# How to Spot and Report Pollution

Kirsten McDade – Pollution Prevention Specialist









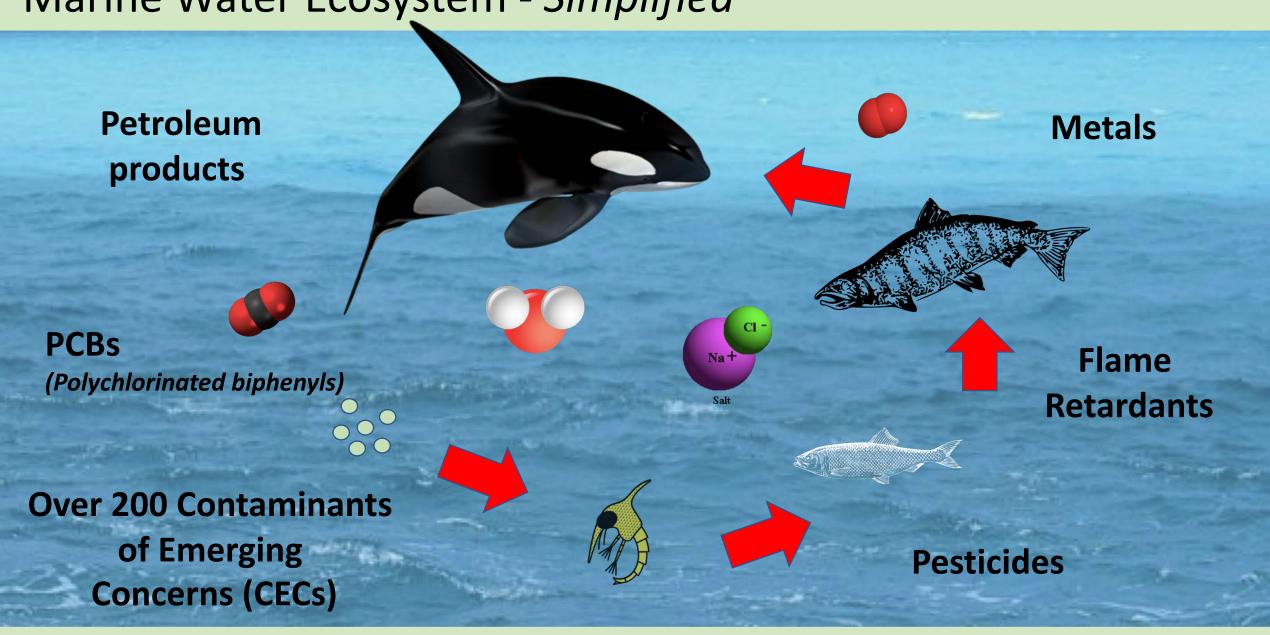




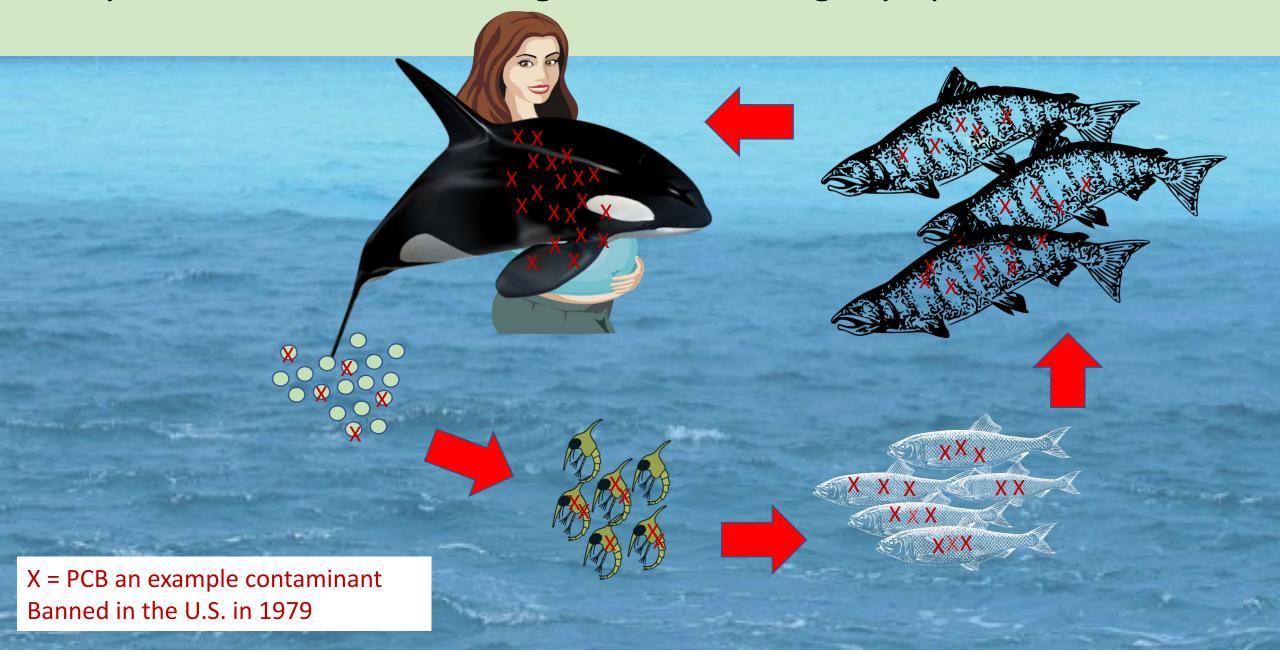
Where is your favorite coastal area? Beach, bay, wharf...



Marine Water Ecosystem - Simplified



