

# Susitna-Watana Hydroelectric Project Document

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**Susitna-Watana Hydroelectric Project  
(FERC No. 14241)**

**Evaluation of Wildlife Habitat Use  
Study Plan Section 10.19**

**Initial Study Report**

Prepared for

Alaska Energy Authority



**SUSITNA-WATANA HYDRO**

*Clean, reliable energy for the next 100 years.*

Prepared by

ABR, Inc.—Environmental Research & Services

February 2014 Draft

## TABLE OF CONTENTS

**Executive Summary ..... iii**

**1. Introduction..... 1**

**2. Study Objectives..... 1**

**3. Study Area ..... 2**

**4. Methods and Variances in 2013..... 2**

**5. Results ..... 2**

**6. Discussion..... 2**

**7. Completing the Study ..... 3**

**8. Literature Cited ..... 3**

**9. Figures..... 4**

## LIST OF FIGURES

Figure 3-1. Study Area for Evaluation of Wildlife Habitat Use. The Study Area is a Combination of the Wildlife Habitat Mapping Areas from the Vegetation and Habitat Mapping Study (Study 11.5) and the Riparian Vegetation Study (Study 11.6). ..... 4

## LIST OF ACRONYMS, ABBREVIATIONS, AND DEFINITIONS

<b>Abbreviation</b>	<b>Definition</b>
AEA	Alaska Energy Authority
CFR	Code of Federal Regulations
FERC	Federal Energy Regulatory Commission
ILP	Integrated Licensing Process
ISR	Initial Study Report
Project	Susitna-Watana Hydroelectric Project
RSP	Revised Study Plan
SPD	Study Plan Determination

## EXECUTIVE SUMMARY

Evaluation of Wildlife Habitat Use Study 10.19	
Purpose	The objectives of this study are to provide Project-specific habitat-use information and to assess and assign habitat values for the birds, mammals, and amphibians that occur in the Project area, using the wildlife habitat types being mapped for the Project.
Status	This study was rescheduled for implementation during the next study season.
Study Components	<p>The study components for this office-based study consist of:</p> <p>(1) Selection of a set of bird, mammal, and amphibian species of concern for which Project-related habitat impacts will be evaluated.</p> <p>(2) Use Project-specific wildlife survey data, from Studies 10.5 through 10.18, and the scientific literature, when needed, to assess habitat associations for the wildlife species selected for evaluation.</p> <p>(3) Categorically rank habitat values for each wildlife species for each of the wildlife habitat types being mapped in the study area (see Study 11.5).</p>
2013 Variances	The study was deferred until the next study season rather than 2013 (RSP Section 10.19.10). This study cannot be completed until data from the Vegetation and Wildlife Habitat Mapping Study in the Upper and Middle Susitna Basin (Study 11.5) and other wildlife survey efforts (Studies 10.5 through 10.18) are completed, as described in RSP Section 10.19.4. The study team will meet the study objectives completing the entire study in one study season.
Steps to Complete the Study	As explained in the cover letter to this draft ISR, AEA's plan for completing this study will be included in the final ISR filed with FERC on June 3, 2014.
Highlighted Results and Achievements	No results specific to this study have been obtained as of this ISR.

## 1. INTRODUCTION

On December 14, 2012, Alaska Energy Authority (AEA) filed with the Federal Energy Regulatory Commission (FERC or Commission) its Revised Study Plan (RSP) for the Susitna Watana Hydroelectric Project No. 14241 (Project), which included 58 individual study plans (AEA 2012). Section 10.19 of the RSP described the Evaluation of Wildlife Habitat Use Study. This office-based study focuses on analyzing both existing information on wildlife habitat use in Alaska (e.g., from the scientific literature) and new, Project-specific information on wildlife habitat use derived from survey data to be collected for the Project (see Sections 10.5 to 10.18). This habitat-use information will be used to systematically evaluate the use of the specific wildlife habitat types being mapped for the Project (see Section 11.5). In this study, categorical habitat values will be determined for each mapped habitat type and each wildlife species of concern to be assessed for impacts during the FERC licensing process. RSP 10.19 provided goals, objectives, and proposed methods for data collection regarding wildlife habitat use.

