

Initial Study Report Meeting

Study 15.8 Health Impact Assessment

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Prepared by

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Study 15.8 Objectives

- Identify **potentially affected communities** (PACs) and establish a community engagement plan (where relevant)
- Through a review of the FERC scoping meetings and ongoing community engagement, identify public issues and concerns about how **community health might be affected** during construction and operation of the Project
- Collect baseline health data at the state level, borough, or census area level, tribal level, and at the potentially affected community level, as possible
- Identify data gaps and determine the most efficient method to fill those gaps, through community consultation and **coordination with other studies**, such as the Subsistence Resources Study (Study 14.5), Regional Economic Evaluation Study (Study 15.5), Social Conditions and Public Goods and Services Study (Study 15.6), and Recreation Resources Study (Study 12.5)
- Evaluate the baseline data against the Project description to initially determine the **nature and extent of potential impact pathways**, both positive and negative
- Prepare an HIA baseline data report document which is transparent, scientifically rigorous, and understandable to the public

Study 15.8 Components

- Project Overview and Issues Summary (ISR Part A, Section 4.1; pg 3)
- Phase 2: Baseline Data Collection (ISR Part A, Section 4.2; pg 3)

Study 15.8 Variances

- There were no variances to the study plan in 2013

Study 15.8 Summary of Results in ISR (ISR Study 15.8, Part A – Section 5)

- *Documented baseline data collected through literature review, community observations and health discussions*
- *Data reviewed from other study areas (as available) from a health perspective*
- *PACs identified by potential risk*
- *Potential health issues documented*

Study 15.8 Summary of Results in ISR (ISR Study 15.8, Part A – Section 5)

- *Identified Potentially Affected Communities (PACs) according to Health Effects Categories*
 - *Proximity*
 - *Exposure to hazards*
 - *Construction camp communities*
 - *Transportation corridors*
 - *Railway corridor*
 - *Subsistence use populations*
 - *Downstream communities & populations*
 - *Port facility areas*

Study 15.8 Summary of Results in ISR (ISR Study 15.8, Part A – Section 5) - KPIs

HEC1: Social Determinants of Health

- *Key areas covered include life expectancy, MCH, suicide rates, substance use, and economic indicators*
- *Data gaps to be filled by Social Conditions and Public Goods and Services Study and Project workforce data*

HEC2: Accidents and Injury

- *Accidents and injuries are an important cause of mortality and morbidity in the Project area*
- *Key areas covered include fatal, non fatal, alcohol related, suicide, homicide related injury and death*
- *Data gaps to be filled by Transportation Resources Study*

Study 15.8 Summary of Results in ISR (ISR Study 15.8, Part A – Section 5) - KPIs

HEC3: Exposure to Potentially Hazardous Materials

- *Key areas covered include sources of existing contamination (air, water)*
- *Existing Air quality (i.e. PM) is a concern in some of the PACs*
- *Interdependent studies to be used as input:*
 - *Water Quality Study, Mercury Bioaccumulation Study, Air Quality and Transportation Study*

HEC4: Food, Nutrition, & Subsistence

- *Key areas covered include micronutrient deficiencies, subsistence, food security, food costs*
- *Mat-Su and the Kenai Peninsula Boroughs have the lowest percentage of residents with limited access to healthy food while Denali Borough has the highest*
- *Subsistence Resources and Social Conditions and Public Services Studies will be used as input to evaluate potential impacts*

Study 15.8 Summary of Results in ISR (ISR Study 15.8, Part A – Section 5) - KPIs

HEC5: Infectious Disease

- *In 2011, Alaska had the highest incidence of TB in the nation. Most new TB cases in Alaska are locally-acquired and occur primarily in the Alaska Native population*
- *STIs (2007-2008) comprised nearly 90% of all Alaska Native reportable infectious disease cases*
- *Pending data requests will address baseline data gaps*

HEC6: Water and Sanitation

- *Many small, rural, primarily Alaska Native communities lack piped water and wastewater disposal services; service rates remain below national standards*
- *Lack of adequate water service is linked to high rates of lower respiratory and invasive skin infections*
- *Groundwater Monitoring Study will be used to assess potential impacts to shallow groundwater users (i.e. private well users)*

Study 15.8 Summary of Results in ISR (ISR Study 15.8, Part A – Section 5) - KPIs

HEC7: Chronic Non-communicable Diseases

- *Cancer was the leading cause of death in the Study Area (2007 & 2009) and throughout the previous decade*
- *Major cardiovascular diseases mortality rates are higher in the Mat-Su, Kenai Peninsula Borough and Valdez-Cordova Census Area than the state as a whole*
- *Social Goods and Public Services Study and further Project description materials will provide input*

HEC8: Health Infrastructure and Capacity

- *Health services in the project area are provided by public, private and native health organizations*
- ***Volunteer personnel*** *are the only source of emergency response services in some of the project areas*

Study 15.8 Summary of Results since ISR

- *Collected food consumption/nutrition data with ADF&G:*
 - *Jan 20-26, 2014 - Talkeetna, Chase, Trapper Creek*
 - *Feb 10-17, 2014 - Cantwell*
 - *Feb 19-Mar 2, 2014 – Gakona*
 - *Jan 12-17, 2014 - Glenallen*
 - *Feb 3-7, 2014 – Copper River Area*
- *While conducting ADF&G surveys, performed community health observations in Kenny Lake, Talkeetna, Chase, Trapper Creek, Cantwell, and Gakona*
- *Conducted follow up health discussions in Cantwell, Gakona, Glenallen, Copper River Area – to be combined and documented in USR due to small sample size per location*
- *Potential health issues by HEC identified*
- *Data reviewed from other study areas (as available) from a health perspective*
- *Identified initial potential data gaps*

AEA Proposed Modifications to Study 15.8 in ISR (ISR Study 15.8, Part C – Section 7.1.2)

- The specific health impacts for the Project will be identified when specific components of the Project have been defined to be included in AEA's proposal for the Project in its License Application to FERC. This information will be available as the study program is informing AEA on its licensing proposal.
- The HIA Phase 3 work (Identification of Potential Impact Mechanisms and Effects) will therefore identify general impacts and mechanisms that may provide input into the overall Project design, construction, transportation route selection, worker housing plans, etc. Potential health impacts will then be further assessed in the license application phase once the complete Project proposal is available.
- The HIA analysis in 2013 - 2015 will not serve as a final HIA for the Project; however, the analysis can be updated and included in the FERC License Application once the AEA Project proposal is finalized. The USR, therefore will not describe specific impacts or include a ranking and rating but will include a "high level" overview of potential impact mechanisms and effects. This modification will achieve the study objective outlined in Section 2: "Evaluate the baseline data against the Project description to initially determine the nature and extent of potential impact pathways, both positive and negative."

Steps to Complete Study 15.8 (ISR Study 15.8, Part C – Section 7.1)

To complete this study, AEA will engage in the following activities:

- Perform key informant health interviews during ADF&G household harvest subsistence surveys
- Review all interdependent ISRs with results relevant for HIA input and continue to communicate with study leads regarding these results
- Continue follow up as appropriate with key informant interviews in Health related PACs after TLK workshop process to identify cultural health beliefs and concerns
- Continue to fill baseline data gaps identified during the ISR process, and develop methodology to fill data gaps, as appropriate, where no data currently exists
- Identify potential impact mechanisms and potential health effects to provide input into Project design, construction, transportation routes, housing, etc.

Licensing Participants Proposed Modifications to Study 15.8?

- Agencies
- CIRWG members and Ahtna
- Public