#### Many toxins accumulate in organisms and magnify up the food chain



#### Dead Orca Contained Highest Levels of Toxins Ever Recorded in a Whale

By Kacey Deamer, Staff Writer I May 9, 2017 10:08am ET





MORE ▼

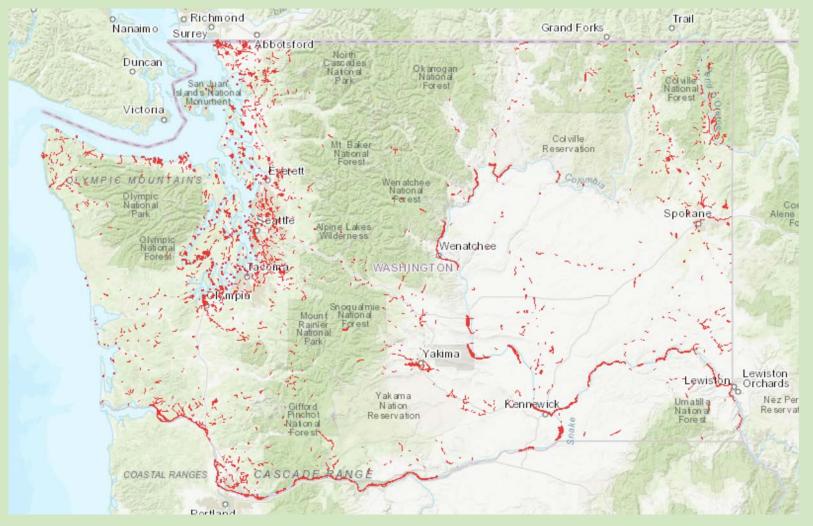


"Lulu" the killer whale was found dead after becoming entangled in fishing rope in January 2016.

