Project Level Analysis – Wildlife Report

Introduction

This document provides a process to meet the requirements of ANILCA section 810 (Subsistence), the Endangered Species Act (ESA), the Migratory Treaty Act and Executive Order 13186 (Migratory Birds and Bird Species of Concern), and Forest Service Manual (FSM) direction, in adherence to implementing regulations of the National Environmental Policy Act (NEPA) and National Forest Management Act. This document addresses direct, indirect, and cumulative effects to federally-listed threatened, endangered, and candidate species (T&E) under the regulatory jurisdiction of the U. S. Fish and Wildlife Service or National Marine Fisheries Service, species designated as sensitive species by the Regional Forester of the Alaska Region of the Forest Service, Management Indicator Species (MIS) as designated by the Tongass National Forest, migratory birds, and subsistence resources. This document tiers to the "Fish and Wildlife Resource Report" (dated May 2009) and Tongass Wildlife EA/EIS Analysis template (dated November 2017) which provide background information on current management direction, desired conditions, and the affected environment for species addressed, as well as the Final Environmental Impact Statement for the 2016 Tongass Land and Resource Management Plan.

Proposed Project

Kupreanof Private Residential Micro-Hydro Project

Date: June 22, 2018

List CE Category, or state if supporting EA:
CE category: 36 CFR 220.6(e)(3): Approval, modification, or continuation of minor special uses of NFS lands that require less than five contiguous acres of land.

Project Location: City of Kupreanof, Kupreanof Island

Land Use Designation
Semi-Remote Recreation

Will project activities alter habitat or affect TES, candidate, or MIS species? (Underline correct response)

YES Complete the Description of Proposed Project and Analysis Area, provide an explanation in the Effects Analysis section, and update Table 1 and Management Measures and Consultation as needed.

NO Complete the Description of Proposed Project and Analysis Area, review Table 1 and update if needed, and Sign and Date the end of the document.

Proposed Action
Issue a special use permit to a private individual for the construction of a small dam on an unnamed creek on Kupreanof Island. A six inch diameter x 300 foot long water transmission line would also be installed on National Forest land. Ground excavation would be required for a

portion of the water line to maintain a constant grade. The water line would continue onto private property to a small hydroelectric generator that would provide electric power to a private residence.

Surveys or Site Visits Completed:

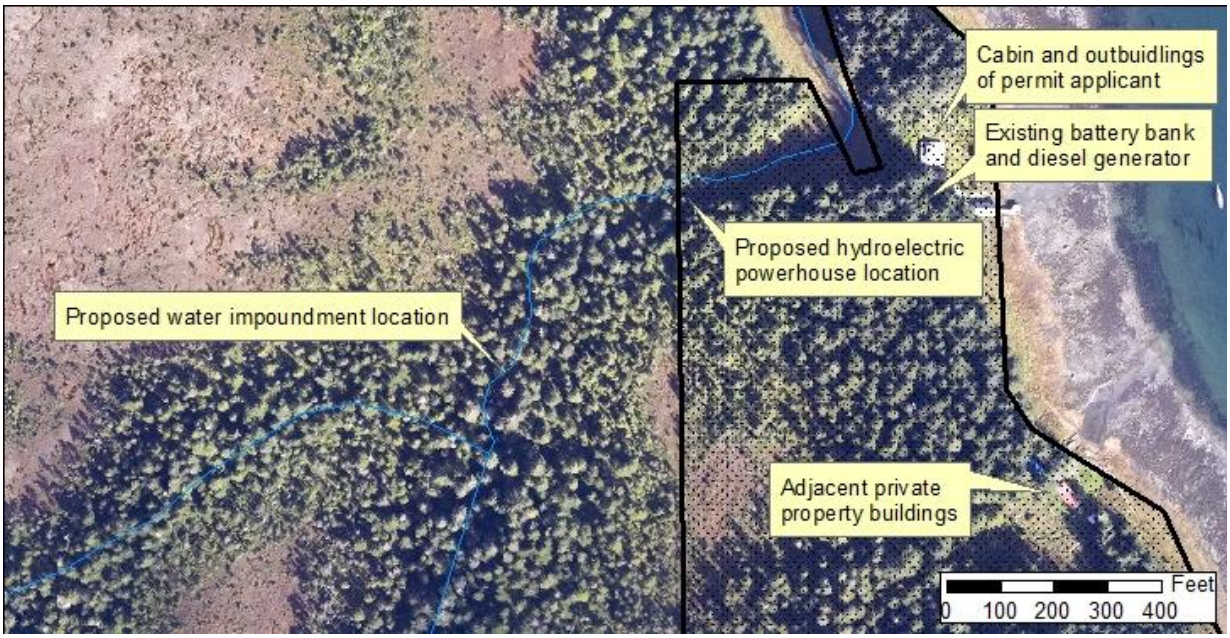
A site visit was completed by the Petersburg Ranger District Wildlife Biologist on June 14, 2018. Areas examined included: 1) the instream site where a small water impoundment would be constructed on National Forest System land, 2) the path the water transmission pipe would follow downstream toward and onto private land, 3) the site on private land adjacent to the small creek where a small powerhouse would be built to contain a small hydroelectric power generator, 4) the route an electrical power line would be hung above ground to an existing building which contains a bank of batteries and a diesel power generator. Currently the permit applicant uses the diesel generator to charge the bank of batteries, from which he draws power. The proposed hydroelectric power generator would reduce the amount of time the diesel generator runs. Habitat types in and around the project area include a mix of unproductive forest, low volume forest on hydric soils, forested muskeg, and a small meadow on private. There are no known wildlife nests, dens, or other areas of particular importance to wildlife in the project area or vicinity. Black bears periodically forage in the small meadow on private land. Small coho salmon that take refuge in the small creek, as well as other small resident fish and aquatic organisms, likely contribute slightly to the food chain of black bears, bald eagles, or other birds and small mammals. Kupreanof Island is not known to contain resident brown bears.

