

STATE OF ALASKA

SARAH PALIN, GOVERNOR

DEPARTMENT OF FISH AND GAME

DIVISION OF HABITAT

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FISH HABITAT PERMIT FH08-I-0002

ISSUED: February 12, 2009

Mr Dave Palmer, Manager
Juneau International Airport
1873 Shell Simmons Drive
Juneau, Alaska 99801

RE: Juneau International Airport - Northwest Development Project & Duck Creek Relocation
Duck Creek, Stream No. 111-50-10500-2002
T. 40 S., R. 65 E., S. 36 and T. 40 S., R. 66 E., S. 31 C.R.M. (Juneau B-2 SW)
State ID AK 0705-03J, FH08-I-0150-SA, FH08-I-0116-SA, FH08-I-0003,
FH08-I-0010

Dear Mr. Palmer:

Pursuant to AS 16.05.871(b), the Alaska Department of Fish and Game (ADF&G), Division of Habitat has reviewed your request to relocate the lower reach of Duck Creek. The purpose of the Northwest Development Project is to allow for expansion of airport facilities and to reduce the wildlife hazard posed to aircraft from birds congregating at the mouth of Duck Creek.

Background:

The Juneau International Airport (JNU) has proposed a number of projects to enhance airport capacity and efficiency and to meet FAA requirements to improve the RSA and reduce risks posed to aviation from wildlife. These projects are described as the "Agency Preferred Alternatives" in the Juneau International Airport Final Environmental Impact Statement, April 2007 (FEIS section 2.13.2).

The Northwest Development Project (FEIS Section 2.8.2.3) will expand the existing apron by approximately 13 acres to provide additional aircraft tiedown spaces, hangars and parking. You propose to relocate Duck Creek to the northern airport property boundary and fill the existing channel and floodplain to provide space for the expansion. The new mouth of Duck Creek would be located farther away from the end of the runway to reduce wildlife hazard to aircraft as described in alternative WH-1D (FEIS Section 2.9.1.4). The Fuel Farm Access Road Project (FEIS Section 2.8.3.1) would require a new crossing of Duck Creek that would be incorporated into construction of the relocated channel and authorized under a separate Fish Habitat Permit (FH08-I-0010).

Habitat in Duck Creek is seriously degraded. The creek does not meet Alaska Water Quality Standards for dissolved oxygen, fecal coliform bacteria, sediment/turbidity and residues/debris. Despite all of these problems, Duck Creek continues to provide rearing habitat.

A restoration plan has been developed for Duck Creek (Duck Creek Watershed Management Plan, 1999) that is being implemented by resource agencies, CBJ and community groups including the Juneau Watershed Partnership. Restoration projects include replacement of inadequate stream crossings, sealing the stream bottom to reduce infiltration, restoration of riparian habitat, wetlands creation, and removal of fines from spawning gravels. Your proposal to relocate and reconstruct the lower reach of Duck Creek is consistent with the Duck Creek Watershed Management Plan, as it will improve stream hydrology and fish passage, as well as instream and riparian habitat.

Project Description

As described in your application, the project would include the following activities:

- A dike will be constructed across the floodplain near the new stream mouth to isolate the construction area from tidal flooding. The dike will be removed at low tide near the end of construction.
- A new floodplain will be excavated near the northern airport boundary. The constructed stream corridor will have an average width of 151 feet, and approximately 3.4 acres of the western portion will be flooded at high tides.
- Within the new floodplain, a meandering channel will be cut to pass stream flows up to the 2-year-return interval flood.
- The channel will be over-excavated and lined with a low permeability material (clay or other material acceptable to ADF&G) and backfilled to produce the desired channel geometry. This material will limit infiltration of creek water into groundwater and retain surface flows.
- On the new alignment of the Dike Trail, a pile-supported boardwalk will be constructed across the new floodplain, with a 20-foot clear-span bridge across the creek channel. This will replace the existing culvert at Radcliffe Road
- Four inches of topsoil will be placed in the floodplain using imported material or soil salvaged from Airport construction activities.
- In-stream structures such as rocks and logs will be placed in the channel, and the channel lined with streambed material to mimic a natural channel.
- Riparian vegetation will be planted. Plantings will be designed to discourage use of the stream segment by large birds.
- 'fish-friendly' bioengineering techniques will be utilized to the north of the channel as part of the West-end Wetlands Regrading Project, which will protect the stream channel and prevent the stream from migrating northward.
- Upon approval by ADF&G, Duck Creek will be diverted into the new channel.

