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GENERAL

INVESTIGATION MEMORANDUM

Susitna Hydroelectric Project

Social Science Program

Fiscal Year 1984

--- FINAL DRAFT ---

Harza-Ebasco Susitna Joint Venture

November 1983

TABLE OF CONTENTS

1.0	Introduction.	1-1
1.1	Background	1-1
1.2	General Objectives	1-1
2.0	Study Objectives.	2-1
3.0	Identification of Issues.	3-1
4.0	Previous Studies and Data Availability.	4-1
4.1	Previous Studies	4-1
4.2	Data Availability.	4-1
5.0	Delineation of Study Area	5-1
6.0	Study Methodology	6-1
6.1	General Social Science Program	6-1
6.1.1	General Investigation Memorandum	6-1
6.1.2	Detailed Plan of Study	6-1
6.1.3	Progress Reports	6-1
6.1.4	Quality Assurance.	6-2
6.1.5	Responses to FERC Supplemental Information Requests	6-2
6.1.6	Settlement Process Input	6-2
6.1.7	DEIS Review Memorandum	6-2
6.1.8	Transmission Line Report	6-2
6.1.9	Update of the FERC License Application	6-3
6.1.10	Final FY 1985 Work Scopes.	6-3
6.1.11	Responses to Agency Comments on License Application.	6-3
6.1.12	General Licensing Support.	6-3
6.2	Cultural Resources	6-3
6.2.1	Cultural Resources Workshop.	6-3
6.2.2	Preliminary Archeological Report	6-4

TABLE OF CONTENTS (Cont'd)

6.2.3	Archeological Sensitivity Maps	6-4
6.2.4	Archeological Field Season Report.	6-4
6.2.5	Recommended Archeological Approach	6-4
6.2.6	National Park Service Report	6-4
6.2.7	Updated Cultural Resources Mitigation Report . . .	6-4
6.2.8	Cultural Resources Subtask Annual Report	6-5
6.3	Socioeconomics	6-5
6.3.1	Socioeconomic Workshop	6-5
6.3.2	Transmission Line Worker Survey Report	6-5
6.3.3	Household, Business and Public Sector Survey Reports	6-5
6.3.4	Updated Socioeconomic Projections.	6-6
6.3.5	Working Papers (Procedures Manuals).	6-6
6.3.6	Updated Socioeconomic Mitigation Plan.	6-6
6.3.7	Socioeconomic Subtask Annual Report.	6-6
6.4	Recreation	6-6
6.4.1	Recreation Plan Implementation Report.	6-6
6.4.2	Recreation Subtask Annual Report	6-7
6.5	Aesthetics	6-7
6.5.1	Aesthetics Mitigation Plan Update.	6-7
6.5.2	Aesthetics Subtask Annual Report	6-7
6.6	Land Use	6-7
6.6.1	Land Use Subtask Annual Report	6-7
6.7	Project Alternatives	6-7
6.7.1	Impact Matrix.	6-7
6.7.2	Project Alternatives Subtask Annual Report	6-8
7.0	Study Coordination and Management	7-1
7.1	Harza-Ebasco	7-1

TABLE OF CONTENTS (Cont'd)

7.2	Interaction with Other Study Teams	7-2
7.3	Subcontractors	7-3
7.3.1	University of Alaska Museum.	7-4
7.3.2	Frank Orth and Associates.	7-4
7.3.3	EDAW, Inc.	7-5
7.4	Coordination and Management of Subcontractors.	7-5
8.0	Schedule and Deliverables	8-1
9.0	Budget.	9-1
10.0	Attachments	10-1
	Appendix A - Agency Raised Issues	
	Appendix B - List of Previous Studies	

1.0 INTRODUCTION

1.1 BACKGROUND

The Social Science Program, which is the subject of this General Investigation Memorandum, focuses primarily on project-related impacts on cultural, socioeconomic, recreation, aesthetic, and land use resources. In addition, the Social Science Program examines environmental impacts associated with alternative project locations, designs, and energy sources. See Section 2.0 for a discussion of the general objectives of each of these subtasks. Specifically, the General Investigation Memorandum sets forth the objectives, methodology, organization and personnel, schedule, deliverables, and budget for accomplishing the Task 4 studies. The Detailed Plan of Study provides more specific guidance for conducting the major study tasks.

1.2 GENERAL OBJECTIVES

The Task 4 Environmental Program is designed to meet the following general objectives:

1. to evaluate the environmental effects of the proposed Project in order to recommend modifications and other measures necessary to ensure compatibility of the Project with the environment;
2. to ensure that the technical aspects of the environmental study program allow for compliance with statutory and regulatory requirements governing project development;
3. to develop coordinated and relevant data collection and analysis programs which facilitate evaluation of project effects and mitigation of adverse effects of the proposed Project; and
4. to assist and support engineering activities to ensure proper and efficient implementation of design features to comply with environmental constraints and objectives.

The specific study objectives for the Social Science Program (presented in Section 2.0) are designed to fulfill the general objectives outlined above.

2.0 STUDY OBJECTIVES

Following a review of the FERC License Application and other reports related to the Project and meetings with the Power Authority and Social Science subcontractors, four general study objectives were defined for the FY 1984 Social Science Program. These study objectives are as follows:

1. conduct environmental planning activities required to support the FERC licensing process,
2. provide input to the FERC License Application update,
3. provide information to support the preparation of the Draft and Final EISs, and
4. participate in the settlement process.

In addition, specific FY 1984 study objectives were also defined for each Social Science Program subtask. These specific study objectives are outlined below:

1. Cultural Resources - The principal objectives of the Cultural Resources Subtask are as follows: to continue identifying historical and archeological sites within the project area during the 1983 field season; to reevaluate the Susitna archeological program in light of current procedures and schedule, the role of the Advisory Council on Historic Preservation, and whether identified sites should be considered individually or the project area should be considered as an archeological district; and to reevaluate and update the cultural resources mitigation program as necessary.
2. Socioeconomics - The main objectives of the Socioeconomic Subtask are to revise the projections of socioeconomic baseline and "with project" conditions (based on updated secondary data; surveys of households, businesses, and public sector employers in Cantwell, Talkeetna, and Trapper Creek; and a survey of Anchorage/Fairbanks Intertie workers) and to update the mitigation plan in accordance with the revised projections.

3. Recreation - The primary objective of the Recreation Subtask is to prepare a Recreation Plan Implementation Report which will outline the schedule and steps required to implement Phase I of the Recreation Plan as identified in Chapter 7, Exhibit E of the License Application.
4. Aesthetics - The principal objective of the Aesthetics Subtask is to prepare an update of the Aesthetics Mitigation Plan recommending the necessary steps to implement the aesthetics mitigation program as identified in Chapter 8, Exhibit E of the License Application.
5. Land Use - The main objective of the Land Use Subtask is to update, as necessary, land use and land status information presented in Chapter 9 of Exhibit E for the License Application revision.
6. Project Alternatives - The thrust of the Project Alternatives Subtask is to develop a matrix that displays differences in environmental impacts between alternative project locations, designs, and energy sources.

3.0 IDENTIFICATION OF ISSUES

The first step in preparing the General Investigation Memorandum for the Social Science Program was to identify issues that must be addressed in the Susitna licensing process. A preliminary list of issues was developed following a review of correspondence to the Power Authority regarding the Susitna Project, testimony to the Power Authority Board of Directors, agency comments on the Draft License Application, and workshop summaries. A complete list of those issues is found in Appendix A of Section 10.0. This list delineates which agency raised each issue, the source of the agency's comment (i.e., letter, workshop, or survey) the status of the issue, and the target date for resolving the issue, if unresolved.

The following is an abbreviated list that outlines the principal issues identified to date for each Social Science Program subtask. These issues will become the focal point for the Social Science Program activities in FY 1984 as well as in FY 1985.

Cultural Resources

1. The role of the Advisory Council on Historic Preservation should be clarified.
2. The approach for evaluating archeological resources (either individually or as districts) needs to be determined.
3. Resource significance criteria for evaluating site or resource significance needs to be defined.
4. The advice of the Advisory Council on Historic Preservation should be solicited in developing a plan for the continued survey and inventory of cultural resources and for developing a detailed mitigation plan.
5. A detailed mitigation plan should be developed and approved by the Advisory Council on Historical Preservation, the State Historic Preservation Officer, and representatives of appropriate land management agencies.

