

Initial Study Report Meeting

Study 10.13 Bat Distribution and Habitat Use

October 21, 2014

Prepared by

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& Services



Study 10.13 Objectives

- Assess the occurrence of bats and the distribution of habitats used by bats within the proposed reservoir inundation zone and associated infrastructure areas for the Project
- Review geological and topographical data to assess the potential for roosting, maternity, and hibernacula sites in the study area
- Examine suitable geological features (caves, crevices) and human-made structures (buildings, mines, bridges) for potential use by bats as roosting sites, maternity colonies, and hibernacula

Study 10.13 Components

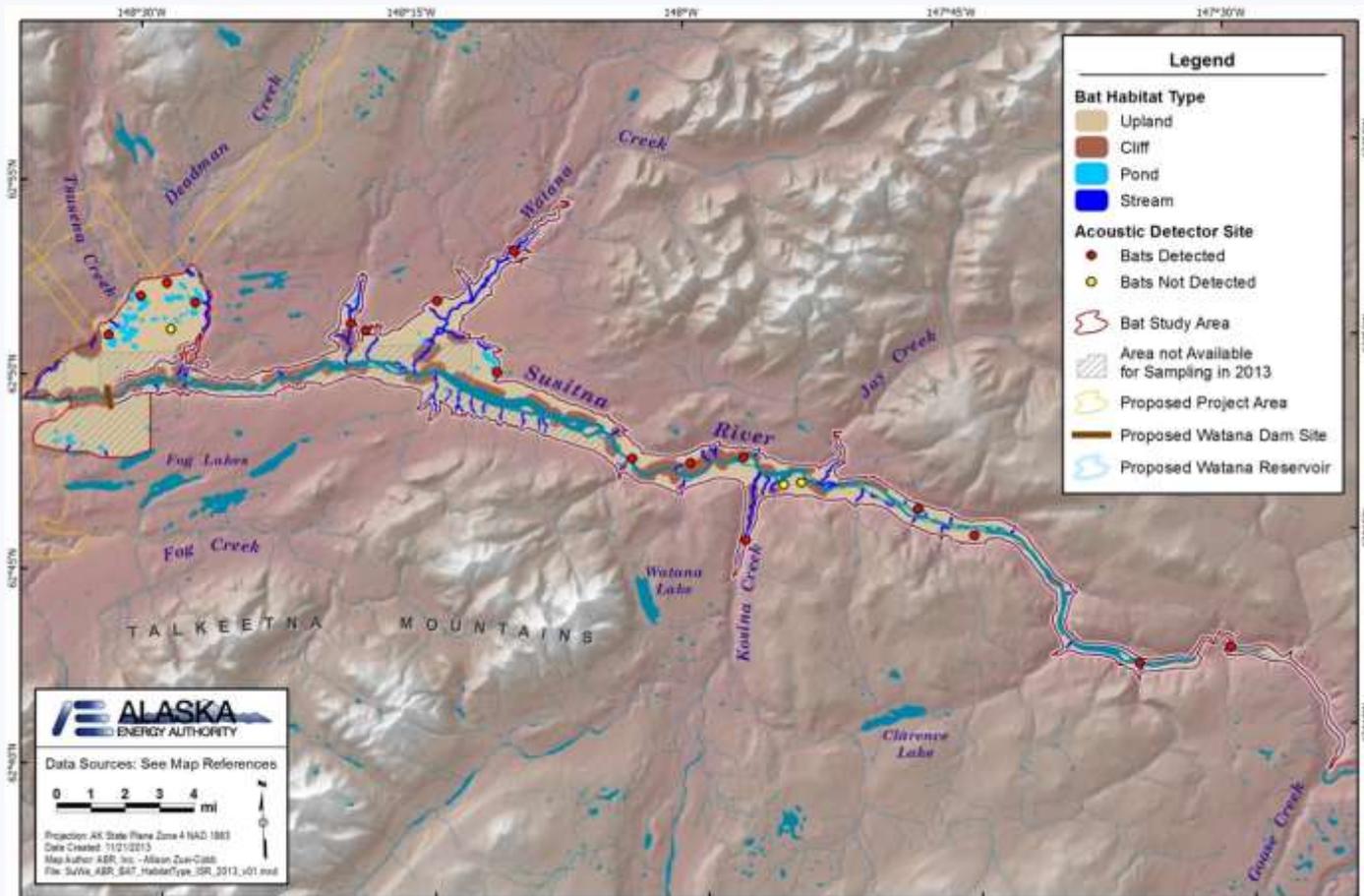
- Acoustic Surveys
(ISR Part A, Section 4.1; pg 2)
- Roost Surveys
(ISR Part A, Section 4.2; pg 3)
- Data Management/Analysis
(ISR Part A, Section 4.3; pg 5)



