

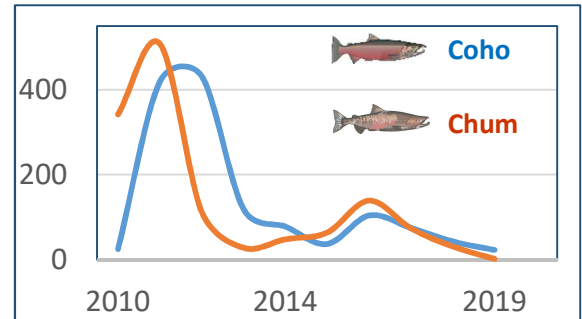
# Miller-Walker Community Salmon Investigation (CSI)

10-Year retrospective and looking towards the future



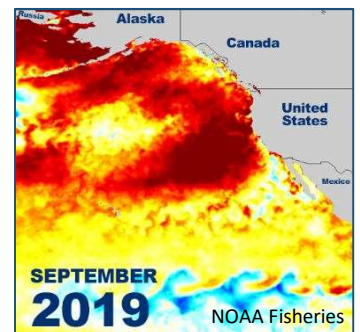
**Reason to celebrate.** The success of the CSI community driven science program has exceeded all expectations. Over 120 local residents have participated and contributed over 4,000 hours of time to conducting salmon surveys. Think about that – over 4,000 hours of community service! Sustaining that level of commitment over 10 years is a testament to the importance of the creeks and the salmon inhabiting them to the community.

**2019 was a difficult year for salmon.** Only 25 salmon (23 coho / 2 chum) were observed in daily surveys between October and December. This was the lowest number reported in 10 years of surveys. It represents a sharp drop from 241 salmon observed in 2016 and is a far cry from a record 927 salmon counted in 2011. This decline is not unique to our watershed. In recent years, low returns have been reported across Puget Sound.



**Miller Walker watershed is one of the most intensively studied creeks with respect to urban runoff mortality (URM).** A collaborative partnership spawned between CSI and University of Washington has improved our understanding of the sources of stormwater contaminants causing mortality in coho (likely chemicals in tire rubber) and the transport of such contaminants through the watershed. This [research](#) helps inform stormwater investments (e.g., stormwater retrofits) designed to improve water quality and restore local salmon runs.

**Multiple stressors contribute to low returns.** CSI data indicates on average 70% of coho die prior to spawning. However, urban runoff doesn't explain parallel declines in coho and chum salmon (not susceptible to URM). Low returns have been reported across Puget Sound. 2019 chum runs were particularly poor. Compounding impacts of long-term habitat loss, recent warm ocean conditions disrupted marine food webs and impacted salmon growth and survival (e.g., the infamous "Blob" of 2014-2016). Not only are local salmon numbers down, but CSI data shows the average size of coho has decreased since 2015.



**2020 salmon forecast.** Biologists forecast another difficult year for salmon. In addition to challenges of habitat loss and stormwater pollution, regional climate and ocean conditions have not been favorable for salmon for several years. A return to more favorable conditions could boost local salmon returns. In 2010, CSI observed only 25 coho. One year later over 400 returned. Although not forecast this year, hopefully CSI will observe a similar rebound when favorable ocean conditions return.

Contact Miller Walker Basin Steward, Matt Goehring, ([mgoehring@kingocounty.gov](mailto:mgoehring@kingocounty.gov)) for more information.