Socioeconomics

1. Additional information is needed on worker shift and rotation schedules in order to accurately forecast socioeconomic impacts.
2. Additional information is needed on the Project access route in order to accurately forecast socioeconomic impacts.
3. Additional information is needed on how workers will be transported to and from the Project site in order to accurately forecast socioeconomic impacts.
4. Additional information is needed on a hiring program or plan in order to accurately predict the number of in-migrating workers.
5. Additional information is needed on the type of housing, work force facilities, and amenities at the construction camp and permanent village in order to accurately forecast socioeconomic impacts.
6. Responsibilities for provision of services and facilities within the local project area should be more clearly defined for the state, the Mat-Su Borough, and the contractor.
7. Impacts of the Project on users of fish and wildlife resources should be assessed.
8. A detailed mitigation plan should be developed and coordinated with the fish, wildlife, land use, and recreation resources analyses.

Recreation

1. The primary objectives of the Recreation Plan as they relate to potential impacts to fish and wildlife resources are not met.
2. Additional clarification is needed on what project areas will be open to the public for recreation.
3. The Project sponsor must identify specific mitigation measures and develop a comprehensive plan which will address proper control by landowners and land managers.
4. Specific responsibilities for the implementation and operation of the Recreation Plan should be identified.
5. Construction worker policies regarding use of recreation resources need to be identified.

0 0 3 2 7

Aesthetics

1. Additional location and design studies are required for the construction camps and townsite.
2. The north and south stubs of the transmission line need additional location studies.

Land Use

1. Proposed mitigation for the loss of public use of project lands should identify alternatives such as replacing opportunities lost with lands of equal value.
2. Overall concern about the transmission line rights-of-way and its effects on land disposal actions and land management practices should be addressed.
3. The status of land for the damsite, access roads, and transmission corridors should be addressed now.
4. Types of land acquisition procedures should be investigated and action begun.
5. Concern that the Project will result in trespass on Native lands should be examined.

4.0 PREVIOUS STUDIES AND DATA AVAILABILITY

Studies relating to the proposed Susitna Hydroelectric Project have been ongoing since the 1970s. This work culminated in the submittal of the Final License Application to FERC in February 1983. The continued environmental studies and licensing activities scheduled for FY 1984 will draw upon the Final License Application and its supporting documents. Moreover, the FY 1984 work will rely on data generated by the Social Science Program subcontractors as well as data made available by public agencies.

4.1 PREVIOUS STUDIES

The Susitna Environmental Program is an ongoing process which builds on the data, analyses, and conclusions of previously completed research activities. The list of principal project-related studies which contain relevant background and/or baseline information for the FY 1984 Social Science Program is presented in Section 10.0, Appendix B.

4.2 DATA AVAILABILITY

The principal Social Science Program work activities in FY 1984 will occur in the Cultural Resources and Socioeconomic subtasks. Data for this work will focus on the following primary data collection activities: cultural resources field work (July, August, and September 1983 and June 1984); household, business, and public sector surveys in Talkeetna, Trapper Creek, and Cantwell; and Anchorage/Fairbanks Intertie worker surveys. Secondary data will be collected from the Mat-Su Borough, Anchorage, Fairbanks, state agencies and the University of Alaska Institute of Social and Economic Research in order to revise the baseline socioeconomic forecasts.

5.0 DELINEATION OF STUDY AREA

The study areas delineated for the Social Science Program will vary by subtask. The following discussion briefly describes the study area for each subtask in FY 1984:

1. The Cultural Resources Subtask will focus on: (a) sensitivity mapping and reconnaissance surveying of the transmission lines, access roads, railroad, and Phase I recreation sites, and (b) reconnaissance surveying and limited systematic testing of direct and indirect impact areas associated with the dam sites, impoundment areas, borrow areas, townsite, and construction camps.
2. The study area for the Socioeconomic Subtask will include the Railbelt with emphasis placed on the communities of Cantwell, Talkeetna, and Trapper Creek where household, business, and public sector surveying will occur.
3. The Recreation Plan Implementation Report will focus on the area identified in Figure E.7.6 in Exhibit E, Chapter 7 of the License Application; i.e., the area generally bounded by the Denali Highway (to the north), Stephen, Watana, and Clarence lakes (to the south), the Parks Highway (to the west), and the Susitna River (to the east).
4. The Aesthetics Subtask will focus on areas within the viewshed of each project facility, including the dam sites, impoundment areas, access roads, railroad, transmission lines, and recreation sites.
5. The Land Use Subtask will focus primarily on the dam sites and impoundment areas.

6.0 STUDY METHODOLOGY

In order to complete the general and specific study objectives for the Social Science Program in FY 1984, the following activities (which constitute the general methodology) will be conducted.

6.1 GENERAL SOCIAL SCIENCE PROGRAM

6.1.1 General Investigation Memorandum

This document provides an overview of the Social Science Program including study objectives, issues to be addressed, study tasks, general study methodology, program management, schedule, deliverables, and budget. Harza-Ebasco will prepare the memorandum.

6.1.2 Detailed Plan of Study

A Plan of Study will be developed that describes specific Social Science Program study objectives and work tasks, detailed study methodologies, data management and report formats, quality assurance programs, and detailed schedules and deliverables. Harza-Ebasco will prepare the plan of study; subcontractors will provide input as necessary.

6.1.3 Progress Reports

Progress reports will be developed each month to describe the status of the Social Science Program based on the previous month's activities, including: activities completed, problems and solutions, personnel considerations, program modifications, status of the budget and schedule, and upcoming activities. Harza-Ebasco will prepare a monthly Task 4 Progress Report; subcontractors will supply input into the monthly Social Science Program Progress Report.

6.1.4 Quality Assurance

All major Social Science Program subcontractors will be required to apply a Quality Assurance Program to their studies. This will include quality assurance procedures for data collection, checking, storage, analytical procedures, analyses performed on data, and processes for

incorporating data into final reports. In addition, organization charts showing lines of authority, identification of the person(s) responsible for quality assurance, and methods for ensuring safety of files and audit programs will be included. Furthermore, Harza-Ebasco will develop a Quality Assurance Manual for studies in which it participates. This manual will include an overview of quality assurance procedures by all Task 4 subcontractors.

6.1.5 Responses to FERC Supplemental Information Requests

The Social Science Program has and will continue to provide written responses to FERC supplemental information requests on cultural resources, socioeconomics, recreation, aesthetics, land use, and project alternatives. Harza-Ebasco prepares the responses with input as necessary from the University of Alaska Museum, Frank Orth and Associates, and EDAW, Inc.

6.1.6 Settlement Process Input

The Social Science Program will provide input into the settlement process by identifying and reviewing agency issues, participating in settlement process meetings, and initiating appropriate activities to formally resolve each issue. The University of Alaska Museum and Frank Orth and Associates will provide input as necessary.

6.1.7 DEIS Review Memorandum

The Social Science Program will review appropriate chapters of the DEIS and provide input into the DEIS Review Memorandum. Harza-Ebasco will prepare the memorandum; the University of Alaska Museum and Frank Orth and Associates will provide input as necessary.

6.1.8 Transmission Line Report

The Social Science Program will provide input to the Task 41 Transmission Line Report regarding cultural, recreation, aesthetic, and land use resources, and the potential impacts that alternative transmission line stub corridors may have on those resources. Harza-Ebasco will prepare sections of the report.

6.1.9 Update of the FERC License Application

Each Social Science Program subtask will review and revise the appropriate chapter in Exhibit E of the License Application to reflect changes due to refinement of the Project concept. Harza-Ebasco will prepare the update; the University of Alaska Museum, Frank Orth and Associates, and EDAW, Inc. will provide input as necessary.

6.1.10 Final FY 1985 Work Scopes

Harza-Ebasco will define the general scope of work required for each subcontractor. Each subcontractor will develop a detailed proposal of specific work tasks. Harza-Ebasco will review and evaluate each proposal and recommend the final work scopes and budgets to the Power Authority.

