

# Stream Team News

**FREE**

OLYMPIA • LACEY • TUMWATER • THURSTON COUNTY

**EDUCATE • PROTECT • RESTORE**



## *Inside...*

### **WINTER EDITION**

Dec 2020–Jan–Feb 2021

Annual Allison Springs Bald Eagle Paddle | 2  
Henderson Inlet & Nisqually Reach  
Shellfish Protection District | 3  
Winter Rains: Stay Safe & Help Prevent  
Flooding | 4–5  
Protecting Coho Can Start with Your Car | 5

What's Really Running Off Your Roof? | 6  
Electric Vehicles—It's All Good | 7  
Featured Creature: Opossum | 8  
Amphibians of the Pacific Northwest Webinar | 9  
Amphibian Egg Mass Survey Dates | 9  
Kids' Corner | 10

Naturescaping for Water & Wildlife | 11  
Calendar of Events | 11  
*Nicotine Bees* a Documentary Film  
Neonicotinoids & Colony Collapse  
Disorder | 12  
No Holiday Tree Program | 12

To keep everyone safe during this time, Stream Team is following the Governor's "Safe Start Washington" guidelines.

We have modified some of our programming to accommodate COVID-19 restrictions while still helping you to learn and stay involved with Stream Team.

Stream Team will consider reopening volunteer events when Thurston County is approved for Phase 4 of the Safe Start Washington guidelines.

In the meantime, we will post links to exciting videos and provide additional online educational opportunities.

Please visit [www.streamteam.info](http://www.streamteam.info) to learn more!

**Don't forget to follow us on Facebook and Instagram to learn what you can do while staying home to keep our waters clean and habitat healthy for wildlife.**



CREDIT: MICHELE BURTON PHOTOGRAPHER

## ALLISON SPRINGS BALD EAGLE PADDLE

- .....
- Sat., Dec. 5
  - 9 a.m. – 12:30 p.m.
  - Allison Springs Lane SW, Olympia

## ..... Annual Allison Springs Bald Eagle Paddle .....

**The perfect physical distancing event!** In 2017, the bald eagle was taken off the state's endangered species list as the eagle populations have been steadily increasing and are thought to no longer be in jeopardy of survival. Since 2010 we have witnessed this success on our annual paddle seeing the numbers rise from a few to over 100 individuals! Expert staff from Olympia Parks, Arts and Recreation will team with Stream Team staff to lead you on a grand experience to visit the bounty of wildlife on Mud Bay! NOTE: If temperatures drop to freezing or are icy the event may be canceled.

To register, call City of Olympia Parks, Arts, and Recreation 360-753-8380 or visit [olympiawa.gov/experienceit](http://olympiawa.gov/experienceit) online: Program #9235 (Special Stream Team cost \$25)

*Space is limited to 15 participants. Children ages 12 –16 may attend with an adult, under 18 with signed permission. Moderate walking on uneven ground will be required. Kayaks and safety equipment and instruction provided.*

.....

**ON THE COVER:** Pacific chorus frog by Michele Burton Photographer.



### DID YOU KNOW?

Articles marked with a damselfly icon, like the one on the left, will be posted on our website in the Reference Library.

### STREAM TEAM MISSION

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

*Stream Team is funded and jointly managed by the stormwater utilities of the Cities of Lacey, Olympia and Tumwater and Thurston County. Stream Team programs meet the requirements for the National Pollutant Discharge Elimination System (NPDES) permit for stormwater.*

### SPECIAL NEEDS?

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

### FOLLOW US:

- Thurston Stream Team
- [thurston\\_stream\\_team](https://www.instagram.com/thurston_stream_team)
- Thurston County Stream Team

### NEWSLETTER CONTRIBUTORS:

Meridith Greer, Susan McCleary, Ann Marie Pearce, Michelle Stevie, Sarah Tolle, Emily Watts, and Michele Burton Photographer.

