

Washington State Department of Transportation Fish Passage Program Background



**Paul Wagner, Branch Manager, WSDOT Environmental Services Office
May, 2020**

Presentation Overview

How did we get here?

- What is the origin of WSDOT's fish passage program?
- What is the US v WA culvert injunction?
- How is WSDOT implementing the injunction?
- Why are we doing all this fish passage work?



Fish Passage Barriers:

Excessive Water Surface Drop



High Velocity

Shallow Water Depth



Fish Passage at WSDOT: Early Days

- Prior to 1991, fish passage barriers addressed during highway construction & maintenance as required by permit
- Adult salmon, spawning habitat were the main focus
- The needs of juvenile salmonids was just being understood
- Retrofit was the common correction
- In 1991, the Legislature created a program partnering WSDOT with WA Department of Fisheries to identify and fix fish barriers



WSDOT/WDFW partnership since 1991

Comprehensive
Fish Passage
Inventory
1991-2011

- Washington Department of Fish & Wildlife (WDFW) inventories fish passage barriers on WSDOT Highways.
- WDFW conducts Habitat Assessments to help prioritize barrier correction efforts.

Fish Passage
Inventory
Database

- Database stores culvert, GIS, fish use, and habitat information resulting from inventories.
- Locate, prioritize, select, implement, and monitor fish passage projects.

Dedicated Fish
Passage
Barrier
Removal
Program

- Stand-alone Projects (Dedicated Funding)
- Safety and Mobility Projects (planned road projects)
- Chronic Environmental Deficiency (CED), Major Drainage
- Other Partnerships

The Scope of the Problem Statewide

Washington's Highways:

7,000 + mile long highway system

3,800 + fish bearing stream crossings

About 2000 barrier culverts statewide

About 1500 with significant habitat
(*>200 meters upstream*)



Drivers in the 1990's

- 1994 Snake River Sockeye were federally ESA listed
- 1996 Fish Passage Task Force created
- There was a major focus on fish passage to support salmon recovery and limit future ESA listings
- Compliance with the State Law WAC 220-660-120 *Water Crossing Structures*.



US v WA 'Culvert Case' Background

- In 2001, Twenty-one Western WA Tribes filed suit against the State claiming culverts were blocking substantial amounts of salmon habitat, thus reducing the salmon available for harvest. This flowed from:
 - 1850's Stevens Treaties: Tribes ceded lands but reserved fishing rights.
 - 1974 Boldt Decision: Treaties entitle Tribes to a fair share of fish, while ensuring habitat that supports fish.
 - State-owned barrier culverts became an example of the habitat component of US v WA



Resolving the Culvert Case

- State and tribes worked for 7 years to seek settlement to the complaint
- In 2007, Federal District Court Judge Martinez agreed to the claim that State-owned barriers were a breach of the Tribes' treaty rights
- October 2009, the court convened a trial to determine what the remedy should be
- On March 29, 2013, U.S. Judge Martinez issued a permanent injunction for the state to accelerate barrier correction on salmon & steelhead streams



US v. WA Culvert Injunction

Who? State of Washington

WSDOT, WDNR, WDFW, Parks

Where? Case Area

*Salmon & steelhead streams in
Western Washington WRIA's 1-23*

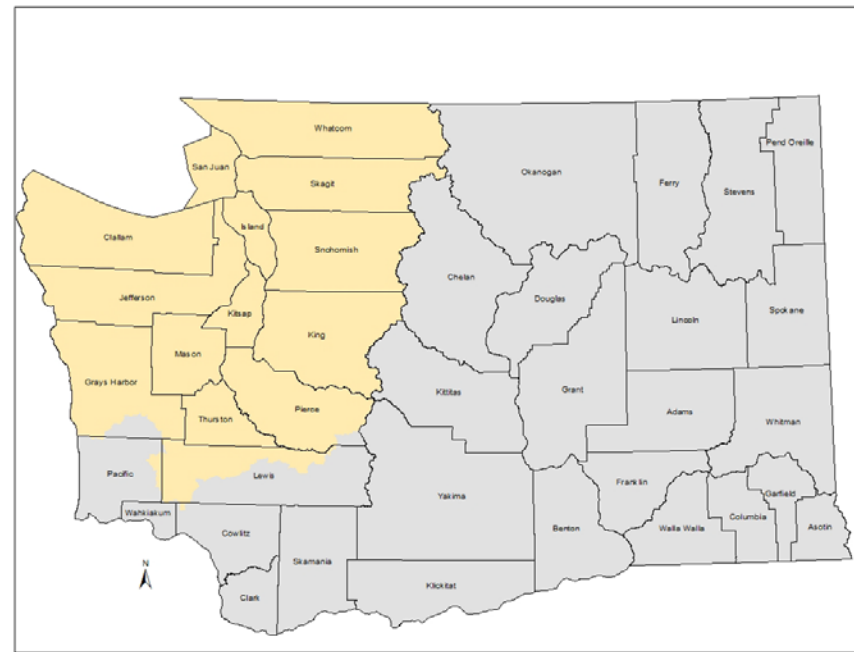
How many WSDOT barrier culverts within Case Area?