Anadromous Fish Act and Coastal Consistency Requirements

Duck Creek, Stream No. 111-50-10500-2002, is specified in the Catalog of Waters Important for the Spawning, Rearing, or Migration of Anadromous Fishes pursuant to AS 16.05.871(a). The stream provides migration, spawning, and rearing habitat for coho, pink, and chum salmon, Dolly Varden char, and cutthroat trout.

Your project is consistent with the Standards of the Alaska Coastal Management Program.

In accordance with AS 16.05.871(d) and 11 AAC 110, your project is approved subject to the project description, standard alternative measures, and the terms of this permit.

1. Anadromous and resident fish in the lower reach of Duck Creek will be trapped and relocated prior to the contractor filling the existing stream channel. Please contact ADF&G for help in conducting the trapping.
2. The new stream segment will not be connected to existing anadromous waters until inspected and approved by ADF&G.
3. The permittee shall provide OHMP with "as built" drawings of the completed stream corridor, which will be used to update the *Catalog of Waters Important for Spawning, Rearing, or Migration of Anadromous Fishes*.
4. The applicant or designee shall submit a five-year monitoring plan for Duck Creek to ADF&G for approval. ADF&G staff can assist the applicant in designing an appropriate monitoring plan that includes the documentation of streambed characteristics, channel morphology, stream discharge, ground water levels, adult and rearing fish presence and abundance, and the vegetative success of the constructed floodplain and riparian areas. Additionally, the applicant shall schedule cooperative inspections with ADF&G staff during construction and twice a year during the monitoring period.

You must maintain the integrity of the new stream channel for the life of the structure in accordance with the terms of this permit so that free passage of fish is assured. You must restore any obstruction to the free passage of fish to the satisfaction of ADF&G.

You are responsible for the actions of contractors, agents, or other persons who perform work to accomplish the approved project. For any activity that significantly deviates from the approved plan, you shall notify ADF&G and obtain written approval in the form of a permit amendment before beginning the activity. Any action that increases the project's overall scope or that negates, alters, or minimizes the intent or effectiveness of any stipulation contained in this permit will be deemed a significant deviation from the approved plan. The final determination as to the significance of any deviation and the need for a permit amendment is the responsibility of the ADF&G. Therefore, it is recommended you consult ADF&G immediately when a deviation from the approved plan is being considered.

This letter constitutes a permit issued under the authority of AS 16.05.871. This permit must be retained on site during construction. This permit provides reasonable notice from the commissioner that failure to meet its terms and conditions constitutes violation of AS 16.05.861; no separate notice under AS 16.05.861 is required before citation for violation of AS 16.05.871 can occur. Please be

advised that this determination applies only to activities regulated by ADF&G; other agencies also may have jurisdiction under their respective authorities. This determination does not relieve you of your responsibility to secure other permits; state, federal, or local. You are still required to comply with all other applicable laws.

In addition to the penalties provided by law, this permit may be terminated or revoked for failure to comply with its provisions or failure to comply with applicable statutes and regulations. The department reserves the right to require mitigation measures to correct disruption to fish or wildlife created by the project which was a direct result of failure to comply with this permit or any applicable law.

You shall indemnify, save harmless, and defend the department, its agents, and its employees from any and all claims, actions or liabilities for injuries or damages sustained by any person or property arising directly or indirectly from permitted activities or your performance under this permit. However, this provision has no effect if, and only if, the sole proximate cause of the injury is the department's negligence.

This permit decision may be appealed in accordance with the provisions of AS 44.62.330-630.

If you have any questions regarding this permit, please contact me at (907) 465-4346 or email tom.schumacher@alaska.gov.

Sincerely,
Denby Lloyd
Commissioner



for Jackie Timothy
Regional Supervisor
Division of Habitat

Email cc:

Al Ott, ADF&G Habitat, Fairbanks
Ryan Scott, ADF&G, Douglas
Brian Glynn, ADF&G, Douglas
Kevin Monagle, ADF&G, Douglas
Jim Anderson, ADNR, Juneau
Fran Roche, DEC, Juneau
Erin Allee, DNR/DCOM, Juneau
Randy Vigil, COE, Juneau
Chiska Derr, NMFS, Juneau
Richard Enriquez, USFWS, Juneau
Chris Meade, EPA, Juneau
Lt. Todd Sharp, AWT, Juneau

Teri Camery, Juneau Coastal District
Tom Carson, Carson-Dorn Inc., Juneau