Study 10.13 Variances

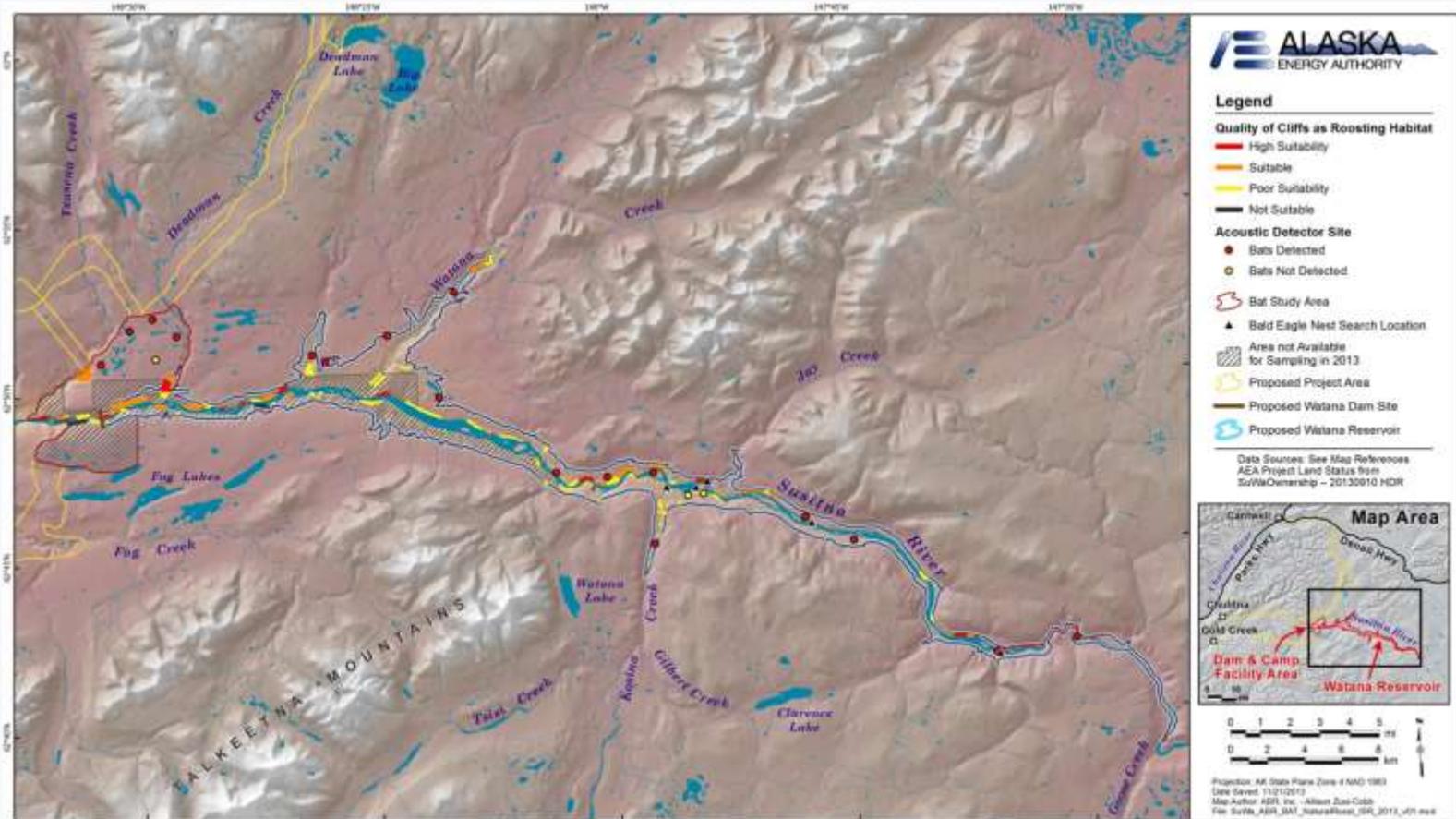
- Acoustic monitoring and ground-based roost searches could not be conducted as planned on Cook Inlet Regional Working Group (CIRWG) lands in 2013 due to lack of access agreement (RSP Section 10.13.4.1).
- Search effort for artificial roosts (RSP Section 10.13.4.1) was expanded to include additional nearby structures outside of the study area.