### DESIGN & LAYOUT:

ASGD Brand Strategy + Design  
[AzureSGD.com](http://AzureSGD.com)



### STREAM TEAM INQUIRIES 360-438-2672 or [streamteam@ci.lacey.wa.us](mailto:streamteam@ci.lacey.wa.us)

#### IN LACEY:

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

##### Attn: Lacey Water Resources

Tel: 360-438-2687  
TDD: 1-800-833-6388  
[WaterResources@ci.lacey.wa.us](mailto:WaterResources@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](mailto: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](mailto:mgreer@ci.tumwater.wa.us)

#### IN THURSTON COUNTY:

Thurston County Water Planning  
2000 Lakeridge Dr. SW, Bldg. 4, Rm 100,  
Olympia, WA 98502

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# Henderson Inlet & Nisqually Reach Shellfish Protection District

## TWO WAYS YOU CAN GET INVOLVED!

- Find out if you live in the Henderson Inlet or Nisqually Reach protection areas by visiting [thurstoncountywa.gov/planning/Pages/nr-shellfish.aspx](http://thurstoncountywa.gov/planning/Pages/nr-shellfish.aspx).
- Consider attending advisory committee meetings. Your valuable community knowledge will provide insight into potential sources of pollution and ways of reaching more community members. Email Andrew Deffobis at [andrew.deffobis@co.thurston.wa.us](mailto:andrew.deffobis@co.thurston.wa.us).

### What is a shellfish protection district?

Shellfish protection districts (SPDs) are areas where pollution threatens water quality and becomes a problem for shellfish harvesting and recreational uses. Citizens, organizations, tribes and state and local governments work together to improve water quality in these districts and keep the shoreline healthy.

### Why was the Henderson Inlet and Nisqually SPD created?

In 2001, bacterial pollution caused the Washington State Department of Health to downgrade 74 acres in the Nisqually growing area to “restricted” and 309 acres in the Henderson Inlet growing area to “prohibited.” Due to the closure of these two areas, the shellfish protection district was formed. The goal of the SPD is to reduce the amount of pollution, reopen shellfish growing areas and to ensure future recreational use.

### What causes shellfish growing areas to close or limit harvest?

Bacterial pollution sources that typically contribute to shellfish growing area closures include failing septic systems, agricultural run-off, municipal and private stormwater run-off, wildlife and domestic pet waste, and poor land use practices.

### The Advisory Committee

The Board of Thurston County Commissioners appoints a committee of stakeholders to advise them on topics related to shellfish protection districts and to help implement a water quality improvement plan. Members include stakeholders who reside or work within the districts’ boundaries. The stakeholders represent the following interests: commercial agriculture, shellfish growers, builders/developers, representatives of tribes, cities, city residents and county residents.

The advisory committee meets every other month to discuss closure response and implementation plans, potential activities and sources of pollution that need to be addressed.



CREDIT: MARGARETHOMERDING



CREDIT: BETSY PEABODY



# Stay Safe & Help Prevent Flooding

## Winter is upon us and with it comes a lot of rain.

When it rains, water cannot soak in through all of the roads, parking lots and rooftops we've built in our communities. Instead, it flows over these hard surfaces. To help prevent flooding on roads and in our neighborhoods, the cities and the county built a system of storm drains, pipes, ditches and ponds to carry the water off the roads.

## Stormwater System Maintenance

It's important to regularly check and maintain storm drains and other parts of the stormwater system. Otherwise, they can become clogged and lead to flooding.

For some neighborhoods, it is the property owners' responsibility to inspect and maintain all or part of their neighborhoods' stormwater system. The cities and county all require inspection forms to be completed and returned by late summer. This ensures that neighborhood stormwater systems have been cleaned and repaired before the rainy season returns!

## You can help prevent flooding on the roadways.

### 1. Rake leaves and debris away from storm drains to prevent clogging.

- Stay safe, wear a high visibility vest and have someone look out for cars for you.
- You can use raked leaves as mulch around your trees and shrubs.

### 2. Inspect your neighborhood storm drains and have them cleaned when necessary.

- Visit [thurstoncountywa.gov/sw/swdocuments/rs-mnt-diy-flyer-catch-basins.pdf](http://thurstoncountywa.gov/sw/swdocuments/rs-mnt-diy-flyer-catch-basins.pdf) to learn how to inspect and maintain storm drains.

### 3. Keep grass, leaves, dirt and debris from going into roadways and drainage ditches.

- Sweep, blow or pressure wash debris away from the road so that it does not clog storm drains or drainage ditches. If you have a maintenance crew performing landscaping, ask them to do the same!

