



Meeting Handouts

December 15, 2020

Presentations to Legislature:

- WDFW – WDFW & Brian Abbott Fish Barrier Removal Board update (Nov 30, 2020)
- WSDOT – Restoring fish passage at WSDOT stream crossings (Nov 30, 2020)
- DNR – Fish passage programs
- Association of Washington Cities – City Culverts Update (Dec 1, 2020)
- Washington State Association of Counties – Fish passage barrier removal; A county perspective (Dec 1, 2020)

WDFW & Brian Abbott Fish Barrier Removal Board Update

House Transportation Committee Assembly Meeting

November 30th, 2020

Margen Carlson, Program Director, Habitat Program

Tom Jameson, Fish Passage DIV MGR, Habitat Program & Chair of FBRB



Fish Passage Programs within the State



- Culvert Injunction
- Road Maintenance & Abandonment Plans
- Family Forest Fish Passage Program
- Chehalis Basin Aquatic Species Restoration Plan
- SRFB, NRCS, Counties and Cities
- Fish Barrier Removal Board



WDFW Injunction Compliance & Support

- Remove state-owned culverts that block habitat for salmon and steelhead by 2030
- Applies to road/stream crossings owned by WSDOT, WDNR, WDFW, and State Parks
- WDNR, WDFW, and State Parks have completed most projects
- Projects remaining: WDNR–6, State Parks–2
- WDFW directly supports WSDOT and State Parks compliance work
- State must maintain and monitor culverts for fish passage in perpetuity



Fish Barrier Removal Board (FBRB)



BRIAN ABBOTT

**FISH BARRIER
REMOVAL BOARD**

- Re-established by Legislature in 2014
- Chaired by WDFW
- Members: WSDOT, DNR, Recreation and Conservation Office, Assoc. of Cities, Assoc. of Counties, tribes, salmon recovery regions

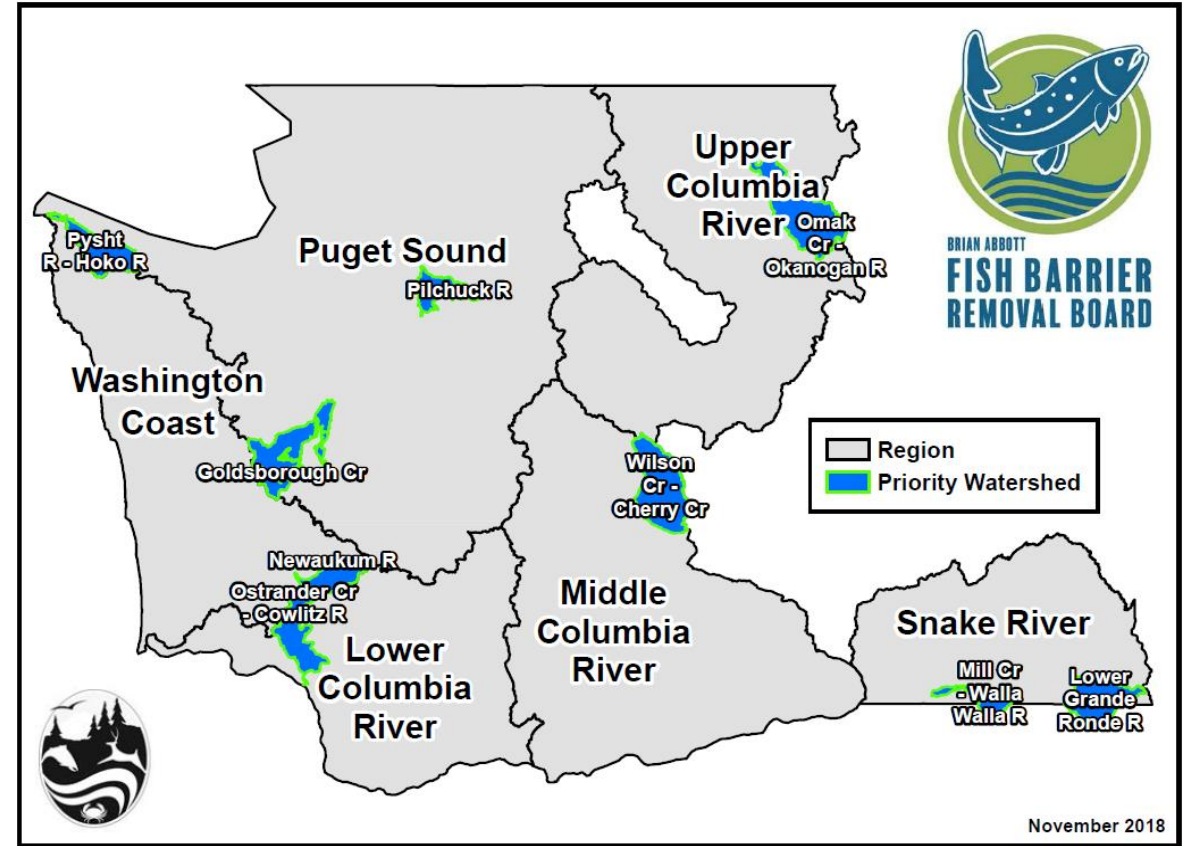
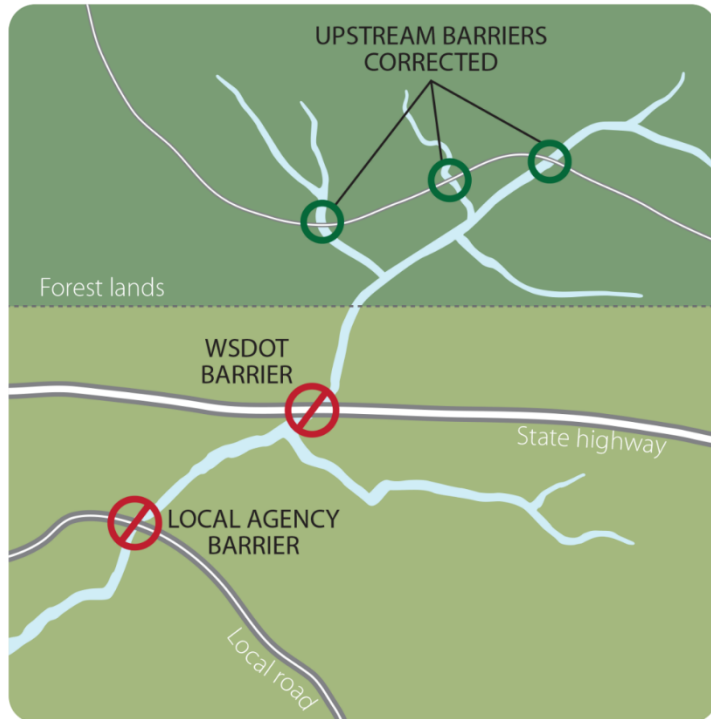
MISSION: Restore of healthy and harvestable levels of salmon and steelhead statewide through the coordinated and strategic removal of barriers to fish passage (RCW 77.95.160)