Study 10.13 Summary of Results in ISR (ISR 10.13, Part A – Section 5)



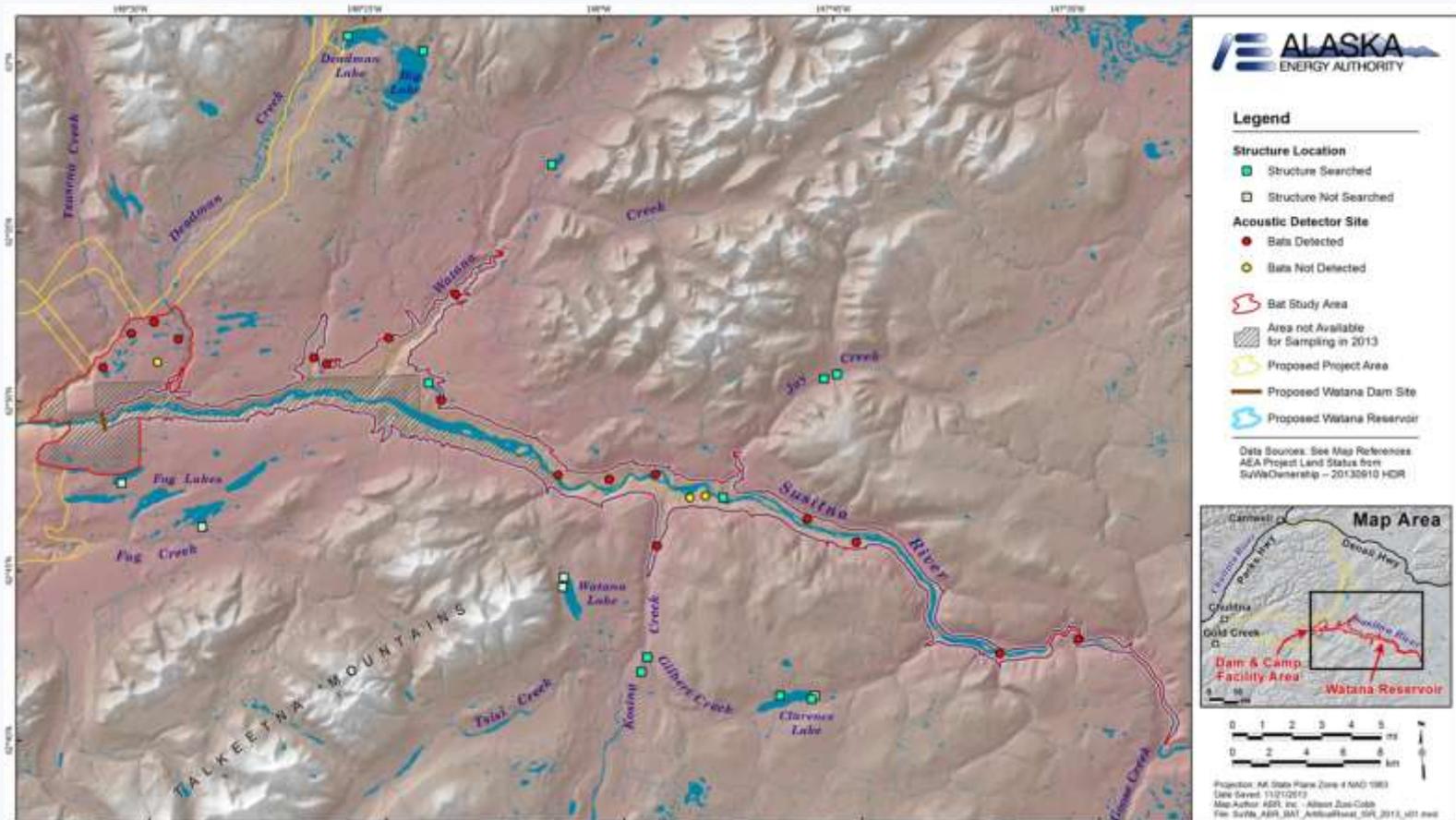
Widespread occurrence of bats was documented throughout the study area, based on calls recorded at 17 (85%) of 20 acoustic monitoring sites.

