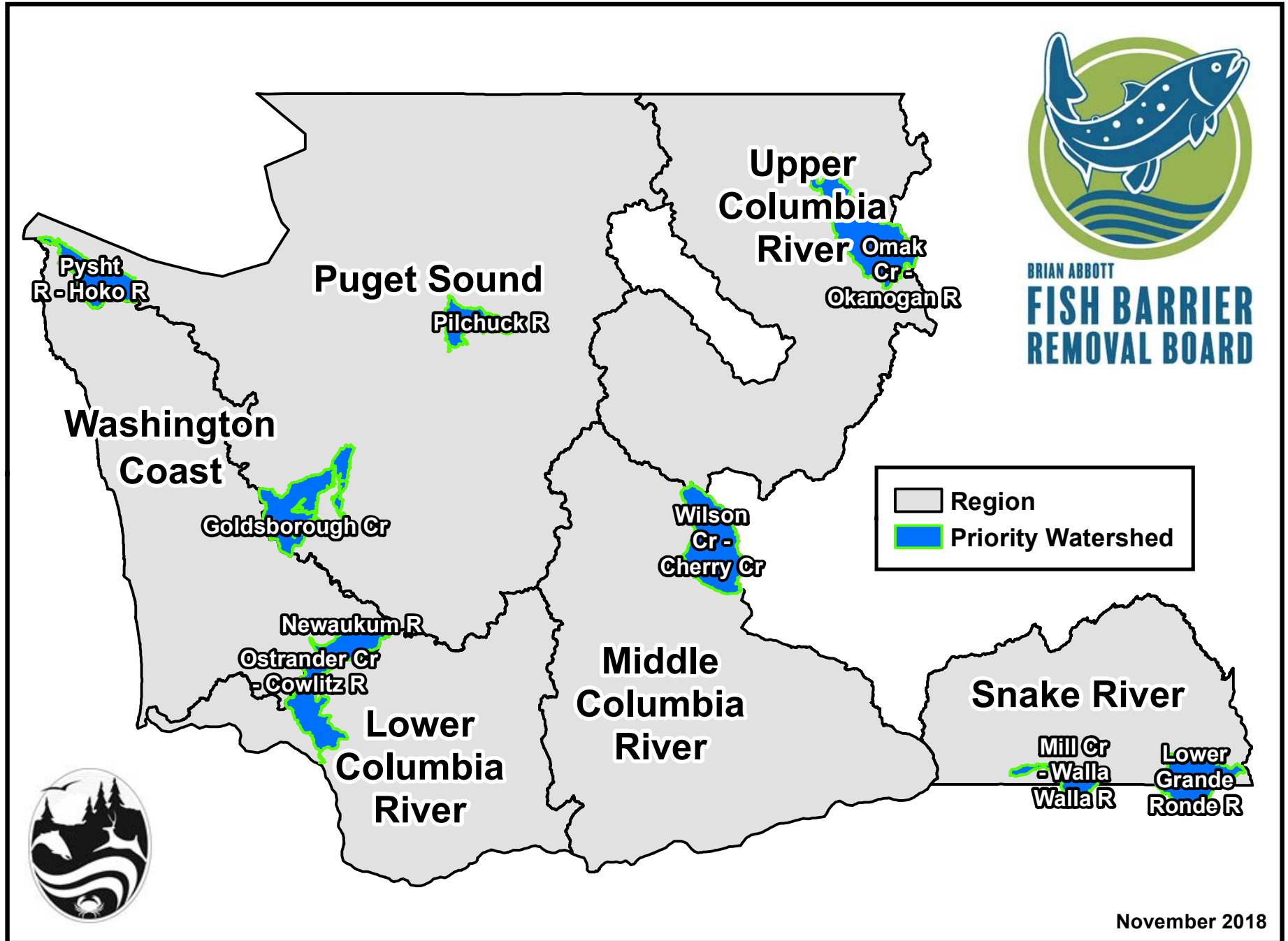



FBRB Watershed Pathway



BRIAN ABBOTT
**FISH BARRIER
REMOVAL BOARD**



November 2018



Chehalis Basin Lead Entity – Watershed Pathway for FBRB

KIRSTEN HARMA

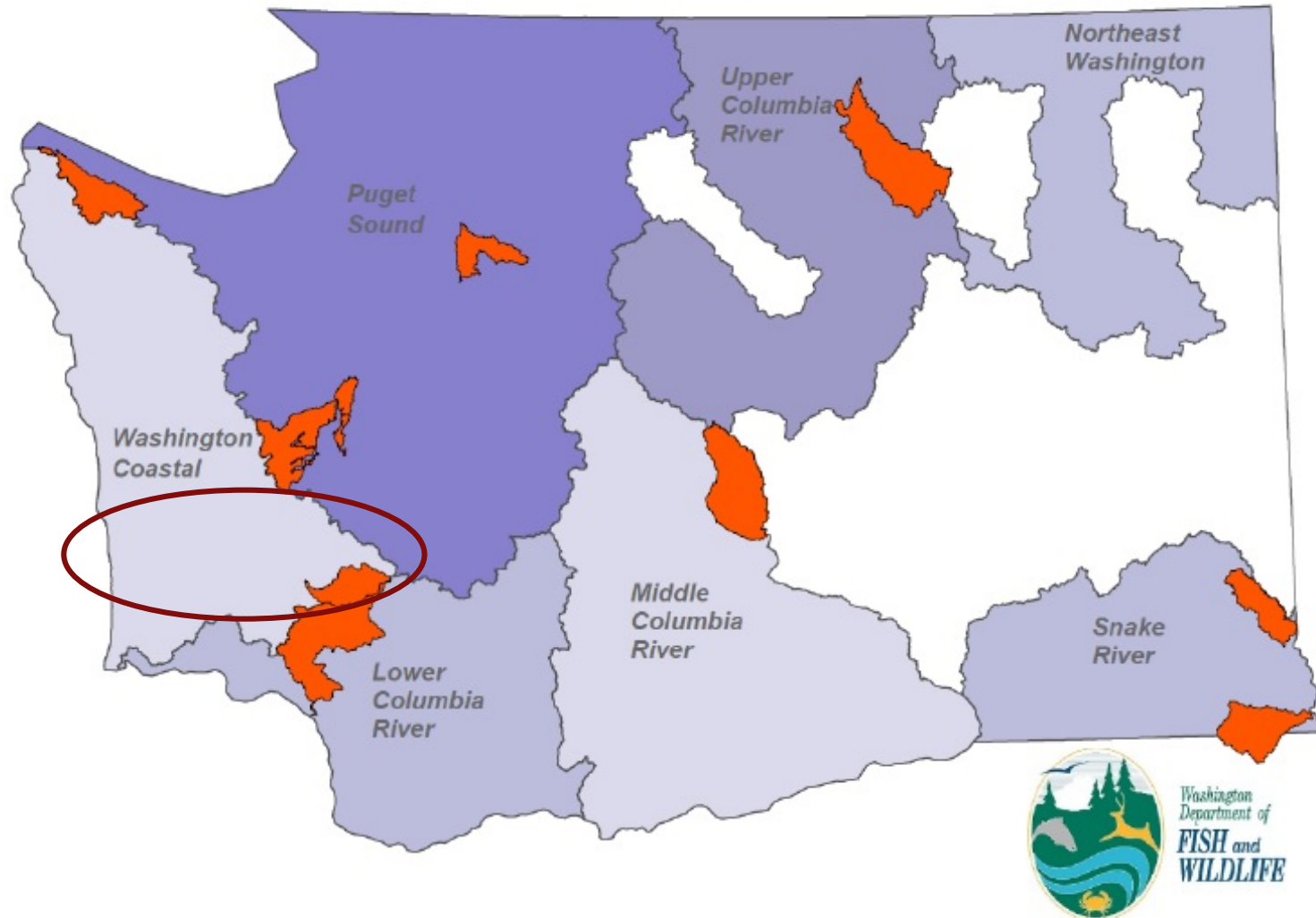
LEAD ENTITY COORDINATOR

FOR THE BRIAN ABBOTT FISH BARRIER REMOVAL BOARD –
NOVEMBER 20, 2018

Outline

- ▶ Choosing Priorities
- ▶ Collaborative Process in our Pilot Watershed
- ▶ Details on our FBRB Projects
- ▶ Recommendations to FBRB