FBRB Strategies to Open Whole Watersheds

Watershed Pathway

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

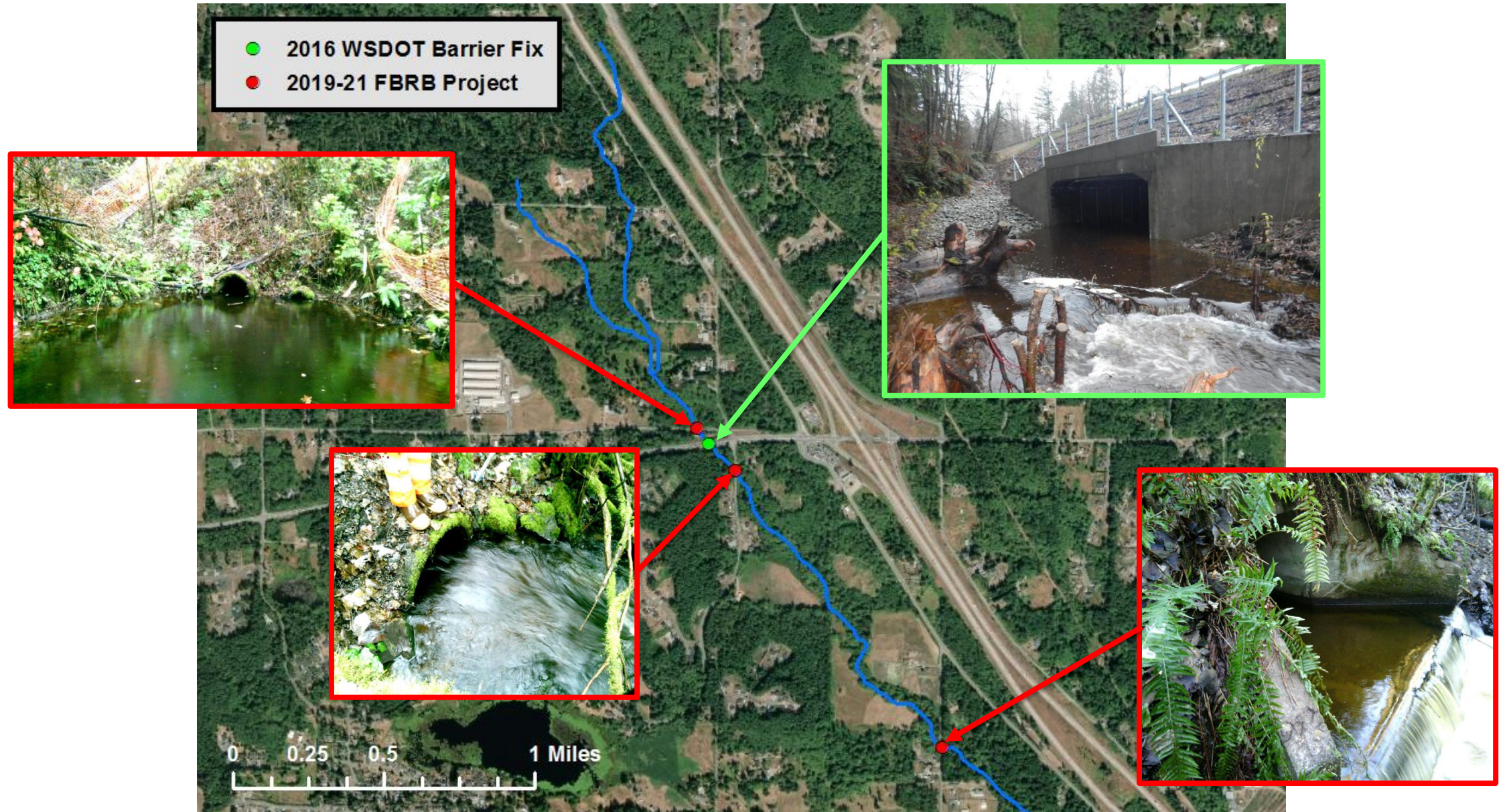


Partnership Pathway

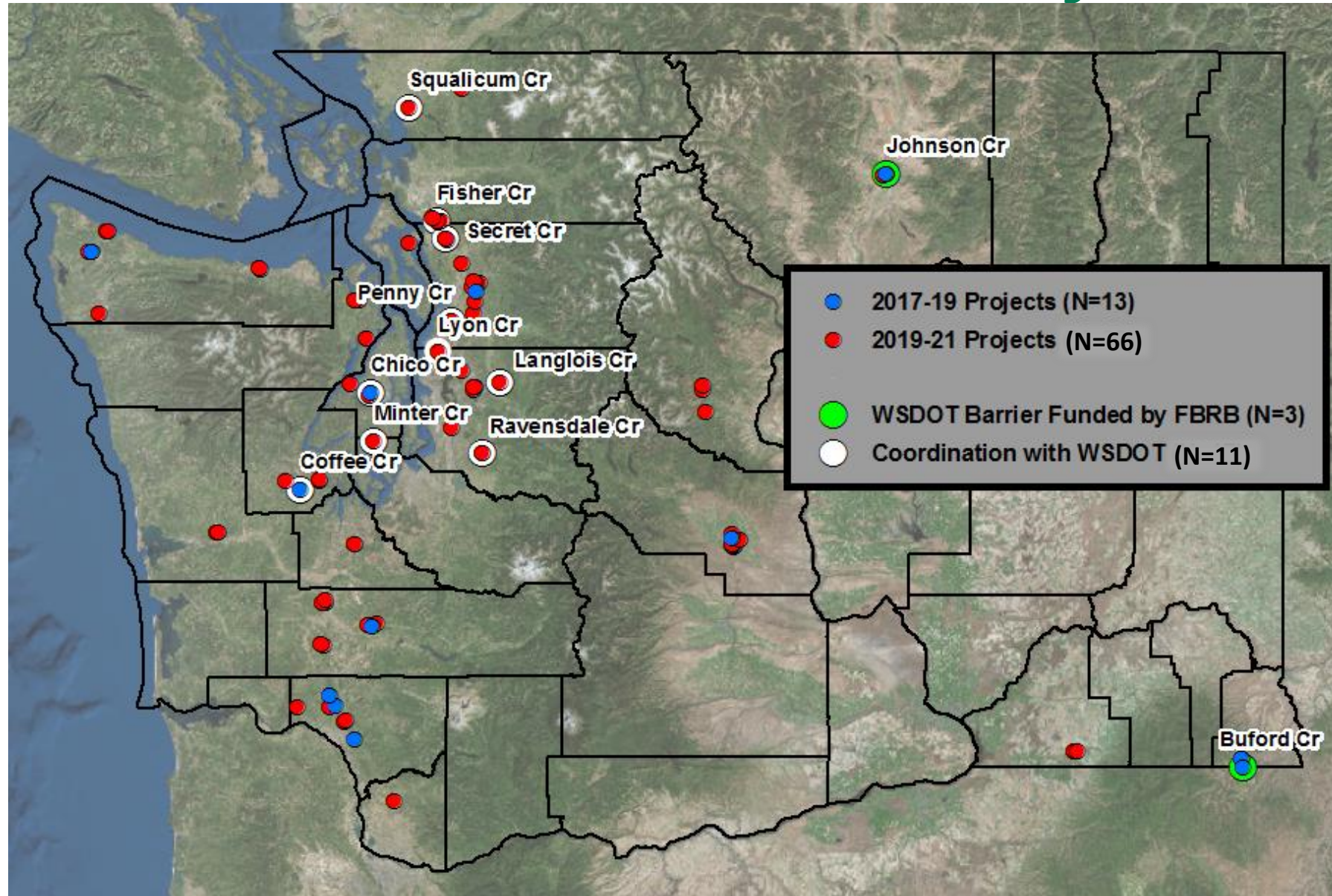
- Fix barriers in close proximity to other barrier repairs
- Leverage previous fish passage investments



FBRB Coordination with WSDOT – Secret Creek, Snohomish County



FBRB Coordination with WSDOT Delivery Plan



Fish Passage Proviso - Problem Statement

- WA has several distinct fish passage barrier remediation plans & programs operating simultaneously to include the federal court injunction
- A sole focus on the injunction will not deliver the desired outcomes for salmon, steelhead, orca recovery, and important fisheries statewide
- The FBRB has been tasked to develop a comprehensive statewide strategy, to ensure that the state culvert injunction target is met while also meeting identified natural resource objectives that necessitate correcting non-state-owned barriers.



Provisos Summary

- Develop a comprehensive plan that builds on the investment in the injunction to deliver benefits to salmon and steelhead stocks that are:
 - Listed as threatened or endangered under the Endangered Species Act (ESA)
 - Contribute to the protection and restoration of Southern Resident Orca
 - Limit the harvest of anadromous fish in the Pacific Salmon Treaty or North of Cape Falcon fishery negotiations



Practical Considerations

- Increase value of the injunction by recommending step/processes/tactics that can be applied to each watershed to:
 - Help us prioritize/sequence barrier removals in that watershed
 - Achieve the state's resource goals (ESA, SRKW, PST and NOF fisheries)
- Coordinate with tribes and others
- Notice where existing state programs and policies are inconsistent with this new approach and make recommendations for change
- Acknowledge the costs of the approach and try to make some preliminary recommendations about funding mechanisms



Update

- Provisos (conditions) in the 2020 supplemental Capital, Operating and Transportation budgets direct the development of a plan
- Work has begun on the provisos, but the work has been affected by this year's constraints on budget, hiring, and existing staff capacity
- First update to the legislature on the plan was submitted on November 1st, 2020



Questions?

Margen Carlson
margen.carlson@dfw.wa.gov
360-280-8898

Thomas P. Jameson
thomas.jameson@dfw.wa.gov
360-688-4963



FBRB 2019-21 Capital Funded Project List

51 fish passage projects (66 barriers)

- 29 'design-only'
- 37 construction
 - Completed construction projects open 82 total miles of habitat in 2019-21
- \$26.5M capital investment
- 2 State, 39 County, 8 City, and 17 Private barriers

Sponsors: Cities, Counties,
Conservation Districts, Tribes



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



FBRB 2021-23 Capital Funded Project List

87 fish passage projects (116 barriers)

- 38 'design-only'
- 49 construction
 - Completed construction projects open 344 total miles of habitat in 2021-23
- \$65.6M capital investment
- 1 State, 42 County, 17 City, 1 Tribal, 2 Irrigation District, and 24 Private barriers

Sponsors: Cities, Counties, Conservation Districts, Tribes, NGOs



Photo: Boone Creek
2021-23 Planning Project
Sponsor: Washington State Parks



Restoring Fish Passage at WSDOT Stream Crossings

House Transportation Committee Meeting



Kim Mueller, P.E.
Fish Passage Delivery Manager
Environmental Services Office
November 30, 2020

Roger Millar, Secretary of Transportation
Keith Metcalf, Deputy Secretary of Transportation

Presentation Overview

Current Progress

- Delivering Fish Barrier Corrections this Biennium

Virtual Tour

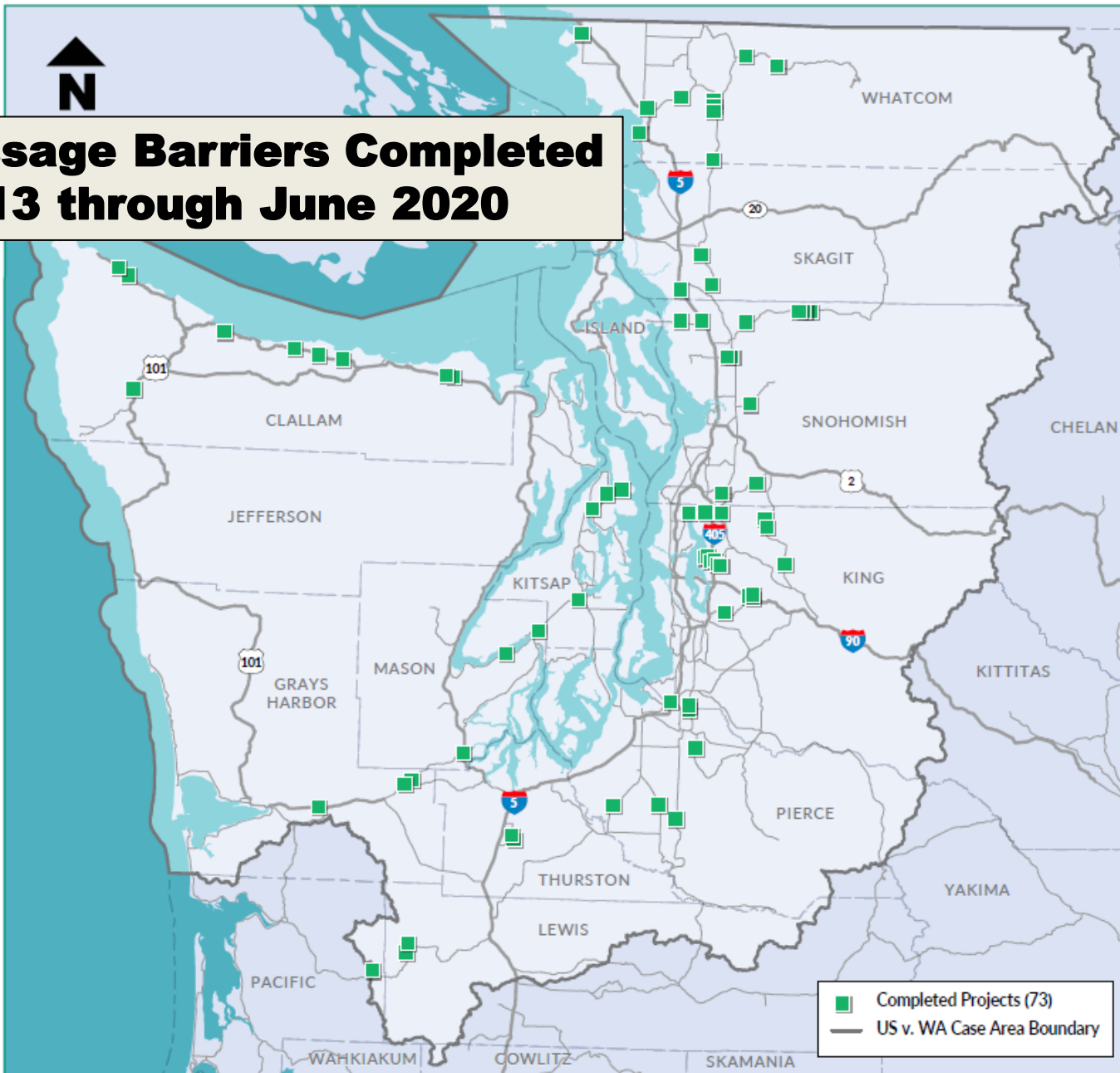
- Fish Barrier Correction Construction efforts from summer 2020