Photo of the small meadow and creek on private land looking to the east. The powerhouse would be located directly behind where this photo was taken from, adjacent to the National Forest System land boundary. The water impoundment would be located approximately 550 feet from this location upstream.

Effects Analysis

Analysis Area and Time Period for Analysis

Unless otherwise discussed for a particular species, the analysis area for this project is within 500 feet of the proposed ground disturbing activities, which would include construction of the water impoundment, laying of pipe, and construction of the powerhouse with a small hydroelectric generator. A distance of 500 feet from the project sites allows for an adequate assessment of any possible disturbance effects from this small-scale project.



The time period for this analysis is 30 years, equivalent to the duration of time the permit would be authorized. At the end of that time period, if the permit is considered for renewal it is assumed the effects would be reassessed.

Photo taken looking west toward the property boundary. The powerhouse would be located on the left side of the stream channel in the foreground.

Photo of the proposed water impoundment location, approximately 550 feet upstream from the proposed powerhouse location.

Effects

The ground disturbing activities would occur within and adjacent to a small stream channel, extending about 550 feet upstream from the private property boundary onto National Forest System land to where the water impoundment would be constructed. Another smaller channel comes in from the north at the impoundment location and it is undetermined at this time whether the impoundment would include one or both of the small channels. Regardless of the eventual design, for this analysis it is assumed that fish and aquatic organism passage would be

maintained and that sufficient flow would remain in both of the two small channels at all times of the year, relative to the amount of natural runoff and precipitation, to allow existing natural processes to continue to take place. During construction and periodic maintenance activities, it is assumed that vegetation would be manipulated on a very small scale at various points along the 550 feet portion of the stream (e.g. individual small tree or brush removal, movement of substrate, etc.), but there would not be any substantive change to habitat or how it is used by wildlife.

Since there would be no change to overall habitat structure or changes to aquatic organism passage, any effects to wildlife would be limited to localized disturbance. Human presence and a low level of noise during construction then afterward during periodic maintenance activities would be the primary cause of disturbance to wildlife. Noise from the hydroelectric generator in the powerhouse would be negligible, and with supplemental electrical power being supplied to the bank of batteries there would be less noise caused by the current diesel generator since it would run for less time.

Direct, indirect, and cumulative effects were assessed and are summarized in Table 1. Direct and indirect effects can occur as a result of project activities and their connected actions. A direct effect is an effect caused by an action that occurs in the same time and place as the action. An indirect effect is caused by an action but is later in time or farther removed in distance, but is still reasonably foreseeable. Cumulative effects are considered differently under NEPA and the ESA. Under NEPA, cumulative effects represent the impact on the environment, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Under the ESA (thus applicable to analysis of effects to T&E species), cumulative effects include the effects of future State or Private activities but not other Federal activities because those actions are subject to future consultation" (50 CFR 402.02).

