

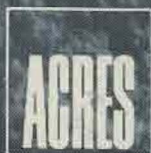
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# SUSITNA HYDROELECTRIC PROJECT

## FEASIBILITY REPORT

VOLUME 7  
APPENDIX D  
COORDINATION AND  
PUBLIC PARTICIPATION  
FINAL DRAFT



ALASKA POWER AUTHORITY

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# SUSITNA HYDROELECTRIC PROJECT

## FEASIBILITY REPORT



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SUSITNA HYDROELECTRIC PROJECT

APPENDIX D

PUBLIC PARTICIPATION

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## 1 - THE PUBLIC PARTICIPATION PROGRAM

### 1.1 Introduction

From the start of Susitna Hydroelectric Project a goal has been to incorporate the interests, concerns, and the opinions of the public in the decision making process. To ensure public participation in the project, a major effort has been made to inform and involve the public, and to see to it that such involvement does in fact influence the course of the work.

The Susitna Hydroelectric Study Public Participation Program is conducted by the Alaska Power Authority. The Director of Public Participation (DPP) is a key member of the Power Authority staff. The DPP is responsible to the Executive Director for designing and implementing all aspects of the Public Participation Program. From time to time, the Acres American Project Team is called upon to make presentations and to assist in responding to questions and concerns, but responsibility for the program rests with the Power Authority.

Traditionally, public information programs have focused on the public's right to know what is happening when an important action may effect the future. The Power Authority program has attempted to go beyond this traditional approach. Because it seeks to establish interaction with the public and provide a two-way communication process, the program's emphasis has been placed on "participation" rather than simply "information." Major objectives include:

- To distribute information to the public concerning the issues, problems, alternative choices, opportunities, and impacts regarding the plans and decisions to be made on the Susitna Hydroelectric Project.
- To solicit information from the public about values, attitudes, and opinions bearing upon the plans and decisions to be made.
- To ensure that information provided by the public is fully and carefully considered along with technical, economic, and environmental data collected and analyzed in the planning and decision-making process.

To achieve these objectives, the program provides regularly scheduled meetings and workshops as well as continuing effort to inform the public about the Susitna Project through a series of newsletters. An "Action" system was also established to give a timely response to comments and questions received through the mail.

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## 1.2 Community Meetings

Four community meetings were held in April, 1980, to provide the public an opportunity to comment on the adequacy of the Plan of Study for the Susitna Hydroelectric Project and to contribute opinions and concerns for consideration by the Alaska Power Authority. The meeting was publicized in several ways. Personal letters were sent to the presidents and contact person of groups and organizations in various Railbelt communities, including commercial fishing groups, sportmen's groups, general public interest groups, energy-related groups, business groups, and mining groups. Large display ads were placed in community newspapers one week before the meetings. Paid radio ads and public service announcements were aired on local stations. Press releases were issued informing the public that Plans of Study were available for review in libraries and giving the dates of the community meetings. The Fairbanks Daily News Miner wrote a five-part series on the Susitna project that was published a week prior to the meeting and served to inform people of the issues and the meetings.

The Plan of Study was described in three formal presentations. First, Acres American presented a slide show outlining the Plan of Study. Second, the Alaska Power Authority presented information on how alternatives would be reviewed and evaluated. Finally, the Public Participation Program and Action System were described. Cards were provided for people to ask questions. In addition table top discussions were held in Fairbanks, Talkeetna, Wasilla, and Anchorage. These discussions gave each participant a chance to voice her or his opinion in small groups. All comments were recorded and the results reported by a participant chosen by the group.

Attendance at the first meetings, by community, was as follows:

-	Fairbanks	-	70
-	Talkeetna	-	31
-	Wasilla	-	42
-	Anchorage	-	109

In total, there were 182 comments received on the adequacy of the Plan of Study. These are recorded in a summary report entitled "A Report on the first series of community meetings on the feasibility studies for the Susitna Hydroelectric Project and other power alternatives." This same report also lists (by task) the 165 questions asked at all four meetings. A copy of the report is included at the end of this Appendix.

The report was distributed to the 252 people who attended meetings, public libraries within the Railbelt area, commercial fishing groups, public interest groups, recreation groups, business groups, media,

sportmen's groups, environmental groups, energy groups, mining groups, State and Federal agencies, Acres and all Acres' subcontractors, the Office of the Governor, Battelle Pacific Northwest Laboratories (who was later selected to conduct the energy alternatives study), and individuals upon request. In addition to the report, a permanent record of all proceedings is available through verbatim transcripts.

In mid-March 1982, community meetings will be held to present information on the findings of the feasibility study. In April 1982, a third and final series of meetings will be held to allow public testimony concerning the feasibility study. The March and April 1982 meetings are planned for Talkeetna, Fairbanks, and Anchorage.

### 1.3 Workshops

Workshops were held during the course of the study to permit members of the Acres' study team and the Power Authority staff to discuss and evaluate specific issues with members of State and Federal resource agencies, special interest groups, and the general public.

#### (a) Workshop #1: June 11, 1980

The first workshop was held in Anchorage. It dealt with load forecasting, electrical energy forecasting, and conservation. Members of the Alaska Power Authority, Woodward Clyde Inc., and the Institute for Social and Economic Research participated in the workshop. Twenty-five people attended. Although more information on conservation, electrical energy forecasting, and end-use data was desired, people attending the workshop reported that it met most of their needs and the presentations were clear and understandable.

#### (b) Workshop #2: July 17, 1980

The second workshop was also held in Anchorage and gave an overview of the FERC licensing process and identified specific licensing needs of the Susitna project. Only two people attended and the meeting was not considered to have furnished the two attendees with clear information on the FERC process.

#### (c) Workshop #3: March 16, 17, & 19, 1981

The third workshop was actually a series of workshops held in Anchorage, Talkeetna, and Fairbanks. The meetings focused on the subjects of access and recreation planning. The purpose of the workshops was to present information on several access and recreation plans and to hear comments that could be used in



formulating plans for inclusion in the feasibility study. Members of the Power Authority, Acres American, Terrestrial Environmental Specialists, Inc., Frank Orth and Associates, the University of Alaska, and R & M Consultants participated in the meetings. Included in the presentations was preliminary information on environmental and social impacts of the various access routes. The attendance at each workshop was as follows:

- Fairbanks - 36
- Talkeetna - 38
- Anchorage - 40

More than 300 comments were heard and recorded. In addition, 49 questionnaires that were passed out at the workshop were returned. The information from the comments and questionnaires was used in a report prepared by the Public Participation Office concerning public preferences on access and in a recreational plan prepared by the University of Alaska. The access report was used by Acres in determining what access plan would be recommended in the feasibility report. A copy is included in this Appendix as Exhibit 1.

Prior to the workshops, questionnaires were sent to Game Guides registered in the Upper Susitna Basin, to the Trappers Associations in Fairbanks and Anchorage, and to members of the Alaska Miners Association. Questions concerning access and recreation were asked, and the results of these questionnaires are included in Exhibit 1.

(d) Workshop #4: October 21 & 22, 1981

Two follow-up workshops on the access routes were held in Talkeetna/ Trapper Creek and Cantwell. The purpose of these meetings was: 1) to check back and confirm what the Public Participation Office had interpreted as community preference in the March meetings; 2) to confirm what Stephen Braund and Associates had discovered as part of their socio-cultural study; and 3) to provide the most recent information concerning access planning, environmental impacts, and socio-economic impacts. Papers prepared by Stephen Braund and Associates and the Public Participation Office (see Exhibit 1) concerning local community preference were mailed to residents prior to the meetings. Approximately 50 people attended the Talkeetna/Trapper Creek meeting and 25 attended the Cantwell meeting. The local community preferences as recorded by Stephen Braund and Associates and the Public Participation Office were confirmed at these meetings.

e) Workshop #5: October 1981

Originally a series of four workshops focusing on environmental issues were planned for October 1981. The major topics to be covered were fish and wildlife, as well as downstream changes expected to occur in the Susitna River. Workshops were planned for Anchorage, Talkeetna, Fairbanks, and the Kenai Peninsula.

After much planning and discussion, the workshops were cancelled in September 1981. The primary reason was the lack of fishery information. The Alaska Department of Fish and Game was completing their first full year of field work and had not had time to develop their data. Because the impact of the project on the Susitna River and Cook Inlet fisheries was expected to be the most controversial topic, the decision was made to cancel the workshops.

In place of the environmental workshops, the Public Participation Office (PPO) did several things. First, the PPO gave members of the conservation community the opportunity to speak directly with members of the fish and wildlife mitigation core groups. On two occasions, several members of active conservation organizations were invited to discuss issues related to fish and wildlife. The first was October, 1981 with Dr. Richard Taber and Dr. Frank Banfield, members of the Wildlife Mitigation Core Group. The second meeting was held October 22, 1981 with Dr. Clint Atkinson, Milo Bell, Bob Williams, and Kevin Young, members of the Fish Mitigation Task Force. Both occasions provided opportunities to answer questions and discuss the most recent information available from environmental studies.

Second, when fisheries information was available, a sixth workshop was held in Soldotna.

Third, as further compensation for the cancelled workshops, the entire third newsletter was devoted to fish and wildlife issues.

f) Workshop #6: January 21, 1982

Workshop #6 was held in Soldotna on the Kenai Peninsula on January 21, 1982. This workshop dealt with the potential impact of the project on the salmon fishery in Cook Inlet. Members of the Power Authority staff and the Fish Mitigation Task Force participated, as well as representatives of the Cook Inlet Aquaculture Association. More than sixty people attended the meeting.



In addition, a media briefing was held in Anchorage at the Power Authority office before the Soldotna meeting. Thirteen members of the print media, radio, and television attended. The same information presented at the Soldotna meeting was presented to the members of the media.

#### 1.4 The Action System

A unique aspect of the Public Participation Program involved a specially designed "action system." Recognizing the importance of getting questions answered in encouraging public dialogue, the action system provides a vehicle by which every comment or question was given careful consideration and a personal response was given. To minimize the burden of letter writing, forms were distributed for use by the public, although the forms are not a prerequisite for processing written comments.

Forty-six letters were received through the Action system in 1980. Each letter averaged three issues, so that 156 questions and comments received responses.

Of the 46 letters, 19 contained questions or comments about the alternatives study, and copies were forwarded directly to Fran Ulmer in the Office of the Governor for a response. This rendered the alternatives study the top-priority item in 1980.

The second priority included questions and comments on the environmental studies (including life style, industrialization, and local hire issues), and the third priority included questions and comments on the public participation program. The most questions and comments (about half of the total 156) came from the Talkeetna/Trapper Creek area.

Thirty-two letters were received through to action system in 1981. A total of 52 questions and comments were received, and responses were provided for each.

No one issue stood out in the 1981 action correspondence. Questions and comments relating to environmental issues, access, and recreation were most common. In addition, six letters requested documents on reports concerning the study. The questions and comments were fairly evenly distributed among the Anchorage, Fairbanks, and Talkeetna areas.

As the result of the State of Alaska making the Indian River remote area available in 1981 in the state lottery, people who had staked property at Indian River in the summer of 1981 were contacted. The Indian River remote people were informed of various alternative access routes being considered for the proposed Susitna project and asked their preference.

Of 37 letters sent, 14 people responded. These letters have been entered into the Action System.

Copies of all letters sent to the Action System and the responses provided are included as Exhibit 2.

### 1.5 Newsletters

Three newsletters entitled "The Susitna Hydro Studies" have been produced in 1980-82. Two more newsletters are being planned: one in March 1982 and the final in April 1982. The purpose of the newsletter is to present objective information on the progress of the Susitna Feasibility study so that public can draw their own conclusions based on accurate information. Each newsletter was eight pages long and printed on a 11 x 17 inch format. Copies of the first three newsletters are included at the end of this Appendix.

In addition, a supplementary publication was produced that featured interviews with members of the External Review Panel for the Susitna Project. The interviews were conducted in February 1981 by the Public Participation Office. One of the interviews (Dr. H. Bolton Seed) was published in the September 1981 newsletter. Because all the interviews were felt to be informative and the Power Authority desired to make the public aware of the function of the Review Panel, the interviews with all six members of the panel were published in November 1981. Due to limited number of copies (1000 copies), the large number of requests for it after distribution, and the cost of reprinting, the publication is not included in this appendix.

#### a) Newsletter #1: November 1980

The first newsletter was produced in November 1980. Contents included articles on the following subjects:

- Energy decision facing Railbelt
- Social and economic impacts
- Susitna vicinity map and background information
- Energy needs expected to double
- Tunnel option
- Earthquake studies
- Wildlife and small mammal studies
- Hydrology studies
- Susitna fish studies
- Potential recreation sites
- Bird studies
- How to be involved
- Public comment changes study plan



b) Newsletter #2: September 1981

Contents of the second newsletter contained articles on the following topics:

- Earthquakes and seismic issues including interviews with a member of the firm conducting the seismic studies, and a member of the External Review Panel
- Earth and rockfill dams
- Senate Bill 25
- A comparison of Susitna to other existing dams
- Staging construction to meet power demand
- Background on the External Review Panel
- The recommendation of a dam at Devil Canyon over a tunnel

c) Newsletter #3: January 1982

Because environmental workshops had been cancelled, the entire newsletter focused on fish and wildlife issues. The following topics were covered:

- The fisheries field studies conducted during the summer of 1981
- Questions and answers concerning impacts on fish with two members of the Fish Mitigation Task Force
- An interview with Dr. Frank Banfield concerning caribou
- Impacts and suggested mitigation for several species of wildlife

d) Newsletter #4: March 1982

A fourth newsletter will appear in March 1982. It will include articles on:

- The Railbelt Electric Energy Alternatives draft report
- The Tidal Power Study
- Access to the project
- Floods and spillways
- Changes in downstream morphology

e) Newsletter #5: April 1982

The final newsletter will feature summaries of both the Susitna Hydroelectric Feasibility Report and the Railbelt Electric Energy Alternatives Report. This newsletter will appear in late March.

f) Number of newsletters printed

All newsletters were distributed to approximately 30,000 people, mostly through direct mail. The mailing list information is discussed in the following section.

#### 1.6 Mailing Lists

The Public Participation Office compiled and used three mailing lists. The first was a list of 46 groups and organizations (about 225 individuals) interested in following the progress of the Susitna studies. The list was originally obtained by telephone interviews with known groups and organizations, and is continually being expanded as new groups are identified.

The list of organizations is generally considered to be representative of pro, con, and neutral groups. It is divided into categories: commercial fishing groups, sportsmen's groups (mostly fishing, some game), general public interest groups, conservation groups, recreation groups, energy groups, business groups, and mining groups.

The following information was recorded for each organization after interviewing up to five people within the organization:

- anticipated level of interest in studies
- names, addresses, and phone numbers of contact people (staff, key officers, newsletter editor and others identified as particularly interested in the studies)
- type of membership, number and distribution (community, state-wide, national)
- information about organizations's newsletter, including circulation, when published and deadlines for submitting articles
- any other information that would be helpful to the Public Participation Office in working with the organization.

Contact with these groups has been person-to-person, by telephone, and by mail. Mailings are generally notices of meetings or information about the study. Information is sent when it becomes available or when growing concern or considerable interest develops in a particular aspect of the study.

The following list of groups and organization was developed by the Public Participation Office in February and March, 1980. Besides each group is shown the level of interest that each group initially expressed

in following the progress of the Susitna studies. The Public Participation Office uses this to determine the content and frequency of communications with the groups.

Sportmen's Groups (Mostly fishing interests, some game)

- |  |                   |
|--|-------------------|
| 1. Alaska Sports Fishing Association                 | - High            |
| 2. Eagle River Sportsmen's Game Preservation Society | - Moderately High |
| 3. Izaak Walton League of America                    | - High            |
| 4. Tanana Valley Sportsmen Association               | - Uncertain       |
| 5. Real Alaska Coalition                             | - Moderate        |
| 6. Alaska Sportsmen's Council                        | - High            |

Commercial Fishing Groups

- |  |                   |
|--|-------------------|
| 1. Cook Inlet Aquacultural Association     | - High            |
| 2. Commercial Fisherman of Cook's Inlet    | - High            |
| 3. Cook Inlet Fisherman's Fund             | - High            |
| 4. North Pacific Fisherman's Association   | - High            |
| 5. Kenai Peninsula Fishermen's Cooperative | - No response yet |
| 6. Cook Inlet Fishermen's Association      | - High            |
| 7. West Side Set Netters                   | - No response yet |

General Public Interest Groups

- |   |                   |
|---|-------------------|
| 1. State League of Women Voters                 | - Moderate        |
| 2. League of Women Voters - Anchorage           | - Moderate        |
| 3. League of Women Voters - Fairbanks           | - Low             |
| 4. Federation of Community Councils - Anchorage | - Low             |
| 5. AkPIRG                                       | - Moderately High |
| 6. Talkeetna Community Education Program        |                   |
| 7. Wasilla Community Education Program          |                   |

Conservation Groups

- |  |            |
|--|------------|
| 1. Alaska Chapter - Sierra Club                      | - High     |
| 2. Sierra Club - Anchorage/Alaska Office             | - Moderate |
| 3. Sierra Club - Knik Chapter (Anchorage)            | - High     |
| 4. Sierra Club - Denali Chapter (Fairbanks)          | - High     |
| 5. Alaska Conservation Society - Statewide/Fairbanks | - High     |
| 6. Alaska Conservation Society - Anchorage Group     | - Moderate |
| 7. Kenai Peninsula Conservation Society              | - Low      |
| 8. Alaska Center for the Environment                 | - High     |
| 9. Fairbanks Environmental Center                    | - High     |
| 10. National Audubon Society - Alaska Regional       | - Low      |

#### Office

- |  |                    |
|--|--------------------|
| 11. Arctic Audubon Society - Fairbanks | - None             |
| 12. Anchorage Audubon Society          | - Low              |
| 13. Friends of the Earth               | - Moderate         |
| 14. Greenpeace                         | - Low              |
| 15. Denali Citizen's Council           | - High             |
| 16. Trustees for Alaska                | - Moderate to high |
| 17. National Wildlife Federation       | - High             |

#### Recreation Groups

- |                                  |            |
|----------------------------------|------------|
| 1. Mountaineering Club of Alaska | - Moderate |
| 2. Knik Kanoers and Kayakers     | - High     |

#### Energy Groups

- |   |        |
|---|--------|
| 1. Alaskans for Alternative Energy        | - High |
| 2. Alaska Rural Electric Coop Association | - High |

#### Business Groups

- |  |                   |
|--|-------------------|
| 1. Susitna Power Now                                     | - High            |
| 2. Resource Development Council/Pacific Legal Foundation | - Moderately High |
| 3. Commonwealth North                                    | - Moderate        |
| 4. Devil Canyon Corporation                              | - High            |

#### Mining Groups

- |                              |            |
|------------------------------|------------|
| 1. Alaska Miners Association | - Moderate |
|------------------------------|------------|

The second mailing list compiled and used by the Public Participation Program is computerized. The final list had about 7600 names. Names were continually added to the list throughout the study. This list was used primarily to mail newsletters.

The following method of compiling the computer mailing list was used:

1. 70,000 inserts were placed with the Anchorage Municipality's utility bill in February, 1980. About ten percent were returned, with 6500 individuals asking to be placed on the mailing list in Anchorage.
2. Coupons were available in the Matanuska Electric Association's publication Ruralite in July, 1980 to solicit responses from the MEA area. Coupons were also available in Golden Valley Electric Association's issue of Ruralite for the Fairbanks area.

3. Coupons for interested persons to send to the Public Participation Office were included in the November, 1980 and September, 1981 and January, 1982 newsletters which had a distribution of about 30,000 in the Fairbanks, Anchorage, Talkeetna, Valdez, Glennallen, and Kenai Peninsula locations. The first two newsletters were sent to all persons on the voter registration listing in Fairbanks and Kenai. Half of those on the list received the first newsletter; the other half the second. All those who returned the coupon in the newsletter were placed on the permanent newsletter mailing list.
4. Names were continually added to the list in the following ways:
  - All persons submitting items to the Action System were added.
  - Organizations and individuals identified as needing information were added.
  - Persons who attend workshops and community meetings were automatically added.
  - Newspaper ads with return coupons were placed in Railbelt newspapers immediately after the release of the second and third newsletters. Names from the returning coupons were added.

The third type of mailing list does not include the names of individuals. It is rather a listing of 1500 boxholders and star route boxholders in the communities listed below.

Talkeetna  
Willow  
Usibelli

Cantwell  
McKinley Park

Trapper Creek  
Healy

## 2 - PUBLIC CONCERNS

Community meetings, workshops, informal meetings, surveys, and the action system have produced a comprehensive profile of frequently mentioned concerns and comments. The following section summarizes these comments and concerns. Exhibit 2 contains copies of the Action correspondence; Exhibit 1 contains a tabulation of responses from workshops and surveys conducted during the feasibility study. Actual changes to the planning process will be discussed in Section 3.0.

### 2.1 Concerns Expressed at the April 1980 Community Meetings

Figure 1, reproduced from the report of the April 1980 community meetings, notes concerns, questions, and discussion areas. Of particular note is the heavy emphasis on the determination of future energy needs (forecasts) and of how such needs might be satisfied in the future (alternatives).

## 2.2 Concerns Expressed at the March 1981 Workshops

There were four categories of questions and comments from the March 1981 workshops: a) access; b) recreation; c) community impacts; and d) environmental. More than 300 comments were heard and recorded and 49 questionnaires passed out at the meeting were returned.

### (a) Access Comments

Workshop participants were given information on four alternative access plans that used various combinations of road and rail access connecting with existing transportation routes (see page 19 of Exhibit 1). The following table shows the response of the workshop participants to the questionnaire on access.

<u>Route</u>	<u>Fairbanks</u>	<u>Talkeetna</u>	<u>Anchorage</u>	<u>Mail*</u>	<u>Total</u>
Route A	1	3	0	1	5
Route B	13	12	1	5	30
Route C	3	2	0	3	8
Route D	0	0	3	2	5
No Preference	1	1	0	0	2

Route A - Road from Parks Highway to Devil Canyon and Watana sites

Route B - Railroad to Devil Canyon and Watana sites

Route C - Road from Denali Highway to Watana and Devil Canyon sites; rail spur to Gold Creek

Route D - Roads from both Denali and Parks Highway; service road between dams

\*Mail responses were mostly from the Anchorage area and reflect the thinking of that area.

The table shows that most of the people attending the workshops in Fairbanks and Talkeetna favor all rail access during and after construction. Additionally, almost half the people in Anchorage favored the rail only alternative. About half the people in Anchorage and one-third of the people in Fairbanks and Talkeetna favored some type of road access because they could gain access to an area that they feel is currently inaccessible. The Anchorage people tended to favor a route



going south from the Denali Highway, but in Fairbanks and Talkeetna several people spoke out against it because of the potential adverse effects on caribou calving grounds near that route.

In addition, some people at each workshop indicated they favored no or very limited access to the project. Pages 20 to 31 of Exhibit 1 are summary of the responses from the March 1981 workshops concerning access.

(b) Recreation Comments

The workshop participants were presented with five recreation plans ranging from no development with limited access to maximum development with full access. The various plans addressed development on or near the Watana and Devil Canyon reservoirs and not along any of the proposed access routes. Exhibit 3 contains information passed out at the workshops as well as results of the questionnaire.

Many people at the Talkeetna workshop and some at the Anchorage workshop expressed concern that even with good planning, it would be impossible to control recreation development in the project area. Most of the Fairbanks participants and one-third of the Talkeetna participants favored no recreation and limited access. They were concerned that access to the area would spoil its present value as a wilderness area. About one-third of all workshop participants favored some recreation development, ranging from primitive campsites to improved campsites with facilities for trailers and campers. Only a few participants favored high development with restaurants and lodging at one or both reservoirs.

(c) Community Impacts

Community impacts of the proposed Susitna project would be most evident in Talkeetna, Trapper Creek, the railroad communities north of Talkeetna, and Cantwell. The people at the Talkeetna workshop were concerned about impacts to their community during construction.

Concern was expressed that small, unincorporated communities, such as Talkeetna, do not have resources to handle major changes. They expressed concern that increases in population would put a strain on police and fire protection, water services, and septic systems. Questions were raised about who would pay for these additional services should they be needed.

