WSDOT FISH PASSAGE PROGRAM BACKGROUND

MODULE 2 - PAUL WAGNER
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Current duties: Serves as WSDOT’s policy lead regarding the implementation of the US v WA culvert injunction.

Background & Experience: Paul has 35 years of professional experience in the science of natural resources including Paleontology, Geology, and Ecology. He has worked as a field biologist all over North America, primarily with endangered species. He has worked with Ecology & Transportation at WSDOT since the early 1990’s and manages the statewide Biology programs addressing wetlands, fish and wildlife resources and stream restoration activities. He has worked with WSDOT’s fish passage program since its inception in 1991 and has been involved with the planning and design of hundreds of transportation projects. Paul has participated in many national panels and research projects with road ecology practitioners from other states and countries. He is a founding member of the steering committee for the International Conference on Ecology and Transportation (ICOET) and serves on the international steering committee for Infra-Eco Network Europe (IENE).

Education: Undergraduate at Juniata College with a BS double major in Biology and Geology. Graduate studies in Salmon Ecology at the Evergreen State College

Favorite Food: Barbequed ribs and biscuits!

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Fish Passage Program Background

This presentation provides an overview of WSDOT’s fish passage program. It will describe how the program was started, and how the program has responded to the US V Washington Culvert case. The key requirements of the federal injunction and how the Department is meeting them will be discussed.
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 1981, 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**

- Washington Department of Fish & Wildlife (WDFW) inventories fish passage barriers on WSDOT Highways.
- WDFW conducts Habitat Assessments to help prioritize barrier correction efforts.
- Database stores culvert, GIS, fish use, and habitat information resulting from inventories.
- Locate, prioritize, select, implement, and monitor fish passage projects.
- 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 WATribes 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
Salamish & 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

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**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

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**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)*
**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

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**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

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**Prioritization**

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

Program costs:
- $3.5 B estimated to fix all barriers within case area
- Planning for fish passage corrections in Safety/Mobility projects
- Funding is subject to Legislative approval
- Continued barrier correction effort outside case area

WSDOT Fish Passage Delivery

www.wsdot.wa.gov/Projects/FishPassage