

APPENDIX D

DNR-OHMP (ADF&G) Fish Sampling Reports

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MEMORANDUM

STATE OF ALASKA

Department of Natural Resources
Office of Habitat Management and Permitting

TO: Jackie Timothy
Habitat Biologist
OHMP

DATE: August 12, 2005

TELEPHONE: 465-4287

FROM: Carl Schrader
Habitat Biologist

SUBJECT: Trip Report
Gustavus

Purpose: On August 12 I traveled to the Gustavus Airport to meet with consultants from USKH to assess fish and wetlands habitat at the Gustavus Airport as part of an FAA feasibility study to expand the Runway Safety Area. I also investigated a report of unauthorized construction of a bridge in anadromous fish habitat (Harry Hall Creek), and inspected recent repair of the community boat ramp on the Salmon River and stream restoration work on Glacier Bay National Park.

Gustavus Airport (Stream #114-23-10199 and #114-23-10089).

The Federal Aviation Administration is studying the feasibility of expanding the Runway Safety Areas at the Gustavus Airport. I met on-site with DOT&PF Airport Manager Doc Pederson, and USKH consultants Sylvia Kreel, Lance Mearig and Sanjay Chaudhury to assess stream habitat in potential fill areas. Two cataloged salmon streams or connected drainage ditches are located in the potential fill area (Streams #114-23-10199 and #114-23-10089). These streams are cataloged for rearing coho, although in the past I've also observed adults in the DNR gravel pits upstream and north of the runway. Portions of one or both of these stream channels would potentially need to be relocated to accommodate fill for an expanded RSA. Unnamed stream #114-23-10199 runs adjacent to the east side of the runway but outside of the potential fill area except for a small section north of the runway. A drainage channel south and west of the runway that now connects to unnamed stream #114-23-10089 to the west would potentially be relocated to drain to the southeast and connect with the stream to the east of the runway beyond. The fish habitat occurs in areas that have been channelized, and it would be relatively easy to provide equivalent habitat if the channels needed to be relocated.



Channel on East Side of Runway



Channel to North of Runway

I also inspected the DNR gravel pit area where the cataloged portion of stream #114-23-10199 apparently ends. The area is prone to flooding where Wilson Road crosses the stream. The problem

occurs when the gravel pits full up in the fall and suddenly drain into the waterway. Numerous culverts have been stacked at the crossing to try to alleviate the problem, but this hasn't solved the problem. DOT&PF recently constructed a shallow drainage channel that connects the pits to the stream that allows the area to drain gradually instead of flooding. This has apparently solved the flooding problem. The funky culvert setup remains, but doesn't appear to be blocking fish passage.



Culverts below DNR Gravel Pits



Drainage constructed to reduce flooding

Harry Hall Creek (Kanat) Bridge

OHMP had received a report of unauthorized construction of a bridge crossing Harry Hall Creek (Stream #114-23-10070-2008). I met with Janucz Kanat, the property owner and we inspected the project. Bridge abutments had been partially constructed adjacent to the stream, and appeared to be within ordinary high water (OHW). However, on close inspection, the bridge abutments were placed on the stream banks in the flood plain, but the bases were a few inches above my call for OHW (tough call because of previous clearing of streambank). The applicant was aware of the requirement for a permit for work below OHW, but did not believe a Fish Habitat permit was needed because the work was above OHW. An interesting point of law, as there would be no disturbance below OHW, but there would be fill on the streambank within the floodplain. Mr. Kanat has a good design for the bridge that is consistent with OHMP and ACMP standards for design and construction. We agreed that to be safe OHMP would issue a permit for the bridge.



Harry Hall Creek at Bridge Crossing



Abutment just above OHW

Salmon River Boat Ramp

OHMP authorized repair of the Gustavus community boat ramp (FH05-I—0081) on the Salmon River (Stream #114-23-10080). The work was completed earlier this month. I inspected the newly-completed repairs, and documented that the work had been completed as authorized.



General Haul-out Area



Repaired Launch Ramp

Glacier Bay National Park Road (Bartlett Cove #1 AK006-02J)

I inspected work completed by the NPS to restore salmon stream habitat that was degraded by sedimentation during reconstruction of the road from Gustavus to Bartlett Cove in 2001-2002. As part of a compliance agreement signed in May 2002, NPS had agreed to construct in-stream structures to improve habitat and hydrology in the effected reaches, and to provide additional bank stabilization. The main problem was that sediment had filled drainage channels adjacent to the road that provide both rearing and migration for salmonids. Absent a thalweg, these channels often go dry, blocking fish passage and eliminating rearing habitat. OHMP had initially directed NPS to remove the sediment and construct a low-flow channel in the affected habitat. We had agreed to give the streams time to stabilize before trying a major sediment removal operation, and to install some in-stream structures to determine if accelerating flow would help restore the habitat. NPS installed numerous instream structures and stabilized stream banks last summer, but OHMP had not conducted an inspection. I found that the work was constructed as agreed-to and appeared to be effective, although some additional sediment removal may also be needed in the future.