## What to do if the road is flooded.

### 1. Contact your local jurisdiction if you think storm drains are clogged and you cannot safely unclog them.

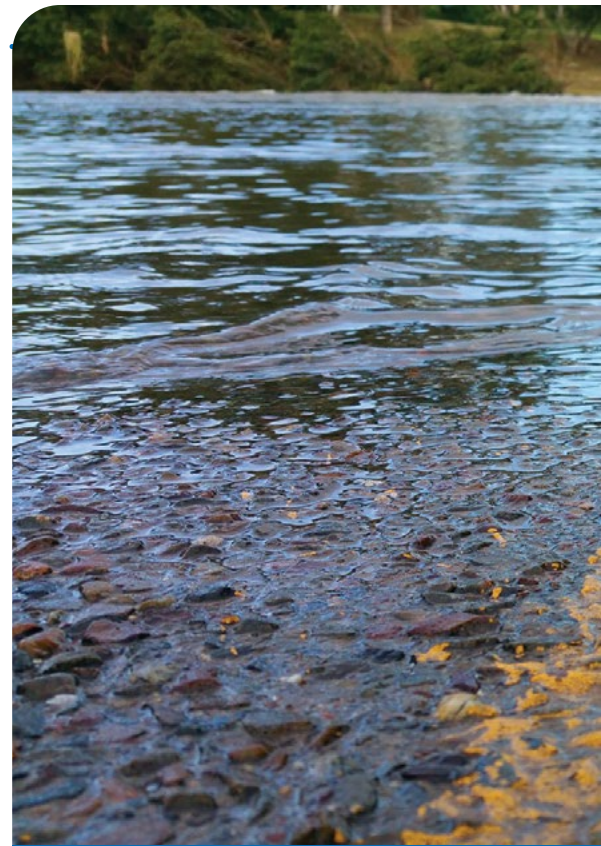
- Lacey: 360-491-5644
- Olympia: 360-753-8333
- Thurston County: 360-867-2300
- Tumwater: 360-754-4150

### 2. Turn around, don't drown.

- If the road is flooded, do not attempt to drive through it.
- According to the National Weather Service, six inches of water on the road can cause most passenger cars to stall or lose control.

## Know your flood hazard.

Some areas of Thurston County are prone to groundwater flooding or flooding when streams flow over their streambanks.



## WANT TO FIND OUT IF YOUR NEIGHBORHOOD IS RESPONSIBLE FOR MAINTAINING ITS STORMWATER SYSTEM?

Contact the stormwater inspector for the county or city in which you live.

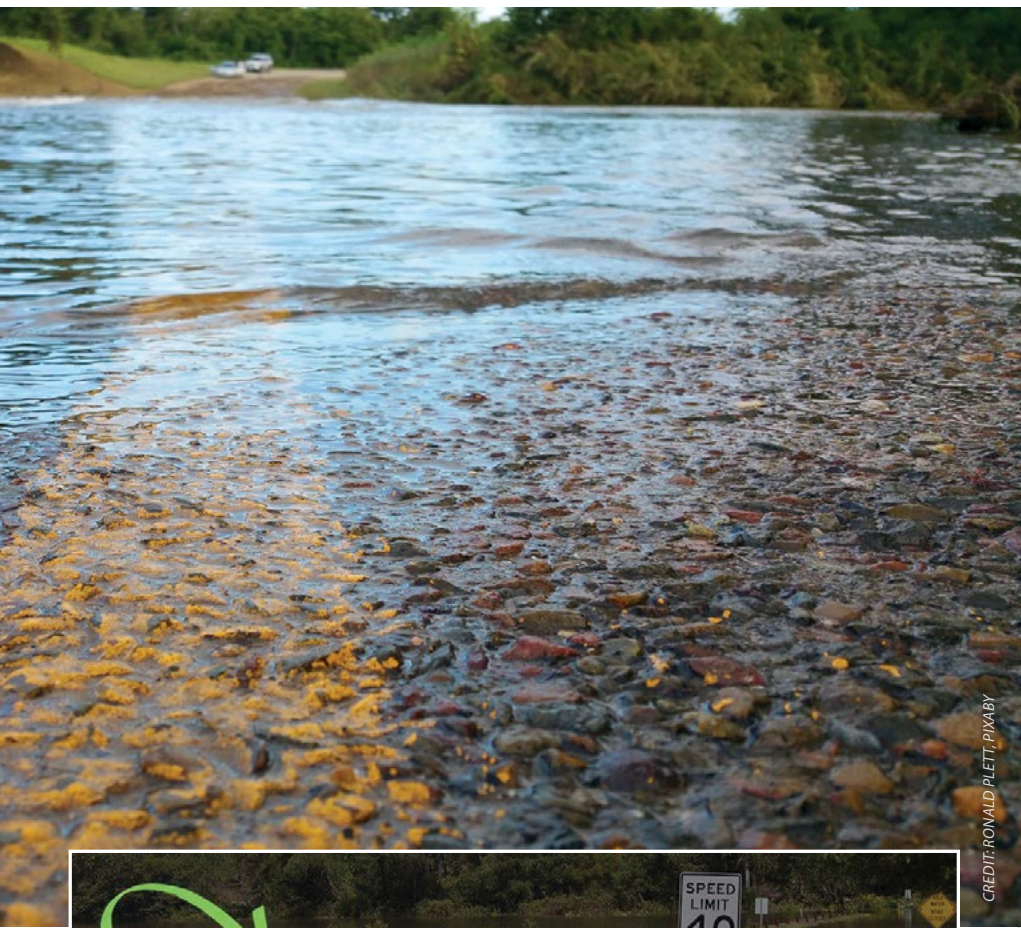
■ LACEY: Carlos Aviles-Ortiz  
[caviles@ci.lacey.wa.us](mailto:caviles@ci.lacey.wa.us)  
360-486-8712

