



MEMORANDUM

Oregon Department of Fish & Wildlife

Date: 09/15/2017

To: Greg Apke – Statewide Fish Passage Program Leader

From: Michael Sinnott – North Coast Watershed Assistant District Fish Biologist

RE: Unnamed Tributary to East Humbug Creek (Weyerhaeuser Western Timberlands) Fish Passage Waiver Request – Net Benefit Analysis

Project Proposal

Weyerhaeuser Western Timberlands (Applicant) requests a waiver of fish passage at a stream crossing on the East Humbug Mainline at Mile Point 1.5 (waiver site). The stream is an unnamed tributary to East Humbug Creek in Clatsop County. In exchange, the Applicant proposes to provide mitigation by improving passage at an unnamed forest road culvert adjacent to the waiver site, on another unnamed tributary of East Humbug Creek (mitigation site), also owned and managed by the Applicant.

Waiver Site Conditions

An existing 12 inch diameter Corrugated Metal Pipe (CMP) culvert is located on the Applicant's East Humbug Mainline road at Mile Point 1.5. This culvert was damaged in March 2017 and will need to be replaced, which triggers the state's fish passage rules and regulations. The culvert at this location conveys a tributary of East Humbug Creek where approximately 496 feet of habitat is available upstream for Native Migratory Fish (NMF). The amount of fish habitat was confirmed by both a pre-existing presence/absence survey, and by an ODFW site visit. The habitat observed during the site visit was poor quality and the average active channel is less than 4 feet wide. The culvert is a complete upstream fish passage barrier to all NMF species.

Mitigation Site Conditions

The culvert proposed to be replaced in lieu of not providing passage at the waiver site is located at mile point 0.19 on an unnamed forest road and is adjacent to the waiver site. The stream conveyed by the culvert is an unnamed tributary and is larger than the stream located at the waiver site and the active channel width is approximately 6 feet. This unnamed tributary enters East Humbug creek 0.5 mile upstream of the tributary where the waiver site is located. The culvert at this location consists of a 42 inch diameter by 32 feet long CMP. The outlet of this culvert has a 6 inch vertical perch. This culvert is a year-round barrier to all juvenile NMF and at lower stream flows may impede some upstream migration of adult salmonids, particularly those that may return early in the fall when their upstream migration coincides with lower stream flows. An ODFW site visit confirmed 1,752 feet of fish habitat exists upstream of this culvert

that will be available to upstream migrating native fish if the culvert is replaced with a structure that meets fish passage criteria.

The habitat conditions in the unnamed tributary proposed for mitigation indicate that Coho salmon, winter steelhead, Pacific lamprey, and cutthroat trout can persist. While no salmonids were observed during ODFW fish presence/absence surveys above the mitigation site it is assumed the culvert is a complete barrier to juvenile upstream passage a partial barrier to most adult upstream passage. Also based on the site conditions and the size and slope of the existing culvert, we believe at higher stream flows the culvert becomes a water velocity barrier to upstream passage for all NMF.

Native Migratory Species Affected

Coho salmon, Chinook salmon, winter steelhead, pacific lamprey, and coastal cutthroat trout are all present in East Humbug Creek. Based on an ODFW site visit with Erik Neilson, Forest Engineer for Weyerhaeuser Columbia Timberlands, and Ashley Lertora, Stewardship Forester for Oregon Department of Forestry, it was determined that the stream habitat above the proposed waiver site is only suitable for coastal cutthroat trout. This determination was made based on best professional judgement and factoring in stream size, stream gradient, and the physical habitat characteristics observed during the site visit. Similarly, given the existing habitat conditions above the mitigation site, we believe not only cutthroat trout, but also Coho salmon, winter steelhead, and pacific lamprey will utilize the habitat above the culvert if it is made accessible.

Waiver Eligibility

The two culvert sites meet the eligibility requirements for fish passage waivers as per Oregon Administrative Rule 635-412-0040. Approximately 496 feet of cutthroat trout habitat exists above the waiver site based on preexisting presence/absence surveys provided by the applicant, and confirmed by an ODFW site visit. Fish passage at this site would be extremely difficult and expensive to achieve given the amount and depth of fill materials over the existing culvert. The mitigation site has nearly 3.5 times the habitat available compared to the waiver site. In addition to cutthroat trout, other species of NMF that will use a portion of the habitat made accessible if passage were provided at this culvert.

Net Benefit

Waiving fish passage at the East Humbug Mainline crossing will preclude cutthroat trout access to approximately 496 feet of habitat. This will result in no change from the existing fish passage conditions at the site. The cutthroat trout population in East Humbug Creek is not likely to be affected by not providing passage here, but would lose some opportunity to expand into more habitat.

At the mitigation site and based on ODFW presence/absence surveys on May, 8 2017 it was determined that 1,752 feet of cutthroat trout habitat exists above this culvert. The habitat upstream of this location is good quality and the stream's active channel width is 6 feet. Of the 1,752 feet of available stream habitat situated above the mitigation site ODFW believes the lower 1000 feet will also be suitable for coho, steelhead, and pacific lamprey. To fulfill the state's requirements for fish passage waivers, Weyerhaeuser will replace this culvert with a new

structure designed to meet full fish passage criteria during the 2018 in-water work period, if the waiver is approved.

Providing passage at the mitigation site will provide direct benefits to at 4 NMF species. Replacing this culvert with a new culvert consistent with the state's fish passage criteria will provide direct access to 1,752 feet of cutthroat trout habitat, 1000 feet of which would also be accessible to Coho salmon, winter steelhead, and pacific lamprey.

It is unclear what portion of time the mitigation site is presently passable to NMF, if at all, but it is evident based on the existing undersized culvert conditions that it is a complete barrier to juvenile upstream migration and at the very least, a barrier to adult upstream migration during lower stream flows. Also based on these site conditions and the size and slope of the existing culvert, we believe at higher stream flows the culvert becomes a water velocity barrier to upstream passage.

Conclusion and Recommendation

Given the increase amount of habitat (1,752 feet), the higher quality of the habitat present, and the potential to open up habitat for additional NMF species, it is evident that there is an overall net benefit to NMF by providing unobstructed passage at the unnamed forest road mitigation site, when compared to providing passage at East Humbug Mainline waiver site. For these reasons, the ODFW North Coast Watershed District supports the fish passage waiver package proposed by the applicant and recommends the waiver request is approved.

Cc: Alan Ritchey (ODFW)
Robert Bradley (ODFW)
Chris Knutsen (ODFW)