Credit: Scottish Marine Animal Stranding Scheme/Scotland's Rural College

"The PCB concentrations in Lulu's blubber were 100 times higher than the toxicity level scientists have determined is safe for marine mammals"

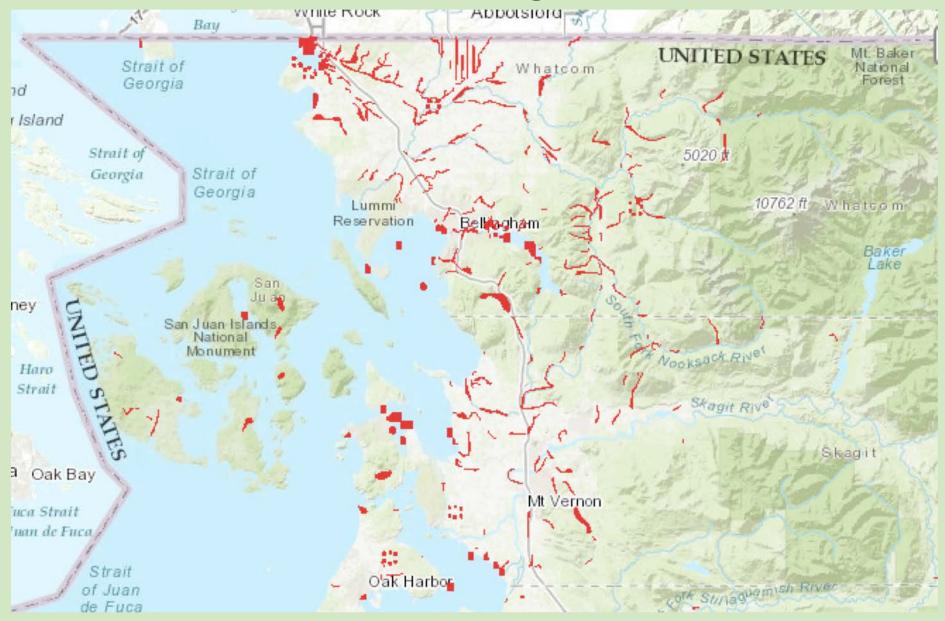
# Washington state waters that do not currently meet water quality standards – aka **Impaired Bodies of Water**



Red lines are Category 5 waters which are "Polluted waters that require a water improvement project"

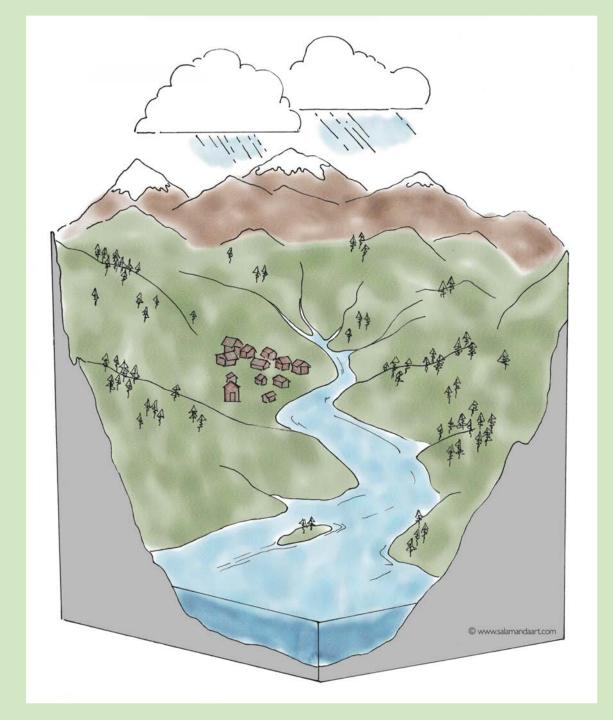
Taken from Department of Ecology Water Quality Atlas

#### Impaired waters in Whatcom, Skagit, and Island Counties



# Washington Water Report card:

	Rivers and Streams	Lakes, Reservoirs, Ponds	Ocean and Near Coastal
Impaired:	1,591 miles	316,656 acres	200 square miles
% of assessed:	80%	68%	53%
Top Impairments:	<ul> <li>Temperature</li> <li>Fecal Coliform</li> <li>Dissolved Oxygen</li> <li>pH</li> </ul>	<ul> <li>PCBs and Dioxins</li> <li>Invasive Species</li> <li>Temperature</li> <li>Dissolved Oxygen</li> <li>Fecal Coliform</li> <li>Phosphorous</li> <li>Pesticides</li> <li>Mercury</li> </ul>	<ul> <li>Fecal Coliform</li> <li>Dissolved Oxygen</li> <li>Invasive Species</li> <li>Toxics (total)</li> <li>PCBs</li> <li>Metals</li> </ul>



