Stream Team News

OLYMPIA • LACEY • TUMWATER • THURSTON COUNTY

EDUCATE • PROTECT • RESTORE

FREE

SPRING EDITION
March–April–May 2014

Help Create On-the-Ground Change *with Stormwater Stewards*

Become a member of a first-in-the-nation program that is getting its hands dirty and helping protect local waterways and Puget Sound! Join us to learn how to build rain gardens, design installations for rainwater harvesting, create sustainable landscaping plans, and much more! Stormwater Stewards are highly-capable volunteers that provide free, on-site consultations to Thurston County residents, and we are looking for passionate folks to join our team in 2014.

We provide thorough, in-class training and practice installations each May and June, then our volunteers continue into a practicum period and eventually become certified Stormwater Stewards. No prior experience is necessary; we only ask that you have a passion for learning and diving into the field to make on-the-ground change happen.

If you would like to commit to helping make this important work happen, please email stormwater.stewards@gmail.com or call 360-867-2167 to receive the 2014 recruitment packet. Applications are due by April 21 and trainings begin on May 8 for eight subsequent Thursday evenings plus additional field days on some Saturdays.

Learn to provide recommendations concerning:

- Green Stormwater Infrastructure (GSI), such as rain gardens and pervious pavements
- Drainage improvements
- Privacy buffers
- Safer walkways
- Wildlife habitat
- Aesthetic enhancements
- Healthier plants & lawns
- Reduced yard maintenance

If you are interested in requesting a Stormwater Stewards site consultation, please contact **stormwater.stewards@gmail.com.**

ON THE COVER: Native Plant Salvage Project crew salvage plants for use in local restoration projects.

STREAM TEAM MISSION

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

Steam 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

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: Water Resource Specialist
Tel: 360-438-2687
TDD: 1-800-833-6388
WaterResources@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
pearcea@co.thurston.wa.us

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Soil Amending
for Ornamental and Native Plants

The term "amending", when used in relation to soil treatment, is probably unclear to many gardeners. The definition of soil amendment given in The Nature and Properties of Soils by Nyle Brady reads, "Any substance such as lime, sulfur, gypsum and sawdust used to alter the properties of soil, generally to make it more productive. Strictly speaking, fertilizers are soil amendments, but the term is used most commonly for materials other than fertilizers." For this discussion, fertilizers will be included.

In general, vegetables demand richer, more fertile soils than ornamentals. Native plants, because they are adapted to the original, local soil conditions and climate, are the least demanding. Nearly all classes of plants benefit from fertilizing, as well as from working the soil to incorporate organic matter, such as compost, in order to modify the soil texture and structure. This improves air supply to the roots and aids drainage or retains moisture, as needed. It also creates a more favorable environment and food energy for beneficial microbes and earthworms. Usually the microbes, earthworms and plants themselves require or benefit from being fed added nutrients, and at least 20 nutrient elements, mostly minerals, are needed in fertilizing.

Adding soil amendments will result in faster, stronger growth and greater internal resistance, which means little or no need for pesticides. Additionally, if you use natural and organic fertilizers, they are taken up more completely and present little chance of causing a pollution problem or health risk; plus, they work as well or better than synthetic and highly soluble fertilizers.

When fertilizing, it is far better to use a complete, nutrient-balanced fertilizer than one that is heavy on one component, such as nitrogen. Recipes can be found for making your own complete organic fertilizer, or you can get pre-blended products at nurseries and garden centers. Just make sure they contain a good array of nutrient minerals to supply your plants "the full meal deal."

For more information, go to blacklakeorganic.com

Thanks to guest author, Gary Kline, owner of Black Lake Organic Nursery and Garden Store, for this article.

Unsure what your soil needs?
Have your soil professionally tested. Contact Thurston Conservation District at 360-754-3588.

Spring is Here and the *Purple Martins* Have Returned!

**Interested in monitoring these graceful aerial acrobats?
Join the East Bay Purple Martin Monitoring Team.
No experience necessary!**

**Training Dates (must attend one):
Mar. 26, Apr. 2 OR April 7 • 5 – 6 p.m. • Olympia**

Stream Team is looking for volunteers interested in monitoring the nest boxes at East Bay in downtown Olympia from April to September. To participate, register for the short training on monitoring basics and bird identification.

Please register at www.streamteam.info . For more information please contact Michelle at mstevie@ci.olympia.wa.us .

Things You Can Do To Help Purple Martins

- Retain dead and dying trees (snags) on the landscape (especially near saltwater and wetland sites)
- Create snags in forest openings and along forest edges if snags are lacking or limited
- Carefully assess the use and type of pesticides in areas inhabited by purple martins. Consider other alternatives to pesticide use

Stream Team Celebrates 20 Years
with Native Plant Salvage Project

ERICA GUTTMAN, COORDINATOR OF NPSP

Over the years, Stream Team has cooperated with many agencies and community organizations on various projects, events and programs. Among these many and varied partnerships, one stands out for its vitality, longevity and continuing importance in helping Stream Team realize its goals. This year marks the 20th anniversary of the inception of the Native Plant Salvage Project (NPSP). Since its very beginning, Stream Team and NPSP have shared a synergistic relationship that continues to this very day.