FIGURE 1

## 8 MAJOR CONCERNS

The following areas received the most comments during the table top discussions:

- 15 comments saying Plan of Study adequate.
- 29 comments saying alternatives study not adequate and why.
- 25 suggestions for energy sources that should be considered in alternatives study.
- 17 suggestions for serious consideration of decentralized alternatives.
- 17 comments describing what the socioeconomic studies should address.
- 11 comments suggesting a level of effort on studies on fish, wildlife and plants.
- 8 comments describing concerns about transmission studies.
- 8 suggestions for getting information to the public.

## TABLE TOP DISCUSSION SUMMARY

This chart summarizes the total number of table top comments received on the adequacy of the Plan of Study.

	# of comments	% of total
Plan of Study	29	16%
Task 1: Power Studies	84	46%
Task 2: Surveys and Site Facilities	none	-0-
Task 3: Hydrology	7	4%
Task 4: Seismic	4	2%
Task 5: Geotechnical	none	-0-
Task 6: Design Development	2	1%
Task 7: Environmental	30	17%
Task 8: Transmission	8	4%
Task 9: Construction Costs and Schedules	none	-0-
Task 10: Licensing	none	-0-
Task 11: Marketing and Financing	4	2%
Task 12: Public Participation	14	8%
<b>TOTALS</b>	<b>182</b>	<b>100%</b>

## THE 8 MOST ASKED QUESTIONS

Written questions were asked most often in the following areas (listed in rank order):

- 27 questions expressing concern for completeness of alternatives study
- 13 questions on adequacy of energy forecasts
- 11 questions on objectivity of those conducting the alternatives study
- 10 questions on the decision making process and the timing of decisions
- 10 questions on construction costs and schedules
- 8 questions on marketing and financing of Susitna
- 7 questions on access roads to damsites
- 7 questions on local hire in feasibility studies

## QUESTION AND ANSWER SUMMARY

This chart shows how many questions were asked about each TASK in the Plan of Study.

	# of questions asked	% of total questions
Plan of Study	5	3%
Task 1: Power Studies	79	48%
Task 2: Surveys and Site Facilities	9	6%
Task 3: Hydrology	2	1%
Task 4: Seismic	7	4%
Task 5: Geotechnical	2	1%
Task 6: Design Development	7	4%
Task 7: Environmental	9	6%
Task 8: Transmission	5	3%
Task 9: Construction Costs and Schedules	13	8%
Task 10: Licensing	1	less than 1%
Task 11: Marketing and Financing	8	5%
Task 12: Public Participation	6	4%
Miscellaneous	12	7%
<b>TOTALS</b>	<b>165</b>	<b>100%</b>

## SUMMARY RESULTS OF APRIL COMMUNITY MEETINGS

People were also concerned that a great many trailers and campers would be parked in the area. Questions were asked about who would control this and provide and maintain facilities for trailers.

Some ideas were discussed for dealing with or avoiding possible change. There was considerable discussion on whether Talkeetna should develop a plan for controlling change or whether the community should develop a plan to resist change. As a way to avoid impacts, the suggestion was made that worker's families be housed at the construction site.

Anchorage and Fairbanks participants were concerned about construction employment and population increases. Questions were asked about construction schedules, where workers would come from, and how additional jobs would effect unemployment. Other questions were asked about the effect of population increases on the larger urban areas as well as the smaller Railbelt communities. Concerns were expressed about Susitna basin hunting and fishing resources being adversely impacted by increased numbers of people in the area. Both Anchorage and Fairbanks participants expressed concern that socioeconomic studies would not adequately analyze possible impacts on subsistence hunting and fishing.

(d) Environmental Comments

Comments and concerns were also expressed at the workshops about how access would not only effect the environment, but also how the entire project would effect the environment. Many of the people who attended the Fairbanks and Anchorage workshops were concerned that increased access to the project would adversely effect the environment. Some people felt that construction activities, the presence of construction workers, and easy access by the public would have adverse impacts on wildlife. Much of the concern was for added hunting and fishing pressure in areas that many felt had too much activity already.

In Talkeetna most people were concerned about how the dams might change the Susitna River. People asked questions about whether there would be more or less flooding, whether the river would continue to freeze over in the winter, and whether boating access would be possible. Some people expressed concern about possible silt build-up behind the dams causing damage and possible flooding.

People at all three workshops felt that there would not be enough data available to make a good decision on the project's feasibility. Numerous questions were asked about resident and anadromous fish.

## 2.3 Public Concerns as Expressed Through the Action System

### (a) Summary of Letters Received Through the Action System

The Action System was introduced to the public during the week of the community meetings in April, 1980. Initially the system was designed to accommodate suggestions by the public for changes and additions to the Plan of Study. All items submitted to the System are reviewed by the Alaska Power Authority and Acres American, Inc., and receive a written response. Most of the items submitted, however, have been questions or expressions of opinions. Consequently, the Action system also became a method for monitoring, recording, and responding to questions and concerns raised by the public outside the format of the workshops and community meetings.

The three primary areas of concern expressed through letters received in 1980 were, in order:

1. the alternatives study;
2. environmental studies; and
3. public participation.

The primary concerns in Talkeetna were environmental (including lifestyle questions, local hire, and concern that inexpensive energy would result in industrialization). Fairbanks had a high number of questions and comments on environmental issues and public participation. In all other communities (Anchorage, Fairbanks, and the Matanuska Valley), the top concern expressed in 1980 was for the alternatives study.

The Action system letters received in 1981 were more varied in content. The major areas of concern expressed in the letters were:

- 1) environmental studies;
- 2) access planning;
- 3) recreation planning;
- 4) public participation; and
- 5) requests for documents and general information about the project.

No one area had a significantly greater number of letters than any other area. The concerns of the Talkeetna area residents focused on access and recreational planning. Other communities' questions and comments were more general in nature, although there were several letters from the Fairbanks area on environmental issues.

### (b) Responses to Letters

Letters received through the Action System in 1980 and 1981 averaged two questions and/or comments. More than one resource person was usually required for an adequate answer. Three staff members from Acres American, Inc. were involved in writing responses and seven members of the Power Authority. An attempt was made to make the letters friendly and not bureaucratic.

An attempt was also made to educate the public. For instance, in the response to the 19 letters on the alternatives studies, enough information was included so that the person knew what changes had been made, why, how the two separate studies would relate, and where to go for follow-up.

(c) Questions on Alternatives Study

When the alternatives study was turned over to the Office of the Governor in July, 1980, questions about the study were forwarded to that office. In an attempt to avoid the perception by those using the Action system that the buck was being passed from one state office to another, specific names of those conducting the Alternative Study in the Governor's office were included in the response letter. In addition information was provided explaining why the Alternative Study was no longer being conducted by the Power Authority or Acres American. In total, 19 letters were sent to Fran Ulmer in the Office of the Governor.

(d) Response Time

Initially, the average response time for letters received through the Action System was five months due to problems in setting up the system. By the end of 1980, however, the system was operating smoothly and many letters that were received in December, 1980, were also answered in December, 1980. Most files were closed in less than six weeks, and many much sooner. Questions of a more technical nature took longer if the answer required from Acres American dealt with a phase of the study that was currently in the process of completion or information was being refined.

3 - MAJOR CHANGES THAT RESULTED FROM PUBLIC CONCERN

3.1 Introduction

The Public Participation Program was designed to provide a means for the general public to express concerns and ask questions about the feasibility studies. Several components of the overall studies were changed due in part to input from the public. The major influence the public has had on changes in the studies resulted from the April 1980

meetings that were held to receive public comment on the adequacy of Acres American's Plan of Study. The Plan of Study was conceived as a dynamic document and it was anticipated from the beginning of the studies that changes could and would be made in response to public input.

During 1981 the public's preferences and comments concerning access to the proposed project contributed to changes in the emphasis of the study. Due to concerns expressed in the March 1981 access and recreation workshops, several changes were made in the study and the decision making process concerning access and recreation.

The following section summarizes these changes and discusses some of the events that precipitated them.

### 3.2 Changes to the Plan of Study

A concern for what the public had to say regarding the energy development of the Railbelt region prompted the Alaska Power Authority to make several changes to the Plan of Study (POS) during 1980. The original POS was distributed to over 250 persons, including State and Federal gencies, groups and organizations, and individuals, and placed in libraries throughout the Railbelt. In April 1980 community meetings were held in Anchorage, Wasilla, Talkeetna, and Fairbanks. Questions and comments were collected and recorded. The results of these meetings were summarized in Section 2.0 and are fully recorded in the report included at the end of this Appendix. In September 1980 a revised Plan of Study was published and again widely distributed. This revised version contained a complete description of the changes. The changes are briefly summarized below.

#### (a) Expanding the Alternatives Study

The main conclusion of the April 1980 community meetings was that there was a need for greater emphasis on a study devoted to alternative energy sources.

Many people were concerned that the scope of work as outlined in the February 1980 Plan of Study favored the Susitna project, and that more time and more money was needed to look at alternatives. Some concern was also expressed about the ability of Acres American to conduct an objective assessment of alternatives to Susitna.

In May 1980 a report to the Legislature by Arlon Tussing and Associates Incorporated reemphasized the need for expanded work in this area by an organization other than Acres. The Power Authority subsequently requested funds for an expanded study of alternatives



to Susitna. In June the Legislature granted additional funding. They also requested that an independent consulting firm conduct the study and transferred the study from the Power Authority to the Governor's office. To assist in the public's understanding of the proposed alternatives study, the Public Participation Office wrote a brief summary of the Request for Proposals developed by the Governor's office for the alternatives study. This summary was circulated to interested groups, organizations, and individuals. Comments received by the Public Participation Office indicated that this summary was well received and proved to be helpful in the public's understanding of the proposed study.

(b) The addition of a Sociocultural Study

As the result of concerns expressed at the April 1980 community meeting in Talkeetna, a sociocultural study was added to the revised Plan of Study. The concern was articulated by one speaker in this way: "When the Plan of Study speaks of cultural impacts, it does so in terms of archaeology and historical investigation. I feel that it is desirable and timely that the plan recognize the existence of that concept which is sociocultural in a contemporary sense."

As a result of this comment and similar comments expressed by people in the Talkeetna/Trapper Creek area, the Power Authority concluded that a study should be made of the effect that the construction of Susitna might have on the life-style of the people living in the immediate vicinity of the project.

This study was done during 1981 by Stephen Braund and Associates and was coordinated with Frank Orth and Associates' work on the identification and analysis of socioeconomic conditions.

(c) Additional changes to the Plan of Study

Public input and concern brought about other changes to the Plan of Study. One concern that was repeatedly expressed during community meetings dealt with the possibility that the Susitna project would result in "excess power." The Fairbanks Environmental Center referred to this as "cheap blocks of power" or "gluts of power" in their written material. The public perceived that excessive power would be produced by the Susitna project and this would encourage heavy industry, such as aluminum smelting, to locate in the Railbelt region.

These concerns were reiterated in June 1980 when the University of Alaska's Institute for Social and Economic Research published a

report entitled "Electrical Power Consumption for the Railbelt: A Projection of Requirements." The load and growth projections in this report indicated that future load growth would be lower than what had previously been reported by the Corps of Engineers. Since the Corps work was serving as a basis for much of the feasibility study, this meant that the Corps two dam scheme needed to be reassessed and a more detailed study of alternative levels of development needed to be considered.

As a result, the following studies were added:

- Additional work on investigating a tunnel alternative to the Devil Canyon Dam;
- additional work exploring the possibility of smaller hydro facilities at the Devil Canyon and Watana sites;
- additional work on identifying how hydro development can be staged within the Susitna basin;
- work to provide cost information and characteristics of the fossil-fueled generating resources in the Railbelt and cost characteristics of other hydro projects smaller and not competitive with Susitna;
- environmental screening of proposed thermal, hydro, and tidal generating facilities; and
- work to determine the effects of load management and conservation on power needs.

### 3.3 Changes in Access Planning

As previously discussed, workshops were held in March 1981 that focused on access and recreational planning. More than 300 comments and questions were given. A summary of the results of the workshop is included as Exhibit 1.

Workshop participants were presented with four alternative route selections. Almost 60% of the participants favored rail access. Many other questions and comments focused on environmental concerns, socioeconomic and sociocultural concerns, and the process by which the four routes were selected.

Because of comments and questions from the public and comments from state and federal resource agencies, the original time frame for making a decision of access was delayed. Originally, a single route

recommendation was to be made in May 1981. In order to have more environmental and engineering data available, the decision was delayed to July. Instead of analyzing one route, three main corridors or routes were assessed in greater detail in order that a route could be selected in late 1981. This assessment included environmental and engineering studies, aerial photography, and geologic mapping.

Public and agency comments resulted in routes being dropped or changed in three environmentally sensitive areas:

- 1) the Portage Creek area was eliminated;
- 2) the Denali Highway route to the Watana site was realigned moving it further from a known caribou calving area; and
- 3) changes were made in the route through the Fog Lakes area.

In addition, the sociocultural study conducted by Stephen Braund and Associates was expanded to include sociocultural information on access. The reason for this was to ascertain whether or not information gained from public workshops was accurate and what attitudes and values concerning access to the Susitna project existed in the communities nearest the project.

As a result of the workshop responses and discussions with members of the Public Participation Office, Stephen Braund and Associates, Frank Orth and Associates, and Terrestrial Environmental Specialists, another route was added for consideration. This is discussed fully in Exhibit 1.

The access plan recommended by Acres American (a road from the Parks Highway to the damsites) in December 1981 did not reflect local community preference for all rail on the Denali Highway route. Nevertheless, local community preference was one of the objectives considered in evaluation the access routes. Because of a strong preference for limiting change in the Talkeetna/Trapper Creek area, preliminary mitigation measures were suggested to reduce socioeconomic and sociocultural impacts in these areas. Acres recommended that:

"Though the implementation of a relatively self contained construction camp, restriction of private vehicles from the construction site, implementation of mass transit modes for community workers, incentives to encourage workers to remain on site, and controlled public access east of Devil Canyon following construction, it is considered that changes in the local communities of Talkeetna/Trapper Creek will be minimized."

In considering the access decision, Acres determined that mitigation of the socioeconomic and environmental impacts resulting from the recommended plan is a more reasonable approach than attempting to mitigate impacts from the Denali route. In addition, it was Acres' opinion that the recommended access plan with associated mitigation would produce less change in the Talkeetna/Trapper Creek area than on all-rail access plan. The preferences of local communities as formulated by the Public Participation Office were major factors in the suggested mitigation.

### 3.4 Changes in Recreation Planning

Results of Workshop #3 comments on recreation were incorporated with the results of larger, random sample surveys done earlier by the University of Alaska. The U of A survey results showed a split between a high level development and a low level of development. As previously discussed, the Public Participation workshop results tended to favor either a low or moderate level of development or no development.

The workshop results were used to moderate the survey results toward a fairly low level of development. In developing a recommended recreation plan, the suggested pattern of development was a lower level of development in the initial stages of the operation of the project until a use pattern became evident. This would include a user survey after three years of operation to determine if expansion was desired and to what extent the future recreational facilities would be developed.

EXHIBIT 1

# **ALASKA POWER AUTHORITY**

334 WEST 5th AVENUE - ANCHORAGE, ALASKA 99501

Phone: (907) 277-7641  
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ALASKA POWER AUTHORITY  
PUBLIC PARTICIPATION OFFICE

ACCESS REPORT

October 12, 1981



## SECTION 1

Summary and Conclusions

## SECTION 2

Back-up Data

Community Workshops

Fairbanks

Talkeetna

Anchorage

Mail Responses

Miner and Game Guide Questionnaires

Results of Recreation Questionnaire

## EXHIBITS

## Section I

### SUMMARY AND CONCLUSIONS

#### March 1981 Workshop Results

The results of three workshops held and questionnaires sent out by the Public Participation Office concerning the question of access to the proposed Watana and Devil Canyon hydroelectric sites show a preference for a rail only alternative. Sixty (60) percent of the participants in the workshops held in Fairbanks, Talkeetna, and Anchorage preferred rail access. Almost 80% of the Talkeetna respondents and more than 80% of the Fairbanks participants favored the rail only alternative. Likewise, a sizeable portion of the game guides registered in Unit 13 (Upper Susitna Basin) who responded to a questionnaire favored the rail access.

The reasons for this preference varied somewhat among communities and interest groups. Nevertheless, a pattern did emerge. The participants at the Talkeetna meeting felt that their way of life would be altered if road access through any nearby community was selected. The workshop participants' choice of rail only access reflects their concern for the potential amount of change that could occur if such an access road were selected.

A second factor in the choice of the rail only route was the desire to limit the impact on wildlife and the ecology of the Upper Susitna Basin that increased recreational opportunity would cause. This was especially true of the participants in Fairbanks and the responses of the game guides. Both these groups did not respond to limiting impacts on the communities along the Parks Highway, but tended to focus on the potential impacts on game and the environment. Of primary concern was the Nelchina caribou herd and also the moose and bear populations. All three groups mentioned potential impacts from all terrain vehicles (ATV's) and increased hunting and fishing opportunities.

In analyzing these responses and in recent discussions with Robert Anderson of Terrestrial Environmental Specialists (TES), Peter Rogers of Frank Orth & Associates, and Stephen Braund who is conducting the socio-cultural study, several variables need to be considered in respect to a rail only alternative. Although the rail only alternative may result in minimum impacts, it is our thinking that several potential impacts could result from a rail only access that were not considered by these communities. One would be the size and location of a staging or stockpiling area for construction materials (and its possible visual impact or the size of the work force needed to operate it). A second would be the regularity that workers would be allowed to ride the train to the construction site. If workers could ride in either daily, weekly, or bi-weekly, impacts in the southern communities could be nearly as great as with a road access. This would include the need for parking facilities some where - Talkeetna, Hurricane, and/or towards Willow - and the result of workers and their families relocating in the southern communities. The increased demand in service could potentially impact a broad range of activities that the Talkeetna participants expressed an interest in limiting.

The Public Participation Office (PPO) intends to point out these things to the communities when we hold our next workshop sessions the week of October 19.. As the result of recent discussions among the PPO staff, Stephen Braund, Peter Rogers, and Robert Anderson, one possible way to reduce impacts on the southern communities is a northern access from the Denali Highway, with a full service construction camp, commuter schedules, and clearly defined state policies, in combination with no access from the west (either rail or road). Although a northern route only was originally considered, it was not among the options presented at the community workshops in March 1981. Another option to reduce impacts would be all rail access to the sites or rail to Gold Creek with workers commuting to and from the Anchorage or Palmer/Wasilla areas by airplane. This option was not presented either. We suggest that these access options and the explanation of the possible impacts of the rail only access need to be presented to the southern communities in order that a more informed decision can be made. Especially because the thinking of these communities tended to reflect the idea that the rail only access would have the least

impact on their communities. It is possible that the full range of impacts, both primary and secondary, have not been understood or considered. The primary consideration appeared to be the long term implications of public access after construction. Nevertheless, construction related impacts may be of greatest concern to these communities given the 10 to 15 year time span of construction.

In addition, the results of the recreational development questionnaire that was also distributed at the community workshops also showed a preference for limiting development and access in Talkeetna and Fairbanks, while the Anchorage participants favored more highly developed recreational opportunities and more access. More than 60% of the Talkeetna participants and 70% of the Fairbanks participants favored a minimally developed and managed wilderness. This choice demonstrated a desire to either limit or permit no access to the project area. Rail access was mentioned several times as the best method of access. In contrast, almost 90% of the Anchorage area participants favored a higher level of recreational development and access. The majority of these, however, favored developing the Devil Canyon area and maintaining the wilderness character of the Watana site.

#### Communities Where No Workshops Were Held

Willow, Houston, Wasilla, and Palmer:

It should be pointed out that community workshops were not held in the communities south of Talkeetna (Willow, Houston, Wasilla, and Palmer) and no one from these areas attended the March 1981 workshop in Talkeetna. Generally, the Mat-Su area has been economically slow in recent years (the capital move to Willow has not occurred) and people in some of these communities may well perceive changes and impacts brought about by the Susitna project as beneficial if economic development is stimulated. Data from a study conducted in the Mat-Su Borough by the Overall Economic Development Program, Inc. (Economic Conditions, Development Options and Projections, July 1980) indicates that people in Willow, Houston, Wasilla, and Palmer tend to favor a higher rate of development than the communities north of Willow. Additional information from planners at the Mat-Su Borough, the Borough Manager, Assembly, Planning and Zoning Commission, and local residents might be useful.

Trapper Creek:

The lack of representation from Trapper Creek at the March workshop at Talkeetna also limits the information from that meeting. The community of Trapper Creek did not seem to perceive the Susitna projects as having a potential impact on their community. One member of the community council later expressed the perception that Trapper Creek would be less affected than Talkeetna would be by Susitna. In addition, the workshop was held in Talkeetna which is a 60 mile round trip for Trapper Creek residents and, given the public sentiment as reflected by the above statement, it doesn't seem likely that people would make the trip. Stephen Braund has recently spent some time in the Trapper Creek area and his information should help in assessing the preference of that community. A joint meeting with Trapper Creek and Talkeetna is being planned for Wednesday, October 21. It will be held at Susitna Valley High School, located half way between Trapper Creek and Talkeetna, and we hope to get representation from both these communities.

People living along the railroad north of Talkeetna:

The small clusters of people north of Talkeetna along the railroad were also not well represented at the Talkeetna workshop. Some people from the Chase area attended the workshop, but people further north along the railroad (Lane Creek, Sherman, and Gold Creek) did not attend. The PPO did communicate with people living or owning land at Lane Creek and Sherman during the public participation work on the intertie project. The general feeling in these areas was one of strong opposition to the transmission lines because people had moved to the area to get away from development. We would expect strong resistance to any access choice which would cause changes along the railroad in these areas.

Cantwell and McKinley Park areas:

Another area where the PPO had no contact concerning access is the Cantwell and McKinley Park areas. In communications with both these areas on the intertie issue, Cantwell has been generally pro-development and pro-intertie. Community sentiment indicated the desire for a substation at Cantwell (along with distribution lines) so the community would not have to rely on diesel generation for electricity. Discussions with Stephen Braund and Tom Lonner have indicated that the McKinley

Park area would not be greatly affected by access plans, but Cantwell would, especially if the Denali Highway access is selected. To better understand the concerns of the Cantwell community, a community workshop is being planned for Thursday, October 22.

#### Indian River Subdivision and Indian River Remote lands:

A final group of people whose preference was not obtained was the Indian River Subdivision owners and the Indian River remote parcel owners. The subdivision contains about 140 parcels on or near the Parks Highway in the area of the proposed road access to Devil Canyon. The Department of Natural Resources estimates that 90 of these sites have been awarded since July 1981. Consequently the people who are now owners have not been contacted concerning their views on either Susitna in general or on the question of access. DNR also reports that demand was not great for the subdivision lands except along the highway. This was not the case for the Indian River remote parcels. Because these remote parcels had railroad access and most remote parcels have no access at all, DNR reports that it was one of the more popular remote parcel offerings the state has had. Seventy-five persons were given authorization to stake in this area.

#### Conclusions

1. What emerges from the responses received in the community workshops, both on access and recreation, is the desire to limit growth and development that could occur should the Susitna project be constructed, especially in the Talkeetna area and the railroad communities north of Talkeetna. One of the drivers of the type and magnitude of the impacts on the southern communities is the location of the access route and the mode of transportation used on the route. Although the clear preference stated is for a rail only access, more information needs to be presented to the potentially impacted communities concerning the nature of impacts during the construction phase if a rail only route is selected.



2. In recent discussions with Stephen Braund, Robert Anderson, and Peter Rogers, it has become clear that the question of access and mode alone are not the only considerations that need to be presented to the potentially impacted communities. An equally important consideration is the size and nature of the construction facility. Various options are available and depending on what is selected the impacts on the surrounding communities will vary. A full service, planned community providing the widest range of services for the workers and their families would have a much different impact than a low service, construction camp with no family facilities. This type of decision, as well as the policies that the State of Alaska (through the Power Authority) would adopt or not adopt concerning the nature of the construction site, access to the site, and the scheduling of commuting workers to and from the site will be the primary factor in determining the impacts on local communities.

3. PPO suggests the following method for looking at how various options would either decrease or encourage the amount of change that could potentially occur in local communities. Six possible objectives are given below. We recognize that some of these objectives appear mutually exclusive. They do, however, reflect the range of preferences that have been heard in the communities so far. PPO would like more community input to determine which preference reflects the majority of a given community.

