

WHAT'S HAPPENING TO SALMON IN LONGFELLOW CREEK?

Every fall, coho salmon return to the lower stretches of Longfellow Creek to reproduce. Unfortunately, these salmon are met with a torrent of highly polluted stormwater runoff and most die before they are able to spawn, an issue known as Urban Runoff Mortality Syndrome.



Urban stormwater runoff includes a mixture of chemicals deposited on roads and other paved surfaces that are washed away by rainwater and discharged into nearby waterways. These chemicals are from car exhaust, oil leaks, tires, lawn fertilizers, heavy metals from brake linings, pet waste, industrial runoff, trash, and other sources. Longfellow Creek acts as the drainage for much of West Seattle, so the quantity of runoff entering the creek is very high.



If you see a salmon swimming in circles, gaping at the mouth, and/or flopping on its side, it is likely suffering from stormwater poisoning.

What is being studied?

Teams of volunteers coordinated by Puget Soundkeeper were out on the creek for the fall coho run to document the extent of Urban Runoff Mortality Syndrome (URMS). Historically, URMS has affected 60 to 90% of the coho in Longfellow (compared to 1% in a natural, forested stream). The survey protocol, developed by the WA Department of Fish and Wildlife, is applied to streams throughout the Puget Sound basin. The 2020 results were 5 out of 6 (83.3%) coho surveyed were confirmed URMS. Therefore; there was only 1 female that successfully spawned. This URMS percentage includes dead females (4) that had necropsies and alive male coho (2) experiencing URMS symptoms. This is an increase from 2019, which had 36% URMS. In total there were 18 confirmed salmon counted on Longfellow Creek this year.

What is the solution?

Green Stormwater Infrastructure (GSI) like rain gardens, retention ponds, and native plantings can make all the difference in urban streams. For example, using a mixture of mulch, sand, compost, and gravel, manufactured biofiltration systems can remove harmful chemicals and metals from stormwater before salmon are exposed. The result is that the mortality of coho salmon is reduced from nearly 100 percent to 0.

There are also actions we can take to reduce toxic materials from accumulating on pavement in the first place. This includes proper car maintenance, reducing fertilizer application, and picking up dog poop and trash. For more information about the “7 Simple Solutions,” visit tox-ick.org.

Check out UW Tacoma’s research on the URMS issue. Researchers determine that tire dust is inducing Coho to die prematurely. <https://www.seattletimes.com/seattle-news/environment/tire-dust-is-killing-salmon/>