Rain washes all the contaminants off our roofs, sidewalks, and streets and transports them to our creeks, streams, and oceans. More than 80% of the contaminants in the ocean come from land.



### Goals of the Water Reporter Program:

1. To empower and actively engage citizens to recognize and report pollution in our community

#### "Water Reporters"

2. To work together with our neighbors, friends, colleagues, city and state agencies to fix and find solutions.







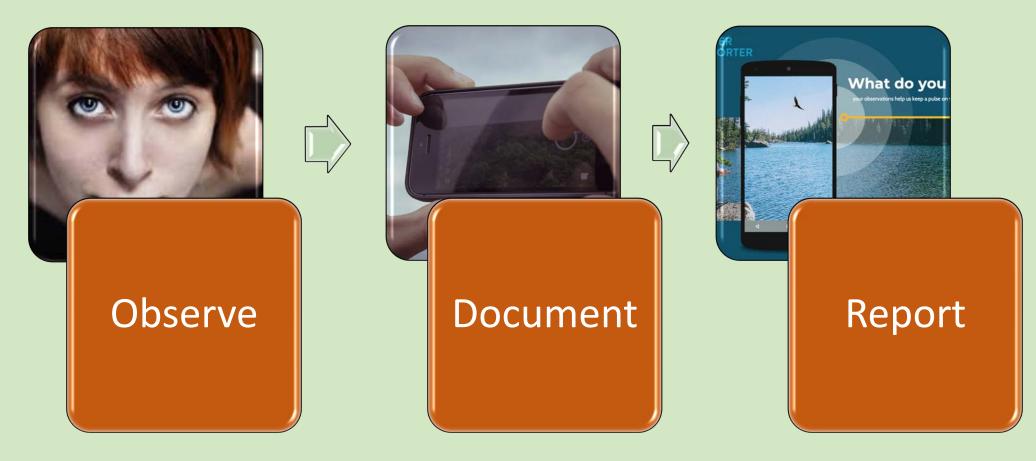








#### When you see pollution...



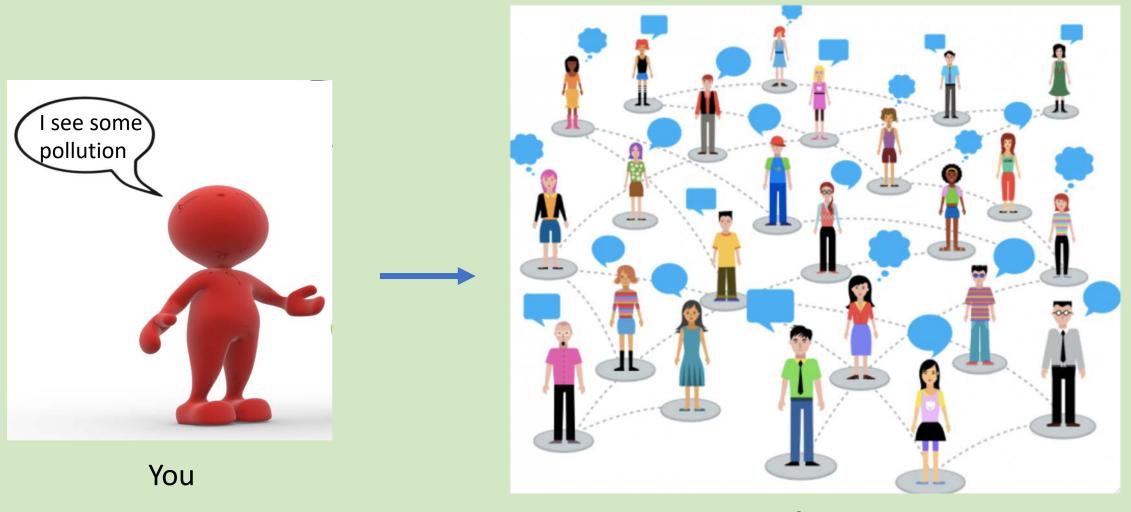
