



## Lesson 2 Part 1

### Fifth Grade



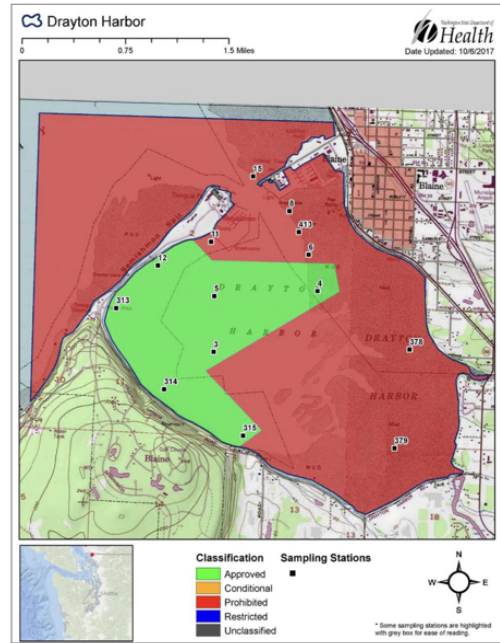
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## Pollution in Drayton Harbor

Twenty years ago, Drayton Harbor in Blaine faced a challenge: because of high levels of pet and farm animal poop washing into the water, there were unusually high levels of fecal coliform bacteria. This bacteria makes water unhealthy for both humans and animals, especially shellfish. Shellfish build up toxins in their bodies as they filter water, so the bacteria was showing up in high amounts in these shelled creatures. In response, the Washington State Health Department restricted eating oysters and clams in the community, and no one could harvest shellfish in the area. The images below show the change in the water through time, with the left map showing the harbor's closure for harvesting shellfish in 1999, and areas marked in red are where shellfish harvesting was prohibited. Fast forward to 2004, when a repair fixed a leaky sewer pipe that crossed the harbor's mouth. Following this, a community oyster farm was established. The right map from 2017 shows a big transformation! All the areas marked in green open for shellfish harvest. The once community oyster farm is now owned by the Drayton Harbor Oyster Company, who have a restaurant in Blaine!

*We acknowledge and respect the treaty rights of the Coast Salish Peoples to the unceded lands and waters of the Salish Sea and we recognize their stewardship since time immemorial.*

[Gardensalishsea.org](http://Gardensalishsea.org) 5th Grade



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- This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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## Healthy Watersheds Design

1. What are three sources of pollution you saw in the watershed model? Label them as non-point sources (NP) or point sources. (P)

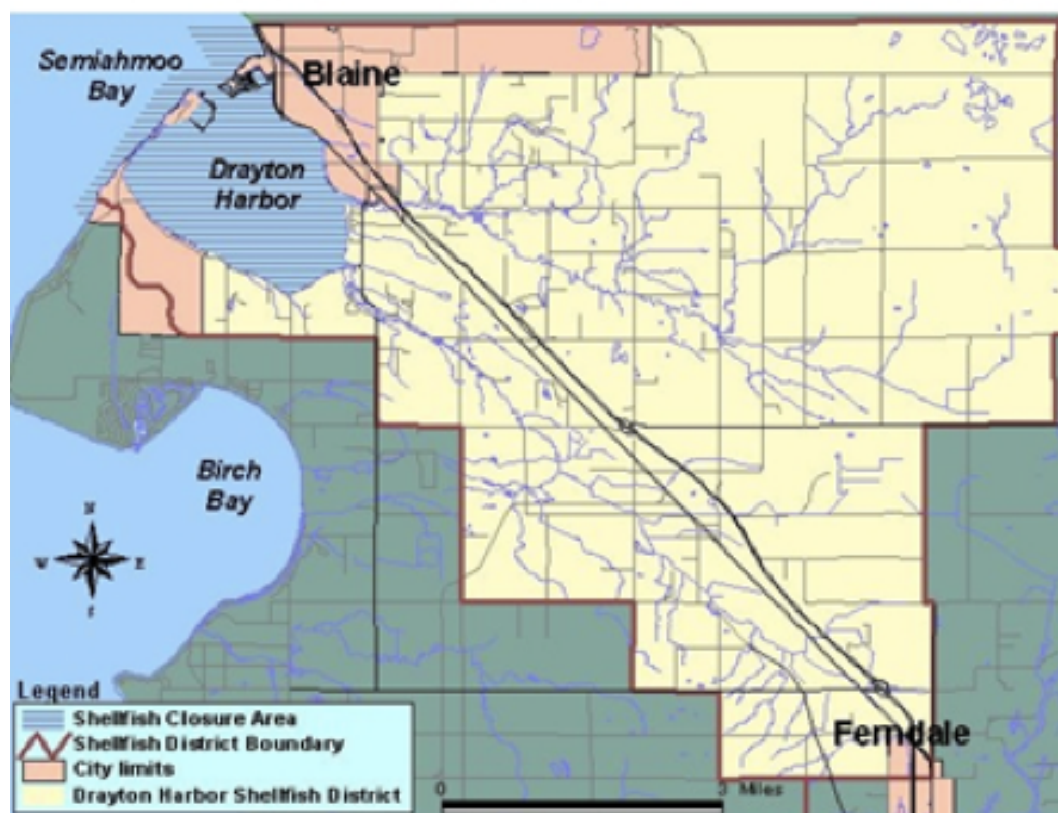
1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

2. Label/outline as many landmarks as you can on the Drayton Harbor Watershed map in your favorite colors. Include 2 streams.

### Drayton Harbor Shellfish Protection District



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3. Name two things you can do to decrease the amount of pollutants that reach our intertidal zones

1. \_\_\_\_\_

2. \_\_\_\_\_

4. Design your own watershed on the next page (use the outline of Drayton Harbor Map if you'd like). Then, draw some farms and houses near any streams. Finally, add each item listed below on your map. Be prepared to explain your thinking to the group. Label everything!

Include:

- ☐ farms
- ☐ houses
- ☐ storm drains
- ☐ a bunch of cows on a dairy farm
- ☐ trees
- ☐ fields of grass
- ☐ at least two streams
- ☐ sidewalks and roads
- ☐ a plastic bag
- ☐ a stone pathway
- ☐ a kid with a dog
- ☐ fences

**Extra: solar panels, gardens, an organic farm, a bicycle. How might each of these help reduce ocean water pollution?**

## My Watershed Design