

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

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

**Initial Study Report  
Part C: Executive Summary and Section 7**

Prepared for

Alaska Energy Authority



**SUSITNA-WATANA HYDRO**

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

Prepared by

ABR, Inc.—Environmental Research & Services

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## 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 has been rescheduled for implementation during 2015.
Study Components	<p>The study components for this office-based study consist of the following:</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 ISR 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 ISR Studies 11.5 and 11.6).</p>
2013 Variances	The study was deferred until 2015 rather than being initiated in 2013 (RSP Section 10.19.6). This study cannot be completed until data from the Vegetation and Wildlife Habitat Mapping Study in the Upper and Middle Susitna Basin (ISR Study 11.5), the Riparian Vegetation Study Downstream of the Proposed Susitna-Watana Dam (ISR Study 11.6), and various wildlife survey efforts (ISR Studies 10.5 through 10.18) are completed, as described in RSP Section 10.19.4. The study team will meet the study objectives for completing the entire study in one study season.
Steps to Complete the Study	<p>The plans for completing this study include implementing the study components listed above in 2015 following completion of the wildlife habitat mapping for the Project and the collection of data for the Project wildlife studies. Three modifications to the Study Plan have been made:</p> <p>(1) The study area has changed from that described in the RSP (Section 10.19.3). As explained in the ISR Overview, AEA has added the Denali East Option road and transmission line corridor to the study area. For this study, the corridor addition to the study area includes a 2-mi buffer surrounding the center lines of the road and transmission line alignments of the new Denali East Option. The study area buffer size was described as 4 mi in the Study Plan, but has been reduced to 2 mi (see the second modification below).</p> <p>(2) The study area buffer of 4-mi surrounding the proposed Watana Reservoir,</p>

	<p>the Project dam site and associated infrastructure areas, and the alternative Susitna-Watana Transmission Line/Road corridors (RSP Section 10.19.3) has been modified to a 2-mi buffer. This change follows the reduction of the study area buffer used in the Vegetation and Wildlife Habitat Mapping Study in the Upper and Middle Susitna Basin (ISR Study 11.5) so that the two studies now will use the same study areas. This modification will result in sufficient information to rank habitat values for wildlife species in the study area and will facilitate the achievement of the study objectives.</p> <p>(3) Each of the bird species recorded in the study area will be ranked for habitat values for each of the mapped wildlife habitat types; this is in contrast to the selection of a subset of bird species of concern for analysis as described in the RSP (Section 10.19.4.1). This modification to evaluate all bird species recorded in the study area will increase the amount of information available to assess baseline conditions and assess impacts to bird species from the proposed Project, and in doing so, will enhance the achievement of the study objectives.</p>
<p>Highlighted Results and Achievements</p>	<p>No results specific to this study have been obtained as of this ISR.</p>

## 7. COMPLETING THE STUDY

### 7.1. Proposed Methodologies and Modifications

To complete this study, the study team will implement the methods in the Study Plan except as described in Section 7.1.2 below. These activities include the following:

- Select a set of wildlife species of concern to evaluate for habitat use (RSP Section 10.19.4.1).
- Conduct a review of the scientific literature to assemble applicable habitat-use information for the bird, mammal, and amphibian species occurring in Interior and Southcentral Alaska that will be evaluated in this study (RSP Section 10.19.4.1).
- Categorically rank wildlife habitat values for each wildlife species and mapped wildlife habitat (see ISR Studies 11.5 and 11.6) based on Project-specific wildlife survey data (ISR Studies 10.5 through 10.18), the scientific literature, and field experience with the wildlife species in question elsewhere in Alaska (RSP Section 10.19.4.1).

#### 7.1.1. Decision Points from Study Plan

There were no decision points in the FERC-approved Study Plan to be evaluated for this study in 2013. As noted, this study was not implemented in 2013.

#### 7.1.2. Modifications to Study Plan

Three modifications to the Study Plan have been made and will be implemented in 2015 when this study is conducted.

(1) The study area has changed from that described in the RSP (Section 10.19.3). As described in the ISR Overview and depicted in Figure 1, AEA has added the Denali East Option road and transmission line corridor to the study area. For this study, the corridor addition to the study area includes a 2-mi buffer surrounding the center lines of the road and transmission line alignments of the new Denali East Option (Figure 7.1-1), which matches the 2-mi buffers used on the other potential road and transmission line corridors included in the study area. The study area buffer size was described as 4 mi in the Study Plan, but has been reduced to 2 mi (see the second modification below).

(2) For those portions of the study area in the Upper and Middle Susitna Basin, the RSP (Section 10.19.3) indicates that the study area consists of a 4-mi buffer surrounding those areas 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). The study area buffer in the Upper and Middle Susitna Basin had been modified to 2-mi (Figure 7.1-1) following the reduction in the study area buffer for the mapping of wildlife habitats in the Vegetation and Wildlife Habitat Mapping Study in the Upper and Middle Susitna Basin (ISR Study 11.5). With this modification, the study area will match the 2-mi buffer study area used in ISR Study 11.5. The 2-mi buffer study areas used in both studies

will result in sufficient information to rank habitat values for wildlife species and to assess impacts to those species in the License Application (see ISR Study 11.5, Section 7.1.2).

(3) The RSP (Section 10.19.4.1) indicates that only bird species of conservation, management, cultural, or ecological concern would be selected for analysis of habitat use for this study. This approach will be modified so that all bird species recorded in the study area will be evaluated for use of each of the wildlife habitats mapped in ISR Studies 11.5 and 11.6. Including habitat evaluations for all bird species will provide licensing participants with more information to use in assessing baseline conditions and impacts of the proposed Project because habitat value rankings will be available for all recorded bird species and all mapped wildlife habitats in the Project area in the Upper and Middle Susitna Basin and in riparian areas along the Susitna River downstream of the Project dam site. This modification will enhance the achievement of the study objectives by providing a larger data set for analysis of baseline conditions and Project impacts.