Back in 1994, perceiving the need for a citizen volunteer program that would rescue plants from sites soon to be developed, WSU Extension successfully sought a Public Involvement and Education grant from the Puget Sound Water Quality Action Team (predecessor of today's Puget Sound Partnership). Hired as a part-time coordinator in the fall of 1994, Ernie Paul became the first project coordinator.

Recalling the early days of NPSP, Paul recounts how the first salvage involved digging up plants at the new Indian Summer development for eventual use in streamside habitat restoration projects coordinated by Stream Team. "We dug up plants from a beautiful cedar forest just before the bulldozers rolled. I was definitely amazed at the dedication of the early volunteers who came out in very harsh conditions for our first salvage work parties."

Despite the name, NPSP has always been about more than just rescuing doomed plants. Also in its very first year, NPSP, in cooperation with Stream Team, hosted a class entitled "Native Plants for Wildlife and Water Quality". This class emphasized the role that homeowners could play in protecting and conserving water resources and habitat in their own backyards.

In 1997, Olympia native Erica Guttman was hired to replace the original coordinator Ernie Paul. Erica came to WSU after a dozen years managing waste reduction and recycling programs in Washington, California and Rhode Island. According to Erica, "When I moved back home to Olympia, I realized that through the unique opportunity that the NPSP position presented, I was able to continue my work in preventing upstream pollution and conserving natural resources –but now with a focus on water and habitat."

In 1998, recognizing the interest and need for continuing education about the role of native plants, Stream Team first contracted with NPSP to provide several annual workshops. Erica expanded and refined the original class to create "Naturescaping for Water and Wildlife". Naturescaping works through a combination of layered landscapes that feature native and drought-tolerant plants, which intercepts stormwater

20th Anniversary of the Procession of the Species

Come celebrate Earth Day and this amazing place we call Home!

To celebrate, join Stream Team for a fun day creating paper Fish on Sticks or Batiks of your favorite ecosystem!

Please register for each session at www.streamteam.info. For additional information, please contact Michelle at mstevie@ci.olympia.wa.us

runoff while reducing the need for pesticides, fertilizers and supplemental watering. "Naturescaping is a critical step in transitioning to more sustainable landscapes," says Guttman. To this very day, Stream Team continues to contract with NPSP to offer this always popular class which changes and grows as earth-friendly landscaping techniques evolve.

Native Plant Salvage Project

From its start as a WSU program, NPSP has been supported entirely by grants, contracts and fundraising events. To provide more financial stability, the Native Plant Salvage Foundation was created in 2000. This non-profit group, overseen by volunteer board members, provides guidance and financial authority in support of NPSP's goals.

Over the years, as stormwater management techniques have evolved, NPSP has been on the frontlines of testing and educating about green stormwater infrastructure, such as rain gardens. Erica states, "Our connection with WSU allowed us to take early research and, with support from our Stream Team partners, apply it here in Thurston County to learn what works, what doesn't, and what the barriers are to more green infrastructure."

Regarding the relationship between NPSP and Stream Team, Erica points out, "Many community partners have supported and guided our work over the years, but the long-time partnership with the local Stream Team program has been one of our greatest assets. Stream Team has funded and supported our work developing and maintaining learning landscapes at local schools, research and education for habitat restoration projects and a suite of popular workshops offered each year to help local residents make on-the-ground changes to their home sites that enhance wildlife habitat while protecting water resources."

The Stormwater Stewards program is the latest and perhaps the strongest example of the NPSP and Stream Team partnership to bring about lasting changes to reduce stormwater impacts. In addition, several of the popular workshops now offer an optional "Part 2" component in which participants can get individualized advice specific to their unique landscape needs and plans.

When asked about the amazing fact that NPSP has succeeded for 20 years, Erica observes, "Our program has thrived through the dedication of our talented and inspirational volunteers who are active in just about every facet of our work—plant salvages, revegetation, school landscapes and adult education." Looking forward, Guttman concludes, "We hope to continue this fruitful partnership with Stream Team well into the future!"

"The *Naturescaping for Water & Wildlife Parts 1 and 2* were very helpful for us in planning a new area to landscape. We learned how to sheet mulch the space to kill the lawn first. Suggestions and drawings by the professional landscape designer in the Part 2 class helped us focus and adapt our wants for the microclimate of the space we are working with."

~ Anne Mills

Ecosystem Stories Batiking • Sat., Apr. 5 • 10 a.m. – Noon

Procession of the Species Art Studio 311 Capitol Way (in the alley)

Learn the ancient technique of batik, wax painting on cloth, to capture your favorite ecosystem. Open to all ages.