The six objectives are:

1. To encourage changes in the Willow, Houston, Wasilla and Palmer areas.
2. To limit changes in the railroad communities north of Talkeetna.
3. To limit changes in the Talkeetna and Trapper Creek areas.
4. To encourage changes in the the Talkeetna and Trapper Creek areas.
5. To encourage changes in the Cantwell area.
6. To limit changes in the Cantwell area.

The next four pages are a preliminary discussion of how decisions could be made to implement either one or a combination of these objectives. The information on these pages was written in a work session with Robert Anderson, Peter Rogers, Stephen Braund, and PPO staff. More time could be spent in refining this. In addition, the thinking of several other disciplines is needed to make the picture more complete.

Based on what we know now, the Power Authority's "access/recreation/construction facilities/construction policies" objectives would be to: 1) encourage change in the Willow, Houston, Wasilla, and Palmer areas; and 2) to limit changes in the railroad communities north of Talkeetna. We do not yet have enough information to establish clear planning objectives for the Trapper Creek, Talkeetna, and Cantwell areas. \*\*\*

The remainder of the report (Section II) is the back-up data that supports the summary and conclusions from the workshops and questionnaires. Included as exhibits are copies of the various questionnaires used to solicit responses.

\*\*\* PPO is relying on the sociocultural study being conducted by Stephen Braund and Associates to supply additional information in order to better articulate these objectives. In addition, we intend to check our perceptions of community preferences one more time with the communities the week of October 19th.

OBJECTIVE I: To encourage changes in Willow, Houston, Wasilla, and Palmer areas.

PLAN A:

1. Access Corridor: access from the west; no access at all from the Denali Highway.
2. Mode: road.
3. Nature of construction camp facilities: Minimal construction camp: trailers, mess hall, recreation hall, some family facilities for supervisory personnel.
4. Policies:
  - a. Individuals drive their own private vehicles to the sites.
  - b. No policies about when workers come and go, from where, or use of private vehicles.
5. Commuter Schedules:
  - a. None.
  - b. No policy on public access.
  - c. No policy on use of fish and game.

Objective I: To encourage changes in Willow, Houston, Wasilla, and Palmer areas.

PLAN B:

1. Access Corridor:  
rail access, either through Gold Creek with road to site or  
rail directly to Devil Canyon.
2. Mode: rail
3. Nature of construction camp facilities: Minimal construction camp: trailers, mess hall,  
recreation hall, some family facilities for supervisory personnel.
4. Policies:
  - a. Policy regarding use of personal vehicles by workers.
  - b. Policy to control public access to area.
5. Commuter Schedules: Organized commuter schedule using aircraft from the Wasilla-  
Palmer area.

Or organized rail commuter schedule with workers getting on and off the train  
in the Palmer and Wasilla areas.

OBJECTIVE II: To limit changes in railroad communities north of Talkeetna.

PLAN A:

1. Access Corridor: Road from Denali Highway to Watana; service road from Watana to Devil Canyon; no access at all from the west (neither rail nor road).

2. Mode: road.

3. Nature of construction camp facilities:

The larger the camp, and the more services, the less the impacts on surrounding local communities. Services that would help reduce impacts include: stores, post office, schools.

Proposal: to construct a "mixed camp", meaning a camp where workers live with their families if desired, or where workers live in trailers or barracks without families if desired.

Part of the construction camp could/would become a permanent city for the operating phase.

The temporary camp could be sited and located so that it would be inundated by water later.

The siting of a permanent camp for families would be important so that the experience is as pleasant as possible: meaning, it was sited on dry land so people could get out and walk, and near trees and sun exposure if possible. The more pleasant the place is to live, the more families will enjoy living there and impact existing local communities less.

Limited r & r would be available at camp; workers or families would periodically get out to other areas (larger areas like Anchorage and Fairbanks) for more extended r & r and cultural activities, etc.

4. Policies:

- a. strict regulations where people can go in the upper basin to protect resources, especially hunting and fishing.
- b. No private planes flying in and out.
- c. Policy regarding use of personal vehicles.
- d. Policy to control public access off corridor.

OBJECTIVE II: Plan A cont.

5. Commuter Schedules:

- a. ORGANIZED commuter schedule for those who don't live with families. Could be busing from Fairbanks, Anchorage, or Cantwell.
- b. ORGANIZED air commuting from Anchorage, or fom Palmer and Wasilla.

OBJECTIVE II: To limit changes in railroad communities north of Talkeetna.

PLAN B:

1. Access Corridor: All rail to both sites or rail to Devil Canyon and then road to Watana.
2. Mode: rail.
3. Nature of the construction camp facilities:  
Something other than a full-service camp appears adequate if workers can commute every week or two weeks to be with their families or have recreation outside the construction camp site.
4. Policies:
  - a. Policy to control use of personal vehicles.
  - b. No private planes flying in and out.
  - c. Strict regulations where people can go in the upper basin to protect resources, especially hunting and fishing.
  - d. Possible state subsidy of workers commuting by rail.
5. Commuter Schedules:
  - a. ORGANIZED commuter schedule using rail from either Anchorage, Wasilla, or Palmer areas. Incentives for workers to use the rail from Wasilla, Palmer, Anchorage, and not Talkeetna.
  - b. OR ORGANIZED air commuting from Anchorage, or from Palmer and Wasilla.

OBJECTIVE III: To encourage changes in the Talkeetna and Trapper Creek areas.

1. Access Corridor: access from the west; no access at all from the Denali Highway.
2. Mode: railroad or road.\*\*
3. Nature of construction camp facilities: Minimal construction camp: trailers, mess hall, recreation hall, some family facilities for supervisory personnel.
4. Policies:
  - a. Individuals drive their own private vehicles to the sites.
  - b. No policies about when workers come and go, from where, or use of private vehicles.
5. Commuter Schedules:
  - a. None.
  - b. No policy on public access.
  - c. No policy on use of fish and game.

\*\*Road access would likely impact Trapper Creek more than Talkeetna due to its proximity to the Parks Highway; however a rail only access could impact Talkeetna more if workers drove to the Talkeetna area, parked their cars there, and boarded the train.



OBJECTIVE IV: To limit changes in the Talkeetna and Trapper Creek areas.

PLAN A:

1. Access Corridor: Road from Denali Highway to Watana.  
Service road from Watana to Devil Canyon; no access at all from the west (neither rail nor road).
2. Mode: road.\*\*
3. Nature of construction camp facilities: The larger the camp, and the more services, the less the impacts on surrounding local communities. Services that would help reduce impacts include: stores, post office, schools.  
  
Proposal: to construct a "mixed camp", meaning a camp where workers live with their families if desired, or where workers live in trailers or barracks without families if desired.  
  
Part of the construction camp could/would become a permanent city for the operating phase.  
  
The temporary camp could be sited and located so that it would be inundated by water later.  
  
The siting of a permanent camp for families would be important so that the experience is as pleasant as possible: meaning, it was sited on dry land so people could get out and walk, and near trees and sun exposure if possible. The more pleasant the place is to live, the more families will enjoy living there and impact existing local communities less.  
  
Limited r & r would be available at camp; workers or families would periodically get out to other areas (larger areas like Anchorage and Fairbanks) for more extended r & r and cultural activities, etc.
4. Policies:
  - a. strict regulations where people can go in the upper basin to protect resources, especially hunting and fishing.
  - b. No private planes flying in and out.
  - c. Policy regarding use of personal vehicles.
  - d. Policy to control public access off corridor.

OBJECTIVE IV: Plan A. cont.

5. Commuter Schedules:

- a. ORGANIZED commuter schedule for those who don't live with families. Could be busing from Fairbanks, Anchorage, or Cantwell.
- b. Assumption was made that air commuter would not be reliable enough because of weather.

\*\*Rail on this route could be feasible, but was not considered.

OBJECTIVE IV: To limit changes in the Talkeetna and Trapper Creek areas.

PLAN B:

1. Access Corridor: Either rail to Devil Canyon or Gold Creek, or all rail.  
No direct road access from the west or north.
2. Mode: rail.
3. Nature of construction camp facilities: Something less than a full service camp would be appropriate if the workers can commute in and out to be with their families on a weekly or bi-weekly basis.
4. Policies: the same policies would apply as in Plan A.
5. Commuter Schedules:
  - a. ORGANIZED commuter air and rail schedules from the Anchorage and Wasilla-Palmer areas.

OBJECTIVE V: To encourage changes in the Cantwell area.

1. Access Corridor: access from the Denali Highway only, with a railhead at Cantwell. No access from the west.
2. Mode: rail to Cantwell and road from Cantwell to the Watana site.
3. Nature of construction camp facilities: Minimal facilities: trailers to sleep in (or barracks), mess hall, recreation hall, some family housing for supervisory personnel.
4. Policies:
  - a. Individuals drive their own private vehicles to the sites.
  - b. No policies about when workers come and go, from where, or use of private vehicles.

Again, the same as in Objective III: the absence of policies by the state of Alaska (through the Power Authority) might result in the most changes in Cantwell.

Another kind of policy would be the lack of assertive action: for instance, a state policy to upgrade only the west side of the Denali Highway (and not the entire route) would encourage users to come from Cantwell and go back out to Cantwell, rather than driving on through to the Richardson Highway.

5. Commuter Schedules:
  - a. None.
  - b. No policy on public access.
  - c. No policy on use of fish and game along corridor.

OBJECTIVE VI: To limit changes in the Cantwell area.

1. Access Corridor: access from the Parks Highway on the west; no access at all from the Denali Highway.
2. Mode: either road or railroad.
3. Nature of construction camp facilities: Full service camp, with complete services for all who wish to bring their families. Same description that limits changes in the southern communities would also help to limit changes in Cantwell. See Objective IVa.
4. Polices:  
Same policies that limit changes in the southern communities would help to limit changes in Cantwell also. See Objective IVa.
5. Commuter Schedules:  
ORGANIZED commuter schedules on some regular basis (weekly or bi-weekly.)

SECTION 2  
BACK-UP DATA

COMMUNITY WORKSHOPS

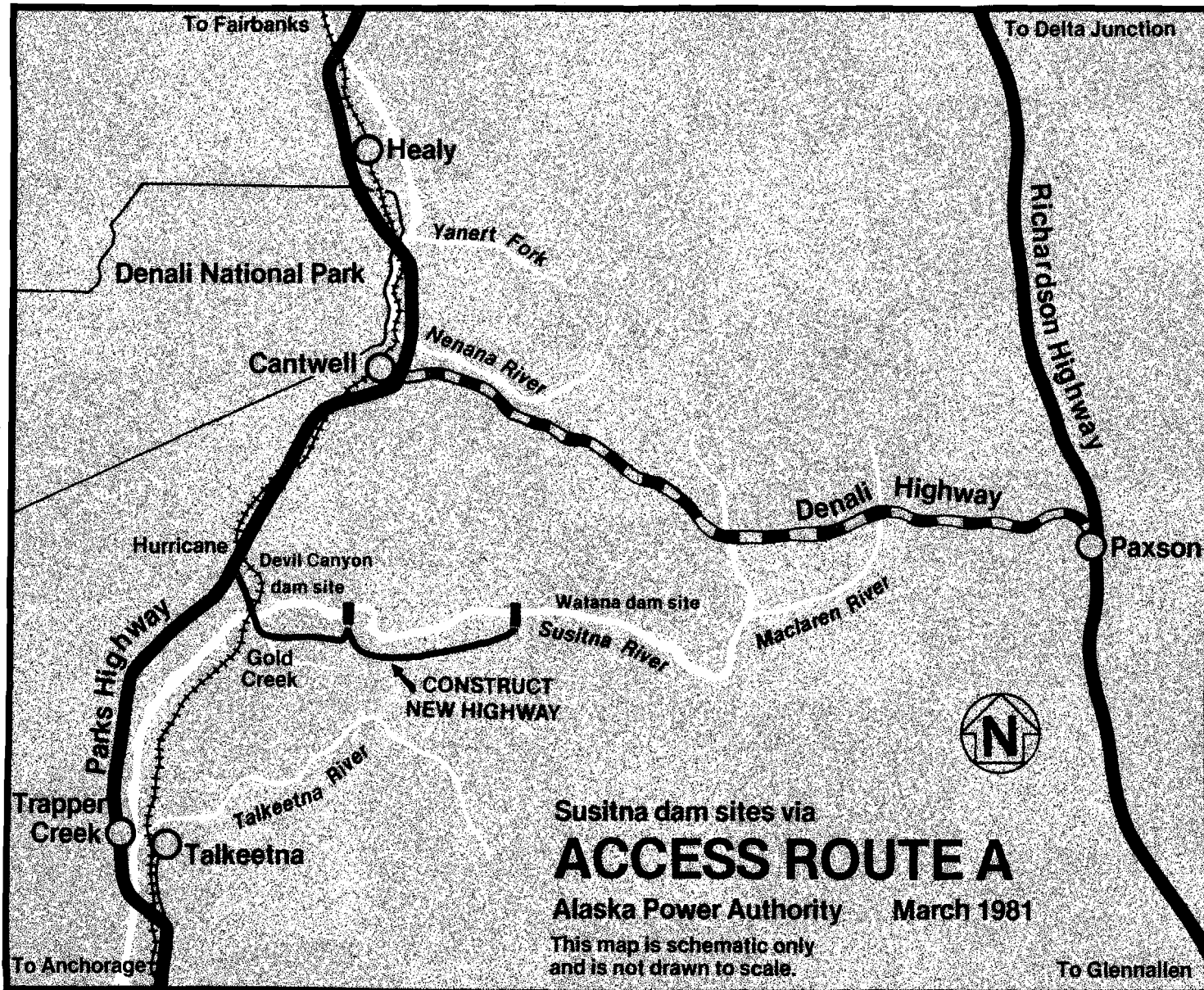
Community workshops were held in Fairbanks, Talkeetna, and Anchorage in March 1981 in an attempt to determine what concerns the people of these areas had relating to recreation and access planning on the Susitna hydroelectric feasibility study. Information was presented at each workshop concerning several access and recreation plans and comments recorded that could be used to help in access and recreation planning. In all, more than 300 comments were received in response to printed questionnaires. Of these 50 pertained directly to the question of access. Questionnaires were also received relating to recreation, but these comments also often related to access.

Participants in the workshops were presented with four alternative access plans which used various combinations of road and rail access in combination with existing routes (Figure 1). They were: 1) Access Route A - construction of a new road from Hurricane to the Devil Canyon and Watana sites; 2) Access Route B - construction of a railroad to both dam sites from Gold Creek; 3) Access Route C - construction of a road from the Denali Highway to the Watana site, construction of a service road from Watana to Devil Canyon, and construction of a railroad spur from Gold Creek to Devil Canyon; and 4) Access Route D - the same as Route C except that a new road from the Parks Highway would replace the rail spur.

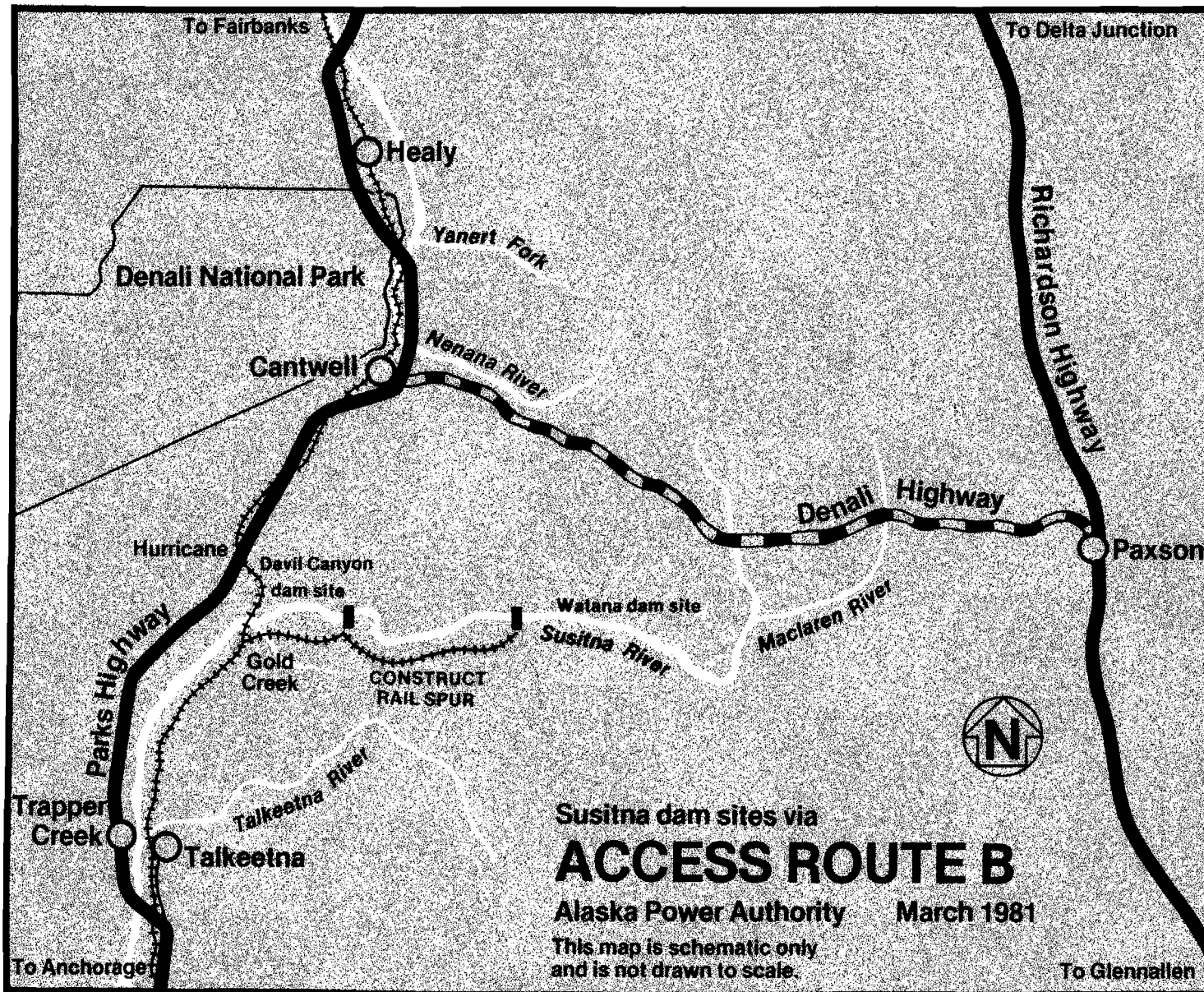
The following table shows the response of the workshop participants.

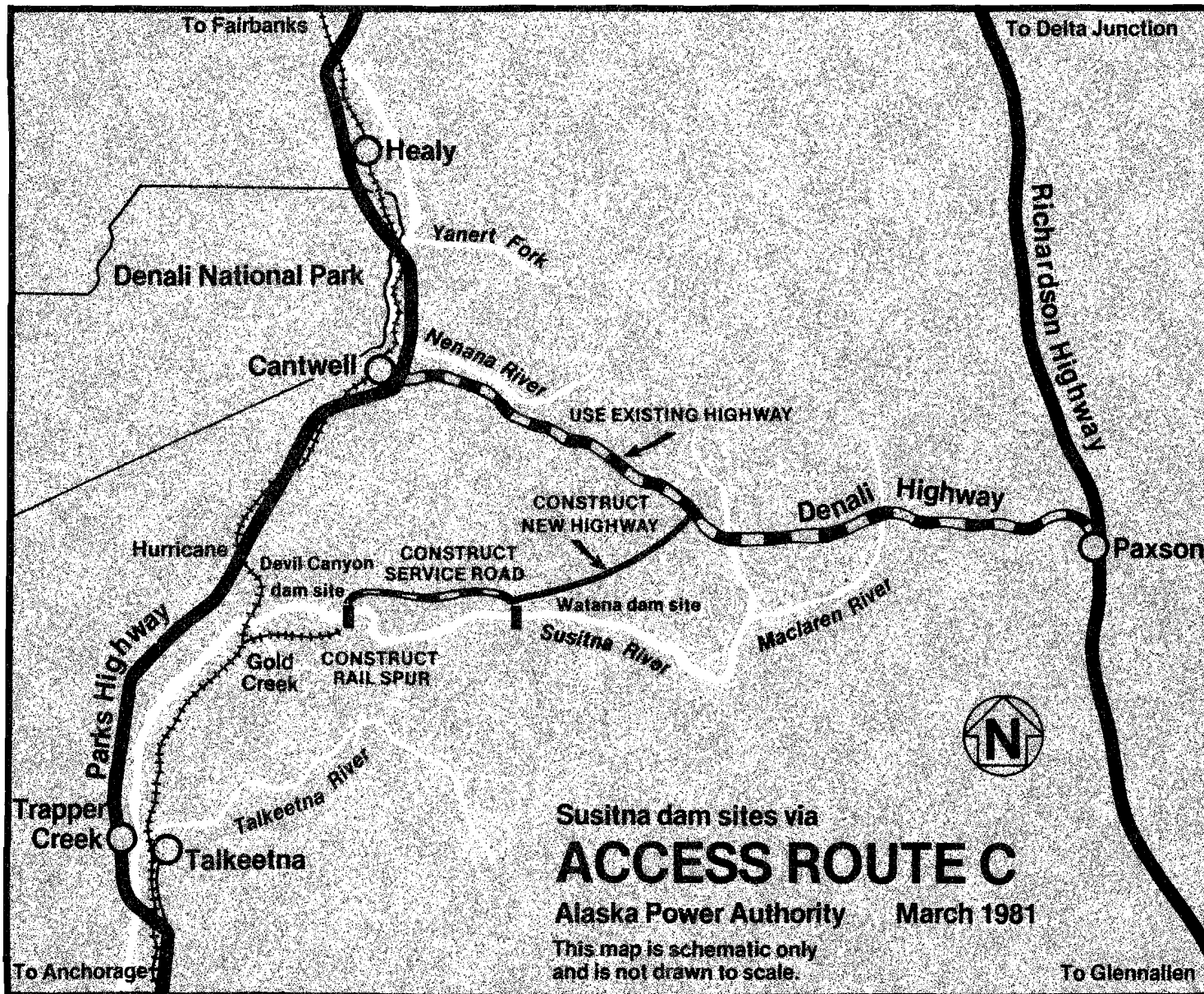
Route	Fairbanks	Talkeetna	Anchorage	Mail*	Total
Route A	1	3	0	1	5
Route B	13	12	1	5	30
Route C	3	2	0	3	8
Route D	0	0	3	2	5
No Preference	1	1	0	0	2

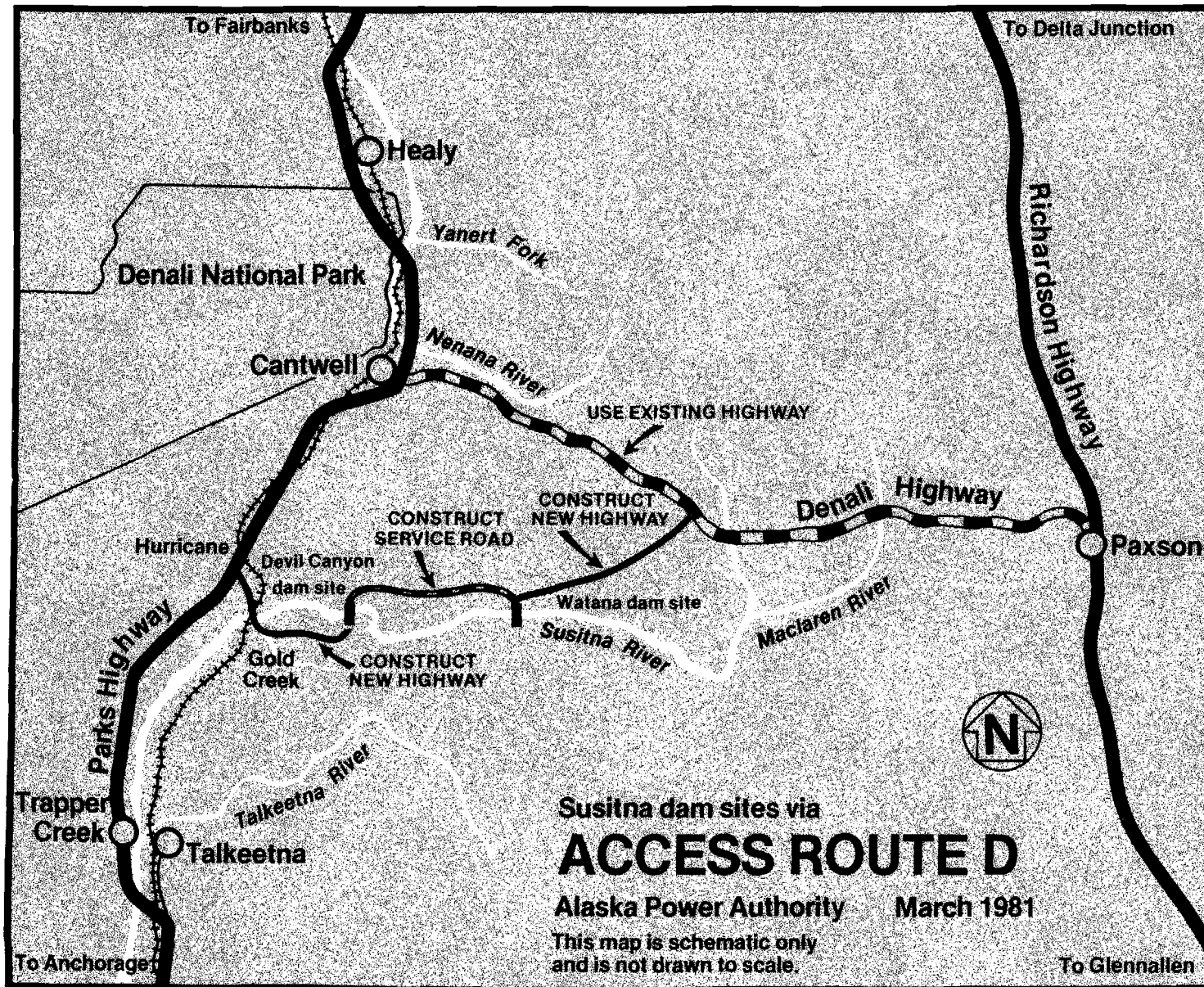
\*Mail responses were mostly from the Anchorage area and reflect the thinking of that area.











