

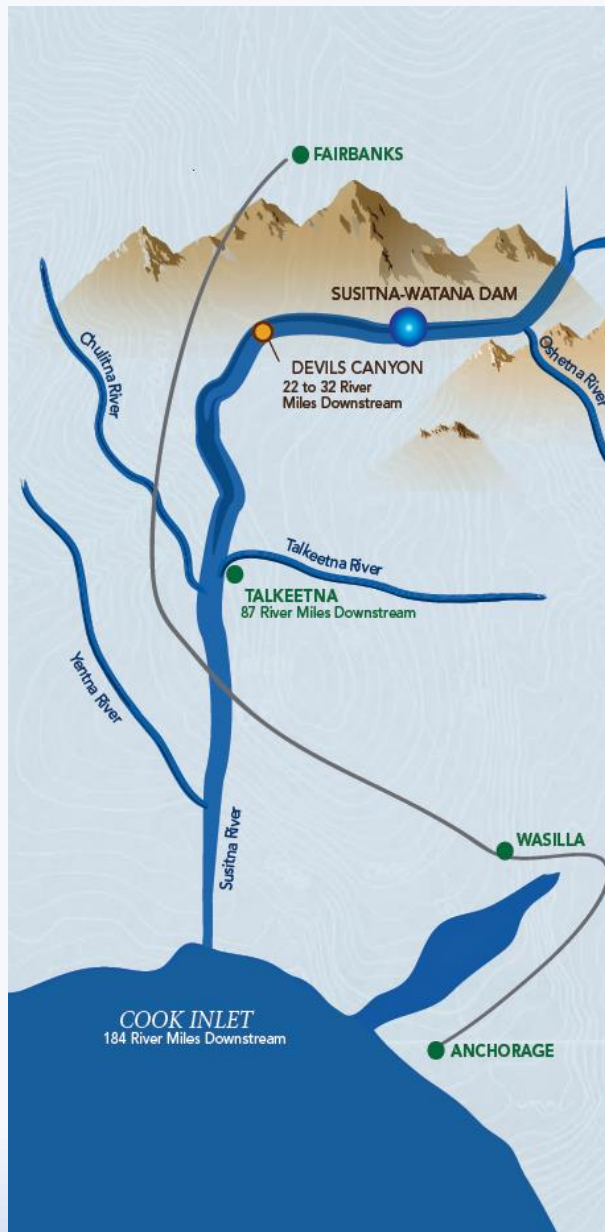
Initial Study Report Meeting

Study 9.13 Aquatic Resources Study within the Access Alignment, Transmission Alignment, and Construction Area

March 22, 2016

Prepared by

R2 Resource Consultants, Inc.



Study 9.13 Status

- ISR Documents (ISR Part D Overview)
 - Initial Study Report (June 3, 2014)
 - ISR Part D (Nov 6, 2015)
- Since the June 2014 ISR, AEA has not conducted any additional work on this study. Therefore, there are no results to report for this study.

Study 9.13 Objectives

- Characterize the aquatic habitats and fish assemblages at potential stream crossings within a 200-meter (650-foot) buffer zone along proposed access road and transmission line alignments
- Describe aquatic habitats and species present within the construction area for the dam and related hydropower facilities

Study 9.13 Components

- **Synthesis of Existing Information**
(ISR Part A, Section 4.1; pg 2)
- **Field Data Collection**
(ISR Part A, Section 4.2; pg 2)

Study 9.13 Variances

AEA has **delayed the implementation** of this study

- will not impair ability to meet study objectives
- delay will allow the study to benefit from additional data gathered from other studies

Summary of Results

(ISR Part A – Section 5)

Review of 1980s studies, the Anadromous Waters Catalog, and the Alaska Freshwater Fish Inventory database:

1. Denali Corridor (West Option)

- 38 possible stream crossings in Susitna and Nenana watersheds.
- Resident fishes present (Dolly Varden, Arctic Grayling, Slimy Sculpin).
- No anadromous species documented.

2. Chulitna Corridor (Note - AEA Proposal to Eliminate Chulitna Corridor from Further Study (September 17, 2014))

- 23 possible stream crossings in Susitna watershed.
- Resident fishes
- Anadromous salmon documented in 3 larger streams, e.g. Indian River, Portage and Thoroughfare creeks.

3. Gold Creek Corridor

- 17 possible stream crossings in the Susitna watershed.
- Resident fishes documented downstream of crossings include Dolly Varden, Arctic Grayling, Rainbow Trout, and Slimy Sculpin.
- Anadromous salmon documented in Fog, Chinook, Cheechako, Unnamed Tributary, and Gold creeks.

Modifications

(ISR Part D – Section 7)

- **Addition of Denali East Option as alternate road and transmission line corridor to study area**

(ISR Part C, Section 7.1.2; ISR Part D, Section 7.1)

- provide alternative to crossing higher elevation BLM lands just south of the Denali Highway
- **includes a 200 meter buffer study area** along the alignments, matches 200 m buffers used on the other potential road and transmission line corridors.

- **Conduct 2 sampling events within single open water period**

(ISR Part C, Section 7.1.2; ISR Part D, Section 7.1)

- The FERC-approved Study Plan anticipated 2 years of field work; 2nd year designed primarily to accommodate resampling sites with data gaps or potential refinements in the corridor alignment.
- 2 events in one season will maintain the ability to fill in data gaps and to address realignment needs related to aquatic resources.

Modifications

(ISR Part D – Section 7)

- **Elimination of Chulitna Corridor from further study**
*(Proposal to Eliminate Chulitna Corridor from Further Study (September 17, 2014);
ISR Part D, Section 7.2)*
 - avoid the need to cross Indian River and Portage Creek subwatersheds.
 - avoid locating road and transmission line routes at higher elevations along more avalanche prone slopes than the other corridors, providing more reliable access and transmission operations.

Steps to Complete Study

(ISR Part C – Section 7.1)

1. Continue synthesis of existing information on aquatic habitats and fish assemblages(RSP Section 9.13.4.2.1 and 9.13.4.2.2):
 - incorporation of existing data into a geospatial database, identification of data gaps, prioritization of initial sampling and refinement of field sampling, and obtaining input from agencies.
2. Habitat and two fish sampling events
 - a) Event 1 will occur early in the field season (June to July) and surveys will be attempted at each potential crossing site.
 - b) Event 2 will occur if during Event 1: 1) unsurveyable conditions were found (dry, or excessive flow), 2) data gaps occurred, or 3) no fish were detected at a crossing site. Event 2 will be conducted late in the open-water period (September to October).
3. Data analysis and reporting in USR, including incorporating data into the Project's geospatial database (RSP Section 9.13.4.2.3)

Licensing Participants Proposed Modifications to Study 9.13?

- Agencies
- CIRWG members and Ahtna
- Public