FBRB-Statewide Approved Watersheds
December 15th, 2015

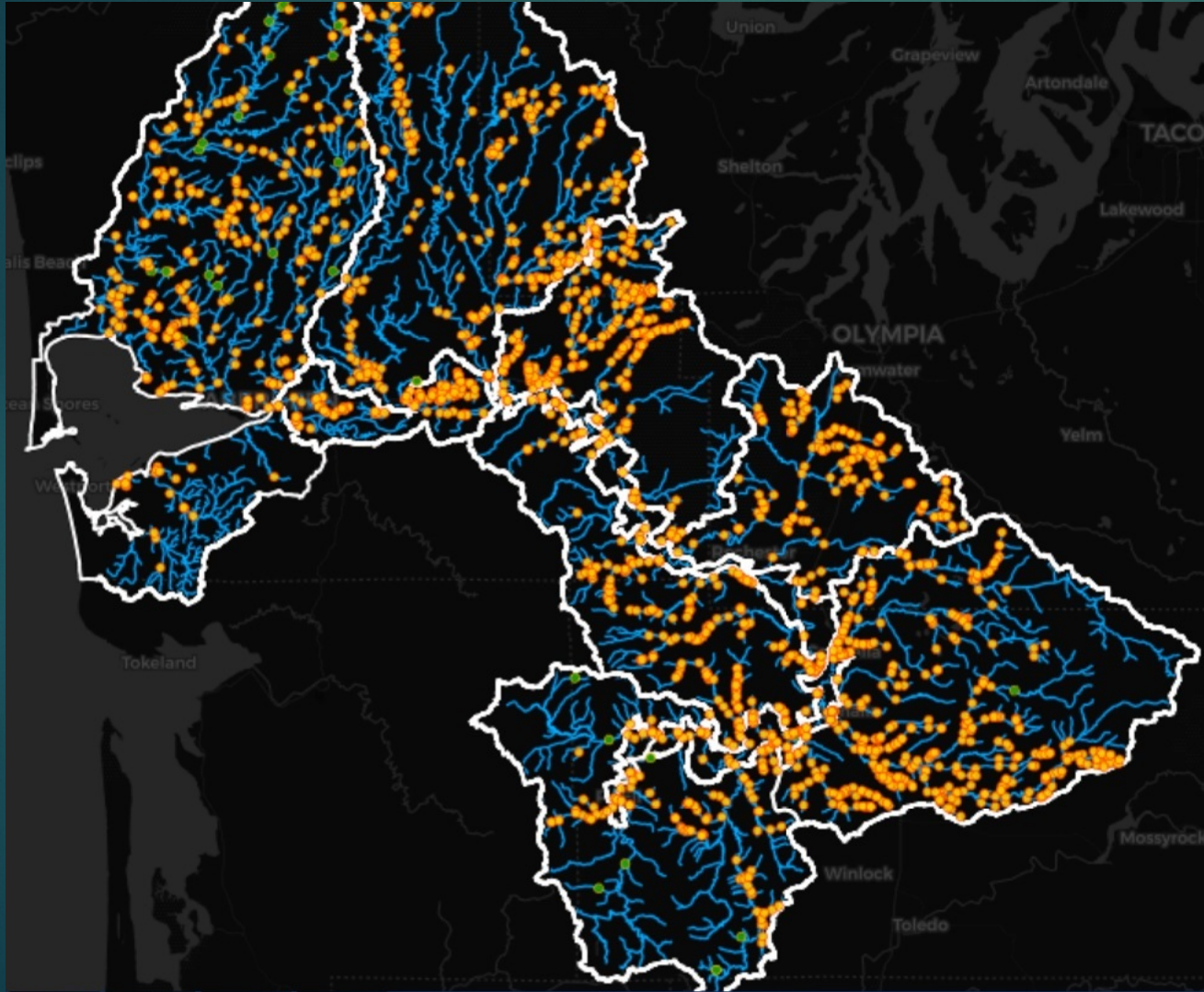


Chehalis is a Coastal Watershed

Fish Passage in the Chehalis Basin

- ▶ Tier 1 Limiting Factor throughout the Chehalis
- ▶ 62% of all projects funded by the SRFB in the Chehalis have been barriers --- We know barriers.
- ▶ ~2,600 known barriers

How to choose?



- ▶ Barrier ranking completed in 2008.
- ▶ Sponsors select projects from this list and work in the top 30%, where possible.
- ▶ Inventory recently updated and new ranking method being developed

Pilot Watershed Approach

- ▶ Goal = Address all high priority limiting factors in the watershed ~ like the FBRB Watershed Pathway but for all limiting factors, not just fish passage.
- ▶ Methods:
 - ▶ Select a watershed
 - ▶ Assess restoration needs
 - ▶ Develop project concepts
 - ▶ Sequence
 - ▶ Fund
 - ▶ Complete in a 10-year timeframe
 - ▶ Monitoring to demonstrate success

Newaukum

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- ▶ Newaukum
 - ▶ Low landowner diversity;
 - ▶ Existing landowner involvement and approachability in key areas;
 - ▶ Relatively low number of passage barriers compared to the rest of the Chehalis,
 - ▶ Good conditions in headwaters;
 - ▶ Existing water quality problems in the mainstem that may bring in monitoring and correction resources;
 - ▶ Research and monitoring work starting as part of the Chehalis Strategy.
- ▶ Middle Fork Newaukum --Barriers are top limiting factor in otherwise intact system

Coordination



Entity	Activity Type
Brian Abbott Fish Barrier Removal Board	Fish Passage Improvement funding
Chehalis Strategy	Restorative Flood Protection Alternative Feasibility Study
Chehalis Strategy	Reach Scale River Restoration Design
Chehalis Tribe	Continuous Water Quality Monitoring
Coast Salmon Partnership	Tracking Data in Habitat Work Schedule
Department of Ecology	Non-point Pollution Reduction Outreach
Department of Ecology	Effectiveness Monitoring
Family Forest Fish Passage	Fish Passage Improvement funding
Lewis County Public Works	Fish Passage Improvement construction
Lewis Conservation District	Fish Passage Improvement construction
Lewis Conservation District	Outreach to Landowners
NRCS	Fish Passage Improvement
USFWS	Lamprey Use Survey
WDFW	Juvenile Fish Use Monitoring
Wild Fish Conservancy	Water Type Assessment & GIS Mapping
Wild Fish Conservancy	Fish Passage Improvement
Xerces Society	Freshwater Mussel Monitoring

▶ Link to Story Map:

Early Successes

- ▶ Structured approach to landowner outreach
- ▶ Coordinated restoration activities
- ▶ Information-sharing among partners → Project development
- ▶ Single database (Habitat Work Schedule) for tracking project lifecycle and accomplishments
- ▶ New initiatives are starting in the Newaukum as a result of the momentum and resources being placed there