***** Note: Minors must be accompanied by an adult. *****

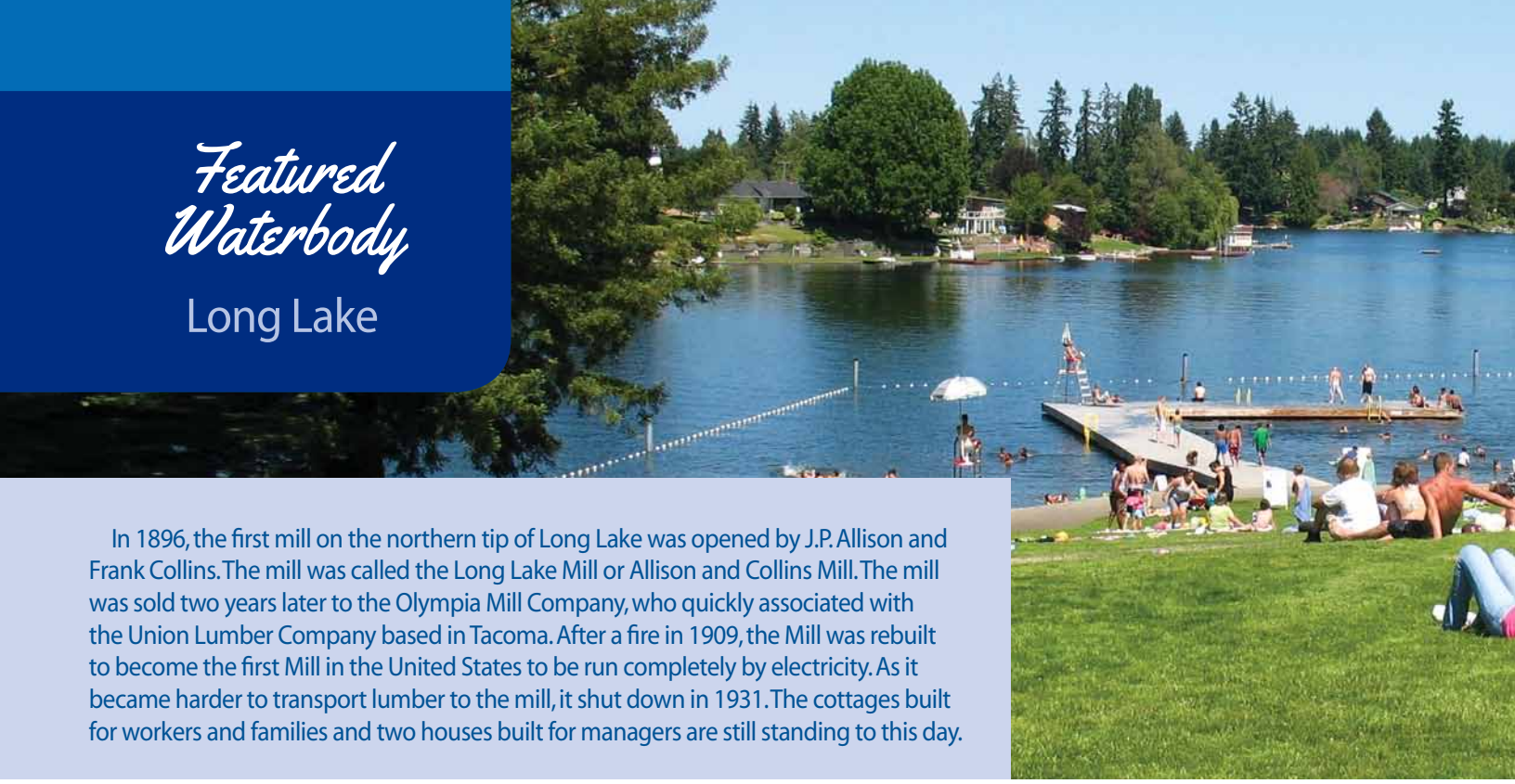
Salmon Hats & Fish on Sticks • Sat., Apr. 5 • 1 p.m. – 4 p.m.

Procession of the Species Art Studio 311 Capitol Way (in the alley)

Using recycled paper, cut out and color or paint your favorite Pacific salmon (or other animal). Then fasten them onto a hatband, or attach them to a stick, and they will be ready to wear or carry in the Procession of Species. Easy instruction will be provided. For ages 10 and under.

Featured Waterbody

Long Lake



In 1896, the first mill on the northern tip of Long Lake was opened by J.P. Allison and Frank Collins. The mill was called the Long Lake Mill or Allison and Collins Mill. The mill was sold two years later to the Olympia Mill Company, who quickly associated with the Union Lumber Company based in Tacoma. After a fire in 1909, the Mill was rebuilt to become the first Mill in the United States to be run completely by electricity. As it became harder to transport lumber to the mill, it shut down in 1931. The cottages built for workers and families and two houses built for managers are still standing to this day.

Long Lake

Long Lake, named after JT Long, is appropriately named because it is 1.9 miles in length. It is the largest of four lakes that drain to Woodland Creek and eventually into Henderson Inlet in Puget Sound. The chain of interconnected lakes begins with Hicks lake, followed by Pattison Lake, then Long Lake, and finally Lois Lake. One of only five lakes in Thurston County with public access, with a shoreline length of 7.1 miles and a total area of 330 acres, Long Lake has been a popular swimming beach in Thurston County for decades. In addition to 285 feet of beach access for swimming, the park features BBQ grills, sand volleyball courts and picnic areas. A boat launch is located at the end of Boat Launch St. SE, and is maintained by the Dept. of Fish and Wildlife.

The lake is divided into two basins, commonly referred to as the north and south basin, which are connected by a narrow channel. The north basin has a culvert that moves the water from Long Lake to Woodland Creek, and the south basin has water entering from Pattison Lake through an unnamed inlet stream. The stream was channelized 100 years ago to float logs to Union Mills on Long Lake. Three-quarters of Long Lake's water supply comes from surface water flow from Pattison Lake. Long Lake also is fed by and recharges to shallow groundwater.