Looking Ahead

- Injunction Compliance Investment Levels



Fish Passage Barriers Completed from 2013 through June 2020

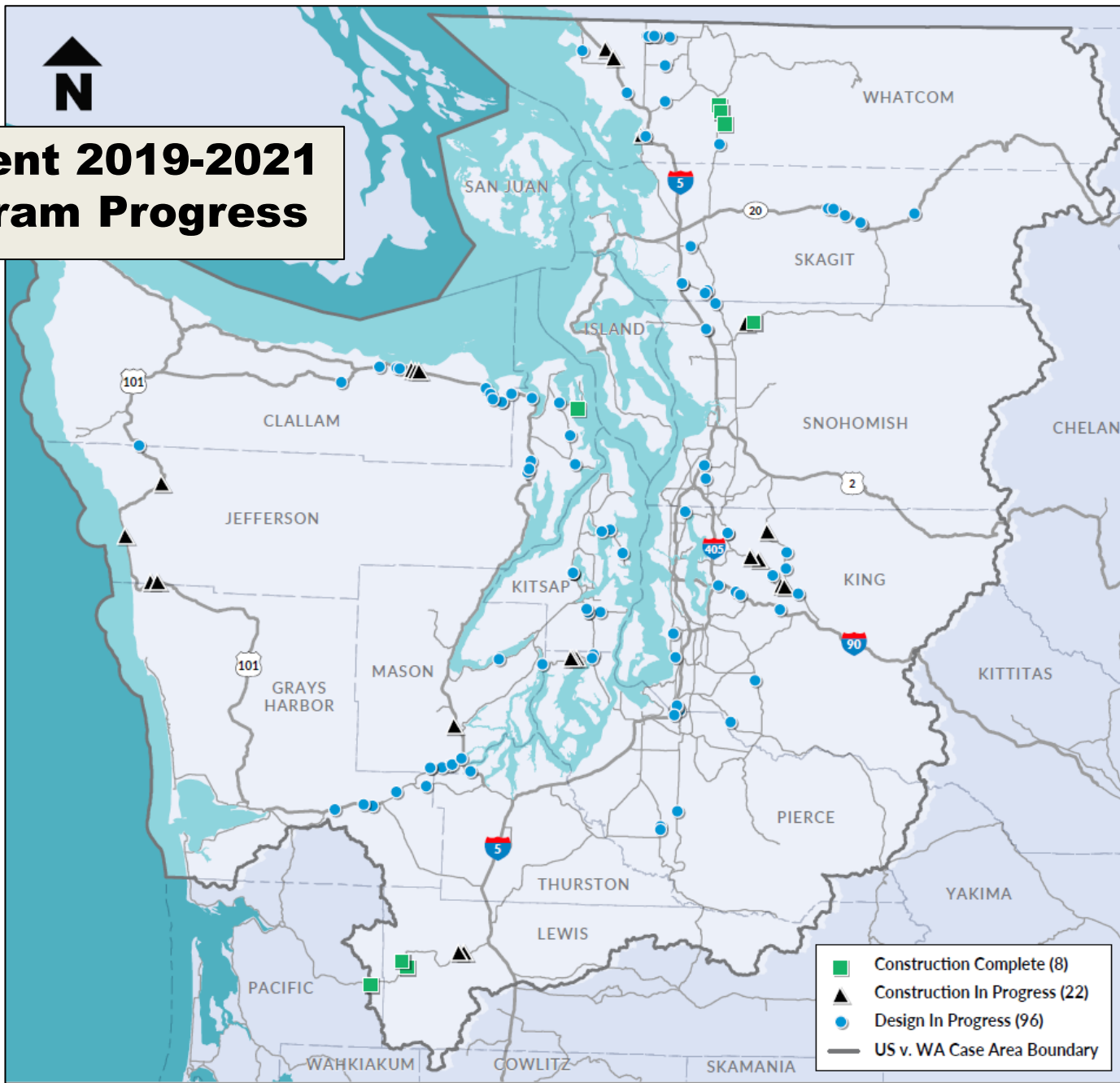


Delivery Plan Prioritization Principles





Current 2019-2021 Program Progress



Delivery Efficiencies

Design-Build at Coffee Creek



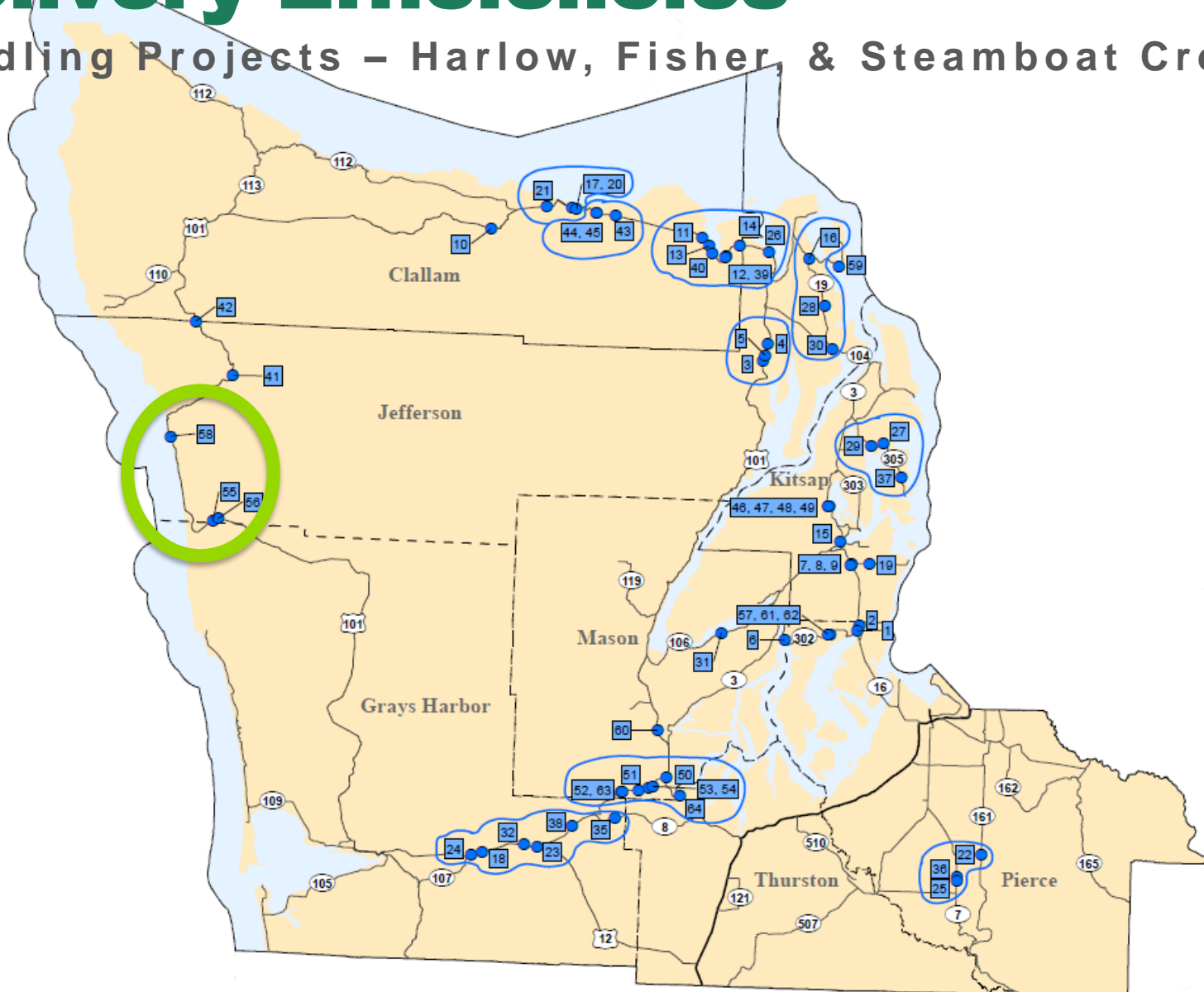
Coffee Creek

Salmon at the New Structure



Delivery Efficiencies

Bundling Projects – Harlow, Fisher, & Steamboat Creeks



Harlow & Fisher Creeks



Fisher Creek, US 101
July 2020, Under construction



Harlow Creek, US 101
October 2020



Project Efficiencies

Alternative construction materials and techniques –
Loutsis Creek



Project Efficiencies

Partnerships – Ravensdale Creek

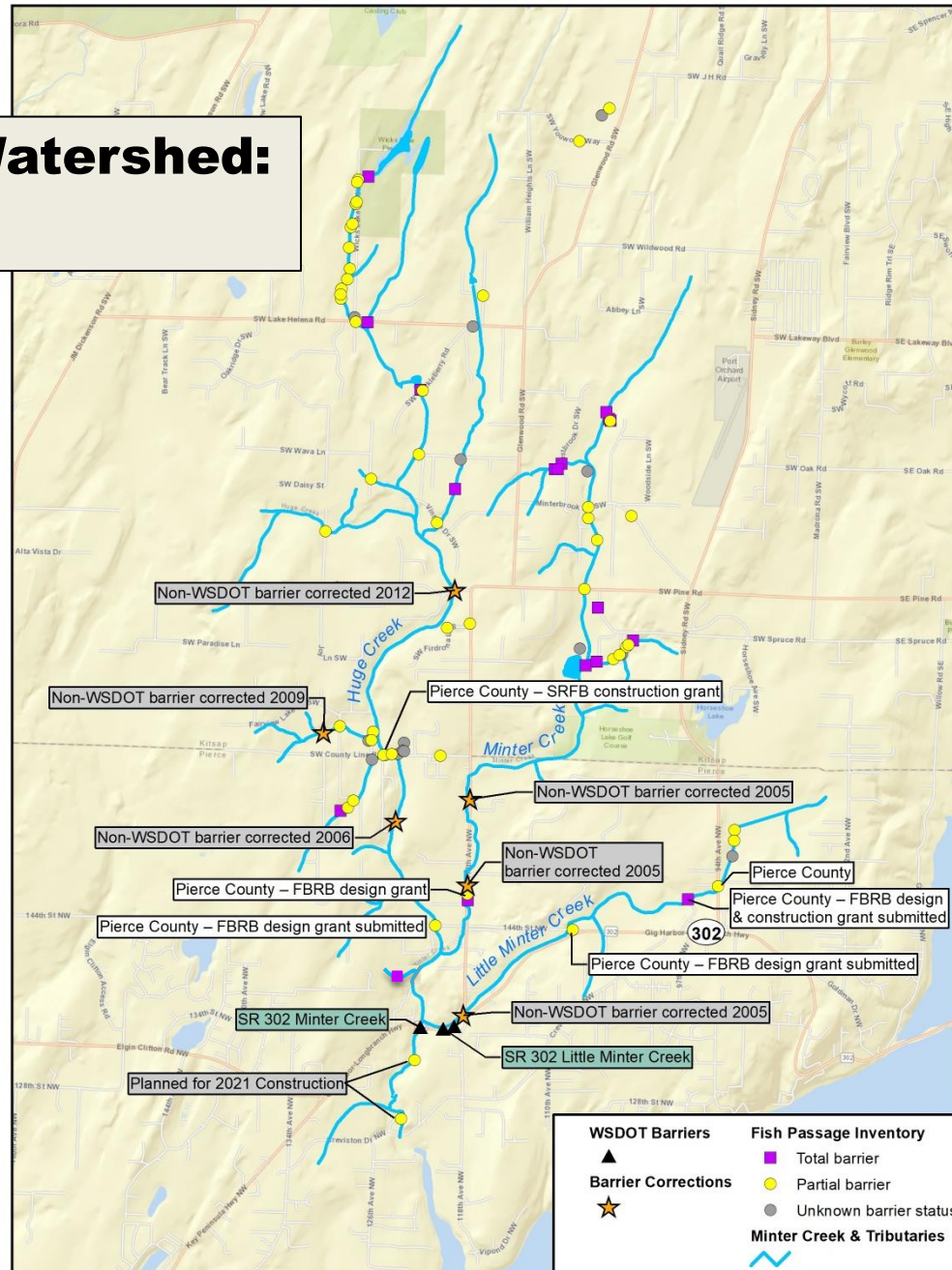




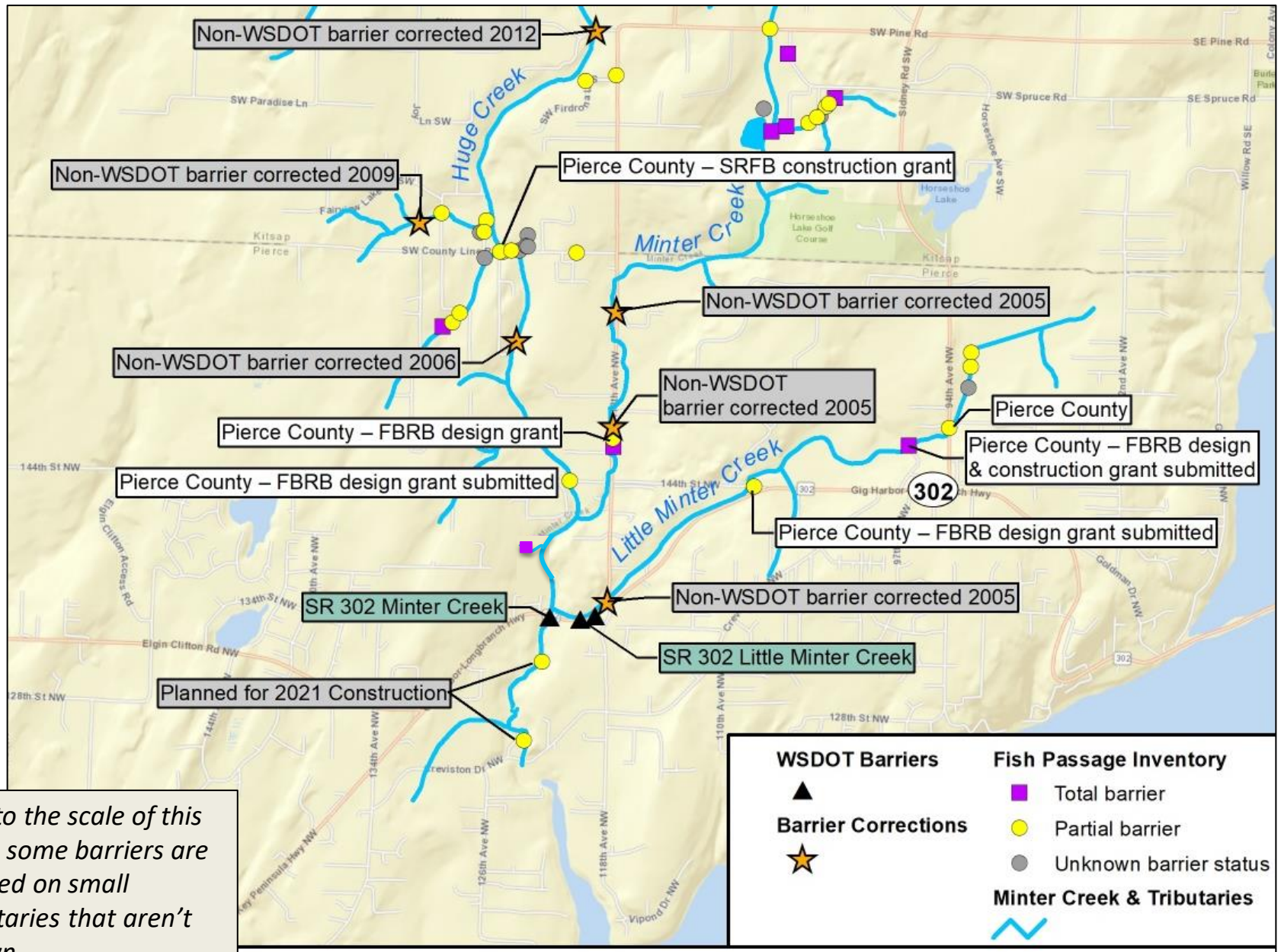
Minter Creek



Work in the Watershed: Minter Creek



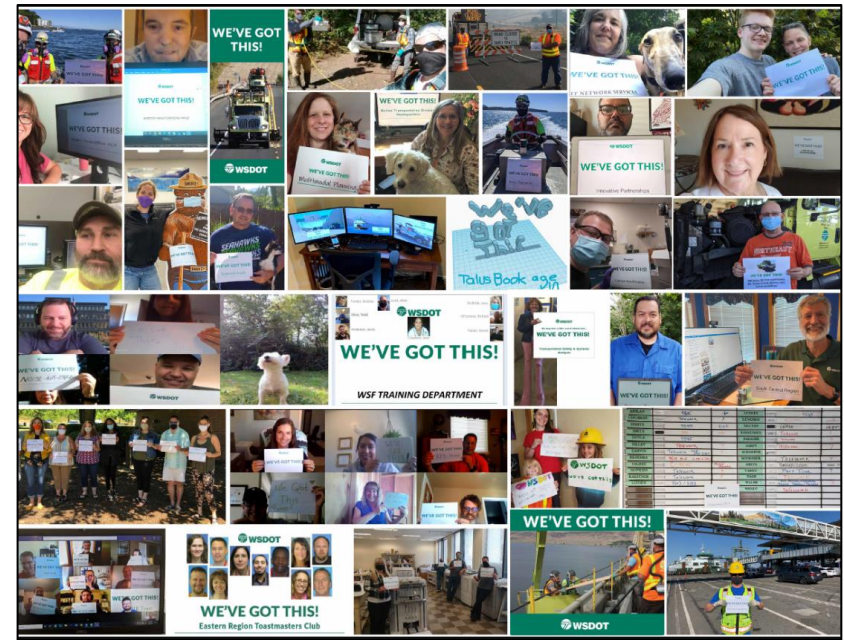
Due to the scale of this map, some barriers are located on small tributaries that aren't shown.



Due to the scale of this map, some barriers are located on small tributaries that aren't shown.

COVID-19 Challenges

- Some field work was delayed or temporarily shut down
- Furloughs reduced necessary project hours



Injunction Compliance Investment Levels

	Past Bienna 2013-2019	Current Biennium 2019-2021	2021- 2023	2023- 2025	2025- 2027	2027- 2029	2029- 2030	Total
Current funding	\$185M	\$275M	\$726M	\$100M	\$21M	\$53M	\$33M	\$1.4B
Total funding needed to comply with the Injunction	\$185M	\$275M	\$726M	\$730M	\$735M	\$740M	\$405M	\$3.8B
Additional funding required				\$630M	\$714M	\$687M	\$372M	\$2.4B
# Barriers (Corrected)	66	24	90-110	115-130	115-130	115-130	30-40	580-600

M=Millions B=Billions

- Opens 90% of blocked habitat by 2030 as required by the injunction.
- Includes funds to correct culverts that structurally fail as required by the injunction.
- Includes a small amount of funding for high value corrections outside the case area.
- Continued funding needed after 2030 to correct culverts that structurally fail and those deferred.