ArcGIS Chehalis Basin Boundary

Modify Map | Sign In

Details | Basemap

Share | Print | Measure | Find address or place

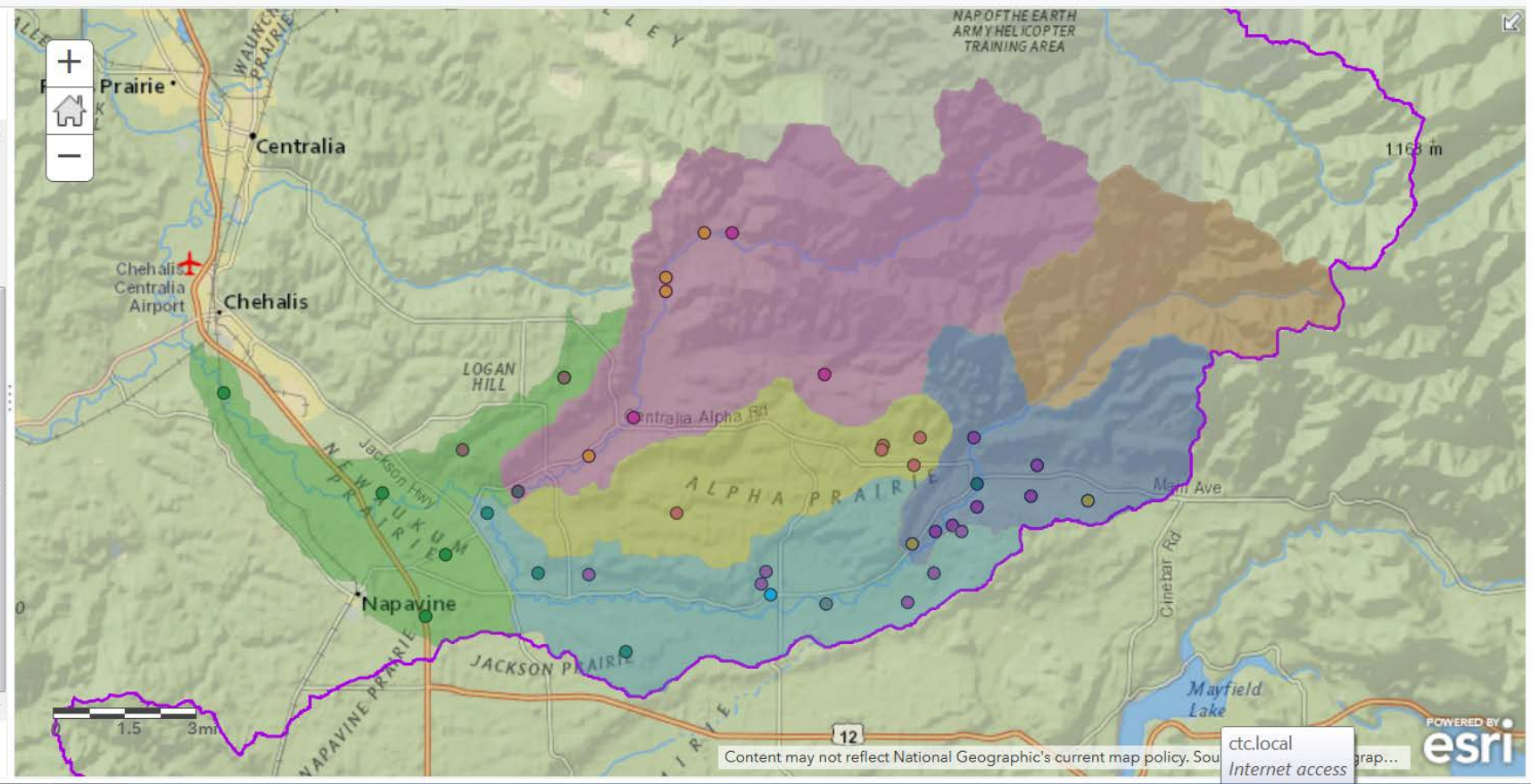
Legend

- River
- Middle Fork Newaukum River
- Middle South Fork Newaukum River
- North Fork Newaukum River
- Upper South Fork Newaukum River

Newaukum Restoration and WQ Projects

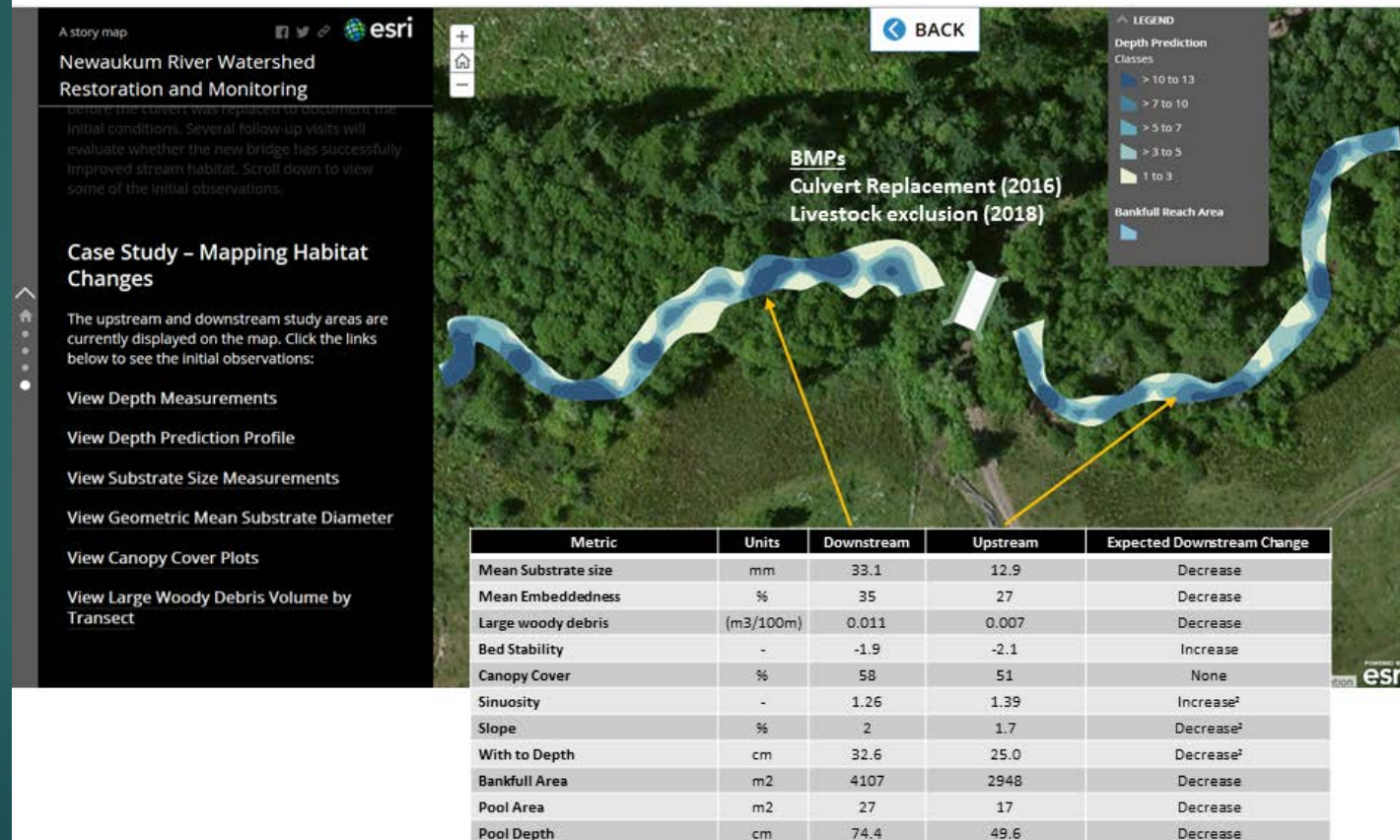
- Fish Passage
- Protection
- Agricultural
- Sewer Upgrade
- Watertype Assessment

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Monitoring Biological Response