Study 10.13 Summary of Results in ISR (ISR 10.13, Part A – Section 5)



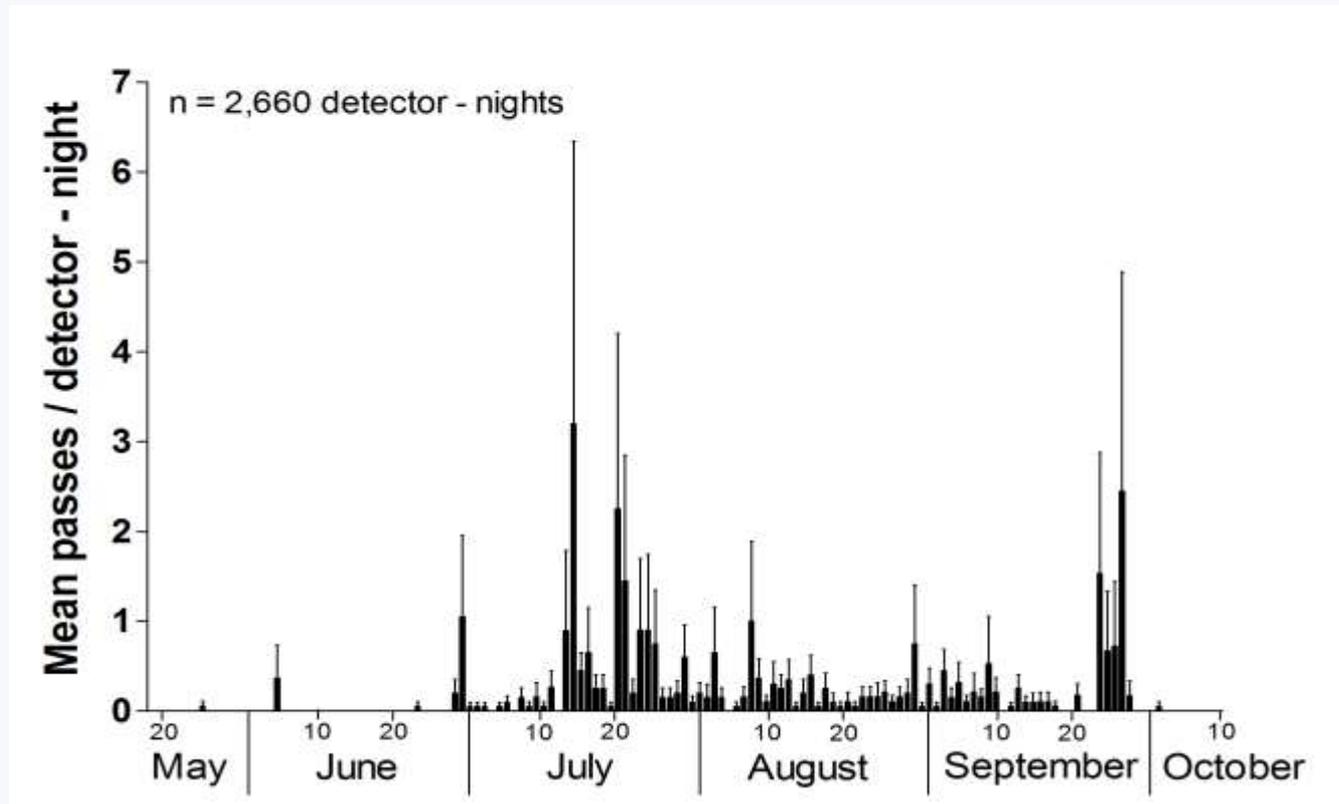
Study team assessed extensive cliff systems along Susitna River and tributaries as potential natural roosts, and also examined Bald Eagle nest trees.

