Fish Passage for Project Leaders

William Warncke
Region 2 Environmental Manager
william.m.warncke@odot.state.or.us
503-986-3254
Culvert Fish Passage
Barrier Conditions

- Jump
- Height
- Shallow Water Depth
- Structural Issues
- High Water Velocity
Why address Fish passage?
When is ODOT required to address Fish passage?

- Project is within current or historic Native Migratory Fish (NMF) habitat
- Part of project occurs below Ordinary High Water (OHW)
- Project “triggers” fish passage requirements
  - Installation, replacement, or removal of infrastructure below OHW
  - “Significant” Repairs (over 50 % of the length or reduces inside perimeter of culvert, 50% of bridge elements)
  - removal / replacement of over 50% of the roadbed over the culvert
What are ODOT’s options to meet fish passage requirements?
What are ODOT’s options to meet fish passage requirements?

• Culvert Repair
• Exemption
• Waiver
• Provide Passage - Fish Passage Plan
  – Design Exception
Fish Passage Scoping

- Qualified Fish Biologist
- Number and status of barriers above and below project site
- Amount and quality of habitat and potential NMF use above project area
- Potential project scope and cost / benefit
- Project constraints
Culvert Repair – Cost effective option

Figure 13. Outlet end of inverted liner
Culvert Repairs – Side boards

- Culvert in poor or critical condition
- Statewide
- Short term repairs (25 year lifespan)
- Fish passage improvements required at each site
- High priority fish passage culverts can be repaired with significant fish passage improvements
- ODOT provides ODFW compensation funding
When is an Exemption Appropriate?
Requirements for Exemptions

- Pre-consultation with ODFW
- 5 month processing time – and FPTF meeting
- Analysis and documentation of no NMF net benefit of providing passage at the project site
When is a waiver for fish passage appropriate?
Requirements for Waivers

• Pre-consultation with ODFW
• 5 month processing time – and FPTF meeting
• Analysis and documentation of NMF net benefit of mitigation proposal over providing passage at the project site
When is providing passage appropriate?
Stream simulation

PROFILE VIEW

PLAN VIEW
Requirements for Fish Passage Plans

- Information on barriers and habitat above and below project area
- Information on current and historic NMF use
- Channel information (gradient, active channel width, substrate)
- Plans or drawings showing old and new infrastructure relative to channel features

• Checklist for Designers
Fish Passage for Bridges
Questions ???