Newaukum River baseline monitoring



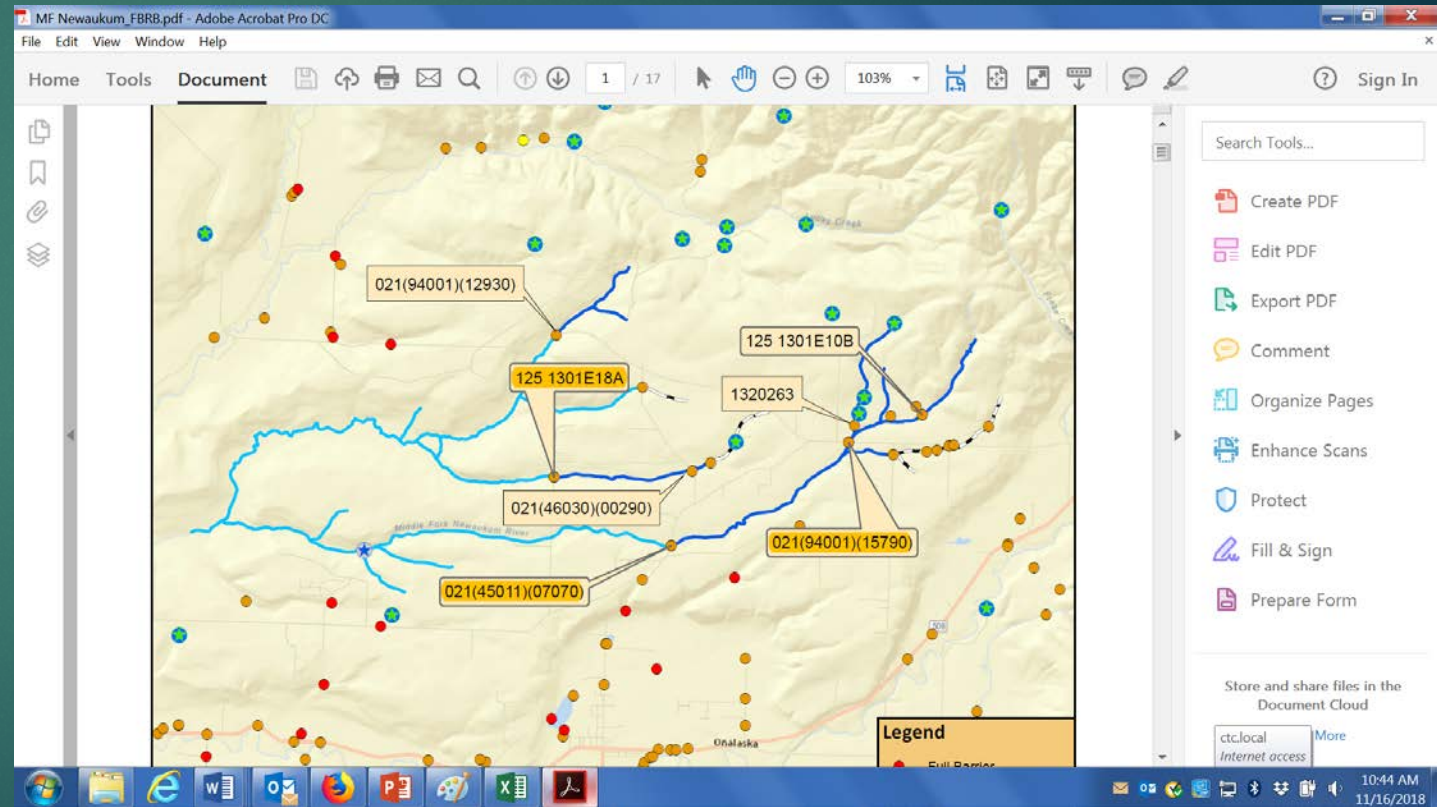
Coordination of Funding Sources

Program	Aquatic Species Restoration Plan (Chehalis Strategy)	National Fish Passage Program (USFWS)	Chehalis Fisheries Restoration Program (USFWS)	Salmon Recovery Funding Board (SRFB)	FFFPP (DNR)	EQIP (NRCS)	Fish Barrier Removal Board (FBRB)	Washington Coast Restoration Initiative (WCRI)
Funding Type	State	Federal	Federal	State/Federal	State	Federal	State	State
Scope	Chehalis Basin (higher priority for Newaukum, South Fork, Skookumchuk, Wynoochee, Satsop)	Chehalis & Olympic Peninsula	Chehalis Basin	Statewide/ Chehalis Basin	Statewide	Statewide	Statewide + Watershed Approach (Newaukum)	Washington Coast including Olympic Peninsula and down to the Columbia
Restrictions	No large forest landowners (RMAP-eligible) or culvert-injunction culverts.	None	None	None	Small forest landowners only (<2 million board feet, > 2 acres). On forest land & on a road	Private small forest land and agricultural owners	No Federal owners/RMAP. Small forest landowners discouraged	Projects need to also have a strong jobs creation element
Application Deadline	December 13, 2017	December 11, 2017	January 31, 2018	April 3, 2018	May 1, 2018	Oct and March yearly	RFP will come February, 2018 / Deadline March 31, 2018	RFP maybe March 2018/ Deadline May 2018
Ranking Timeline	~Feb 2018	~Feb 2018	March 1, 2018	July 7, 2018	May-18	~Nov and April	2018 / 2019	Spring 2018
Funding Timeline	~April 2018	May or June 2018	Summer 2018	~Dec 2018	Jun-18		2019	2019
Amount available	Unknown	<\$100,000	\$110,000	\$600,000 (not just barriers)	Not just Chehalis (~\$5 million state-wide)	Varies	Unknown. Aiming for \$19.7 million statewide	\$11 million – Coast-wide
Match needed?	No	Yes (>25%)	Yes	Yes (15%)	Cost-share in some cases (if landowner has harvested timber)	Possibly. Flat rate is given determined by structure size.	Yes (15%)	No
Review Committee	SC-designates. Functions like LE team	USFWS- possibly local reviewers	USFWS- possibly local reviewers	Local LE team/ SRFB technical	WDFW formula	NRCS	FBRB-specific	Consists of Coast Salmon Partnership and TNC. Have own ranking method

2017-2019 Watershed Pathway Project

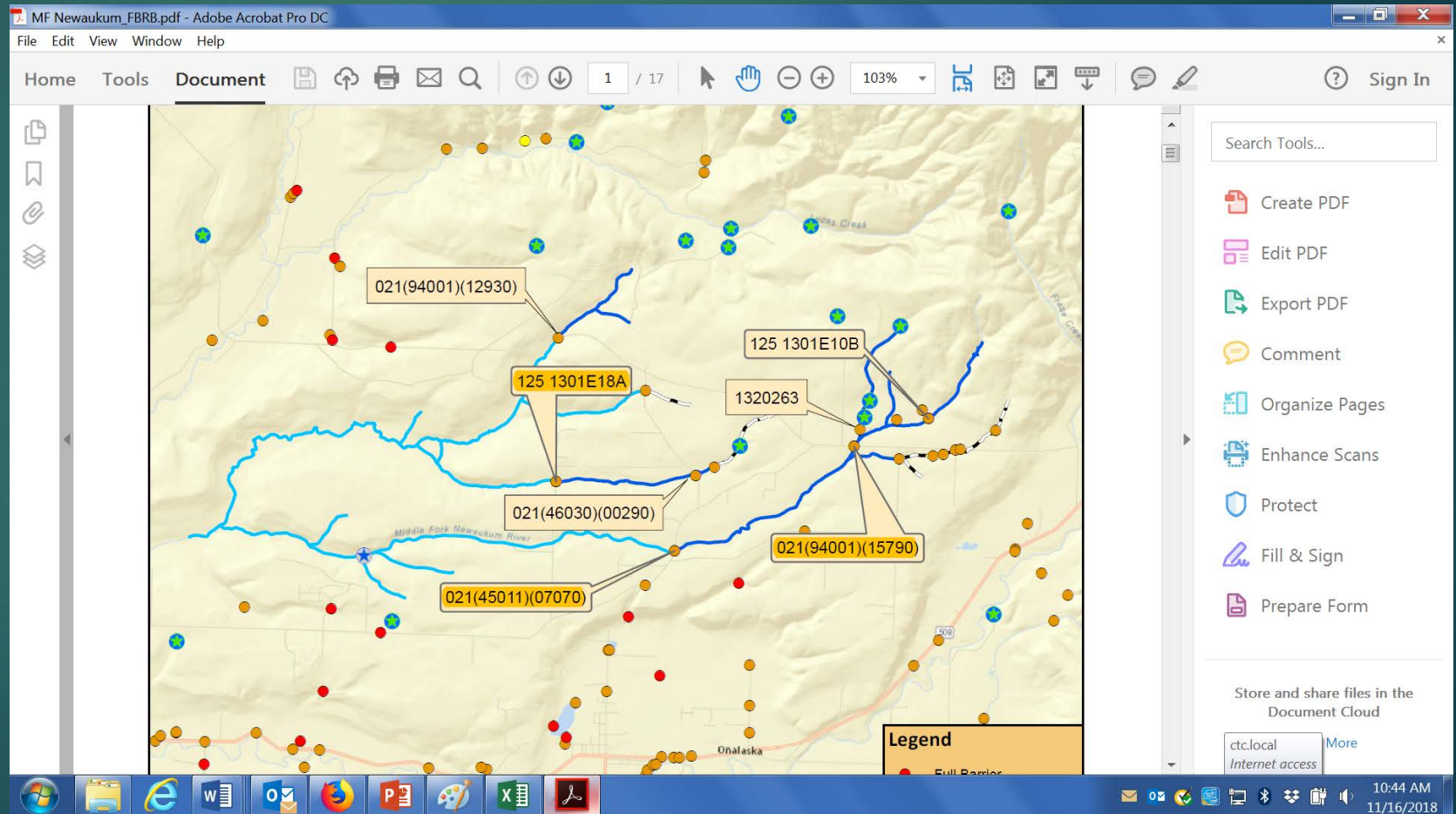
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- ▶ Benefits: Steelhead, Coho, Cutthroat;
- ▶ 2.5 mile linear gain to high quality forested habitat



Middle Fork Newaukum – Lewis County projects (2)

15



Next System for Watershed Pathway

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- ▶ South Fork Newaukum
- ▶ Fish passage in tributaries Tier 1 concern
- ▶ Scoping and landowner outreach already complete for proposed barriers
- ▶ 3 County-owned; 3 Private

When is a Watershed Complete?

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- ▶ Consider limiting life stages in the system (aka, Will opening more rearing help if spawning is what is limited?)
- ▶ Consider upstream habitat quality including instream flow – don't bother with passage to low quality habitat
- ▶ Likelihood that other limiting factors will be addressed (don't bother with passage to low quality habitat)
- ▶ Set low limit to linear gain (could 100 ft be useful even at a low cost of replacement?)