■ OLYMPIA: Kane Osstifin  
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■ THURSTON COUNTY:  
Cathe Linn  
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360-867-2095

■ TUMWATER:  
Matthew Joseph  
[WaterResources@ci.tumwater.wa.us](mailto:WaterResources@ci.tumwater.wa.us)  
360-754-4140





## ..... Protecting Coho ..... Can Start with Your Car

As coho salmon make their way up local streams, the waters they call home can become deadly. Over the past ten years, researchers have been trying to figure out why so many coho are dying in local streams before they have a chance to spawn. New technology and data shows that tire particles washed off roadways and into local bodies of water, are proving to be deadly for coho salmon.

### What's happening?

As we drive, our tires wear down, leaving small amounts of tire dust along roads and bridges. When rain hits these hard surfaces, it picks up particles and carries them into nearby waterways, creating a toxic tire soup for our local salmon.

### Good news!

Many people are trying to tackle this issue to help save our salmon and protect Puget Sound. There are efforts underway to work with tire manufacturers to change the ways tires are made, reducing their amount of toxic compounds. In addition, local cities, counties, and agencies are working to build more infrastructure that captures and cleans stormwater runoff before it enters streams and lakes.

### How can you help?

- Carpool to work or whenever possible
- Telecommute or telework if your employer allows it
- Walk or bike to work, school, or the store
- Buy local goods and services that don't have to travel so far
- Use public transportation to get around
- Plan shopping trips ahead of time, reducing the number of times you go to the store



CREDIT: RONALD PLETT, PIXABY

### Find out if you live in an area prone to flooding.

Thurston County uses FEMA's (Federal Emergency Management Agency) flood insurance rate maps. Visit [geodata.org](https://www.geodata.org) to look up flood risk for your parcel or contact the County's Floodplain Manager, Tim Rupert, at 360-867-2123.

### Check rainfall, stream and groundwater levels.

You can find current and historic levels for rainfall and the status of local streams and groundwater levels by visiting Thurston County's monitoring website at [monitoring.thurstonwater.org](https://monitoring.thurstonwater.org).

### Stay in the Know: Sign up for severe weather alerts.

The National Weather Service sends warnings for tsunamis, tornadoes, flash floods, extreme winds, blizzards, ice storms and more. You can receive Wireless Emergency Alerts (WEA) on your mobile device. The service is free and automatic, if your cell phone is WEA-capable. For more information on Wireless Emergency Alerts on your cell phone visit [co.thurston.us/em/alerts](https://co.thurston.us/em/alerts)



# What's Really *Running Off Your Roof?*

## An Emerging Problem

In 2011, the Washington State Department of Ecology (Ecology) worked to investigate sources of toxic pollution entering Puget Sound waters. They found that roofing materials may be sources of arsenic, cadmium and phthalates but wanted to know more about how our regional weather patterns might affect the release of contaminants from roofing materials. The Environmental Protection Agency (EPA)

**Residential and commercial roofs leach a significant amount of zinc, arsenic, and copper, some of which eventually finds its way into Puget Sound.**

funded Ecology to conduct a pilot project from 2012 to 2014 to look closely at roofing material types in the Puget Sound region. In 2016, the Washington Stormwater Center continued and expanded upon the previous study.