6.1.11 Responses to Agency Comments on License Application

The Social Science Program will provide written responses to agency comments on the License Application. The University of Alaska Museum, Frank Orth and Associates, and EDAW, Inc. will provide input to Harza-Ebasco as necessary.

6.1.12 General Licensing Support

General licensing support encompasses level-of-effort activities that do not include presently identified deliverables, such as: weekly staff meetings, budget revisions, coordination activities, review of previous data and reports, site reconnaissance tours, preparation for and participation in the FERC site visit, non-FERC permit support, specific requests by the Power Authority, and other general and administrative tasks.

6.2 CULTURAL RESOURCES

6.2.1 Cultural Resources Workshop

This workshop was held to outline and describe the Cultural Resources Subtask to interested agencies and to seek comments concerning the direction of the program. Harza-Ebasco organized and participated in the workshop; the University of Alaska Museum also participated.

6.2.2 Preliminary Archeological Report

This preliminary report briefly summarizes the results of the 1983 archeological field season. Harza-Ebasco provided review; the University of Alaska Museum drafted the report.

6.2.3 Archeological Sensitivity Maps

These maps indicate the general level of archeological sensitivity of the access routes, railroad, Phase 1 recreation sites, and the transmission line stub alternatives and License Application route. Harza-Ebasco provided technical guidance and review; the University of Alaska Museum conducted the field research and prepared the maps.

6.2.4 Archeological Field Season Report

This report will provide a detailed description of the work completed during the 1983 field season. The University of Alaska Museum conducted the research and will prepare the report; Harza-Ebasco will provide review.

6.2.5 Recommended Archeological Approach

The Susitna archeological program will be reevaluated in light of current procedures and schedules, the role of the Advisory Council on Historic Preservation, and the overall strategy of the mitigation program. Harza-Ebasco will conduct the reevaluation in conjunction with the Power Authority and appropriate agencies; the University of Alaska Museum will participate in the meetings as requested.

6.2.6 National Park Service Report

This report will be prepared and provided in accordance with the University of Alaska Museum's conditions of their antiquities permit. Harza-Ebasco will provide review; the University of Alaska Museum will prepare the report.

6.2.7 Updated Cultural Resources Mitigation Report

The cultural resources mitigation program will be reevaluated and updated based on feedback from the Advisory Council on Historic Preservation and other agencies. Harza-Ebasco will conduct the review and pro-

vide technical assistance; the University of Alaska Museum will prepare the updated report.

6.2.8 Cultural Resources Subtask Annual Report

This report will summarize the work completed as of the end of FY 1984 in the Cultural Resources Subtask, the status of outstanding issues, and the approach for continuing the subtask work in FY 1985. Harza-Ebasco will prepare this report.

6.3 SOCIOECONOMICS

6.3.1 Socioeconomic Workshop

This workshop was held to facilitate a broader understanding by interested agencies and the general public of the analytical approach and techniques used to forecast potential socioeconomic impacts of the Project. Harza-Ebasco organized and participated in the workshop; Frank Orth and Associates also participated.

6.3.2 Transmission Line Worker Survey Report

This report will summarize the characteristics of the work force involved in the construction of the Anchorage-Fairbanks Intertie Transmission Line. Harza-Ebasco developed the survey instrument and interviewing procedure and will provide technical guidance and review of the analysis and report. The analysis and report will be prepared by Frank Orth and Associates.

6.3.3 Household, Business, and Public Sector Survey Reports

These reports will summarize baseline socioeconomic conditions for households, businesses, and public sector employers in potentially-affected project area communities for the purpose of updating socioeconomic forecasts and mitigation planning. Harza-Ebasco will provide technical guidance and review for the survey instruments, interview procedures, and reports. With the exception of the public sector survey, the survey instruments, interview procedures, and survey reports will be developed and conducted by Frank Orth and Associates.

6.3.4 Updated Socioeconomic Projections

Socioeconomic projections will be updated to reflect the revised Alaska and Railbelt economic and demographic projections prepared for Exhibit B and the data collected in the household, business, public sector, and transmission line worker surveys. Harza-Ebasco will provide technical guidance and review; Frank Orth and Associates will prepare the updated projections.

6.3.5 Working Papers (Procedures Manuals)

Working Paper No. 1 will provide information on socioeconomic projection assumptions and methodologies. Working Paper No. 2 will provide information on socioeconomic input data, variables, equations, coefficients, and output formats used in the socioeconomic model. Harza-Ebasco will provide technical guidance and review; Frank Orth and Associates will draft both working papers.

6.3.6 Updated Socioeconomic Mitigation Plan

The updated plan, which will be based on the revised socioeconomic projections, will address the potentially adverse socioeconomic impacts of the Project both on residents in the project area and on construction and operation workers. Harza-Ebasco will provide technical guidance and review; Frank Orth and Associates will draft the updated plan.

6.3.7 Socioeconomic Subtask Annual Report

This report will summarize the work completed as of the end of FY 1984 in the Socioeconomic Subtask, the status of outstanding issues, and the approach for continuing the subtask work in FY 1985. Harza-Ebasco will prepare this report.

6.4 RECREATION

6.4.1 Recreation Plan Implementation Report

This report will recommend the necessary approach to implement the Phase I Recreation Plan and the development of recreation facilities for construction and operation workers as outlined in Chapter 7, Exhibit E of the License Application, including policy issues, recreation management, and facility design. Harza-Ebasco will prepare this update.

6.4.2 Recreation Subtask Annual Report

This report will summarize the work completed as of the end of FY 1984 in the Recreation Subtask, the status of outstanding issues, and the approach for continuing the subtask work in FY 1985. Harza-Ebasco will prepare this report.

6.5 AESTHETICS

6.5.1 Aesthetics Mitigation Plan Update

This update will recommend the necessary steps to implement the aesthetics mitigation program as identified in Chapter 8, Exhibit E of the License Application, including the structure, composition, and objectives of the Interdisciplinary Design Team. Harza-Ebasco will prepare this update.

6.5.2 Aesthetics Subtask Annual Report

This report will summarize the work completed as of the end of FY 1984 in the Aesthetics Subtask, the status of outstanding issues, and the approach for continuing the subtask work in FY 1985. Harza-Ebasco will prepare this report.

6.6 LAND USE

6.6.1 Land Use Subtask Annual Report

This report will summarize the work completed as of the end of FY 1984 in the Land Use Subtask, the status of outstanding issues, and the approach for continuing the subtask work in FY 1985. Harza-Ebasco will prepare this report.

6.7 PROJECT ALTERNATIVES

6.7.1 Impact Matrix

The matrix will illustrate in a comprehensive manner the potential differences in environmental impacts between alternative project locations, designs, and energy sources in order to facilitate decision

making processes and to communicate the project's environmental implications to interested groups and individuals. Harza-Ebasco will prepare this matrix.

6.7.2 Project Alternatives Subtask Annual Report

This report will summarize the work completed as of the end of FY 1984 in the Project Alternatives Subtask, the status of outstanding issues, and the approach for continuing the subtask work in FY 1985. Harza-Ebasco will prepare this report.

7.0 STUDY COORDINATION AND MANAGEMENT

The organizational structure of the Social Science Program was developed to ensure that the objectives of the program are accomplished. This structure provides for overall coordination and management of the FY 1984 Social Science Program by Harza-Ebasco with support from subcontractors and other study teams. This section provides a general description of this structure.

7.1 HARZA-EBASCO

The Social Science Program will be conducted under the overall direction and supervision of Dr. G. Lawley the Harza-Ebasco Environmental Regulatory Operations Manager. Specific responsibilities for the Social Science Program subtasks are as follows:

Social Science Group Leader	W. Hutchinson
Social Science Group Coordinator	P. Bergmann
Cultural Resources Subtask Leader	P. Bergmann
Socioeconomic Subtask Leader	E. Cunningham
Recreation Subtask Leader	R. Suttle
Aesthetics Subtask Leader	R. Suttle
Land Use Subtask Leader	C. Lawson
Project Alternatives Subtask Leader	R. Suttle

The Social Science Group Leader is responsible for the on-time and within budget delivery of high-quality products from each Social Science Program subtask leader and for overall program quality assurance. The Social Science Group Coordinator is directly responsible for interfacing with subtask leaders, ensuring coordination between Social Science Program subtask leaders, coordinating interaction between Social Science Program staff and members of other study teams, preparing and monitoring subtask and subcontractor workscopes, budgets, and expenditures, preparing monthly progress reports, arranging and participating in agency meetings and workshops as necessary, and ensuring that the general and specific Social Science Program objectives are

met. Subtask leaders are responsible for reviewing their respective workscope and budget, interfacing with subcontractors, and producing high quality deliverables.

