

Stream Team

NEWSLETTER

Olympia • Lacey • Tumwater • Thurston County

FREE

Disappearing Forest



Inside...

Farewell to Our Supporters: Susie & Anne | 2
Fall & Winter is the Time to Plan! | 3
Volunteer Spotlight: Debbie Villines | 4
Focus on Phosphates | 5
Vehicle Safety Inspection and Leak Check | 6
A Beneficial Local Visitor: The Garter Snake | 6

Find Sammy the Salmon | 7
Lawn Care for Fall | 8
Household Tips to Protect Our Water
from Nitrates | 11
Welcome the Salmon:
Chum & Chinook | 12

Nisqually Watershed Tour & Festival | 13
Kids' Corner | 14
Calendar of Events | 15
Haunted Hike | 16

FALL EDITION
Sept–Oct–Nov 2012

ON THE COVER: Lifetime Stream Team volunteers Miles (the racoon), Bodhi (the bear) and Raven (the raven) getting ready to help tell the frightening story, "The Tale of the Disappearing Forest" at the Haunted Hike. See back cover for details!

Long-time Stream Team Supporters Retiring

Susie Vanderburg

In the fall of 1992, Susie Vanderburg helped form the regional Stream Team program. Highlights of the program for her over the years include developing the benthic macroinvertebrate (stream bug) monitoring program and the "Meet the Trees" annual field class. Both of these Stream Team programs are still going strong.

When asked of her fondest memory of Stream Team, Susie responded with, "The volunteers. So inspiring to meet them, learn their stories and work alongside them!"

Susie will remain in South Sound and hopes to enjoy a more leisurely pace of doing what she loves: gardening, hiking, meeting new people and learning new things. She also had an adorable two-year-old grandson, AJ to dote on!

Congratulations on your well-deserved retirement, Susie, and thank you for all of your contributions toward making Stream Team the success that it is today.



Susie Vanderburg (left) and Anne Mills (right)

Anne Mills

Long time South Sound GREEN (Global Rivers Environmental Education Network) coordinator, Anne Mills has just begun to enjoy her much deserved retirement. All of us at Stream Team want to thank her and wish her well!

Anne is an amazing environmental educator, and, for 10 years, she worked tirelessly in bringing watershed-based, hands-on science education to countless teachers and their students throughout the South Sound. From water quality testing, action projects and Student Congress events to an amazing nearshore marine field trip program, Anne has brought water resources education alive for thousands of students in South Sound.

Anne will be missed, but the good news is that South Sound GREEN, a program of the Thurston Conservation District, is in good hands and will continue to be a partner with Stream Team in bringing watershed education to South Sound teachers and students.

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.

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: Erin Keith

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

IN OLYMPIA:

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

Attn: Patricia Pyle

Tel: 360-570-5841 TDD: 360-753-8270
ppyle@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: Chris Maun or Ann Marie Pearce

Tel: 360-754-3355 EXT 6377
TDD: 360-754-2933
maunc@co.thurston.wa.us

NEWSLETTER CONTRIBUTORS:

Erin Keith (Editor), Ann Marie Pearce, Chris Maun, Patricia Pyle, Michelle Stevie, Debbie Smith and Katie Klaniacki

DESIGN & LAYOUT:

Azure Summers Graphic Design
design@azuresgd.com

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)

Create a Backyard Habitat

Fall and Winter is the Time to Plan!

What is a backyard habitat?

A backyard habitat is created by converting urban landscapes into mini ecosystems that support birds, butterflies and a variety of other species. By planting native plants or incorporating simple structures, you can restore habitat components and make your yard more inviting to wildlife.

How to develop your wildlife habitat

There are four basic features that you need to provide to create sustainable wildlife habitat: *food, water, shelter and nesting*. If you wish to attract different types of wildlife species, you will need several types of native plants, as each species has unique habitat needs. The more diverse your plant selections, the more diverse the wildlife species you can attract.

- ✓ **Food:** Provide at least three types of food: seeds, berries, leaves, nectar or nuts. Choose plants suitable for our climate that do not demand many resources, such as water.
- ✓ **Water:** Provide at least one source for drinking and bathing. Water sources will attract more species to your backyard. Plant around streams, ponds and bird baths to provide cover and to keep your water source cool.



- ✓ **Cover:** Every species requires shelter from weather and hiding places from predators. Provide multiple cover choices such as wooded areas with shrubs, brambles, evergreens, brush and rock piles, meadow and pond-like areas. You do not need a large space to provide cover, even potted plants provide cover.

Make a Plan!

Planting both trees and shrubs together creates a multi-level habitat structure that provides food and shelter for wildlife. A mix of conifer and deciduous trees can provide multiple species with different habitat types.

Native herbaceous plants also provide food and cover, and they are adapted to local growing conditions. Select plants that flower and bear fruit at different times of the year. Planting flowering plants provides nectar for hummingbirds, bees and butterflies. Take care not to plant ornamental species that are invasive, such as butterfly bush, English ivy and holly, as these species can take over native habitats and cause habitat loss. Happy planning!

- ✓ **Nesting:** Leave dead and dying trees, when possible, as they provide essential cavity habitat and food for many wildlife species, including birds and bats. Few urban sites are fortunate enough to have dead trees, so habitat may need to be supplemented by providing houses for birds, bats and other species. Build bird houses of different sizes to accommodate specific species.

