

# Susitna-Watana Hydroelectric Project Document ARLIS Uniform Cover Page

<b>Title:</b> Transportation resources analysis	<b>SuWa 162</b>
<b>Author(s) – Personal:</b>	
<b>Author(s) – Corporate:</b> Alaska Energy Authority	
<b>AEA-identified category, if specified:</b> Social resources study requests	
<b>AEA-identified series, if specified:</b>	
<b>Series (ARLIS-assigned report number):</b> Susitna-Watana Hydroelectric Project document number 162	<b>Existing numbers on document:</b>
<b>Published by:</b> [Anchorage] : Susitna-Watana Hydroelectric Project, [2012]	<b>Date published:</b> 5/16/12
<b>Published for:</b>	<b>Date or date range of report:</b>
<b>Volume and/or Part numbers:</b>	<b>Final or Draft status, as indicated:</b>
<b>Document type:</b>	<b>Pagination:</b> 4 p.
<b>Related work(s):</b>	<b>Pages added/changed by ARLIS:</b>
<b>Notes:</b>	

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/>



## 1.1. Subsistence Baseline Documentation Study

## 1.2. Requestor of proposed study

AEA ~~expects an agency or other stakeholder group to ask for this study, in conjunction with and on behalf of Alaska Department of Fish and Game (ADF&G), Division of Subsistence.~~

## 1.3. Responses to study request criteria (18 CFR 5.9(b))

### 1.3.1. Describe the goals and objectives of each study proposal and the information to be obtained.

The purpose of the subsistence baseline documentation study is to document traditional and contemporary subsistence harvest and use in the study area in order to provide a basis for impact assessment, avoidance, minimization, and development of mitigation; and to provide the information that will serve as the basis for compliance with FERC's National Environmental Policy Act (NEPA) analysis for the Project license, along with other required approvals an analysis, including those of the Bureau of Land Management under Title VIII of the Alaska National Interest Lands Conservation Act (ANILCA) and State of Alaska needs regarding subsistence resource management.

The individual objectives of this study are:

1. Document one year of subsistence harvest and use by households in (and around) the following subsistence area census designation unit communities: Chase, Cantwell, Susitna, Skwentna, Glennallen, Gulkana, Nelchina, Paxson, Tazlina/Copperville, Tolsona and Tonsina.
2. Document one year of subsistence harvest and use by households within the Anchorage non-subsistence area, in (and around) Talkeetna, and other communities or households determined during the study planning process to have insufficient baseline data (such as Chickaloon, Eklutna, Healy, Lake Louise, and outlying households in the Denali Highway, Parks Highway and Western Susitna Basin areas).
3. Document Traditional and Local Knowledge (TLK) on contemporary and traditional subsistence practices including but not limited to:
  - Traditional and contemporary species harvested
  - Traditional and contemporary harvest methods, timing, and gear used
  - Mapping of traditional and contemporary harvest areas and land use patterns
  - Traditional and contemporary preparation and preservation methods
  - Resource-related place names
  - Traditional and contemporary access routes and methods of access
  - Properties of traditional or religious cultural significance or concern

**1.3.2. If applicable, explain the relevant resource management goals of the agencies and/or Alaska Native entities with jurisdiction over the resource to be studied. [Please include any regulatory citations and references that will assist in understanding the management goals.]**

~~To be provided by the requesting agency, Alaska Native entity, or other state or local agency. The results of Subsistence studies and other studies will provide the information that will serve as the basis for compliance with FERC's National Environmental Policy Act (NEPA) analysis for the Project license, along with other required approvals and analyses including those of the Bureau of Land Management under Title VIII of the Alaska National Interest Lands Conservation Act (ANILCA) and State of Alaska needs regarding subsistence resources management.~~

**1.3.3. If the requester is a not resource agency, explain any relevant public interest considerations in regard to the proposed study.**

Subsistence hunting and fishing are economically and culturally important for many Alaskans. Subsistence harvesting of food and materials becomes an activity of paramount importance in rural areas not well connected to urban centers.

**1.3.4. Describe existing information concerning the subject of the study proposal, and the need for additional information.**

Existing information is summarized in the Subsistence Resources Data Gap Analysis (NLUR 2011). The analysis identified a lack of contemporary data regarding the use of subsistence resources in the following communities: Chase, Cantwell, Susitna, Skwentna, Glennallen, Gulkana, Nelchina, Paxson, Tazlina/Copperville, Tolsona, and Tonsina. Data gaps regarding lack of Traditional or Local Knowledge for the project area in general, as well as contemporary baseline data regarding the harvest and use of subsistence resources in the study area by Talkeetna area households, were identified during subsistence technical working group meetings. Concerns raised during technical workgroup meetings resulted in additional analysis of existing information for preparation of this study request (Table 1 and Map 1). This additional analysis identified a lack of contemporary baseline data for the communities of Chickaloon, Eklutna, Healy and Lake Louise, as well as outlying households in the Denali Highway, Parks Highway, and Western Susitna Basin areas.