## The Study

- 18 4'x8' pilot scale roof panels were constructed
- Samples of runoff were collected from 26 rain events (both studies)
- Samples were analyzed for pollution sources including 5 different metals, polycyclic aromatic hydrocarbons (PAHS) and phthalates

## The Findings

The original 2011 study found that the following roofing materials released the highest levels of target pollutants:

- Treated wood shakes
- Copper
- Polyvinyl Chloride (PVC)
- Zincolume (aluminum zinc alloy sheet metal roofing)
- Ethylene propylene diene monomer EPDM (rubberized single ply)

Just after one year of aging, the study found a significant reduction in the metal concentrations in the roof runoff.

## What We Know

Residential roofs leach a significant amount of arsenic and copper and commercial roofs leach a significant amount of zinc. Treated wood shakes are the primary source of arsenic. Further long-term studies are needed to understand how age affects what a roof leaches. As roofing materials continue to age, concentrations of pollutants released may change over a 10 to 20 year life of a roof. The entire system of a roof should be assessed including gutters, downspouts, flashing, ventilation and HVAC, which could also contribute to leaching.

## So What's The Problem?

Pollutants such as arsenic, copper, and zinc can be lethal to aquatic life including our local salmon and shellfish populations. These pollutants are picked up by rain and precipitation as it flows across yards, roads, and hard surfaces before finding its way to a storm drain or directly into the nearest body of water. If the roofs of every building leaches pollutants like this and contaminates are not all captured and treated, then we can deduce where the large sources of arsenic, copper and zinc in Puget Sound might be coming from.



Thank you to Lisa Rozmyn, the Washington Stormwater Center & Washington State University for providing access to the research materials and studies that can be found at [wastormwatercenter.org](http://wastormwatercenter.org).



# Electric Vehicles—*It's All Good*



More people are switching to all-electric vehicles (EVs) these days! If you are looking to purchase a new or used vehicle, consider buying an EV. Driving an EV will not only lower your carbon footprint, you can save money and help protect our local waterways!

## Healthier Waters

You might be asking yourself, "How can driving an EV help protect our local waterways?" Reducing vehicle leaks is a big priority for Puget Sound, and EVs don't leak oil, gas and other fluids. That's because EVs have a lot fewer moving parts- so they don't require lubrication fluids. The most common way toxic chemicals reach Puget Sound is through polluted surface runoff—also known as stormwater.



## Did you know?

- Petroleum-related compounds from motor oil drips and vehicle leaks account for almost two-thirds of the release of petroleum-related compounds into Puget Sound!
- Used oil from a single oil change can pollute up to one million gallons of freshwater.
- The EPA estimates that American households improperly dump about 193 million gallons of used oil every year, or roughly the equivalent of 17 Exxon Valdez oil spills.

## Lower Emissions

In the Pacific Northwest, most of our power comes from hydroelectric and other renewable energy sources. That means that when you drive an EV you are trading fossil fuels (gasoline and diesel) for energy coming from dams, wind farms and (sometimes) solar power. Look up your specific zip code's electricity mix and EV emissions on the US Department of Energy's Alternative Fuels Data Center.

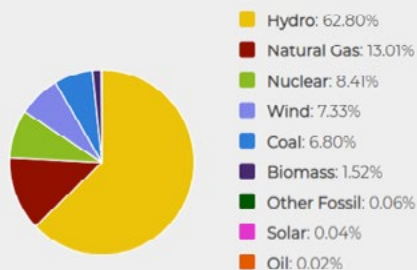
## EV Driving Range and Recharge Time

EV range on a full charge goes from around 80 to over 330 miles. The average American's daily round-trip commute is less than 30 miles. Fully recharging the bigger battery packs with 240V can take 4 to 8 hours, so you can charge while you sleep. A "fast charge" to 80% capacity can take as little as 30 min.

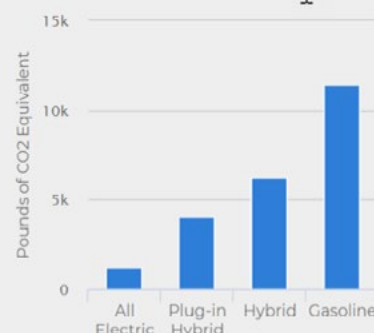
If you are interested in learning more about the benefits of EVs visit [climatetoolbox.info/estimates-for-evs-in-thurston-county](https://climatetoolbox.info/estimates-for-evs-in-thurston-county).

