

Final 4(e) conditions, Upper Hidden Creek Diversion, Terror Lake Hydropower License Amendment, Kodiak Island, Alaska

The final Conditions specified below are consolidated from Department of Interior letters dated August 22, 2016 and November 30, 2016. One additional condition (Condition 6) is provided here, on behalf of the U.S. Fish and Wildlife Service, Kodiak National Wildlife Refuge. We request that these updated conditions be included in the amended license, under the authority of section 4(e) of the Federal Power Act.

Condition 1

At least six months before the start of any land-disturbing or land-clearing activities associated with Project construction, the licensee must file, for Commission approval, a vegetation management plan (Plan), approved by the Kodiak National Wildlife Refuge Manager, which provides the elements specified below. The purposes of this plan are to establish a diversity of native vegetation on all tunnel rock placement areas and associated paths and storage areas disturbed by Project construction; and to prevent introduction and spread of invasive species and noxious weeds during Project construction and operation.

The Plan must be developed after consultation with the Service and the Plant Materials Center, Alaska Division of Agriculture. The licensee must include with the plan: documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the Plan. The licensee must allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing must include the licensee's reasons, based on Project-specific information.

The Commission reserves the right to require changes to the plan. Implementation of the plan must not begin until the licensee is notified by the Commission that the Plan is approved. Upon Commission approval, the licensee must implement the Plan, including any changes required by the Commission.

The Plan should include, at a minimum, provisions for:

1. A pre-disturbance vegetation survey by a qualified botanist documenting baseline conditions, including lists of native and non-native plant species, percent of vegetated and non-vegetated areas, and relative abundance of species (by canopy cover) present on the proposed disposal site and associated disturbed areas.
2. A plan to establish at least 60 percent of the baseline canopy cover by dominant, native species on areas to be revegetated. Objectives for species diversity must also be included.
3. A timeline for attainment of revegetation objectives.
4. A monitoring plan, implemented by a qualified botanist, to document progress toward revegetation objectives.
5. An adaptive management plan to address any failures to meet revegetation objectives by the times specified in the Plan.

6. A plan for identifying and controlling invasive species, including a description of best management practices to be followed to prevent introduction and spread of invasive plants during Project construction and operation. Measures shall include provisions to clean (e.g., power wash) and inspect all construction-related equipment and materials off-site prior to entry into the Project area, and use of certified weed-free seed if seeding is used to re-vegetate the site.

7. Monitoring for, and treatment of, invasive species during and after construction. The licensee shall be responsible for treatment and at least two years of post-treatment monitoring if new invasive species are present post-construction (i.e., not in pre-construction survey).

Condition 2

Construction activities and project-associated helicopter traffic at the portal site (south end of Terror Lake) is prohibited from January 1 to June 1 of each year to avoid disturbance of brown bears in, and emerging from, dens.

Condition 3

Withdrawn

Condition 4

The licensee shall develop and submit a written plan to manage water levels in Terror Lake to ensure availability of sufficient water to meet the instream flow requirements specified in Article 43 during periods of low reservoir inflows (e.g., during periods of low precipitation, unusually cold spring weather, etc.).

Condition 5

The licensee shall develop a plan to monitor waste rock leachate during construction, to test for acid production from rock excavated from the tunnel. Monitoring will continue through the construction period each year until surface water at the waste rock disposal site freezes in the fall. If acid drainage is documented, the licensee will develop and implement measures to mitigate and manage the acid drainage from the waste rock. An adaptive management approach may be needed.

Condition 6

Prior to completion of the outlet tunnel and portal, the licensee must file, for Commission approval, an engineer approved and stamped design for the outflow channel between the outlet portal and Terror Lake reservoir. The submission must be approved by the Kodiak National Wildlife Refuge Manager. The design should provide the following outcomes: 1) minimize initial sediment transport and erosion, 2) provide a channel that is stable both laterally and vertically, 3) minimize erosion of the lake shore and bottom with flows anticipated to discharge from the tunnel, and 4) encourages vegetation within 2 feet of the water's edge adjacent to the channel downstream of the excavated rock gully.

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