For more ideas & information

- Thurston County Guide to Noxious Weeds: www.co.thurston.wa.us/tcweeds
- WA Department of Fish & Wildlife: www.wdfw.gov/living/backyard
- Thurston County-WSU Extension Native Plant Salvage: www.nativeplantsalvage.org
- National Wildlife Federation: <http://www.nwf.org>

Free Sustainable Landscaping Class: Naturescaping for Water & Wildlife



Thurs., Nov. 8 • 6 – 9 p.m. • Tumwater

Are you interested in learning about landscaping practices that will reduce your water bill, time spent mowing and on maintenance chores? Or, perhaps, you want to learn about creating a beautiful landscape that will attract birds, butterflies or other wildlife. You can learn about all this and much more at Stream Team & Native Plant Salvage Project's *Naturescaping for Water and Wildlife* workshop.

Participants will receive lots of free handouts and helpful tips to create more attractive and sustainable landscapes. To register, or for more information, please email nativeplantsalvage@gmail.com or call 360-867-2166.



Debbie Villines

Debbie Villines recently returned to her native South Sound from Denver, Colorado, where she had been working as a high school Spanish teacher. In her short time with Stream Team, Debbie has proven to be an outstanding volunteer.

Debbie's background in education has given her a unique skill set to be able to teach others effectively. And, like many educators, she has a thirst for new knowledge herself. No matter the subject matter, from yard care to shorebird monitoring, Debbie has attended nearly every workshop and field class Stream Team has offered. Her curiosity about the natural world and her ability to teach make her a perfect match for Stream Team education programs.

Debbie completed the Stream Team Salmon Stewards training in 2011, and has served as a Salmon Steward at various locations. Debbie is comfortable engaging with a wide variety of audiences, but she has been particularly valuable in assisting with fall school field trips to the WDFW Tumwater Falls Chinook Fish Facility.

Whenever Stream Team needs an education volunteer, Debbie has jumped in enthusiastically. She particularly enjoys teaching the salmon life cycle bead activity and has done so at both the Stream Team Water Fun Day at the Tumwater Timberland Library and the Tumwater Middle School 7th grade Field Day at Percival Creek. Even automobile mechanical problems could not stop her from helping out at the Stream Team booth during the Yelm Home & Garden show.

Debbie also lent a hand with the marine creature button-making machine at the Poseidon's Adventure event attended by over 3,000 people. Anytime Stream Team needs assistance, Debbie is always available to lend a hand. Her easy smile and enthusiasm makes her a pleasure to work with and be around.

Thank you, Debbie, for your service to Stream Team. We are lucky to have you, and look forward to continuing to work with you in the years to come!



Fall Leaves = Free Compost

Falling leaves signal the return of autumn. Fallen leaves can be a nuisance, but they can also be quite beneficial to our gardens. This fall, as you rake leaves on your lawn, put them to good use around trees and shrubs. The fallen leaves will help protect your plants from the cold winter and provide nutrients to the soil around your plants as they decompose. Or, you can compost your leaves along with kitchen scraps and other yard waste to make a rich compost to add to your gardens. You can also put your vegetable garden to sleep with a covering of leaves, which will breakdown over the winter adding nutrients to the soil.

And while you have your rake out, check nearby storm drains to make sure they are not covered with leaves and other debris. If so, rake or sweep up the debris. Keeping storm drains clear of leaves and debris will help prevent localized flooding in your neighborhood.

Focus on Phosphates

Phosphorus is a naturally occurring element and a crucial nutrient for plant growth. In abundance, however, phosphorus can cause many problems in our waterways. In Washington, at least 260 water bodies are polluted because of nutrients like phosphorus. Increased phosphates accelerate plant and algae growth.

Bacteria that feed on dead plants and algae consume more oxygen in the water, leading to less available oxygen for aquatic life. Some of the most common causes of phosphorus pollution are nonpoint household sources like fertilizers, leaking septic tanks and pet waste.

The State of Washington has already taken many steps to reduce the amount of phosphates being washed down our pipes. Since 1994, phosphates levels of over 0.5% have been banned in laundry detergent; since 2010, dishwashing detergents with over 0.5% phosphorus have also been banned. Phosphate-free laundry and dishwashing detergents are widely available in local stores.

Effective January 1, 2013, lawn fertilizer for sale in Washington must not contain any phosphorus unless the use of a soil test shows a Phosphorous deficiency. Since South Sound soils tend to contain naturally-occurring phosphorus. (Existing supplies are allowed to be used up.)

On front of the bags of fertilizer, there are usually three numbers listed prominently on the bag. These numbers correspond to the amounts of nitrogen, phosphorus and potassium (N,P,K). Look for bags with 0 as the middle number to avoid phosphorus.

While laws go a long way to decrease phosphates released into our waterways, there are still many things that you can do:

- Read labels and buy phosphate-free laundry and dish detergents
- Get your lawn's soil tested to determine any fertilizer needs
- Use slow-release, phosphate-free fertilizer on your lawn, if needed
- Keep fertilizer off of hard surfaces and sweep any up that gets on sidewalks.
- Put food scraps in a compost or worm bin, not down the garbage disposal
- Maintain your septic system and regularly check for leaks
- Pick up your pet's waste; every dog, every doo, every time



One pound of phosphorus can grow 700 pounds of algae.