## State Averages for Washington

Electricity Sources



Annual Emissions per Vehicle



## Cost Savings

The income tax rebate of up to \$7,500 for buying a new EV, and the fact that you don't have to pay Washington's sales tax on most of the price of new and used EVs both make the cars a lot more affordable than they look at first glance. Depending on your local gasoline and electric rates, EV operation can be 3 to 5 times cheaper than gasoline and diesel-powered cars.

## Bye-Bye Gas Stations

All electric vehicles do not require gasoline and can be charged at home with a standard 120V outlet, or a 240V outlet or charger can be installed for faster, more efficient charging.

## EV Performance Benefits

Electric motors provide quiet, smooth operation, stronger acceleration and require less maintenance than gasoline-powered internal combustion engines.

## Featured Creature

Opossum ... possum  
(Didelphidae family)



### Marsupials on the Move

Opossum's are marsupials (pouched mammals) and not of the rodent family, despite its rodent like tail and pointy nose. They are the only marsupial in North America. Marsupials are a primitive group of mammals that carry their young in a front belly pouch where the joeys nurse and further develop. Opossums are related to other marsupials more commonly found in Australia such as kangaroos and koalas. Until the 1900's opossums were only found in the southeastern United States and in Central America where they originated. Opossums first arrived in Washington state as pets and novelties and since then, their range has greatly expanded as these animals are highly adaptable.

### Nighttime Munchers

Opossums are nocturnal, foraging up to two miles in search of food each night. They are primarily solitary animals except during the breeding season or if a female has young. Opossums are omnivores and scavengers preferring fruit, grain and insects. In the wild they will eat invertebrates, small mammals, amphibians, reptiles, ground nesting birds and eggs. In the urban areas they are beneficial as they feed upon rodents, carrion, slugs, and snails. (Although they may raid your compost pile if uncovered.) Like all wildlife, they are affected by human actions that pollute our waterways.

### Rabies Resistant

Oddly enough, opossums have a natural resistance to rabies. They rarely contract the disease and are therefore even less likely to transmit it. They are also fastidious groomers, ridding themselves of ticks helping with their control.

### Playing Dead

Although they are good climbers and swimmers, they are not fast runners and will employ a unique defensive mechanism. When they are threatened, an opossum will hiss and bare its teeth or try to escape. If attacked, it will play dead until the danger has passed. Opossums are not dangerous and are only a nuisance if human actions permit them to be.

#### To prevent these animals from being a nuisance:

- Do not feed them!
- Feed pets inside or pick up food bowls. Do not leave pet food out where other animals have access.
- Secure your garbage with a tight-fitting lid.
- Do not put food in compost areas. Securely cover your compost.
- Clean barbecue grills and grease traps.
- Eliminate denning areas by closing potential entry areas.

For more information, visit [wdfw.wa.gov/species-habitats/species/didelphis-virginianus](http://wdfw.wa.gov/species-habitats/species/didelphis-virginianus).



# Amphibians of the Pacific Northwest Webinar

Explore the ecology, habitat requirements and unique characteristics for each of our local frog and salamander species. Learn how to identify different life stages of PNW amphibians with an emphasis on egg mass identification.

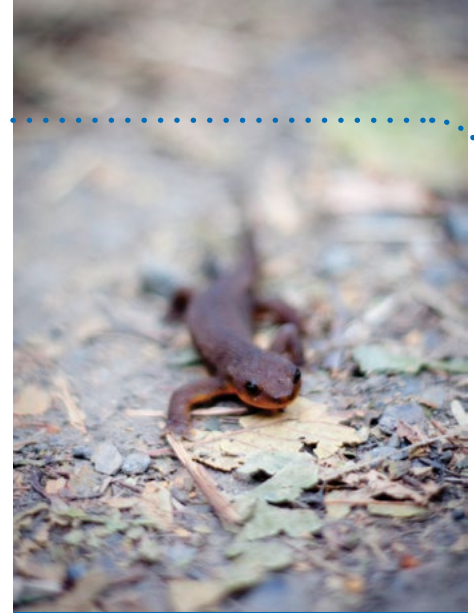
Join us with guest speaker, Washington State Fish and Wildlife herpetologist, Lameace Hussain, for a fun, informative workshop. Lameace has dedicated her career to studying amphibian and reptile behaviors, habitat preferences, and educating both the public and students on conservation efforts geared towards our slimy, scaly friends. She is an adjunct instructor at Green River Community College where she teaches wildlife ecology.