Looking Ahead



Contact Information

Megan White, P.E., Director
Washington State Department of
Transportation
Environmental Services Office
(360) 705-7480,
Megan.White@wsdot.wa.gov

Kim Mueller, P.E., Fish Passage
Delivery Manager
Washington State Department of
Transportation
Environmental Services Office
(360) 705-7404,
Kim.Mueller@wsdot.wa.gov

Resources

wsdot.wa.gov/Projects/FishPassage/default.htm

www.youtube.com/watch?v=u7HT6oMqAco (Video) – A fast look into the complicated process of designing a fish passage project.



Stephen Bernath, Deputy Supervisor for Forest Practices

RMAPs – Large Forest Landowners

Purpose

- **Upgrade forest roads to current standards**
- **While fully functioning Riparian Management Zones matured**
- **Commitment of Forests and Fish Report**
- **Forest Practices Habitat Conservation Plan**
- **Fix fish passage barriers for all fish, all life stages**
- **Divert water and sediment from roads to the forest floor**
- **Timing – 15 years, extended to 20 during last recession**





Almost 60,000 miles of forest road evaluated
Almost 30,000 miles of forest road improved



- **Sharing information on WDFW fish passage data base**
- **8,300 fish barriers fixed**
- **5,134 miles of habitat opened**
- **585 fish barriers identified as needing correction before 10/31/21**
- **Originally 224 RMAPs, 47 to complete work in the next year**



Family Forest Fish Passage Program



FFFPP Purpose



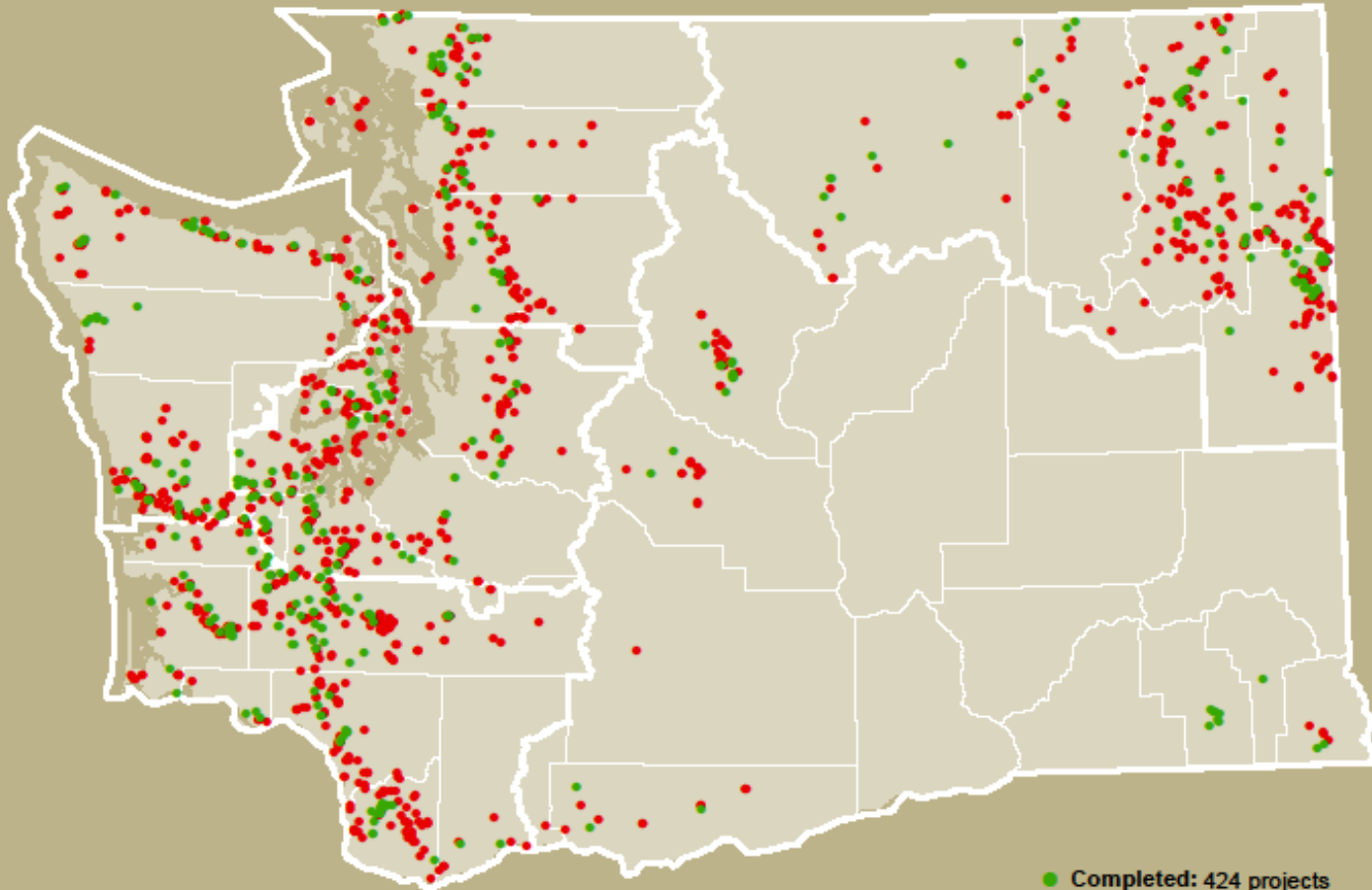
- Cost share program to assist small forest landowners with removing and replacing fish passage barriers



- Achieve the goals of the Forests and Fish Report
- Comply with the state's fish passage requirements



FFFPP 2020 Project Sites Statewide



Request & Benefits



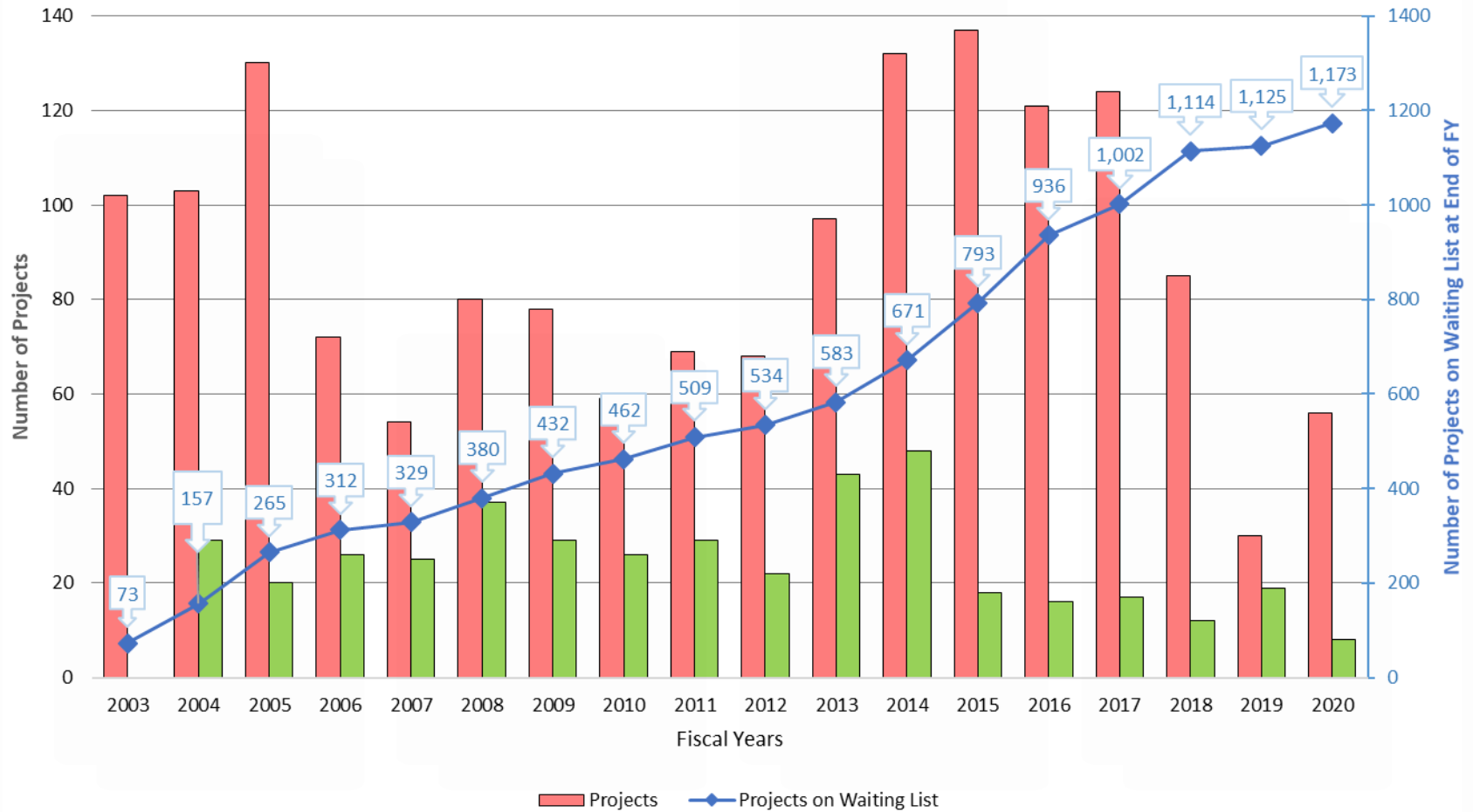
- Request for \$10.0 million for the Family Forest Fish Passage Program (FFFPP)
- 58 fish barrier correction projects on small forest landowner lands
- Creates 150 family-wage jobs
- Working through Local groups like conservation districts, salmon enhancement groups and tribes as project sponsors





