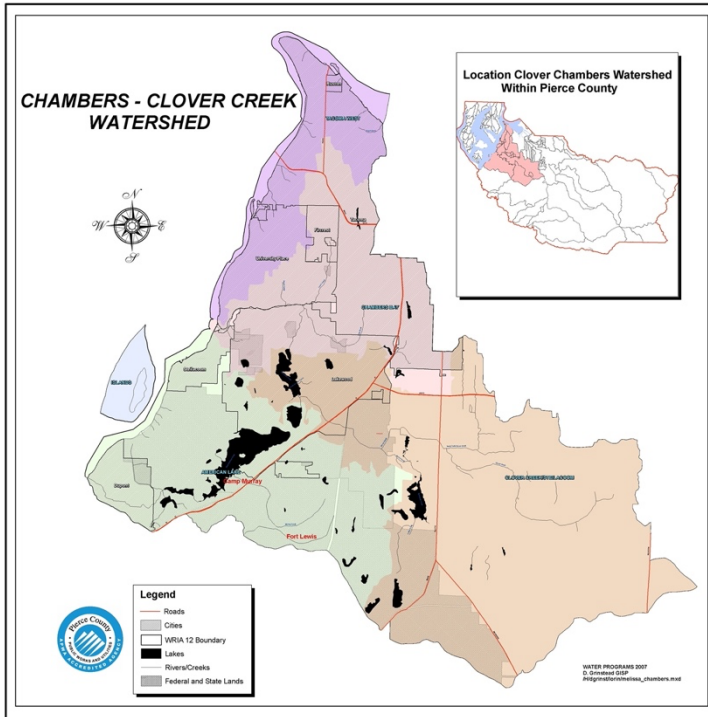


Watershed Scavenger Hunt: Sequalitchew Trail

1700 Civic Dr, DuPont, WA 98327

This scavenger hunt allows you to explore a part of the Chambers Clover Creek Watershed in Pierce County, WA which includes 7 towns and 3 military bases.



What is a watershed? A watershed is an area of land that catches rain and snow, which drain into streams, rivers, lakes, marshes, bays, lagoons, soil, or groundwater beneath the surface. Watershed drainage systems are often interconnected. Watersheds combine water runoff with groundwater.

Why is a watershed important? Watersheds not only supply water for human consumption and services, but they also provide fish and wildlife habitat, contribute to water quality maintenance, help to moderate flooding, and can stabilize shorelines.

Sequalitchew Trail Facts:

- Nisqually people named Sequalitchew, as the “place of long run out tide.”
- The creek has had many inhabitants including the Nisqually tribe, the Hudson Bay Company, the DuPont company, and Weyerhaeuser.
- DuPont produced explosives at the top of canyon, and a narrow-gauge train took explosives down the canyon and brought raw materials from the harbor to the plant. The creek provided hydroelectric power to the plant and village.
- In the 1980s a major repository of toxic materials were discovered. Cleanup began in the 1990s and eventually 4,000 barrels of hazardous waste were removed. This cleanup was second in scope only to Hanford.
- The current restoration plan intends to restore flow of water from the outlet of Sequalitchew Lake (on JBLM), through Edmonds Marsh to the shore of Puget Sound, a 3.5 miles distance.
- Streams, springs, and other bodies of water help to recharge the aquifers beneath us. As water seeps through soil and roots of plants and through the earth, pollutants are removed.

This scavenger hunt is designed for individuals or families to explore and discuss the features and nature of our watershed.

From the City Hall Parking lot enter the trail as it descends to Puget Sound, about 1.5 miles. Please stay on the trail to protect the sensitive environment.

As you walk to the Sound check all that you see or hear. Be sure to stop at each location noted after this short list.

- Breaks in the tree canopy with filtered sun.
- Areas with erosion. What do you think caused these?
- Sounds of the creek to your left.
- Sounds and sightings of birds and other wildlife, such as chipmunks.
- Fallen trees.
- Stinging nettle – do not touch!

