SRFB - Funded Projects Addressing Nutrient Attenuation – Puget Sound

Presented to Puget Sound Nutrient Forum
June 4, 2019
Pierce County Environmental Services

Keith Dublanica, Science Coordinator - Governor’s Salmon Recovery Office / Recreation and Conservation Office
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
Seven regions state-wide w/ recovery plans

- Puget Sound
- Hood Canal
- Coast
- Lower Columbia
- Middle Columbia
- Snake

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WA Salmon Recovery Regions
By Lead Entity Area

[Map showing various lead entity areas in Washington state, labeled with names such as Skagit Watershed Council, Okanogan County and Colville Tribe, and Yakima Basin Fish and Wildlife Recovery Board.]
PRISM database for tracking

• Public can access “read-only” information

• RCO reports annually to NOAA-PCS RF
  – projects funded for four (4) years

• PRISM project types include:

• Varied metrics as per project type
Project Listing By Metric

<table>
<thead>
<tr>
<th>Project</th>
<th>Project Number</th>
<th>Sponsor</th>
<th>Project Name</th>
<th>Status</th>
<th>Program</th>
<th>Final</th>
<th>Units: Miles</th>
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<tbody>
<tr>
<td>14-1230</td>
<td>Skagit Land Trust</td>
<td>Illabot Creek Protection and Riparian Restoration</td>
<td>Closed Comp</td>
<td>PSAR</td>
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<td>14-1232</td>
<td>Skagit County Public Works</td>
<td>Martin Slough Riparian Restoration</td>
<td>Closed Comp</td>
<td>SALMON FED PROJ</td>
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<td>14-1338</td>
<td>Stillaguamish Tribe of Indians</td>
<td>Stillaguamish Floodplain Protection &amp; Restoration</td>
<td>Closed Comp</td>
<td>PSAR</td>
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<tr>
<td>14-1371</td>
<td>Nisqually Land Trust</td>
<td>Upper Chehalis Valley Protection</td>
<td>Closed Comp</td>
<td>SALMON FED PROJ</td>
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<td>15-1034</td>
<td>Bothell City of</td>
<td>Salmon Creek River Side Channel Restoration</td>
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<td>SALMON ST PROJ</td>
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<td>15-1131</td>
<td>Adopt A Stream Foundation</td>
<td>Woods Creek In-Stream Restoration - Ph 3</td>
<td>Closed Comp</td>
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<td>15-1237</td>
<td>South Puget Sound SEG</td>
<td>Lake Lawrence Outlet Channel Restoration</td>
<td>Closed Comp</td>
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<tr>
<td>15-1447</td>
<td>South Puget Sound SEG</td>
<td>Tidal - Armor Removal and Shoreline Restoration</td>
<td>Closed Comp</td>
<td>ESRP-EPA-NP</td>
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<td>0.01</td>
</tr>
</tbody>
</table>

Metric Total: 34 Projects

Grand Total: Total projects selected: 34
PRISM query and report “riparian”

<table>
<thead>
<tr>
<th>Project Number</th>
<th>Sponsor</th>
<th>Project Name</th>
<th>Project Status</th>
<th>Program</th>
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</thead>
<tbody>
<tr>
<td>07-1684_R</td>
<td>King Co Water &amp; Land Res</td>
<td>North Wind's Weir Intertidal Restoration-#1</td>
<td>Closed Comp</td>
<td>PSAR</td>
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<tr>
<td>08-1971_R</td>
<td>Bainbridge Island City of</td>
<td>Strawberry Plant Restoration Construction 2008</td>
<td>Closed Comp</td>
<td>SALMON FED PROJ</td>
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<tr>
<td>13-1099_R</td>
<td>Tukwila City of</td>
<td>Duwamish Gardens Restoration</td>
<td>Closed Comp</td>
<td>PSAR</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>MC</th>
<th>Monitoring Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fish Passage</td>
</tr>
<tr>
<td>2</td>
<td>In-stream structures</td>
</tr>
<tr>
<td>3</td>
<td>Riparian planting</td>
</tr>
<tr>
<td>4</td>
<td>Livestock exclusion * with OWEB in 2017</td>
</tr>
<tr>
<td>5/6</td>
<td>Floodplain Enhancement</td>
</tr>
<tr>
<td>7</td>
<td>Spawning Gravel</td>
</tr>
<tr>
<td>8</td>
<td>Diversion Screening</td>
</tr>
<tr>
<td>9</td>
<td>Estuarine (not implemented)</td>
</tr>
<tr>
<td>10</td>
<td>Habitat Protection</td>
</tr>
</tbody>
</table>
Salmon Recovery Funding Board Reach-Scale Project Effectiveness Monitoring Program
2018 Final Report
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/).
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
Similar to the “listing” process, we would first complete a status review.

NMFS evaluates the demographic risks and threats to facilitate progress made on the recovery plan.

Overall, low demographic risks and threats have been largely addressed as per Gary Rule, NOAA–NMFS 4/8/19.

### Five (5) Steps to De-Listing

1. **PARR** - become SMOLTS in the spring of their 2nd, 3rd or 4th year and migrate to sea.
2. **FRY** - start feeding on tiny water organisms and grow quickly during their first summer.
3. **ALEVINS** - hatch in early spring but remain buried under gravel before emerging 4-6 weeks later.
4. **EGGS** - laid and buried in gravel in late autumn.
5. **SALMON** - travel great distances in the sea and feed on sandeels, krill, and herring.
6. **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.
7. **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
- Hatchery, Harvest and Traps (HHT) pending review WA

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Effectiveness and Evaluation Tool

Investments, Actions, Responses (improvements?)

Data synthesis, Outreach, Communication

Partners include:
  – Skokomish Indian Tribe
  – Puget Sound Partnership
  – WDFW
Questions?

• Thank you

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