WATERSHED RESILIENCE ACTION PLAN

A trees to seas plan for landscape-scale restoration and salmon recovery in the Snohomish Watershed.

Draft Executive Summary and Outline For Discussion and Feedback Purposes
Executive Summary

Salmon are an iconic and vital part of Washington’s environment, communities, economies, and cultural traditions. Many Washingtonians take pride in our salmon as they are tied to fond childhood memories, recreation and outdoor activities, arts and culture, and our fishing and culinary industries. Salmon, steelhead, and other salmonids depend on a diverse array of healthy habitats found within a watershed to thrive. Salmon are a perfect indicator species for whether our landscapes, our watersheds, and our communities are thriving, which is why DNR has embarked on this strategic approach. Salmon rely on each landscape they access throughout their life cycles, from mountain streams where salmon spawn and eggs hatch, through rivers, estuaries and “underwater forests” where young salmon feed and grow, to Puget Sound and back again.

Unfortunately, our salmon are in trouble. Despite decades of focus at federal, state, and local levels, and nearly $1 billion invested in salmon recovery efforts, there are still 16 populations of salmonids listed as endangered or threatened in Washington State (NOAA Fisheries 2021). Robust salmon recovery plans identify habitat restoration needs, but that restoration has not kept up with numerous pressures including climate change, a growing human population, and increased urban development.

Commissioner of Public Lands Hilary Franz has launched a strategy dedicated to creating resilient watersheds in support of salmon recovery while securing human wellbeing so that all people can thrive in healthy and equitable communities. We approach this effort from our unique perspective as a land management agency with important roles around forests and aquatic lands. These critical goals are in no way guaranteed, and DNR is committed to redoubling our efforts and working in innovative ways in order to achieve them.

Water Resource Inventory Area (WRIA) 7 – the Snohomish Watershed – was selected in 2020 as the first location where DNR will apply this watershed-scale work. This watershed was selected after DNR reviewed critical needs on the ground, and identified numerous programmatic connections to the landscape as well as relationships with partners interested in finding new ways to work together. The Snohomish Watershed is one of the primary producers of anadromous fish in the state, home to nine salmonid species, three of which (Chinook salmon, steelhead, and bull trout) are currently protected under the Endangered Species Act (ESA).

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1 Snake River Sockeye; Snake River Spring/Summer Chinook; Snake River Fall Chinook; Snake River Basin Steelhead; Upper Columbia River Spring Chinook; Upper Columbia River Steelhead; Middle Columbia River Steelhead; Lower Columbia River Chum; Lower Columbia River Coho; Lower Columbia River Chinook; Lower Columbia River Steelhead; Hood Canal Summer Chum; Puget Sound Chinook; Puget Sound Steelhead; Ozette Lake Sockeye; Bull trout throughout Washington State.
2 Chinook salmon, Coho salmon, Chum salmon, Pink salmon, Sockeye salmon, Steelhead and rainbow trout, Cutthroat trout, Bull trout, Mountain whitefish.
Many challenges make WRIA 7 a critical watershed. Nearshore kelp and eelgrass habitat decline necessitates additional protections, while the proliferation of derelict vessels, unpermitted marinas, and marine debris require clean up to improve habitat and water quality. Snohomish Watershed cities and towns are growing rapidly, providing challenges as well as opportunities, including increasing urban forest cover and green stormwater infrastructure. Small forest landowners face new challenges, from changing precipitation patterns and increased wildfire risk, to economic challenges and threat of conversion from population growth; these factors mean the Snohomish Watershed faces increasing risk of loss of forest cover lost to conversion, which is nearly impossible to recover. In addition, with approximately 50% of the watershed owned by the US Forest Service (USFS), DNR has unique opportunities to use tools including Good Neighbor Authority to work collaboratively to improve forest habitat and hydrology. All of these challenges, if addressed strategically and holistically, are opportunities to create a more resilient watershed to help communities and salmon thrive.

A watershed is a natural boundary to bring together collaborative efforts and commitment to innovation and successful implementation. This will require breaking down silos - within DNR’s own programs, between landowners in the watershed, and between public and private actors. DNR recognizes and embraces interconnectedness and intersectionality in pursuit of these goals.

Our Watershed Resilience Action Plan has 5 Goals, 14 Actions, and 33 Outcomes, and is rooted in supporting the needs on the ground and working with partners across all landscapes in the Snohomish Watershed to achieve measurable benefits for salmon recovery. These strategies will be brought to scale and applied to other priority watersheds in Washington State.

This Watershed Resilience Action Plan is our path forward. It takes an expansive view of the limiting factors salmon face in a critical watershed and develops a coordinated approach to removing or decreasing the barriers to recovery over the next 10 years. From Puget Sound, through our cities and towns, farms, forests, and mountain headwaters – we will take action across these landscapes to help restore our salmon to non-endangered and stable levels, while creating healthy and resilient landscapes across the watershed.

