

Climate Resilience through Salmon Recovery



Lake Washington/Cedar/Sammamish Watershed (WRIA 8)

CLIMATE CHANGE AFFECTS SALMON

Recent effects of climate change have been extreme – record heat waves, massive wildfires, intense flooding, and increasing temperatures in the ocean, rivers, lakes, and streams. These conditions are forcing us to grapple with the environmental, economic, and public health impacts of climate change.

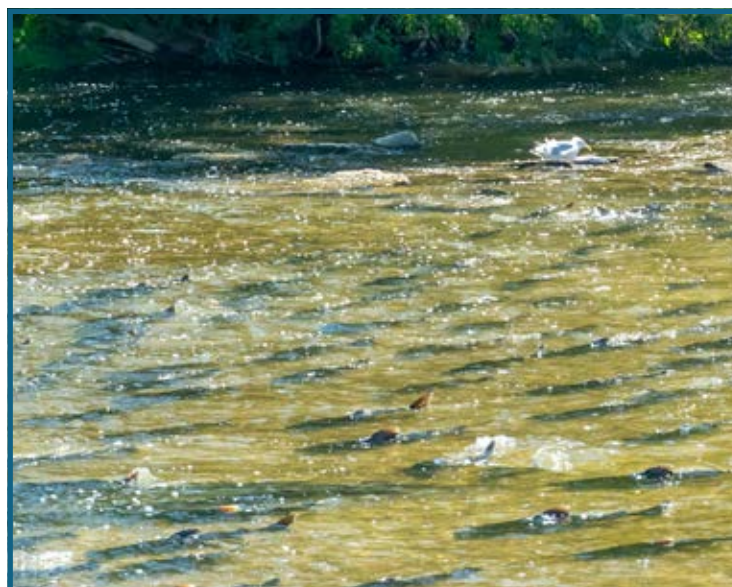
Climate change is also creating significant challenges for salmon survival. Increasing water temperatures, increased “flashy” stream and river flows from more intense winter rain events, lower summer stream flows, loss of shoreline habitat due to sea level rise, and impacts on marine food webs affect salmon across all life stages. The recent update to the State’s Salmon Recovery Strategy indicates salmon populations are not on pace to recover after more than two decades of effort. Despite these challenges, habitat protection and restoration efforts are improving conditions for salmon, but support and additional investment is needed to accelerate this work.

CLIMATE COMMITMENT ACT – ACHIEVING CLIMATE RESILIENCE THROUGH SALMON RECOVERY

Washington state’s Climate Commitment Act was passed to reduce greenhouse gas emissions and support actions to improve community and ecosystem resiliency to climate impacts. Revenues from this state law have bolstered investments in critical salmon habitat protection and restoration programs like Floodplains by Design, Salmon Recovery Funding Board, Puget Sound Acquisition and Restoration, and Estuary and Salmon Restoration Program. These programs implement priority projects that provide multiple benefits, including restoring salmon habitat, reducing flood risk, improving recreation, improving water quality, and protecting open space and productive agricultural lands around the state and in Puget Sound.



Riverbend project, pre-planting (Cedar River)



Spawning adult Chinook salmon

INVESTING IN SALMON RECOVERY IS CLIMATE ACTION

We know intact ecosystems are more resilient to changing climate conditions. Streams with connected and functioning riparian areas and floodplains reduce destructive flooding and streamside vegetation shades streams to keep them cool. Stormwater that is allowed to infiltrate into the ground is slowed, cleansed, and cooled before reaching streams and lakes. Restoring marine and freshwater shorelines by removing and limiting new armoring like bulkheads reduces flood impacts, makes areas more resilient to sea level rise, and provides critical habitat for juvenile salmon.

Salmon habitat protection and restoration is focused on restoring ecosystem functions that can lessen impacts from climate change, such as reconnecting floodplains, restoring stream corridors and shorelines, and reconnecting groundwater with streams. These nature-based solutions make salmon habitat and human communities more resilient to climate change, protect and improve critical infrastructure, and support local economies by generating jobs and promoting work force development.



Paradise Valley protection – Bear Creek



Issaquah Creek



Riverbend floodplain restoration – Cedar River

PROJECT HIGHLIGHTS

PARADISE LAKE NATURAL AREA LAND ACQUISITION

King County recently purchased six parcels of land totaling nearly 80 acres in the headwaters of Bear Creek. This acquisition protects intact forest canopy, wetlands, and portions of mainstem Bear Creek and tributary streams, providing long-term protection for streamflow, groundwater supply and cold-water inputs, carbon sequestration and a wildlife corridor.

RESTORING HEADWATERS OF ISSAQUAH CREEK

The headwaters of Issaquah Creek is a priority area for ecological restoration and salmon recovery. King County is restoring habitat at the headwaters of Issaquah Creek Natural Area that supports climate resiliency, including a floodplain restoration project along Holder Creek, which included planting 7,500 trees in the riparian buffer, and planting 12,000 trees in the upland areas.

RIVERBEND FLOODPLAIN RESTORATION

King County acquired and restored 52 acres of floodplain and a mile-long stretch of the Cedar River east of Renton. They worked with Seattle Public Utilities to remove failing levees, plant over 23,000 trees and 44,000 shrubs, and create side channels that provide slow-water shallow habitat that is ideal for multiple salmon species. This project also improved resiliency to climate change by relocating residents out of harms way and addressing the increasing risk of flood damage to the Cedar River Trail, State Route 169, and underground utilities including a priority regional fiberoptic trunk line.



For more information about this guide, please contact:

Jason Mulvihill-Kuntz, Salmon Recovery Manager

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jason.mulvihill-kuntz@kingcounty.gov • 206-477-4780

www.govlink.org/watersheds/8/