A Beneficial Local Visitor: The Garter Snake

The common garter snake (*Thamnophis* species) is one of our most beneficial backyard visitors. Garter snakes are non-venomous and cause no harm to humans. Garter snakes are found in a wide variety of habitats, from coastal and mountain forests to shrub steppe deserts. They are usually found close to water, meadows, wetlands or other wet areas (such as your garden). Garter Snakes are

common in urban areas where there is adequate cover, such as large rocks, logs and debris in which to hide. All snakes are very important to the food chain and eat a variety of prey, many of which we consider to be “pests”. Prey species include rodents (mice and voles), snails and slugs, insects, fish and amphibians.

Garter snakes have a highly variable color pattern. The underside is a pale, grayish- blue. Colored red, orange, yellow, green or blue stripes run along the top length of the body. Males are generally smaller than females, up to 2 or 3 feet, and have longer tails. When disturbed, garter snakes will try to escape, but, if threatened, they secrete a foul-smelling substance.

Snakes are ectotherms, or cold-blooded animals, regulating their body temperature from external sources such as basking in the sun. Garter snakes are active mainly during the day. They hibernate from late October through March and can sometimes be seen basking on rocks during mild winter days. Common garter snakes hibernate in natural cavities or burrows, such as rodent burrows, under rock piles or in stumps over winter. They are mainly solitary, but they can congregate, lying together forming tight coils to prevent heat loss during the night and when they hibernate over the winter.

When the snakes emerge from hibernation in the spring, they begin to mate. Males attract females by releasing pheromones. After the female has mated, she will return to her summer habitat to feed and to find a suitable birth place. Garter snakes are ovoviviparous, meaning they bear live young. Upon birth, the young are independent and must find their own food.



Vehicle Safety Inspection & Leak Check

“Lights On” @ South Puget Sound Community College
Thurs., Oct. 4 • 11 a.m. – 7 p.m.
SPSCC Building 16 (Follow the Signs)

Every quarter (except summer), South Puget Sound Community College Automotive Club sponsors free vehicle inspections. This fall, the inspection will include information and instruction on how to check for automotive leaks. No reservations necessary. Donations accepted. Stream Team is providing a free car wash incentive when you check for vehicle leaks at home.

Go to www.checkforleaks.info for more information.

- ✓ Wiper Blade Inspection
- ✓ Fluids Level Check

- ✓ Tire Pressure Check
- ✓ Vehicle Leak Check

- ✓ Lights Inspection and Replacement

If you are interested in incorporating habitat spaces in your garden for garter snakes, follow these tips courtesy of the Washington Department of Fish and Wildlife:

- Protect hibernation sites and other areas used by snakes.
- Mow at slow speeds and be ready to step on the clutch or brake. Leave grass unmowed in places that adjoin a wet area, sunny forest edge, or any other known snake habitat. If the grass has to be cut, survey the area and move any snakes to a safe location prior to mowing. Set the mower blades as high as possible, or use a weed-whacker and leave grass six inches high.
- Build a small, fish-free (fish eat all stages of amphibians) pond for amphibians. Many snakes, and garter snakes in particular, feed on tadpoles, adult frogs and invertebrates found in and around ponds.
- Build a rock wall or a rock pile with crevices for snakes to escape from severe weather and predators, to find food and to give birth (Fig. 7)
- Create a “snake board” by laying a sheet of plywood or corrugated sheet metal on

the ground in a sunny location, propping it up on three sides with 3-inch rocks, lengths of plastic pipe, or similar objects. (Fig 8) In cool areas, paint the top black or cover it with dark asphalt shingles to increase the temperature below the board.

- Place habitat-enhancement features, such as snake boards and rock piles, away from driveways or heavily traveled roads to avoid vehicle/reptile interactions.
- Discourage cats and dogs from hunting in your yard. If allowed, they are effective hunters and can severely impact snake populations.
- Encourage your friends and neighbors to preserve wildlife habitat on their property, especially property that adjoins yours.
- Support public acquisition of greenbelts, remnant forests and other wild areas in your community.
- Join a local conservation organization or a habitat enhancement project.



Figure 7. Build a rock wall or a rock pile with large crevices for snakes to escape from severe weather and predators, to find food, and to give birth. (Drawing by Jenifer Rees.)

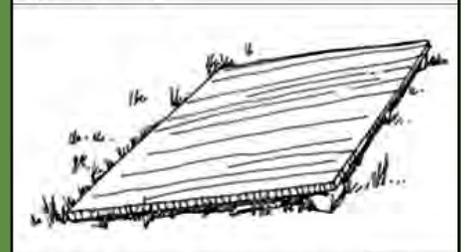


Figure 8. Snakes will seek out the shelter of a “snake board” in areas where similar types of shelter is lacking. (Drawing by Jenifer Rees.)

If you are interested in incorporating other water and wildlife-friendly features into your yard, join us for the free **Backyard Sanctuary Workshop** on November 15. See page 3 for details.

Find Sammy The SALMON

hiding 5 times in this newsletter
and be entered into a drawing for a free
Stream Team stainless steel water bottle!

To be entered into the drawing, send an email with your name and mailing address to info@streamteam.info with the page numbers where you found Sammy.

