
SRFB -Funded Projects Addressing Nutrient Attenuation – Puget Sound

Presented to Puget Sound Nutrient Forum
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Pierce County Environmental Services

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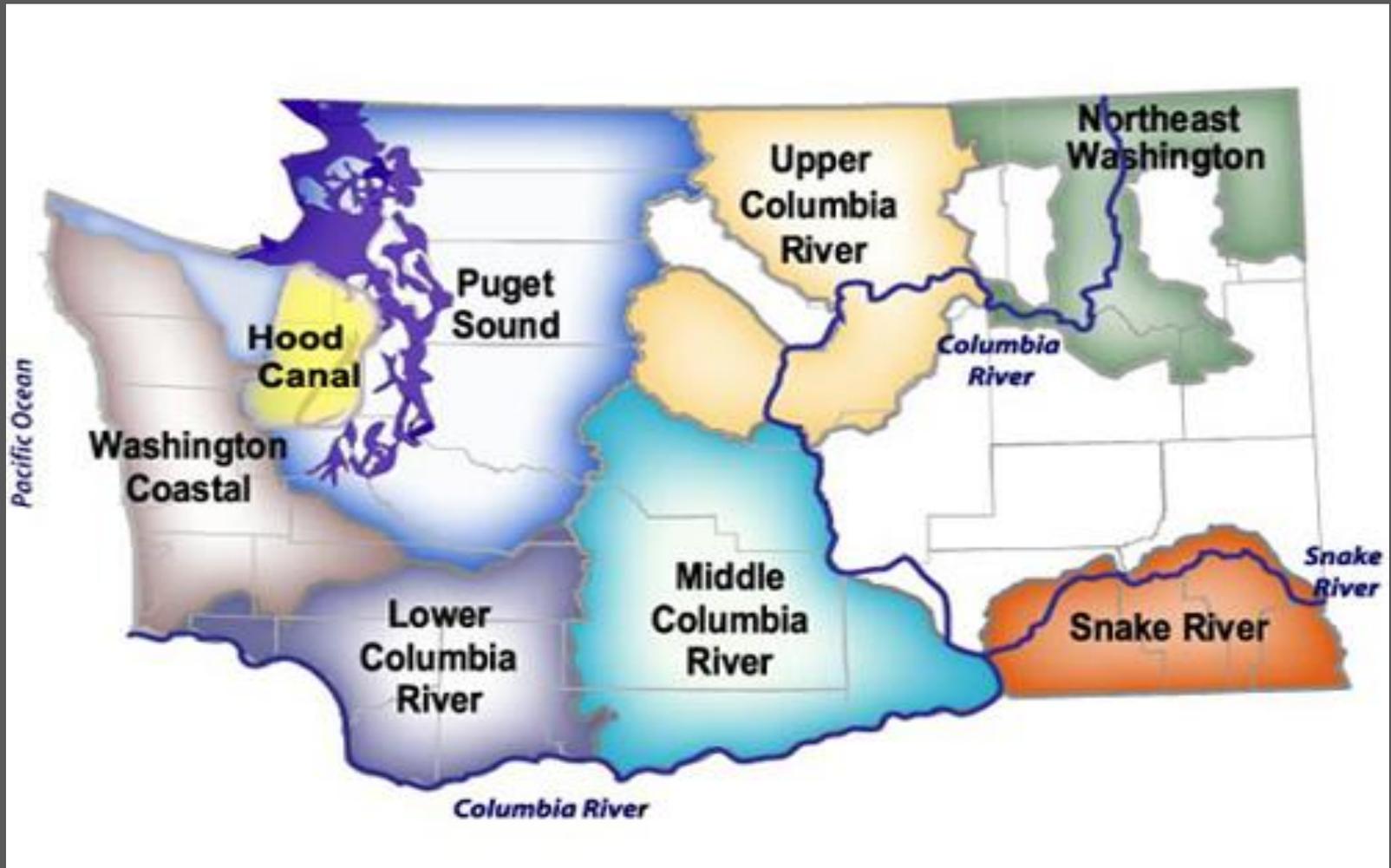
SRFB