In-stream Structures to Accelerate Flow



Bank Stabilization/Revegetation

Email cc:

Sheila Cameron, OHMP, Juneau
Kristen Dunlap, OHMP, Juneau
Al Ott, OHMP, Fairbanks



MEMORANDUM

STATE OF ALASKA

Department of Natural Resources
Office of Habitat Management and Permitting

TO: Jackie Timothy
Juneau Area Manager
OHMP

DATE: October 27, 2006

FILE NO:

THRU:

SUBJECT: Gustavus Gravel Pits and Airport
Fish Sampling Trip Report

FROM: Carl Schrader
Habitat Biologist

TELEPHONE NO: 465-4287

Background: DNR owns a gravel source located north of the airport that is the main source for Gustavus. The gravel source currently has little management oversight. The Division of Mining Land and Water (DMLW) and the City of Gustavus want to develop a Management and Reclamation Plan for the site. Fish have been observed in the pit ponds, which drain to a ditch (Stream No. 114-23-10199) documented as rearing habitat for coho salmon. The ditch is cataloged from the culverts on Wilson Road just below the ponds, through the airport and to the outlet to the south in Icy Straight.



Gustavus Airport showing DNR gravel pits to the north. Icy Straight is to the south.

Since the gravel pits are connected to anadromous fish habitat, the management plan needs to consider impacts to fish during operations and at reclamation. The purpose of the trip was to document fish habitat in the project to guide development of the management and reclamation plan.

The Trip: On October 3, Kate Kanouse and I met in Gustavus with Ted Deats of DMLW, Gustavus Mayor Sandi Marchbanks, Gustavus City Council member Ken Klawunder, and Gustavus DOT Airport Manager Doc Pedersen, to discuss the City's plans for the area, and discuss our field work. Doc took us around the airport property to look at the drainage system and set minnow traps in the cataloged portion of the system. After lunch we borrowed a DOT truck and set traps in the pit area. The weather was overcast, with recent heavy rains.

Airport Ditches

We walked the airport "fish ditch" from within sight of the mouth to above the gravel pits. The lower end of the ditch is straight, about 10' wide and shallow with little in-stream structure. Upstream from about the middle of the runway the stream narrows and begins to meander, and fish habitat quality improves. The stream bottom is sandy, providing poor spawning habitat. We set traps in 7 locations from past the south end of the runway up to where it enters the pit area and caught sticklebacks, but no salmon. We also trapped "Boey's Ditch" that drains the area from Wilson Road to the east and discharges to the cataloged stream at about even with the middle of the runway. At the confluence, the drainage is about 5' wide, 6-8" deep, and appears to provide fish rearing habitat.



Trapping lower end of airport stream



Boey's Ditch at confluence

A minnow trap set in Boey's Ditch about 1500' upstream of the confluence caught 2 coho salmon 80 mm in length. We will nominate this drainage for inclusion in the Anadromous Waters Catalog (AWC).

Gravel Pit Ponds

Juvenile coho salmon and sticklebacks were found in all 4 of the main ponds. Field identification of the juvenile salmon based on color and fin shape suggested the fish were king salmon, which haven't been documented in the area, rather than coho which are common. Laboratory examination of several retained specimens confirmed they were coho. We will nominate the ponds for inclusion in the Anadromous Waters Catalog (AWC).



Ditch at lower end of ponds at Wilson Rd.



Trapping fish at south central pond

Kate returned October 24, and documented spawning coho salmon in the drainage above and below the northern-most culvert in the project area. She also caught a Dolly Varden char about 210 mm long. Developing salmon eggs were found in the gut of a juvenile salmon.



Spawning coho salmon



Kate Kanouse with a Dolly Varden char

Discussion

We documented that the gravel pit ponds and associated drainage system provide spawning and rearing habitat for coho salmon and Dolly Varden char. The presence of anadromous fish in the ponds must be considered in managing operations at the gravel source. Pursuant to AS 41.14.840 fish passage must be ensured, and once the ponds are included in the AWC, the ponds will also be regulated under AS 41.14.870. Classification as fish-bearing or anadromous waters will not preclude continued operation and development as a materials source for Gustavus, but authorization by OHMP will be required.

OHMP will require that drainage be provided between the ponds and the ditch/stream system so that fish can move between the ponds and the stream. The stream currently flows through the western pond, but passage between ponds is restricted by missing or inadequate culverts. With the current pond

configuration fish may enter some ponds during flood events, but become trapped for an extended period of time, and may not be able to migrate out to sea when they need to during spring.

The ponds have the potential to be reclaimed to enhance fish rearing habitat. We will need to sample fish during winter, and measure pond depth and dissolved oxygen levels which could limit over-wintering fish habitat. Once we have the above information, we can recommend a design for reclamation of the ponds.

Email cc:

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