the information needed to be successful as a beginner Salmon Steward.

FIELD TRAINING

Fri., Aug. 16 • 9:30 – 11 a.m. • 5th Ave Bridge, Olympia

Sat., Sept. 14 • 10 a.m. – 1 p.m. • Tumwater Falls Park

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

Register online. See page 9 for details.

AUGUST

The Amazing Life of Dragonflies with Dennis Paulson

Lecture: Sat., Aug. 10 • 10 – 11:30 a.m.

LOTT WET Science Center, 500 Adams St NE, Olympia

Field trip to follow at a local wetland

Dragonflies and damselflies are stunningly beautiful insects that can be observed like birds and butterflies, each specie uniquely identifiable.

Join Stream Team and Dr. Dennis Paulson, author of Princeton Field Guides, Dragonflies and Damselflies of the West and Dragonflies and Damselflies of the East, for a fascinating talk and field trip covering specie identification and the life history of dragonflies.

For more info., contact Michelle at mstevie@ci.olympia.wa.us. Register online. See page 8 for details.



2000 Lakeridge Dr SW
Bldg 4 #100
Olympia, WA 98502
streamteam.info

Plankton Monitoring Hands-On Science

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During the warm summer months' harmful algae blooms may be detected. Data results are reported to both the Departments of Health and Ecology to help identify and track harmful algae blooms such as those that produce paralytic shellfish disease toxins. Drop in at both locations to join the fun!

PLANKTON MONITORING

WORLD OCEANS DAY

- Sat., June 8 • 10 a.m. – 2 p.m.
- Tumwater Falls Park, 110 Deschutes Way, Tumwater
- Family friendly!

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