Governor's Salmon Recovery Office

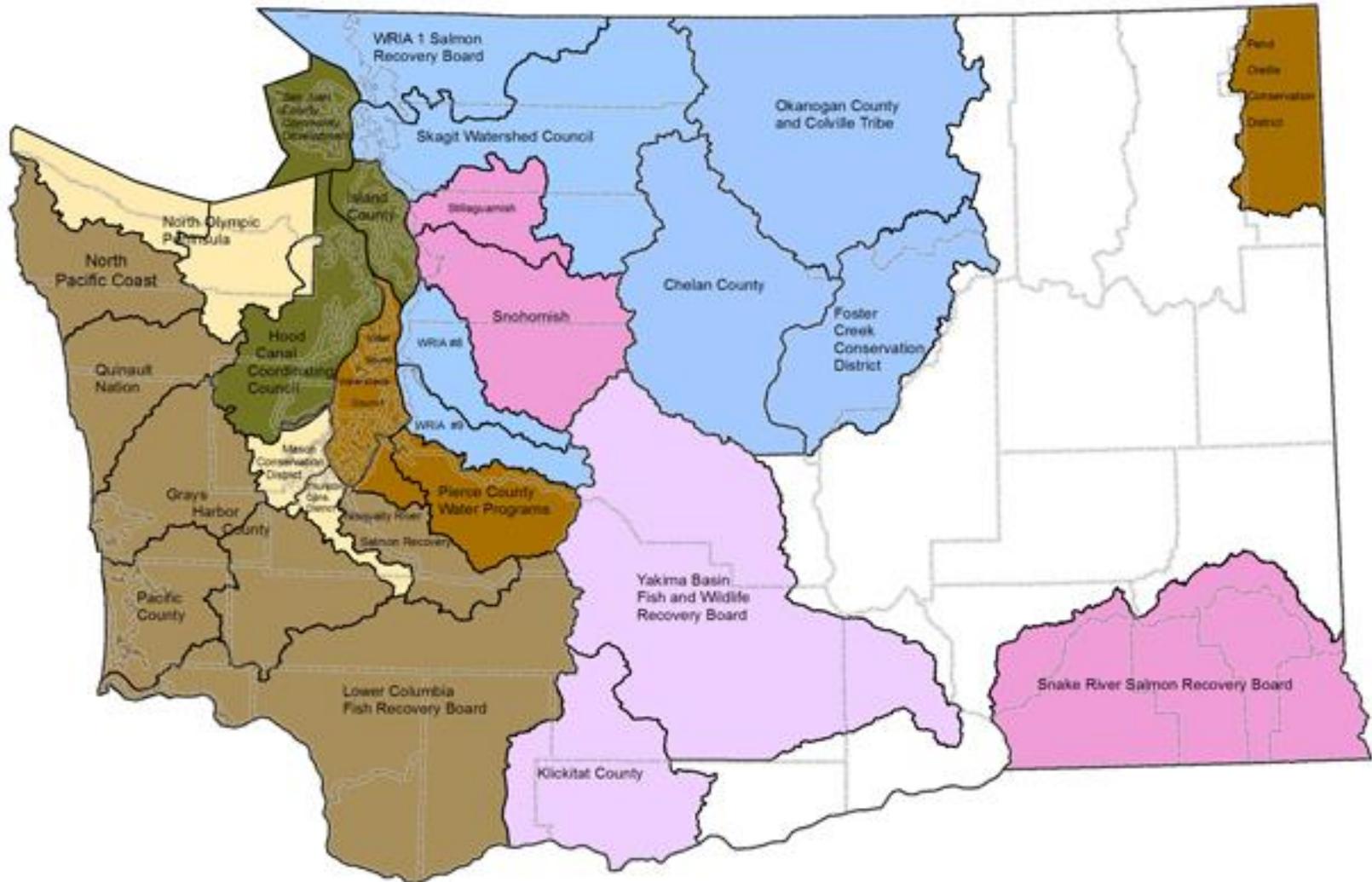
- **RCW 77.85.030**
- **—Purpose and duties.**
- (1) The governor's salmon recovery office shall coordinate state strategy to allow for salmon recovery to healthy sustainable population levels with productive commercial and recreational fisheries. A primary purpose of the office is to coordinate and assist in the development, implementation, and revision of regional salmon recovery plans as an integral part of a statewide strategy developed consistent with the guiding principles and procedures under RCW 77.85.150

WA Salmon Recovery Regions





By Lead Entity Area





PRISM database for tracking

- Public can access “read-only” information
- RCO reports annually to NOAA-PCSRF
 - projects funded for four (4) years
- PRISM project types include:
- Varied metrics as per project type



PRISM query and report "riparian"