About 1,000 total (as of 6/19)

817 with Significant Habitat (>200 m upstream)

184 with <200 m habitat

When? Obligations are ongoing, WSDOT must fix over 400 by 2030



Culvert Injunction: Key Points

- The state must correct all fish barriers in the case area
- March 2030: WSDOT to fix barriers with significant habitat (≥ 200 meters upstream)
- WSDOT can defer corrections up to 10% of the total upstream habitat until end of useful life or other project
- WSDOT to correct culverts with <200 meters upstream habitat at end of useful life or through larger transportation projects
- Ongoing effort to identify & assess barriers, monitor effectiveness & maintain culverts
- Notify Tribes of State's activities



Injunction Barrier Correction Standards:

- (a) avoiding the necessity for the roadway to cross the stream,*
- (b) use of a full span bridge,*
- (c) use of the “stream simulation” methodology*
- (d) Equivalent designs are allowable*

Design of road culverts for fish passage (WDFW 2003), (USFS, Stream simulation, 2008)



Stream simulation culvert



Bridge

Ongoing Coordination

- Quarterly and annual meetings between the Tribes and State
- Injunction Implementation Guidance-negotiated between Tribes and State
- Fish Barrier Removal Board – promoting more barrier correction and partnerships



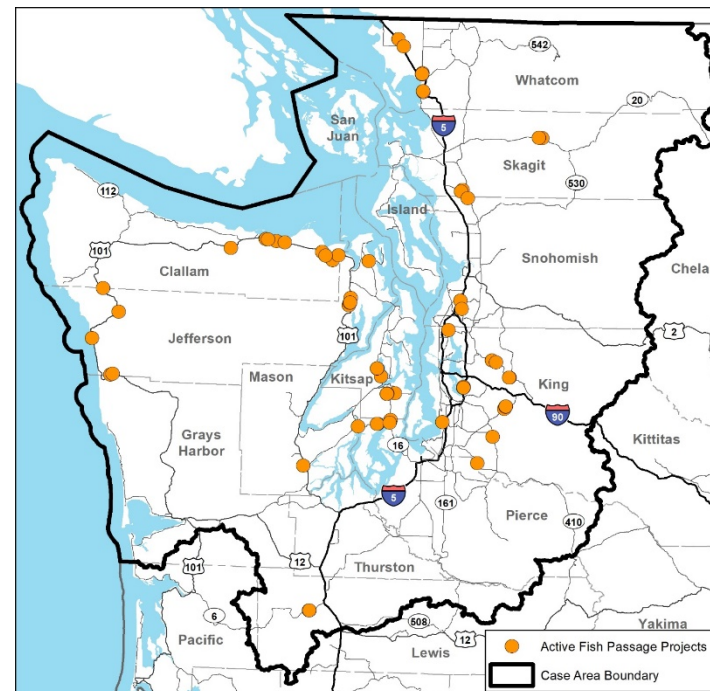
WSDOT Barrier Correction Effort

- Since 1991, WSDOT has completed 353 fish passage projects improving access to 1,170 miles of potential habitat statewide.
- 73 injunction barriers have been corrected since 2013
(329 miles of potential habitat)
- WSDOT now has 135 projects in construction and design