## How Pollution is Typically Reported

Call me: (360) 220-0556 or Email me: kirstenm@re-sources.org



# A New Way to Report:





**Community of Water Reporters** 

#### How to start using The Water Reporter App

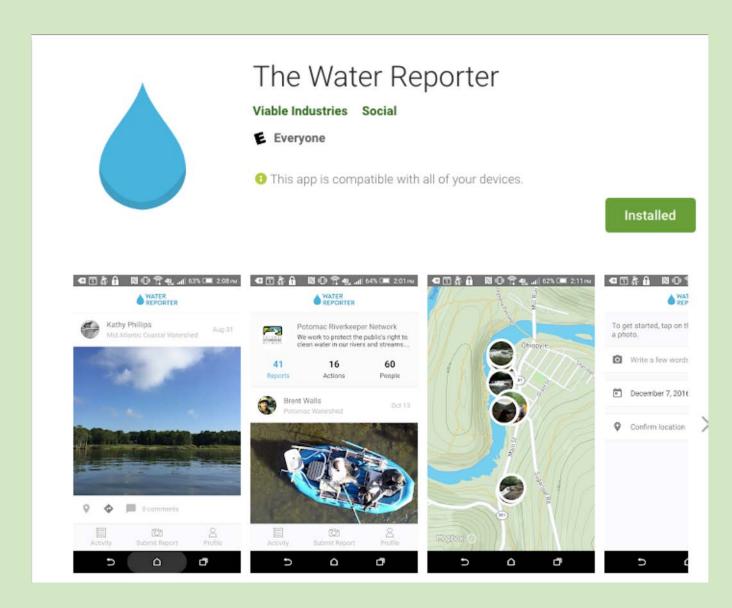
Step One: Open Google Play or App Store



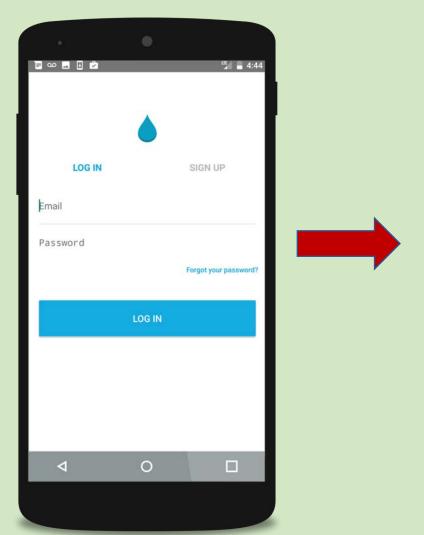
Step Two: Search, Find, and Download The Water

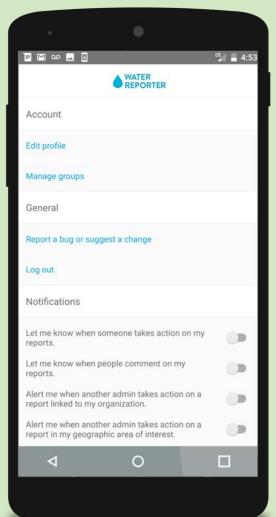
Reporter App

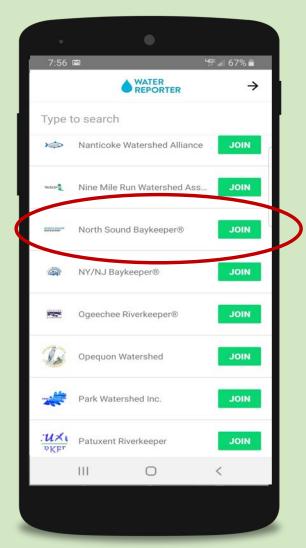
There is also a website: www.waterreporter.org



