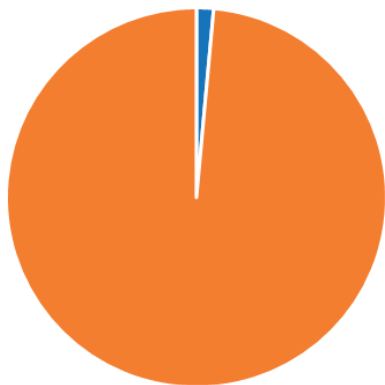


# Seattle's Longfellow Creek is a Deathtrap for Coho Salmon

Every fall, coho salmon return to Seattle's Longfellow Creek to reproduce. In 2022, 33% of returning female coho died with more than half of their eggs retained. Coho salmon Pre-Spawn Mortality, the inability to release eggs before death, is likely due to Urban Runoff Mortality Syndrome (URMS).

Coho salmon have a great cultural, economic, and environmental importance to the people and places of the Pacific Northwest. Impervious surfaces throughout the Puget Sound landscape increase the volume of stormwater runoff carrying pollutants to salmon streams and creeks. Fish encounter a toxic soup when they return to spawn in urban creeks and streams. Recent studies identified 6PPD-quinone, a byproduct of the tire chemical 6PPD, to be a persistent pollutant within stormwater runoff and acutely toxic to coho salmon.

2022 Live Coho Salmon

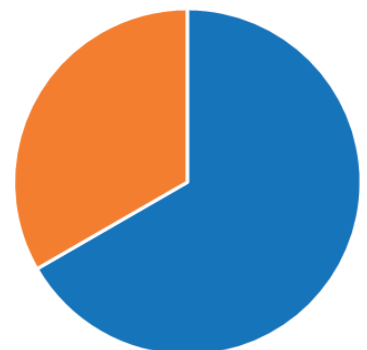


■ URMS Symptoms ■ No URMS Symptoms

Puget Soundkeeper's 2022 salmon survey volunteers found that nine out of 27 dead female coho salmon died before releasing their eggs.

Out of 86 live coho salmon counted, one was identified while experiencing Urban Runoff Mortality Syndrome symptoms (gaping of the mouth, fin splaying, spasms).

2022 Dead Female Coho Salmon



■ Successfully Spawned ■ Pre-Spawn Mortality





### What is 6PPD-quinone?

Local waterways, like Longfellow Creek, often act as drainage for urban areas. These creeks and streams receive stormwater laden with pollutants like microplastics, trash, heavy metals from industrial runoff, excessive nutrients from lawn fertilizers, tire particles, and more. Many pollutants pose environmental and public health threats, but University of Washington Tacoma and Western Washington University researchers identified 6PPD-quinone from tire particles as the specific chemical killing coho.

### Why is 6PPD-quinone in our waterways?

6PPD-quinone is a chemical derivative currently necessary for functional car tires yet is catastrophic for coho salmon. 6PPD-quinone and toxic road runoff points to a larger political problem: inadequate regulation and monitoring for chemicals and other substances approved for use in our homes, on our food, and throughout the ecosystem. In fact, chemicals are used even after they're shown to cause harm, like lead, PCBs, and PFAS. What other compounds could be polluting our waterways and ecosystems?

### What can I do to help?

Our communities should be protected by laws, policies, and permits that prevent chemicals from entering our waters, homes, and food in the first place. Meanwhile, we need to remove 6PPD-quinone and other pollutants from our waterways. Certain Green Stormwater Infrastructure solutions (GSI), like biofiltration, are proven to remove 6PPD-quinone and other pollutants present in toxic stormwater. Green infrastructure can help coho salmon survive to spawn. Without it, mortality rates will remain near 100%.

*Thank you to the volunteers who collected URMS data in Longfellow Creek. We couldn't do this work without you!*



[www.pugetsoundkeeper.org](http://www.pugetsoundkeeper.org)

### Take Action

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