This table shows that most of the people attending the workshops in Fairbanks and Talkeetna favor rail access during and after construction. Additionally, almost half the people in Anchorage favored the rail only alternative. Some of the reasons given were: 1) fewer environmental impacts; 2) easier to limit the number of people and types of activity in surrounding areas; 3) less expensive; and 4) more energy efficient.

About half the people in Anchorage and one-third of the people in Fairbanks and Talkeetna favored some type of road access because they could gain access to areas they feel are currently inaccessible. The Anchorage people tended to favor the Denali route, but in Fairbanks several people spoke out against it because of the potential adverse effects on caribou calving grounds near that route.

In addition, some people at each workshop indicated they favored no access or very limited access. Suggestions ranged from bringing in supplies during the winter on snow roads to access by air. Those in favor of air access suggested it as a way to bring workers to the construction site that would lessen impacts on other railbelt communities.

The following is a detailed breakdown of the reasons behind the preferences expressed in the Fairbanks, Talkeetna, and Anchorage workshops.

FAIRBANKS (36 attended, 17 responded)

One who preferred access Route A gave this reason:

1. As a land owner (lottery winner - 20 acres in area east of Indian River and north of Susitna) I'm in favor of access Route A for accessibility into my property. There are a total of 75 people who will be staking up to 20 acres each in the area I've mentioned...  
Marilyn Stark

Those who preferred access Route B gave these reasons:

1. Less environmental damage; less public access the better. Also lower cost. I don't want any access.
2. Route B would give the least access and thus cause the least human impact onto land and wildlife. This is the only hope for preserving any of the Nelchina caribou herd.
3. I prefer the all rail alternative because it curtails unlimited public road access. If a road is built, I don't think there's any doubt that pressure will be exerted eventually to open it to the public (as with the haul road). The mere presence of the reservoir(s) will greatly increase boat and float (and ski) plane access, and I think that's enough (too much, in fact). A railroad is the best approach to controlling unlimited access. If alternative route A-2 is feasible, then a rail link from Gold Creek to Devil Canyon should be included, and a road on the north side to Watana, just so there isn't road access all the way in.
4. a) lowest \$ cost to build and operate  
b) possible interruptions in imported oil supply make more fuel-efficient railroads desirable

c) I'm concerned about impact on Denali Highway

5. Minimal cost; minimal impact on fish and wildlife, wetlands; minimal access; minimal fuel consumption; minimal other energy waste.

In short RAIL ONLY IS THE NEXT ROUTE TO NONE AT ALL.

6. This choice minimizes impact if I must choose an access.

I also see this as a way to control access as if it is a public project sponsored by public \$ and the public can legally demand access (i.e. the haul road). But -- if A, could be fully controlled I'd go with that because as reads -- it causes minimal impact.

7. I would prefer no access from the Denali Highway and I think this is the only access route that prevents this. Also, I think maybe a railroad line could be built to Devil Canyon then a service road could be built on the north side of the river to Watana. The engineering concerns might put construction back two or three years, but this would save 100 years effect on wildlife and environmental concerns.
8. Since feasibility studies on the whole hydro studies are incomplete and inconclusive, as well as studies on access routes, one cannot make a well informed decision at this time. Therefore, I cannot find any particular route acceptable. However, since a rail access route would be most limiting to private vehicular traffic, I favor it over others, since I value the existing recreational and scenic potential, and hope for a minimal change in those potentials.
9.
  - a) railroad right-of-way has less impact than a road or highway.
  - b) access of the general public is better controlled into the area.
  - c) construction of the railroad appears to be less costly way to go. You can haul more material or freight on one train than what 60 trucks could do.



10. to limit the access to recreationalists; no recreational vehicles; no speed boats.
11. no road; costs less; costs less to maintain road.
12. Rail only has the least long term impact. I feel this should be considered even if it puts your starting date for construction back 1-3 years. The added time (i.e. setback) will be the best for the long term. I favor as little impact. (I prefer no Susitna dam). If the dam was built -- rail should be the only access.
13. With a railroad spur which will be needed to move in the big turbines and other pieces of equipment you will not need a road system and it is also the less costly of all of the access routes and it will keep the area wilderness and limit public access.

Those who favored access Route C gave these reasons:

1. The highway access via the Denali should be eliminated if "C" is considered (environmental concerns and mainstream development to the south are prime reasons for this choice. I would like to see interconstruction development at rail nodes kept to a minimum and a consistent awareness for the local habitants kept as a forerunning concern.
2. Most expedient, hence lowest cost especially as regards Watana.
3. Apparently lowest impact on wildlife habitat along Denali Highway. Watana route, depending on recreational plan decided on.
4. The least environmental impact.

No reason for favoring Route D.

One comment with no choice:

1. I don't feel I have enough information as to the pros and cons of

route.

Each one interferes with wildlife habitat and migration routes in about equal ways, it seems.

Using a railroad seems a less disturbing way -- it can control access -- but a road cannot. Even the railroad will allow off road vehicles to get in there.

TALKEETNA (38 attended, 17 responded)

Those who favored access Route A did so for these reasons:

1. Keep the countryside as much like it is as possible.
2.
  - a) Retain the wilderness status of this area as much as possible.
  - b) I do not accept the assumption that there will be public access.
  - c) Rail access from Gold Creek with tourists riding in and out may be acceptable.
  - d) I especially don't want to see boats on the lake and their associated hunting and fishing, camping, etc. pose a great threat to the wilderness.
  - e) Large buffer zones of no access on the lake and power lines.
3. Minimum road access.

Those who favored access Route B did so for these reasons:

1.
  - a) restrict private and commercial vehicles to the sites.
  - b) environmental impact of railroad (after construction) would appear to be much less severe than a road.
    - 1) no stopping, parking, shooting, etc. from the side of the road.
    - 2) no 4 x 4's or ATV's driving off into the wilderness.



- c) cheapest alternative
- d) least impact on communities.

- 1) would limit the manpower to air transport.
2. Least public impact, yet allowing those that are willing to go through the trouble to get there, the ways and the means to do so. Also, once completed possibly would be less problem maintaining.
3. Least adverse effect on environment over long term.
4. The railroad would at least minimize impact on the area.
5. Limit access for construction and maintenance only; no public road needed; railroad easiest to regulate in this manner could be removed after construction is finished.
6. Railbelt area already handles population. Expanding this service is easier than developing new population centers or areas. Public access is contained to certain places (designated by train stops).
7. Railroad only gives greater control over access. Americans must and can learn to divorce themselves from their vehicles. With railroad only, you gain greater control over total numbers going to the site and also control over developments along the route.
8. Would get the project completed with the least amount of \_\_\_\_\_.
9. The railroad would be far more economical way to move materials with the least long-lasting impact.
10. Least impact on area and future generations will get to see and enjoy it as it was. People don't bring their ATV with them on the train, nor do they have the ability to stop everywhere. The area along railroads is less impacted than areas along roads. And people in the future will travel via public transportation -- not private cars.
11. Limits access by the masses by train or air. I am 100% opposed to any road use especially as it applies to vehicular (private autos).

One favored C over A for this reason:

1. The reason for my choice between A or C is cost. I live close to Mile 99½ Parks Highway. I'm not necessarily excited about more roads but there is a need. If a road is put in hopefully the wildlife would be protected for all to see and enjoy. No hunting permitted close to the highway. Perhaps park rangers would teach people how to appreciate and care for their state. I'd just like to see people enjoy Alaska as we did 16 years ago before it became overcrowded.

No one favored D.

One didn't mark a choice, but noted this comment:

This meeting is supposed to be part of a feasibility study so you shouldn't be giving just four options to choose from. I resent the feeling you give me that you are trying to sell me a plan with a few options to choose from. If I must accept this dam then I favor access routes that allow the least amount of public access and the least amount of human population growth. The social and economic aspects of the dam will have the greatest impact on the natural environment, and they should be minimized. The haphazard way you gather comments is not good. It favors people who are most vocal and doesn't give a true consensus of opinion. The less people that enter the area the better. M. C. Schwab

ANCHORAGE (40 attended, 4 responded)

No one preferred access Route A.

One preferred access Route B for this reason:

1. Access B will limit impacts.

Is it possible to mail materials ahead of time so public can study?

Why hasn't Corps study been read?

Has effect of overall population on recreation been considered?

Why isn't more hard data available to public?

No one preferred C.

Three preferred D for these reasons:

1. This alternative will provide quick access for construction with later maximum recreational benefit. C is second choice, A is third, B is fourth.

2. Provides maximum public access to otherwise inaccessible areas.

Provides better access from Anchorage to Denali Highway area. The greater length of highway system decreases hunting pressure on any segment of road or nearby fly in lakes.

Additional routes allow for flexibility and diverstiy in hauling in materials, equipment and supplies.

The service road between the dam MUST be open for the public as public funds will be used for \_\_\_\_\_. This access to this area is required regardless of dam constructfon.

3. Prefer D with modifications.

Road mode is most flexible during construction phase and most useable by the public after construction -- I am very familiar with the country and favor a road from Hurricane to Devil Canyon, then cross the river and on to Watana on the north side -- this segment will have south slope aspect (much better than south side of river), a lot of wind ex-

posure so will be easier to keep snow free -- I do not favor construction from Denali Highway south to Watana -- that is unnecessary if the above scheme were followed -- permafrost, wetlands impacts and deep snow problems abound on this route -- the preferred "Watana construction first" can be accomplished with this proposal as you will have to cross at Devil Canyon anyway -- this routing would also avoid some very difficult construction along south side of Su east of Devil Canyon.

MAIL (11 responded, mostly from the Anchorage area)

One who preferred access Route A gave this reason:

1. Felt a road to both dam sites would be of benefit to all parties, both during and after construction.
2. No practical reason to build road from Denali; the majority of workers will be coming from Anchorage and Fairbanks and for the few workers from Delta, Glennallen, and Paxson the extra distance wouldn't justify the cost. Tourists will come from Anchorage also.

Those who favored access Route B gave these reasons.

1.
  - a) minimal disruption to existing recreation patterns
  - b) minimal tax dollar waste to accommodate governmentally contrived recreation programs, frivolity in a time of serious national needs.
  - c) minimal imposed detriments to the habitat.
2.
  - a) rail access sufficient for construction and maintenance
  - b) delay is a plus - more time to study environmental implications such as impact on Cook Inlet fisheries.
  - c) rail access least expensive.

3. rail access lesser evil as access could be more effectively limited.  
The potential loss of wetlands and raptor nesting habitat is particularly disturbing.
4.
  - a) cheapest (don't waste money)
  - b) disturbs the wilderness least; can be removed when both dams are built.
  - c) access for maintenance by float plane or helicopter.
  - d) hard to maintain either a railroad or highway in heavy snow or cold winters.
5. restricts or limits access and has minimal effect to the area.

One who favored C or D gave these reasons.

1. Gets away from the scheduling problems of A and B.
2. Economically best after B.
3. Opens up large new area for recreation.
4. Preserves the environmental integrity of the roadless south side of the river.

Two who favored access Route C gave these reasons.

1. Having worked for the Dept. of Highways in the area for 20 years, observation that a road from the Denali would be easiest to build and maintain; less hills, less wetlands, and is more suited to road construction.
2. a) provides easy access for construction and opens up beautiful areas for recreational purposes.

- b) highway access is important not only for construction but for continued public access not dependent of train schedules or passenger services limitations.

Two who favored access Route D gave these reasons:

1. Would let most all highway travellers see one dam area while keeping the Watana area under less pressure by people.

Don't want to see State and Federal governments involved in railroad unless the State purchases the railroad before the dams are constructed.

2.
  - a) no service road between dams.
  - b) construct and service power lines between dams with helicopters.
  - c) boat access to reservoirs; road access would make it look like Big Lake.

#### MINERS AND GAME GUIDE QUESTIONNAIRES

Two separate questionnaires were distributed: one to game guides registered in Unit 13 of the Upper Susitna Basin; the other to members of the Alaska Miners Association in Fairbanks and Anchorage. The game guide questionnaire was mailed to 200 guides and 29 responses were received, a return of 15%. The miners' questionnaires were given to members of the Miners Association in Fairbanks and the Board of Directors in Anchorage. It is not known how many were distributed. Eighteen were returned.

Fifty-six (56) percent of the game guides were in favor of public access while 31% were opposed. Responses on what game habitats should not be disturbed were varied, but tended to indicate several areas of concern. One was the Deadman's Creek drainage and the area south of the

Denali Highway that is utilized by the Nelchina caribou herd. Other areas mentioned were the Susitna River proper and several of its major tributary areas. The project area in general was seen to be a prime game and fishing area. Over 40% of the guides favored rail only access and this was often mentioned as first choice with others listed second or third.

The questionnaire included a map (Figure 2) that showed four access routes. These were not the same routes that were presented at the community workshops. The reason for this is the route north of the Susitna was eliminated from consideration due to environmental and engineering problems around the Portage Creek area.

Almost all the miners (90%) favored some type of public access, but the questionnaire did not present alternative routes. Most of this group used the general project area for some type of mineral related activity and use was limited to summer months.

## GAME GUIDE QUESTIONNAIRE - February and March 1981

1. What areas of the Susitna River basin do you use?

General answers included Upper Susitna, Tsusena Valley, Clark Creek, Talkeetna River to Kosina Creek, Denali Creek area, Clarence Lake, Lake Louise, Watana Creek.

8 said they used all or most of it. 5 said they used none of it.

2. What kind of use?

25 considered themselves primarily game guides. Of these, 19 included the words "hunting and fishing" as part of their occupation, such as in "guiding hunting and fishing trips". A total of 22 included "hunting or "fishing" plus some other use, such as "mining, prospecting", "rock-hounding", "trapping", "rafting", or "photography".

3. What level of use do you give these areas?

The words "heavy", "moderate", and "light" were used in similar proportion. The seasons listed most were spring through fall. Three persons responded that they use the area from eight months to all year.

Specifically:

May - October:	3	July - Sept.:	1
June - October:	2	May - Dec.:	1
July - August:	1	10 mo./year:	1
June - Sept.:	1	Apr.-May/Aug.-Sept.	1
August - Sept.:	2		

4. What game habitats should not be disturbed?

Specific locations mentioned included Watana Creek, Kosina Creek, Jay Creek, the area along the Susitna River, Fog Creek, north and southwest of Moosehorn Lake, Stephan Lake, Clarence Lake, Big Lake, along the Alaska Railroad proposed, Portage Creek, Butte Lake, Otter Lake. One person expressed concern about the possible disturbance of swan and salmon spawning grounds. Several expressed concern for the habitats of moose, grizzly and black bear, and caribou. Some specific statements were:

Impossible to list, Big Su is a key game habitat; effort should be made to stay near water with all travel.

Caribou migration routes, winter moose areas, black and grizzly bear denning areas.

The area bounded by Portage Creek to the west, the Susitna River to the south and east and the Denali Highway to the north is the best game country left in the Talkeetna Mountains.

Wintering areas in all major drainages should not be disturbed.

Those who saw no problems if game habitats are disturbed: 9 .

Those who mentioned concern about the disturbance in specific locations, or of specific animals, or disturbance of the wilderness in general: 16.



5. Which access do you prefer?

The guides were given four choices: Corridor 1 - North side of Susitna River from Talkeetna; Corridor 2 - South side of Susitna River from Talkeetna; Corridor 3 - North from Denali Highway; and Railroad - South side of Susitna River. They were also allowed to check all the boxes they felt were acceptable.

Corridor 1	6	Railroad	18
Corridor 2	11	Left it blank	4
Corridor 3	10	Answered "none of the above"	1
		Answered "whatever is cheapest and best"	1

6. Reasons for the above choice:

Comments supporting the railroad included: "less vehicle access means less impact on the animal population and the environment"; OR "It would be more direct." When specific corridors were chosen, the comments tended to be general about the possible disturbance of one or another animal population. Occasionally there was a specific individual comment, such as, "I suppose it's just selfishness but Corridor 1 come closest to the access I use."

7. Would you like to see public access to the project area by privately-owned vehicles after construction is completed?

Yes:	18	Not sure:	1
No:	10	Limited access only:	1
		No response:	2

8. Reason for position on public access:

Those who said yes: I'm paying for it so I'll use it; I support hydro power; all Americans have the right to all of America with the exception of land that is privately owned; we need tourist development and recreational development.

Those who said no: There will be an inundation of people; business will suffer; animal habitats will be destroyed along the river; would prefer the area be left a wilderness; what will happen to the fish; this is a power project, not a recreational facility.

Respondents to this questionnaire reside in:

Anchorage	9	Haines	1
Eagle River	1	Chugiak	2
Palmer	3	Homer	1
Cantwell	1	Ketchikan	1
Willow	3	Juneau	1
Gustavus	1	Kasilof	1
Fairbanks	1	Wasilla	1
Tok Highway	1	No name or address	1

## MINERS QUESTIONNAIRE -- February and March 1981

1. Member of what group or groups:

Fairbanks Alaska Miners	11
Anchorage Alaska Miners	6
Nome Alaska Miners	1
Interior Alaska Trappers	0
Southcentral Trappers	0
Registered guide	1
Other: Fur Takers of America	1

Miners reside in:

Fairbanks	10
Anchorage	6
Maclaren River	1
Palmer	1

2. What part of the Upper Susitna basin is of particular interest to you:

Almost every respondent had a different answer. Specifically they were:

Watana Creek	1	Butte Creek	1
Coal Creek	1	Clearwater Mtns.	1
Portage Creek-		Fog Lakes	1
Tsusena Creek	1	Gold Creek	1
Valdez Creek	1	Chulitna	1
Oshetna and		Maclaren	1
Black Rivers	1	All parts	4
Devil Canyon	1	No parts	1
		Upper Susitna Basin	1

One respondent who answered the form in detail said, "Of course, the Maclaren is of major interest to me since that is my home base. However, I would be violently opposed to using the Denali Highway as as dam access. Aside from the esthetic reasons, it would be an economic disaster for me, as a major portion of my trapline runs from Mile 7 Denali Highway to Mile 71."

3. What area of the river basin do you currently use:

Answers mirrored those above. Specifically:

Watana Creek	2	Butte Creek	1
Coal Creek	1	Clearwater Mtns.	1
Chulitna Canyon	1	Lower Susitna	1
Chulitna Creek	1	Upper Susitna	1
Stephan-Fog Lakes	1	Upper + Middle	1
South side-Susitna		Upper Tsusena Creek	1
drainage of		Devil Canyon	1
Fhunilma Creek	1	N/A	1
		None	4

4. What kind of use?

Minerals exploration	2	Recreation/rest	2
Trapping wolves that		Mining	5
prey on wintering	1	Hunting/fishing	4
moose		Hardrock minerals	1
Mineral development	1	None	1
Trapping	1	N/A	1

5. What level of use do you give the areas:

Light use was listed most frequently, though moderate and heavy use were also put down. Specific dates:

June - September	7
Oct. 15 - April 1	
plus Sept. deer hunt	1
None	1
N/A	1
Fall and Winter	2
Year-round	1
September - October	1

6. Would you like to see public access via privately-owned vehicle after construction is completed?

Yes	16
No	2

7. What is the principal reason for your position on access?

Yes answers:

Access to potentially productive mineral deposits	5
Public funds, public use	10
Recreation use	3
Hunting and fishing	1

One respondent who answered yes, added, "I strongly feel we should extract all minerals from this area before we complete the dam and begin flooding the area."

No answers:

The area is undisturbed now, don't want to lose that	1
The game population will be driven down	1

EXHIBIT 2

October 31, 1980

ACTION File Number: A-001-80

J. T. Rogers  
632 West 6th  
Anchorage, Alaska 99510

Dear J. T. Rogers:

You asked a question about the Susitna hydroelectric feasibility studies. Here is the answer to that question followed by a response from Peter Tucker of Acres American, Inc.

Your question:

What is Acres American, Inc., success rate or experience with licensing?

Response:

Acres American, Inc., maintains a very active liaison with the Federal Energy Regulatory Commission (FERC) to assure that we are fully informed concerning specific rules, negotiations and opinions and also with FERC's planned rule implementation measures. By working closely with FERC, Acres is able to provide the management and technical expertise to projects under implementation. Acres has in the past been active in preparing preliminary permit and major project license applications before FERC.

The recent major projects include:

- (1) Granby hydroelectric development submitted in February 1978 and receiving license in April 1980 and
- (2) Upper Mechanicville hydroelectric development, submitted in January 1981.

The Upper Mechanicville project license application was determined adequate on May 29th, without deficiency. Approximately 75% of applications submitted have deficiencies that need correcting, a process which usually take several months.

All comments, questions, and requests for information received by our office are reviewed by the Alaska Power Authority staff and Acres American,

Page 2  
October 31, 1980  
M. T. Rogers

Inc., and will be included in a report that will be given to the Alaska Power Authority board of directors and the Governor before a decision is made on Susitna.

Enclosed is an ACTION form which you may use if you have further comments, questions, or need additional information. We have had a few problems implementing the ACTION SYSTEM. However, some of the circumstances that held up the process have been corrected and we believe your next comment or question will be handled more quickly. Please keep in mind, however, that because a number of people will review, and in some cases, comment on each item submitted in the ACTION SYSTEM, it will take at least six weeks to process your request.

Sincerely,

Nancy Blunck  
Director of Public Participation

NB:mgh  
Enclosure  
cc: Acres American, Inc.

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date \_\_\_\_\_

\_\_\_\_\_ An Individual Citizen

\_\_\_\_\_ An Organization

name

J T ROGERS

name

address

632 WEST 6TH

# of members

city

ANCH

address

state

ALASKA

zip

99510

city

day phone

264-45-46

contact person

day phone

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

WHAT IS ACRES AMERICAN INC. SUCCESS  
RATE OR EXPERIENCE WITH FERC LICENSING.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

### Alaska Power Authority

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

Acres  
Task  
10

October 27, 1980

Mr. David Finkelstein  
425 East 16th Avenue, #2  
Anchorage, Alaska 99501

Dear Mr. Finkelstein:

You submitted to our office some comments regarding the Susitna hydroelectric feasibility studies. Two comments which related directly to the alternatives study were forwarded to the Governor's office as explained to you in my letter of October 8, 1980. Your other comment was,

"I am opposed to the Susitna Dam. The costs are just too high."