Recommendations: Watershed Pathway

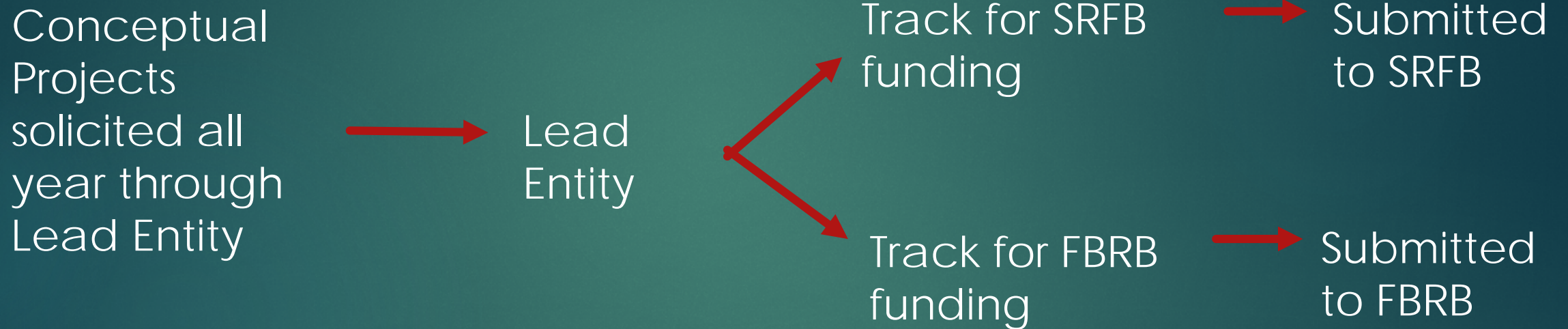
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- ▶ Keep WDFW staff support
- ▶ Keep working with Lead Entity to select proposed barrier for correction
 - ▶ Consistency with local prioritization scheme
 - ▶ Local knowledge of feasibility
 - ▶ Allows integration with other funding sources
 - ▶ Strengthens synergy with restoration beyond barriers
- ▶ Coordination with SRFB & other funding programs
 - ▶ Aka, design through SRFB, construct through FBRB?
 - ▶ Fill gaps – eligibility; match
- ▶ 1 Watershed Pathway per Coast WRIA

Recommendations- Coordinated Pathway

- ▶ Coordinated Pathway
 - ▶ Use Lead Entity to put out call for proposals, support sponsors in their applications, and review and rank projects
 - ▶ Vets more projects
 - ▶ Leads to higher priority projects that benefit fish, and also clearer applications that demonstrate those benefits
 - ▶ Ensures project feasibility
 - ▶ Align call for proposals and ranking timeline with SRFB timing
 - ▶ Qualifications: Synergy with projects >5 years old

Coordinated Pathway Possibility



Let's keep up the conversation!

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A scenic view of a river flowing through a landscape with bare trees and a clear blue sky. The river is in the foreground, and the background shows a line of trees and a clear blue sky.

Thank You for this Opportunity!

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Kirsten Harma

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AGREEMENT STATUS AND BUDGET FOR 2017-19 FBRB PROJECTS (November 19, 2018)

Project Name	WDFW / RCO	Amt. in enacted 2017-19 Capital Budget	Total Agreement Amt.	RCO Share	Real Match	Agreement Status	Comment
Chico Cr	Piazza / Caudill	\$3,785,000	\$3,922,000	\$3,472,000	\$450,000	Active	Agreement 'Active' as of Nov 14, 2018
Johnson Cr	Piazza / Caudill	\$3,008,000	\$2,256,632	\$2,158,432	\$98,200	Active	Bid for entire project came in under (incl. creosote removal), so not expecting cost increase request
Buford Cr	Collins / Lambert	\$4,721,000	\$4,409,284	\$4,160,031	\$249,253	Active	Total agreement amount is after adjustment approved on May 25, 2018 (clerical error)
MF Newaukum	Roler / Lambert	\$572,000	\$998,107	\$998,107	\$0	Active	New agreement amount after 473,107\$ cost increase request approved
Trib to Arkansas Cr	Roler	\$285,000	\$0	\$0		NA	funded by FEMA—application withdrawn
Coleman Cr	Collins / Caudill	\$771,000	\$606,762	\$606,762	\$0	Active	
Catherine Cr	Piazza / Lambert	\$566,000	\$316,389	\$307,427	\$8,962	Active	
Trib to Coffee Cr	Piazza / Caudill	\$327,000	\$300,000	\$300,000	\$404,343	Active	\$404,343 provided by Puget Sound Acq./Rest., bringing total RCO agreement amt. to 704,343\$
Johnson Cr	Collins / Caudill	\$544,000	\$499,000	\$499,000	\$0	Active	
Baxter Cr	Roler / Lambert	\$2,181,000	\$2,354,118	\$2,001,000	\$353,118	Active	
Turner Cr	Roler / Lambert	\$1,090,000	\$1,347,500	\$1,147,500	\$200,000	Active	New agreement amount after 147,500\$ cost increase request approved
Cottonwood Cr	Collins / Lambert	\$62,000	\$57,200	\$57,200	\$0	Active	\$26,000 cost increase requested on Oct 29, 2018 - under review
Trib to Johnson Cr	Piazza / Caudill	\$1,835,000	\$1,980,000	\$1,683,000	\$297,000	Active	If a bridge is req'd and cost increases above RCO Share amt. (1.68M\$), County will cover the overrun.
		\$19,747,000	\$19,046,992	\$17,390,459			

Budget Summary for \$19,747,000 in Capital Budget	
Item	Amount
Tot. Grant Awards for Implementation of Top 13 Projects	\$17,390,459
Facilitation Contract	\$68,500
RCO Administration and Project Management	\$813,576
WDFW Administration and Program Implementation	\$798,233
Total	\$19,070,768
<i>Remainder</i>	<i>\$676,232</i>

LEAP List Alternates			
Project	Cost Estimate in 'Binder'	2019-21 Funding Request / Scope	WDFW TRT BIO
MF Newaukum	\$850,500	\$97,730 / Planning	Roler
Dayton Cr	\$460,000	\$420,304 / Restoration	Piazza
Coleman Cr	\$1,560,734	\$1,306,080 / Restoration	Collins
Catherine Cr	\$400,000	\$89,611 / Planning	Piazza
Johnson Cr	\$550,951	\$489,673 / Restoration	Collins
Thorndyke Cr	\$1,412,000	\$198,313 / Planning	Roler

2017-19 Capital Budget	
LEAP Capital Document Number 2017-5H	
Developed June 30, 2017	
Brian Abbott Fish Passage Barrier Removal Board	
Dollars in Thousands	
Sub-Project Title	2017-19 New Approps
Chico Creek, Suquamish Tribe	3,785
Johnson Creek, North Olympic Salmon Coalition	3,008
Buford Creek, Nez Perce Tribe or Asotin C.D.	4,721
Middle Fork Newaukum, Lewis County	572
Unnamed Tributary to Arkansas Creek, Cowlitz County	285
Coleman Creek, Kittitas Conservation District	771
Catherine Creek, Sound Salmon Solutions	566
Coffee Creek, Mason County	327
Johnson Creek, Trout Unlimited/CCT	544
Baxter Creek, Cowlitz County	2,181
Turner Creek, Cowlitz County	1,090
Cottonwood Creek, Asotin Conservation District	62
Unnamed Tributary to Johnson Creek, Clallam County	1,835
Middle Fork Newaukum	Alternate
Dayton Creek	Alternate
Coleman Creek	Alternate
Catherine Creek	Alternate
Johnson Creek	Alternate
Thorndyke Creek	Alternate
Statewide Total	19,747

Summary of the 26 NTAs that include fish passage barrier correction:

- 19 would not be eligible using current FBRB grant program eligibility criteria
 - 15 of these did not coordinate with another fish passage project
 - 1 of these 15 did apply (NTA 2018-0495) but was determined to be ineligible due to no coordination with another fish passage project
 - 2 of these had “fish passage” in the description but did not actually correct a barrier - (improvements to habitat)
 - 1 of these was for passage improvement at a natural barrier
 - 1 of these included 3 barrier corrections: 2 of which had no coordination with another fish passage project, and the other 1 coordinated with a fish passage project completed before 2010
- 4 were eligible for the FBRB grant program and they are on the FBRB’s 2019-21 funding proposal
 - We did not reach out to these sponsors to ask why they applied to the FBRB and the NTA
- 3 would have been eligible for the FBRB grant program but did not apply
 - NTA 2018-0659 missed the RFA deadlines – they will be applying to the FBRB next time
 - NTA 2018-06919 decided to pursue other funding sources as they already submitted multiple other projects to the FBRB
 - NTA 2018-0186 Lead Entity incorrectly told applicant that they would not be eligible for FBRB grant program so they didn’t apply

Several of these have scopes that extend beyond a barrier correction, e.g., removal of shoreline armoring, pump station retrofit, beach restoration, stormwater retrofits.

NTA Number: 2018-0788: Middle Fork Nooksack River Fish Passage

Project Description: Finish designs and construction for the removal of the Middle Fork Nooksack Diversion Dam

FPDSI Number: 932005

Owner: City of Bellingham

Applied for FBRB Funding: No

Eligibility: Not eligible – No shown fish passage corrections upstream or downstream post-2010 and no funded fish passage repairs.

Reason for not Applying: N/A – project is not eligible

NTA Number: 2018-0113: South Fork Dogfish Creek Regional Stormwater Treatment Facility and Habitat Restoration, Construction Phase

Project Description: This project is mainly focused on the construction of a new stormwater facility. Other elements of the proposed project include restoring 600ft of stream channel and floodplain as well as replacing a fish passage barrier.

FPDSI Number: No site ID information at the provided lat/longs

Owner: City of Poulsbo

Applied for FBRB Funding: No

Eligibility: Not eligible – Not eligible, no shown fish passage corrections upstream or downstream post 2010 and no funded fish passage repairs.