7.2 INTERACTION WITH OTHER STUDY TEAMS

The Social Science Program will work closely with Task 6, Licensing Support and Permitting, to provide necessary information to comply with FERC and other agency licensing and permitting requirements as well as requests for additional information. The assessment of Social Science Program impacts and updating of mitigation plans will be coordinated with the Aquatic and Terrestrial study teams in Task 4. The Social Science Program will also coordinate with the environmental evaluation and review of engineering operations and design modifications undertaken by members of Task 3, Engineering, and Task 40, Need for Power.

The Social Science Program will coordinate logistical requirements for each subtask with Task 39, Logistics. Furthermore, the Social Science Program will provide input as required to Task 41, Transmission System, and Task 8, Public Participation.

7.3 SUBCONTRACTORS

Three subcontractors will be utilized to meet the objectives of the Social Science Program in FY 1984. These subcontractors and their area of responsibility include:

- | | |
|--------------------------------|------------------------------|
| 1. University of Alaska Museum | Cultural Resources |
| 2. Frank Orth and Associates | Socioeconomics |
| 3. EDAW Inc. | Recreation and
Aesthetics |

Specific subcontractor responsibilities are discussed below. In addition, Table 8-1 in Section 8.0 illustrates subcontractor participation in Social Science Program deliverables.

7.3.1 University of Alaska Museum

During FY 1984, the University of Alaska Museum will conduct archeological field studies, which will be summarized in both preliminary and final reports, will obtain archeological clearances as requested for project activities, and will prepare a report for the National Park Service. In addition, the Museum will prepare the cultural resources section of the Social Science program Detailed Plan of Study, the Museums's Quality Assurance Program, and the Updated Cultural Resources Mitigation Report. Likewise, the Museum will participate in a cultural resources workshop and in the reevaluation of the Susitna archeological program. The Museum will also assist in completing responses to FERC supplemental information requests and agency comments on the License Application. Furthermore, the Museum will provide input, as required, to the DEIS Review Memorandum, the Settlement Process, the Transmission Line Report, and the update of the FERC License Application.

7.3.2. Frank Orth and Associates

Principal responsibilities for Frank Orth and Associates during FY 1984 will include: participating in a socioeconomic workshop; surveying households and businesses in Cantwell, Talkeetna, and Trapper Creek; updating socioeconomic projections; and preparing Working Paper No. 1, Working Paper No. 2, a Quality Assurance Program, a transmission line worker survey report, and an updated socioeconomic mitigation plan. Additionally, Frank Orth and Associates will assist in completing responses to FERC supplemental information requests and agency comments on the License Application and will provide input as required to the License Application update, the DEIS Memorandum, and the settlement process.

7.3.3 EDAW, Inc.

During FY 1984, EDAW, Inc., will provide assistance in completing responses to FERC supplemental information requests regarding recreation and aesthetics. Moreover, EDAW will assist in completing responses to agency comments on the License Application and updating the License Application.

7.4 COORDINATION AND MANAGEMENT OF SUBCONTRACTORS

In order to accomplish the objectives of the Social Science Program in FY 1984, Harza-Ebasco will enter into contractual agreements with the subcontractors identified above. One of the major roles of the Social Science Program is to coordinate and manage subcontractor activities. This will be accomplished through a review of each subcontractor's workscope, budget, schedule, detailed plan of study, quality assurance manual, and deliverables. In addition, Social Science Program staff will conduct routine coordination meetings with subcontractors to monitor budget expenditures, program progress, quality assurance, and potential problems.

8.0 SCHEDULE AND DELIVERABLES

The overall Social Science Program schedule will conform to the major milestones identified in the FERC licensing process. The deliverables and due dates for completion are presented in Table 8-1 by subtask.

TABLE 8-1
SOCIAL SCIENCE PROGRAM
DELIVERABLES AND DUE DATES BY SUBTASK

GENERAL SOCIAL SCIENCE PROGRAM

<u>Deliverable</u>	<u>Due Date</u>
1. Responses to FERC Supplemental Information Requests ^{abc}	September 29, 1983
2. General Investigation Memorandum	November 18, 1983
3. Detailed Plan of Study ^a	December 15, 1983
4. Responses to Agency Comments on License Application ^{abc}	January 19, 1983
5. Update of FERC License Application ^{abc}	February 15, 1983
6. FY 1985 Work Scope ^{abc}	May 1, 1984
7. DEIS Review Memorandum ^{ab}	May 30, 1984
8. Settlement Process Input ^{ab}	June 30, 1984
9. General License Support	June 30, 1984
10. FEIS Input	June 30, 1984
11. Progress Reports ^{ab}	Monthly

TABLE 8-1 (Cont'd)

CULTURAL RESOURCES

<u>Deliverable</u>	<u>Due Date</u>
1. Cultural Resources Workshop ^a	July 22, 1983
2. Preliminary Archeological Report ^a	September 1, 1983
3. Archeological Sensitivity Maps ^a	September 15, 1983
4. Recommended Archeological Approach ^a	November 15, 1983
5. Transmission Line Report Input ^a	December 13, 1983
6. Archeological Field Season Report ^a	January 1, 1984
7. National Park Service Report ^a	January 1, 1984
8. Updated Cultural Resources Mitigation Report ^a	May 1, 1984
9. Cultural Resources Subtask Annual Report	May 1, 1984

SOCIOECONOMICS

<u>Deliverable</u>	<u>Due Date</u>
1. Working Paper No. 1 (Procedures Manual) ^b	July 15, 1983
2. Socioeconomic Workshop ^b	July 19-20, 1983
3. Working Paper No. 2 (Procedures Manual) ^b	November 1, 1983
4. Transmission Line Report Input	December 13, 1983
5. Household, Business, and Public Sector Survey Reports ^b	December 31, 1983
6. Updated Socioeconomic Projections ^b	January 31, 1984
7. Transmission Line Worker Survey Report ^b	March 1, 1984
8. Updated Socioeconomic Mitigation Plan ^b	April 1, 1984
9. Socioeconomic Subtask Annual Report	May 1, 1984

RECREATION

<u>Deliverable</u>	<u>Due Date</u>
1. Transmission Line Report Input	December 13, 1983
2. Recreation Plan Implementation Report	April 1, 1984
3. Recreation Subtask Annual Report	May 1, 1984

TABLE 8-1 (Cont'd)

AESTHETICS

<u>Deliverable</u>	<u>Due Date</u>
1. Transmission Line Report Input	December 13, 1983
2. Aesthetics Mitigation Plan Update	May 1, 1984
3. Aesthetics Subtask Annual Report	May 1, 1984

LAND USE

<u>Deliverable</u>	<u>Due Date</u>
1. Transmission Line Report Input	December 13, 1983
2. Land Use Subtask Annual Report	May 1, 1984

PROJECT ALTERNATIVES

<u>Deliverable</u>	<u>Due Date</u>
1. Impact Matrix	January 30, 1984
2. Project Alternatives Subtask Annual Report	May 1, 1984

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- a Indicates input by University of Alaska Museum
 b Indicates input by Frank Orth and Associates
 c Indicates input by EDAW, Inc.

9.0 BUDGET

Table 9-1 below presents the FY 1984 budget for the Social Science Program. This budget provides one person year for management of the program and 2.1 person years for technical input from the Harza-Ebasco staff.