## **7.2. Schedule**

In general, the schedule for completing the FERC-approved Study Plan is dependent upon several factors, including Project funding levels authorized by the Alaska State Legislature, availability of required data inputs from one individual study to another, unexpected weather delays, the short duration of the summer field season in Alaska, and other events outside the reasonable control of AEA. For these reasons, the Study Plan implementation schedule is subject to change, although at this time AEA expects to complete the FERC-approved Study Plan through the filing of the Updated Study Report (USR) by February 1, 2016, in accordance with the ILP schedule issued by FERC on January 28, 2014.

With regard to this specific study, AEA is not proposing any efforts in 2014. The study team expects that Project-specific wildlife habitat mapping data (ISR Studies 11.5 and 11.6) and wildlife survey data (ISR Studies 10.5 through 10.18) will be available for use in the ranking of wildlife habitat values following data collection in 2015. This study will be implemented in 2015 and the results will be reported in the USR.

## **7.3. Conclusion**

This study can be successfully completed and the FERC-approved Study Plan objectives will be met in 2015 by using Project-specific data from other wildlife and botanical studies as described above in Sections 7.1 and 7.2. The implementation of the Study Plan modification to evaluate habitat use by all bird species recorded in the Project area and downstream of the Project dam site (Section 7.1.2 above) will result in more information on bird habitat use for evaluation by the study team.

## **7.4. Figures**

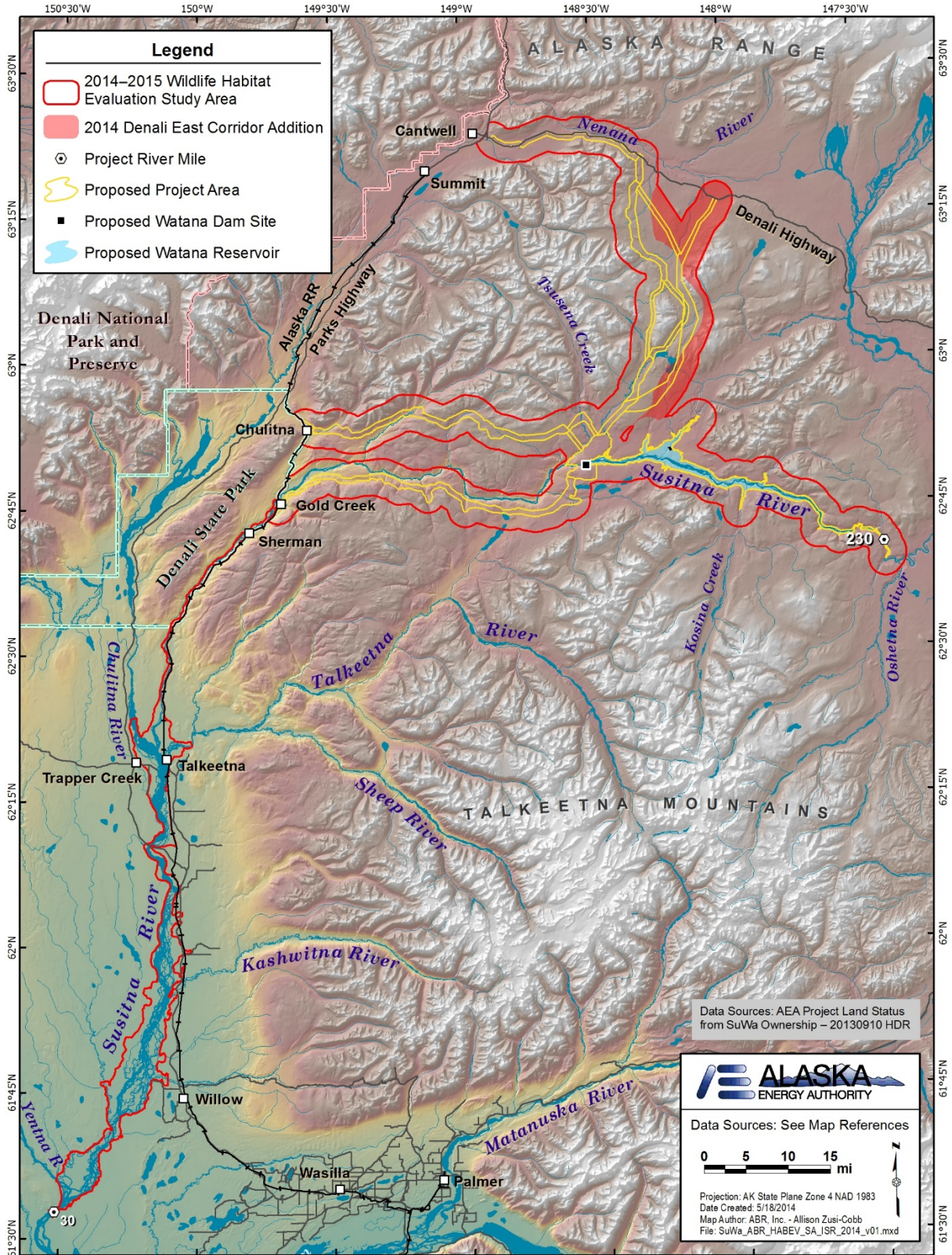


Figure 7.1-1. Revised study area for Evaluation of Wildlife Habitat Use (Study 10.19), showing Denali East Corridor Option added in 2014.