Project Listing By Metric

Project	Project Number	Sponsor	Project Name	Status	Program	Final
Metric: Riparian Habitat Project, Planting (C.5.c.1), Miles of streambank planted (C.5.c.4)						Units: Miles
14-1280	A	Skagit Land Trust	Ulabot Creek Protection and Riparian Restoration	Closed Comp	PSAR	0.50
14-1283	R	Skagit County Public Works	Martin Slough Riparian Restoration	Closed Comp	SALMON FED PROJ	1.30
14-1356	A	Stillaguamish Tribe of Indians	Stillaguamish Floodplain Protection & Restoration	Closed Comp	PSAR	0.00
14-1781	A	Nisqually Land Trust	Upper Ohop Valley Protection	Closed Comp	SALMON FED PROJ	0.60
15-1054	R	Bothell City of	Sammamish River Side Channel Restoration - Ph. 3]	Closed Comp	SALMON ST PROJ	0.21
15-1131	R	Adopt A Stream Foundation	Woods Creek In-Stream Restoration Partnership	Closed Comp	SALMON FED PROJ	0.22
15-1227	R	South Puget Sound SEG	Lake Lawrence Outlet Channel Restoration	Closed Comp	SALMON FED PROJ	0.30
15-1447	R	South Puget Sound SEG	Tilow - Armor Removal and Shoreline Restoration	Closed Comp	ESRP-EPA-NEP	0.01
Metric Total:						34 Projects
Grand Total:						Total projects selected: 34
						17.52



PRISM query and report "riparian"

Project Listing By Metric

Project Number	Sponsor	Project Name	Project Status	Program
Salmon Recov Reg 05: Puget Sound				
Metric:	Estuarine / Nearshore Project, Exclusion devices (C.9.p.1), Acres Treated with exclusion devices (C.9.p.2)			
07-1884_R	King Co Water & Land Res	North Wind's Weir Intertidal Restoration-#1	Closed Comp	PSAR
08-1971_R	Bainbridge Island City of	Strawberry Plant Restoration Construction 2008	Closed Comp	SALMON FED PROJ
13-1099_R	Tukwila City of	Duwamish Gardens Restoration	Closed Comp	PSAR
Metric Total:				3 Projects



SRFB monitoring projects

10% of annual PCSRF award, funds (4) primary monitoring efforts, and includes regionally specific projects

- Status and Trends (fish in/ fish out)
WDFW
- Intensively Monitored Watersheds (IMWs) -
WDFW / WECY / NOAA / tribes
- **Reach-scale project effectiveness (PE)** -
TetraTech, LLC / Cramer Fish Sciences
- SRFB Monitoring Panel
- since 2013 varied agreements



Reach-Scale Project Effectiveness

- RCO identified ten (10) monitoring categories (MC) for reach-scale, project effectiveness monitoring
 - MC -1 Fish Passage
 - MC - 2 In-stream structures
 - MC – 3 Riparian planting**
 - MC – 4 Livestock exclusion** *with OWEB in 2017
 - MC – 5/6 Floodplain Enhancement
 - MC – 7 Spawning Gravel
 - MC – 8 Diversion Screening
 - MC – 9 *Estuarine (not implemented)*
 - MC – 10 Habitat Protection



Salmon Recovery Funding Board Reach-Scale Project Effectiveness Monitoring Program 2018 Final Report



MC-4 LIVESTOCK EXCLUSION

- The Oregon Watershed Enhancement Board (OWEB) and Washington Salmon Recovery Funding Board (SRFB) are both responsible for funding watershed and salmon habitat restoration projects in their respective states. The OWEB strives to conserve and restore crucial elements of natural systems that support fish, wildlife, and people, with an emphasis on restoring salmon and trout throughout the state (OCSRI 1997; OWEB 2003).*
- This comprehensive program works to benefit watershed health and wildlife, including threatened and endangered salmonids, by implementing livestock exclusion projects that improve riparian vegetation. The SRFB provides funding for elements necessary to achieve overall salmon recovery, including habitat projects and other activities that result in sustainable and measurable benefits for salmon and other fish species (<https://www.rco.wa.gov/>).*



MC-4 LIVESTOCK EXCLUSION

- *The exclusion has been effective at decreasing active bank erosion, which overall can yield benefits to instream habitat and to the establishment and growth of riparian vegetation.*
 - Bank Erosion
 - Riparian structure
 - Canopy closure



SRFB Monitoring Panel

- Major initiative identified in the Monitoring Investment Strategy – Stillwater Sciences, 2013
- Seven –member collaborative group
- Reviews and vets the monitoring programs and provides annual recommendations to the SRFB
- SRFB meeting in Yakima in July

PARR - become SMOLTS in the Spring of their 2nd, 3rd or 4th year and migrate to sea.