**1.3.5. Explain any nexus between project operations and effects (direct, indirect, and/or cumulative) on the resource to be studied, and how the study results would inform the development of license requirements.**

Construction and operation of the Project may result in changes to access to subsistence resources or changes in resource abundance. Increased human activity in upper Susitna River basin may also affect subsistence use. ~~The license may include conditions to protect or enhance subsistence uses. It is important that these activities and resources are understood to identify protection, mitigation and enhancement measures.~~

**1.3.6. Explain how any proposed study methodology (including any preferred data collection and analysis techniques, or objectively quantified information, and a schedule including appropriate field season(s) and the duration) is consistent with generally accepted practice in the scientific community or, as appropriate, considers relevant tribal values and knowledge.**

**Objective 1.** Document one year of harvest and use by households in (and around) the following subsistence area census designation unit communities: Chase, Cantwell, Susitna, Skwentna, Glennallen, Gulkana, Nelchina, Paxson, Tazlina/Copperville, Tolsona and Tonsina.

The Alaska Department of Fish and Game (ADF&G) Division of Subsistence will conduct this study using standard Division methodology involving systematic household surveys conducted by community-based survey technicians in cooperation with Division subsistence resource specialists. The ADF&G Subsistence Division has prepared a detailed scope of work for this objective; specific methods include:

- Development of a survey instrument to produce updated comprehensive baseline information about subsistence hunting, fishing, and gathering and other topics that address subsistence needs and are compatible with information collected in past household interviews.
- Community consultation to identify community liaisons and seek study support.
- Household surveys to record the following information: 1) demographic information; 2) involvement in use, harvest, and sharing of fish, wildlife, and wild plants in their study year (i.e. 2012 or 2013); 3) estimate of amount of resources harvested in their study year; 4) information about employment and cash income; 5) assessments of changes in subsistence harvest and use patterns based on data available from past study years; and 6) location of fishing, hunting, and gathering activities in their study year.

ADF&G will contract and train community liaisons in each community to conduct household surveys, with the goal of interviewing a representative of each year-round household in all the study communities. Participation in the surveys will be voluntary and all individual and household level responses will be confidential. ADF&G staff will conduct the harvest mapping component of the survey with each household. Surveys will be timed to avoid seasonal activities, to allow for best participation.

- Collaborative review and interpretation of study findings through data analysis, the production of standard tables and figures, and community review meetings.
- Communication of findings to communities through community review meetings and four-page study finding summaries mailed to all households in each community.
- Addition of final data to the Community Subsistence Information System (CSIS) and production of a final report summarizing the results of the systematic household surveys and mapping for each study year, including long-term trends for communities with harvest data available in the CSIS.

**Objective 2.** Document one year of harvest and use by households in (and around) Talkeetna, within the ADF&G Anchorage non-subsistence area, and other communities determined during the study planning process to have insufficient baseline data (such as Chickaloon, Eklutna, Healy, and Lake Louise). Methods for Objective 2 area will be consistent with ADF&G's methodology and include:

- Development and use of a survey instrument and household harvest survey methodology comparable to that used in Objective 1 so that data collection, entry and analysis are compatible with surveys conducted under Objective 1 and consistent with existing ADFG methodology.
- Community consultation to seek study support.
- Collaborative review and interpretation of study findings through data analysis, reporting and community review meetings.
- Communication of findings to communities through community review meetings and summaries.
- Summary, analysis, discussion and reporting of community-level survey and mapping results within the context of the proposed Susitna project.
- Timing of surveys to avoid seasonal activities and allow for best participation.

**Objective 3.** Document traditional and local knowledge of contemporary and traditional subsistence resources and practices including, but not limited to: traditional and contemporary species harvested; traditional and contemporary harvest methods, timing, and gear used; mapping of traditional and contemporary harvest areas and land use patterns; traditional and contemporary preparation and preservation methods; resource-related place names; traditional and contemporary access routes and methods of access; and properties or areas of traditional or religious cultural significance or concern.