Prize drawing will be held in November.



Lawn Care for Fall

The autumn months are perfect for doing work on your lawn. Work done in these months will prepare your lawn for overwintering and the following spring and summer months. The goal is to improve the overall health and appearance of your lawn while saving money, time and water and reducing chemical use. Whether you are someone who is meticulous about your lawn or someone who prefers a care-free lawn, in both cases the grass may be stressed and in poor health. These steps will help your lawn look better and be healthier.

- ▶ Identify areas where the grass is clearly doing poorly, and replace with a garden of native shrubs and perennials. Grass will always do poorly and require high maintenance and inputs under the shade of mature trees and in poorly draining soils. The removal and replacement of the grass can be done in stages. Learn about the wonderful plants that can bring birds and other wildlife to your yard by taking the free Naturescaping Workshop offered by Stream Team and WSU Native Plant Salvage Project on November 8. Or, if you want to get started sooner, get low cost, beautiful native and nonnative drought tolerant plants and expert advice at the Native Plant Salvage plant sale on September 30 (see page 15 for more details).
- ▶ Determine the pH, fertility and compaction of your soil. Grass needs nutrients that are taken up by the roots from the soil. Applying chemical fertilizers and pesticides will not fix the soil. Just like in a vegetable garden, the lawn's soil needs to be improved to support the plants. Get a soil test done from Thurston Conservation District (360-754-3588) or Black Lake Organics (360-786-0537) where, for a small fee, you will receive a comprehensive analysis that includes soil texture and recommendations for soil improvement. You can also purchase an inexpensive soil test kit from a garden store.

Soils in Western Washington are naturally acidic (under 7 on the pH scale). Turf grasses prefer a pH between 5.5 and 7. If the pH of your soil is above 5.5, there is no need to add lime. According to WSU fact sheet *The Role of Lime in Turf Management*, "Lime is not a cure-all for many common problems of lawns. The most important role of lime is to maintain pH between 5.5 and 7.0, which is the most favorable range for bacterial breakdown of organic residues and the availability of other plant nutrients. Lime will not control lawn moss and most other weeds in the Pacific Northwest."

Fertilizing the lawn is complicated. This is why fertilizer companies have developed general use "recipe" type products. Using these products bypasses knowing your soil needs as well as improving the soil. It's best to learn your soil's fertilizing needs with a soil test, improve your soil with aeration and the addition of fine compost and over-seeding, and, if needed, apply a slow-release type fertilizer according to the recommendations from the soil test.



How to understand a fertilizer label

The three numbers on the fertilizer label represent the N-P-K ratio. The numbers are always in the same order and represent the percentage of nitrogen, phosphorus and potassium in the fertilizer.

- N-Nitrogen promotes strong leaf growth
- P-Phosphorous encourages roots, flowers, seeds and fruit
- K-Potassium is critical for overall plant health

Fertilizers with larger numbers (such as 29-2-3 or 18-16-10) are typically "quick release", with all the nitrogen released immediately. These fertilizers are made with ammonium sulfate, urea and ammonium nitrate. Very small amounts of this type of fertilizer is needed, and it's tricky to spread a little amount of fertilizer over a large area. Over-fertilizing with quick-release fertilizers is common. Because quick-release fertilizer is highly soluble, over-fertilizing can burn the grass, cause plant stress and pest and disease problems. It can also create polluted runoff that can harm our rivers, streams, lakes and groundwater.

Slow-release fertilizers are an excellent alternative to avoid these pitfalls. Slow-release fertilizers can be natural or organic fertilizers, or "coated" chemical fertilizers that are gradually released. Look for at least 50% *insoluble* nitrogen on the label.

Always use a properly calibrated spreader getting fertilizer on sidewalks, curbs and up and throw away any fertilizer

Note: The new Washington State Turf-fertilizer law effective 2013. This law limits the use of lawn fertilizers that contain phosphorus when establishing new lawn, repairing damaged grass, or on lawns determined by a soil test.



(You may have to ask a staff person at the store to assist you to find it, since the majority of fertilizers contain a highly soluble nitrogen source.)

Avoid purchasing fertilizers with insect, disease or weed “control”. These products allow broad application of herbicides and/or pesticides all over your yard. Spot treatment, whether by hand pulling or an appropriate herbicide, is more effective, cheaper and less polluting. In addition, some weed products contain herbicides or pesticides that target species that are not even present in the Pacific Northwest. These are a waste of money as well as potentially harmful.

Fertilizer recommendation from Washington State University:

- 1 x per year. Sept.
- 2 x per yearSept. & June
- 4 x per year Sept., June, April, Nov.

For potassium, the fall fertilization will encourage deep root growth, so equal ratios of N and K are recommended, such as 6:1:6. A 3:1:2 ratio has been recommended for spring fertilizing. Apply no more than 1 pound of nitrogen per 1,000 square feet per application. Check the weather, and apply before a light rain.

Use a broadcast fertilizer spreader and avoid driveways and the road. Sweep fertilizer that spills onto pavement.