Your comment, as well as all other comments and questions received by our office, will be included in a report that will be sent to the Alaska Power Authority's board of directors and the Governor before a decision is made on the feasibility of the Susitna hydroelectric project.

Enclosed is an ACTION form which you may use if you have further comments, questions, or need additional information. We have had a few problems implementing the ACTION SYSTEM. However, some of the circumstances that held up the process have been corrected and we believe your next comment or question will be handled more quickly. Please keep in mind, however, that because a number of people will review, and in some cases, comment on each item submitted in the ACTION SYSTEM, it will take at least six weeks to process your request.

Sincerely,

Nancy Blunck  
Director of Public Participation

NB:mgh  
Enclosure  
cc: Acres American, Inc.



# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date 7/15/80

☒ An Individual Citizen

☐ An Organization

name

David Finkelstein

name

address

425 E. 16th Ave., #2

# of members

RECEIVED

city

Anchorage

address

JUL 17 1980

state

AK

zip

99501

city

ALASKA POWER AUTHORITY

day phone

contact person

day phone

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

① Any cost: benefit analysis in favor of Susitna Dam will ~~be~~ inevitably be based on increasing per capita consumption. But this assumption should not be used! If enough money was put into energy conservation, per capita consumption could decrease significantly by 1990. Susitna Dam will only serve to encourage future use of energy in wasteful ways.

② From both an environmental and economic stand point, a series of small dams would be preferable to the Susitna Dam. They could be built incrementally as need dictated, and would not involve a huge commitment of resources at one time.

③ I am opposed to the Susitna Dam. The costs are just too high.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

Task 1

October 27, 1980

Mr. David J. Hawes  
400 W. 11th Avenue, #16  
Anchorage, Alaska 99501

Dear Mr. Hawes:

You submitted to our office some comments regarding the Susitna hydro-electric feasibility studies. One comment which related directly to the alternatives study was forwarded to the Governor's office, as I explained to you in my letter of October 8, 1980. Your other comment is listed below, followed by a response from Don Baxter, engineer with the Alaska Power Authority.

Your comment:

Marketing and Finance Study - Task #11 - should be delayed until environmental studies indicate that the project is feasible from an environmental perspective (difficulties range from earthquake dangers to potentially severe wildlife impacts). I don't think taxpayers' money should be spent studying the financing of an ultimately unfeasible project.

Response:

The marketing and financing studies are a crucial element of the overall feasibility studies program. Just as the results of the environmental and seismic studies will determine if, in fact, the project is feasible, the marketing and financing will equally influence project feasibility. This is particularly important with respect to uncertain bond markets and to user support and marketability of Susitna power with respect to other potential power sources. These crucial items constitute one of the largest hurdles the project will have to overcome if it is ever constructed. Indeed, the financial feasibility and marketability studies must be conducted early in the program for the same reasons the environmental studies must be.

All comments, questions, and requests for information received by our office are reviewed by the Alaska Power Authority staff and Acres American, Inc., and will be included in a report that will be given to the Alaska Power Authority board of directors and the Governor before a decision is made on Susitna.

Enclosed is an ACTION form which you may use if you have further comments, questions, or need additional information. We have had a few problems implementing the ACTION SYSTEM. However, some of the circumstances

Page 2  
October 27, 1980  
Mr. David Hawes

that held up the process have been corrected and we believe your next comment or question will be handled more quickly. Please keep in mind, however, that because a number of people will review, and in some cases, comment on each item submitted in the ACTION SYSTEM, it will take at least six weeks to process your request.

Sincerely,

Nancy Blunck  
Director of Public Participation

NB:mgh  
Enclosure  
cc: Acres American, Inc.

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date 4/17/80

☒ An Individual Citizen

☐ An Organization

name David J. Hawes

name \_\_\_\_\_

address 400 W. 11<sup>th</sup> Ave #16

# of members \_\_\_\_\_

city Anchorage

address \_\_\_\_\_

state Alaska zip 99501

city \_\_\_\_\_

day phone 271-3695/276-5281

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

1) Marketing and Finance Study - Task #11 - should be delayed until environmental studies indicate that the project is feasible from an environmental perspective (difficulties range from earthquake dangers to potentially severe wildlife impacts). I don't think taxpayers money should be spent studying the financing of an ultimately unfeasible project.

2) The issue of centralization versus decentralization of power production must be addressed - the Susitna project presupposes centralized power production for 70% of the State's population. I am personally not too interested in the construction of interties and prefer an approach of local self-sufficiency. Following that approach would result in Anchorage utilizing local power sources such as windpower generators scattered throughout the city, extensive solar facilities for both power production and space heating, effective biomass utilization, and other potential sources.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

(over)

over

Timing of  
decisions  
in  
Task 1

3) The go - no go decision should address <sup>whether</sup> ~~rather~~ a similar commitment of funds to another source of power generation such as wind-power generation would result in that source becoming cost-effective. Many optimists feel that what both solar and wind power lack is simply a massive commitment of funds on par with the existing commitment of funds to coal, oil, hydro and other traditional power-generation sources.

October 8, 1980

M. C. Yerkes  
2544 Kensington Drive  
Anchorage, Alaska 99504

Dear M Yerkes:

The attached comments on alternatives to Susitna hydroelectric development, that you submitted to the Alaska Power Authority through the ACTION SYSTEM have been forwarded to Fran Ulmer, chairperson of the Railbelt Energy Alternatives Policy Review Committee. This committee will be providing policy direction to the Susitna alternatives study that Battelle Northwest Laboratories is conducting.

As you may know, the 1980 legislature decided that the alternatives study for Susitna should be completed in such a way that there would be no question of its objectivity. Therefore, the legislature directed that an independent firm be selected to conduct the alternatives study itself (Battelle was chosen) and that Acres American, Inc. continue its work on studying the feasibility of Susitna.

The Office of the Governor is managing the feasibility study of alternatives. The Alaska Power Authority is managing the feasibility study of Susitna. The results of both studies will help determine whether or not the State should develop hydroelectric power on the Susitna River and/or pursue other energy alternatives. Since the State of Alaska will make a decision by April 1982 whether to file a license application for Susitna hydroelectric, Battelle is directed to complete their alternatives study well in advance of this date to permit an informed decision.

Since Acres will not conduct the alternatives study, we directed them not to respond to your ACTION request. It did not make much sense to us to have them respond to your comments, if they were not going to be conducting the study. We thought it better to hold your ACTION request until the new consultant was selected.

In July a request for proposals was sent out seeking consulting services to conduct an alternatives study and prepare an energy plan for the electrical needs of the railbelt. The energy plan will include an evaluation of alternatives, emerging technologies, conservation, and load management. The plan will review, and where necessary, improve the existing data base and demand forecast. It will examine the alternative types of electric generation and help determine whether or not the state should concentrate its efforts on development of the hydroelectric potential of the Susitna River and/or pursue other alternatives.

In September, Battelle Pacific Northwest Laboratories (with Ebasco Service and the Institute of Social and Economic Research) was selected to conduct the alternatives study. Their contract with the Office of the Governor is now signed. Battelle is preparing a work plan which is expected to be finished by the end of October. Battelle anticipates beginning work in November.

M. C. Yerkes  
Page 2  
October 8, 1980

In the meantime, further questions and comments concerning the alternatives study (or response to your ACTION request) should be directed to Fran Ulmer or Tom Singer. Both can be reached at the telephone number and address listed below. We suggest that all correspondence to Ms. Ulmer be marked, "Attention: Tom Singer," Division of Policy Development and Planning, Pouch AD, Juneau, Alaska 99811. Phone (907) 465-3577.

You may also wish to contact members of the Railbelt Energy Alternatives Policy Review Committee. They are:

Ms. Clarissa Quinlan, Director  
Division of Energy and Power Development  
338 Denali Street  
Anchorage, Alaska 99501

Mr. Charles Conway, Chairman  
Alaska Power Authority Board of Directors  
2702 Gambell Street, Suite 200  
Anchorage, Alaska 99503

Mr. Ron Lehr, Director  
Division of Budget and Management  
Pouch AM  
Juneau, Alaska 99811

If you have further questions or comments about the Susitna feasibility studies (other than the alternatives study) continue to direct those to the Public Participation Office of the Alaska Power Authority, 333 West 4th Avenue, Suite 31, Anchorage, Alaska 99501, (907) 276-0001.

Sincerely,

Nancy Blunck  
Director  
Public Participation Office

Attachment  
NB:mgh

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date \_\_\_\_\_

☒ An Individual Citizen☐ An Organization

name

M.C. YAKES

name

address

2544 KERSHAW DR.

# of members

city

ANCHORAGE

address

state

AK

zip

99501

city

day phone

333-1125H 279-7611W

contact person

day phone

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

THE PROPOSED STUDY SCOPE APPEARS TO BE LARGE WHICH MAY CREATE EXTENSIVE CONVICTION DEATH. I SUGGEST SIMPLIFICATION ASSUMPTIONS BE UTILIZED TO REDUCE STUDY SCOPE SO THAT MAXIMUM EFFORT CAN BE DEVOTED TO ANALYSIS OF THE VARIOUS ALTERNATIVES. I SEE OUR STATE 90% DEPENDENT ON Fossil FUELS AND SUPPLIES OVERSEAS. FROM THE QUALITY OF STUDIES AND DEPTH OF REQUIRED STUDIES I AM CONCERNED THAT IN TEN YEARS FROM NOW WE WILL STILL BE WONDERING WHAT TO DO AND WE WON'T HAVE THE FUEL TO GO TO ALTERNATIVES! I COMMENTED AHA ON ITS PLAN AND MARKED DECISION POINTS AND I HOPE THAT THIS TIME THERE CAN BE HEED TO.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001



October 8, 1980

Mr. Gary Friedmann  
SRA Box 2388-M  
Anchorage, Alaska 99507

Dear Mr. Friedmann:

The attached comment on alternatives to Susitna hydroelectric development, that you submitted to the Alaska Power Authority through the ACTION SYSTEM has been forwarded to Fran Ulmer, chairperson of the Railbelt Energy Alternatives Policy Review Committee. This committee will be providing policy direction to the Susitna alternatives study that Battelle Northwest Laboratories is conducting.

As you may know, the 1980 legislature decided that the alternatives study for Susitna should be completed in such a way that there would be no question of its objectivity. Therefore, the legislature directed that an independent firm be selected to conduct the alternatives study itself (Battelle was chosen) and that Acres American, Inc. continue its work on studying the feasibility of Susitna.

The Office of the Governor is managing the feasibility study of alternatives. The Alaska Power Authority is managing the feasibility study of Susitna. The results of both studies will help determine whether or not the State should develop hydroelectric power on the Susitna River and/or pursue other energy alternatives. Since the State of Alaska will make a decision by April 1982 whether to file a license application for Susitna hydroelectric, Battelle is directed to complete their alternatives study well in advance of this date to permit an informed decision.

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Mr. Gary Friedman

Page 2

October 8, 1980

In the meantime, further questions and comments concerning the alternatives study (or response to your ACTION request) should be directed to Fran Ulmer or Tom Singer. Both can be reached at the telephone number and address listed below. We suggest that all correspondence to Ms. Ulmer be marked, "Attention: Tom Singer," Division of Policy Development and Planning, Pouch AD, Juneau, Alaska 99811. Phone (907) 465-3577.

You may also wish to contact members of the Railbelt Energy Alternatives Policy Review Committee. They are:

Ms. Clarissa Quinlan, Director  
Division of Energy and Power Development  
338 Denali Street  
Anchorage, Alaska 99501

Mr. Charles Conway, Chairman  
Alaska Power Authority Board of Directors  
2702 Gambell Street, Suite 200  
Anchorage, Alaska 99503

Mr. Ron Lehr, Director  
Division of Budget and Management  
Pouch AM  
Juneau, Alaska 99811

If you have further questions or comments about the Susitna feasibility studies (other than the alternatives study) continue to direct those to the Public Participation Office of the Alaska Power Authority, 333 West 4th Avenue, Suite 31, Anchorage, Alaska 99501, (907) 276-0001.

Sincerely,

  
Nancy Blunck  
Director  
Public Participation Office

Attachment  
NB:mgh

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date 4/17/80☒ An Individual Citizen☐ An Organizationname GARY FRIEDMAN

name \_\_\_\_\_

address S.P.A. Box 2382-M

# of members \_\_\_\_\_

city ANCHORAGE

address \_\_\_\_\_

state AK zip 99507

city \_\_\_\_\_

day phone 344-617

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

1) Hydro Power Approach to energy should be considered. Hydropower is a renewable, non-polluting energy resource and technologies used economically preferable to "dirty" energy sources such as large-scale hydro.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

MEMO TO THE RECORD

FROM: Dave Wozniak, Project Engineer

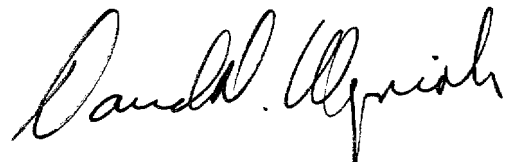
DATE: November 25, 1980

SUBJECT: Testimony, Floyd Heimbuch, Executive Director  
Cook Inlet Aquaculture Association  
April 1980 Community Meeting in Anchorage

Mr. Heimbuch submitted testimony at the April 1980 community meeting in Anchorage. His testimony was entered into the ACTION system for comment by Acres American, Inc. Enclosed in this file is a written response to Mr. Heimbuch's comments.

On November 5, 1980, he met with the Susitna hydroelectric steering committee. On November 14, 1980, he met with Bob Williams, fisheries investigator for TES, and myself. And, on November 15, 1980, Eric Yould appeared before the Cook Inlet Aquaculture Board of Directors. The concerns Mr. Heimbuch expressed in his testimony were addressed in these various forums.

Therefore, I recommend that the ACTION file be closed. I believe that the testimony has been adequately responded to at the various meetings in November and that it would be redundant to send the written response to him at this time.

A handwritten signature in dark ink, appearing to read "David W. Wozniak". The signature is written in a cursive, flowing style with a large initial "D".

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date

April 17, 82

☐ An Individual Citizen

☒ An Organization

name

Floyd E. Heimboch

name

Cook Inlet Aquaculture

address

P.O. Box 850

# of members

1 person

city

Seldotna, AK. 99669

address

state

zip

city

day phone

contact person

day phone

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

11  
OK7  
I am Floyd E. Heimbuch, Executive Director of Cook Inlet Aquaculture Association. We are a regional aquaculture association and are recognized by ADF&G, the Dept. of Commerce & Economic Development and other state departments as such for the Cook Inlet area. All salmon user groups have representation on our Board of Directors. Our goal is to produce more salmon in Cook Inlet.

① It is safe to say that salmon fishermen are very concerned about any Susitna River modification. They will probably be unhappy with any project that even threatens it. We are just now becoming fully aware that the Susitna system contribution to historic salmon run strengths was greater than was thought. In the time from about 1940 to 1975 there was considerable disregard for several factors in its salmon production.

② It is also quite sure that Susitna River salmon production levels are now low. Therefore, estimates based on present run strengths become highly suspect as indicators of the full production potential of that river system.

③ Any mitigation plan or system will have to have payment in salmon. In all likelihood for it to be fair it will have to be greater salmon returns than now are there. Cash payments will not be acceptable. Nor will a plan to fund research activities be an acceptable method. One reason greater numbers of salmon will be required as fair mitigation is that when the system is now studied and it is determined what amount of habitat supports 1 salmon - there still remains unanswered the amount of salmon that that same size habitat would support given sufficient brood stock for eggs and the added nutrients from those carcasses.

④ The study plan indicates stock separation work will be accomplished to answer certain biological questions. The technology to do that is not yet developed, it will have to be as part of this study. So if stock separation of all 5 salmon species is critical to full evaluation it should be recognized this task has a good chance for failure.

⑤ There is to be an attempt to develop a quantitative description of rearing and spawning habitat. There are only highly debateable procedures for this. It probably can't be done. No one has done it well enough up to now to be much better than an office generated guess.

6 We are doubtful that the engineering portion of the study and the biological portion of the study will mesh to provide realistic answers to questions about salmon.) We are not opposed to the Susitna Dam project.) We are willing to help provide as many answers as we can to the many and complex questions of the impact on fish.)

9 This is not a statement against progress. It is a statement that acknowledges both pockets are ours, the pocket containing the energy development from this river and the pocket with fish in this river. We may be able to put more into both rather than trade one against the other. CIAA believes this possibility is worth working on. If you think we can help you, call on us.

Thank you.

- 10 We are worried that the effects of business on the river will be underestimated by many people.
- 11 Lets not just look at the system and say why. Lets not be satisfied by understanding what is there and trying to maintain it. Lets build a challenging goal and work toward accomplishing it.

A-006-80

Date submitted: 4/17/80

Floyd E. Heimbuch  
P.O. Box 850  
Soldotna, Alaska 99669

(1) It is safe to say that salmon fishermen are very concerned about any Susitna River modification. They will probably be unhappy with any project that even threatens it. We are just now becoming fully aware that the Susitna system contribution to historic salmon run strengths was greater than was thought. In the time from about 1940 to 1975 there was considerable disregard for several factors in its salmon production.

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Continued, page 2

separation of all 5 salmon species is critical to full evaluation, it should be recognized this task has a good chance for failure.

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(7) We are not opposed to the Susitna Dam project.

(8) We are willing to help provide as many answers as we can to the many and complex questions of the impact on fish.

(9) This is not a statement against progress. It is a statement that acknowledges both pockets are ours, the pocket containing the energy development from this river and the pocket with fish produced from this river. We may be able to put more into both rather than trade one against the other. CIAA believes this possibility is worth working on. If you think we can help you, call on us.

(10) We are worried that the effects of daming the river will be underestimated by many fold.

(11) Let's not just look at the system and say why. Let's not be satisfied by understanding what is there and trying to maintain it. Let's build a challenging goal and work toward accomplishing it.

October 8, 1980

Mr. Kenneth Tarbox  
6890 Burlwood Drive  
Anchorage, Alaska 99501

Dear Mr. Tarbox:

The attached questions on alternatives to Susitna hydroelectric development, that you submitted to the Alaska Power Authority through the ACTION SYSTEM have been forwarded to Fran Ulmer, chairperson of the Railbelt Energy Alternatives Policy Review Committee. This committee will be providing policy direction to the Susitna alternatives study that Battelle Northwest Laboratories is conducting.

As you may know, the 1980 legislature decided that the alternatives study for Susitna should be completed in such a way that there would be no question of its objectivity. Therefore, the legislature directed that an independent firm be selected to conduct the alternatives study itself (Battelle was chosen) and that Acres American, Inc. continue its work on studying the feasibility of Susitna.

The Office of the Governor is managing the feasibility study of alternatives. The Alaska Power Authority is managing the feasibility study of Susitna. The results of both studies will help determine whether or not the State should develop hydroelectric power on the Susitna River and/or pursue other energy alternatives. Since the State of Alaska will make a decision by April 1982 whether to file a license application for Susitna hydroelectric, Battelle is directed to complete their alternatives study well in advance of this date to permit an informed decision.

Since Acres will not conduct the alternatives study, we directed them not to respond to your ACTION request. It did not make much sense to us to have them answer your questions, if they were not going to be conducting the study. We thought it better to hold your ACTION request until the new consultant was selected.

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Mr. Kenneth E. Tarbox  
Page 2  
October 8, 1980

In the meantime, further questions and comments concerning the alternatives study (or response to your ACTION request) should be directed to Fran Ulmer or Tom Singer. Both can be reached at the telephone number and address listed below. We suggest that all correspondence to Ms. Ulmer be marked, "Attention: Tom Singer," Division of Policy Development and Planning, Pouch AD, Juneau, Alaska 99811. Phone (907) 465-3577.

You may also wish to contact members of the Railbelt Energy Alternatives Policy Review Committee. They are:

Ms. Clarissa Quinlan, Director  
Division of Energy and Power Development  
338 Denali Street  
Anchorage, Alaska 99501

Mr. Charles Conway, Chairman  
Alaska Power Authority Board of Directors  
2702 Gambell Street, Suite 200  
Anchorage, Alaska 99503

Mr. Ron Lehr, Director  
Division of Budget and Management  
Pouch AM  
Juneau, Alaska 99811

If you have further questions or comments about the Susitna feasibility studies (other than the alternatives study) continue to direct those to the Public Participation Office of the Alaska Power Authority, 333 West 4th Avenue, Suite 31, Anchorage, Alaska 99501, (907) 276-0001.

Sincerely,

Nancy Blunck  
Director  
Public Participation Office

Attachment  
NB:mgh

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date April 18, 1980☒ An Individual Citizen☐ An Organizationname Kenneth E Tarbox

name \_\_\_\_\_

address 6890 Burlwood Dr

# of members \_\_\_\_\_

RECEIVED

city Anchorage

address \_\_\_\_\_

state Alaskazip 99501

city \_\_\_\_\_

ALASKA POWER AUTHORITY

day phone 344-6870 or 276-2335

contact person \_\_\_\_\_

day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

OK  
1

An obvious measure of effort is available budgeted for each task. In this context Task 1- Power Studies is only \$259,000 compared to 13 million for the others tasks (by 1980 4<sup>th</sup> quarter). The remaining tasks appear to be directed primarily at the Susitna Hydroelectric project. impacts, design, cost, ect. In this context, a conflict with CEQ guidelines is evident (Federal Register Nov 29, 1978). The guidelines state in section 1502.14 Alternatives... "this section... should present the environmental impacts of the proposal and the alternatives in comparative form... rigorously explore and objectively evaluate all reasonable alternatives... devote substantial treatment to each alternative, considered in detail" How can APA meet this requirement when an obvious disparity in funding and effort is evident at this stage of the project? In fact, the tasks (sub) of Task 1 can only be treated superficially at this level of funding.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

### Alaska Power Authority

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

October 8, 1980

Ms. Carol Gates  
8451 Greenhill Way  
Anchorage, Alaska 99502

Dear Ms. Gates:

The attached comments on alternatives to Susitna hydroelectric development, that you submitted to the Alaska Power Authority through the ACTION SYSTEM have been forwarded to Fran Ulmer, chairperson of the Railbelt Energy Alternatives Policy Review Committee. This committee will be providing policy direction to the Susitna alternatives study that Battelle Northwest Laboratories is conducting.

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Since Acres will not conduct the alternatives study, we directed them not to respond to your ACTION request. It did not make much sense to us to have them respond to your comments, if they were not going to be conducting the study. We thought it better to hold your ACTION request until the new consultant was selected.

In July a request for proposals was sent out seeking consulting services to conduct an alternatives study and prepare an energy plan for the electrical needs of the railbelt. The energy plan will include an evaluation of alternatives, emerging technologies, conservation, and load management. The plan will review, and where necessary, improve the existing data base and demand forecast. It will examine the alternative types of electric generation and help determine whether or not the state should concentrate its efforts on development of the hydroelectric potential of the Susitna River and/or pursue other alternatives.

In September, Battelle Pacific Northwest Laboratories (with Ebasco Service and the Institute of Social and Economic Research) was selected to conduct the alternatives study. Their contract with the Office of the Governor is now signed. Battelle is preparing a work plan which is expected to be finished by the end of October. Battelle anticipates beginning work in November.

Ms. Carol A. Gates  
Page 2  
October 8, 1980

In the meantime, further questions and comments concerning the alternatives study (or response to your ACTION request) should be directed to Fran Ulmer or Tom Singer. Both can be reached at the telephone number and address listed below. We suggest that all correspondence to Ms. Ulmer be marked, "Attention: Tom Singer," Division of Policy Development and Planning, Pouch AD, Juneau, Alaska 99811. Phone (907) 465-3577.

You may also wish to contact members of the Railbelt Energy Alternatives Policy Review Committee. They are:

Ms. Clarissa Quinlan, Director  
Division of Energy and Power Development  
338 Denali Street  
Anchorage, Alaska 99501

Mr. Charles Conway, Chairman  
Alaska Power Authority Board of Directors  
2702 Gambell Street, Suite 200  
Anchorage, Alaska 99503

Mr. Ron Lehr, Director  
Division of Budget and Management  
Pouch AM  
Juneau, Alaska 99811

If you have further questions or comments about the Susitna feasibility studies (other than the alternatives study) continue to direct those to the Public Participation Office of the Alaska Power Authority, 333 West 4th Avenue, Suite 31, Anchorage, Alaska 99501, (907) 276-0001.