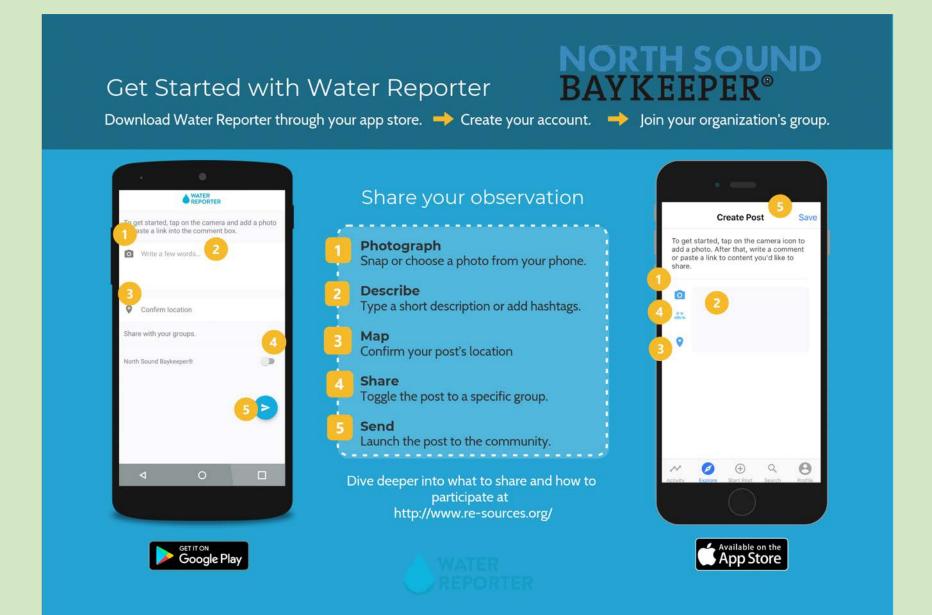
# Step Three: Create and Manage your Account





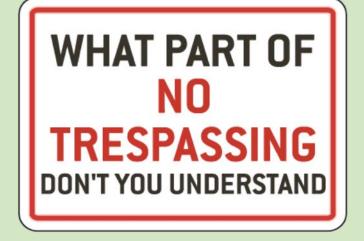


# Step Four: Report Pollution!



### What this program is not:

- Getting neighbors or businesses in trouble
- Trespassing on private property
- Being confrontational or rude
- Putting yourself in unsafe or hazardous situations





### A note about private property

Puget Sound waterways are public property

Puget Sound shorelines including beaches may be private property





#### **Outline:**



# What to look for on land



#### Nothing but WATER should go down a storm drain





Storm drains need to remain free of debris and unclogged.



Remember: Only water should be going down a stormdrain!

# **Agriculture** – contributes fecal coliform, nutrients, sediment, and fossil fuels





Keeping livestock out of water is critical to keeping our waters clean!

#### **Construction sites** – contribute sediment



### Finding Ecology-Related Construction Sites:

- 1. Go to Dept of Ecology's website: https://ecology.wa.gov
- 2. Search "PARIS"
- 3. Click "Water Quality Permitting and Reporting Information System"
- 4. Click "Permit Number Type/Search"
- 5. Under Permit Type find "Construction SW GP"
- 6. Admin Region find "Northwest"
- 7. Click "Search"
- 8. Click on Excel Spread sheet icon