Accomplishments

FFFPF Project Status by Fiscal Year



City Culverts Update

Rural Development, Agriculture and Natural Resources
Committee

December 1, 2020

Carl Schroeder

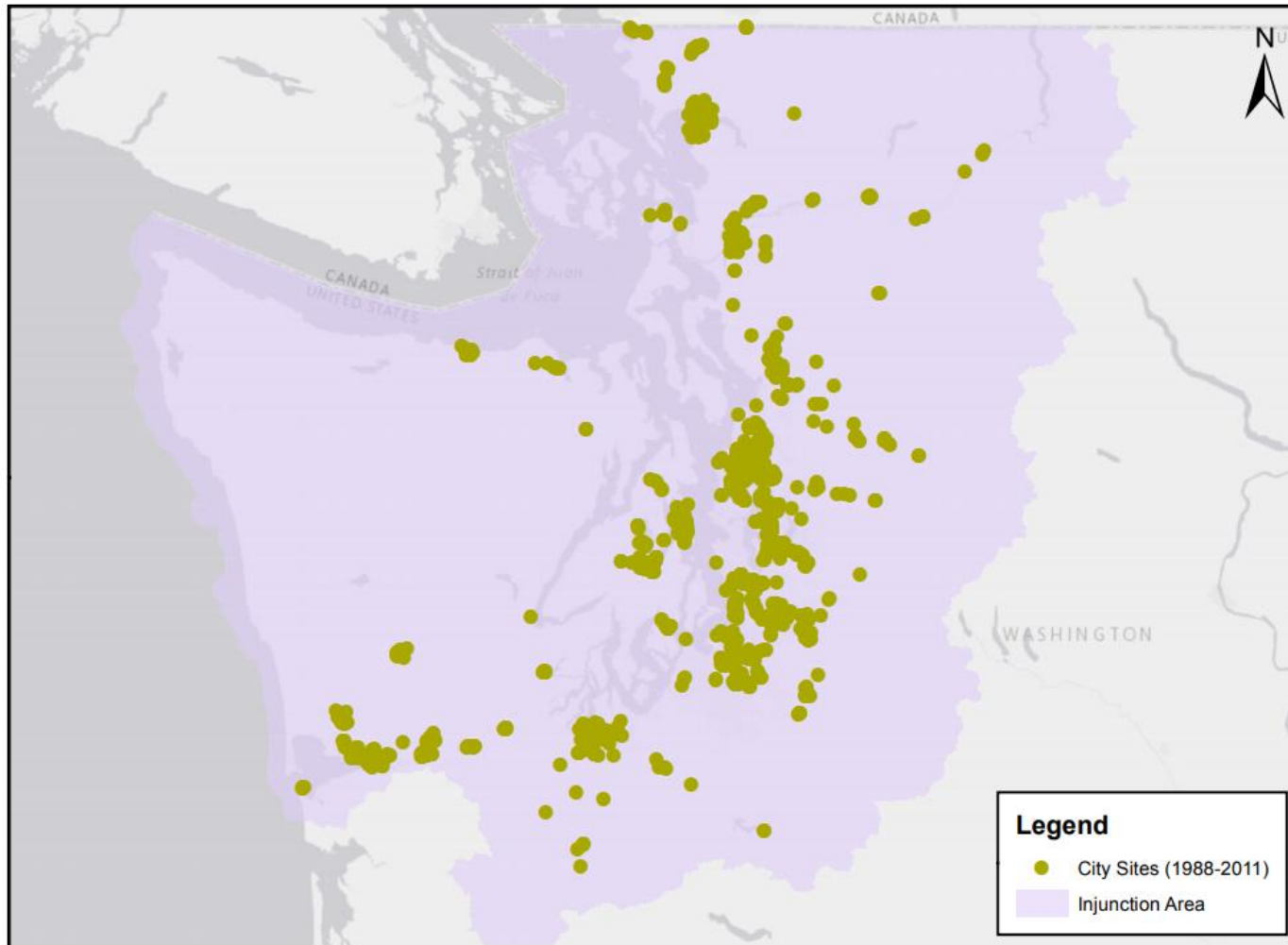


Summary of City engagement on culvert issues

- Inventory investments (Since 2011)
- Creation of a statewide board to develop prioritization and strategy. (2014)
- Participating on the statewide barrier removal board (2014-current)
- Lobbying for direct dollars in the transportation package (2016)
- Passed bill to explore using local culverts a priority as alternative mitigation for transportation projects in the package. (2016)
- Supporting first investment in the FBRB (\$19.7m) (2017, 2018)
- Engaged in Amicus efforts around Washington v. United States (2017 & 2018)
- Lobbying for policy direction for greater collaboration (2019)
- Supporting second investment in the FBRB (\$26.5m)
- Helped develop policy provisos in 2020 session



City-Owned Fish Passage Sites 1988-2011



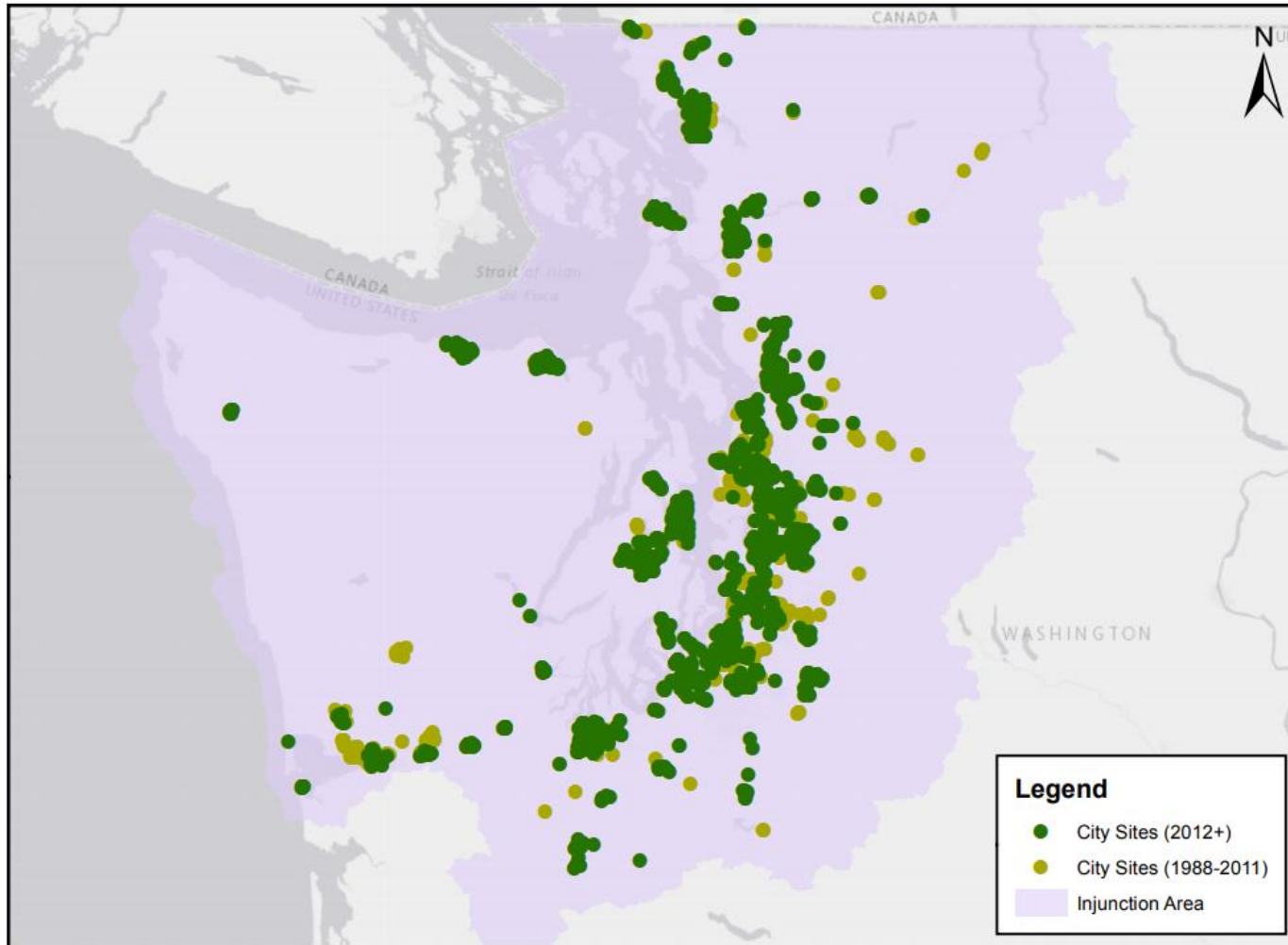
Prior to beginning contracted inventory work for AWC in 2012:

DFW Database included 1391 city owned fish passage sites in the case area.

707 were identified as barriers



City-Owned Fish Passage Sites Assessed After 2011

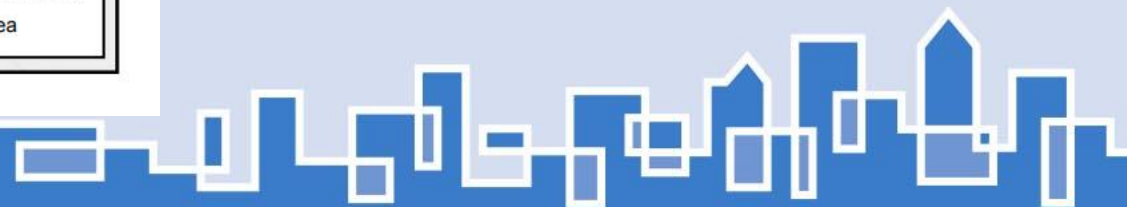


Current status (July 25, 2019):

