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SUSITNA-WATANA HYDRO

Susitna-Watana Hydroelectric Project (FERC No. 14241)

Wildlife Resources
Study Plan Section 10 Introduction

Final Study Plan

Alaska Energy Authority

SUSITNA-WATANA HYDRO

Clean, reliable energy for the next 100 years.

July 2013

10. WILDLIFE RESOURCES

10.1 Introduction

The Project area, including the Upper and Middle Susitna River subbasins, contains a diversity of wildlife and wildlife habitats that support game and non-game populations managed by the State of Alaska, primarily within Game Management Units (GMUs) 13A, 13B, 13E, 14A, 14B, 16A, and 16B. The purposes of the wildlife studies developed for the Project are as follows:

- To provide current wildlife baseline data for the Project area
- To provide current wildlife habitat availability and use data for habitat evaluation

Information developed from the proposed studies will provide the basis for assessments of potential Project-related impacts; and development of protection, mitigation, and enhancement measures, including resource management and monitoring plans, as appropriate.

Proposed studies are focused on wildlife and their habitats within the Project area that are important for human use, that are protected by federal and state laws, and that are potentially sensitive to Project-related activities and habitat changes.

10.2 Nexus Between Project Construction / Existence / Operations and Effects on Resources to be Studied

Project construction, existence, and operation would result in five general classes of impacts on terrestrial wildlife:

- Permanent habitat loss
- Temporary habitat loss and alteration
- Barriers and hazards to animal movements
- Disturbance
- Changes in recreational and hunting patterns (AEA 2011)

The potential Project-related impacts for wildlife are further described in the Pre-Application Document (PAD) (AEA 2011).

Mechanisms for Project-related impacts may include the following:

- Direct and indirect loss and alteration of wildlife habitats from Project construction and operation.
- Potential physical and/or behavioral blockage and alteration of movements due to reservoir water and ice conditions, access and transmission corridors, and new patterns of human activities and related indirect effects, including habitat connectivity and genetic isolation.
- Potential direct mortality due to Project-related fluctuating water and ice conditions in the reservoir and downstream river reaches.
- Potential direct, indirect, and cumulative impacts on predator and prey abundance and distribution related to increased human activities and habitat changes resulting from Project development.

- Potential direct behavioral impacts to wildlife, such as attraction or avoidance, resulting from vehicular use, noise, and increased human presence associated with Project construction or operation.
- Potential indirect behavioral impacts to wildlife, such as attraction or avoidance, resulting from changes in hunting, vehicular use, noise, and increased human presence associated with increased subsistence or recreational access that may be facilitated by Project development.
- Potential direct mortality due to vehicle strikes, exposure to contaminants, attraction to garbage and human activity, and protection of life and property.
- Potential changes in wildlife mortality rates due to increased subsistence and sport harvest facilitated by Project development.

10.3 Resource Management Goals and Objectives

The Alaska Department of Fish and Game (ADF&G) is responsible for the game animal management, protection, maintenance, and improvement of Alaska's fish and game resources in the interest of the economy and general well-being of the state (AS 16.05.020). The mission of ADF&G is "to protect, maintain, and improve the fish, game, and aquatic plant resources of the state, and manage their use and development in the best interest of the economy and the well-being of the people of the state, consistent with the sustained yield principle." The guiding principles of ADF&G include providing "the greatest long-term opportunities for people to use and enjoy Alaska's fish, wildlife, and habitat resources," and maintaining "the highest standards of scientific integrity and providing the most accurate and current information possible" (ADF&G website: www.ADF&G.alaska.gov). Federal projects with potential impacts to wildlife are also subject to review under the Fish and Wildlife Coordination Act (16 U.S.C. § 661a *et seq*.) and where applicable to the Endangered Species Act (16 U.S.C. § 1531).

