

Appendix A
ADF&G Trip Report
September 6, 2016

MEMORANDUM

State of Alaska

Department of Fish and Game
Division of Habitat

TO: Megan Marie
Central Region Office
Acting Regional Supervisor

DATE: September 8, 2016

PHONE NO: 267-2813

FROM: Will Frost *WF*
Habitat Biologist

SUBJECT: ARRC Mitigation Bank

On September 6, 2016, I joined Blake Adolfae and Jeanette Greenbaum, Alaska Railroad Corporation (ARRC), and Malcom Salway, HDR, Inc. for a field review of proposed mitigation bank replacement culverts in the Portage Creek Valley and Placer River Valley. We met at the Lower Engineers Camp in Portage and departed for the culverts at 8:30 a.m., in a High Rail Car. The weather was rainy and cool. The fish passage culvert (FPC) locations are identified on Figure 1.

We drove to Stream No. 247-60-10220-2009 (FPC 5). The upper specified reach of the stream is located on the north side of the railroad embankment at 60.8285 N, 148.9583 W. We did not find a culvert under the railroad embankment in the area of the specified reach. We used an electrofisher to sample the upstream (north) side of a wetland area along the railroad embankment (Figure 2). No fish were captured or observed. We sampled a pond on the south side of the railroad embankment (Figure 3). The pond flows into Stream No. 247-60-10220-2009. The pond is located at 60.8260 N, 148.9564 W. No fish were captured or observed. The Anadromous Waters Catalog may be incorrect and no fish passage under the railroad embankment exists at this location. The wetland habitat on the north side of the railroad embankment is high value rearing habitat. The Alaska Department of Fish and Game (ADF&G) recommends the installation of a structure under the railroad embankment designed for fish passage.

We drove to Explorer Creek (Stream No. 247-60-10210-2015) (FPC 3). Two 48-inch diameter culverts are located in Explorer Creek at 60.8111 N, 148.9717 W (Figure 4). The culverts are perched approximately 3 feet and are tidally influenced. A large scour pool is located below the culverts. During low tide, this location is subject to poaching from snagging of sockeye and coho salmon. The ARRC has installed bridge supports (bents) in the railroad embankment for a future bridge that will replace the culverts.

We drove to an unnamed tributary to the Placer River (Stream No. 247-60-10210) (FPC 2). A perched 60-inch diameter culvert is located under the railroad embankment at 60.8074 N, 148.9705 W (Figure 5). The culvert is tidally influenced. I sampled below the culvert outlet and captured 5 juvenile coho salmon. I sampled above the culvert inlet and no fish were captured or

observed above the culvert. The ADF&G recommends that the existing culvert is removed and replaced with a structure designed for fish passage. The unnamed stream below the culvert will be nominated to the Anadromous Waters Catalog.

We drove to an unnamed tributary to the Placer River (FPC 1). A 48-inch diameter and 72-inch diameter culvert are located under the railroad embankment at 60.8050 N, 148.9701 W (Figures 6 and 7). The culvert is tidally influenced. I sampled above the culverts and captured 5 juvenile coho salmon. Fish passage through the 72-inch culvert may be possible only during high tide. The ADF&G recommends that the existing culverts are removed and replaced with a structure designed for fish passage. The unnamed stream will be nominated to the Anadromous Waters Catalog.

We drove to an unnamed tributary to the Placer River (FPC 4). A 48-inch diameter culvert is located under the railroad embankment at 60.8002 N, 148.9724 W (Figure 8). I sampled a pool below the culvert and captured 1 stickleback. Because of heavy brush no additional sampling was conducted downstream of the culvert. The wetland habitat on the upstream side of the railroad embankment is high value rearing habitat. The ADF&G recommends that the existing culvert is removed and replaced with a structure designed for fish passage.

We drove to Clear Skookum Creek, a tributary to Skookum Creek (Stream No. 247-60-10210-2025). A trestle bridge is located over the creek at 60.7809 N, 148.9839 W (Figure 9). I sampled above the bridge and captured 10 juvenile coho salmon and observed one chum salmon carcass. The juvenile coho salmon will be nominated for update to the Anadromous Waters Catalog.

We drove to an additional unnamed tributary to the Placer River. A 48-inch diameter culvert is located under the railroad embankment at 60.7668 N, 148.9906 W. I sampled above the culvert inlet and did not capture or observe any fish. I sampled a pool below the culvert and captured 3 juvenile coho salmon. The culvert may be a barrier to fish passage. The ADF&G recommends that the existing culvert is removed and replaced with a structure designed for fish passage. The unnamed stream will be nominated to the Anadromous Waters Catalog.



Figure 1. FPC locations. Figure courtesy of HDR.



Figure 2. FPC 5, wetland habitat located on the north side of the railroad embankment.



Figure 3. A pond located on the south side of the railroad embankment.



Figure 4. FPC 3, Explorer Creek culverts, outlet view. Photograph taken October 2008.



Figure 5. FPC 2, culvert inlet view.



Figure 6. FPC 1, 72-inch culvert, culvert outlet view.



Figure 7. FPC 1, 48-inch culvert, culvert outlet view.



Figure 8. FPC 4, culvert outlet view.



Figure 9. Clear Skookum Creek Bridge. Downstream view.

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