MEMORANDUM
OREGON DEPARTMENT OF FISH AND WILDLIFE

DATE: May, 23 2017
TO: Greg Apke, ODFW Statewide Fish Passage Program Coordinator
FROM: Art Martin, ODFW-ODOT Fish Passage Liaison
RE: Net Benefit Analysis for the Seven 2017 Fish Passage Waivers (Batched Application) for the Oregon Department of Transportation as part of the ODOT-ODFW Fish Passage Mitigation Banking Pilot Project Agreement (Agreement No. 30846):

- Unnamed tributary to Soapstone Creek @ Highway 53, MP 3.11; W-01-0008
- Unnamed tributary to Soapstone Creek @ Highway 53, MP 3.55; W-01-0009
- Unnamed tributary to Soapstone Creek @ Highway 53, MP 3.83; W-01-0010
- Unnamed tributary to N FK of Nehalem River @ Highway 53, MP 11.30; W-01-0011
- Unnamed tributary to N FK of Nehalem River @ Highway 53, MP 12.34; W-01-0012
- Unnamed tributary to N FK of Klaskanine River @ Highway 202, MP 13.26; W-01-0013
  and,
- Unnamed tributary to N FK of Klaskanine River @ Highway 202, MP 15.15; W-01-0014.

These culverts are located in Clatsop and Tillamook Counties, Oregon.

Project Description

ODOT proposes to waive fish passage at 7 culvert locations this summer (2017) and offset the lack of passage at these locations with credit from ODOT’s fish passage mitigation banking pilot project at the East Fork South Fork Trask River (EFSF). The ODOT-ODFW Fish Passage Mitigation Banking Pilot Project (Project) is an innovative new concept being tested on Oregon’s North Coast by the Oregon Department of Transportation (ODOT) and the Oregon Department of Fish and Wildlife (ODFW) with assistance from the Willamette Partnership and The Nature Conservancy. This pilot project is a programmatic approach to the existing ODFW fish passage waiver process whereby multiple waiver sites are packaged together and impacts at those waiver sites are offset by a high priority and beneficial mitigation package. In this case, fish passage will not be provided at seven project (waiver) sites with relatively low benefit to native migratory fish, and the lack of fish passage at those sites are offset by the permanent

Attachment B
removal of the EFSF Trask River Dam, the highest priority fish passage project in the ODFW North Coast Watershed Fish District. ODOT provided funds to ODFW to remove the state of Oregon owned and managed hatchery dam on the EFSF Trask River and for facility infrastructure improvements needed to transfer fish production from the Trask site to Cedar Creek Hatchery. This project generated fish passage waiver mitigations credits under the Fish Passage Mitigation Banking Pilot Project Agreement as approved by the Oregon Fish and Wildlife (OFWC) Commission (August 7, 2015). This mitigation project, completed in 2016, will serve as the mitigation bank for the seven ODOT owned and managed fish passage waiver sites.

The seven waiver sites are existing fish passage barriers that ODOT is proposing to repair or replace without providing fish passage. These steep head-water streams provide marginal habitat for cutthroat trout, as no other native migratory fish are presently known to occupy these habitats. The amount of habitat upstream of the seven barriers varies from 0.13 to 0.40 miles (0.13, 0.30, 0.40, 0.16, 0.21, 0.21, 0.27), for a total of 1.68 miles of habitat for this batched waiver application. The completed removal of the EFSF Trask River Dam (2016), opened up access to 21.7 miles of habitat for Native Migratory Fish. This mitigation, per the 2015 OFWC Pilot Project Agreement, can offset up to 12 fish passage waiver projects with ½ mile of habitat or less. The first 7 waiver projects are covered in this waiver application and are scheduled to be completed in 2017.

Table of 2017 culvert waiver projects to be mitigated by the East Fork South Fork Trask Fish Passage Mitigation Bank.