Reason for not Applying: N/A – project is not eligible

NTA Number: 2018-0122: City of Port Orchard Annapolis Creek Fish Passage Enhancement

Project Description: Barrier removal on Annapolis Creek in Port Orchard.

FPDSI Number: 920409

Owner: City of Port Orchard

Applied for FBRB Funding: No

Eligibility: Not eligible – Not eligible, no shown fish passage corrections upstream or downstream post 2010 and no funded fish passage repairs.

Reason for not Applying: N/A – project is not eligible

NTA Number: 2018-0407: Seattle Public Utilities (SPU) Fish Passage Barrier Replacement Projects

Project Description: One barrier removal on Thornton Creek and two on Fauntleroy Creek. The city is requesting feasibility and design funds in the amount of \$2,500,000. They have already secured \$3,700,000 to put towards the designs.

FPDSI Number:

- Thornton Creek: 930655
- Fauntleroy Creek: No associated DFW Site IDs

Owner: City of Seattle

Applied for FBRB Funding: No

Eligibility:

- Thornton Creek: Did not see any upstream repairs and no known funded projects US/DS
- Fauntleroy Creek: Did not see any upstream repairs and no known funded projects US/DS

Reason for not Applying: N/A – project is not eligible

NTA Number: 2018-0710: Gilliam Creek Fish Passage Improvements

Project Description: The proposed project is to replace a flap tidegate with a self-regulating tide gate along with some channel restoration on Gilliam Creek. Gilliam Creek is highly urbanized and has significant water quality problems. City of Tukwila is requesting \$280,000 to complete construction level designs. The city has already secured \$40,000.

FPDSI Number: 938435

Owner: City of Tukwila

Applied for FBRB Funding: No

Eligibility: Did not see any upstream repairs and no known funded projects US/DS

Reason for not Applying: N/A – project is not eligible

NTA Number: 2018-0392: Culvert Replacement on E Sunday Lake Rd and 4th Ave NW

Project Description: The proposed project is to develop construction level designs for two projects in Secret Creek. WSDOT completed a fish passage project on Secret Creek in 2016.

FPDSI Number:

- 4th Ave Culvert: 992167
- East Sunday Lake Rd: 992169

Owner: Snohomish County

Applied for FBRB Funding: Yes

Eligibility: Project is on the FBRB funding request

Reason for not Applying: N/A – applicant did apply

NTA Number: 2018-0260: South Fork Skokomish Fish Passage Improvement

Project Description: Mason Conservation is proposing to develop feasibility and designs for providing adult Chinook passage through a series of natural barriers on the South Fork Skokomish River.

FPDSI Number: 893336

Owner: US Forest Service

Applied for FBRB Funding: No

Eligibility: Project is improving a natural barrier and is on federal land

Reason for not Applying: N/A – project is not eligible

NTA Number: 2018-0627: Lower French Creek Fish Passage Improvements

Project Description: Snohomish County is requesting funds to complete final designs on the retrofit of a pump station and channel work on French Creek. The county is requesting \$1,200,000.

FPDSI Number: None – No structure associated

Owner: Snohomish County

Applied for FBRB Funding: No

Eligibility: Did not see any upstream repairs and no known funded projects US/DS. Project is focused on channel work more than specifically fish passage.

Reason for not Applying: N/A – project is not eligible

NTA Number: 2018-2022: Budd Inlet Tributaries Fish Passage Implementation Project

Project Description: South Puget Sound Salmon Enhancement Group is requesting funds to implement three fish passage barrier corrections. Two of the projects are on Ellis Creek and one is on an unnamed tributary that flows into Budd Inlet. South Puget Sound Enhancement Group is requesting \$3,927,000.

FPDSI Number:

- Ellis Creek: 341162 & 343823
- Unnamed to Budd Inlet: 340259

Owner: Thurston County

Applied for FBRB Funding: No

Eligibility:

- Ellis Creek - Did not see any upstream repairs and no known funded projects US/DS
- Unnamed to Budd Inlet – Downstream repair was prior to 2010

Reason for not Applying: N/A – projects are not eligible

NTA Number: 2018-0185: Parish Creek Fish Barrier Removal, habitat restoration design, and construction

Project Description: City of Bremerton is requesting funds to design and construct a fish passage barrier correction on Parish Creek, which is a tributary to Gorst Creek. The city is requesting \$1,067,000 for design and construction of the new fish passable structure.

FPDSI Number: 15.0220 0.10

Owner: City of Bremerton

Applied for FBRB Funding: No

Eligibility: Did not see any upstream repairs and no known funded projects US/DS. Gorst fish passage project was on the mainstem, making this project NOT in direct coordination.

Reason for not Applying: N/A – project is not eligible. Sponsor reached out to Cade Roler to inquire about eligibility during the last RFP period.

NTA Number: 2018-0186: Kitsap Creek @ Northlake Way fish barrier removal feasibility, and preliminary design

Project Description: City of Bremerton is requesting funds to develop preliminary designs for the replacement of a barrier culvert on Kitsap Creek, which is a tributary of Chico Creek. The city is requesting \$152,000 to complete preliminary designs.

FPDSI Number: 15.0230 1.70

Owner: City of Bremerton

Applied for FBRB Funding: No

Eligibility: This project is eligible

Reason for not Applying: West Sound Watershed Council Lead Entity incorrectly told applicant that they would not be eligible.

NTA Number: 2018-0207 Skokomish Valley Road and Habitat Improvement

Project Description: Mason Conservation District is requesting funds to reduce the amount of flooding that occurs on Skokomish Valley Rd during high flows by providing forested wetland connectivity through the installation of multiple culverts and a bridge as well as LWM placement. This will provide summer low flow refuge in the spring fed wetlands and much needed high flow refugia. Mason Conservation District has already secured \$200,000 and is requesting approximately \$7 million

FPDSI Number: N/A – No existing barrier

Owner: Mason County

Applied for FBRB Funding: No

Eligibility: This project is not eligible – There is no associated barrier that is being fixed. This is more of a process based restoration project than a fish passage project.

Reason for not Applying: N/A – not eligible

NTA Number: 2018-0207 Tahlequah Creek Estuary Acquisition and Restoration

Project Description: King County is requesting funding to purchase approximately 0.75 acres of pocket estuary on Tahlequah Creek and replace a barrier culvert and remove the stream from a 345ft long flume and construct a natural stream channel. King County is requesting \$2,000,001.

FPDSI Number: N/A – No completed inventory

Owner: King County

Applied for FBRB Funding: No

Eligibility: This project is not eligible – There is no US/DS funded or corrected fish passage projects.

Reason for not Applying: N/A – not eligible

NTA Number: 2018-0358 Scheuerman Creek riparian and marine shoreline restoration

Project Description: The City of Seattle is requesting funds to develop a feasibility study to remove a barrier culvert at the confluence of Scheuerman Creek. The city is also requesting funds to replace two additional fish passage barriers upstream in Discovery Park as well as plant riparian habitat along the creek. The city is requesting \$150,000 to complete a feasibility study.

FPDSI Number: N/A – No completed inventory

Owner: City of Seattle

Applied for FBRB Funding: No

Eligibility: This project is not eligible – There is no US/DS funded or corrected fish passage projects.

Reason for not Applying: N/A – not eligible

NTA Number: 2018-0391 Culvert Replacement near 1321 268th St NW

Project Description: Snohomish County is requesting construction funds to replace a barrier culvert under 268th Street NW on Secret Creek. WSDOT completed a fish passage replacement directly downstream in 2016. Snohomish County is requesting \$710,000.

FPDSI Number: 991974

Owner: Snohomish County

Applied for FBRB Funding: Yes

Eligibility: project is on next biennium's funding request

Reason for not Applying: N/A

NTA Number: 2018-0413 Mud Bay, Sucia Island Salt Marsh and Beach Restoration

Project Description: Friends of the San Juans are requesting funding to complete designs and construction of a road removal and the correction of a fish passage barrier that will provide habitat to a highly productive salt marsh. Friends of the San Juans are requesting \$494,000, they have already secured \$435,000 and designs are at 95%.

FPDSI Number: 940509

Owner: State Parks

Applied for FBRB Funding: No

Eligibility: Project is not eligible. No US/DS funded or completed fish passage projects.

Reason for not Applying: N/A – not eligible

NTA Number: 2018-0435 Chico Creek Culvert (Golf Club Hill Road) and Floodplain Restoration

Project Description: Kitsap County is requesting funds to replace a triple box culvert barrier on Chico Creek and install LWM and provide additional floodplain connectivity.

FPDSI Number: 15.0229 1.00

Owner: Kitsap County

Applied for FBRB Funding: Yes

Eligibility: Yes

Reason for not Applying: N/A – project is funded through the FBRB currently. RCO is waiting for the county to set up an agreement.

