Susitna-Watana Hydroelectric Project Document
ARLIS Uniform Cover Page

Title: Proposal to eliminate the Chulitna Corridor from further study	**SuWa 229**
Author(s) – Personal:	
Author(s) – Corporate: Alaska Energy Authority	
AEA-identified category, if specified: September 17, 2014 technical memorandum filings	
AEA-identified series, if specified:	
Series (ARLIS-assigned report number): Susitna-Watana Hydroelectric Project document number 229	**Existing numbers on document:**
Published by: [Anchorage, Alaska : Alaska Energy Authority, 2014]	**Date published:** September 2014
Published for:	**Date or date range of report:**
Volume and/or Part numbers: Attachment A	**Final or Draft status, as indicated:**
Document type:	**Pagination:** 2 p.
Related work(s): Cover letter to this report: Susitna-Watana Hydroelectric Project, FERC Project no. 14241-000; Initial filing of September 2014 technical memoranda. (SuWa 228) Attachments B-J (SuWa 230-238)	**Pages added/changed by ARLIS:** Added cover letter
Notes:	

All reports in the Susitna-Watana Hydroelectric Project Document series include an ARLIS-produced cover page and an ARLIS-assigned number for uniformity and citability. All reports are posted online at http://www.arlis.org/resources/susitna-watana/

ARLIS
Alaska Resources Library & Information Services

SUSITNA-WATANA HYDRO

ALASKA ENERGY AUTHORITY

September 17, 2014

Ms. Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

Re: Susitna-Watana Hydroelectric Project, Project No. 14241-000

Initial Filing of September 2014 Technical Memoranda

Dear Secretary Bose:

By letter dated January 28, 2014, the Federal Energy Regulatory Commission (Commission or FERC) extended the procedural schedule for the preparation and review of the Initial Study Report (ISR) for the proposed Susitna-Watana Hydroelectric Project, FERC Project No. 14241 (Project).[1] In particular, the Commission's January 28 letter established a deadline of June 3, 2014 for the Alaska Energy Authority (AEA) to file the ISR, and provided a 120-day period for licensing participants to review the ISR prior to the ISR meetings, which are scheduled to begin the week of October 13.[2] The purpose of this filing is to provide several technical memoranda to Commission Staff and licensing participants prior to the ISR meetings.

As required by the Commission's January 28 letter, AEA filed the ISR with the Commission on June 3. Among other things, the ISR detailed AEA's planned work during the 2014 field season.[3] As AEA was preparing this 2014 work plan, it recognized that data gathered during the 2014 field season, together with other study work conducted prior to the October 2014 ISR meetings, could assist Commission Staff, AEA, and other licensing participants in developing the Project's licensing study program for 2015. For this reason, the ISR provided for AEA to prepare certain technical memoranda and other information based on 2014 work.

AEA recognizes that Commission Staff and licensing participants need a reasonable amount of time prior to the ISR meetings to review this additional information. AEA and licensing participants consulted with Commission Staff on this

---

[1] Letter from Jeff Wright, Federal Energy Regulatory Commission, to Wayne Dyok, Alaska Energy Authority, Project No. 14241-000 (issued Jan. 28, 2014) [hereinafter, "January 28 letter"].

[2] The full schedule for the ISR meetings appears in Section 1.5 of the ISR, as well as on AEA's licensing website, http://www.susitna-watanahydro.org/meetings/.

[3] *E.g.*, Initial Study Report § 1.3 & Table 3, Project No. 14241-000 (filed June 3, 2014) [hereinafter, "ISR"].

matter, and Staff directed that any additional information should be filed with the Commission and made available to licensing participants no later than 15 days prior to the ISR meetings, consistent with the typically applicable deadline under the Commission's Integrated Licensing Process regulations.[4]

With this letter, AEA is filing and distributing the first set of technical memoranda and other information generated during the 2014 study season, as described below. As part of its continued implementation of the study plan, AEA expects to file certain additional technical memoranda prior to October 1, 2014, in accordance with Commission Staff direction.

This first set of technical memoranda and other information consists of the following:

- Attachment A: *Proposal to Eliminate the Chulitna Corridor from Further Study*. As explained in the ISR, throughout the licensing process AEA has continually evaluated its proposal for Project development based on environmental review, technical feasibility, practical considerations, and other factors. As part of this iterative process, AEA notified the Commission and licensing participants in the ISR that it was evaluating whether to continue study of the Chulitna Corridor.[5] Attachment A details AEA's conclusion that development of the Chulitna Corridor is not a reasonable alternative, and therefore AEA proposes to eliminate the corridor from further study. AEA seeks any comments or information on this proposal from federal and state resource agencies and other participants in the licensing process.