Sincerely,

Nancy Blunck  
Director  
Public Participation Office

Attachment  
NB:mgh



A-008-80

Carol A. Gates

May 8, 1980

8451 Greenhill Way Anchorage, AK 99502

Alaska Power Authority  
333 West Fourth Avenue Suite 31  
Anchorage, AK 99501

RECEIVED

MAY 12 1980

Gentlemen:

I understand that another study will soon be underway to determine the need for the Susitna Hydro-Project. This particular study (I know there have been many studies done, at a great expense to taxpayers) is supposed to evaluate alternatives to the dam project, which has been deemed environmentally unsound by numerous environmental groups, besides which the money for all the studies and the actual project could be put to much better use in alternate energy plans, not only for Alaska, but for the entire country.

*100%*  
I also understand that the money and time allotted for the study of the important alternative plans are extremely meager in comparison to the rest of the study. Cost estimates, seismic monitoring, risk analysis, and biological studies are not even accomplished before a decision is due on the alternatives. This makes no sense. This is really not much of a study, is it, when you consider you have already made up your mind that this huge, wasteful, dangerous dam project is the only way? We need an honest appraisal of the situation--not this biased approach.

Let's use our heads for a change and take all the factors into consideration.

Sincerely,

*Carol Gates*  
Carol Gates

## **ALASKA POWER AUTHORITY**

333 West 4th Avenue, Suite 31  
Anchorage, Alaska 99501  
June 4, 1980


Tom Trent  
Regional Supervisor  
Habitat Protection Section  
333 Raspberry Road  
Anchorage, Alaska 99502

Dear Tom,

This is a short note to let you know we have received your comments and questions on the Susitna hydroelectric feasibility studies.

Because of the high interest in the studies and over 100 requests we have had for information since the April meetings, we have not been able to respond to your request as quickly as we would like. We do want you to know, however, that staff members within the Alaska Power Authority and Acres are presently reviewing your comments. You will receive a written response soon.

Sincerely,



Nancy Blunck  
Director  
Public Participation Program



# STATE OF ALASKA

## DEPARTMENT OF FISH AND GAME

JAY S. HAMMOND, GOVERNOR

A-009-80

May 14, 1980

RECEIVED

MAY 21 1980

ALASKA POWER AUTHORITY

Mr. John Hayden  
Acres-American, Inc.  
Liberty Bank Building  
Buffalo, New York 14202

Dear John:

On May 6, I accompanied Brent Drage of R&M and Brent Petrie on an overflight of the Susitna River from its mouth on Cook Inlet to a point a few miles above the Watana Dam site. During the flight and at a post-flight meeting, Brent Petrie and I pointed out to Brent Drage, areas which were particularly important from recreational, fish and wildlife and navigational standpoint, and proposed locations for detail aerial black and white photography sites along the river.

R&M's planned activities will extend downriver from the proposed dam sites to the Susitna station area below the Yentna River confluence. Both ADF&G and DNR have a concern that some effort be given to examining the Alexander Creek area downstream of Susitna Station, however. Approximately 4-5 miles upstream of the Alexander Creek confluence with a side channel of the Susitna river is the origin of that side channel from the main stem of the Susitna River. At low flows this channel, which is important for recreational access downriver to Alexander Creek, can become marginally passable or impassable to all water craft except airboats. Since Alexander Creek is an important recreational area and fishery, and also an area where major subdivision disposals by the DNR will take place this year, it is important, I believe, that the question of the access provided by the Susitna River flow be determined.

If flow through the side channel of the Susitna River by Alexander Creek is restricted during the May to October period, when most recreational traffic or boat traffic to homesites in the area occurs, it would result that traffic going downstream to Cook Inlet on the main stem Susitna and detouring a distance of about 27 miles to get to Alexander Creek.

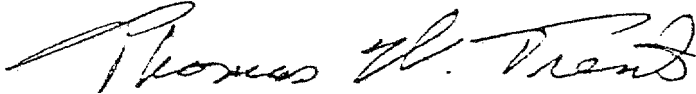
J. Hayden

-2-

5/14/80

Drage indicated R&M was not budgeted to look at the Susitna down to the head of the side channel to Alexander Creek, but I believe the problem I've outlined should receive some further review and possible addition to the study area by Acres and APA.

Sincerely,



Thomas W. Trent  
Regional Supervisor  
Habitat Protection Section  
(907) 344-0541

cc: Brent Petrie - DNR  
Robert Mohn - APA  
Don Baxter - APA  
Robert Bowker - USF&WS  
Jim Gill - Acres

November 26, 1980

ACTION FILE Number: A-010-80

Mr. Steven B. Smiley  
SRA Box 41-C  
Homer, Alaska 99603

Dear Mr. Smiley:

You asked to be placed on the mailing list to receive information on the Susitna hydroelectric feasibility studies and the Bradley Lake hydro project. We have placed your name on the mailing list for the Susitna studies.

However, the Alaska Power Authority is not managing the Bradley Lake project. It is being managed by the Army Corps of Engineers. Therefore, we have given your name to the project manager, Bob Oenbrink. He can be reached at:

Alaska District Corps of Engineers  
P. O. Box 7002  
Anchorage, Alaska 99510

Telephone number: 752-4042

I suggest you contact Mr. Oenbrink if you have any questions or comments.

Enclosed is a copy of a form you may use if you have comments or questions on the Susitna feasibility studies.

Sincerely,



FOR THE DIRECTOR OF PUBLIC  
PARTICIPATION

Jean Buchanan  
Acting Director of Public Participation

JB/mgh

Enclosure

SUBJECT:

FROM:

TELEPHONE NO:

FILE NO:

DATE:

TO:

State of Alaska

MEMORANDUM

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date \_\_\_\_\_

☒ An Individual Citizen☐ An Organizationname Steven B. Smiley

name \_\_\_\_\_

address SRA Box 41-C

# of members \_\_\_\_\_

city Homer

address \_\_\_\_\_

state AK zip 99603

city \_\_\_\_\_

day phone 235-7349

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

Task 12 attached letter

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

Nancy

874

APA  
333 W. 4th Ave  
Suite 31  
Anch. Ak 99501

May 8, 1980

RECEIVED  
MAY 9 1980  
ALASKA POWER AUTHORITY

Dear APA,

Please place me on your mailing list for comments and information regarding the Lisitna Hydro Project as well as Bradley Lake Hydro Project

Thanks —

Regards

Steven B. Smiley

STEVEN B. SMILEY

S.R.A. Box 41-C

HOMER, AK. 99603

(907) 235-7349

March 19, 1981

ACTION FILE Number: A-011-80

Mr. Ken Kastner  
West Side Fisherman's Assn.  
P. O. Box 1062  
Homer, Alaska 99603

Dear Mr. Kastner:

You submitted to our office some questions regarding the Susitna hydroelectric feasibility studies. Your questions are listed below followed by a response from Acres American, Inc., the consulting firm managing the studies.

Your question:

How many anadromous fish streams will be affected by the Susitna Project?

Response:

Existing data to date indicates that under present conditions Devil Canyon acts as a natural barrier to salmon migration. Assuming this is confirmed by the fishery studies being conducted, the only anadromous fish region which will potentially be affected by the Susitna project is that downstream of Devil Canyon. No tributary streams of the Susitna presently utilized by anadromous fish will be directly inundated. However, the mainstem, between Devil Canyon and the Cook Inlet would be subject to alterations in flow. Our studies will assess the potential affects of various flows in mainstem Susitna with respect to salmon --

- 1) spawning
- 2) residency
- 3) and transportation to tributary streams.

Your question:

Could you send us information on fisheries studies being conducted?

Response:

We have attached to this letter (attachment A) sections of the Plan of Study that outline the fisheries studies being conducted.

Page 2  
Ken Kastner  
March 19, 1981

Your question:

What data do you have available concerning species and run sizes?

Response:

We have attached a list of references (attachment B) we have gathered to date which directly relate to the Susitna salmon fisheries.

Enclosed is an ACTION form which you may use if you have further comments, questions, or need additional information. Next time, it will not take so long to respond to your request. We had, unfortunately a few problems implementing the ACTION System. However, the circumstances that held up the process have been corrected. Because a number of people review, and in some cases, comment on each item submitted to the Action System, it will take at least six weeks to process your request.

Sincerely,

Nancy Blunck  
Director of Public Participation

NB/mgh

Enclosures.

CONCUR: WOZNIAK/MOHN

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date June 4, 1980

☐ An Individual Citizen

☒ An Organization

name

name

address

# of members

city

address

state

zip

city

day phone

contact person

day phone

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

① We would like to know how many  
anadromous fish streams will be affected  
by the Susitna project and any data you  
have available concerning species and  
run sizes. Also information on what  
fisheries studies are being conducted.

Acres American, Inc. and the Alaska Power Authority will review and respond to your comments on this form and leave it at a community meeting or mail it to:

may make

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

Type this  
question/request  
separately,  
parts a, b, c



December 24, 1980

ACTION FILE Number: A-012-30

Mr. Wallace H. Chapin  
3214 Wyoming Drive  
Anchorage, Alaska 99503

Dear Mr. Chapin:

Thank you for sending your comments on the Susitna hydroelectric project that is presently undergoing feasibility study.

You comments, along with all others we receive will be reviewed by the Alaska Power Authority and Acres American, Inc., the firm conducting the feasibility studies. Before a decision is made on Susitna, all comments we receive will be included in a report that will be sent to the Alaska Power Authority board of directors and the Governor's office.

Enclosed is a form that you may use if you have other comments on the feasibility studies.

Sincerely,

Nancy Blunck  
Director of Public Participation

NB:mgh  
Enclosure  
cc: Acres American, Inc.

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date December 1, 1980☒ An Individual Citizen☐ An Organizationname Wallace H. Chapin

name \_\_\_\_\_

address 3214 Wyoming Drive

# of members \_\_\_\_\_

city Anchorage,

address \_\_\_\_\_

state Alaska zip 99503

city \_\_\_\_\_

day phone \_\_\_\_\_

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

Response to newsletter.

The idea of a hydroelectric power facility in this area has been of great interest to me since I cam here in 1972.

I think the possibilities are endless and the benefits to Alaskans in the near and distant future are also without a doubt endless.

Please consider me an ardent supporter of the project and keep me on your mailing list for all future publications.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

### Alaska Power Authority

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

11/25/'80

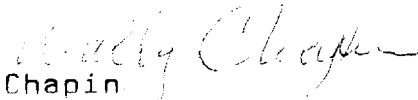
Gentlemen:

The idea of a Hydroelectric Power Facility in this area has been of great interest to me since I came here in 1972. I think the possibilities are endless and the benefits to Alaskans in the near and distant future are also without a doubt endless.

Please consider me an ardent supporter of the project and keep me on your mailing list for all future publications.

Sincerely yours,

Wally Chapin

A handwritten signature in cursive script that reads "Wally Chapin". The signature is written in dark ink and is positioned to the right of the typed name "Wally Chapin".

December 23, 1980

Ms. Louise G. Spach  
7800 DeBarr Road, Space 469  
Anchorage, Alaska 99504

Dear Ms. Spach:

Thank you for sending us your comments regarding the Susitna hydroelectric project. Your comment, along with all others we receive, will be reviewed by the Alaska Power Authority and Acres American, Inc., the firm conducting the studies. Before a decision is made on Susitna, all comments we receive will be sent to the Alaska Power Authority Board of Directors and the Governor's office.

Enclosed is a form that you may use when submitting your comments on the plans for campgrounds.

Sincerely,

Nancy Blunck  
Director of Public Participation

NB:mgh  
Enclosure  
Acres American, Inc.

CONCUR: Wozniak  
Mohn

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date December 1, 1980

☒ An Individual Citizen

☐ An Organization

name Louise G. Spach

name

address 7800 De Barr Rd. Space 469

# of members

city Anchorage

address

state Alaska zip 99504

city

day phone

contact person day phone

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

Reponse to newsletter.

I am very happy and interested in the development of anything to do with  
Alaska.

I will write later about plans for campgrounds.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

December 23, 1980

Mr. Douglas Lottridge  
4641 San Roberto Avenue  
Anchorage, Alaska 99504

Dear Mr. Lottridge:

When you returned a coupon asking to be put on the mailing list to receive information on the Susitna hydroelectric feasibility studies, you also asked for information regarding the alternatives study.

The Alaska Power Authority is not managing the alternatives study. Therefore, we are sending your request for information to Fran Ulmer, Chairwoman of the Policy Review Committee, which is managing the alternatives study. The alternatives study are being conducted by Battelle Pacific Northwest Laboratories.

Sincerely,

Nancy Blunck  
Director of Public Participation

NB:mgh  
cc: Acres American, Inc.

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date December 1, 1980

☒ An Individual Citizen

☐ An Organization

name Douglas Lottridge

name \_\_\_\_\_

address 4641 San Roberto Avenue

# of members \_\_\_\_\_

city Anchorage

address \_\_\_\_\_

state Alaska zip 99504

city \_\_\_\_\_

day phone \_\_\_\_\_

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

Response to newsletter.

Please continue sending the newsletter.

I'd also like more information on the alternatives being considered  
and the predicted requirements vis-a-vis current sources.

Thank you.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

December 23, 1980

Mr. Thomas R. Anthony  
SRA 1795  
Anchorage, Alaska 99507

Dear Mr. Anthony:

Thank you for sending up your comments regarding the alternatives study for the Susitna hydroelectric project. We have made note of your concerns and are forwarding them to Fran Ulmer, chairwoman of the Policy Review Committee, which is managing the alternatives study. The alternatives study is being conducted by Battelle Pacific Northwest Laboratories.

The Alaska Power Authority is managing the studies that Acres American, Inc., is conducting on the feasibility of the hydroelectric development in the Susitna basin. These studies are separate from the alternatives study being conducted by Battelle.

If you have any further questions on the alternatives study, please address them to

Ms. Fran Ulmer  
Director of the Division of Policy  
Development and Planning  
DPDP  
Pouch AD  
Juneau, Alaska 99811

If you have any comments on the Susitna hydroelectric feasibility studies, you may use the enclosed form for your comments.

Your name has been included on our mailing list for future Susitna newsletters.

Sincerely,

Nancy Blunck  
Director of Public Participation

NB:mgh  
Enclosure  
cc: Acres American, Inc.

concur: DW  
RM

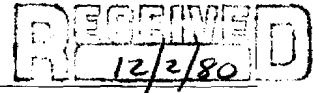


# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date \_\_\_\_\_

☒ An Individual Citizen☐ An Organizationname Thomas R. Anthony

name \_\_\_\_\_

address SRA 1795

# of members \_\_\_\_\_

city Anchorage,

address \_\_\_\_\_

state AK zip 99507

city \_\_\_\_\_

day phone \_\_\_\_\_

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

*see attached correspondence*

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

RECEIVED

Thomas R. Anthony  
SRA 1795  
Anchorage 99507

10-2 1980

30 November 1980

ALASKA POWER AUTHORITY

Alaska Power Authority  
Public Participation Office  
333 W. 4th Suite 31  
Anchorage, Alaska 99501

Robert R.  
Nancy

Dear Sirs:

My strongest reaction to the updated Susitna Hydre Studies you so kindly sent me is to the following bit of information: one million dollars are being spent to study alternatives, and thirty million to study the dams.

The alternative energy forms, as listed in your Hydre Studies newsletter, are wind, solar, petroleum, nuclear, wood, coal, tidal and conservation. The technology of certain of these alternatives is presently not well understood and therefore, I assume, very easy to brush over with a few thousand dollars. Still, don't insult my intelligence by making the implication that these alternatives are getting a fair shake at \$120,000 apiece. This is one dollar spent to study a home-operated windmill compared to \$240 to study a centralized power plant. With such a budget I will be supremely amazed if Battelle does anything but rubber-stamp your Susitna power play.

Unfortunately for us both I find I am able to do my own research. Consequently I will never support your dam idea, because I have found that for the \$30,000 per household you expect it to cost I can not only put alternative energy in my home, but I can build the house (assuming I provide the labor) and buy the lot. It wouldn't be a \$4000 square foot carpet stuffed cracker box, because knowing what I do about the present world resource situation my conscience wouldn't allow me to build one. But it would be a home designed with future generations of human beings in mind, unlike the monsters presently getting financed by the surplus oil money so cheaply gained at the expense of mere environmental havoc in Prince William Sound and the Beaufort Sea, not to mention points in between. More simply, energy usage is a function of lifestyle, and those who love nature and God and children and life will always choose a way to live so that they do not become thieves who rob from and murder the ones they profess to love. The State can steal and bribe and swindle all it cares to, but it will be to the eventual dismay of all who participate, for such behavior quickly turns its most productive citizens against it.

So here's my recommendation. Go ahead and study the alternatives. I personally guarantee there are better ones. But do it right and spend \$30 million on each one, which is \$240 million or only 7% of your projected cost for the Susitna Dam. Take all the time you need. This is the only fair way to do it. Make all the information gathered available to Alaskans, but keep copyright to it. This is the return on our investment. The world can use it, and will.

Meanwhile, the bulldozers will have waited a few more years, the population will have grown by much less than was projected, the people of Alaska, resourceful as they are, will have found even more ways to conserve on the energy they already use, and even if certain major corporations begin to grow impatiently red you and I will have that much more hope that our grandchildren will be born into a world they can love.

Sincerely yours,

Thomas R. Anthony

February 10, 1981

ACTION File Number: A-016-80

Ms. Dona M. Agosti  
2324 Loussac Drive  
Anchorage, Alaska 99503

Dear Ms. Agosti:

When you submitted your request to be placed on our mailing list to receive future newsletters regarding the Susitna hydroelectric feasibility study, you also asked for some information. Your question is listed below, followed by a response from Robert Mohn, Director of Engineering for the Alaska Power Authority.

Your question:

Why can't Devil Canyon be built first and Watana added later?

Response:

The Susitna River flow is very seasonal, with high summer flows and low winter flows. A large reservoir is required to provide enough storage to regulate this uneven flow and thereby provide dependable power when it is needed. The Devil Canyon reservoir, by itself, is not large enough to even out the seasonal flow, and therefore, electrical output from the project is reduced. The project benefits are reduced accordingly, and the project is not economically viable by itself.

Building Watana first, with its much larger reservoir, provides upstream storage. Thus, when the flow reaches Devil Canyon, the seasonal variation has been removed. For this reason, Devil Canyon should not be constructed without Watana or some other large storage facility already in place upstream.

Your question has been submitted to our ACTION system which means that it was reviewed by the Alaska Power Authority and Acres American, Inc., the firm conducting the feasibility studies. Your question, as well

Page 2  
Ms. Dona M. Agosti  
February 20, 1981

as all other questions and comments we receive on the Susitna feasibility studies, will be included in a report that will be sent to the Alaska Power Authority's board of directors and the Governor before a decision is made on the feasibility of the Susitna hydroelectric project.

Enclosed is an ACTION form which you may use if you have further questions, comments, or need additional information.

Sincerely,

Nancy Blunck  
Director of Public Participation

NB/mgh

Enclosure

CONCUR: WOZNIAK

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date December 16, 1980☒ An Individual Citizen☐ An Organizationname Dona M. Agosti

name \_\_\_\_\_

address 2324 Loussac Drive

# of members \_\_\_\_\_

city Anchorage

address \_\_\_\_\_

state Alaska zip 99503

city \_\_\_\_\_

day phone \_\_\_\_\_

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible. \_\_\_\_\_

\_\_\_\_\_  
Your first issue is very informative.

\_\_\_\_\_  
I would like to hear more about why Devil's Canyon can't  
be built first and Watana added later if needed.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

If you want  
to get future  
newsletters

This public information document on the Susitna hydropower project was developed by the Alaska Power Authority Public Participation Office, Nancy Blunck, Director. Comments on the substance of this newsletter and ideas for future publications should be forwarded to the Public Participation Office by way of the following coupon.

Name 

Last	A	G	O	S	T	I					First	D	O	N	A				Initial	M
------	---	---	---	---	---	---	--	--	--	--	-------	---	---	---	---	--	--	--	---------	---

  
Mailing Address 

2	3	2	4	L	O	U	S	A	C		D	R	I	V	E
---	---	---	---	---	---	---	---	---	---	--	---	---	---	---	---

  
City 

A	N	C	H	O	R	A	G	E	
---	---	---	---	---	---	---	---	---	--

 State 

A	K
---	---

 Zip 

9	9	5	0	3
---	---	---	---	---

and mail to: Alaska Power Authority  
Public Participation Office  
333 W. 4th - Suite 31 - Anchorage, AK 99501

THANK YOU FOR YOUR INTEREST

*you first  
issue is  
very informative  
I want to know  
more about why  
Susitna (or other)  
could be built  
without  
costing  
hundreds of  
millions*

May 12, 1981

Action File Number: A-001-81

Mr. Thomas R. Anthony  
SRA 1795  
Anchorage, Alaska 99507

Dear Mr. Anthony:

In December you sent us your comments regarding the proposed Susitna hydroelectric project and your ideas concerning the best way to meet energy needs. I want you to know that your comments have been received by the Power Authority and forwarded to Acres American, Inc., the firm conducting the feasibility studies for Susitna.

I have also forwarded a copy of your comments to Charles Sitkin, the project manager of the Railbelt Energy Alternatives Study which is being conducted by Battelle Pacific Northwest Laboratories. The purpose of the Battelle study is to examine alternatives and compare them to Susitna hydroelectric development. The alternative study was begun in October 1980 and is expected to be completed in April 1982. If you have questions on this study, you may contact the project manager or Fran Ulmer, who is chairperson of the committee that is assisting the Governor's office in managing the studies. Both addresses are listed below.

Charles Sitkin, Project Manager  
Railbelt Energy Alternatives Study  
Arthur Young and Company  
730 I Street  
Anchorage, Alaska 99501

Fran Ulmer, Director  
Division of Policy Development  
and Planning  
Pouch AD  
Juneau, Alaska 99811

Your comments have been reviewed by the Alaska Power Authority and have been sent to Acres American, Inc., the firm conducting the studies. Your comments will also be included in a report our office will make to the Power Authority Board of Directors and the Governor next spring prior to a decision on Susitna.

Enclosed is an ACTION form you may use if you have further comments or any questions.

Sincerely,

Jean Buchanan  
Public Participation Office

JB/mgh

Enclosure

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date 28 Dec '80

☒ An Individual Citizen ☐ An Organization

name Thomas R. Anthony name \_\_\_\_\_

address SRA 1795 # of members \_\_\_\_\_

city Anchorage address \_\_\_\_\_

state Alaska zip 99507 city \_\_\_\_\_

day phone 349 6775 contact person \_\_\_\_\_ day phone \_\_\_\_\_

~~Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.~~

*Work is the advancement of an idea. Individual members of society are employed in, and receive due benefits from, participating in the advancement of certain ideas.*

*In the case of the idea in question, the Susitna Hydroelectric Facility, we, the citizens, who will perform the work <sup>on</sup> invest the money, and derive the results ~~benefits~~ from, this project, must first consider our hypothesis, our idea, our prognostication, if you will, and determine whether this undertaking is truly an advancement of the human social condition. If not, it cannot be defined as work, society will be defrauded, and the entire population will have taken one more step down the road to social bankruptcy; a bankruptcy which cannot be ~~passed~~ passed on to creditors. Therefore we must be certain that we indeed move in a positive direction, toward a benevolent goal, a more amicable ambience; for of all the economic disasters to be avoided this is the one without which the sine qua isn't worth*

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

### Alaska Power Authority

RECEIVED

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

JAN 13 1981



a guide.  
Grasping this fundamental concept as the future with which to win our way home through the labyrinths of socioeconomic theory, let us proceed with the facts of the matter.