RCW 15.54.500 takes effect on January 1, 2012. It requires that you obtain phosphorous to the following situations: when the soil is deficient in phosphorous as



Check for soil compaction

Can you easily push a screw driver into the ground without pounding? If not, your soil is compacted and this keeps air, water and nutrients from entering the soil. Compacted soils have less microbial activity. Grass grown in compacted soils has shallower roots, more thatch and is generally weaker. If your soil is compacted, use a hand corer or mechanical aerator to punch holes through the grass and into the soil. Thurston County and the cities of Olympia and Tumwater will subsidize a one-day rental of an aerator when at least three neighbors agree to aerate their lawns together. (Conditions apply. For more information, contact a Stream Team coordinator listed on the inside front page.)

Overseed for a thicker healthier lawn

Fall is a great time to reseed bare and thinning areas of your lawn. Select a grass blend that is suited for your soil and light conditions. In Western Washington, the recommended types of turf grasses are perennial ryegrass, fine-leaved fescues, bentgrasses and turf-type tall fescues. Kentucky bluegrass is not recommended for Western Washington. Each grass type has its own characteristics for sunlight needs, durability and other conditions (see chart).

Aerate your lawn, spread a 1/4 inch of loam soil or fine compost over the grass, then sow grass seeds. Water and fertilize with slow-release fertilizer. Water frequently to keep the soil moist until grass is established.

▷ continued on page 10

...fall is a great time to reseed bare and thinning areas...





▷ continued from page 9

Know how to recognize and measure thatch

Thatch is a brown, straw-colored layer of living and dead stems, leaves and roots which accumulates between the green grass and the soil. A small thatch layer (less than 1/2 inch) is helpful, as it functions like mulch in a flower bed to conserve water and block weeds. Too much thatch, over 1/2 inch, is a sign of unhealthy grass. Excessive thatch blocks water, nutrients and air from reaching the roots. Once thatch is over 1/2 inch, it needs to be removed using a dethatching machine. Early fall or spring are good times to dethatch and reseed with half the seeding rate amount recommended for a new lawn. Following the dethatching, lawn care practices should be changed to avoid thatch build up in the future.

Watering deeply once per week, fertilizing lightly and infrequently, aerating annually, avoiding chemicals and using a higher mow deck setting are all practices to follow to keep thatch at a healthy level.

More tips and detailed information, including fact sheets and how-to instructions, are available on the Stream Team website:

www.streamteam.info

under the “Actions for Clean Water” tab.

Choose Your Turf

	Shade tolerance	Drought tolerance	Mowing ht (in inches)	Characterisitcs
Perennial rye	Low	Low	1.5	High wear tolerance; little thatch; blends well w/other grasses
Tall fescue	High	High	2	Deep roots; can grow in moderately wet soils; drought tolerant only if grass roots are deep
Fine fescue	Highest	Highest	1.5	Tolerates light wear, but slow to recover from excessive wear; low maintenance grass; develops thatch more easily
Colonial bentgrass	Medium	Medium-low	.75	Produces a lot of thatch; mowed short; high maintenance

Help the Salmon: 7 Chemicals to Avoid

2,4-D	Broadleaf weed killer, used in “weed & feed” type products
Carbaryl	Sevin insecticides, any combination slug/insect baits
Diazinon	Insecticide
Diuron	Direx herbicide
Malathion	Malathion insect sprays
Trifluralin	Preen herbicide
Triclopyr BEE	Crossbow herbicide

By law, retailers selling pesticides and fertilizers containing these chemicals must display salmon warning information. Some stores and distributors have not complied with the court order, so it is important for you to know your chemicals.

REFERENCES:

- ▷ *Grow Smart, Grow Safe: A Guide to Lawn and Garden Products, Sixth Edition*, is a joint publication of Metro regional government of Portland, Oregon and the Local Hazardous Waste Management Program in King County, Washington. 2009
- ▷ *Principles of Turfgrass Management, Water Use and the Healthy Lawn*, brochure from Seattle Water Department, the Everett Public Works Department and Tacoma City Water based on information provided from Washington State University Research and Cooperative Extension turfgrass specialists.
- ▷ *Phosphorus and Home Lawns: Quick Facts and Recommendations*, Washington State University Extension Fact Sheet – FS058E
- ▷ *Home Lawns*, Washington State University Extension Fact Sheet – EB0482
- ▷ “*Toward a Low-Input Lawn*,” feature article from *Watershed Protection Techniques*. 2(1): 254-264. Article 130. *The Practice of Watershed Protection*, Center for Watershed Protection, 2000

Still scratching your head about what to do with your yard?

Stormwater Stewards are trained volunteers, similar to Master Gardeners, who make house calls to give you suggestions on natural yard care, replanting with native plants, dealing with stormwater, installing rain gardens, setting up water catchment and lots of other options for keeping stormwater runoff clean and infiltrating close to where it falls.

To arrange a visit, contact Erica Guttman at 360-867-2166 or nativeplantsalvage@gmail.com.



Household Tips to Protect Our Water from Nitrates

Nitrate is a chemical found in fertilizers, animal manure and human waste. It can also occur naturally in soil. Nitrates also travel through the soil down into groundwater, which is the main source of our drinking water here in Thurston County.

Because exposure to nitrates can reduce the ability of red blood cells to carry oxygen, it can be a serious health threat, especially to pregnant women, the elderly and infants. For this reason, it is important to take steps in our homes and yards to prevent possible future contamination to our waters.