Study 10.13 Summary of Results in ISR (ISR 10.13, Part A – Section 5)



Study team searched 11 potential artificial roost sites in and near study area, including 26 separate structures, but did not locate any bats or evidence of roosting.

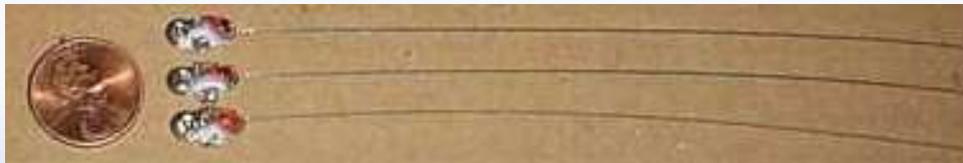
Study 10.13 Summary of Results in ISR (ISR 10.13, Part A – Section 5)



Seasonal activity peaked in July (when maternity colonies are active) and in late September (prehibernation/migration period) in 2013.

AEA Proposed Modifications to Study 10.13 in ISR (ISR 10.13, Part C – Section 7.1.2)

- The study team will conduct acoustic monitoring in 2014 by using 6 detectors deployed at sites with the highest rates of detection in 2013 and by deploying 4 detectors on CIRWG lands, which were not sampled in 2013.
- The study team will attempt to deploy 6 radio transmitters each during 2 separate capture/tagging/tracking stints (totaling 12 transmitters) in July and September 2014, to locate roosting sites of bats in the study area.



Study 10.13 Summary of Results since ISR

Decision Point (ISR 10.13, Part C, Section 7.1.1):

- Continuation of surveys in 2014 was predicated on locating roost sites in 2013. No roosts were found that year, but peaks of seasonal activity were found during the maternity colony and prehibernation/migration periods, so surveys were continued.

2014 work:

- Continuation of acoustic monitoring at 6 sites on ADNR and BLM lands that were monitored in 2013, and at 4 new sites on CIRWG lands
- First bat capture/tagging/radio-tracking effort, conducted July 14–28:
 - Poor weather (wet, cool) reduced capture success.
 - Captured and tagged 1 little brown bat (*Myotis lucifugus*).
 - Tracked bat to 3 sections of cliff over a 10-day period.
- Second bat capture/tagging/radio-tracking effort, conducted Sep 18–Oct 1:
 - Cold, clear nights with average lows around 20° F.
 - Bats were active at temperatures down to 30° F.
 - Capture attempts were unsuccessful.

Current Status – Study 10.13

Acoustic Monitoring:

- Collected acoustic data in 2013 and 2014 to assess the occurrence of bats and the distribution of habitats used by bats in the study area.

Roost Sites:

- In 2013, study team conducted initial assessments of potential roosting structures, including ground-based searches of natural sites (cliffs, trees) and artificial structures (cabins).
- In 2014, study team used radio telemetry to locate and collect additional information on bat roosts in the study area.



Steps to Complete Study 10.13 (ISR 10.13, Part C – Section 7.1)

AEA completed all field data collection for this study in 2014.

Work remaining:

- Complete analysis of 2014 acoustic data, with no modifications from ISR.
- Complete the data analysis of roosting information from 2014 telemetry effort, with no modifications from ISR.
- Synthesize all information for inclusion in USR.

Licensing Participants' Proposed Modifications to Study 10.13?

- Agencies
- CIRWG members and Ahtna
- Public

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