Although the majority of the shoreline is residential area, certain areas of the lake have been designated as habitat reserves. The two main reserves are located in the northeastern corner of the north basin and the southeastern shore of the south basin. The remaining reserves are large wetlands or shallow waters surrounding the two Islands in the lake. Holmes Island (13 acres) located in the north basin, and Kirby Island (2.4 acres) is located in the south basin. The reserves are in place as an effort to preserve or re-establish undeveloped shoreline and are important areas for fish and wildlife. Wood ducks, mallards and Canada geese are a few species that use the lake during migration, with small numbers nesting at the lake year-round.

Since 1987, Long Lake has had a Lake Management District (LMD) to oversee management of the lake alongside Thurston County staff. The LMD is represented by a steering committee that meets monthly and is made up of two volunteers from each of the 11 neighborhoods surrounding the lake. Management activities include water quality monitoring, aquatic weed harvesting and educating the public to prevent the spread of invasive plants.

Several state listed noxious weeds are the target of these management activities. Eradication efforts have been underway for several years, and an integrated aquatic vegetation management plan has been in place since 1995 with updates in 2004 to guide the efforts. Eurasian water-milfoil (Myriophyllum spicatum) has been a target since 1987, when 100 acres were infested. In 1991, an aquatic herbicide (Sonar®) treatment was used on the entire lake to prevent further infestation and was successful in practically eliminating the infestation. Since then, mechanical harvesting and diver surveys have occurred periodically to monitor Eurasian water-milfoil levels as well as to check levels of other invasive vegetation.

More recently, native aquatic nuisance plants have become a management focus of the LMD as

they strive to keep the water column clear and safe for recreational use. Pondweeds (Potamogeton spp.) and Coontail (Ceratophylum demersum) are two of these nuisance plants that grow the densest in nearshore areas. These plants impact recreation, property values and water quality. Habitat degradation also occurs where oxygen levels are decreased under thick vegetative mats.

To help achieve LMD goals, lake users can do a variety of tasks. Checking boats for plant fragments and keeping excess nutrients from fertilizers from going into the lake are two simple ways to help improve the quality of Long Lake. For more information or to get involved, visit: http://www.co.thurston.wa.us/waterresources/lakes/lakes-long.html.

During the mid-1920s, five resorts were located on Long Lake: Pleasant Acres, Pioneer Park, Mrs. Lowery's Lakeside Villas, Long Lake Beach, and the eastern portion of Sunrise Resort. The western portion of Sunrise Resort was located on Hicks Lake. Long Lake Beach was the grandest of the resorts featuring boating, camping, cottages, cabins and concession stands among other amenities.


LONG LAKE BEACH

Turn off the Pacific Highway at the Lacey School house. Follow the signs and you will find Long Lake Beach.

Grand Opening, Sunday, May 16th

Bathing, Boating, Fishing, Cottages, Cedar Cabins, Camping, Baseball Diamond, Horse Shoe Court.

Music by SCHAFFER BROS. BAND

A New Resort, Modern in Every Respect

Water Hydrants - Electric Lights - Store - Concessions

TRY THE BIG TOBBOGGAN CHUTE — THE VERY LATEST

Spring Migrants Arriving in Puget Sound!

- **Kennedy Creek Shorebird Field Trip**
- **Sat., April 19 • 10 a.m. - Noon**
- **Kennedy Creek Estuary**
- **Vanpool leaves Thurston County Bldg. 4 at 9:30 a.m.**

BLACK-BELLIED PLOVER

Shorebirds are a group of families of birds, such as plovers and sandpipers, that can be found along shorelines that feed into estuaries. Some travel long distances between the Arctic and the tip of South America. Our local estuaries and mudflats are essential feeding grounds for these birds as they fuel their way across the continent.

Join us for a field trip to Kennedy Creek estuary with special guest speaker, Joe Buchanan to observe the shorebird migration. Joe Buchanan is a wildlife biologist with the Washington Department of Fish and Wildlife, and, on his own time, he has been monitoring shorebird migration at Kennedy Creek estuary for over 30 years. Several species of shorebirds should be present, such as western sandpipers, dunlins and black belly plovers.

Register and reserve space in the vanpool at www.streamteam.info . For more information, please contact Michelle Stevie at mstevie@ci.olympia.wa.us .

Native Plant Food Garden

Looking for new landscaping ideas this spring? Plant a native food garden, and fill your yard with the edible beauty of the Pacific Northwest! At the same time, you will help protect water quality, add wildlife habitat, decrease your need to water and eliminate the need for herbicides and pesticides. Many of the plants listed below are available at local nurseries specializing in native plants. Here is a short list of species that will tickle your tongue and nourish your body.

To see an expanded table of more edible plants, and to read the disclaimer, go to http://streamteam.info/localstreams/plants/native/edible . Thanks to Elise Krohn, Native Foods Educator, who provided much of the information for this article. She may be contacted at elise@cwis.org

CREDIT: US FISH & WILDLIFE

Evergreen Huckleberry *(Vaccinium ovatum)*

Habitat:	Full sun to full shade. Coniferous forests, edges, clearings.
Physical Description:	Evergreen shrub. 3-5 ft. tall. Oval shaped leaves with bell shaped flowers that become colorful berries.
Part Used:	Berries
Season:	Summer
Culinary Use:	Eat fresh, or add to pancakes, salads, desserts, or make into jam and jellies.