DNR is but one among many in a rich network of watershed resilience and salmon recovery partners. No one entity can do it all – but we know that we must do all that we can.

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3 Total population in WRIA 7 is expected to grow from 425,782 in 2020 to 610,000 by 2050.
Vision

Our long-term vision for this work is rooted in building and sustaining resilient landscapes at the watershed level in ways that support salmon recovery. These landscapes should include ample cool, clean waters, thriving biodiversity, and habitats for fish, wildlife, and communities alike. We will manage our lands and waters, protect our communities, and connect our work across multiple land-ownerships, jurisdictions, and land uses. We will not just look to the past or the present to inform our work but look to the future and the changes in front of us -- from increasing population growth, shrinking fish and wildlife habitat, and a rapidly changing climate. We must tackle these challenges in a holistic manner to achieve true watershed resilience.

Goals and Outcomes

This Watershed Resilience Action Plan has five goals. For each of these goals we have selected strategic action areas, measurable outcomes, and key actions that we will work with partners to achieve over a 10-year period.

- **GOAL 1: PROTECT AND CLEAN UP AQUATIC HABITAT.** Remove habitat impediments and protect critical nearshore and estuary habitat for the long term.

- **GOAL 2: RESTORE, CONSERVE AND CONNECT FORESTS AND HABITAT.** Restore and conserve forests and improve riparian habitat, to ensure fish have access to cool, clean rivers and streams across the landscape.

- **GOAL 3: REVITALIZE URBAN FORESTS AND STREAMS.** Increase urban tree canopy and nature-based solutions that improve urban heat islands, air quality, and water quality.

- **GOAL 4: ENGAGE AND INVEST IN COMMUNITIES.** Engage communities in actions that protect and restore our lands and waters, while also benefiting people through education, training, positive economic impacts, and advancing environmental justice.

- **GOAL 5: REDUCE AND COMBAT CLIMATE IMPACTS.** Improve the pace of investments in climate mitigation and adaptation strategies for the lands, waters, and people to thrive.

**GOAL 1: PROTECT AND CLEAN UP AQUATIC HABITAT**

**Action 1: Protect and Restore Submerged Aquatic Lands and Nearshore Habitat**

Outcome 1: Protect 100% of priority nearshore habitat with a Kelp and Eelgrass Protection Zone by 2022.

Outcome 2: Increase kelp and eelgrass coverage (net gain): 967 acres baseline.

**Action 2: Restore Aquatic Land and Riparian Habitat in the Estuary**

Outcome 3: Restore habitat availability by removing 150 Tons of marine debris by 2024.

Outcome 4: Eliminate 100% of unpermitted marinas/infrastructure, and bring 100% of default leases into compliance and resolve resulting habitat impacts by 2031.

Outcome 5: Clean up and restore aquatic lands, including removal of 100% of current derelict vessels by 2026.
**Action 3: Increase Estuary and Puget Sound Water Quality**
Outcome 6: Increase Marine Water Condition Index score above zero for Whidbey Basin by 2031: negative 11 baseline.

**GOAL 2: RESTORE, CONSERVE AND CONNECT FOREST AND RIPARIAN HABITAT**

**Action 4: Remove or Repair Fish Passage Barriers on Fish-Bearing Streams**
Outcome 7: Inventory 36 miles of stream on small forest landowner parcels, and develop new funding strategy for expediting repair of small forest landowner barriers, by 2023.
Outcome 8: Expand fish passage barrier programs across all land ownership types, and develop a full prioritized inventory, by 2026.
Outcome 9: Remove 100% of priority barriers – as identified through a watershed barrier inventory – throughout the Snohomish Watershed by 2031.

**Action 5: Improve Water Quality and Quantity in Forest Headwaters**
Outcome 10: Conduct site evaluations on 48 miles of stream on DNR lands identified as High Suitability beaver habitat by the Beaver Intrinsic Potential model, using Tulalip Tribes’ site scorecard, by 2026.
Outcome 11: Increase Snohomish River summer low flows by 8.2 cubic feet per second by 2031.
Outcome 12: Decrease turbidity through implementing 50 high priority road, stream, and fish passage projects on federal forest lands by 2026.

**Action 6: Protect and Restore Forestlands**
Outcome 13: Increase forestland acreage (net gain) by 2031: 900,000 acres baseline.
Outcome 14: Conduct Forest Health evaluation in Snohomish Watershed and identify key restoration metrics by 2023.

**Action 7: Protect Riparian Ecosystem Functions at Scale**
Outcome 15: Increase riparian habitat complexity through conducting at least 1,000 large woody debris installations in fish-bearing streams across the watershed by 2031.
Outcome 16: Improve riparian habitat function through attaining maintenance levels of knotweed (95% control) and replanting riparian zones along headwater streams, mainstem rivers, and major tributaries by 2031.

