

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

**Air Quality Study
Study Plan Section 15.9**

**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

HMMH

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EXECUTIVE SUMMARY

Air Quality Study 15.9	
Purpose	The purpose of this study is to assess the current conditions of the study area against applicable state and national air quality standards and evaluate the Project's air quality impact against these standards relative to both short-term (construction) and long-term (operational) impacts.
Status	The study is well advanced and all components have been initiated. Additional analysis will occur in the next study season to update baseline studies with more current measurement data from state and federal agencies, and incorporate results from other licensing studies and investigations as such information becomes available.
Study Components	This study consists of five components: <ol style="list-style-type: none"> 1) Document existing conditions 2) Estimate Project emissions 3) Summarize baseline fossil fuel generation emissions 4) Analyze and compare With-Project emissions to Without-Project emissions 5) Identify best management practices
2013 Variances	The quantitative analysis of future emissions associated with Project construction contemplated in the Study Plan (RSP Section 15.9.4.2) was deferred in 2013 due to ongoing work associated with other licensing studies and investigations that are necessary for this work. Study Plan objectives will be met by completing this assessment when data from studies used for this analysis becomes available.
Steps to Complete the Study	<p>AEA will continue to implement this study in 2014 and 2015, with no modifications to the FERC-approved Study Plan. In 2014, review of other studies will begin in order to incorporate additional Project-specific information necessary to refine the emissions comparison. In addition some further documentation of existing conditions will be undertaken.</p> <p>Additionally the study efforts in the 2014 and 2015 study years will incorporate more recent measurement results from state and federal agencies, along with additional information on Project-specific construction characteristics and results from modeling of future power generation scenarios.</p> <p>In 2015, AEA plans to complete all remaining data collection and analysis for this study.</p>
Highlighted Results and	Existing conditions of the Project area were evaluated using meteorology, climate and air quality monitoring data from nearby air monitoring and

Achievements	meteorological stations. Existing conditions for air quality were documented, including baseline fossil fuel power generation emissions for the Railbelt region. Project emissions were qualitatively evaluated for construction and operations.
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7. COMPLETING THE STUDY

7.1. Proposed Methodologies and Modifications

To complete this study, AEA will implement the methods in the Study Plan, with no modifications. These activities include:

- Refining and updating the comparison of With-Project emissions to Without-Project emissions (RSP Section 15.9.4.4).
- Supplementing, if needed, the identification of BMPs (RSP Section 15.9.4.5).

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 following the completion of 2013 work.

7.1.2. Modifications to the Study Plan

No modifications to the FERC-approved Study Plan are needed to complete the study and meet Study Plan objectives.

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 expects to complete data collection and analyses in both 2014 and 2015, which will be reported in the USR.

In 2014, review of other studies will begin in order to incorporate additional Project-specific information necessary to refine the emissions comparison. In addition some further documentation of existing conditions will be undertaken.

In 2015, AEA plans to complete all remaining data collection and analysis for this study.

7.3. Conclusion

Implementation of the Air Quality Study is planned for 2014 and 2015, with no modifications. This study is interrelated with the Transportation Study (Study 15.7) and ongoing engineering

feasibility studies. AEA expects the approved Study Plan objectives will be fully achieved and results reported in the USR.

The study team will review additional information developed by the engineering team and other study teams in the 2014 and 2015 study years. The air quality study efforts in the 2014 and 2015 study years may incorporate more recent measurement results from state and federal agencies, along with additional information on Project-specific construction characteristics.