CREDIT: WALTER SIEGMUND

Native Roses *(Rosa spp.; R. gymnocarpa, R. nutkana, R. pisocarpa)*

Habitat:	Full sun to partial shade. Woodlands, moist areas to open and dry areas. (Depends on species.)	
Physical Description:	Deciduous shrub. Up to 8 ft. tall. Flowers have 5 petals growing on branches with thorns. Flowers turn to "hips" that are scarlet in the fall.	
Part Used:	Flower petals	Hips
Season:	Spring	Summer
Culinary Use:	Salads, flavoring desserts, sauces and jellies. Deseed the hips, dry and use for teas.	

CREDIT: WALTER SIEGMUND

Salal *(Gaultheria shallon)*

Habitat:	Prefers part to full shade and soils with good drainage.
Physical Description:	Evergreen shrub. Grows in low thickets with waxy oval leaves. Flowers are bell-shaped and white-pinkish. Berries are dark blue.
Part Used:	Berries
Season:	Late summer
Culinary Use:	Eat fresh or dehydrate for fruit leather.

CREDIT: WALTER SIEGMUND

Service berry or Saskatoon *(Amelanchier alnifolia)*

Habitat:	Full sun to partial shade. Very drought tolerant. Likes well- drained soil in moist to dry areas.
Physical Description:	Deciduous tree. 10-12 ft. tall. Spectacular autumn foliage. Flowers are showy with white clusters that hang. Fruit is dark purple when ripe.
Part Used:	Berries
Season:	Late spring
Culinary Use:	Dry into cakes, fruit leather or eat whole.

CREDIT: WALTER SIEGMUND

Thimbleberry *(Rubus parviflorus)*

Habitat:	Full sun to partial shade. Does not like saturated soils. Grows in clearings and open areas.	
Physical Description:	Deciduous shrub. 2-10 ft. tall. Fuzzy leaves with 3-7 lobes. White flowers are in clusters. Berries are red.	
Part Used:	Young shoots	Berries
Season:	Spring	Summer
Culinary Use:	Eat raw or sautéed after they have been peeled.	Eat fresh or in salads, dips and desserts.

CREDIT: WA FISH & WILDLIFE

Featured Creature

Mazama
Pocket Gopher

(Thomomys mazama)

Mazama (Western) Pocket Gopher (Thomomys mazama)

The Mazama pocket gopher is an endemic species only found in Western Washington, Western Oregon and Northern California. Here in Western Washington, Mazama pocket gophers are scattered across the southern Puget Sound grassland prairies and in the alpine meadows of the Olympics. They are associated with glacial outwash prairies. Their distribution is scattered due to the sparse distribution of prairies and these glacial soils.

Populations vary from small, and unlikely to persist, to several thousand individuals. The largest populations occur on the lands of Fort Lewis, the Olympia and Shelton airports, and in the Olympic National Park.

Mazama pocket gophers are medium sized rodents, five to six inches in length with a two inch hairless tail. They range from light brown to gray to black; they may resemble the color of the soil in which they live. They have powerful claws which they use for digging. Their eyesight is poor, so they use their whiskers and their highly sensitive hairless tail to assist them in navigating through tunnels, allowing them to run backward as well as forward. Their large front teeth are used to cut roots and to loosen soil. They have an ingenious external fur lined cheek pouch (for which they are named) that they use to transport food and nesting material.

Pocket gophers are asocial and intolerant of other gophers except during mating season. They rarely surface from their burrow but do disperse above ground. Maturing in one year, they breed from spring to early summer. They have only one litter with three to seven young. Their nest chamber is lined with vegetation cut from around their burrow. Young remain in the nest for five to six weeks, then wander off to find territories of their own. Pocket gophers live for only two years. The majority of their population consists of young adults.

Unlike moles, they do not eat insects but are vegetarian and prefer bulbs and plant tubers. They will also eat grasses, roots and shoots. They do not need an open water source as they obtain sufficient moisture from the vegetation they eat.

Pocket gophers are part of a larger food chain and are predated upon by foxes, coyotes, bobcats, weasels, badgers, snakes, owls and hawks as well as domestic cats and dogs. Their tunnels are also used by other smaller animals seeking refuge.

Pocket gophers can move a ton of soil to the surface each year, aerating compacted soils. Their droppings and buried vegetation adds nutrients to the soils. Fresh soil mounds provide an enriched seed bed for new plants.

The Mazama pocket gopher is a state listed species that has been proposed for listing under the Federal Endangered Species Act (ESA). The largest threat to the pocket gopher is the modification and loss of habitat from development. Prairie habitat is one of the rarest habitats in the United States, as the ecological processes for maintaining prairies (fire) has been altered or no longer exists. Primarily due to the suppression of natural fires, the loss of these ecological processes has allowed the succession of forests to overtake these habitats, resulting in the loss of open grasslands and savannahs. Less than 10% of our original prairies exist today and of those only 3% remains in native vegetation.

Since 2005 over 270 pocket gophers have been relocated from development sites to Wolf Haven's prairie. The survival rate for relocation has been low at around 30%. Protection strategies consist of protecting and restoring prairie habitats, site evaluation and the development of management plans.

Management plans include optimizing usable land for development, decreasing soil compaction through aeration procedures, eliminating invading trees and shrubs and maintainence by mowing, removing and controlling invasive weeds, restoring native vegetation and providing open space.

