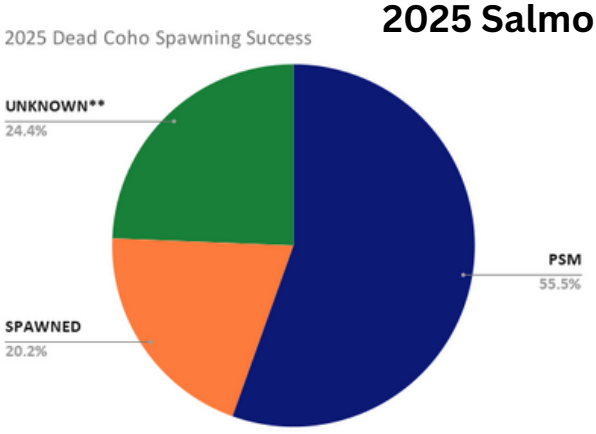
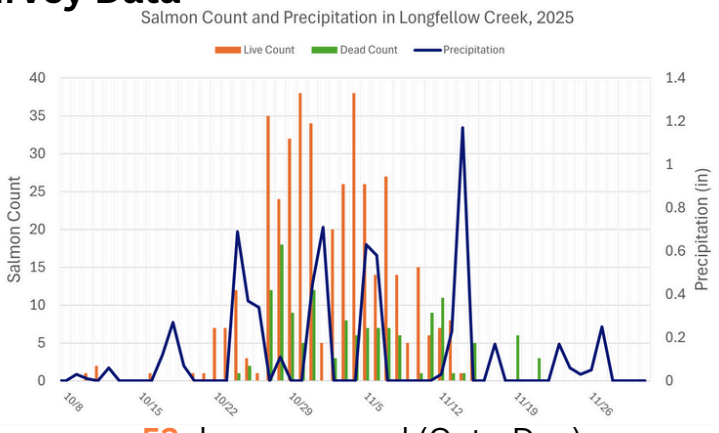
Seattle's Longfellow Creek
A Deathtrap for Coho Salmon

Every fall, coho salmon return to Longfellow Creek to reproduce. In 2025, **55.5% of returning female and male salmon died before spawning**, possibly due to harmful road runoff 6PPD-Q, a lethal compound coming in large quantities from automobile tires.

Coho salmon hold cultural, economic, and environmental importance in the Pacific Northwest, but their future is at risk. Since 2015, Puget Soundkeeper volunteers have found that 49-90% of coho returning to Longfellow Creek die before spawning due to Pre-Spawn Mortality (PSM)*. This issue, linked to Urban Runoff Mortality Syndrome (URMS) from polluted stormwater, affects urban streams across Puget Sound.

2025 Salmon Survey Data





57.9% Dead female coho (PSM);
22.8% spawned successfully
53.2% Dead male coho (PSM);
17.7% Spawned successfully
2.4% Coho observed symptomatic for URMS

52 days surveyed (Oct - Dec)
35 Volunteer surveyors
366 Coho counted alive***
130 Coho counted dead
October 27th Date of peak sightings
10.7 Average fish sightings per day

*Considered a PSM if 50-100% of eggs (female) or milt (male) remain in dead salmon.
**Fish spawning success unable to be determined due to a number of factors such as predation and decomposition.

***This includes double counts

Why is road runoff killing coho?

Toxic pollutants such as microplastics, heavy metals from industrial runoff, fertilizers, trash, and tire particles collect on streets every day, regardless of the weather. When it rains, these pollutants are washed into local waterways like Longfellow Creek, threatening both the environment and public health. In 2020, researchers from the University of Washington Tacoma and Western Washington identified 6PPD-quinone, a chemical from tire particles, as the specific toxin responsible for killing coho salmon.

Why is 6PPD-quinone in our waterways?

The toxicity of 6PPD-Q highlights a broader issue: the lack of regulations for commercial chemicals. In the U.S. chemicals are often approved before being proven safe and can remain in use even after causing harm, like lead, PCBs, and PFAS. While 6PPD-Q is essential for tire performance, it is devastating for coho and other salmon. What other harmful compounds remain undiscovered?

What can I do to help?

Laws and policies should protect communities from harmful chemicals entering our waters, homes, and food. Meanwhile, we must remove 6PPD-Q and other pollutants. Green Stormwater Infrastructure (GSI), like rain-gardens or bioswales, effectively removes these toxins from runoff. Simple solutions like GSI can help coho survive to spawn.

Take Action

Tell your elected officials you want them to act FAST to protect coho with Green Stormwater Infrastructure.

Thanks to the volunteers who participated in the fall Longfellow Creek Salmon Survey. If you want to join us in our efforts to protect Salmon and Puget Sound, visit www.pugetsoundkeeper.org.

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