TABLE 9-1
FY84 SOCIAL SCIENCE PROGRAM BUDGET

<u>POSITION</u>	<u>WORK HOURS</u>
Group Manager	270
Group Coordinator	2,160
Management Support	300
Senior Resources Planner	864
<u>Resources Planners</u>	<u>3,196</u>
TOTAL	6,790

10.0 ATTACHMENTS

APPENDIX A - AGENCY RAISED ISSUES
APPENDIX B - LIST OF PREVIOUS STUDIES

SUSITNA HYDROELECTRIC PROJECT: AGENCY-RAISED ISSUES

Subtask: Social Sciences

Page 1 of 13

ISSUE	AGENCY	SOURCE	STATUS	COMPLETION DATE
SC-1 The role of the Advisory Council on Historic Preservation should be clarified.	NPS and ADP	1. Cultural Resources Workshop (22 July 1983)	In cooperation with PERC, determine existing information that has been forwarded to Advisory Council; obtain working guidelines from PERC; define role of Advisory Council in licensing process; define appropriate relations; solicit PERC and Advisory Council concurrence.	1 Nov 1983
SC-2 Need to determine approach for evaluating archeological resources, individually or as districts.	NPS and ADP	2. Cultural Resources Workshop (22 July 1983)	Determine alternatives; legal and licensing implications of each alternative, relative advantages, mitigation implications.	15 Oct 1983
SC-3 Need to define resource significance criteria for evaluating site or resource significance.	NPS and ADP	3. Cultural Resources Workshop (22 July 1983)	In conjunction with preceding action, interpret federal regulations to Susitna Project's archeological resources.	1 Nov 1983
SC-4 Comments of Advisory Council on Historic Preservation should be solicited for developing a plan for future survey and inventory and for the mitigation plan.	NPS	4. Letter to APA, 3 Dec 1982 (Vol. 10B)	Role of Advisory Council is being assessed.	15 Oct 1983
SC-5 Advisory Council on Historic Preservation should be involved in the cultural resources mitigation program at the earliest possible time.	ADP	5. Letter to APA, 3 Dec 1982 (Vol. 10B)	Role of Advisory Council is being assessed.	15 Oct 1983
SC-6 The role of the Advisory Council on Historic Preservation should be better developed and clarified.	NPS	6. Letter to APA 4 Feb 1983 (Vol. 10B)	Role of Advisory Council is being assessed.	15 Oct 1983
SC-7 The detailed mitigation plan should be developed and approved by SHPO and representatives of appropriate land management agencies.	NPS	7. Letter to APA 4 Feb 1983 (Vol. 10B)	Procedures for developing and approving the detailed mitigation plan are being assessed.	15 Oct 1983

PRELIMINARY

4 October 1983

SUSITNA HYDROELECTRIC PROJECT: AGENCY-RAISED ISSUES

Subtask: Social Sciences

Page 2 of 13

ISSUE	AGENCY	SOURCE	STATUS	COMPLETION DATE
SS-8 Additional information is needed on worker shift and rotation schedules in order to accurately forecast socioeconomic impacts of the Susitna Project.	MSB	8. Socioeconomic Workshop (19 July 1983).	Two alternative courses of action are proposed: 1) conduct studies to evaluate the access route, transportation of workers, construction camp and permanent village; 2) conduct extensive sensitivity analyses in order to forecast potential socioeconomic impacts associated with these key factors.	Spring 1984 for Alternative 2 1985 for Alternative 1
SS-9 Additional information is needed on the project access route in order to accurately forecast socioeconomic impacts of the Susitna Project.	FWS	9. Socioeconomic Workshop (19 July 1983)		
SS-10 Additional information is needed on how workers will be transported to and from the Project site in order to accurately forecast socioeconomic impacts of the Susitna Project.	FWS	10. Socioeconomic Workshop (19 July 1983)		
SS-11 Additional information is needed on the type of housing, work force facilities, and amenities at the construction camp and permanent village in order to accurately forecast socioeconomic impacts of the Susitna Project.	ADCRA	11. Socioeconomic Workshop (19 July 1983)		
SS-12 Concern was expressed about the need for a hiring plan/program.	ADOL	12. Socioeconomic Workshop (19 July 1983)	H-E will investigate the Remote Rural Hire Dispatch Pilot Programs and any other job training programs that have been implemented for energy resource development projects in Alaska.	May 1984 (part of the Mitigation Plan)

PRELIMINARY

4 October 1983

SUSITNA HYDROELECTRIC PROJECT: AGENCY-RAISED ISSUES

Subtask: Social Sciences

Page 3 of 13

ISSUE	AGENCY	SOURCE	STATUS	COMPLETION DATE
SS-13 How the seasonality of Susitna construction work will affect the number of workers who relocate permanently and what those people will do for work when they are temporarily laid off (during the winter) should be examined.	MSB	13. Socioeconomic Workshop (19 July 1983)	H-E will investigate this issue to ensure that it has been adequately addressed.	Revised Projections (text) November 1983
SS-14 The effects of project-related in-migration on groundwater supply and quality should be explored.	MSB	14. Socioeconomic Workshop (19 July 1983)	H-E will outline alternative approaches for the communities for examining this concern.	Revised Projections (text) November 1983
SS-15 The costs of educating the project-induced population need to be examined as well as the effects of the education costs on Mat-Su Borough tax rates.	ADFG	15. Socioeconomic Workshop (19 July 1983)	The per pupil cost of education will be investigated for each of the locally impacted communities.	Revised Projections (text) November 1983
SS-16 Impacts to fish and wildlife users have not been adequately addressed.	ADFG	16. Letter to APA, 13 Jan 1983 (Vol. 10B)	Information on use patterns will be supplemented through surveys of local residents (1). Information on guiding services will be obtained through surveys of guides (2).	Fall 1983 (1) Fall 1984 (2)
SS-17 Some description should be provided on the relative importance of natural resource harvests as part of household income.	ADFG	17. Letter to APA, 13 Jan 1983 (Vol. 10B)	Information on use patterns and the importance of subsistence fishing, hunting, and trapping will be obtained through a survey of local residents.	December 1983
SS-18 Indirect and direct impacts to commercial businesses dependent upon fish and wildlife resources are undefined.	ADFG	18. Letter to APA, 13 Jan 1983 (Vol. 10B)	Information on the dependency of businesses on fish and wildlife resources will be obtained through a survey of local businesses and project area guides and lodge operators.	Fall 1984
SS-19 Impacts to subsistence and recreation user groups and to fish and wildlife resources should be addressed.	ADFG	19. Letter to APA, 13 Jan 1983 (Vol. 10B)	Supplemental information on the effects of the project on subsistence and recreational use of fish and wildlife resources will be obtained through surveys of project area residents, guides, and lodge operators.	Fall 1983 (Survey of Residents) Fall 1984 (Survey of guides, lodge operators)

PRELIMINARY

4 October 1983

SUSITNA HYDROELECTRIC PROJECT: AGENCY-RAISED ISSUES

Subtask: Social Sciences

Page 4 of 13

ISSUE	AGENCY	SOURCE	STATUS	COMPLETION DATE
SS-20 A survey of community usage of wildlife resources by Cantwell residents would be useful in assessing levels of use and importance of salmon, moose, and caribou.	ADFG	20. Letter to APA, 13 Jan 1983 (Vol. 10B)	Information on use patterns of fish and wildlife of Cantwell residents will be obtained through a survey of local residents.	Fall 1983
SS-21 Additional assessment of user groups should be made for the domestic use of salmon.	ADFG	21. Letter to APA, 13 Jan 1983 (Vol. 10B)	Information on subsistence fishing will be obtained through a survey of residents of Talkeetna, Trapper Creek, and Cantwell.	Fall 1983
SS-22 The assessment of trapping activity and its importance to users in the Local Impact Area should be more extensive.	ADFG	22. Letter to APA, 13 Jan 1983 (Vol. 10B)	Information on use patterns of trappers will be collected through a survey of local residents.	Fall 1983
SS-23 A monitoring program should be established to assess impacts and recommend modifications to the mitigation program.	FWS	23. Letter to APA, 14 Jan 1983 (Vol. 10B)	A monitoring program of the local residents and businesses is currently underway and will be updated periodically.	Fall 1983 and On-going
SS-24 Modification of base case population projections would dramatically change the impacts predicted and ultimately the mitigation requirement.	FWS	24. Letter to APA, 14 Jan 1983 (Vol. 10B)	The baseline forecasts will be revised to reflect the most current statewide economic and demographic conditions.	Winter 1984
SS-25 A mitigation plan should be prepared that relates to anticipated impacts based upon a broadly accepted data base.	FWS	25. Letter to APA, 14 Jan 1983 (Vol. 10B)	A mitigation plan will be prepared and updated periodically.	Spring 1984 and On-going
SS-26 Assumptions upon which population projections are based should be discussed.	FWS	26. Letter to APA, 14 Jan 1983 (Vol. 10B)	A detailed explanation of the assumptions used in the population projections is provided in Work Paper #1 (Projection Assumptions, Methodology, and Output Format).	N/A
SS-27 Clarify whether the assumption that full public access would be provided by the project through the upper Susitna basin has been made.	FWS	27. Letter to APA, 14 Jan 1983 (Vol. 10B)	Policies on public access to the upper Susitna basin will be made at a later date.	To be determined