Follow these tips:

- ✓ **Use fertilizer sparingly**
 - Test your soil to determine the amount of fertilizer needed
 - Fertilize with the proper amount once in fall and/or spring, if needed
- ✓ **Water wisely**
 - Limit watering of lawns to one inch of water per week
 - Aerate your lawn to encourage water to seep into roots
- ✓ **Dispose of pet waste properly**
 - Always pick up and bag dog poop and place in trash
 - Always bag litter from cats and other small pets and place in trash
 - Drain aquariums to the sanitary sewer through a toilet or sink, if possible
- ✓ **Manage hobby farm manure**
 - Pick up manure and keep it off the ground and under cover
 - For free help to manage manure and improve pastures, contact Thurston Conservation District at www.thurstoncd.com or 360-754-3588
- ✓ **Maintain your home's sewer system**
 - Only flush what comes out of your body and toilet paper
 - Call a plumber if you notice any unusual wet spots and/or odors in your home or yard
- ✓ **Maintain your home's septic system**
 - Have septic systems inspected and pumped a minimum of every 3-5 years
 - Hook up to public sewer system, if available, for more effective treatment

Visit www.epa.gov/safewater to learn more about nitrates in drinking water.





Photo courtesy of Jamie Glasgow

See the King of Salmon—Chinook—in Your Backyard

- ▶ 5th Avenue Dam until mid-September
- ▶ Tumwater Falls Park from early September to mid-October

Stream Team Salmon Stewards will be at these locations on week day evenings and weekends to answer questions about the salmon. For more information, contact Patricia (5th Avenue Dam) at ppyle@ci.olympia.wa.us or 360-570-5841 or Debbie (Tumwater Falls Park) at dmsmith@ci.tumwater.wa.us or 360-754-4148.

Welcome the Chum Salmon to McLane Creek

Whether you are new to the area or have lived here for years, it is always a sight worth seeing to view the chum salmon spawning in McLane Creek at the McLane Creek Nature Trail. The nature trail is located off of Delphi Road in west Olympia. A short walk along the trail, past the beaver pond and through an array of native trees and shrubs, will take you to the creek where the magnificent and colorful chum return to spawn every fall. With their dark purplish-black coloring, they are truly a sight to see as they dig their nests and vie for optimal spawning positions.

Every year, Stream Team trains Salmon Steward volunteers to greet people walking along the nature trail and answer the questions people may have about the wild, native run of chum salmon. The chum return to spawn in early November through mid-December, once the rains have helped the water levels to rise. If you are interested in being a Salmon Steward at the McLane Creek Nature Trail, Stream Team will be hosting a field training on Saturday, November 10 from 9 a.m. – 12 p.m. For more information, or to register for the training, contact Ann Marie at pearcea@co.thurston.wa.us or 360-754-3355 ext. 6857.

Note: the McLane Creek Nature Trail is part of the Capitol State Forest and is a WA State Dept. of Natural Resources (DNR) Recreation Site. A Discover Pass parking pass is required when visiting state recreation lands managed by the WA State DNR and WA Dept. of Fish & Wildlife. For information about how to purchase a \$10 day pass or \$30 annual pass, visit www.discoverpass.wa.gov (Salmon Stewards are granted free temporary parking passes.)



Nisqually Watershed Tour

Sat., Sept. 15 • 9:30 a.m.–Noon

Join Stream Team on this fantastic free tour to learn more about the greater Nisqually Watershed. The tour will begin at Lacey Community Center and will feature stops at a variety of interesting features that make this one of the most interesting areas of Thurston County.

The tour is free, but registration is required. Residents of the Nisqually Watershed will be given priority seating on the tour. Participants will also have the opportunity to help improve the health and water quality of this area through participating in the *Clear Choices for Clean Water* program on the day of the tour. The program offers many great tools; there is definitely something for everyone!

More information on this tour will be posted on www.streamteam.info.

Which watershed do YOU live in?

Tell us which watershed you live in and be entered into a prize drawing for **2 free car wash tickets** (redeemable at most commercial carwashes in Lacey, Olympia or Tumwater).

If you are not sure, enter your address into the “Parcel Search” at www.geodata.org. Once you find your address, scroll down the page and, near the bottom, you will see the name of your watershed. If you need assistance, just send a request to the Stream Team email address below.

Send your name, address and the name of your watershed to info@streamteam.info with “Watershed Prize Drawing” in the subject line. **Prize drawings will be held September 15, October 15 and November 15.**

Join Stream Team at the 23rd Annual Nisqually Watershed Festival

Sat, Sept. 29 • 10 a.m. – 4 p.m.
Nisqually National Wildlife Refuge
100 Brown Farm Rd NE, Lacey