Methods will revolve around semi-structured interviews and mapping sessions with individual respondents and include:

- Community consultation to garner support for study and identify key respondents to be interviewed.
- Dependent on community size, identification of and interview with 2-5 key respondents in each community listed in Objectives 1 and 2; as well as the communities of Tyonek, Chistochina and others identified by the Subsistence Resources Data Gap to have an interest in the area.
- Development and use of an interview guide to capture objective topics and others.
- Coordination with cultural resources study and AEA's Alaska Native Coordinator, Bruce Tiedeman, to identify properties of traditional or religious cultural significance (TCPs). Additional methods may be identified and delineated during 2013-2014 study plan development.
- Coordination with other resources such as fisheries, terrestrial mammals, health impact and socioeconomic to identify resource specific questions that may be addressed through traditional and local knowledge interviews.
- Development of informed consent and confidentiality protocols for audio-recording, transcription, and general reporting of interviews and mapping sessions.
- Digitization of mapped information; analysis, discussion and reporting of interview results (as per confidentiality protocols) within the context of the proposed Susitna project.

**1.3.7. Describe considerations of level of effort and cost, as applicable, and why any proposed alternative studies would not be sufficient to meet the stated information needs.**

The costs of this study are approximately \$900,000, including field studies, data collection, analysis, and reporting over the 2 year study period.

**1.3.8 Literature Cited**

Simeone, William, Adam Russell, and Richard Stern. 2011. Watana Hydroelectric Project Subsistence Data Gap Analysis. Report prepared for the Alaska Energy Authority, Anchorage. Report prepared by Northern Land Use Research, Inc., Fairbanks.



# SUSITNA-WATANA

## HYDROELECTRIC PROJECT

**Table 1: Communities and Subsistence Use Areas in the Susitna River Watershed**

	Community	Reason for Study Community Consideration			Proximity to Susitna River Watershed				Harvest Data Last 3 Years (2009 or Later) <sup>1</sup>	Notes
		ADF&G SOW	NLUR Data Gap	Added Based on Community or Use Area in Watershed	Community in Watershed	Approximate Distance (in Miles) of Community from Watershed	Use Area in Watershed	Approximate Distance (in Miles) of Use Area from Watershed		
1	Beluga	x				11	x	0	x	
2	Cantwell	x	x			5	x	0	x	
3	Chase	x	x		x	0	No Data	No Data	x	
4	Chickaloon			x		14	x	0	x	
5	Chisana		x			143		95		
6	Chistochina	x	x			53		25		x
7	Chitina	x				85	x	0	x	x
8	Chulitna		x		x	0	No Data	No Data	x	
9	Copper Center	x	x			45	x	0	x	x
10	Copperville	x	x			35	No Data	No Data	No Data	
11	Denali Hwy Households & Lodges		x		x	n/a	No Data	No Data	x	Portion of Denali Highway is in watershed.
12	Eklutna			x		9	x	0	x	
13	Gakona	x	x			35	x	0	x	x
14	Glennallen	x	x			30	x	0	x	
15	Gold Creek		x		x	0	No Data	No Data	x	
16	Gulkana	x	x			35	x	0	x	
17	Healy			x		32	x	0	x	
18	Hurricane/Broad Pass		x		x	0	No Data	No Data	x	
19	Kenny Lake	x				62	x	0	x	x
20	Lake Louise			x	x	0	x	0	x	
21	McCarthy	x	x			127	x	0	x	x
22	Mentasta	x	x			71		52		x
23	Nabesna	x				107		52		x
24	Nelchina	x				10	No Data	No Data	No Data	
25	Palmer		x			8	No Data	No Data	No Data	
26	Parks Hwy Dispersed Households		x		x	n/a	No Data	No Data	x	Parks Highway transects watershed
27	Paxson	x	x			23	x	0	x	
28	Petersville		x		x	0	No Data	No Data	x	
29	Silver Springs	x	x			37	No Data	No Data	No Data	x
30	Skwentna	x			x	0	x	0	x	Use Areas for Upper Yentna
31	Slana	x	x			70		42		x
32	Susitna	x			x	0	No Data	No Data	x	
33	Talkeetna		x		x	0	No Data	No Data	x	
34	Tazlina	x	x			37	No Data	No Data	No Data	
35	Tolsona	x				14	No Data	No Data	No Data	
36	Tonsina	x				56	x	0	x	
37	Trapper Creek		x		x	0	No Data	No Data	x	
38	Tyonek	x				17	x	0	x	
39	Wasilla		x		x	0	No Data	No Data	x	
40	Western Susitna Basin			x	n/a	n/a	x	0	x	Use area data are not provided at a community-specific level
41	Willow		x		x	0	No Data	No Data	x	
42	Willow Creek	x				48	No Data	No Data	No Data	x

<sup>1</sup>Includes harvest data collected during ADF&G household harvest surveys. Harvest data generally include subsistence baseline indicators related to harvest amounts, harvest effort, harvest success, harvest participation, harvest sharing, and harvest diversity. Additional Subsistence baseline indicators not generally available through ADF&G harvest data include subsistence use areas, seasonal round, transportation methods, trip duration, trip frequency, and traditional knowledge including harvester observations of resource change. This document does not review the availability of additional subsistence baseline indicators for the potential study communities.