On February 1, 2013, FERC staff issued its study plan determination (February 1 SPD) for 44 of the 58 studies, approving 31 studies as filed and 13 with modifications. RSP Section 10.19 was one of the 31 studies approved with no modifications.

Following the first study season, FERC's regulations for the Integrated Licensing Process (ILP) require AEA to "prepare and file with the Commission an initial study report describing its overall progress in implementing the study plan and schedule and the data collected, including an explanation of any variance from the study plan and schedule." (18 CFR 5.15(c)(1)) This Initial Study Report (ISR) on Evaluation of Wildlife Habitat Use Study has been prepared in accordance with FERC's ILP regulations and details AEA's status in implementing the study, as set forth in the FERC-approved RSP (referred to herein as the "Study Plan").

## 2. STUDY OBJECTIVES

The goal of the study is to provide Project-specific habitat evaluation information for birds, mammals, and amphibians to facilitate quantitative assessments of the impacts on wildlife habitats from development of the proposed Project.

The wildlife habitat evaluation has two fundamental objectives:

- Use Project-specific survey data and the scientific literature to determine local habitat associations for those wildlife species occurring in the Project area that are of conservation, management, cultural, or ecological concern and that are specific to the wildlife habitat types to be mapped in the Project area.
- Categorically rank habitat values for each wildlife species of concern for each of the wildlife habitat types that will be mapped in the Project area.

### **3. STUDY AREA**

The wildlife habitat evaluation study area will be identical to the area mapped for wildlife habitats in the Upper and Middle Susitna Basin [Wetland Mapping Study (Study 11.5)], plus the area downstream of the proposed Project dam site to be mapped for riparian wildlife habitats [Riparian Vegetation Study Downstream of the Proposed Susitna-Watana Dam (Study 11.6)]. These two areas overlap between the Project dam site and Gold Creek (Figure 3-1), but wildlife habitats in that section of the Susitna River floodplain will be mapped only in the Riparian Vegetation Study Downstream of the Proposed Susitna-Watana Dam (Study 11.6). The wildlife habitat evaluation study area (Figure 3-1) includes a 4-mile buffer surrounding those areas in the Upper and Middle Susitna Basin that could be directly affected by Project construction and operations (the proposed Watana Reservoir, the Project dam site and associated infrastructure areas, and the three alternative Susitna-Watana Transmission Line/Road corridors) (see Study 11.5). The portion of the study area along the Susitna River downstream of the Project dam site includes the width of the active floodplain, as represented by the extent of riverine physiography (see Study 11.6). The downstream extent of the area to be mapped for riparian wildlife habitats extends to PRM 29.5 (see Study 11.6).

### **4. METHODS AND VARIANCES IN 2013**

This study was not implemented in 2013. The study will be fully completed in the next study season. Deferring the entire study to the next study season will meet the Study Plan objectives by initiating work only after completion of the two mapping studies upon which this study depends: the Vegetation and Wildlife Habitat Mapping Study in the Upper and Middle Susitna Basin (Study 11.5) and the Riparian Vegetation Study Downstream of the Proposed Susitna-Watana Dam (Study 11.6), as contemplated by the Study Plan (RSP Section 10.19.4.2).

### **5. RESULTS**

There are no results to report for this study.

### **6. DISCUSSION**

As explained in the Study Plan (RSP Section 10.19.7), the habitat evaluation work to be conducted for this study is dependent upon information to be obtained from other ILP licensing studies, including the Vegetation and Wildlife Habitat Mapping Study in the Upper and Middle Susitna Basin (Study 11.5), the Riparian Vegetation Study Downstream of the Proposed Susitna-Watana Dam (Study 11.6), and habitat-use information for mammals, birds, and amphibians to be derived from each of the Project wildlife studies (Studies 10.5 through 10.18). Because these other studies are ongoing and not yet complete, this Study 10.19 has been deferred until the next study season.

## **7. COMPLETING THE STUDY**

[As explained in the cover letter to this draft ISR, AEA's plan for completing this study will be included in the final ISR filed with FERC on June 3, 2014.]

## **8. LITERATURE CITED**

AEA (Alaska Energy Authority). 2012. Revised Study Plan: Susitna-Watana Hydroelectric Project FERC Project No. 14241. December 2012. Prepared for the Federal Energy Regulatory Commission by the Alaska Energy Authority, Anchorage, Alaska. <http://www.susitna-watanahydro.org/study-plan>.