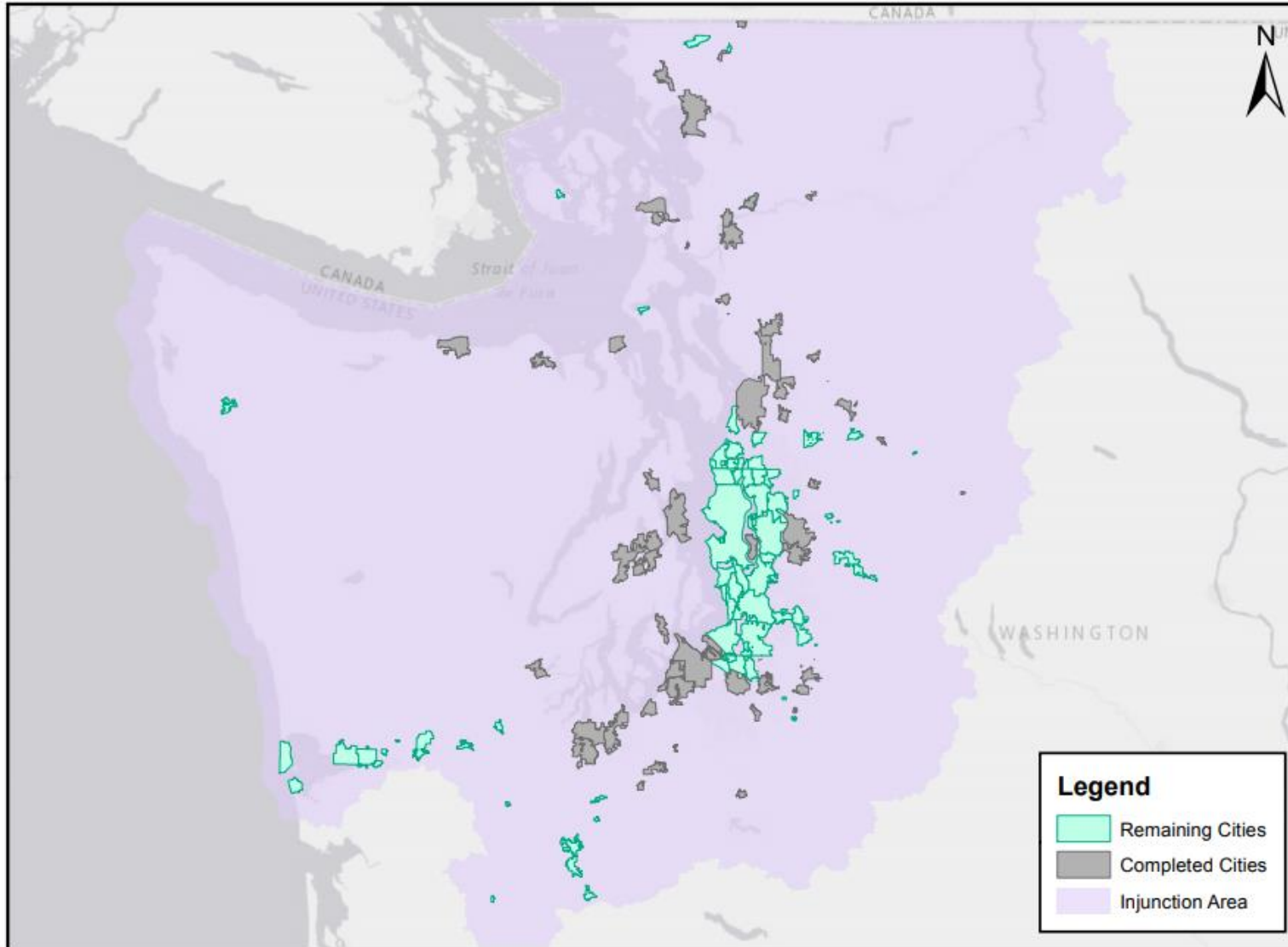
DFW Database now includes
2,647 city owned fish passage
sites in the case area

1,293 identified as barriers

407 sites were also re-
assessed



Completed and Remaining City Surveys



Investments:

2012 Supplemental - \$400k

2013-15 - \$200k

2017-19 - \$250k

2019-21 - \$350k

Fund source: Gas tax receipts that would otherwise have been refunded to individual cities



This inventory can help identify strategic investments:

For WSDOT's 19-21 Delivery Plan to address 47 state culverts, there are:

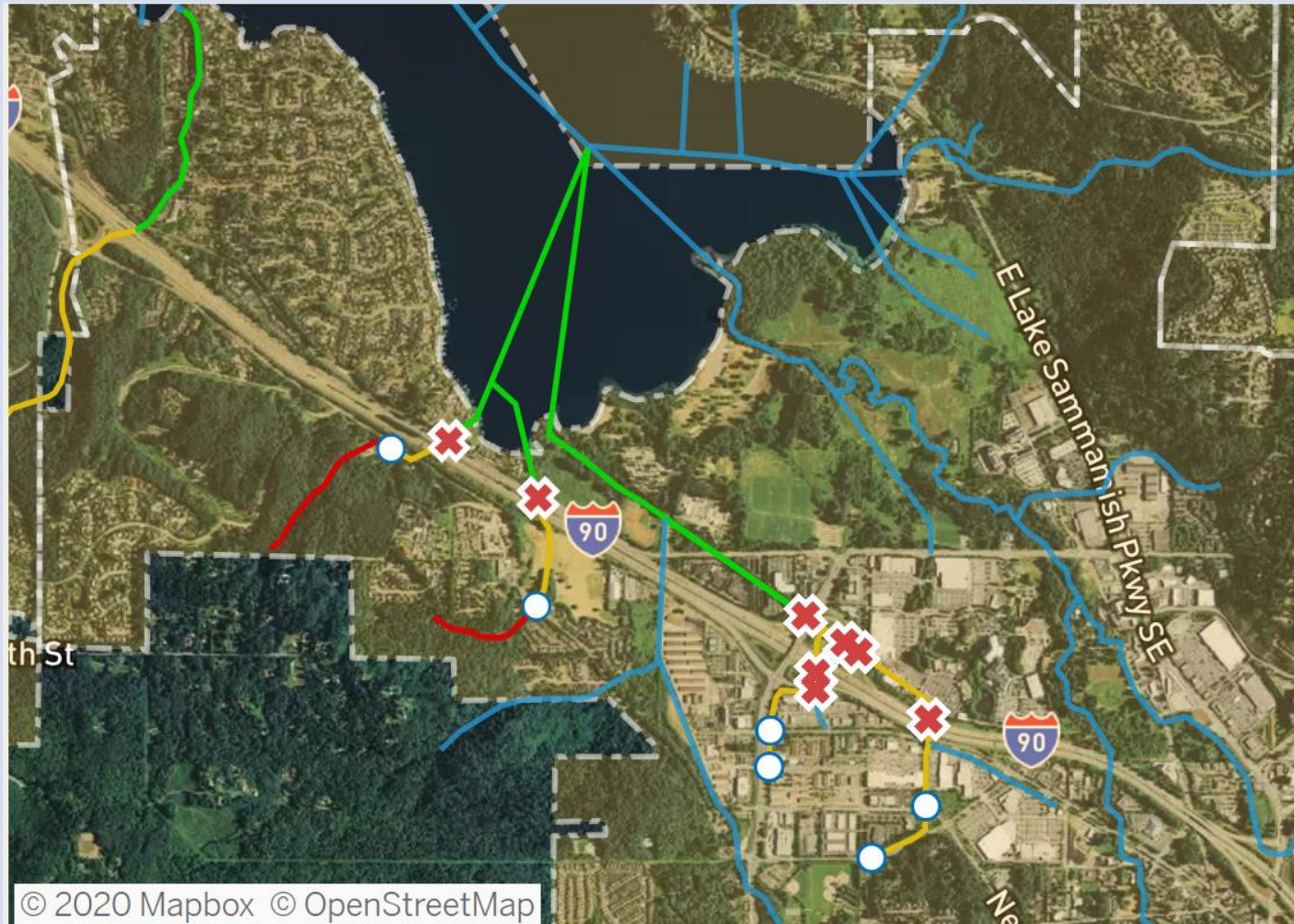
- 40 city-owned downstream barriers
- 149 city-owned upstream barriers

For the draft 21-23 Delivery Plan addressing 53 state culverts, there are:

