

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

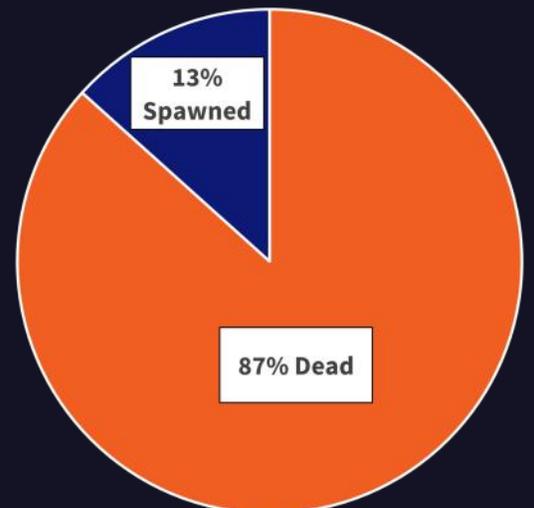


Every fall, coho salmon return to Seattle's Longfellow Creek to reproduce (spawn). In 2021, 87% of returning salmon died before they could spawn. The cause? Highly polluted road runoff containing 6PPD-quinone, a chemical from tires.

Coho salmon have great cultural, economic, and environmental importance to the people and places of the Pacific Northwest. Sadly, the future of this beloved fish is in question.

Since 2015, Puget Soundkeeper (PSK) volunteers have documented that 60–90% of coho salmon returning to Longfellow Creek die before spawning. This issue is called Urban Runoff Mortality Syndrome (URMS) and has been observed in urban streams throughout the Puget Sound region.

In 2021, PSK volunteers found that 13 out of 15 (87%) coho surveyed on Longfellow Creek died, meaning only two females successfully spawned. This percentage includes dead females (12) that were physically examined and alive coho (3) experiencing URMS symptoms. This is an increased mortality rate from 2020, when 83% died before spawning. In total, volunteers counted 90 salmon returning to Longfellow Creek in 2021, 87 of which were coho. In 2020, only 18 salmon were counted.





## Why is road runoff killing coho?

Every day, rain or shine, toxic pollutants collect on our streets. These pollutants include microplastics, heavy metals from industrial runoff, excessive nutrients from lawn fertilizers, trash, tire particles, and other sources. Local waterways, like Longfellow Creek, often act as drainage for urban areas. When it rains, the pollutants get washed into our waters. All pose environmental and public health threats, but in 2020 University of Washington Tacoma and Western Washington researchers identified 6PPD-quinone (6PPD-q) from tire particles as the specific chemical killing coho.

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

The presence of 6PPD-q and the toxicity of road runoff points to a larger political problem: the severe lack of regulation of commercial chemicals and compounds. Chemicals tend to be approved for use in our homes, on our food, and throughout the ecosystem before they're shown to be safe. In fact, our systems often allow chemicals to be used even after they're shown to cause harm, like lead, PCBs, and PFAS. 6PPD-q is a chemical derivative currently necessary for functional car tires yet is catastrophic for coho salmon. What other compounds could be causing harm that we don't know about?

## What can I do to help?

Our communities should be protected by laws, policies, and permits that prevent commercial chemicals from entering our waters, homes, and food in the first place. In the meantime, we need to remove 6PPD-q and other pollutants from our waterways. Green Stormwater Infrastructure (GSI), like bioretention, is proven to remove 6PPD-q and many other pollutants from road runoff and stormwater. Simple fixes like these can help all coho survive to spawn. Without them, we'll keep seeing mortality rates nearing 100%. Help protect coho by contacting your elected officials and telling them that you want them to act FAST to protect coho with GSI.

**Take Action**

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



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

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