### 9. FIGURES

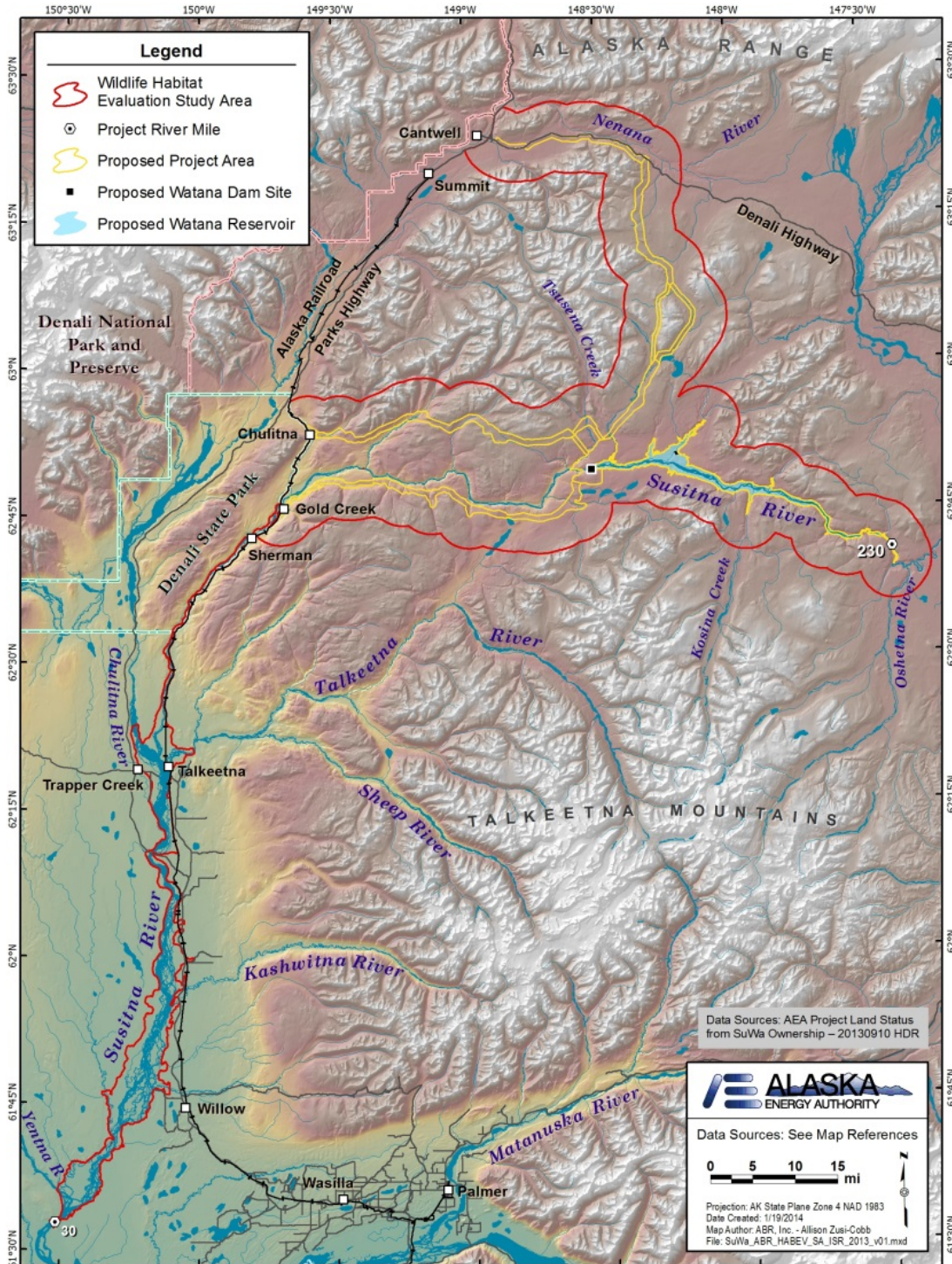


Figure 3-1. Study Area for Evaluation of Wildlife Habitat Use. The Study Area is a Combination of the Wildlife Habitat Mapping Areas from the Vegetation and Habitat Mapping Study (Study 11.5) and the Riparian Vegetation Study (Study 11.6).