Location 1:

Walk past the Flume Dam marker, through the chain link fence, and turn left to look into the creek canyon.

Carefully peer over the edge of the beginning of the creek canyon. The flume dam re-directs the creek into the canyon. As you look into the canyon what do you notice?

- A deep drop-off. Canyon depth can indicate its age, the velocity or pressure of water, or manipulation by development.
- A shallow drop-off. The beginning of a canyon is often shallow.
- A culvert. A tunnel extending below the trail.
- Apparent eroded canyon edge with few plants. Erosion can carry plant debris and pollutants into the creek.
- Apparent stable canyon edge with many plants. A healthy riparian area (the creek bank) helps stabilize the water flow and prevents pollutants from entering the water.

Location 2:

AA.25 sign (left) and the Environmentally Sensitive Sign (right)

2A. To the right of the trail. What do see?

- Stinging nettle.



The top of the leaves have hollow hairs like a microscopic hypodermic needle to deliver formic acid. Beware!

- Eroded area. Disturbed by people climbing off trail disturbing plants holding the soil in place and exposing tree roots which facilitates rock falls and storm water runoff.

2B. To the left of the trail, do you notice:

- A fallen tree across the canyon and creek. Provides habitat for wildlife.
- Plants growing on the tree. Uses the tree for nutrients.
- The sound of water flowing.

Location 3:

Walk about 85' or steps after the pavement ends. Look to the right for a fallen tree and a small, short path.

Carefully avoiding any stinging nettle, look over or under the fallen tree. You should see a flow of water and a small concrete cistern that is capturing water seeping from the canyon wall. As you walk further you will see water running along and across the trail. Water is filtered through soil, rocks, and plants as it makes its way to the creek. During rainy periods you may find an underground culvert creating a small waterfall to the left of the trail.

- Location 4:** Look to the left of the trail and then to the right.
Stop at the Nursery Tree sign.
- Is the trail wide enough for a train? Remember, explosives were transported down this canyon. The trail has been re-engineered since there was a train, but it was not much wider.
 - Is their water seeping along or across the trail?
 - Is there gravel along the trail? Gravel helps water soak into the ground and enter the water basin.

- Location 5:** Please stay on the bridge and do not walk on the shoreline or into the creek water. What do you notice about the creek?
AA 1.25 Sign turn left and walk to the bridge over the creek.
- The creek bottom is rocky with fast moving water. This type of creek bottom may have less sediment and riffles with some pools of water ideal for salmon.
 - The creek bottom is muddy with very slow-moving water. The water may have more sediment which can be mineral-rich.
 - There are logs or woody debris. Wood in a creek can provide habitat for spawning fish, and protection from predators.

- Location 6:** After your last stop at the creek, a wide-open area reveals a lagoon (a saltwater marsh) which is separated from the Sound by a railroad berm. Return to the trail and stop at the Lagoon sign on your left. Which of the following do you see?
- A meandering muddy bottom creek. Fish and invertebrates in this area provide food for birds such as herons and eagles.
 - A culvert. The creek flows under the railroad berm.
 - Wetland grasses and plants. These help to manage flooding by holding soil in place.

If you continue through the tunnel to the beach before your walk back up the canyon, look for these:

- To the left: (a) Avoid the poison oak as you exit the tunnel, and (b) notice the culvert releasing freshwater into the Sound (you may see geese drinking here).
- To the right, follow the old piers and find the narrow, original railroad tracks.
- Looking out at the sound, you may see sea otters, seals, a variety of water birds, or whales.

Further Exploration:

Pierce County Watersheds - <https://www.piercecountywa.gov/1859/Watersheds>
Washington Native Plant Society- <https://www.wnps.org/>
WRIA 12 Watershed Restoration and Enhancement Plan - https://www.ezview.wa.gov/Portals/_1962/images/WREC/WRIA12/Final%20Plan/WRIA12FinalDraftPlan20210128.pdf