## Winter Amphibian Egg Mass Surveys

This winter, join other adventurous volunteers and survey wetlands for amphibian egg masses! Surveys are held mid-February through March. Survey teams will be kept small to accommodate physical distancing. Signing up with a friend or family member is encouraged for ease of social distancing.

Watch our website calendar for additional dates in March for more egg mass surveys. Volunteers are encouraged to attend the Amphibians of the Pacific Northwest-Webinar before participating in surveys, on site field training will be provided.

To sign up for this webinar or to register as a volunteer, visit [streamteam.info/events](https://streamteam.info/events). For more information, contact Michelle at [mstevie@ci.olympia.wa.us](mailto:mstevie@ci.olympia.wa.us).



## AMPHIBIANS OF THE PACIFIC NORTHWEST WEBINAR .....

- Sat., Jan. 23
- 10 – 11 a.m.
- [streamteam.info/events](https://streamteam.info/events)

## Please register separately for workshop, and surveys.

To register for this workshop, or to help survey egg masses, visit [streamteam.info/events](https://streamteam.info/events). For more information, contact Michelle at [mstevie@ci.olympia.wa.us](mailto:mstevie@ci.olympia.wa.us).

## AMPHIBIAN EGG MASS SURVEY DATES ....

- Sat., Feb. 6, 20, 27 & Mar. 6, 13, 20 • 9:30 – 11 a.m.
- Thurs., Feb 11 & Mar. 11 • 1 – 3:30 p.m.
- Fri., Jan 29
- Locations TBA
- Watch our website calendar for additional dates in February and March for more egg mass surveys.



CREDIT: ANDY O'CONNOR



CREDIT: MICHELLE BURTON PHOTOGRAPHER



CREDIT: MICHELLE BURTON PHOTOGRAPHER



# Kids' CORNER

**BALD EAGLES**  
like to eat chum  
salmon returning to  
local creeks to spawn.

**ONE  
LARGE  
TREE**

can capture  
and filter up to  
**36,500 GALLONS**  
of water per year

What did the  
**tree wear**  
to the **pool  
party?**

swimming trunks!

WHAT IS  
A FROG'S  
FAVORITE  
THING TO  
WEAR?

ILLUSTRATION BY

Find these words in **Stream Team  
News** - then complete the word search!

1. Amphibian
2. Bees
3. Electric Vehicle
4. Flooding
5. Groundwater
6. Opossum
7. Paddle
8. Rain
9. Residential
10. Shellfish
11. Tire
12. Weather

More than 7 million quarts  
of motor oil from vehicles  
is carried by stormwater  
runoff into Puget Sound  
each year!

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



## Naturescaping for Water & Wildlife

Join WSU Native Plant Salvage and Stream Team for our popular Naturescaping workshop online! This online class is a multi-part workshop where you will learn how to select the best plants for your landscape, reduce maintenance chores, use less water, and protect local waterways. Participants will take part in a combination of live webinars, interactive discussions, and independent learning activities on the following Naturescaping topics:

- How to attract birds, butterflies, pollinators and other wildlife
- Easy ways to minimize lawn space to create more diverse and layered planting
- How to manage drainage onsite—including adding permeable hardscaping—to protect your home and local waterways
- Landscaping for tricky areas such as slopes
- Recommended native and water-wise plants for our climate
- Plant design principles and using plants for structural goals (slopes, drainage, privacy)
- Defining your goals and creating your “dream” vision
- Implementing your vision, including costs and ways to save money
- How your landscape can protect and conserve local water resources and re-create wildlife habitat—no matter where you live!

For more information, email [nativeplantsalvage@gmail.com](mailto:nativeplantsalvage@gmail.com) or register online at [streamteam.info/events](http://streamteam.info/events).

## NATURESCAPING WEBINAR SERIES

- January & February
- [streamteam.info/events](http://streamteam.info/events)

# Stream Team Events

For additional events, event details or to register, please visit our website at [streamteam.info](http://streamteam.info) and click on the calendar icon.

## DECEMBER

### Annual Allison Springs Bald Eagle Paddle

Sat., Dec. 5 • 9 a.m. – 12:30 p.m.

