

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

DIVISION OF HABITAT

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MEMORANDUM

TO: Erin Allee
Division of Coastal and Ocean Management
Alaska Department of Natural Resources

DATE: January 15, 2009

FILE NO: AK 0810-08J

THRU: Al Ott
Operations Manager

SUBJECT: Redfern Resources Ltd.
Proposed Taku River Barging
ACMP Review, Supporting
Information for the
"Important Habitat"
Designation Request

FROM: Kate Kanouse
Habitat Biologist 

TELEPHONE NO: (907)465-4290

On December 17, 2008, the Alaska Department of Fish and Game (ADF&G) requested that the Alaska Department of Natural Resources (ADNR) designate the portion of Taku River subject to Redfern Resource Limited's (Redfern) ACMP consistency project review be designated as "important habitat" under 11 AAC 112.300(c)(1)(B)(i)(ii). Per your request, we are providing the following additional information on impacts to coastal water to support this request.

The Taku River (Stream No. 111-32-10320) supports all five species of salmon (chinook, chum, coho, pink and sockeye), Dolly Varden char, cutthroat trout, steelhead trout, and eulachon. The literature citations we previously provided include specific information on fish life histories in the Taku River. Generally, adult salmon and char migrate upriver to spawn early-summer through fall, and trout migrate upriver to spawn in spring. Salmon and char eggs deposited in the streambed hatch in winter and newly emerged alevins reside in gravel substrate until spring. Trout eggs hatch in summer, and alevins emerge from gravel substrate in late-summer. Pink and chum salmon fry outmigrate to sea soon after emerging from the gravel in spring. Chinook, coho and sockeye salmon, char and trout rear in freshwater for 0-3 years, depending on species, before outmigrating to sea during the spring and summer months. Eulachon broadcast spawn in the lower river during spring, eggs hatch 3-4 weeks later, and larvae drift to the estuary to rear.

The Taku River also provides important habitat for many wildlife species. Harbor seals use the river and estuary during spring and summer to feed on fish, and often haulout on exposed sand

and gravel bars in the river. Harbor seals also haulout on river ice during winter and spring. The river corridor provides habitat and foraging opportunities for moose and wolves year-round, while brown bear use the area extensively during the spring, summer, and fall months. In addition, many avian species use the river for foraging and nesting during the spring and summer.

You specifically requested that ADF&G describe how Redfern’s proposed barging on the Taku River may have a direct and significant impact on coastal water. “Coastal water” is defined at 11 AAC 112.990(5) and “means those waters, adjacent to the shorelines, that contain a measurable quantity or percentage of sea water, including sounds, bays, lagoons, ponds, estuaries and tidally influenced waters”. In 1995, Sandwell Inc. conducted a hydrographic survey of the Taku River and verified that the upper extent of tidal influence is near Taku Lodge, about 16 miles upstream of the river mouth. However, we do not know if the tidal influence at Taku Lodge contains a measurable quantity of sea water, or if the influence is freshwater backed-up as a result of the advancing tide.

Redfern’s proposed barging activity may result in direct and significant impacts to aquatic species and their habitats in “coastal water”, as defined by your regulation. Because of this concern, ADF&G submitted an extensive request for additional information (RFAI) to determine if there could be adverse impacts on fish and fish habitat. The Alaska Departments of Environmental Conservation and Natural Resources also submitted RFAIs to determine potential impacts caused by the proposed barging activity, including potential impacts to coastal waters. Direct and significant impacts to aquatic species in coastal water in the Taku River could affect commercial and recreational fisheries that occur in the Taku Inlet marine environment.

In the non-aquatic season, Redfern proposes to transport the ACB using tow vehicles along frozen gravel bars and ice, crossing up to 16 open water leads in the mainstem of the Taku River. In the aquatic season, Redfern proposes to transport the ACB in the east channel around Canyon Island using a combination of shallow-draft tugs and tow vehicles. In both operating seasons, the proposed barging activity could pose direct and significant risks to fish and fish habitat in the river by causing scouring of the riverbed substrate, disruption to salmonid rearing and spawning habitat, and disruption to spawning substrates used by eulachon. Changes to habitat affecting fish populations could affect seals, bears and other species for which fish are an important resource. Changes to open lead formations may pose direct risks to moose during winter months when their survival is already compromised due to limited food availability and vulnerability to predation.

Potential impacts from the proposed barging activity in both operating seasons could pose risks to fish and fish habitat within coastal water. Additionally, potential impacts that could occur upstream of coastal water could impact fish and fish habitats downstream in coastal water. Therefore, we request ADNR designate the entire mainstem of the Taku River below the ordinary high water mark, including the east channel around Canyon Island, as “important habitat” under 11 AAC 112.300(c)(1)(B)(i)(ii).

Thank you for the opportunity to comment.

Email cc:

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