- Attachment B: *Ice Processes in the Susitna River Study (Study 7.6), Detailed Ice Observations October 2013 – May 2014 Technical Memorandum.* The ISR indicated that AEA would provide a summary of the 2014 break-up observations.[6] This technical memorandum describes all field activities and observations between October 16, 2013 and May 15, 2014 for the Ice Processes in the Susitna River Study (Study 7.6).

- Attachment C: *Study of Fish Distribution and Abundance in the Upper Susitna River (Study 9.5), Proposed 2015 Modifications to Fish Distribution and Abundance Study Plan Implementation Technical Memorandum.* Based on AEA's experience in implementing the study plan for the Study of Fish Distribution and Abundance in the Upper Susitna River (Study 9.5) during 2014, this technical memorandum proposes to continue certain modifications to the implementation of this study during 2015.

---

4 *See* 18 C.F.R. § 5.15(c)(2).

5 *See* ISR, ISR Overview § 1.4.

6 *See id.*, Ice Processes in the Susitna River Study, Study Plan 7.6, Part C § 7.2.

- Attachment D: *Study of Fish Distribution and Abundance in the Middle and Lower Susitna River Study (Study 9.6), 2013-2014 Winter Fish Study Technical Memorandum.* At the time the ISR was filed, AEA was still in the process of conducting data entry, quality control, and analysis of winter sampling for this study. AEA reported in the ISR that it would develop plans for completing this study in a technical memorandum to be filed with the Commission.[7] This technical memorandum fulfills this commitment and sets forth AEA's proposal for winter efforts, including proposed methodologies and modifications.

- Attachment E: *Characterization and Mapping of Aquatic Habitats (Study 9.9), 2013 and 2014 Aquatic Habitat Mapping Field Season Completion Progress Technical Memorandum.* In the ISR, AEA reported that its 2014 activities for the Characterization and Mapping of Aquatic Habitats Study (Study 9.9) would consist of various ground-truthing surveys and collection of habitat information for the 12 lakes within the potential reservoir inundation zone.[8] This technical memorandum reports on these activities.

- Attachment F: *Eulachon Run Timing, Distribution, and Spawning in the Susitna River (Study 9.16), 2015 Proposed Eulachon Spawning Habitat Study Modifications Technical Memorandum.* After reviewing the 2013 and 2014 results from the Cook Inlet Beluga Whale Study (Study 9.17) and discussing the results with the National Marine Fisheries Service, AEA has determined that additional data are needed regarding eulachon spawning habitats. This technical memorandum describes a proposed modification to the Study of Eulachon Run Timing, Distribution and Spawning in the Susitna River (Study 9.16) to include an assessment of eulachon spawning habitats.

- Attachment G: *Fish and Aquatics Instream Flow Study (Study 8.5), Evaluation of Relationships between Fish Abundance and Specific Microhabitat Variables Technical Memorandum*. Consistent with the Commission's study plan determination,[9] this technical memorandum provides a detailed evaluation of the comparison of fish abundance measures with specific microhabitat variable measurements where sampling overlaps. This memorandum is used to determine whether a relationship between a specific microhabitat variable and fish abundance is evident.

- Attachment H: *Fish and Aquatics Instream Flow Study (Study 8.5), 2013-2014 Instream Flow Winter Studies Technical Memorandum*. In the ISR, AEA reported that it would distribute its finding concerning the 2013-2014

---

[7] *See id.*, Study of Fish Distribution and Abundance in the Middle and Lower Susitna River Study, Study Plan 9.6, Part C § 7.1.2.5.

[8] *See id.*, Characterization and Mapping of Aquatic Habitats, Study Plan 9.9, Part C § 7.1.

[9] *See* Study Plan Determination on 14 Remaining Studies for the Susitna-Watana Hydroelectric Project, Appendix B at B-84 to B-86, Project No. 14241-000 (issued Apr. 1, 2013).

winter activities in 2014.[10] This technical memorandum describes the methods applied, and data and information collected, as part of the Instream Flow Study 2013-2014 winter studies.

- Attachment I: *Geomorphology Study (Study 6.5), Susitna River Historical Cross Section Comparison (1980s to Current) Technical Memorandum*. As specified in Revised Study Plan Section 6.5.4.1.2.3, this technical memorandum describes changes within the main and side channels of the Susitna River by comparing historical survey data from the 1980s with survey data from the current Project.

- Attachment J: *Geomorphology Study (Study 6.5), 2014 Update of Sediment-Transport Relationships and a Revised Sediment Balance for the Middle and Lower Susitna River Segments Technical Memorandum*. The purpose of this technical memorandum is to update the sediment load rating curves and preliminary estimates of the overall sediment balance in the Middle and Lower River segments under pre-Project conditions that were initially provided in "Development of Sediment-Transport Relationships and an Initial Sediment Balance for the Middle and Lower Susitna River Segments," (Tetra Tech, Inc. 2013a). This update is based on additional data collected by the U.S. Geological Survey in 2012 and 2013.