For more information, visit www.fws.gov and www.wdfw.wa.gov

Before You Buy That Plant: *Is It a Noxious Weed?*

Spring is in the air and local nurseries are stocked with plants to help beautify your landscapes. What you may not know is some of these plants are causing a substantial problem in Thurston County. Plants such as butterfly bush (Buddleja davidii), common fennel (Foeniculum vulgare) and pampas grass (Cortaderia selloana) are often sold at local nurseries even though butterfly bush and common fennel are listed on the Washington State Noxious Weed List and pampas grass is proposed to be listed. These ornamental plants are non-native plants that grow quite well here in Thurston County. So well, that they often displace native plants once they "escape" from areas where they were intentionally planted. Noxious weeds such as these can threaten the native environment and wildlife that depend on native plants. Butterfly bush is often planted because of its beautiful and numerous flowers, which attract butterflies. Unfortunately, it is quite adept at establishing itself along disturbed areas, creeks and river banks where it outcompetes our native willows. Native willow on the Nisqually River is being crowded out by the invasive butterfly bush. While butterfly bush does provide nectar for adult butterflies, Western tiger swallowtail larvae and caterpillars prefer native willows for food and habitat. Thus, the Western tiger swallowtail will not lay its eggs on butterfly bush.

A native plant substitute for butterfly bush is red elderberry (Sambucus racemosa), which produces flower clusters that attract nectaring butterflies. Unlike the invasive butterfly bush, it is used by the larval forms of native butterflies. Plus, cedar waxwing birds like its bright red berries!

If you already have butterfly bush, and you do not wish to remove it, then it is very important to cut the flower clusters after they bloom so the millions of lightweight seeds cannot disperse. (A mature plant can produce up to 3 million seeds!) Bag the cuttings and place in the trash. Make sure to bag any branches you cut or that are broken as they can also take root!

Common fennel, which has a strong licorice scent, also produces a large number of seeds per plant and can reproduce from pieces of its root crown. Once it establishes itself, it tends to dominate a site, effectively excluding other vegetation. A good alternative to common fennel is bulbing fennel (F. vulgare var. azoricum), also known as Florence fennel.

To control common fennel, clip and bag seed heads before cutting or digging up the plant. Place bagged seed heads in trash. You can pull or dig up small

Noxious Weeds

Non-native plants that aggressively spread and occupy land at the expense of native plants, which cause damage to agricultural land, natural ecosystems, recreation and animal health.

RED ELDERBERRY

NOXIOUS

Butterfly bush

Large, semi-deciduous shrub. Grows up to 10 feet tall. Small, fragrant, funnel shaped flowers borne in showy spikes at ends of stem; usually purple, but also white, pink, blue, orange and yellow.

seedlings. Mature fennel plants have a long taproot and are more difficult to dig out. If the taproot should break, make sure to remove the top 3 – 6" of the root to prevent rerooting. Fennel seeds remain viable in soil for many years, so make sure to monitor for new growth and pull up any new seedlings. It's also a good idea to replant areas where fennel is removed to prevent it from reestablishing.

Pampas grass is highly invasive. It can tolerate a wide range of temperature and habitats. It also produces a prolific amount of seeds per plant (100,000 per flower clump) and easily outcompetes native vegetation and forestry seedlings. Pampas grass also poses a fire hazard, as it produces an excessive layer of dried leaves and flower stalks.

Report any escaped Pampas grass plants to Thurston County Noxious Weeds. Hand pull or dig small plants. For larger plants, cut flowering tips before digging out roots. Carefully bag the flowering tips and place in the trash. A good alternative to Pampas grass is native bear grass (Xerophyllum tenax).

The Thurston County Noxious Weed Control Board has recommended that butterfly bush, common fennel and Pampas grass be quarantined, which would mean that these plants could no longer be sold at area nurseries. In the meantime, there are native and non-invasive plant alternatives to these and other noxious weeds, which you could use to beautify your yard and benefit local wildlife.

For additional suggestions on alternative non-invasive plants, go to: http://www.co.thurston.wa.us/tcweeds/docs/garden-wise-non-invasive-plants-for-your-garden.pdf

To learn more about landscaping for nature and wildlife, attend Stream Team's Naturescaping for Water and Wildlife field class (see page 15 for details). To find out more about noxious weeds and how to identify them, call 360-786-5576 or go to www.co.thurston.wa.us/tcweeds/index.htm

Common fennel

Large perennial herb that grows 4 – 10 feet tall. Yellow flower clusters are flat topped and umbrella shaped. Strong licorice scent.

Pampas grass

Fast growing perennial grass. Forms a large clump of long, narrow leaves. Grows up to 7 feet tall. Stems have huge, feathery flower plumes that grow taller than the bluish gray-green leaves. Flowers are light violet to silvery white.

Cleaning Your Carpets or Pressure Washing Your House this Spring?

Make Sure You Keep It Green When You Clean!

There's something about spring that makes many people want to jump into action and clean. Before you do so, here are some tips to help make sure you protect local water quality while you clean.