ADF&G monitors populations and manages subsistence and sport hunting and trapping for game mammals (5 AAC 85.045 – moose; 5 AAC 85.025 – caribou; 5 AAC 85.055 – Dall's sheep; 5 AAC 85.015 and 85.020 – bears; 5 AAC 85.025 – wolf and wolverine; 5 AAC 85.065 – small game; 5 AAC 85.060 – fur animals) through regulations set by the Board of Game (AS 16.05.255). The Federal Subsistence Board, which comprises representatives from the U.S. Fish and Wildlife Service, National Park Service, Bureau of Land Management, Bureau of Indian Affairs, and U.S. Forest Service, oversees the Federal Subsistence Management Program (57 FR 22940; 36 CFR Parts 242.1–28; 50 CFR Parts 100.1–28) with responsibility for managing subsistence resources on federal public lands for rural residents of Alaska.

Most of GMU 13 (except Subunit 13D, south of the Glenn Highway), including the Upper Susitna River basin, currently is managed by ADF&G under a predator control program instituted in response to the state's intensive management law, passed in 1994. Bears in GMU 13 are of interest both as predators of caribou (*Rangifer tarandus*) and moose (*Alces americanus*) and as important game species. GMU 13 is an intensive management area where predator control measures are implemented to increase caribou and moose populations. In GMU 13, predator control measures have included land-and-shoot harvest of wolves (*Canis lupus*) and liberalized regulations for the harvest of wolves and bears.

Eagles, raptors, and all migratory birds are protected by federal laws and agreements, including the Bald and Golden Eagle Protection Act (BGEPA: 16 U.S.C. § 668) and the Migratory Bird Treaty Act (MBTA: 16 U.S.C. § 703), and a recent memorandum of understanding (MOU)

concerning the implementation of Executive Order 13186 with regard to protection of migratory birds (FERC and USFWS 2011). That agreement was created to establish a voluntary framework to ensure that both agencies cooperate to conserve birds and their habitats by identifying and mitigating potential adverse effects resulting from the development of energy infrastructure. The MOU defines bird "species of concern" as those species—including several raptors—that are listed as sensitive or of conservation concern by various management agencies, agency working groups, and non-governmental conservation organizations (FERC and USFWS 2011; also see ABR, Inc. 2011 and AEA 2011).

The MBTA is enforced by the U.S. Fish and Wildlife Service (USFWS) and, in practice in Alaska, is used primarily to monitor and regulate waterfowl harvest; ensure that land-clearing activities occur outside of the bird nesting season to prevent destruction of bird nests; and to encourage development of appropriate avoidance and mitigation measures for federally regulated development projects and activities.

10.4 Summary of Consultation with Agencies, Alaska Native Entities, and Other Licensing Participants Regarding Revised Study Plan Development

Agencies, Alaskan Native entities, and other licensing participants were involved in developing wildlife study plans. During four terrestrial resources workgroup meetings, agencies and other entities gave input on needed wildlife studies and study methods. A meeting with USFWS helped design the eagle and raptor survey. Comments regarding wildlife studies were received in letters from the Alaska Department of Natural Resources (ADNR) Office of Project Management and Permitting (OPMP), ADF&G, Alaska Department of Environmental Conservation (ADEC), and USFWS. A white paper from ADF&G and follow-up e-mails detailed wildlife study needs.

Summary tables of comments and responses from formal comment letters filed with FERC through November 14, 2012, were provided in the Revised Study Plan (RSP) Appendix 1. Copies of the formal FERC-filed comment letters were included in RSP Appendix 2. In addition, a single comprehensive summary table of comments and responses from consultation, dated from Proposed Study Plan (PSP) filing (July 16, 2012) through release of Interim Draft RSPs, was provided in RSP Appendix 3. Copies of meeting summaries from release of the PSP through the interim draft RSP were included in RSP Appendix 4, organized chronologically.

Consultation subsequent to the filing of the Revised Study Plan (RSP) is described within each Final Study Plan (FSP).

Literature Cited

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