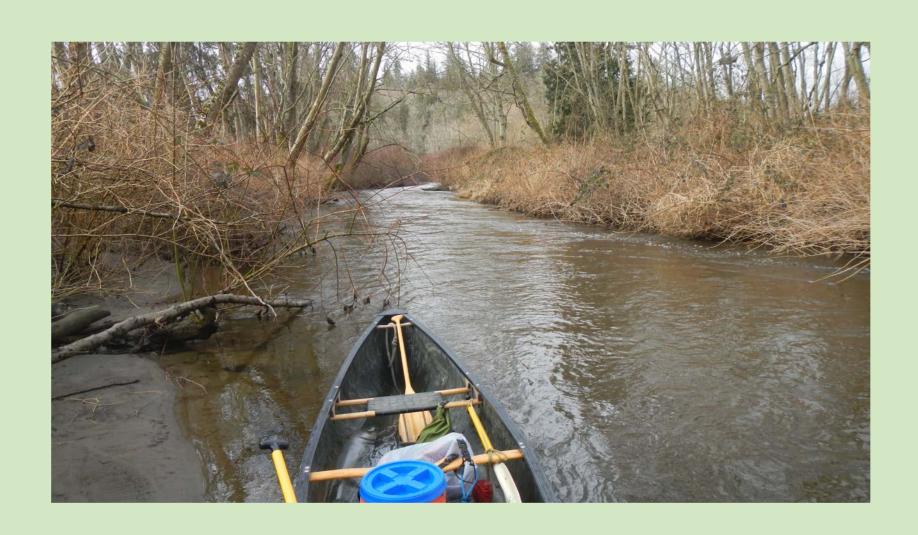
# Railroad activity - contributes sheens, dust, debris







# What to look for in the water



Discharge coming from pipes should be clear and have no odor



Be suspicious of gushing discharge during dry weather!

# Marinas/Boatyards –

contribute soaps, sanitary waste, sheens, fish waste, paint chips, toxic sanding dust...







#### Industrial sites –

contributes sediment, sheens, toxic contaminants, warm water...





# **Bluff Failures and Erosion** – contributes sediment and toxic contaminants...





#### Foam



#### **Natural foam:**

- Caused by decomposition and aeration.
- Off-white, yellow, or brown
- Smells earthy. Foam smelling of manure usually means there is manure in the water.
- Breaks apart when poked



#### **Unnatural foam**

- Caused by detergents
- Bright white and may have a rainbow sheen to it
- Smells like soap or perfume.
- Stays together when poked.

Algal Blooms — can release toxins that can make people and pets sick. When they decay they cause low dissolved oxygen conditions that can be lethal to aquatic organisms.



Kanaka Bay, San Juan Island - May 2018



Lingcod from the 2006 Hood Canal fish kill event. Photo credit: Hood Canal Dissolved Oxygen Program

# Trash Cleanup





When on Pollution Patrols you will inevitably find trash

# Check out a Cleanup Kit!

- **\***Buckets
- **❖** Bags
- **Gloves**
- Grabbers

Call or email the Pollution Prevention Hotline

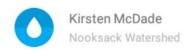


Get your friends, family, neighbors, colleagues to join the fun!



#### Water Reporter in Action!





Apr 15



This was found along side the ASB trail this morning and maybe red garnet sandblasting abrasive from a nearby business. #pollution. I will contact the Port of Bellingham.

NORMI SOUND ENTREEFER







Simon Bakke

Apr 15

How could this impact water quality? Turbidity? Just curious!



Kirsten McDade



Apr 15

Cool question. According to the Occupational Safety and Health Administration (OSHA) these abrasives are used to clean boats during construction and repairs. The dust created from them cause various lung ailments. The waste product, like the one pictured, will include bits and pieces of whatever was blasted, often a type of metal which can be very toxic to aquatic organisms. The Port has been contacted and they said that they are going to take a look.