NTA Number: 2018-0453 North Fork Nooksack Tributary Fish Barrier

Project Description: Whatcom County is requesting \$4,500,000 for design and construction of a fish passage barrier on Kenney Creek.

FPDSI Number: 01.0392 0.10

Owner: Whatcom County

Applied for FBRB Funding: Yes

Eligibility: Yes

Reason for not Applying: N/A – project is on the proposed funding list for next biennium as design only.

NTA Number: 2018-0495 Culvert Replacement at the Lyre Conservation Area

Project Description: North Olympic Land Trust is requesting \$55,000 to remove a fish passage barrier on Nelson Creek in the Lyre Conservation Area as well as do some invasive species control.

FPDSI Number: 132081074

Owner: Private

Applied for FBRB Funding: Yes

Eligibility: No - Project is not eligible. No US/DS funded or completed fish passage projects.

Reason for not Applying: Sponsors did apply but were deemed ineligible due to not US/DS funded or corrected fish passage projects.

NTA Number: 2018-0538 Meadowdale Beach Park Estuary Restoration Project

Project Description: Snohomish County is requesting \$18,400,000 to finish designs and construct the removal of hard armoring on the Meadowdale Beach Park shoreline and work with BNSF to replace a 6-foot span barrier culvert on Lunds Gulch Creek with a bridge. Designs are currently at the 60% level.

FPDSI Number: 934343

Owner: Snohomish County

Applied for FBRB Funding: No

Eligibility: No - Project is not eligible. No US/DS funded or completed fish passage projects.

Reason for not Applying: N/A – not eligible

NTA Number: 2018-0659 Harper Estuary Bridge Project

Project Description: Kitsap County is requesting \$5,000,000 to replace a barrier culvert with a full span bridge as well as complete some estuary restoration. The county has completed designs and permits in hand.

FPDSI Number: 932931

Owner: Kitsap County

Applied for FBRB Funding: No

Eligibility: Yes

Reason for not Applying: Missed the request for proposals and deadline. I have talked with them and they will be applying next round for funding.

NTA Number: 2018-06919 The Triad Restoration Project for Blackjack Creek

Project Description: Kitsap County Conservation District is requesting \$520,000 to replace three culvert replacements on Ruby Creek, tributary to Blackjack Creek and complete wetland restoration.

FPDSI Number: Unknown – emailed and left message with Kitsap CD

Owner: Private

Applied for FBRB Funding: No

Eligibility: Yes

Reason for not Applying: Pursuing funds from other sources and they were already submitting multiple projects to the FBRB

NTA Number: 2018-0659 Riverton Creek Flapgates Removal Project

Project Description: The City of Tukwila is requesting \$763,475 to design and complete the removal of two flapgates on Riverton Creek, install a new pedestrian bridge and make some structural modifications to the adjacent roadway bridge.

FPDSI Number: N/A – Not in WDFW’s database

Owner: City of Tukwila

Applied for FBRB Funding: No

Eligibility: No - Project is not eligible. No US/DS funded or completed fish passage projects.

Reason for not Applying: City of Tukwila applied for funding during the first Coordinated Pathway request for proposals but was determined to be ineligible.

NTA Number: 2018-0800 Strawberry Creek Culvert Replacement Silverdale Loop Rd, Silverdale, WA

Project Description: Kitsap County is requesting \$1,000,000 to replace a barrier culvert on Silverdale Loop Rd on Strawberry Creek along with completing storm water retrofits.

FPDSI Number: 15.0246 0.49

Owner: Kitsap County

Applied for FBRB Funding: No

Eligibility: No - Project is not eligible. No US/DS funded or completed fish passage projects.

Reason for not Applying: N/A – project is not eligible

NTA Number: 2018-0835 Titlow Estuary Restoration Project

Project Description: South Puget Sound Salmon Enhancement Group is requesting \$6,650,000 for an estuary restoration project near Tacoma in the Titlow Estuary. The estuary restoration includes the replacement of multiple fish passage barriers.

FPDSI Number: 920382 and 921005 – unknown passability: tidal culverts

Owner: private (Railroad) and City of Tacoma

Applied for FBRB Funding: No

Eligibility: No - Project is not eligible. No US/DS funded or completed fish passage projects.

Reason for not Applying: N/A – project is not eligible

NTA Number: 2018-08755 McNeil Island Estuary Restoration

Project Description: WDFW is requesting \$3,000,000 to remove three fish passage barriers on McNeil Island that would restore three pocket estuaries.

FPDSI Number:

- Milewa Creek – 981770
- Bodley Creek – 981757
- Eden Creek - 981735

Owner: State

Applied for FBRB Funding: No

Eligibility: No - Projects are not eligible. No US/DS funded or completed fish passage projects.

Reason for not Applying: N/A – Projects are not eligible

**Only three fish passage NTAs are eligible for FBRB that didn't apply. The other projects are a mix of fish passage corrections that are on the FBRB funding request or not eligible.

**Applicants with FBRB eligible NTAs were reached out to and encouraged to apply for FBRB next grant round.

Senate Transportation Committee

311 J.A. Cherberg Building - P.O. Box - Olympia, WA 98504-0466

Committee Hearings & Bill Information: (360) 786-7300

Legislative Hotline Operators: 1-800-562-6000

In Attendance

Committee Members

Senator	Room	Phone
Hobbs, Steve (D) Chair	305 John A. Cherberg Building	(360) 786-7686
Saldaña, Rebecca (D) Vice Chair	230 John A. Cherberg Building	(360) 786-7688
King, Curtis (R) Ranking Member	115 Irv Newhouse Building	(360) 786-7626
Chase, Maralyn (D)	224 John A. Cherberg Building	(360) 786-7662
Cleveland, Annette (D)	220 John A. Cherberg Building	(360) 786-7696
Dhingra, Manka (D)	239 John A. Cherberg Building	(360) 786-7672
Fortunato, Phil (R)	201 Irv Newhouse Building	(360) 786-7660
Lias, Marko (D)	309 Legislative Building	(360) 786-7640
McCoy, John (D)	305 Legislative Building	(360) 786-7674
O'Ban, Steve (R)	102 Irv Newhouse Building	(360) 786-7654
Sheldon, Tim (D)	417 Legislative Building	(360) 786-7668
Takko, Dean (D)	226 John A. Cherberg Building	(360) 786-7636
Walsh, Maureen (R)	205 Irv Newhouse Building	(360) 786-7630
Wellman, Lisa (D)	218 John A. Cherberg Building	(360) 786-7641
Zeiger, Hans (R)	109B Irv Newhouse Building	(360) 786-7648

Also in attendance, Senator-elect:

[Nguyen, Joe](#) (D)

[Das, Mona](#) (D)

Committee Staff

Staff	Position	Room	Phone
David Ward	Budget Coordinator	JAC 319	(360) 786-7341
Erica Bramlet	Fiscal Analyst	JAC 314	(360) 786-7321
Dana King	Committee Assistant	JAC 313	(360) 786-7784
Hayley Gamble	Sr. Fiscal Analyst	JAC 317	(360) 786-7452
Kimberly Johnson	Sr. Staff Counsel	JAC 321	(360) 786-7472
Bryon Moore	Sr. Fiscal Analyst	JAC 316	(360) 786-7726
Kelly Simpson	Sr. Staff Coordinator/Counsel	JAC 312	(360) 786-7403