<table>
<thead>
<tr>
<th>HWY</th>
<th>MP</th>
<th>County</th>
<th>STREAM NAME</th>
<th>Amount of Native Migratory Fish (NMF) habitat upstream of highway in miles</th>
<th>Native Migratory Fish Species Present</th>
<th>LAT</th>
<th>LONG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hwy 53</td>
<td>3.11</td>
<td>Clatsop</td>
<td>Unnamed trib to Soapstone Creek</td>
<td>0.13 to barrier at next upstream culvert</td>
<td>cutthroat trout</td>
<td>45.8641816400</td>
<td>-123.7688540600</td>
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<tr>
<td>Hwy 53</td>
<td>3.55</td>
<td>Clatsop</td>
<td>Unnamed trib to Soapstone Creek</td>
<td>0.30 to barrier at next upstream culvert</td>
<td>cutthroat trout</td>
<td>45.8600153100</td>
<td>-123.7676454200</td>
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<tr>
<td>Hwy 53</td>
<td>3.83</td>
<td>Clatsop</td>
<td>Unnamed trib to Soapstone Creek</td>
<td>0.40 to barrier at next upstream culvert</td>
<td>cutthroat trout</td>
<td>45.8565579400</td>
<td>-123.7678940000</td>
</tr>
<tr>
<td>Hwy 53</td>
<td>11.30</td>
<td>Clatsop</td>
<td>Unnamed trib to N Fk Nehalem</td>
<td>0.16 to barrier at water diversion dam</td>
<td>cutthroat trout</td>
<td>45.7836677900</td>
<td>-123.8207470000</td>
</tr>
<tr>
<td>Hwy 53</td>
<td>12.34</td>
<td>Tillamook</td>
<td>Unnamed trib to N Fk Nehalem</td>
<td>0.21 to barrier at next upstream culvert</td>
<td>cutthroat trout</td>
<td>45.7725769100</td>
<td>-123.8318583400</td>
</tr>
<tr>
<td>Hwy 202</td>
<td>13.26</td>
<td>Clatsop</td>
<td>Unnamed trib to N Fk Klaskanine</td>
<td>0.21 (total) to barriers at 3 forks in creek - wetland, road ditch, culvert</td>
<td>cutthroat trout</td>
<td>46.0738119800</td>
<td>-123.7002263400</td>
</tr>
<tr>
<td>Hwy 202</td>
<td>15.15</td>
<td>Clatsop</td>
<td>Unnamed trib to N Fk Klaskanine</td>
<td>0.27 to natural barrier at bedrock chute @ 20 % gradient</td>
<td>cutthroat trout</td>
<td>46.0602126000</td>
<td>-123.6758911100</td>
</tr>
</tbody>
</table>

**Total Mileage** 1.68 miles

**Project Impact Analysis**

Collectively, the seven repair/replacement projects will block access to approximately 1.68 linear miles of marginal quality stream channel habitat for native migratory fish species. Four of these small tributaries are intermittent headwater streams that historically would have produce
few fish, regardless of artificial obstructions, and be presently limited to use by coastal cutthroat trout. The three lower gradient tributaries located at Highway 53, MP 11.30, Highway 53, MP 12.34, and Highway 202, MP 13.26, may have historically provided seasonal rearing and refugia habitat for juvenile coho salmon, steelhead and Pacific lamprey, as well as habitat for cutthroat trout, but are currently likely limited to use by only cutthroat trout due to the presence of artificial obstructions and poor habitat quality. Six of the seven sites have other complete artificial barriers to fish passage upstream that further limit fish production and habitat quality in these tributaries, while the one remaining sites (HWY 202, MP 15.15) has natural barrier that delineates the end of fish use ~ 0.27 miles upstream of the waiver site.

**Project Mitigation Summary**

The mitigation site, the former EFSF Trask River Dam, is the benefit portion of the ODOT Fish Passage Mitigation Banking Pilot Project. Specifically, ODOT funded the removal of the East Fork of the South Fork of the Trask River Hatchery Dam during the in water work window of 2016. Removing the dam opened up full volitional fish passage to 21.7 miles of high quality spawning, rearing, and refugia habitat for the full suite of native migratory fish on the North Coast including: Coho, Fall and Spring Chinook, Winter and Summer Steelhead, Coastal Cutthroat Trout, and Pacific Lamprey. This barrier was the highest rated, most ecologically significant and beneficial project in the ODFW North Coast Watershed District, as described on the ODFW 2103 Fish Passage Priority List. The EFSF Trask is a large tributary (active channel width of 50+ feet), and has habitat that is largely intact and of good quality for native migratory fish present in the system.

**Conclusions and Recommendations:**

Waiver site eligibility sideboards of the ODOT Fish Passage Mitigation Banking Pilot Project were designed specifically to ensure a net benefit to Native Migratory Fish (NMF) regardless of the specific locations of the waiver sites. These waiver site sideboards sideboards include:

- In proximity – all waiver sites mush be and are located within the same Oregon Water Resources Drainage Basin as the mitigation site – North Coast Drainage Basin 1;
- Limited in habitat quantity - All waiver sites would provide less than 0.5 miles of access to NMF habitat;
- Limited in habitat quality – All high priority fish passage barriers are precluded from eligibility;
- Limited in number of waivers – ODOT may only apply up to 12 waiver sites in total under the Fish Passage Mitigation Banking Pilot Project.

On August 7, 2015, the OFWC reviewed and authorized the Fish Passage Mitigation Banking Pilot Agreement (Agreement No. 30846) based in part on the conclusion that the agreement sideboards would ensure an appreciable net benefit to NMF regardless of the twelve specific waiver sites implanted by ODOT. After review of the mitigation project in comparison with the proposed seven waiver projects, ODFW concludes that the mitigation action provides an appreciable net benefit to native migratory fish as compared to the benefits that would have occurred at the seven waiver sites if passage was provided. Therefore, staff recommends
approval of for the Seven 2017 Fish Passage Waivers (Batched Application) for the Oregon Department of Transportation as part of the Fish Passage Mitigation Banking Pilot Project Agreement (Agreement No. 30846).

Cc: Alan Ritchey (ODFW)
    Greg Apke (ODFW)
    Jenni Dykstra (ODFW)
    Robert Bradley (ODFW)
    Douglas DeHart (Chair, Oregon Fish Passage Task Force)
    Bill Warncke (ODOT)