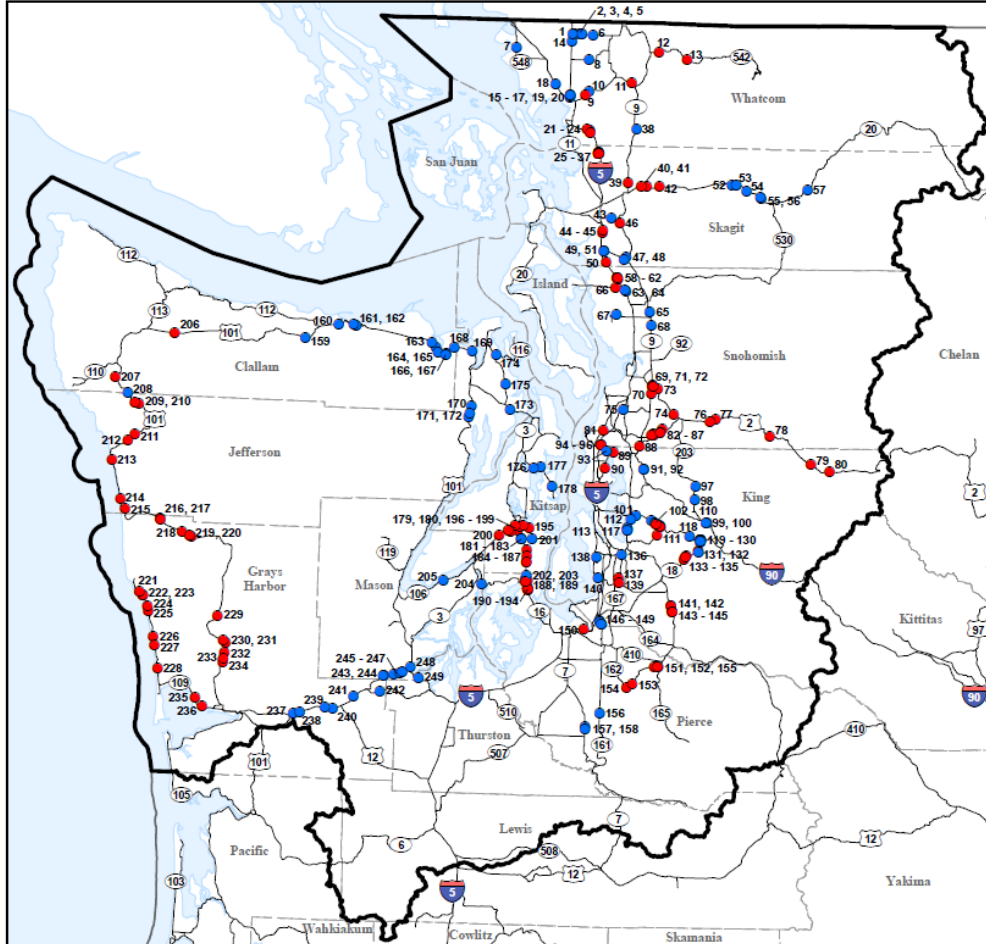


Prioritization

- Habitat Gain
- Tribal Input on Priorities
- Partnership Opportunities
- Culvert Condition
- Downstream Barriers
- Geographic Bundling
- Contract Size
- Public Impacts
- Readiness



WSDOT Fish Passage Delivery



WSDOT Fish Passage Projects planned for Design and Construction 21-23 within the Culvert Case Area

This plan is subject to change due to significant project issues and/or new information. Please note that this plan is based on a funding level of \$726 million for the 21-23 biennium.

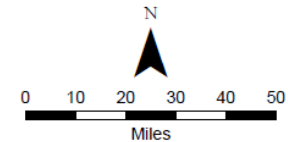
If you have questions about this document, and/or prior to making plans based on this document, please contact:

Kim Mueller
Fish Passage Delivery Program Manager
360-705-7404
kim.mueller@wsdot.wa.gov

Paul Wagner
Biology Branch Manager
360-705-7406
paul.wagner@wsdot.wa.gov

Legend

- Construction 21/23
- Design 21/23
- US v. WA Case Area Boundary



Search

[Home](#) » [Projects](#) » [Fish Passage](#) » Improving fish passage

Menu

[Improving fish passage](#)

[Project delivery plan](#)

[Federal court injunction
for fish passage](#)

[Habitat restoration
partnerships](#)

[Problem and solution](#)

[Why are we fixing
barriers?](#)

[Contacts](#)

Improving fish passage

State highways cross streams and rivers in thousands of places in Washington State, which can impede fish migration. WSDOT has worked for nearly three decades to improve fish passage and reconnect streams to help keep our waterways healthy. WSDOT Fish Barrier Correction is a priority. Learn more in the latest [Fish Passage Annual Report](#) (pdf 8.4 mb) and our new [Video](#).

Find Fish Passage Projects



[View Interactive Map](#)

www.wsdot.wa.gov/Projects/FishPassage