



MEMORANDUM

OREGON DEPARTMENT OF FISH AND WILDLIFE

DATE: 9/15/2017

TO: Greg Apke, ODFW Statewide Fish Passage Program Leader

FROM: Jitesh Pattni, Mid-Coast Assistant District Fish Biologist

RE: Net Benefit Analysis for Fish Passage Exemption Application for the Oregon Department of Transportation, OR34, 8.8, Lincoln County (E-18-0006)

The Oregon Department of Transportation (ODOT) seeks a fish passage exemption for a culvert under OR Highway 34 at mile post 8.8. This culvert is situated on a small, unnamed tributary to Alsea River. There are no known fish passage barriers downstream of the ODOT culvert, however, the stream is high gradient and has down cut (incised) over the years and presently is a partial upstream fish passage barrier to native migratory fish (NMF) at all but high stream flows in the Alsea River mainstem when the Alsea River periodically backwaters the ODOT culvert at this location. A privately owned fish passage barrier exists immediately upstream of the ODOT culvert. This culvert is a complete barrier that drains a decorative pond approximately 10 feet from the ODOT culvert. The pond is approximately 60 feet in diameter and is approximately 3-4 feet higher in elevation than the ODOT culvert and is a complete barrier to fish migration (see pictures 1 and 2 below). Furthermore, the inlet to the pond is controlled by a 2-3 foot rip-rap rock weir that is likely a seasonal upstream fish passage barrier at various flows (see picture 3 below). Upstream of the weir is another culvert under a walking path that is approximately 12 inches in diameter and approximately 4-6 feet long. There is approximately 30 feet of upstream habitat suitable for NMF before the creek forks and becomes very high gradient. If there are any NMF present upstream of the private culvert and pond, they are likely an isolated population as the private culvert and pond are complete fish passage barriers.

This small unnamed tributary, coupled with the multiple fish passage barriers upstream of the ODOT culvert, qualifies this project for a fish passage exemption given there would be no benefit to NMF if passage were provided at this location (OAR 635-412-0025(4)(c)). As per OAR 635-412-0025(6), the exemption may be revoked if the conditions change from which this exemption was evaluated.

Project Description

In early February 2017 during a significant storm event ODOT District 4 Ona Beach Maintenance crews were alerted to a shoulder sinkhole associated with a culvert on the OR34 (Alesia) highway at milepost 8.8. The culvert passes a small unnamed tributary to the Alesia River. The culvert is a 60 foot long, 24 inch diameter concrete pipe. The sinkhole is located on the south side of the highway, over the culvert outlet. Separated joints in the culvert likely resulted in the sinkhole forming. ODOT District 4 Maintenance proposes to install a liner in the culvert before it causes more sinkholes, especially in the roadway.

Project Impact Analysis

Granting this exemption request will result in a loss of NMF access to approximately 10 lineal feet of stream channel habitat. Historically, this small tributary would have produced few NMF and be limited to coastal cutthroat trout. Currently, no NMF are known to inhabit this stream system and if this exemption is approved, there will be no loss of fish production from this unnamed tributary.

Project Impacts Summary

The ODOT proposed project will eliminate fish passage at the site for the foreseeable future. However, given the additional fish passage concerns associated with the upstream barriers it is unlikely this stream will be recolonized by native migratory fish in the near future.

Conclusions and Recommendations

If this fish passage exemption is granted there will be a loss of NMF access to approximately 10 lineal feet of potential fish habitat in the unnamed tributary (habitat above the ODOT culvert to the next upstream complete fish passage barrier). This inaccessible habitat is characterized as a “ditch” along the side of the highway that would not produce any NMF. Given this information, ODFW Mid-Coast Watershed District recommends the approval of the fish passage exemption at the ODOT culvert located on OR 34 at milepost 8.8.

Cc: Alan Ritchey (ODFW)
John Spangler (ODFW)
Chris Knutsen (ODFW)
Adam Roberts (ODOT)
David Warren (ODOT)

Picture 1: Upstream pond.



Picture 2: Pond outlet to private culvert (~3-4 foot drop from top of outlet to culvert).



Picture 3: Rock weir at pond inflow.

