Restoring Fish Passage at WSDOT Stream Crossings

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US 97 Butler Creek east of Goldendale

Washington State Department of Transportation

What Makes a Culvert a Fish Barrier?

High Velocity:
>3 fps for culverts 100-200 ft long

Inadequate Depth: < 0.8 ft

Water Surface Drop > 0.8 feet

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WSDOT Fish Passage Program

Partnership with WDFW starting early 1990's

Fish barrier inventory and prioritization

Statewide: 6,527 culverts evaluated,
1,988 barriers identified
1,517 with significant habitat

Correction of barriers:
- stand alone prioritized projects
- part of planned highway projects, and

269 corrections to date, improving access for over 900 miles of stream habitat.

US 12 Silver Creek east of Randle

Stream Simulation and/or Bridges

- Corrections have evolved to more “natural” designs

Bridges

US 97 Butler Creek east of Goldendale

Stream

I-90 East Fork Issaquah Creek east of Issaquah

Culvert Case

SR 112 Trib to Pysht River west of Port Angeles

US v WA Background

- 1850's Stevens Treaties: Tribes ceded lands but reserved fishing rights.
- 1974 Boldt Decision: Treaties entitle Tribes to a fair share of fish and a related decision raised the question of the State's responsibilities to prevent habitat degradation.
- In 2001, Twenty-One Western WA Tribes filed suit against the State claiming culverts were blocking substantial amounts of salmon habitat and reducing the salmon available for harvest.
- In 2007, Federal District Court Judge Martinez agreed to the claim and said the State was in breach of the Tribes' treaty rights.
- In October 2009, the court convened a trial to determine what the remedy should be.
- On March 29, 2013, Judge Martinez issued a permanent injunction for the State to fix barrier culverts in the case area.

US v. WA Culvert Injunction

Who? State of Washington

WSDOT, WDNR, WDFW, Parks

Where? Case area

Western Washington WRIA's 1-23

How many WSDOT barrier culverts?

About 982 total including

About 817 with Significant Habitat (>200 m upstream)

Culvert Injunction: Key Points

SR 21 Curlew Creek near Curlew Creek State Park

- Sept 2013: Make culvert barrier list in consultation w/ Tribes
- Use bridge or stream simulation design for barrier corrections
- Oct 2016: WDFW, DNR, & Parks to fix all their culverts
- March 2030: (17 yrs) 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 culvert's useful life
- 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 with time for comments

WSDOT Culvert Barriers

April 3, 2013

Culvert Barriers

817 Barriers

Data Source: Culvert Case Barriers, State Routes, and County Boundaries by WSDOT.

N

0 40

Miles

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Current Barrier Correction Effort

- WSDOT has completed 269 projects (180 case area) opening up over 900 miles of potential upstream habitat.
- WSDOT completed 12 fish passage barrier culverts in 2012 and there are 20+ barrier correction projects going to construction in 2013 statewide.
- Fish Passage Program funding in 13-15 – $36 Million.

SR 112 Nelson Creek near Port Angeles

Planning for Culvert Injunction

SR 530 Fortson Creek west of Darrington

Program costs:

- $2.4 B estimated to fix all barriers within case area
- Need $310 M per biennium thru 2030

Planning for accelerated correction target rate:

- 60 to 80 projects per biennium

- Plan for fish passage corrections in Safety/Mobility projects
- Planning is subject to Tribal coordination and Legislative approval
- Continue barrier correction effort outside case area

Fish Passage correction Program Next steps

- $20 M effort in 13-15 to accelerate scoping & design for fish passage projects
- 3 Specialized Design Teams for fish passage design
- Use Lean to gain efficiencies in process
- Assess workload & efficiencies for permitting, Geo Tech, & other specialty groups/functions
- Support expanded Tribal coordination for culverts

Questions?

For additional information on Restoring Fish Passage and WSDOT Stream Crossings, please contact:

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