



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, 4.2, Lincoln County (E-18-0005)

The Oregon Department of Transportation (ODOT) seeks a fish passage exemption for a culvert under OR Highway 34 at mile post 4.2. This culvert carries a small, unnamed tributary to the Alsea River. A downstream fish passage barrier exists immediately below the ODOT culvert. This privately owned culvert extends approximately 200 feet north from the ODOT culvert outlet to the Alsea River. An upstream fish passage barrier also exists immediately above the ODOT culvert and is comprised of a private culvert exiting a man-made impoundment in the stream visible from the highway right of way approximately 10 feet from the ODOT culvert. ODFW District staff made two unsuccessful attempts to obtain permission to gain property access to inspect the stream/impoundment. Based on lack of property access, the habitat upstream of this impoundment was not surveyed, but based on LIDAR data and USGS topo map interpretation there appears to be less than 2,250 feet of channel upstream from the highway with an average gradient of 17%. If there are any native migratory fish (NMF) present upstream of this private culvert, they are likely an isolated population as the private culvert and associated impoundment are complete fish passage barriers.

This small unnamed tributary, coupled with fish passage barriers upstream and downstream of the ODOT culvert and the limited quantity of available habitat for NMF, 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 the culvert on the OR34 (Alsea) highway at milepost 4.2. The inlet of a culvert was located on the south side of the highway. The sinkhole is located on the north side of the highway. The culvert outlet could not

be located or seen on or from the ODOT right of way. It was assumed the private property owner to the north attached a culvert under their property and to the end of the ODOT culvert. ODOT decided to run a robotic camera through the culvert in order to determine the extent of damage and formulate repair alternatives. Unfortunately, due to unusually high spring rainfall, the camera crew was unable to access the culvert until late April, 2017. At the same time, an ODOT hydraulics engineer visited the site and located a culvert outlet into the Alsea River at the far end of the adjacent private property, confirming the culvert connection/extension. The camera revealed that the culvert structure had collapsed near the sinkhole location, likely also the junction of ODOT culvert and the private extension. The ODOT culvert is a 114 feet long by 24 inches diameter concrete culvert.

ODOT District 4 Maintenance proposes to repair the collapsed culvert sections and install a new culvert liner in the rest of the highway portion of the culvert before it causes additional sinkholes, especially in the roadway surface. It was preliminarily determined that the privately owned downstream culvert will not be repaired, and may need to be disconnected from the ODOT structure during the repair process.

During the week of August 24th, 2017 the ODOT Ona Beach Maintenance crew exposed the failed culvert section and found it had not collapsed but had a significant separation between the ODOT culvert outlet and the inlet of the private property culvert immediately downstream. They removed the material obstructing the culvert, placed a cover over the separation, and backfilled the hole. Due to the depth of the pipe and limited ODOT right of way, the ODOT Maintenance District believes it is unwise to permanently excavate and separate the two culverts as it will create a very large, deep hole and could undermine the road. At this time, ODOT plans to line the culvert next summer, re-excavate the junction, and pour a more permanent connection (such as a manhole) to join the two pipes together.

Project Impact Analysis

Granting this exemption request will result in no NMF access to the habitat above the culvert and up to the next complete upstream barrier which is immediately upstream of the inlet of the ODOT culvert, or a loss of access to approximately 10 lineal feet of stream channel.

Historically, this small tributary would have produced few fish and be limited to coastal cutthroat trout, given the extent of and the condition of the habitat at and above this location. Currently, there are no NMF 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 and downstream fish passage 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 approximately 10 feet of potential fish habitat in the unnamed tributary. This inaccessible habitat is characterized as a “ditch”

along the side of the highway that would not produce 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 4.2.

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