The American people use, waste for use, five times the world average of artificially produced energy. Americans, because of their cold climate and high wages, probably exceed that considerably. Throughout the world we are known, and justifiably so, as energy pigs. However, people fear us for our ruthless economic practices and usually dare do nothing next to battle the vampire-like raw materials drain on their countries; a drain which drains them to a pretty-stricken future. Worse than that it marks Americans as the nobility, the fat landowner who runs down little children in his carriage and throws back a dollar to pay for the damage. One day will come a reckoning for this abhorrent behavior, and the rest of the world won't ask "Did you work for the oil companies?" or "Did you work for the mining companies?" or "Were you involved in that banana plantation?" I will be an American, and will have to fight for my life with some starving Chilean because I allowed my country to steal from him and now he is finally too desperate to care. I am personally certain that Americans could live happily on half the per capita energy they now consume, which is still  $2\frac{1}{2}$  times the world average. Applying this knowledge to the Alaskan situation, the correct energy path becomes immediately apparent. Alaskans are independent sons of bitches, so let them remain so. Instead of spending \$30,000 per household on one big project which the Russians could rub out with one small constitutional amendment, make the money available to each homeowner or prospective homeowner in the form of low interest loans with which to build energy efficient homes and self-sufficient systems. This will encourage a minimum of waste, a minimum of environmental impact, a maximum of social benefit. Let us use the money researching alternative lifestyles, developing and adopting Alaskan agricultural products, demobilizing the Alaskan waste for transportation and almost work. Let's not throw our future down the sewer of industrial development just because some corporation wants to build an aluminum factory up here. Give ruin to many times from Shell oil and Dow Chemical and this is where I stop.

Thomas R. Heston

April 9, 1981

Action File Number: A-002-81

Mr. Anthony Golden  
Oregon Polytechnic Institute  
812 S. W. 10th Avenue  
Portland, Oregon 97205

Dear Mr. Golden:

John Lawrence of Acres American, Inc., forwarded to us a copy of your letter to him and to Jim Duncan, both written earlier this year.

We want you to know that your comments have been entered into the ACTION system, a method we have for monitoring comments received regarding the proposed Susitna hydroelectric project.

Your comments, along with others we receive, will be included in a report which will be given to the Alaska Power Authority Board of Directors and the Governor prior to making a decision next spring about Susitna hydroelectric development.

Enclosed is a copy of an ACTION comment form which you are welcome to use if you have other comments or any questions regarding the Susitna hydroelectric feasibility studies.

Sincerely, *Jean Buchanan*

Jean Buchanan  
Public Participation Office

JB/mgh

Enclosure

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date February 6, 1981

☐ An Individual Citizen

☒ An Organization

name \_\_\_\_\_

name OREGON POLYTECHNIC INSTITUTE

address \_\_\_\_\_

# of members (school)

city \_\_\_\_\_

address 812 S. W. 10th Avenue

state \_\_\_\_\_ zip \_\_\_\_\_

city Portland, Oregon 97205

day phone \_\_\_\_\_

contact person Anthony Golden phone 227-5449

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

2/9/81

ATTACHED LETTER TO JOHN LAWRENCE.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001



227-3449

# OREGON POLYTECHNIC INSTITUTE

COLLEGE OF ENGINEERING TECHNOLOGY  
812 S.W. 10TH AVENUE  
PORTLAND, OREGON 97205



RECEIVED

JAN 6 1981

ALASKA POWER AUTHORITY

January 26, 1981

Dear Mr. Lawrence,

Earlier this month, I noted that we recommend full height and power production capability for Watana Dam on the Susitna River in Alaska. We know many possible uses for the 708,000 kilowatts. Some are noted in this recent letter to Alaska state representative Jim Duncan. And there are more. One is making electric furnace steel from iron ore deposits discovered near Anchorage two decades ago. Another involves sending electricity into British Columbia and meet part of a certain treaty obligation.

In 1964, the United States and Canada ratified the Columbia River Development Treaty. It called for British Columbia Hydro & Power Authority (the provincially-owned utility which generates and distributes nearly all the electricity used in B. C.) to construct three storage dams in the upper Columbia River basin. All are now completed and operating. Mica Creek, Keenleyside and Duncan Dams control spring floods. Stored water is released during fall and winter to increase power production at 11 downstream dams in Washington and Oregon. Under provisions of the Treaty, Canada is entitled to half of this extra juice.

If electric power is supplied from Alaska, Washington and Oregon can keep more of what's generated on the lower Columbia River. They certainly will be able to use it. Waterpower potential in both states is

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AN INDEPENDENT NON-PROFIT SCHOOL

just about fully developed. Additional needs are being met with coal and nuclear fueled thermal stations.

Sincerely yours

*Anthony J. Golden*

ANTHONY J. GOLDEN



# OREGON POLYTECHNIC INSTITUTE

COLLEGE OF ENGINEERING TECHNOLOGY  
812 S.W. 10TH AVENUE  
PORTLAND, OREGON 97205



227-5449

COPY

January 19, 1981

Dear Mr. Duncan,

I am an instructor here at Oregon Polytechnic Institute, a school in Portland city center which trains engineers and technicians. We know Acres American Inc. of Buffalo, N. Y. is doing the planning for Watana and Devil Canyon Dams on the Susitna River. Please make your vote a yes for requested funds to continue this work. There are several reasons why Alaska should build these two hydro-electric dams.

Together they can produce 6.9 billion kilowatt-hours of electric energy each year. Floods will be controlled, and river flow rate kept uniform all the time. Periodic hi-water conditions which presently destroy salmon eggs in that stretch of river below the Devil Canyon damsite (downstream dam of the proposed two) will be eliminated. Varied level discharge makes it possible to regulate temperature of released water too. Of course it will be whatever's best for fish downstream, fairly close to 39 degrees Fahrenheit.

How will Alaskans use electricity generated at these dams? There's more than enough to just light cities and farms, as well as the usual household functions of water heating, laundry, cooking, radio & TV etc. The city of Anchorage may get light-rail transit. And more important regarding rail use, the Alaska Railroad can be electrified. Recent developments with solid-state rectifiers now permit a locomotive to run on 60-cycle alternating current directly from the power lines. Convert

COPY

stations, mercury tubes or special 25-cycle generating units are no longer necessary.

Aluminum reduction, a process which consumes much electric power, is another possibility. Of course the state of Alaska will monitor any smelters belonging to Alcoa or Reynolds to make sure they don't pollute the environment.

Pollution is no problem with solid-state electronic manufacturing. Why might this industry locate in Alaska—it isn't close to any major world market area. But it is in the geographic center of all of them. Finished wares are small and light in weight. Therefore they can easily be transported to destinations by airplane.

A pipeline will soon carry natural gas from Prudhoe Bay south into Canada and the smaller states. Alaska has coal reserves too, but artificial gas made from the coal can't substitute directly for natural gas (methane). Heating value is too low. Methane yields 1,100 B. t. u. per cubic foot, coal gas only 600. A cubic foot of hydrogen delivers 2,800 B. t. u. So a mixture containing three-fourths coal gas and one-fourth hydrogen will duplicate natural gas. How will we obtain the hydrogen? Contrary to popular belief, no catalyst is able to separate water into its component elements hydrogen and oxygen. Only electrolysis does it. We'll use Wata and Devil Canyon Dams as sources of juice to make the electrolysis go.

Sincerely yours

ANTHONY J. GOLDEN

COPY

May 13, 1981

Action File Number: A-004-81

Ms. Joanne Sedgwick  
1827 East 27th  
Anchorage, Alaska 99504

Dear Joanne:

Nancy gave me your note and the copy of your friend's idea for developing tidal power. She asked that I pass the idea on to those conducting the Cook Inlet Tidal Power Study and the Railbelt Energy Alternatives Study.

Both of these studies are being managed by the Governor's office in the Division of Policy Development and Planning. If you wish more information regarding the studies, I suggest you contact Fran Ulmer at the following address: Division of Policy Development and Planning, Pouch AD, Juneau, Alaska 99811.

Phase I of the Tidal Study, being conducted by Acres American, Inc., began last January and will be completed this June. If Phase I shows that there is a reason to continue studying the potential of tidal power in Cook Inlet, Phase II will follow.

I have talked to a member of the Tidal Study team at Acres American, Inc., and he said that they are familiar with Mr. Rabich's idea and had a copy of what you sent us in their files. Therefore, I did not forward a copy of his information to them.

However, I have sent a copy of Mr. Rabich's paper to the project manager of the Railbelt Energy Alternatives Study for consideration as part of the investigations of tidal power, which is one of the alternatives to Susitna hydro development being studied. (The Railbelt Energy Alternatives Study began in October 1980 and is expected to be completed next spring.) If you wish to contact the project manager, Charles Sitkin, his address is Arthur Young and Company, 730 I Street, Anchorage, Alaska 99501.

We have entered your letter and Mr. Rabich's comments into our ACTION system, which is a means we use for keeping track of public comments received outside the format of meetings and workshops. All comments we receive are reviewed by the Alaska Power Authority and Acres



Page 2 Ms. Joanne Sedgwick

May 13, 1981

American, Inc., and will also be included in a report to the Alaska Power Authority Board of Directors and the Governor prior to a decision on Susitna next spring.

Enclosed is a copy of a form you may use if you have comments or questions on the Susitna studies.

Sincerely,

Jean Buchanan  
Public Participation Office

JB/mgh  
Enclosure

May 13, 1981

Action File Number: A-004-81

Mr. Charles Sitkin  
Arthur Young and Company  
730 I Street  
Anchorage, Alaska 99501

Dear Chuck:

Enclosed is a copy of an idea for generating electricity from tidal power in Cook Inlet. The information was sent to us by Joanne Sedgwick, 1827 East 27th, Anchorage, Alaska 99504. She asked that we pas it on to those studying tidal power.

I know that other people have Mr. Rabich's proposal. I would anticipate that someone may ask Battelle to comment on his idea at the upcoming meetings in May.

Sincerely,

Jean Buchanan  
Public Participation Office

JB/mgh

Enclosure: Copy Mr. Rabich's proposal.

## COMMENTS, QUESTIONS & REQUESTS

### Susitna Hydroelectric Feasibility Study

Date 4-9-81

## \_\_\_\_\_ An Organization

name \_\_\_\_\_

# of members \_\_\_\_\_

address \_\_\_\_\_

city \_\_\_\_\_

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

# Alaska Power Authority

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

RECEIVED

11 1981

1827 East 27th Ave.

Anchorage, AK 99501

March 15, 1981

Dear Nan,

A friend of mine developed an idea for <sup>helping to</sup> meet the power needs in Alaska and asked me to show it with people whom I thought would be interested. It sounded quite intriguing to me and I thought you could pass it along to people you know of who might want to consider developing the idea further. Thank you.

Sincerely,

Joanne Sedgwick (Memick)

P.S. I missed seeing you at

Deeta's reunion - Class last Thurs eve.

Cook Inlet is one of the few places on earth where there are huge variations in the tide. Anyone who has witnessed its swift movement has been impressed with the relentless power exhibited by the force of these mighty currents.

Harnessing the tides is not new - there have been tidal mills for centuries. Most of these installations have involved penning the waters and then allowing the impounded water to turn a wheel or turbine.

Cook Inlet on the whole offers a more exciting alternative. This concept in utilizing Cook Inlet tidal currents could be a blend of old and new technologies. In its most simplistic terms, the scheme would work like this:

The areas selected would have a current velocity of at least seven knots and a depth of water of at least thirty feet at mean low water. Huge pontoon-like structures would be floated into position and anchored. The pontoons would support a number of wheels-fifty or sixty feet wide-that would be turned by the tide. These wheels would power the generators that would provide electricity.

A simple mechanism would reverse the machines so the current would power the wheels on the incoming as well as outgoing tides. If a fly wheel were placed between the tide wheel and the generator, the power supply could be continued in periods of slack water. Underwater cables could bring the power ashore to underground substations that would feed into the existing power grid.

Ice guards front and rear would allow the wheels to remain undamaged by ice flow. The wheels would be covered to prevent icing in severe winter weather. In extremely windy areas, wind mills could be used to augment the current wheels.

These artificial islands could be landscaped with plants to satisfy those who are concerned with aesthetics. The recreational aspects could be enhanced to provide areas for fishermen and harbors of refuge for boatmen. Cook Inlet could support an indefinite number of these non-polluting generating sites.

Would not this scheme reduce the need for hydro in this area? I have been a life long supporter of hydro, but I think we are now twenty or thirty years too late. The excessive increase in costs and the almost intolerable "permitting" process has long since made the economics questionable as far as cheap power is concerned.

I would like to hear from the engineers some estimates of the power which could be generated by Cook Inlet tidal wheels. I believe the calculations would show that the horsepower or kilowatts available would be astronomical.

The fact that these installations could be floated into position means they could be fabricated in areas far from the power site. The environmental effect of these wheels would be minimal and the power sites could be aesthetically pleasing.

I would welcome a public dialog in regard to this scheme.

William L. Rabich  
SR Box 905  
Anchor Point, Alaska  
99556

WLR:hs

April 20, 1981

Lia Sonnenberg  
Sierra Club--Alaska Chapter  
4421 Columbia  
Juneau, Alaska 99801

Dear M. Sonnenberg:

The full and careful assessment of the Susitna Hydroelectric Project requires the formulation of a development plan and the evaluation of that plan's impact. In other words, a decision on the feasibility and desirability of the project cannot be reached without knowing what the project consists of and how it impacts our cost of living, quality of life and the Railbelt's natural systems.

The recreation component and the access plan are integral aspects of a Susitna development plan and are required by the Federal Energy Regulatory Commission. There is no doubt that we would receive sharp criticism if we attempted to assess project impacts and feasibility without addressing project aspects as important as the access and recreation components.

The development of the recreation plan is the responsibility of the Power Authority as the applicant for the FERC license to construct the project. The University of Alaska is developing the plan on contract to Acres (and thus for the Power Authority). They are working closely with the Division of Parks in this effort.

In conclusion, the formulation of the recreation and access components of the Susitna Hydroelectric Project is not premature and is within the mandate of the Alaska Power Authority.

We note your choice of Approach "F" -- leave as is.

Sincerely,

FOR THE EXECUTIVE DIRECTOR

Robert A. Mohn  
Director of Engineering

CONCUR: YOULD

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date April 10, 1981

☐ An Individual Citizen

☒ An Organization

name \_\_\_\_\_

name SIERRA CLUB--ALASKA CHAPTER

address \_\_\_\_\_

# of members \_\_\_\_\_

city \_\_\_\_\_

address 4421 Columbia

state \_\_\_\_\_ zip \_\_\_\_\_

city Juneau, Alaska 99801

day phone \_\_\_\_\_

contact person Lin Sonnenberg day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

ATTACHED LETTER

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001





# SIERRA CLUB

## *Alaska Chapter*

CONSERVATION COMMITTEE

RECEIVED

APR 10 1981

ALASKA POWER AUTHORITY



4421 Columbia  
Juneau, AK 99801

8 April 1981

Mr. Eric Yould, Executive Director  
Alaska Power Authority  
333 West 4th Street  
Anchorage, Alaska 99501

Dear Mr. Yould:

The APA's document "Recreational Planning for the Proposed Susitna Hydroelectric Project" (11 March 1981) has been received with some surprise. Timely planning is most always desirable, but this kind of "early bird" planning seems inappropriate for several reasons, such as

1. The proposed Susitna hydroelectric project has not reached even its own final planning stages, and there should not be a foregone conclusion that it necessarily will.
2. Recreational planning falls under the purview of the Division of Parks (DNR); it seems peculiar that this authority should suddenly be transferred to APA.

We find the whole idea of this document both highly premature and not part of the APA mandate. Thus, we choose Approach "F" - LEAVE AS IS. When and if this hydroelectric project becomes a legislative and financial reality, then will be enough time for the proper agency to perform this kind of planning.

Sincerely,

Lin Sonnenberg  
Chairperson, ACCC

April 7, 1980  
P5700.02.02  
T00074A

Mrs. Lino J. Agosti  
2324 Loussac Drive  
Anchorage, Alaska 99503

Dear Mrs. Agosti:

Thank you for your interesting and informative letter concerning the Susitna Hydroelectric Power Project.

I have forwarded your letter to the Public Affairs Office for the Alaska Power Authority so that they may also share your enthusiasm and interest.

I am enclosing for your information a copy of the public notice announcing several upcoming Community Meetings. You might like to attend the meeting scheduled in Anchorage.

Yours truly,

  
James D. Gill  
Resident Manager

JDG/ja

cc: Nancy Blunk  
APA

ACRES AMERICAN INCORPORATED

Date April 16, 1981

## \_\_\_\_\_ An Organization

name \_\_\_\_\_

# of members \_\_\_\_\_

address \_\_\_\_\_

city \_\_\_\_\_

contact person \_\_\_\_\_ day phone \_\_\_\_\_

ATTACHED LETTER TO JAMES GILL, ACRES, RESIDENT MANAGER, ANCHORAGE.

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

# Alaska Power Authority

**333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001**

2324 Loussac Drive  
Anchorage, AK 99503  
April 1, 1980

Mr. Jim Gill  
Resident Manager  
Acres-American, Inc.  
2207 Spenard Road  
Anchorage, AK 99503

Dear Mr. Gill:

I have been interested in the Susitna dam project since we arrived in Alaska in 1959 and the old Bureau of Reclamation had finished compiling results of its studies in 1957. I watched environmentalists win the battle of Rampart and wondered how soon we could get Susitna off the ground. I certainly didn't think it would take twenty years. I was elated when I heard that your company had finally been awarded a contract. I wasn't too thrilled that it was for more studies rather than actual construction, but I understand you folks are going ahead with a positive frame of reference. I was also puzzled as to why a New York company had been awarded the contract until I heard that Chuck Dibelius was involved; us Turnagain earthquake people knew him well. I was also amused to hear that the Alaska Department of Fish and Game had been awarded a million dollar contract to do the environmental studies. If that rumor is true, you people are geniuses. I never heard of a private company giving a contract to a public organization.

May I, a non-engineer, a non-anything except an interested lay person, pass on some observations about this project?

I have been the hiking chairman for the Mountaineering Club of Alaska for six years and several years ago led a hike to Devil's Canyon. We took the train to Gold Creek, then crossed a rampaging Gold Creek on foot and walked the twenty miles to Devil's Canyon. We enjoyed Howard McWilliams road for sixteen of the miles, then battled the brush for the last four. We were awestruck at the amount of water pouring through those rock walls - Greiner in the Don Sheldon book, Wager with the Wind, says it's 6,750,000 gallons per minute. We explored the cliffs above the canyon and noted a fissure near the highest point. I wondered if that had occurred during the earthquake. Then when I saw the old corings still stored in the porcupine-riddled cabin, it occurred to me that these could be compared with present data to determine extent of earthquake damage. I wish you luck, however, in trying to get data out of the Corps of Engineers. I tried for two weeks to learn if there was a trail to the canyon and not even a USGS map showed one. I finally learned about McWilliams (miner) from an old timer at BLM.

Another point that has come up from time to time is damage to the fish population. From Ross Jardine (power plant, Ft. Rich) who has fished at Portage Creek two miles downstream, the salmon stop there. I understand it takes about two miles for excessive oxygen to be reduced to a point where it will not kill salmon. Frankly, I think a dam would be much less

"oxygen-producing" than that horrendous flood that comes through those narrow rock palisades right now.

Which brings up another concern which I have heard voiced by old timers. We all know that Susitna comes from Sushitna which means sandy river in Tanaina. Many of us have heard the horror stories about dam failures in the lower 48 because of silt buildup. When I mentioned this to Vern Hicke1 he said, "That's easy. They just let the water and silt come through the bottom of the dam." Would that it were so easy. I mention it only because the general public is concerned about it - at least a few people are.

You will be getting a lot of static about the Nelchina caribou herd and the Wantana dam. My husband and I accompanied the Nordic Ski Club to Lake Louise last week. I could not believe my eyes as I watched a band of 27 caribou quite unconcerned as we skied by. Their sentinels did not sound the warning until a dog from the lodge bounded on to the lake. They were equally unconcerned with snow machines as long as the sound of the engine was continuous. I have also hiked through the Arctic Wild Life Range and learned first hand from the Eskimos that the Porcupine herd largely ignores the pipeline. But books have been written on that subject. What I'm trying to convey is that your public relations people should allay the fears of those who say the dam and its lake are going to be in the way of the migrating Nelchina herd.


One last concern which you will probably hear about: As we were returning and crossing Gold Creek on July 4, within a ten minute period we experienced clouds, drizzle, lightening, thunder, heavy rain and hailstones. Your meteorologists will tell you about lightning in that area. Grice and Comiskey of the National Weather Service authored a paper on Thunderstorm Climatology in the Fairbanks area, and lightning is a definite factor in interior weather.

Aside from porcupines, I don't think you have another thing to worry about.

I have backpacked over 2000 miles of Alaska, and I can't think of a better place to put a dam with a minimum of environmental damage. I hope your public relations people will cover some of the above positive points when you finally release your findings to the public.

Thanks for listening.

Sincerely,

  
Dona M. Agosti (Mrs. Lino J.)

June 18, 1981

Action File Number: A-007-81

Mr. Thomas R. Anthony  
SRA 1795  
Anchorage, Alaska 99507

Dear Mr. Anthony:

In your recent ACTION request you asked this question: "How many conventional bombs will it take to ruin our beautiful dam?"

I am guessing that your question indicates a concern that the railbelt might be particularly vulnerable in the event of war if its primary power source was in one place. I hope you will correct me if you had something else in mind.

Your question is not one that will be answered within the scope of the current feasibility study.

Enclosed is an ACTION form if you have further questions or comments on the Susitna feasibility studies.

Sincerely,

  
Jean Buchanan  
Public Participation Office

JB/mgh

Enclosure

**COMMENTS, QUESTIONS & REQUESTS**

RECEIVED

MAY 22 1981

**Susitna Hydroelectric Feasibility Study**ALASKA POWER  
The comments on this form are submitted by:Date 5/20/81☒ An Individual Citizen☐ An Organizationname THOMAS R. Anthony

name \_\_\_\_\_

address SRA 1795

# of members \_\_\_\_\_

city ANCH

address \_\_\_\_\_

state AK zip 99507

city \_\_\_\_\_

day phone 3496775

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

1. How many conventional bombs will it take to ruin our beautiful dam?

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

Sept. 21 1981

A-008-81

Alaska Power Authority.  
Public Participation Office

Dear Friends:

I have lived in Anchorage for 28 yrs. I'm so interested in the future of Alaska, even tho I'm 73, that it's marvelous to look ahead. I'm hoping a good high way and many camp grounds will be built in the area <sup>of the dams</sup>. That's what we love as we grow older. Also we'd like to see the silly metric-system knocked out of our way of life. After all, our ancestors came over to this country to become Americans and leave the old ways over there. Mine did and I was always proud of them.

Thank you for your attention  
Sincerely, Louise G. Spach



July 1, 1981

Action File Number: A-009-81

Thomas E. Mears  
Fishery Biologist  
Cook Inlet Aquaculture Association  
P.O. Box 850  
Soldotna, Alaska 99669

Dear Mr. Mears:

Acres American, Inc., referred to the Public Participation Office of the Alaska Power Authority your letter to Jim Gill, dated February 12, 1981. Your letter was circulated through the Acres organization. They prepared this response which I am forwarding to you.

Your questions:

Is there any reason to be concerned that a controlled flow regime in the mainstem Susitna will result in a reduction of the amount of tributary streambed which will be supplied with groundwater infiltration? If the previously stated concern has validity, will the Susitna Hydro study address this concern?

Response from Acres:

The concern on changes in stage affecting groundwater is well taken. Some preliminary estimates of annual flows indicate average decreases in stage of 17 percent at Gold Creek and 3 percent at Susitna Station. The downstream affect of the project would be to decrease the seasonal variability of the Susitna River and, therefore, yield more stable groundwater levels. This would normally indicate less recharge to groundwater in summer and less depletion during winter. These affects to groundwater would tend to be minimized as distance away from the Susitna River increases.

Detailed studies will be restricted to the mainstem Susitna in the current Phase 1 of the studies. At this time specific affects to tributary streams and sloughs cannot be detailed but will be in upcoming studies if present studies indicate the necessity.

Mr. Thomas E. Mears  
Page 2  
July 1, 1981

As part of our fisheries studies we are investigating the utilization of the lower sections of tributary streams as salmonid spawning habitat which will allow us to put into perspective the potential impacts if the scenario you address did occur.

I hope Acres' response answered your questions. If not, I hope you will let us or Acres know.

Your concerns expressed in your questions have been filed in the ACTION system which is a record we keep of all concerns, comments, and questions raised by the public regarding the Susitna feasibility studies. These concerns will be forwarded to the Alaska Power Authority Board of Directors, the Governor, and the Legislature prior to a decision on Susitna next spring.