Allison Springs Lane SW, Olympia

A perfect social distancing event!

See page 2 for more details.

For more information, visit [volunteer.olympiawa.gov](http://volunteer.olympiawa.gov) or contact Parks Stewardship at 360-753-8365.



## JANUARY & FEBRUARY

### Nicotine Bees a Documentary Film: Neonicotinoids & Colony Collapse Disorder

Sat., Jan. 9 • 10 a.m.

Join us with Kevin Hansen, local documentarian and Thurston County hydrogeologist for an eye-opening film on the cause of Colony Collapse Disorder across the USA.

See page 12 for more details.

Register online.

### Amphibians of the Pacific Northwest Webinar

Sat., Jan. 23 • 10 – 11 a.m.

[streamteam.info/events](http://streamteam.info/events)

Explore the ecology, habitat requirements and unique characteristics for each of our local frog and salamander species. Ages 10+

See page 9 for more details.

Register online.

### Naturescaping for Water & Wildlife

January & February

Join us in January and February for an interactive Naturescaping webinar series.

See above for details.

Register online.

### Amphibian Egg Mass Survey Dates

Sat., Feb. 6, 20, 27 & Mar. 6, 13, 20  
9:30 – 11 a.m.

Thurs., Feb. 11 & Mar. 11 • 1 – 3:30 p.m.

Fri., Jan 29

Locations TBA

Signing up with a friend or family member is encouraged for ease of social distancing.

See page 9 for more details.

Register online.

Please register separately for workshop, and surveys.



## COMMUNITY EVENTS

### MLK Jr Day of Service

Sat., Jan. 16 • 10 a.m. – 2 p.m.

Various Olympia Parks

City of Olympia Parks, Art & Recreation will be hosting multiple small group volunteer projects at various parks in Olympia.

For more informations visit: [olympiaparks@ci.olympia.wa.us](mailto:olympiaparks@ci.olympia.wa.us)





2000 Lakeridge Dr SW  
Bldg 4 #100  
Olympia, WA 98502  
[streamteam.info](http://streamteam.info)

## ***Nicotine Bees* a Documentary Film Neonicotinoids & Colony Collapse Disorder**

Join us with Kevin Hansen, local documentarian and Thurston County hydrogeologist for an eye-opening film on the cause of Colony Collapse Disorder across the USA. Kevin will introduce his film released in 2010 and share his knowledge on this formidable pesticide.

This super concentrated, synthetically manufactured chemical is extremely toxic to all insects. It is persistent in our environment, is highly water-soluble and being systemic, can be taken up into all parts of the plant including its seeds, pollen and nectar. Honeybees harvest the contaminated pollen, which causes neurologic impacts to the bees, affecting their ability to find their way back to the hive leading in part to Colony Collapse Disorder (CCD).

Due to it being highly water soluble, this chemical is picked up through stormwater runoff contaminating our waterways. Neonicotinoids residues have been found in surface water, wetlands and soil. These chemicals are present in our food and cannot be washed off. Studies indicate there may be “adverse developmental and neurological impacts from chronic exposure to neonicotinoid pesticides.” (National Collaborating Centre for Environmental Health, [www.nccch.ca](http://www.nccch.ca))

### **What can you do?**

- Buy organic food, seeds, clothing and materials
- Do not purchase plants that have been treated with neonicotinoids
- Ask your local nurseries to not support use of neonicotinoids
- Talk to your representatives and ask them to support legislation prohibiting use of neonicotinoids

To register for this online webinar, visit [streamteam.info/events](http://streamteam.info/events). For more information, contact Michelle at [mstevie@ci.olympia.wa.us](mailto:mstevie@ci.olympia.wa.us).



### **Neonicotinoids:**

(nēō'nikə,tinoid) are systemic insecticidal chemicals, meaning they are system wide and affect the entire organism. Neonicotinoids are chemicals derived from nicotine affecting the central nervous system of insects, causing overstimulation of their nerve cells, paralysis and death. These chemicals are the most used insecticides in the world and linked to Colony Collapse Disorder in honeybees, worldwide.



## **NEONICOTINOID & COLONY COLLAPSE DISORDER .....**

- **Sat., Jan. 9**
- **10 a.m.**
- [streamteam.info/events](http://streamteam.info/events)

## **No Holiday Tree Program**

*The holiday tree program will not be offered this year. The nurseries are busy growing trees for us as they try to meet the demands of a statewide shortage.*