Effects analyses are based on professional judgment using the best available information that may be provided by forest staff, relevant references and technical literature, and subject matter experts. Quantitative and qualitative information regarding the presence and status of these species within the analysis area was gathered from technical reports and other published literature, with focus on the most susceptible aspects of species life cycle and/or habitat needs. General criteria were used to assess the intensity or level of influence of the effects. Where applicable, project design features were considered to offset or minimize potential adverse impacts. Levels of influence definitions are located in the Fish and Wildlife Report template which is on file and incorporated by reference into this document.

There would be no effects to the old-growth reserve system as designated by the Forest Plan. There would be no change to Land Use Designation (LUD) boundaries or reduction in the total amount of productive old-growth (POG) habitat acres within non-development LUDs. Table 1 summarizes the effects of the proposed activities on TES and candidate species, MIS, migratory birds, and subsistence resources.

Table 1. Summary of effects of the proposed activities to species that occur or are more likely to occur on the Tongass National Forest or in adjacent waters.

Species/Issue	Presence		Direct, indirect and Cumulative Effects	
	Species Present in Analysis Area[1]	Species Habitat Present in Analysis Area	Level of Influence[2/] Determination	Reason for Determination/ Level of Influence
Threatened and Endangered[3]				
Short-tailed Albatross	No	No	No Effect	May forage during winter in nearshore waters adjacent to the outer coast of the Tongass, does not breed in Alaska (USFWS 2008, O'Connor 2013, Deguchi et al. 2014). Not expected to use habitat in the analysis area.
Humpback Whale Mexico DPS	No	No	No Effect	Common in the inside waters of Southeast Alaska (Muto et al. 2016). May occur in shallow coastal areas including nearshore waters. While connected actions would include use of marine waters to access the permit location, permitted activities would not perceptibly increase marine disturbance or alter the marine environment.
Fin Whale	No	No	No Effect	May occur seasonally in marine waters adjoining Tongass National Forest, in areas exposed to the open ocean or in channels in close proximity to open ocean (Dahlheim et al. 2009, Muto et al. 2016). Not expected to use the waters adjoining the analysis area.
Sperm Whale	No	No	No Effect	May occur seasonally in deep offshore marine waters adjoining Tongass National Forest (Muto et al. 2016). Not expected to use the waters adjoining the analysis area.
Steller Sea Lion Western DPS and designated Critical Habitat	No	No	No Effect	Vast majority of confirmed sightings of western DPS sea lions have been in northern areas of Southeast Alaska, north of Frederick Sound (Jemison et al. 2013). A few confirmed observations of western DPS animals south of a line from Hazy Island, through Sumner Strait, to the northern tip of Wrangell Island (NMFS 2013). No known major Steller sea lion rookeries or haulouts located near the analysis area. While connected actions would include use of marine waters to access the permit location, permitted activities would not perceptibly increase marine disturbance or alter the marine environment, haulouts, or rookeries. Designated Critical Habitat is not in the vicinity and would not be affected.
Sensitive				
Aleutian Tern	No	No	No Impacts	Nests in coastal colonies in a variety of habitats, with the southernmost known breeding colony is near Yakutat (USFWS 2006a). Not expected to use habitat in the analysis area.
Black Oystercatcher	No	No	No Impacts	Nests along shorelines of Southeast Alaska, with the highest density on non-forested islands dominated by sloping beaches of shell or gravel and dependence upon the intertidal zone throughout their life cycle (Andres 1998, Gotthardt and Coray 2005, Tessler et al. 2007). Not expected to use habitat in the analysis area.
Kittlitz's Murrelet	No	No	No Impacts	Closely associated with glacial habitats and glacially influenced marine waters along the Alaska mainland coast in northern Southeast Alaska (USFWS 2006b, Kissling et al. 2011, USFWS 2013). Nests on barren ground. Historically located as far south as LeConte Bay (Webster 1950) but recent surveys have not documented them there or Thomas Bay (Kissling et al. 2011). Not expected to use habitat in the