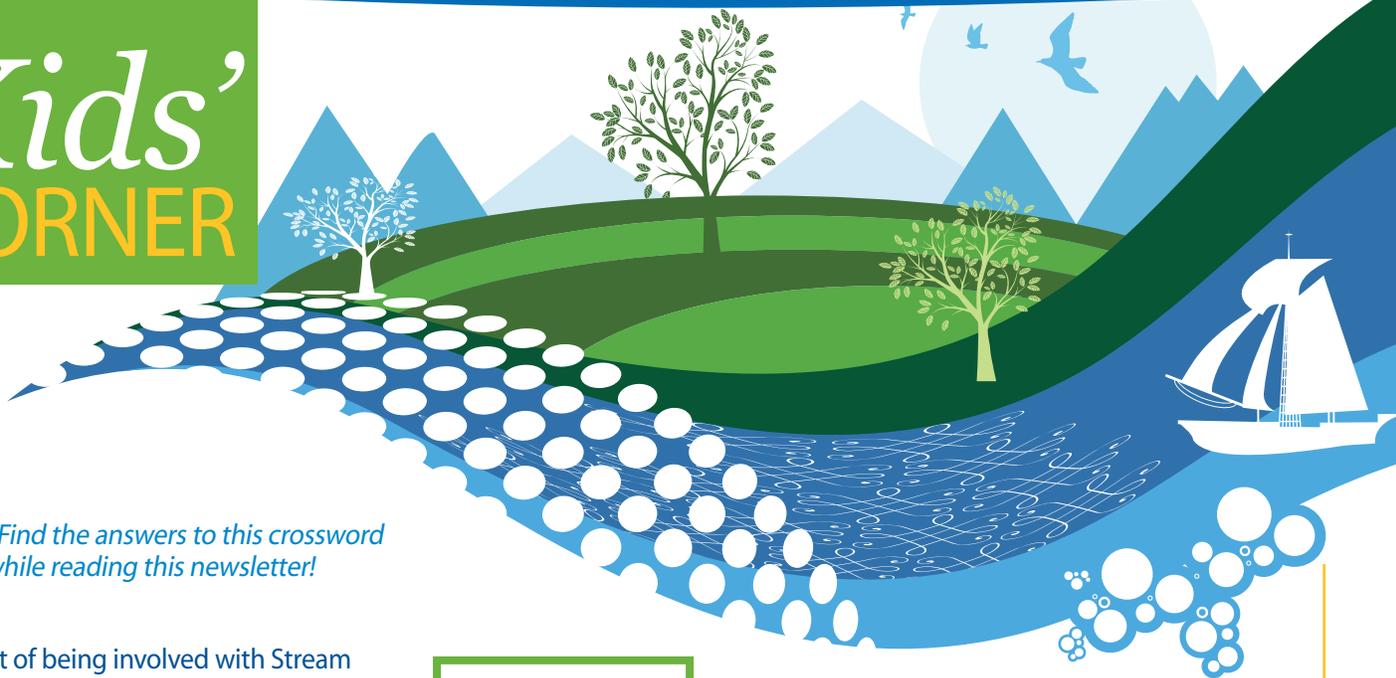
Join Stream Team in celebrating the rich cultural and natural heritage of the Nisqually Watershed! This year’s festival includes a variety of educational exhibits and hands-on activities for kids of all ages, such as salmon fish printing, plywood fish painting, a marine touch tank and much, much more! The festival main stage will feature live reptiles and birds of prey, music and dancing. The Red Salmon Story Tent will be back along with the City of Olympia’s Drain Dare trailer for kids. Fin, the Wild Olympic Salmon will also be back.

This year will also mark the 100-year anniversary of the Nisqually River Hydroelectric Project at La Grande. Bring your appetite, as there will be a variety of delicious treats available. The event is FREE, except for the food, so come out and celebrate the history and culture of the Nisqually Watershed!

Stream Team will host the Drain Dare and hands-on activities. If you are interested in volunteering at the Stream Team booth, contact Ann Marie at pearcea@co.thurston.wa.us or 360-754-3355 ext. 6857.

For more information visit <http://nisquallyriver.org/>

Kids' CORNER



Tip! Find the answers to this crossword puzzle while reading this newsletter!

Across

4. The act of being involved with Stream Team
6. Brown, straw colored layer of living and dead stems on your lawn
7. King of Salmon
9. The name of the watershed that includes McAllister Creek
10. Naturally occurring element crucial for plant growth
14. Beneficial local visitor
15. Naturescaping for Water and _____

Down

1. Yucky substance left on the ground by irresponsible pet owners
2. Every backyard habitat requires food, water, cover and _____
3. Another word for lawn food
5. Chemical found in fertilizers and animal waste
8. An area of land that drains to a single point
10. N, P, K where K = _____
11. Backyard _____ support birds, bees and butterflies
12. The word for precipitation after it hits the ground or rooftops
13. Tale of the Disappearing _____

How do **TREES** get on the internet?

THEY LOG IN!

What do you call a **SNAKE** that **SINGS**?

A "RAP" TILE

How do you know if Puget Sound is **FRIENDLY**?

IF IT WAVES!

Why do salmon swim in **SALT WATER**?

BECAUSE PEPPER MAKES THEM SNEEZE!

What lives in the ocean, is **GROUCHY** and hates neighbors?

A HERMIT CRAB!



Stream Team Events

For additional tree planting dates this fall, go to www.streamteam.info

SEPTEMBER

Tumwater Community Day

Sat., Sept. 8 • 10 a.m. – 1 p.m.

To volunteer in the Stream Team booth, contact Debbie at 360-754-4148 or dmsmith@ci.tumwater.wa.us

Salmon Steward Chinook Field Training/Deschutes River Historical Walk

Sat., Sept. 15 • 10 a.m. – 1 p.m.