**GOAL 3: REVITALIZE URBAN FORESTS AND STREAMS**

**Action 8: Grow Tree Canopy and Reduce Impervious Surfaces to Improve Urban Stream Water Quality**
Outcome 17: Increase tree canopy by 2,000 acres (3.5% increase) in Snohomish Watershed cities and towns by 2031.
Outcome 18: Plant 10,000 trees annually alongside streams, streets, and other priority landscapes in Snohomish Watershed cities and towns to achieve clean water goals.
Outcome 19: Reduce impervious surface levels in key urban sub-basins to below 30% by 2031.
Outcome 20: Expand green stormwater infrastructure programs, including the development of prioritized projects and expansion of workforce training opportunities, by 2023.
Outcome 21: Mobilize 50,000 hours of Urban Forestry Revitalization workforce training and Corps crews work time by 2024 and sustain at least 14,000 hours of crew work time and training annually.

GOAL 4: ENGAGE AND INVEST IN COMMUNITIES

Action 9: Increase Environmental Literacy and Engagement to Support Ecosystems
Outcome 22: Provide outdoor education and career-connected learning opportunities that reach at least 6,000 K-8 and high school students with a focus on girls and youth of color by 2031.
Outcome 23: 500 workers complete a natural resources apprenticeship/training program by 2031.

Action 10: Create Good Jobs and Support Equitable and Resilient Economies
Outcome 24: Support salmon-dependent economies through 1,720 direct and indirect jobs by 2031.
Outcome 25: Avoid forest conversion by enrolling 90% of working forests in long-term protections and establishing a new program to retain and diversify small forest landowners by 2031.

Action 11: Support Environmental Justice and Human Health Benefits
Outcome 26: Conduct an Environmental Justice Assessment including meaningful community engagement on 100% of Watershed Resilience Action Plan projects in the watershed by 2023.
Outcome 27: Utilize social determinants of health lens and community-centered process to identify restoration projects with significant human health benefits by 2026.

GOAL 5: REDUCE AND COMBAT CLIMATE IMPACTS

Action 12: Sequester Carbon and Mitigate Growing Climate Risks
Outcome 28: Conduct a baseline analysis of carbon storage on the landscape by 2024.
Outcome 29: Implement 10,000 acres of carbon sequestration projects in the Snohomish Watershed by 2024.

Action 13: Track Climate Change Impacts over Time to Inform Policy, Programs and Investments
Outcome 30: Conduct climate change impacts monitoring for 100% of relevant watershed actions by 2025.
Outcome 31: Establish an ocean acidification monitoring station in the Snohomish nearshore by 2024.
Outcome 32: Develop a Sea Level Rise assessment tool to inform upland protection by 2026.
Action 14: Attract New Funding Streams to Accelerate Resilience-building and Salmon Recovery

Outcome 33: Facilitate the investment of $200M in public and private funding by 2031, as part of approximately $1 billion of restoration need identified by the watershed.

Partnerships & Cross-Sector Collaboration

Our partnership efforts have included entities from all sectors, and we have sought wherever possible to break down traditional silos and introduce enhanced coordination. A non-comprehensive overview of our partnership efforts includes:

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<tr>
<th>Tribal nations and tribal-led organizations</th>
<th>Watershed, Regional, and statewide salmon networks</th>
<th>Federal, state and local government</th>
<th>Environmental Non-profit organizations</th>
<th>Private sector and non-traditional salmon partners</th>
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<tr>
<td>Tulalip Tribes</td>
<td>WRIA 7 Lead Entity</td>
<td>Washington Department of Fish and Wildlife (WDFW)</td>
<td>Snohomish Conservation District</td>
<td>Boeing</td>
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<td>Snoqualmie Tribe</td>
<td>Snohomie Basin Salmon Recovery Forum</td>
<td>Recreation and Conservation Office (RCO), including the Governor’s Salmon Recovery Office (GSRO)</td>
<td>King Conservation District</td>
<td>International Association of Machinists and Aerospace Workers</td>
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<td>Northwest Indian Fisheries Commission (NWIFC)</td>
<td>Snoqualmie Basin Forum</td>
<td>Puget Sound Partnership (PSP)</td>
<td>Sound Salmon Solutions</td>
<td>Front and Centered</td>
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<td>Sustainable Lands Strategy</td>
<td>Department of Ecology (ECY)</td>
<td>Long Live the Kings</td>
<td>Latino Community Fund</td>
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<td>Salmon Recovery Network (SRNet)</td>
<td>United States Forest Service (USFS)</td>
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<td>Emerald Alliance</td>
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<td>The Wilderness Society</td>
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* This table is inclusive of all members of the Snohomish Basin Salmon Recovery Forum, Snoqualmie Forum, and others. For more information please see: [https://snohomishcountywa.gov/1128/Forum-Roles-Activities](https://snohomishcountywa.gov/1128/Forum-Roles-Activities)

To get involved please contact Stephanie Celt, Senior Policy Advisor: stephanie.celt@dnr.wa.gov 360-489-4568