PRELIMINARY

4 October 1983

SUSITNA HYDROELECTRIC PROJECT: AGENCY-RAISED ISSUES

Subtask: Social Sciences

Page 5 of 13

ISSUE	AGENCY	SOURCE	STATUS	COMPLETION DATE
SS-28 The proposed administration of the construction camp and village needs to be reevaluated.	FWS	28. Letter to APA, 14 Jan 1983 (Vol. 108)	Further studies of the siting, type, administration, and other aspects of the construction camp and village will be examined.	Fiscal Year 1985
SS-29 If local hiring assumptions are high, the impacts of project-induced population increases are low.	FWS	29. Letter to APA, 14 Jan 1983 (Vol. 108)	For discussion of assumptions regarding population influx refer to Working Paper #1.	
SS-30 If most businesses in the upper basin are dependent upon fish, big game, and furbearer species and the project may severely impact these species through elimination of their habitats, then most of the businesses would suffer severe adverse impacts.	FWS	30. Letter to APA, 14 Jan 1983 (Vol. 108)	Information on the dependency of businesses on fish and wildlife resources will be obtained through a survey of local businesses.	December 1983
SS-31 The importance of the Susitna system to subsistence, and how potential losses and mitigation proposals would affect subsistence use should be addressed.	FWS	31. Letter to APA, 14 Jan 1983 (Vol. 108)	Information on use patterns and the importance of subsistence fishing will be obtained in three communities through a survey of local residents (1). A Preliminary Impact & Mitigation Plan will be developed and updated as appropriate (2).	Fall 1983 (1) April 1984 (2)
SS-32 Discussion should be included on the possible decrease in the area's attractiveness for remote, wilderness hunting given the increase in access and human activities in conjunction with project development.	FWS	32. Letter to APA, 14 Jan 1983 (Vol. 108)	Information on guiding services will be obtained through a survey of guides.	Fall 1984 and On-going
SS-33 The discussion should consider relative demands and values for commercial, recreational, and subsistence hunting for each species in comparison to other species.	FWS	33. Letter to APA, 14 Jan 1983 (Vol. 108)	Information on commercial, sport, and subsistence hunting will be obtained through a survey of local residents.	Fall 1983
SS-34 Socioeconomic mitigation should be established with regard for impacts on fish and wildlife resource user groups.	FWS	34. Letter to APA, 14 Jan 1983 (Vol. 108)	The mitigation plan will be responsive to this comment.	Spring 1984

PRELIMINARY

4 October 1983

SUSITNA HYDROELECTRIC PROJECT: AGENCY-RAISED ISSUES

Subtask: Social Sciences

Page 6 of 13

ISSUE	AGENCY	SOURCE	STATUS	COMPLETION DATE
SS-35 Policies on access routes and restrictions on access need to be delineated in order to assess impacts to users.	FWS	35. Letter to APA, 14 Jan 1983 (Vol. 10B)	Policies on public access to the upper Susitna basin will be made at a later date.	To be determined
SS-36 Information on trappers should be accumulated, impacts analyzed, mitigation proposed and then reevaluated.	FWS	36. Letter to APA, 14 Jan 1983 (Vol. 10B)	Additional information on trapping will be obtained through a survey of local residents.	Fall 1983
SS-37 Impacts to fish and wildlife resources and their users are related to the type of construction camp established, access provided, and the administration of these facilities.	FWS	37. Letter to APA, 14 Jan 1983 (Vol. 10B)	The siting, type, administration, and other aspects of the construction camp and village will be examined in future studies in conjunction with fish and wildlife resource representatives.	Fiscal Year 1985
SS-38 A detailed mitigation plan should be developed and coordinated with fish and wildlife resources analyses.	FWS	38. Letter to APA, 14 Jan 1983 (Vol. 10B)	A mitigation plan will be developed and updated in cooperation with fish and wildlife resource representatives.	Spring 1984
SS-39 A monitoring panel should be established consisting of representatives of appropriate agencies to assess impacts and recommend modifications to the mitigation program.	FWS	39. Letter to APA, 14 Jan 1983 (Vol. 10B)	A monitoring program is being implemented, but does not include agency representatives.	September 1983
SS-40 A more appropriate location for the permanent townsite should be identified.	ADNR	40. Letter to APA, 13 Jan 1983 (Vol. 10B)	The siting and design of the townsite will be examined in future studies.	Fiscal Year 1985
SS-41 If in-migration is seriously underestimated then a wide range of socioeconomic impacts is also underestimated.	ADNR	41. Letter to APA, 13 Jan 1983 (Vol. 10B)	Refer to Alaska Power Authority response to letter from Alaska Department of Natural Resources (Volume 10B) and Alaska Department of Community and Regional Affairs (August 2, 1983).	N/A
SS-42 A clearly defined and legal program will be needed to ensure that unemployed local residents get a chance to obtain project jobs.	ADNR	42. Letter to APA, 13 Jan 1983 (Vol. 10B)	This issue will be addressed as part of the mitigation planning effort.	Spring 1984

PRELIMINARY

4 October 1983

SUSITNA HYDROELECTRIC PROJECT: AGENCY-RAISED ISSUES

Subtask: Social Sciences

Page 7 of 13

ISSUE	AGENCY	SOURCE	STATUS	COMPLETION DATE
SS-43 In order to clarify the relationship between assumptions of the socioeconomic impact model and unresolved state policies, the Power Authority should provide a process for key state agencies to become actively involved in the methodology and use of the model.	ADCRA	43. Letter to APA, 16 Mar 1983	Letter response sent 3 Aug 1983.	N/A
SS-44 The socioeconomic impacts resulting from the Susitna project are significantly understated.	ADCRA	44. Letter to APA, 16 Mar 1983	Letter response sent 3 Aug 1983.	N/A
SS-45 Responsibilities for provision of services and facilities within the local project area should be more clearly defined for the state, borough, and the contractor.	ADCRA	45. Letter to APA 16 Mar 1983	Letter response sent 3 Aug 1983.	N/A
SS-46 Legal responsibilities for access to the project site both during and after construction need to be clearly defined.	ADCRA	46. Letter to APA 16 Mar 1983	Letter response sent 3 Aug 1983.	N/A
SS-47 More information needs to be provided about the proposed permanent townsite.	ADCRA	47. Letter to APA 16 Mar 1983	Letter response sent 3 Aug 1983.	N/A
SS-48 All assumptions, standards, and input variables used in the impact model should be summarized.	ADCRA	48. Letter to APA 16 Mar 1983	Letter response sent 3 Aug 1983.	N/A
SS-49 Impacts of the Project on users of fish and wildlife resources (such as commercial fishery use, big game and professional guides, subsistence use, trappers, and river guides) should be assessed.	PWS	49. Letter to APA 5 Oct 1982		
SS-50 Effects of project construction and operation on instream flow as it relates to socioeconomics should be examined.	ADFG	50. Dwight & Trihey 81 Survey		