Tumwater Falls Park
To register, contact Debbie at 360-754-4148 or dmsmith@ci.tumwater.wa.us

Lower Nisqually Watershed Tour

Sat., Sept. 15 • 9 a.m. – Noon

Lacey Community Center
For more info. or to register, contact Ann Marie @ 360-754-3355 ext. 6857 or pearcea@co.thurston.wa.us

Nisqually Watershed Festival

Sat., Sept. 29 • 10 a.m. – 4 p.m.

Nisqually Wildlife Refuge
100 Brown Farm Rd. NE, Lacey
See page 13 for more info. Volunteers are needed to help staff the Stream Team booth. To volunteer, contact Ann Marie @ 360-754-3355 ext. 6857 or pearcea@co.thurston.wa.us

COMMUNITY EVENTS

Stormwater Pond Workshop

Sat., Sept. 15 • 9 a.m. – 12 p.m.

Tumwater City Hall
To register, contact Chris at @ 360-754-3355 ext. 6377 or maunc@co.thurston.wa.us

OCTOBER

Vehicle Safety Inspection & Leak Check: "Lights on" @ SPSCC

Thurs., Oct. 4 • 11 a.m. – 7 p.m.

South Puget Sound Community College, Building 16. No reservations necessary. Donations accepted.

Return of the Chinook Salmon Celebration

Sun., Oct. 7 • 10 a.m. – 4 p.m.

Tumwater Falls Park
To volunteer in the Stream Team booth, contact Debbie at 360-754-4148 or dmsmith@ci.tumwater.wa.us

Percival Creek Revegetation Project

Sat., Oct. 13 • 10 a.m. – Noon

Percival Creek at Sapp Rd (behind Streamland Estates)
For more info., contact Debbie at 360-754-4148 or dmsmith@ci.tumwater.wa.us

Haunted Hike: "The Tale of the Disappearing Forest"

Sat., Oct. 20 • 3 p.m. – 6 p.m.

Priest Point Park, 2600 East Bay Drive NE, Olympia
Take a hike with Stream Team and Capital High School thespians and solve the mystery of the disappearing forest. Volunteers are needed for set-up, group docents and Water World activities.
For more info. or to volunteer contact Patricia at 360-570-5841 or ppyle@ci.olympia.wa.us

Native Plant Salvage Foundation's Annual Water Wise Plant Sale

Sept. 30 • 11 a.m. – 4 p.m.

4131 Mud Bay Rd. NW, Olympia
Hard-to-find native and water-wise plants, including a special rain garden section. Personal Plant Shoppers will help you select the perfect plants for your garden. For more info., visit www.nativeplantsalvage.org

NOVEMBER

Naturescaping for Water & Wildlife Workshop

Thurs., Nov. 8 • 6 p.m. – 9 p.m.

Tumwater Fire Hall
See page 3 for details. To register, contact Native Plant Salvage Project at 360-867-2166 or nativeplantsalvage@gmail.com

Salmon Stewards Field Training: Chum Salmon @ McLane Creek Nature Trail

Sat., Nov. 10 • 9 a.m. – Noon

To register, contact Ann Marie @ 360-754-3355 ext. 6857 or pearcea@co.thurston.wa.us

Chum Salmon and Cider Celebration @ McLane Creek Nature Trail

Sun., Nov. 18 • 11 a.m. – 1 p.m.

Enjoy hot cider and snacks while learning from trained Salmon Stewards about the wild spawning chum salmon.

For more info., contact Ann Marie @ 360-754-3355 ext. 6857 or pearcea@co.thurston.wa.us



EARN YOUR FREE "P.S. I LOVE YOU" BAG
by participating in four types of Stream Team events:

- Wildlife or Habitat Monitoring
- Salmon or Sound Stewarding
- Tree Planting • Educational Workshop

Earn your own tote bag and show everyone that Puget Sound is in your heart! Look for the "P.S. I Love You" stamp next to the events in our calendar for qualifying events.



Stream Team

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

929 Lakeridge Dr SW
Olympia, WA 98502
www.streamteam.info

HAUNTED HIKE: The Tale of the Disappearing Forest

Sat., Oct. 20 • 3 p.m. – 6 p.m.

Priest Point Park, 2600 East Bay Drive NE, Olympia

Parking is allowed on East Bay Drive for this event

First hike starts at 3:30, and last hike ends at 5:30

Hikes leave every 10 minutes & last approximately 1 hour

A family-friendly event. Costumes are encouraged!

After disappearing for several years, the Stream Team Haunted Hike will reappear this fall, on October 20. Take a half-mile hike with Stream Team and a talented group of Capital High School thespians and solve the mystery. Actors staged along the route.

Do you dare to enter the disappearing forest?

The forest is disappearing and its denizens are dying. What could be behind this dire situation? Collect clues as you meet forest inhabitants and mysterious creatures along the trail. Can you help save and protect this unique forest and all that depends on it? Or is it doomed to oblivion?

Learn about Stream Team, wildlife, forests and how you can be part of the solution in this free, fun, engaging event brought to you by the City of Olympia, Stream Team and the Capital High School drama department. Come before your scheduled hike departure time and enjoy fun hands-on activities at “Water World”!

Volunteers Needed!

This event is extremely popular and volunteers are needed for set up, as group docents and as Water World activity coordinators. To volunteer, or for more information, please contact Patricia Pyle at 360-570-5841 or ppyle@ci.olympia.wa.us.