- 72 city-owned downstream barriers
- 228 city-owned upstream barriers



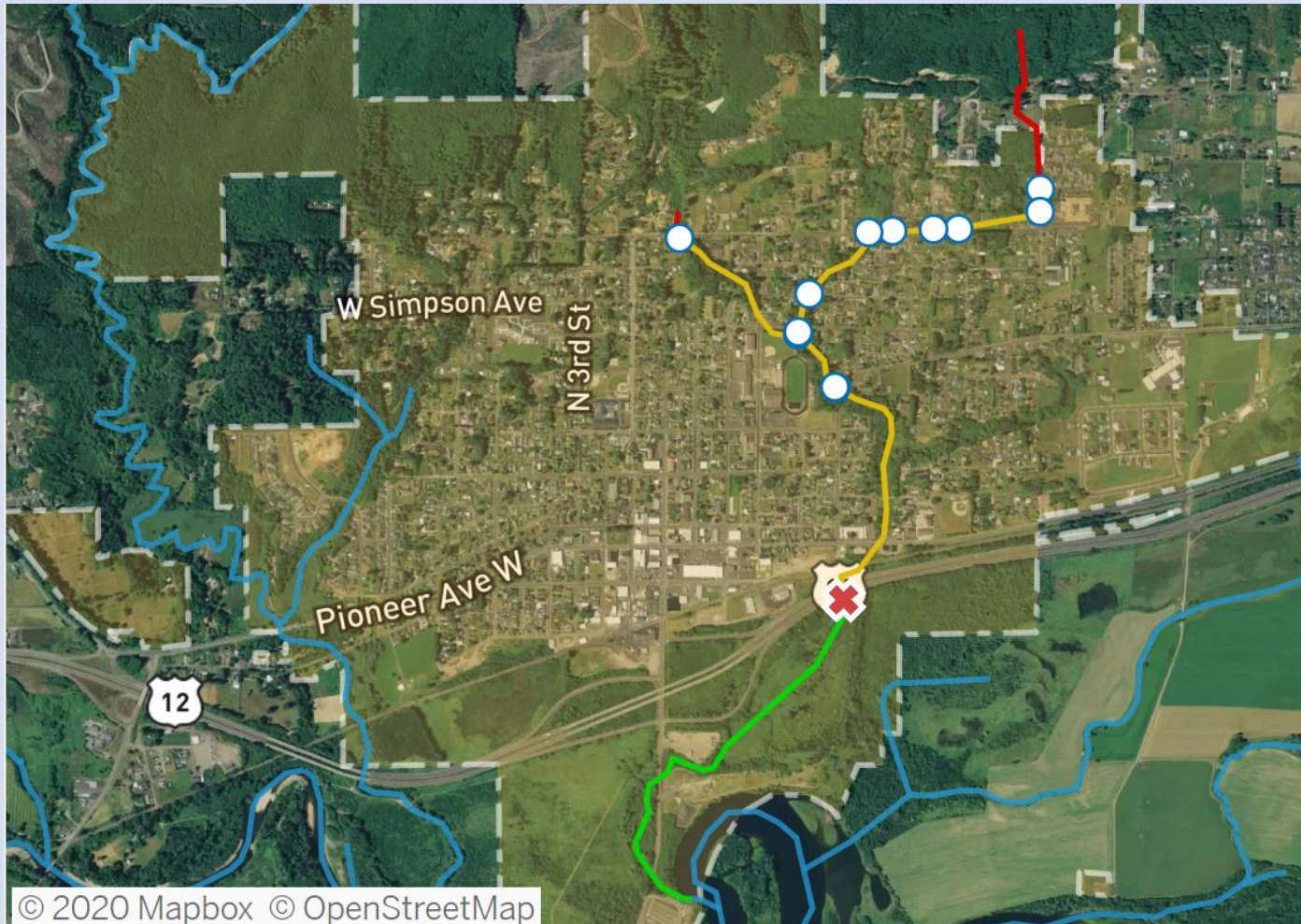
Issaquah



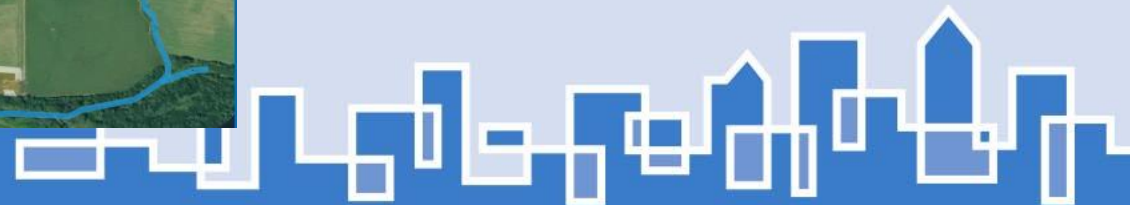
Six barriers in the same streams as eight state barriers



Montesano



Thirteen barriers in the same streams as one state barrier



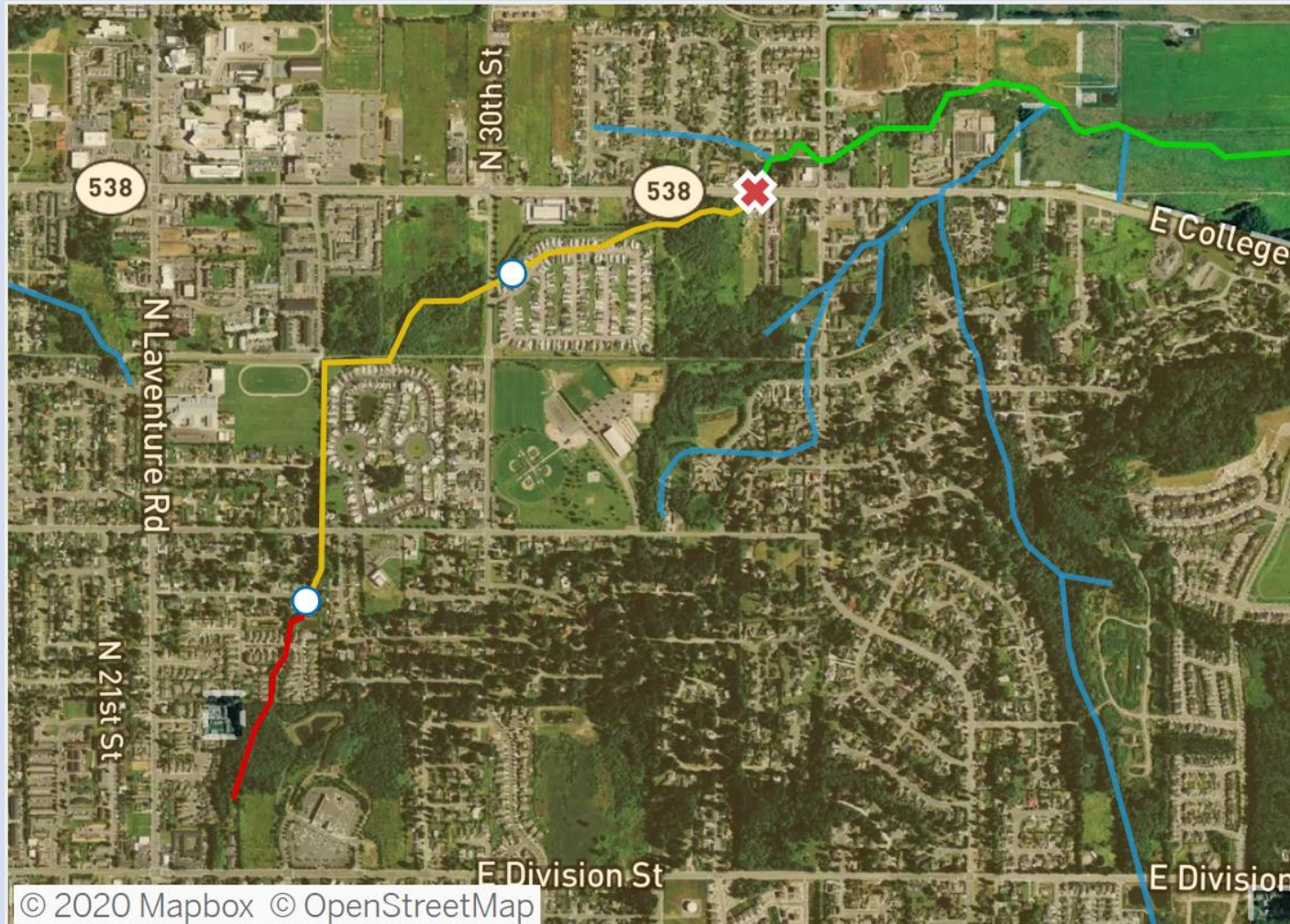
Renton



Six city owned barriers in the same streams as three state barriers



Mount Vernon



Two city owned barriers in the same streams as one state barrier



Culvert challenges will hit individual cities very differently

- Does your community have a lot of streams?
- When was your city built?
- Do you have a robust tax base?
- What is your financial situation?



City	Population (2019 OFM Population)	2017 Total tax revenue (general and restricted)	City Owned Culverts Associated with WSDOT Correction on 19-21 Workplan
Concrete	745	\$699,569	6
Elma	3,375	\$2,163,473	11
Montesano	4,175	\$2,612,667	19
Lake Forest Park	13,250	\$7,105,518	18
Mountlake Terrace	21,590	\$13,638,546	20
Port Angeles	19,620	\$14,390,765	4
Redmond	65,860	\$75,508,256	5
Bellingham	90,110	\$95,596,700	47

How can we best work together to achieve compliance with the injunction and the broader goal of fish recovery?

Continue and enhance collaboration

Fully fund the Fish Barrier Removal Board
(87 projects, \$65.6 million)

Commit to the vision that the state is aiming for more than just strict legal compliance with the injunction

Ensure that local culverts are included in any transportation package that addresses the state barriers



* Juvenile salmon in Padden Creek





WASHINGTON
STATE ASSOCIATION
of **COUNTIES**

Fish Passage Barrier Removal

A county perspective

House Rural Development, Agriculture & Natural Resources

December 1, 2020

Jane Wall

Managing Director

Washington State Association of Counties & Association of County Engineers



What We Know

- County fish passage barriers are both downstream and upstream of state- owned fish passage barriers.
- For every WSDOT barrier, on average, there are 2 other (non-WSDOT barriers) downstream and 5 upstream.

-July 2012 WDFW Study
- Recent inventory work indicates counties have at least 300 barriers up and downstream of state-owned.



Culverts: Our Current Understanding To-Date*

- **8,060:** Number of county-owned features on potentially fish bearing streams statewide.
- **4,140:** Of those inventoried that block a significant reach.
- **3,334:** Number of inventoried county-owned culverts in case area that block a significant reach.
- Individual counties are replacing 2-5 culverts a year on average.

* Changes Daily!!!



Costs: Our Current Understanding*

2019-2021 County Owned Fish Passage Barrier Removal Project Cost Estimates:

- \$185,000 for Planning
- \$1,035,000 for Restoration/Replacement/Construction
- TOTAL AVERAGE PROJECT COST **\$1,250,000**

* Changes Daily!!!



Why so Expensive? Culvert to Short Span Bridge

Troy Creek, Thurston County



2019 – 21 Biennium County Study Funding*

- Utilizing fuel-tax study dollars for Assessment.
- Partnering with WDFW.
- Analysis to determine the status of each county’s Fish Passage Barrier Inventory and Assessment.
- Updating Fish Passage Barrier Inventories within the “Case Area” (14 Counties).
- Develop, where possible, preliminary cost estimates, with priority given to barriers that share the same stream system as state-owned fish passage barriers.
- Ongoing.

* RCW 46.68.120(3)



2021-2023 Biennium County Study Funding*

- Continue work from 2019-2021 Biennium.
- Received preliminary estimates from WDFW.
- Counties do not have the funds available to complete a full Assessment.
- State-Matching Program.

* RCW 46.68.120(3)



Challenges & Opportunities

- **Local funding** – Counties lack the revenues locally to pay for fish barrier removal and to complete inventory work (Jefferson county’s entire capital program is less than \$250,000/year).
- **No Barrier Left Behind** – A comprehensive strategy, program and funding mechanism to replace fish passage barriers – regardless of ownership.
- **Do not “Strand” Investments** - County fish passage barriers need to be systematically and strategically replaced in coordination with the states fish passage barrier replacements.



Challenges & Opportunities

- **Adequate state funding and revenue generating authority** to remove fish passage barriers for all jurisdictions across the state, not just respond to the state's obligations under the ruling;
- **Understanding the magnitude;**
- **Fully fund the Fish Passage Barrier Removal Board: \$65.6 Million**
- **Reduce or eliminate project match** requirements that inhibit achieving environmental outcomes and salmon recovery;
- Include funding for **monitoring and maintenance** of fish passable culverts and continued efforts to identify and inventory new barriers;
- Develop and implement activities to **streamline project permitting** to more efficiently plan and deliver projects;

Questions?