PRELIMINARY

4 Oct 1983

SUSITNA HYDROELECTRIC PROJECT: AGENCY-RAISED ISSUES

Subtask: Social Sciences

Page 8 of 13

ISSUE	AGENCY	SOURCE	STATUS	COMPLETION DATE
SS-51 The possibility of dam failure should be taken into consideration, particularly for areas downstream of the dam.	ADCRA	51. Letter to APA 16 Mar 1983		
SR-52 Many of the recreational use projections are underestimated.	ADFG	52. Letter to APA, 13 Jan 1983 (Vol. 10B)	Monitoring and optional development phases would ensure against under-estimation.	Fiscal Year 1985 and On going
SR-53 Management of lands for public recreation and appreciation requires additional clarification.	ADFG	53. Letter to APA, 13 Jan 1983 (Vol. 10B)	Incorporated in Feb 1983 License Application.	N/A
SR-54 The discussion of wildlife and recreation fails to address impacts to inundated tributaries to the Susitna River.	ADFG	54. Letter to APA, 13 Jan 1983 (Vol. 10B)	Comments addressed in Exhibit E, Chapter 3 and Chapter 7, Sections 2.1 and 2.2 of Feb 1983 License Application.	N/A
SR-55 There is inadequate discussion of construction worker policies regarding use of recreation resources.	ADFG	55. Letter to APA, 13 Jan 1983 (Vol. 10B)	Comment addressed in Feb 1983 License Application.	N/A
SR-56 A definition of wildlife species and recreational uses is needed.	ADFG	56. Letter to APA, 13 Jan 1983 (Vol. 10B)	Species descriptions and mitigation provided in Exhibit E, Chapter 3 of Feb 1983 License Application.	N/A
SR-57 The primary objectives of the Recreation Plan as they relate to potential impacts to fish and wildlife resources are not met.	FWS	57. Letter to APA, 14 Jan 1983 (Vol. 10B)	Comment incorporated in Feb 1983 License Application. Additional information on Recreation Plan implementation will be outlined in the Recreation Plan Implementation Report.	April 1984
SR-58 Discuss impacts on recreation to east-side tributaries below Talkeetna.	ADFG	58. Dwight & Trihey 81 Survey		
SR-59 Describe the relative proportion of impacts on recreation above and below Talkeetna.	FWS	59. Dwight & Trihey 81 Survey		

PRELIMINARY

SUSITNA HYDROELECTRIC PROJECT: AGENCY-RAISED ISSUES

4 October 1983

Subtask: Social Sciences

Page 9 of 13

ISSUE	AGENCY	SOURCE	STATUS	COMPLETION DATE
SR-60 Project-related in-migration should be a major consideration in the Recreation Plan as well as use control measures.	FWS	60. Letter to APA, 14 Jan 1983 (Vol. 10B)	Generally incorporated in Feb 1983 License Application. Controls on use to be considered in the Recreation Plan Implementation Report.	April 1984
SR-61 Identification of specific responsibilities for implementation and operation of the Recreation Plan should be included.	FWS	61. Letter to APA, 14 Jan 1983 (Vol. 10B)	To be addressed in the Recreation Plan Implementation Report.	April 1984
SR-62 The Recreation Plan fails to recognize the differences between sport, trophy, and subsistence use of particular wildlife resources.	FWS	62. Letter to APA, 14 Jan 1983 (Vol. 10B)	Comment referenced to appropriate discussions in Exhibit E, Chapters 3 and 5 of Feb 1983 License Application.	N/A
SR-63 The competition between resources users and the supply and demand of fish and wildlife needs to be expanded.	FWS	63. Letter to APA, 14 Jan 1983 (Vol. 10B)	This issue will be addressed through an interdisciplinary team organized by H-E.	Fiscal year 1984
SR-64 Appropriate mitigation should be addressed for reduced water quality due to the proposed flow regime as it relates to fishing opportunities.	FWS	64. Letter to APA, 14 Jan 1983 (Vol. 10B)	Comment adequately addressed in Exhibit E, On-going Chapters 3 and 11 of Feb 1983 License Application. Development of mitigation measures will continue.	
SR-65 Additional clarification is needed on what areas will be open to the public for recreation.	FWS	65. Letter to APA, 14 Jan 1983 (Vol. 10B)	Will be considered in the Recreation Plan Implementation Report.	April 1984
SR-66 The project sponsor must identify specific mitigation measures and develop a comprehensive plan which will address proper control by landowners and managers.	FWS	66. Letter to APA, 14 Jan 1983 (Vol. 10B)	To be addressed in the Recreation Plan Implementation Report.	April 1984
SR-67 Mitigation for the excavation of borrow areas should be specifically identified and incorporated as part of the Recreation Plan.	FWS	67. Letter to APA, 14 Jan 1983 (Vol. 10B)	Incorporated in Feb 1983 License Application.	N/A
SR-68 Management programs during construction should be identified and discussed along with associated costs.	FWS	68. Letter to APA, 14 Jan 1983 (Vol. 10B)	Operation costs incorporated in Feb 1983 License Application. Management responsibilities will be considered in the Recreation Plan Implementation Report.	April 1984

PRELIMINARY

4 Oct 1983

SUSITNA HYDROELECTRIC PROJECT: AGENCY-RAISED ISSUES

Subtask: Social Sciences

Page 10 of 13

ISSUE	AGENCY	SOURCE	STATUS	COMPLETION DATE
SR-69 Before construction begins, existing river conditions from upstream of the project to Gold Creek should be recorded on film.	NPS	69. Letter to APA, 14 Jan 1983 (Vol. 10B)	To be considered during design development for Devil Canyon visitor center.	2003
SR-70 Consideration should be given to providing public access to the Susitna River below Watana dam prior to the completion and operation of Devil Canyon Dam.	NPS	70. Letter to APA, 14 Jan 1983 (Vol. 10B)	To be considered in design development for Phase II (Watana Implementation Phase) of the recreation plan.	1993
SR-71 Consideration should be given to providing public access from the project transportation corridor to Portage Creek for fishing and/or kayaking.	NPS	71. Letter to APA, 14 Jan 1983 (Vol. 10B)	Comment adequately addressed in Exhibit E, Chapter 11 of Feb 1983 License Application.	N/A
SR-72 Appropriate day use and/or overnight facilities should be considered for Gold Creek.	NPS	72. Letter to APA, 14 Jan 1983 (Vol. 10B)	Should be investigated with response letter to NPS.	Fiscal Year 1984
SR-73 Public access to the Talkeetna River via the Stephan Lake-Prairie Creek corridor is an important issue that needs to be resolved early.	NPS	73. Letter to APA, 14 Jan 1983 (Vol. 10B)	Comment adequately addressed in Exhibit E, Chapter 11 of Feb 1983 License Application.	N/A
SR-74 The Power Authority should consider a leasing or concession arrangement with CIRI to facilitate public recreation use on Stephan Lake.	ADNR	74. Letter to APA, 13 Jan 1983 (Vol. 10B)	Will be examined in Recreation Plan Implementation Report.	April 1984
SR-75 The Recreational Plan should add three sites adjacent to the Alaska Railroad: Indian River, Gold Creek, and Curry.	ADNR	75. Letter to APA, 13 Jan 1983 (Vol. 10B)	Indian River, Gold Creek, and Curry should be investigated with response letter to DNR.	Fiscal Year 1984
SR-76 A decision is needed on whether or not the access road will be open to the public.	ADNR	76. DNR Memorandum 23 Dec 1982 (Vol. 10B)	Feb 1983 License Application clearly assumes that access road will be open to public use, but leaves issue open by stating that final decision will be made in 1993; resolution requires policy decision by the Power Authority, preferably during 1984.	(To be supplied by Power Authority)