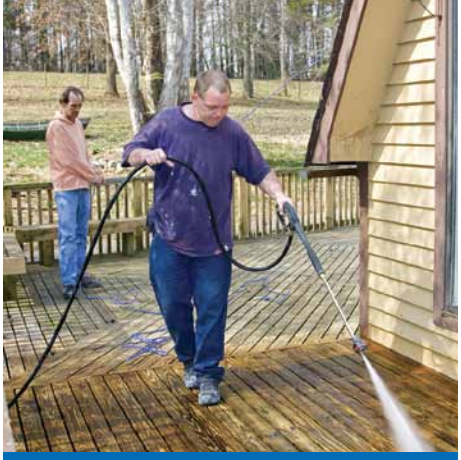
Over time, carpets can collect much more than dirt. Dirty wash water from carpet cleaning can contain a variety of harmful pollutants such as soap, oil, dirt, grease, carpet fibers, heavy metals and other toxic chemicals (even if you use biodegradable carpet cleaning supplies). It may seem like a good idea to dump the dirty wash water into the street or down the storm drain, but most stormdrains lead to local waterways. Dumping polluted water into storm drains can affect water quality and harm wildlife. And, it is illegal to dispose of dirty wash water into storm drain systems. Fines can be issued for such illicit discharges.

So what should you do with the wastewater from carpet cleaning? If you are connected to a sewer system, you can dump the dirty water into a sink, toilet, tub or shower drain. Pour the dirty water through some type of filter to keep carpet lint and other debris from clogging your drains. If you are connected to a septic system, DO NOT pour the wastewater down a drain, as the wash water can harm your septic system. Instead, pour the wastewater in a graveled or landscaped area (away from drinking wells, septic systems and vegetable gardens). If you are hiring a company to clean your carpets, ask them about their disposal plan. Carpet cleaning companies should dispose of the wastewater at proper sewage disposal sites.

Pressure washing painted structures, such as houses, sheds and garages, can cause paint to flake off. To help keep debris and pollutants out of storm drains when pressure washing follow these tips:

- Use the least amount of water possible
- Avoid using hazardous cleaning products (such as ones that contain bleach, sodium hydroxide, hydrofluoric acid, etc.)
- Place a filter over nearby storm drains to prevent paint chips from going down the stormdrain
- Sweep or rake up debris, trash and paint chips from pressure washing and dispose of in garbage

If you are pressure washing driveways or sidewalks, make sure you direct the spray toward a vegetated area and away from storm drains or drainage ditches (drainage ditches are connected to the stormwater system). Use the least amount of water possible, and avoid using hazardous products. Better yet, skip the pressure washer and use a broom to sweep up debris.



It is illegal to dispose of dirty wash water into the storm drain system, including drainage ditches, stormdrains and stormwater ponds. To report a spill or illicit discharge, call the WA Department of Ecology 24 hour Spill Hotline: 360-407-6300.

Part of what makes Thurston County such a wonderful place to live is the creeks, rivers, inlets and lakes found throughout the county. When you stop to make sure you keep it "green" when you clean you are helping to protect these precious resources.

Planning on Holding a Car Wash Fundraiser?

Make It a Clean Cars, Clean Streams Car Wash Fundraiser!

Car wash fundraisers can be fun, but, if done improperly, they can pollute local streams, lakes and Puget Sound. The best way to prevent stormwater pollution from car wash fund raisers is to sell car wash tickets, which can be ordered from the Puget Sound Car Wash Association at www.CharityCarWash.org. The polluted wash water at local commercial car washes is treated and recycled on site before being sent to the LOTT wastewater treatment plant.

If your group would prefer to hold a car wash, then Stream Team can help you find an approved car wash fundraiser site. These sites ensure dirty water from Clean Cars, Clean Streams car wash fundraisers to receives some type of treatment before it flows into local waterways, thus reducing pollution in local streams, lakes and Puget Sound. Plus, Stream Team will lend you a FREE Clean Cars, Clean Streams car wash kit, which includes buckets, sponges, spray nozzles, eco-friendly car wash soap and signs. To reserve a kit, contact your local Stream Team Coordinator (see page 2).

Rain Gardens:

Nature's Stormwater Treatment Plants

Part of what makes the Pacific Northwest so green and beautiful is the rain. When rain lands on the ground and flows overland, it becomes "stormwater runoff." Stormwater runs off of rooftops, driveways, landscapes and sidewalks, carrying pollutants with it. If left untreated, these pollutants could end up in local streams, lakes or Puget Sound. According to the Puget Sound Partnership, seventy-five percent of the pollution in Puget Sound comes from stormwater runoff generated from residential neighborhoods.

One attractive way to catch and treat stormwater runoff before it runs into our local water bodies is by installing rain gardens. Rain gardens are specially designed gardens that capture and filter polluted runoff from impervious surfaces, such as rooftops, driveways, patios and other areas that do not allow rain water to soak into the ground. Rain gardens also prevent flooding, beautify your landscape, increase your home value and create habitat for birds and butterflies.

You can learn more about rain gardens, including how to design and install one in your home landscape, at one of Stream Team's upcoming rain gardens workshops (see page 13). You can also request a free Stormwater Stewards site visit to learn more about how you can install a rain garden in your home landscape. (See page 2 for details).

"I needed help dealing with my roof runoff and sought out the Stormwater Stewards for help. I originally wanted a rain garden, but, after a careful assessment, the volunteers determined that a large rain tank and overflow swale would be more feasible for my property and provide me with water for my gardens. They even created a design and helped install the tank!"

~ Karen Paul

Residents of Lacey, Olympia, Tumwater and Thurston County may qualify for reimbursements for installing rain gardens. See below for where to go for more information. Reimbursements range from $200 to $400. Stormwater Stewards are also available to assist you in filling out the reimbursement applications.