Species/Issue	Presence		Direct, indirect and Cumulative Effects	
	Species Present in Analysis Area[1]	Species Habitat Present in Analysis Area	Level of Influence[2/] Determination	Reason for Determination/ Level of Influence
				analysis area.
Dusky Canada Goose	No	No	No Impact	Recognized as being unique to a small part of the Gulf of Alaska, nesting primarily on the Copper River Delta. Winters primarily in southwestern Washington and western Oregon. May migrate through the Tongass. Not expected to use habitat in the analysis area.
Queen Charlotte Goshawk	No	No	No Impact	Nesting typically occurs in large contiguous patches of medium and high volume old-growth forest. Occupies large home ranges and is widely distributed in Southeast Alaska. The analysis area does not contain likely nesting habitat. Possibly use habitat in the analysis area for foraging but would not be affected.
Management Indicator				
Alexander Archipelago Wolf	Yes	Yes	Negligible	Would not alter denning or prey habitat or increase opportunities for wolf harvest.
American Marten	Yes	Yes	Negligible	Would not reduce or alter productive old-growth forest.
Bald Eagle	Yes	Yes	Negligible	Would not reduce or alter productive old-growth forest in coastal areas.
Black Bear	Yes	Yes	Negligible	Would not reduce or alter productive old-growth forest or riparian areas.
Brown Bear	No	Yes	Negligible	Would not reduce or alter productive old-growth forest or riparian areas.
Brown Creeper	Yes	Yes	Negligible	Would not reduce or alter productive old-growth forest.
Hairy Woodpecker	Yes	Yes	Negligible	Would not reduce or alter productive old-growth forest.
Mountain Goat	No	Yes	Negligible	Would not reduce or alter cliffs, alpine and subalpine, or productive old-growth forest.
Red-breasted Sapsucker	Yes	Yes	Negligible	Would not reduce or alter productive old-growth forest.
Red Squirrel	Yes	Yes	Negligible	Would not reduce or alter young growth or productive old-growth forest.
River Otter	Yes	Yes	Negligible	Would not reduce or alter productive old-growth forest along coastal, estuary or riparian areas.
Sitka Black-tailed Deer	Yes	Yes	Negligible	Would not reduce or alter productive old-growth forest.
Vancouver Canada Goose	Yes	Yes	Negligible	Would not reduce or alter productive old-growth forest along coastal, estuary or riparian areas.
Other				
Migratory Birds	Yes	Yes	Negligible	Would not reduce or alter productive old-growth forest or other habitats.
Subsistence	Yes	Yes	Negligible	Consistent with section 810 of ANILCA, the potential effects of this project on subsistence opportunities and resources were assessed. Because there would be no change in abundance and distribution of, access to and competition for subsistence resources, the proposed project will not result in a restriction of subsistence uses.

[1] "Yes" if the species is known or is likely to occur in the analysis area or in marine waters adjacent to the analysis area. "No" if the species has not been documented or is not likely to occur in the analysis area.

[2] Level of influence of the effects for management indicator species includes "negligible", "minor", "moderate", or "major". Levels of influence are defined in the "Fish and Wildlife Resource Report". Determinations are only required for listed and sensitive species. Determinations for threatened and endangered species include "no effect", "not likely to adversely affect", or "likely to adversely affect" (Bosch 2004). Determinations for candidate species include "no effects", "not likely to jeopardize proposed species, or adversely modify proposed critical habitat", or "likely to jeopardize proposed species, or adversely modify proposed critical habitat". Determinations for sensitive species include "no impacts", "beneficial impacts", "may impact individuals but not likely to cause a trend to federal listing or a loss of viability", or "likely to result in a trend to federal listing or a loss of viability" (Bosch 2004).

[3] There will be negligible/no effect to other listed or candidate species because these species do not or rarely occur and/or key habitats are not present in or around the analysis area.

Consultation

ESA does not require consultation for "no effect" determinations. Therefore consultation with the U.S. Fish and Wildlife Service and National Marine Fisheries Service to review the effects of this project on threatened, endangered and candidate species is not required.

Management Measures

Applicable Forest Plan Standards and Guidelines will be followed. If any previously undiscovered endangered, threatened, candidate or sensitive species or key habitats for any MIS or other species identified in this document are encountered at any point in time prior to or during the implementation of this project, a qualified Wildlife Biologist would be consulted and appropriate measures would be enacted.

Prepared By:	
/s/ Toby Bakos	June 22, 2018
District Wildlife Biologist Petersburg Ranger District	Date
Reviewed By (required if not prepared by a Journey Level Biologist):	
/S/ Gregg Dunn	June 26, 2018
Wildlife Planner Tongass National Forest	Date