Washington Department of Fish and Wildlife

Coordinating Fish Passage for Salmon Recovery

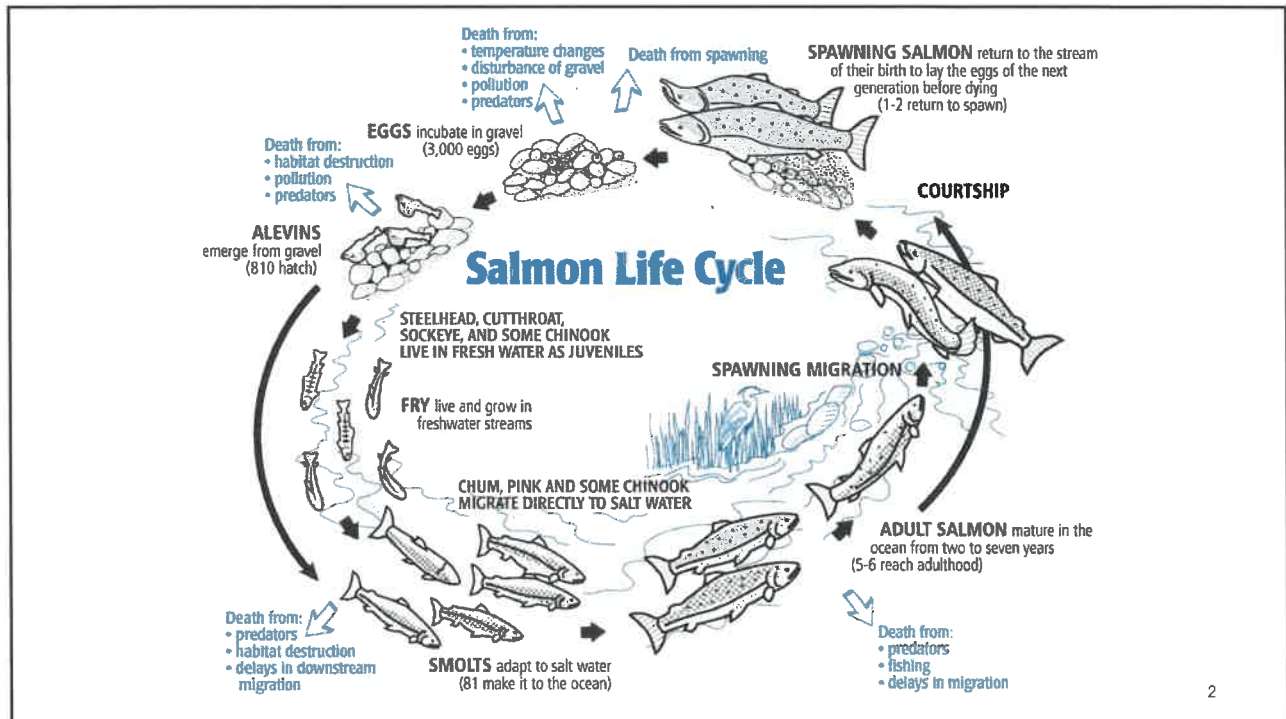
Senate Transportation Committee



Justin Zweifel
WDFW Fish Passage
FBRB Program Manager
November 2018



1



2

What is a fish passage barrier?



Excessive Water Surface Drop



High Velocity



Shallow Water Depth



3

What are the negative effects of a barrier?



Photo: Lambert Creek
Lewis County



Photo: Swift Creek
Thurston County

- Block access to spawning and rearing areas
- Economic loss
- Endangering people & road infrastructure

4

What are the positive effects of removing a barrier?



Photo: Lambert Creek
Lewis County

- Salmon immediately take advantage
- Economic benefit
- Can accommodate a wide range of flows
 - Flood resilience - Protect infrastructure
 - Reduce or eliminate maintenance



Photo: Swift Creek
Thurston County

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Fish Barrier Removal Board (FBRB)



BRIAN ABBOTT
**FISH BARRIER
REMOVAL BOARD**

- Established by Legislature in 2014
- Chaired by WDFW
- Members: WSDOT, DNR, Recreation and Conservation Office, cities, counties, tribes, salmon recovery regions

MISSION: to develop a coordinated fish barrier removal strategy that maximizes the habitat recovery value of other fish passage investments that have been made by public and private entities statewide.



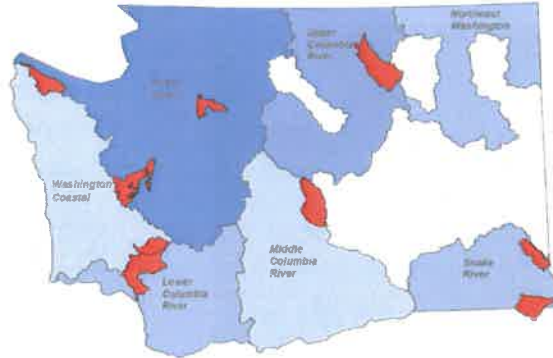
6

Two Barrier Removal Strategies



Watershed Pathway

- Board-approved watersheds prioritized by regional salmon recovery organizations
- Maximize benefits to salmon at a population scale



Coordinated Pathway

- Fix barriers in close proximity to other barrier repairs
- Leverage previous fish passage investments

7

2019-21 Capital Budget Request



- 82 barrier corrections
- 162 miles habitat gain
- \$50M investment
- 2 State, 46 County, 15 City, 19 Private



Photo: North Fork Ostrander Cr
2019-21 Watershed Pathway Project
Sponsor: Cowlitz Indian Tribe

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Example of Coordination – Secret Creek



For more information:



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Washington Department of Fish and Wildlife

5th Annual Injunction Meeting
Fish Passage Progress Report
November 2018



Presentation Overview

- Barrier Correction Summary
- Monitoring Schedule
 - Over-Winter
 - 5-Year
- Reassessments of Non-Barrier Culverts
- Maintenance Activities
- Next Steps



Barrier Correction Summary

Wildlife or Access Area Name	Stream	Trib To	Repair Year	New Structure	WRIA
Haven Lk	unnamed	Haven Lk	2013	Culvert	15 - Kitsap
Minter Cr Hatchery	unnamed	Minter Cr	2013	Bridge	15 - Kitsap
Minter Cr Hatchery	unnamed	Minter Cr	2013	Bridge	15 - Kitsap
Failor Lk	Deep Cr	Humtulpips R	2013	Bridge	22 - Lower Chehalis
Johns R WLA	unnamed	Grays Harbor Trib	2013	None - Removal	22 - Lower Chehalis
Reiter Ponds	unnamed	Skykomish R	2014	Culvert	7 - Snohomish
Solduc Hatchery	unnamed	Sol Duc R	2014	Culvert	20 - Soleduc
Solduc Hatchery	unnamed	Sol Duc R	2014	Culvert	20 - Soleduc
Johns R WLA	Beaver Cr	Johns R	2014	Bridge	22 - Lower Chehalis
Skookumchuck Hatchery	Troller Run Cr	Skookumchuck R	2015	Culvert	23 - Upper Chehalis
Snoqualmie WLA - Corson	unnamed	Catherine Cr	2016	Footbridge	7 - Snohomish
Marblemount Hatchery	Hatchery Cr	Clark Cr	2016	Bridge	4 - Upper Skagit
Snoqualmie WLA - Corson	unnamed	Catherine Cr	2016	None - Removal	7 - Snohomish
Snoqualmie WLA - Corson	unnamed	Catherine Cr	2016	None - Removal	7 - Snohomish

Monitoring Schedule

Wildlife or Access Area Name	Stream	Trib To	Repair Year	Post-Construction	Over-Winter	Year 5	Year 10
Haven Lk	unnamed	Haven Lk	2013	2013	2014	2018	2023
Minter Cr Hatchery	unnamed	Minter Cr	2013	2013	2014	2018	2023
Minter Cr Hatchery	unnamed	Minter Cr	2013	2013	2014	2018	2023
Failor Lk	Deep Cr	Humtulpips R	2013	2013	2014	2018	2023
Reiter Ponds	unnamed	Skykomish R	2014	2014	2015	2019	2024
Solduc Hatchery	unnamed	Sol Duc R	2014	2014	2015	2019	2024
Solduc Hatchery	unnamed	Sol Duc R	2014	2014	2015	2019	2024
Johns R WLA	Beaver Cr	Johns R	2014	2014	2015	2019	2024
Skookumchuck Hatchery	Troller Run Cr	Skookumchuck R	2015	2015	2015	2020	2025
Snoqualmie WLA - Corson	unnamed	Catherine Cr	2016	2016	2017	2021	2026
Marblemount Hatchery	Hatchery Cr	Clark Cr	2016	2016	2017	2021	2026

Year-5 Inspection: Haven Lake Access Unnamed trib to Haven Lk [Site ID 980315]

- 100% Passable
- BFW inside structure similar to designed channel and undisturbed adjacent channel
- Channel shape similar to designed channel and undisturbed adjacent channel
- Action Determined by Monitoring = No Action Needed



Year-5 Inspection: Minter Cr Hatchery

Two unnamed tribs to Minter Cr [Site IDs 982718 & 982717]



- 100% Passable
- BFW under structure similar to designed channel and undisturbed adjacent channel
- Channel shape similar to designed channel and undisturbed adjacent channel
- Action Determined by Monitoring = No Action Needed



Year-5 Inspection: Failor Lake Access Deep Cr trib to Humptulips R [Site ID 980335]



- 100% Passable
- BFW under structure similar to designed channel and undisturbed adjacent channel
- Channel shape similar to designed channel and undisturbed adjacent channel
- Action Determined by Monitoring = No Action Needed



Reassessment of Non-Barrier Culverts

Lake Terrell Wildlife Area Culverts

Unnamed trib to Terrell Cr – WRIA 1 Nooksack

Chum, coho, steelhead, sea-run cutthroat, and resident trout

Last assessed 100% passable January 21, 2003



Maintenance Activities: Morgan Marsh Unnamed trib to Stavis Cr [Site ID 982761]



Next Steps

- Investigate 2 Lake Terrell culverts
 - Determine ownership
 - Seek funding
- Engineering design work underway for barrier that was discovered on Beaver Cr at Scatter Cr WLA in 2015
 - Construction expected in 2019



How is everyone doing?



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