PRELIMINARY

4 Q. or 1983

SUSITHA HYDROELECTRIC PROJECT: AGENCY-RAISED ISSUES

Subtask: Social Sciences

Page 11 of 13

ISSUE	AGENCY	SOURCE	STATUS	COMPLETION DATE
SR-77 The transmission line crossing of Willow Creek State Recreation Area conflicts with site development plans and impacts the site's recreation qualities.	ADNR	77. Task 41 Meeting, 10 May 1983	Consider alternative routing or route refinement. Will be addressed in supplemental transmission line studies.	Nov 1983
SR-78 Effects of project construction and operation on instream flow as it relates to recreation resources should be examined.	ADFG	78. Dwight & Trihey 81 Survey		
SA-79 Mitigation measures have not been specifically identified and incorporated into project plans.	FWS	79. Letter to APA, 14 Jan 1983 (Vol. 108)	Adoption and implementation of aesthetic mitigation measures will be addressed by interdisciplinary design team to be formulated during late 1983.	On-going
SA-80 Additional location and design studies are required for the construction camps and townsites.	ADNR	80. Aesthetics Workshop (1 Dec 1982)	Issue not adequately addressed. Needs additional study.	Fiscal Year 1985
SA-81 The north and south stubs of the transmission line need additional location studies.	ADNR	81. Aesthetics Workshop (1 Dec 1982)	Concern will be addressed in supplemental transmission line studies.	Nov 1983
SA-82 The transmission line crossing of Willow Creek State Recreation Area conflicts with site development plans and impacts the site's scenic qualities.	ADNR	82. Task 41 Meeting, 10 May 1983	Consider alternative route or routing refinement. Concern will be addressed in supplemental transmission line studies.	Nov 1983
SA-83 Effects of project construction and operation on instream flow as it relates to aesthetic resources should be examined.	ADFG	83. Dwight & Trihey 81 Survey		

PRELIMINARY

4 October 1983

SUSITNA HYDROELECTRIC PROJECT: AGENCY-RAISED ISSUES

Subtask: Social Sciences

Page 12 of 13

ISSUE	AGENCY	SOURCE	STATUS	COMPLETION DATE
SL-84 Potential railroad impacts to land use and access downstream from Gold Creek should be addressed.	ADFG	84. Letter to APA, 13 Jan 1983 (Vol. 10B)	Generally incorporated in Feb 1983 License Application.	N/A
SL-85 Proposed mitigation measures and their implementation need to be more clearly outlined.	ADFG	85. Letter to APA 13 Jan 1983 (Vol. 10B)	Adoption and implementation of mitigation measures is unresolved issue, requiring policy decision by the Power Authority.	Fiscal Year 1985
SL-86 Proposed mitigation for the loss of public use of project lands should identify alternatives such as replacing opportunities lost with lands that provide equal value.	ADFG	86. Letter to APA, 13 Jan 1983 (Vol. 10B)	Incorporated in Feb 1983 License Application.	N/A
SL-87 Discussions of wetlands and floodplains, including mitigation measures, should be expanded.	FWS	87. Letter to APA, 14 Jan 1983 (Vol. 10B)	Generally incorporated in Feb 1983 License Application. Additional wetlands mapping is planned.	Fiscal Year 1985
SL-88 Specific measures to mitigate impacts from the transmission line should be addressed.	FWS	88. Letter to APA, 14 Jan 1983 (Vol. 10B)	Incorporated in Feb 1983 License Application. Also to be addressed in supplemental transmission studies.	Nov 1983
SL-89 Concern about the Healy to Fairbanks transmission line right-of-way and its impacts on land disposal should be addressed.	ADNR	89. Letter to APA, 3 Feb 1983 (Vol. 10B) 28 Jan 1983	Concern to be addressed in supplemental transmission line studies.	Nov 1983
SL-90 Overall concern about the transmission line right-of-way and its effects on land disposal actions and land management practices should be addressed.	ADNR	90. Letter to APA, 3 Feb 1983 (Vol. 10B)	Concern to be addressed in supplemental transmission line studies.	Nov 1983
SL-91 The status of land for the damsite, access roads, and transmission corridors should be addressed now.	ADNR	91. DNR Memorandum, 23 Dec 1982 (Vol. 10B)	Work is currently being performed by Power Authority contractors responsible for land use authorizations and land acquisitions.	Unknown
SL-92 Types of land acquisition procedures should be investigated and action begun.	ADNR	92. DNR Memorandum, 23 Dec 1982 (Vol. 10B)	Work is currently being performed by Power Authority contractors responsible for land use authorizations and land use acquisitions.	Unknown

PRELIMINARY

4 October 1983

SUSITNA HYDROELECTRIC PROJECT: AGENCY-RAISED ISSUES

Subtask: Social Sciences

Page 13 of 13

ISSUE	AGENCY	SOURCE	STATUS	COMPLETION DATE
SL-93 The transmission line crossing of Willow Creek State Recreation Area conflicts with site development plans.	ADNR	93. Task 41 Meeting, 10 May 1983	Consider alternative routing or route refinement. Concern will be addressed in supplemental transmission line studies.	Nov 1983
SL-94 Concern that the project will result in trespass on Native lands should be examined.	AHTNA	94. Land Use Workshop 30 Nov 1982	Issue has not been resolved. Mechanism needs to be established to outline how concern will be addressed.	Fiscal Year 1984
SL-95 Concern about the compatibility of the access plan with the Denali Scenic Highway plan should be addressed.	AHTNA	95. Land Use Workshop 30 Nov 1982	The development of the plan needs to be monitored and evaluated when adopted.	Unknown
SS-96 There is a need to estimate speculative in-migration.	ADCRA	96. Socioeconomic Workshop (19 July 1983)	H-E will estimate the number of people who will move into the area to find work on the Susitna Project but who are not successful in obtaining a job. This will be accomplished by contacting B.C. Hydro and other utilities, as necessary, to evaluate what their experience has been with speculative in-migration on large scale energy development projects, hydro in particular.	Revised Projections (text) November 1983

APPENDIX B - LIST OF PREVIOUS STUDIES

1. Acres American Incorporated. 1981. Susitna Hydroelectric Project, Development Selection Report. Prepared for the Alaska Power Authority.
2. _____. March 1982. Susitna Hydroelectric Project, Transmission Line Selection Route. Final Draft. Prepared for the Alaska Power Authority.
3. _____. August 1982. Susitna Hydroelectric Project, Access Plan Recommendation Report. Prepared for the Alaska Power Authority.
4. _____. March 1982. Susitna Hydroelectric Project, Feasibility Report. Volumes 1-7, Final Draft. Prepared for the Alaska Power Authority.
5. Acres American Incorporated/Terrestrial Environmental Specialists, Inc. 1981. Susitna Hydroelectric Project, Environmental Studies Subtask 7.07: Land Use Analysis. Prepared for the Alaska Power Authority, Anchorage, Alaska.
6. Braund, Stephen R. and Associates. March 1982. Susitna Hydroelectric Project, Subtask 7.05, Socioeconomic Analysis, Sociocultural Report. Final Draft. Prepared for Acres American Incorporated.
7. Commonwealth Associates, Inc. January 1982. Anchorage-Fairbanks Transmission Intertie Route Selection Report. Prepared for Alaska Power Authority, January 1982.
8. _____. March 1982. Environmental Assessment Report, Anchorage-Fairbanks Transmission Intertie. Prepared for the Alaska Power Authority.

9. Dixon, E.J., Jr., G.S. Smith, and D.C. Plaskett. May 1980. Procedures Manual/Research Design, Subtask 7.06 Cultural Resources Investigation for the Susitna Hydropower Project. University of Alaska Museum. Fairbanks, Alaska.
10. Dixon, E.J., Jr., G.S. Smith, R.M. Thorson, and R.C. Betts. May 1981. Annual Report, Subtask 7.06 Cultural Resources Investigations for the Susitna Hydroelectric Project, 1980. University of Alaska Museum. Fairbanks, Alaska.
11. Dixon, E.J., G.S. Smith, M.L. King, and J.D. Romick. December 1982. Final Report 1982 Field Season Subtask 7.06 Cultural Resources Investigation for the Susitna Hydroelectric Project. University of Alaska Museum, Fairbanks, Alaska.
12. Frank Orth and Associates, Inc. April 1982. Susitna Hydroelectric Project Environmental Studies, Subtask 7.05: Socioeconomic Analysis Phase I Report. Prepared for Acres American Incorporated and the Alaska Power Authority.
13. Jones and Jones. March 14, 1975. Upper Susitna River - An Inventory and Evaluation of the Environmental, Aesthetic and Recreational Resources. Prepared for D.O.A., Alaska District, Corps of Engineers.
14. University of Alaska Agricultural Experiment Station. June 24, 1981. Exhibit E, Report on Recreation Resources, Subtask 7.08. Undated draft. Prepared for Acres American Incorporated.
15. _____. April 1982. The Recreation Plan for the Proposed Susitna Hydroelectric Project.
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