City of Lacey:	http://www.ci.lacey.wa.us/city-government/city-departments/public-works/water-resources/storm-and-surface-water-programs/rain-gardens
City of Olympia:	http://olympiawa.gov/city-utilities/storm-and-surface-water/rain-gardens
City of Tumwater:	Contact Debbie Smith at dmsmith@ci.tumwater.wa.us
Thurston County:	http://www.co.thurston.wa.us/stormwater/utility/utility-rain-garden.html

Kids' CORNER

Native Plants word search

Can you find the native plant names hidden among the letters?
Answers on back cover.













- Salal
- Kinnikinnick
- Snowberry
- Salmonberry
- Cattail
- Huckleberry
- Bleedingheart
- Oceanspray
- Twinflower
- Osoberry
- Elderberry
- Fireweed
- Spirea

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




Stream Team *Events*

For additional events, event details, or to register, please visit our website and click on "Calendar" or "Register": **www.streamteam.info**
To talk with Stream Team staff about any of the events listed on this page, please call **360-438-2672**

MARCH

Tree Planting at Nature Nurtures Farm

Sat., Mar. 1 • 10 a.m. – Noon

Thurston County, near Delphi Road

Purple Martin Monitoring

Attend one training:

Wed., March 26, Wed. April 2 OR Mon., April 7 • 5 p.m. – 6 p.m.

Meet at East Bay at Olympia Ave. NE & Marine Dr NE, Olympia

See page 3 for details

Percival Creek Revegetation Project

Sat., Mar. 29 • 10 a.m. – Noon

Tumwater, off Sapp Rd.

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 either log in as an existing volunteer or create a new secure profile**

APRIL

Ecosystem Stories Batiking

Sat., Apr. 5 • 10 a.m. – Noon

Procession of the Species Art Studio
311 Capitol Way (in the alley)

See page 4 for details. Minors must be accompanied by an adult.

Create Salmon Hats & Fish on Sticks

Sat., Apr. 5 • 1 p.m. – 4 p.m.

Procession of the Species Art Studio
311 Capitol Way (in the alley)

See page 4 for details. For ages 10 and under. Minors must be accompanied by an adult.

Spring Migrants: Kennedy Creek Shorebird Field Trip

Sat., Apr. 19 • 10 a.m. – Noon

Van leaves Thurston County Bldg 4 at 9:30 a.m.

Kennedy Creek Estuary

See page 7 for details.

Rain Garden Design Workshop

Thurs., Apr. 24 • 6:30 p.m. – 8:30 p.m.

Optional Hands-on portion: 8:30 p.m. – 9:00 p.m.

Olympia

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

Look for the "P.S. I Love You" stamp next to the events in our calendar for qualifying events.

MAY

Naturescaping for Water & Wildlife Field Class

Sat., May 3 • 10 a.m. – 5 p.m.

Bus travel for field portion provided.

Olympia

Juvenile Chinook Release Party

Sun., May 4 • Noon – 4 p.m.

Tumwater Falls Park

Glacial Heritage Preserve Field Trip

Sat., May 17 • 9 a.m. – Noon

Van Pool leaves Thurston County Bldg. 4 at 8:15 a.m. See page 16 for more details.

JUNE

Meet the Trees of WA Field Class

Sat., June 7 • 10 a.m. – 4 p.m.

Bus travel for field portion provided.

Olympia

COMMUNITY EVENTS

Procession of the Species

Sat., April 26 • 4:30 p.m.

www.procession.org

Native Plant Salvage Foundation Annual Dinner/ Volunteer Appreciation

Fri., May 30 • 5 – 9:30 p.m.

Join NPSF for an evening of good food, live music, speaker, and all-you-can eat Olympic Mountain Ice Cream/Sorbet buffet.

Details: www.nativeplantsalvage.org

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

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

GLACIAL HERITAGE PRESERVE FIELD CLASS

- Saturday, May 17
- 9 a.m. - Noon
- Van Pool leaves Thurston County Bldg. 4 at 8:15 a.m.
- Participants must pre-register

CREDIT: CENTER FOR NATURAL LANDS MANAGEMENT

Thurston County's Protected Gem: *Glacial Heritage Preserve*

Prairies are one of the most endangered ecological communities in North America. Puget Sound may be known for its expansive forests, but, historically, there were also large expanses of prairie and oak savannahs. These communities developed approximately 10,000 years ago from the gravel soils deposited by the Vashon Glacier. Prairie communities were traditionally maintained by Native American tribes who used fire to stop the succession of forests from taking over.

The wildlife species that evolved with these habitats are unique. As prairie habitats have become threatened, so have the species that depend on them. Three primary species in Thurston County which are associated with our prairies and are in jeopardy are the Mazama pocket gopher, streaked horned lark and Taylor's checkerspot butterfly.

The Glacial Heritage Preserve is owned by Thurston County and Washington Department of Fish and Wildlife (WDFW). The reserve is closed to the public, but Stream Team has been granted permission to host this spring event there. Numerous partners are involved with the management, rehabilitation and habitat enhancement of this endangered habitat.

Join Stream Team for an exclusive field trip to learn about prairie ecosystems, conservation threats and the management goals to preserve them. Guest speakers will be Mary Linders, WDFW scientific lead for Taylor's checkerspot butterfly research and reintroduction and Sanders Freed, program manager for Center for Natural Lands Management.

Please register at www.streateam.info. For additional information, please contact Michelle at mstevie@ci.olympia.wa.us

CREDIT: MICHELE BURTON