Kirsten McDade



Apr 16

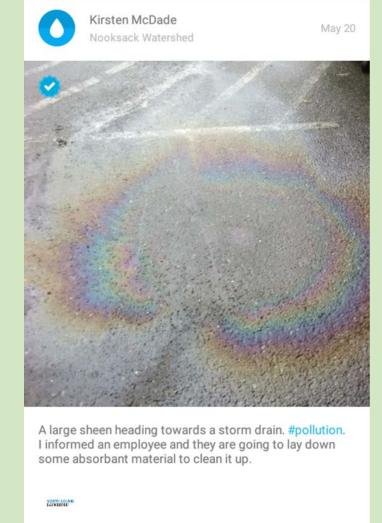
It has been confirmed that this was sandblast grit from a spilled wheelbarrow and it has been cleaned up. Port staff are also working to remove a lot of garbage that was deposited over the weekend on the nearby beaches. Yeh!



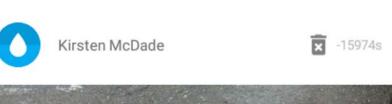
Add a comment...



#### And this....









Absorption pads put into place. This will hopefully prevent some of the fossil fuels from entering the storm drain and flowing into Bellingham Bay.



Add a comment...



## Use Hashtags (#) to Categorize Posts

```
#pollution – anything except water such as soap, fossil fuels etc...
#trash – larger amounts
#sediment – dirt flowing off property
#stormdrain – when plugged up
#foam
#algae
#manure
#flooding
#whatisthis – if you are not sure if something is a pollutant
```

# Prizes for people who download the App and use it!





Funding for this Water Reporter Program is provided by a Public Participation Grant from the Washington State Department of Ecology

#### **References:**

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- Department of Ecology Water Quality Assessment Categories. <a href="https://ecology.wa.gov/Water-Shorelines/Water-quality/Water-improvement/Assessment-of-state-waters-303d/Assessment-categories">https://ecology.wa.gov/Water-Shorelines/Water-quality/Water-improvement/Assessment-of-state-waters-303d/Assessment-categories</a>
- Lanksbury, J.A., Niewolny, L.A., Carey, A.J., West, J.E. 2014. Toxic contaminants in Puget Sound's nearshore biota: a large-scale synoptic survey using transplanted mussels (*Mytilus trossulus*). Washington Department of Fish and Wildlife Publication #FPT 14-08. 180pp.
- Orca Network: http://www.orcanetwork.org/Main/
- PSEMP Toxics Work Group (2019). 2018 Salish Sea Toxics Monitoring Synthesis: A Selection of Research. C.A. James, R. Jordan, M. Langness, J. Lanksbury, D. Lester, S. O'Neill, K. Song, and C. Sullivan eds. Puget Sound Ecosystem Monitoring Program. Tacoma, WA. 88 pgs. <a href="https://www.eopugetsound.org/articles/2018-salish-sea-toxics-monitoring-synthesis">https://www.eopugetsound.org/articles/2018-salish-sea-toxics-monitoring-synthesis</a>
- Stormwater Messaging Toolkit: <a href="https://www.pugetsoundstormgroup.org/Toolkit.aspx?no=521&DocID=Q069z02P5AQ%3D">https://www.pugetsoundstormgroup.org/Toolkit.aspx?no=521&DocID=Q069z02P5AQ%3D</a>
- Washington State Water Quality Atlas: <a href="https://fortress.wa.gov/ecy/waterqualityatlas/StartPage.aspx">https://fortress.wa.gov/ecy/waterqualityatlas/StartPage.aspx</a>
- Washington State Water Quality Standards for Groundwater: <a href="https://apps.leg.wa.gov/WAC/default.aspx?cite=173-200">https://apps.leg.wa.gov/WAC/default.aspx?cite=173-200</a>
- Washington State Water Quality Standards for Surface waters: <a href="https://apps.leg.wa.gov/WAC/default.aspx?cite=173-200">https://apps.leg.wa.gov/WAC/default.aspx?cite=173-200</a>

#### Thanks for listening and taking action!

Another reminder of why this is so important... to keep this little one alive



J56 off of Tofino on May 30, 2019 Photograph taken by John Forde and Jennifer Stevens