SALMON - travel great distances in the sea and feed on sandeels, krill and herring.

PARR - remain in fresh water for one to four years feeding on insects.

FRY - start feeding on tiny water organisms and grow quickly during their first Summer.

SALMON - return to the river of their birth to spawn after 1 - 4 years at sea. Once in fresh water the salmon does not feed.

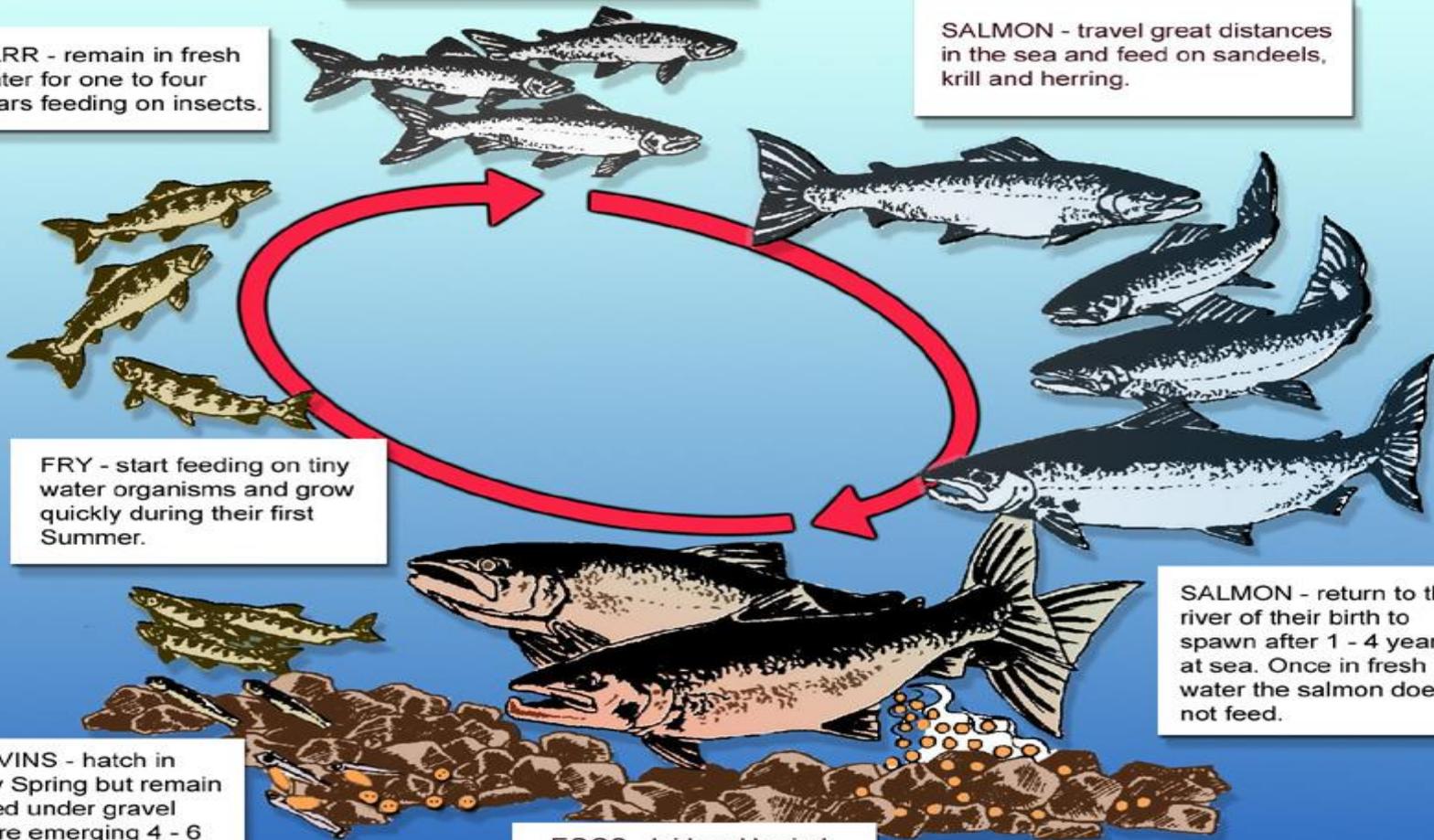
ALEVINS - hatch in early Spring but remain buried under gravel before emerging 4 - 6 weeks later.