AEA appreciates the opportunity to provide this additional information to the Commission and licensing participants, which it believes will be helpful in determining the appropriate development of the 2015 study plan as set forth in the ISR. If you have questions concerning this submission please contact me at wdyok@aidea.org or (907) 771-3955.

Sincerely,

Wayne M Dyok

Wayne Dyok
Project Manager
Alaska Energy Authority

Attachments

cc: Distribution List (w/o Attachments)

[10] *See* ISR, Fish and Aquatics Instream Flow Study, Study Plan 8.5, Part C § 7.5.2.

Susitna-Watana Hydroelectric Project
(FERC No. 14241)

Proposal to Eliminate the Chulitna Corridor from Further Study

SUSITNA-WATANA HYDRO

Clean, reliable energy for the next 100 years.

Prepared by

Alaska Energy Authority

September 2014

PROPOSAL TO ELIMINATE THE CHULITNA CORRIDOR FROM FURTHER STUDY

The Alaska Energy Authority (AEA) is in the pre-application phase of a federal licensing process before the Federal Energy Regulatory Commission (FERC) for the licensing of the Susitna-Watana Hydro Project (Project). As part of this licensing process, AEA originally proposed and has been evaluating three access and transmission corridors: the Gold Creek Corridor, which would run south of the Susitna River and extend to the Gold Creek area; the Denali Corridor, which would run due north for a distance of about 44 miles to the Denali Highway, with a transmission line continuing east to connect near the community of Cantwell; and the Chulitna Corridor, which would run north of the Susitna River and extend to the Chulitna rail siding area.

Throughout this licensing process, AEA has continued to evaluate and refine its Project proposal and explore various options for its licensing and development. In its June 2014 Initial Study Report (ISR), AEA explained that this continuing effort has led AEA to pursue the study of an additional alternative north-south corridor alignment for transmission and access from the dam site to the Denali Highway and the existing transmission line (Denali East Option). AEA also explained that, in addition to the inclusion of the Denali East Option, it was investigating the possibility of eliminating the Chulitna Corridor from further study.

As part of its continued evaluation of the Project, and based in part upon information obtained through the licensing process, AEA is proposing to eliminate the Chulitna Corridor from further detailed study. This AEA proposal is based primarily on a desire by AEA to avoid the need to cross Indian River and Portage Creek subwatersheds. Adoption of the Chulitna Corridor would require crossing Indian River and Portage Creek and paralleling Portage Creek for about 8 miles. Both streams contain important anadromous salmon spawning and rearing habitat (as described in Initial Study Report 9.13 (Salmon Escapement; http://www.susitna-watanahydro.org/wp-content/uploads/2014/05/09.07_ESCAPE_ISR_PartA.pdf) and Initial Study Report 9.06 (Fish Distribution and Abundance in the Middle Lower Susitna River; http://www.susitna-watanahydro.org/wp-content/uploads/2014/05/09.06_FDAML_ISR_PartA_1_of_5.pdf)). In addition, the Chulitna corridor would require the road and transmission line routes to be located at higher elevations along more avalanche prone slopes than the other corridors and thus would not provide as reliable access and transmission operations as the other corridors.

Based upon AEA's proposal to eliminate the Chulitna Corridor from further consideration, AEA is proposing additional modifications to the FERC approved Study Plan as part of the ISR process under FERC's Integrated Licensing Process. Specifically, AEA is proposing to modify the study areas for Studies 4.5, 6.5, 9.13, 10.5, 10.8, 10.10, 10.11, 10.12, 10.14 – 10.17, 10.19, 11,5, 11.7 – 11.9, 12.5, 12.6, 13.5, 13.6, and 15.7 – 15.9 from that described in the Revised Study Plan. AEA is proposing to eliminate the Chulitna Corridor from the study area for those

studies. Furthermore, AEA proposes to not conduct any additional study activities within the Chulitna Corridor for those studies.

AEA is making this proposal at this time in order to provide licensing participants and the general public with the opportunity to comment on this proposal during the October ISR meetings or during the ISR comment period.

AEA will continue to evaluate the remaining alternate corridors, and will propose preferred access and transmission routes in the FERC license application. The ultimate proposal of preferred routes will be made based upon a thorough evaluation of all relevant environmental and engineering considerations, including, but not limited to: land ownership, potential environmental (including socioeconomic and cultural) impacts, cost, and technical and engineering feasibility. License participants and the public will have future opportunities to comment on the alternative corridor routes after AEA proposes a preferred access and transmission routes.