EGGS - laid and buried in gravel in late Autumn.

GRILSE - are mature salmon which return to their native river after only one winter at sea.

Female salmon or 'hen' fish can survive spawning and return to sea as KELTS.

Male salmon or 'cock' fish usually die when spawning is over.





EPA Exchange Network Projects

- EPA-funded projects thru Exchange Network

– Juvenile Migrant Exchange	JMX		P/S
– Adult Migrant Exchange	AMX		P/S
– Water Quality Exchange	WQX	NWIFC	P/S
– Nearshore Exchange	NSX	NWIFC	P/S
– National Hydrography Dataset	NHD		WA
– Coordinated Assessments	CAX	Columbia Basin	
– Effectiveness and Evaluation Tool		EET	HC
– <i>Hatchery, Harvest and Traps</i>	<i>HHT</i>	<i>pending review</i>	<i>WA</i>



Effectiveness and Evaluation Tool

Investments, Actions, Responses (improvements?)

Data synthesis, Outreach, Communication

Partners include:

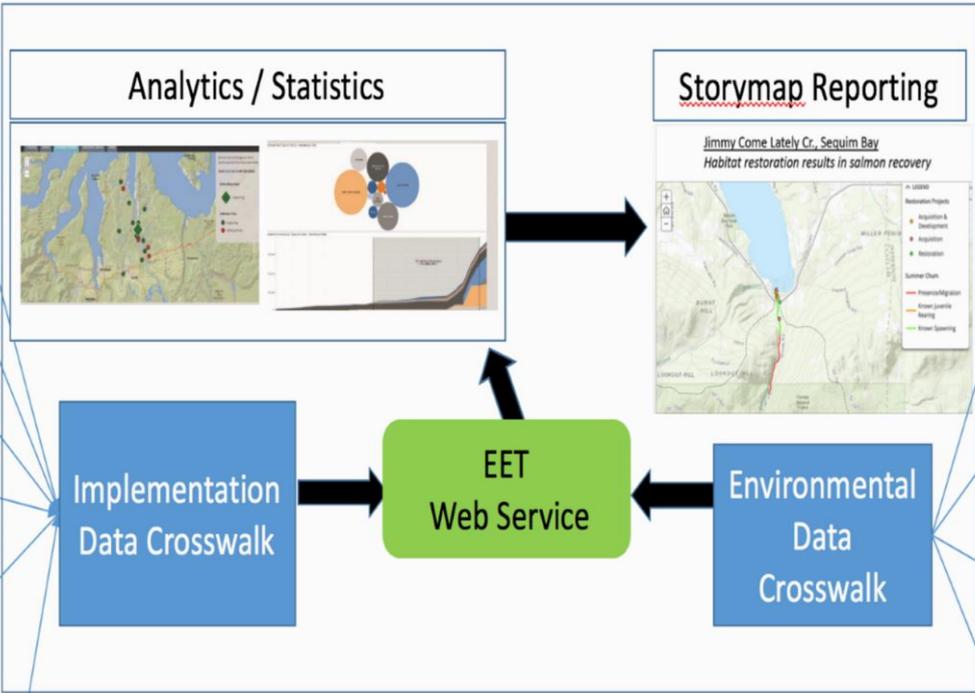
- Skokomish Indian Tribe
- Puget Sound Partnership
- WDFW



Effectiveness and Evaluation Tool (EET)

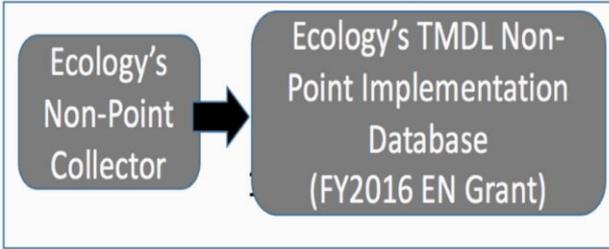
Project Implementation Databases

- Ecology's EAGL Database
- RCO's Habitat Work Schedule
- RCO's PRISM
- WA DFW's SalmonScape
- WA Conservation Commission



Environmental Outcome Databases

- Ecology's EIM & EPA's WQX (created via EN GRANT)
- Skokomish Tribe's Data
- WDFW's Salmon AMX, JMX (created via EN GRANT)
- Ecology NHD+





Questions?

- Thank you

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