Enclosed is an ACTION form you may use if you have further comments or questions.

Sincerely,

  
Jean Buchanan  
Public Participation Office

JB/mab

enclosure

Concur:

RM  
DW

# Cook Inlet Aquaculture Assn.

262-4441, Ext. 257/296

**FILE P5700**

SEQUENCE NO.

	INFORM.	DISTRIB.	INITIAL
✓	JOB	BJB	JSB
	CAL		B
	AFA		
	WCC		
	TES		
	R&M		
	ADF&G		
	BUFF.		
	COL		

Dear Mr. Gill:

As I stated in our recent telephone conversation, this letter addresses two questions. Is there any reason to be concerned that a controlled flow regime in the mainstem Susitna will result in a reduction of the amount of tributary streambed which will be supplied with groundwater infiltration? If the previously stated concern has validity, will the Susitna Hydro hydrology study address this concern? Neither the person who originally raised this question nor I are hydrologists so there may be fundamental errors in the scenario we have envisioned.

The scenario: In the summertime, flow regulation of the Susitna will result in a steeper gradient in the near-channel watertable. Steeper gradient will increase groundwater discharge. Increased discharge will result in a lowering of the water table for substantial distances away from the mainstem channel and up the tributary valleys. Decreasing water table elevations in the tributary valleys will result in a shorter section of tributary stream being fed by groundwater seepage. Loss of groundwater fed streambed is loss of choice salmonid spawning habitat.

Thank you for taking the time to consider our questions.

Sincerely,

Thomas E. Mears

Thomas E. Mears  
Fishery Biologist

TEM: sa

cc. Ivan "Hank" Every  
Rt. 1, Box 970  
Kenai, AK 99611

SUBJECT: Response to Thomas Mear's letter of February 12, 1981.

The concern on changes in stage affecting groundwater is well taken. Some preliminary estimates of annual flows indicate average decreases in stage of 17 percent at Gold Creek and 3 percent at Susitna Station. The downstream affect of the project would be to decrease the seasonal variability of the Susitna River and, therefore, yield more stable groundwater levels. This would normally indicate less recharge to groundwater in summer and less depletion during winter. These affects to groundwater would tend to be minimized as distance away from the Susitna River increases.

Detailed studies will be restricted to the main stem Susitna in the current Phase 1 of the studies. At this time specific affects to tributary streams and sloughs cannot be detailed but should be in upcoming studies.

As part of our fisheries studies we are investigating the utilization of the lower sections of tributary streams as salmonid spawning habitat which will allow us to put into perspective the potential impacts if the scenario you address did occur.

November 25, 1981

Daniel F. Malick  
President  
Management and Planning Services Alaska  
800 Basin Road  
Juneau, Alaska 99801

Dear Mr. Malick:

Thank you again for your kind words regarding our public participation effort on the Susitna project. The questions you asked were submitted to Robert Mohn, Director of Engineering, Alaska Power Authority, for review and comment. His responses follow.

Question:

Do current electric demand estimates assume or require any improvements to the current power transmission and distribution grids?

Response by Robert Mohn:

It is my understanding that Battelle Northwest's demand estimates assume the proposed Willow-Healy transmission intertie will be in place in 1984. This would allow limited economy transfer and reserve sharing. That is the only such assumption of which I am aware

Question:

Does funding of these Susitna projects via SB 25 produce utility rates different from those currently experienced in Anchorage and Fairbanks?

Response by Robert Mohn:

Complete funding under SB 25, which is certainly only a hypothetical case, would result in a statewide average wholesale rate of about 3¢/KWH in today's dollars.

Question:

How would electric demand estimates be affected by expansion of the transmission grid into outlying areas?

Response by Robert Mohn:

This question has not been addressed as part of the Susitna feasibility studies.

Daniel F. Malick  
November 25, 1981

Question:

Assuming a transmission line was built from the Susitna dam sites to Bethel, Nome and Kotzebue, what would the power sell for at these cities given existing line costs and SB 25 hydro financing?

Response by Robert Mohn:

Assuming full SB 25 financing, the wholesale rate to such communities would be about 3¢/KWH in today's dollars, since the rate is mandated as a statewide average.

All comments, questions, and requests for information received by our office are reviewed by the Alaska Power Authority staff and Acres American, Inc. Each letter and response is filed in our ACTION System. The Public Participation Office will compile all questions and comments in a report to be submitted to the Power Authority Board of Directors and the Governor before a decision is made on the Susitna project.

Sincerely,

Nancy Blunck  
Director of Public Participation

NB:ct

management  
and planning  
services  
alaska

November 10, 1981

a member of The NBBJ Inc.  
Nancy Blunck, Director  
Public Participation Office  
Alaska Power Authority  
333 W. 4th, Suite 31  
Anchorage, Alaska 99501

Dear Nancy:

I am writing this note with praises for your public participation program, as well as a number of questions concerning the Susitna hydro studies.

In my six years of consulting, I have not seen a study project handled so professionally from the public participation angle. My interest in the Susitna project is keen and your periodic newsletters are just what I feel I need to keep abreast. A public participation program of this sort does not require me to attend meetings, write formal letters, and/or read lengthy report documents. My hats off to you and your office.


I would like to ask a couple of questions concerning the scope of these Susitna studies, and potentially, the results of ongoing study efforts.

- o Do the current electric demand estimates assume or require any improvements to the current power transmission and distribution grids?
- o Does funding of these Susitna projects via SB 25 produce utility rates different from those currently experienced in Anchorage and Fairbanks?
- o Assuming a transmission line was built from the Susitna Dam sites to Bethel, Nome, and Kotzebue, what would the power sell for at these cities given existing transmission line costs and SB 25 hydro financing?
- o How would electric demand estimates be affected by expansion of the transmission grid into outlying areas.

I would appreciate any effort you might give me in this regard.

Sincerely,

MANAGEMENT AND PLANNING SERVICES-ALASKA

  
Daniel F. Malick, MBA, AICP  
President

December 3, 1981

Ruth Andersson  
Secretary, Alaska Sportfishing Association  
5306 Arctic Boulevard, Suite 2  
Anchorage, Alaska 99502

Dear Ms. Andersson:

Thank you for informing us of the preference of the membership of the Sportfishing Association concerning access to the Susitna Hydro-electric project. The Alaska Power Authority will receive a recommendation concerning the preferred access route from Acres American around the first of the year. Shortly thereafter a preliminary decision will be made concerning the nature and mode of access that will be incorporated into the Susitna Feasibility report that will be submitted to the Power Authority Board of Directors and the Governor in April 1982.

The preference expressed in your letter has been filed in the Public Participation Office's ACTION system which is a record we keep of all comments, concerns, and questions raised by the public regarding the Susitna feasibility studies. These concerns will be included in the report that will be presented to the Board and the Governor prior to a decision on Susitna next spring.

Sincerely,

George E. Gleason  
Assistant Director  
Public Participation Office

GEG:ct





A-014-81

## Alaska Sportfishing Association

5306 Arctic Blvd., Suite #2 • Anchorage, Alaska 99502 • Phone (907) 277-5203

RECEIVED

NOV 14 1981

ALASKA POWER AUTHORITY

November 5, 1981

Ms. Nancy Blunk  
Director of Public Participation  
Alaska Power Authority  
334 W. 5th Avenue  
Anchorage, AK 99501

Dear Ms. Blunk:

On November 2nd we, the Board of Directors of the Alaska Sportfishing Association, reviewed the various access proposals to the Susitna Hydroelectric Project site.

Keeping in mind the outdoor interests of our 1300 members, located in southcentral Alaska, we unanimously endorsed the option which allows the maximum access to our members. That being the extension of the Denali Highway to the Wantana Dam site and road on the south side to Devil's Canyon with a north access link between the devil's Canyon and Wantana Dam sites.

We feel this will be a wonderful opportunity to develop a small and scenic portion of our state into a new and much needed recreational area.

Sincerely,

Ruth Andersson  
Secretary

December 7, 1981

Ms. Jennifer Browning  
Route 2, Box 217  
Sterling, Alaska 99672

Dear Jennifer,

Due to a limited supply of the Susitna Hydroelectric Project Plan of Study we are unable to send you a copy. The following reports relating to the current project have been placed on reserve short term loan at the Kenai Public Library.

Susitna Hydroelectric Project Plan of Study, February 1980.  
Plan of Study -- Revision, Susitna Hydroelectric Project,  
September 1980.

Susitna Hydroelectric Project Mid Report to Governor Jay S.  
Hammond and the Legislature of the State of Alaska,  
March 1981.

Phase I Study Plan for Fish and Wildlife Studies for the  
Susitna Hydroelectric Feasibility Studies, June 1980.  
Environmental Studies Annual Progress Report Subtask 7:11,  
Big Game, March 1981.

I am enclosing the first two newsletters produced as part of the public participation program. I hope you find them informative. Please let me know if you have difficulty in obtaining information from the library. There have been problems in other areas.

Sincerely,

George E. Gleason  
Assistant Director  
Public Participation

GEG:ct

Enclosures

A-015-81

RECEIVED  
11/17/81

Nov 6, 1981

Dear Ms. Blunck,

Please send me a copy of the Plan of Study, and any other information about the present status of the Susitna Hydro Project. Thank-you.

Sincerely,  
Jennifer Browning  
Rt 2 Box 217  
Steering  
Ak 99672

October 27, 1980

Mr. Mike Bronson  
P. O. Box 2176  
Palmer, Alaska 99645

Dear Mr. Bronson:

You submitted to our office a comment regarding the Susitna hydro-electric feasibility studies. Your comment is written below, followed by a response from Don Baxter, engineer with the Alaska Power Authority.

Your comment:

Besides cost-effectiveness, environmental and social factors should constitute criteria for determining the feasibility of the dams. Just as benefit-cost ratio exceeding one is necessary (and historically significant) so should attainment of pre-specified standards be required in the areas of environment and society before the dams are termed desirable or feasible.

Specifically, the levels of degradation of water, wildlife, fish, historical sites, and "social fabric" of local communities which we agree to tolerate should be spelled out and made public. As currently planned, studies of such factors are only to function in mitigation of the dams' effects a posteriori.

Response:

Certain tasks of the Acres Plan of Study will thoroughly and rigorously investigate environmental factors. Specifically, the environmental studies will address water resources (including water quality), socioeconomics (including the "social fabric" of local communities), cultural resources (including historical sites), land use analysis, recreation planning, fish ecology studies and geological analysis. Specifically, the Federal Energy Regulatory Commission has pre-specified standards in all of these areas which must be satisfied prior to their issuance of a license to construct a project. Should the studies reveal that an excessive or intolerable amount of damage will occur in any one or combination of the above environmental areas, and mitigation measures are not capable of meeting Federal Energy Regulatory Commission standards, the project would be deemed unfeasible and cancelled.

Page 2  
October 27, 1980  
Mr. Mike Bronson

All comments, questions, and requests for information received by our office are reviewed by the Alaska Power Authority staff and Acres American, Inc., and will be included in a report that will be given to the Alaska Power Authority board of directors and the Governor before a decision is made on Susitna.

Enclosed is an ACTION form which you may use if you have further comments, questions, or need additional information. We have had a few problems implementing the ACTION SYSTEM. However, some of the circumstances that held up the process have been corrected and we believe your next comment or question will be handled more quickly. Please keep in mind, however, that because a number of people will review, and in some cases, comment on each item submitted in the ACTION SYSTEM, it will take at least six weeks to process your request.

Sincerely,

Nancy Blunck  
Director of Public Participation

NB:mgh  
Enclosure  
cc: Acres American, Inc.

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date April 16, 1980

☒ An Individual Citizen

☐ An Organization

name MIKE BRENSON

name \_\_\_\_\_

address P.O. Box 2176

# of members \_\_\_\_\_

city PALMER

address \_\_\_\_\_

state ALASKA zip 99645

city \_\_\_\_\_

day phone 376-3642

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

Besides cost-effectiveness, environmental and social factors should constitute criteria for determining the feasibility of the dams. Just as benefit-cost ratio exceeding one is necessary (and historically, sufficient), so should attainment of pre-specified standards be required in the areas of environment and society before the dams are termed desirable or feasible.

Specifically, the levels of degradation of water, wildlife, fish, historical sites, and "social fabric" of local communities which we agree to tolerate should be spelled out and made public. As currently planned studies of such factors are only to function in mitigation of the dams' effects a posteriori.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

W-001-80

Date submitted: April 16, 1980

Mike Bronson  
P.O. Box 2176  
Palmer, Alaska 99645

(1) Besides cost-effectiveness, environmental and social factors should constitute criteria for determining the feasibility of the dams. Just as benefit-cost ratio exceeding one is necessary (and historically significant) so should attainment of pre-specified standards be required in the areas of environment and society before the dams are termed desirable or feasible.

Specifically, the levels of degradation of water, wildlife, fish, historical sites, and "social fabric" of local communities which we agree to tolerate should be spelled out and made public. As currently planned, studies of such factors are only to function in mitigation of the dams' effects a posteriori.

Certain tasks of the Acres Plan of Study will thoroughly and rigorously investigate environmental factors. Specifically, the environmental studies will address water resources (including water quality), socioeconomics (including the "social fabric" of local communities, cultural resources (including historical sites), land use analysis, recreation planning, fish ecology studies and geological analysis. Specifically, the Federal Energy Regulatory Commission has pre-specified standards in all of these areas which must be satisfied prior to their issuance of a license to construct the project. Should the studies reveal that an excessive or intolerable amount of damage will occur in any one or combination of the above environmental areas and mitigation measures are not capable of meeting Federal Energy Regulatory Commission standards, the project would be deemed unfeasable and cancelled.



March 24, 1981

Action File Number: W-002-80

Michael Bronson  
P. O. Box 2176  
Palmer, Alaska 99645

Dear Mr. Bronson:

Recently I reviewed questions, comments, and requests for information on the Susitna feasibility studies received in the public participation office over the past year. I noted that your letter (copy enclosed) was received by the Alaska Power Authority and Acres American, Inc., the consulting firm conducting the feasibility studies. Your comments, along with all others we receive, will be included in a report that our office will send to the Alaska Power Authority Board of Directors and the governor prior to a decision being made on Susitna next spring.

The following comments from Eric Yould, Executive Director of the Power Authority, have been included as a response to your comments. I thought you would like a copy of his comments even though your letter was written some time ago.

Mr. Yould's response:

You are incorrect in your assumptions that the feasibility of the project will be determined by the Alaska Power Authority and that the determination will be based only on evaluation of "financial costs" without consideration of other social and environmental factors.

A decision whether or not to build the project will be made by Alaska's governor and legislature, with advice from the Power Authority and from many other individuals, agencies and organizations.

Any decision to build the project cannot be implemented until a federal license is granted. That license cannot be granted until a very detailed environmental impact statement is prepared and reviewed. The impact statement will be prepared, not by the Power Authority, but by the lead federal agency--the Federal Energy Regulatory Commission (FERC). The FERC licensing must comply with such federal laws and regulations as: the Coordination Act, the Endangered Species Act, the Historical Preservation Act, the Coastal Zone Management Act, the Anadromous Fish Act,...

The decision whether or not the Power Authority should apply for a project license will not be made until the completion of 30-months of detailed investigations costing approximately \$30 million.

Page 2  
Michael Bronson  
March 24, 1981

The studies include assessments of costs, seismic risks, social and environmental impacts and financiability--all in relation to any viable alternative solutions to the Railbelt's electrical energy problems.

And, to go the last step, the decision whether or not to even continue pursuing the feasibility studies after the first year will not be made until a reassessment of future electrical needs and generation alternatives is completed.

The point of explaining the sequential decision process prior to construction and the many actors involved is to show that no irreversible decision is going to be made without adequate information covering the full range of people's concerns. If the Susitna River hydroelectric project is built, it will be as a result of extensive and painstaking analysis that shows it to be the preferred electrical generation option of the citizens of Railbelt Alaska.

We thank you for your comments on the Susitna feasibility studies. Enclosed is an ACTION form you may use if you have other comments or any questions. The comments we are receiving now ususally take four to six weeks to process through the system. Therefore, any future comments you send us should receive a response within six weeks.

Sincerely,

Jean Buchanan  
Assistant Director of Public Participation

JB:mgh  
Enclosures

CONCUR: Mohn  
Blunck  
Wozniak

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date \_\_\_\_\_

☒ An Individual Citizen

\_\_\_\_\_ An Organization

name Michael Bronson name \_\_\_\_\_

address P.O. Box 2176 # of members \_\_\_\_\_

city Palmer address \_\_\_\_\_

state AK zip 99645 city \_\_\_\_\_

day phone \_\_\_\_\_ contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

Attached written comments

213

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

*Written testimony from Ula... 1980*  
*also turned in to...*  
*the water...*

April 16, 1980  
P. O. Box 2176  
Palmer, Alaska  
99665

Nancy Blunck  
Div. Public Participation  
Susitna Hydroelectric Project  
Alaska Power Authority  
333 West 4th Ave., Suite 31  
Anchorage, Alaska  
99501

Dear Madam,

This letter is to suggest that the feasibility of the Susitna dams proposal rest, not only on the fulfillment of the economic criterion of a benefit-to-cost ratio exceeding one, but also on the achievement of a priori environmental and social criteria. As it now stands, your plan of study proposes that monetary cost-effectiveness be the sole factor determining whether the hydroelectric complex should be built or not. According to your plan, the study of environmental and social costs will function only in decisions of how to mitigate the harmful effects of the project, and will have no critical role in deciding whether the complex should be built or not.

It is understandable why monetary cost-benefit analysis has been the sole "sufficient cause" for decisions on the feasibility of dam projects in general, and I agree that it is necessary. In the first place, financial benefits and costs are easy to quantify and understand. Secondly, until recently the greatest concern of the public about dams was that the investment "pay off" economically to the community.

I believe, however, that additional considerations should now be elevated to the status of the cost-benefit ratio when deciding whether to build dams. As the cumulative number of dams in this country has increased, the number of canyons and free rivers has decreased. The loss of such landscapes as the Canyon of the Tuolumne River and Glenn Canyon raises the "value" of remaining rivers. At the same time, incremental increases in electrical power production per capita have become relatively less valuable. At what point, then, should environmental and direct social costs override dam proposals which have achieved cost-effectiveness measured in dollars? That is the problem to be solved at this immediate stage of study, as politically and philosophically difficult as it may be.

The leaders of the Alaska Power Authority should adopt beforehand the environmental and social standards which must be met to prove the hydroelectric complex feasible.

Sincerely,

A handwritten signature in cursive script, reading "Michael Bronson", followed by a long horizontal flourish.

Michael Bronson

October 28, 1980

ACTION File Number: W-003-80

Mr. Bill Patrick  
P. O. Box 1108  
Wasilla, Alaska 99687

Dear Mr. Patrick,

You asked two questions about the Susitna hydroelectric feasibility studies. Here are the answers to your questions. Your questions are written below, followed directly by responses from Don Baxter, engineer with the Alaska Power Authority.

Your question:

Has the Corps of Engineers accomplished any studies in this area that's of value to this project?

Response:

The Corps of Engineers has accomplished feasibility studies in the past which are of extreme value and have, in fact, provided the basis for the Acres American, Inc., study. The Acres study has picked up where the Corps left off and is supplementing and refining those studies done in the past. Furthermore, the existing Corps data base will be expanded and any gaps which exist in this base will be filled. The expanded data base will be helpful in further determining the feasibility of the project and will be useful in the final design, if it is built.

Your question:

What is the hang-up about building an air-strip? I would say put it in!

Response:

Since the airstrip represents a rather large capital investment, Acres is presently evaluating the economic feasibility of building an air strip. After one season of using helicopters, Acres has more information upon which to make a decision.

Page 2  
October 28, 1980  
Mr. Bill Patrick

All comments, questions, and requests for information received by our office are reviewed by the Alaska Power Authority staff and Acres American, Inc., and will be included in a report that will be given to the Alaska Power Authority board of directors and the Governor before a decision is made on Susitna.

Enclosed is an ACTION form which you may use if you have further comments, questions, or need additional information. We have had a few problems implementing the ACTION SYSTEM. However, some of the circumstances that held up the process have been corrected and we believe your next comment or question will be handled more quickly. Please keep in mind, however, that because a number of people will review, and in some cases, comment on each item submitted in the ACTION SYSTEM, it will take at least six weeks to process your request.

Sincerely,

Nancy Blunck  
Director of Public Participation

NB:mgh  
Enclosure  
cc: Acres American, Inc.

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date 4-16-80☒ An Individual Citizen☐ An Organizationname BILL PATRICK

name \_\_\_\_\_

address PO Box 1104

# of members \_\_\_\_\_

city Moskito

address \_\_\_\_\_

state Alaska zip 99687

city \_\_\_\_\_

day phone 376-5257

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

① How the Corp of Eng. accomplished any studies in this area that of value to this project?

② what is the hang up on building an air strip? I would real put it in!

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

### Alaska Power Authority

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001



December 2, 1980

ACTION FILE Number: W-004-80

Mr. William C. Knutson  
S. R. Box # 5190  
Wasilla, Alaska 99687

Dear Mr. Knutson:

You submitted to our office some comments regarding the Susitna hydroelectric feasibility studies. Two comments which related directly to the alternatives study were forwarded to the Governor's office as explained in my letter of October 8, 1980. Your other comments are listed below, followed by a brief response from our office.

Your comment:

The study is an overkill on many areas that have already been studied for years.

Response:

You are right when you state that hydroelectric potential on the Susitna has been studied for quite some time. I refer you to an article in the enclosed newsletter, "A Brief History," on page one. As stated in that article, the present studies are necessary because past ones were not adequate. There are still a number of questions that need to be answered. Answers to those questions will help determine the feasibility of the project as well as help in planning the project should a decision be made to proceed with construction. The newsletter highlights some of the information the studies will yield.

Your comment:

We need to build the dam now while we have the resources and wealth, get it underway and run studies while the preliminary work goes on.

Response:

As you read the enclosed newsletter, you will note that some of the information to be gained is necessary for final design of the project. Also many of the studies necessary to the project will continue during construction. Developing hydroelectric projects is a time consuming process. There are certain steps that must be taken before other

State of Alaska

MEMORANDUM

Page 2  
 December 2, 1980  
 Mr. William C. Knutson

steps: information must be gathered to determine whether the project is feasible or not, to satisfy licensing requirements, and to design a project so that it will be safe and provide reliable power.

We appreciate your taking time to send us your opinions.

All comments, questions, and requests for information received by our office are reviewed by the Alaska Power Authority staff and Acres American, Inc., and will be included in a report that will be given to the Alaska Power Authority board of directors and the Governor before a decision is made on Susitna.

Enclosed is an ACTION form which you may use if you have further comments, questions, or need additional information. We have had a few problems implementing the ACTION SYSTEM. However, some of the circumstances that held up the process have been corrected and we believe your next comment or question will be handled more quickly. Please keep in mind, however, that because a number of people will review, and in some cases, comment on each item submitted in the ACTION SYSTEM, it will take at least six weeks to process your request.

Sincerely,

FOR THE DIRECTOR OF PUBLIC  
 PARTICIPATION

Jean Buchanan  
 Acting Director of Public Participation

JB:mgh  
 Enclosures  
 cc: Acres American, Inc.

CONCURRENCE: Wozniak  
 Mohn

SUBJECT:

FROM:

TELEPHONE NO:

FILE NO:

DATE:

TO:

State of Alaska

MEMORANDUM

## COMMENTS, QUESTIONS & REQUESTS

# Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date \_\_\_\_\_

### An Individual Citizen

## An Organization

RECEIVED

name

name

**address**

# of members

city

**address**

state

zip

city

day phone

**contact person**

day phone

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

1. The study is an overkill on many issues that have already been studied for years.

2. We need to build the dam now while we have the resources & wealth. get it underway & run studies while the preliminary work goes on. overlap of alternative studies.

3. Build the smaller hydroelectric projects as in order of importance and condition of local communities.

4. <sup>think</sup> Raper mind the Bush arm I saw  
generation concept for total power. I like  
A convenient way to combine a crossing  
to Michigan St. & development of coal  
& other industrial development in later  
~~years~~ years.

use extra sheets if you need them

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

# Alaska Power Authority

**333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001**

March 24, 1981

Action File Number: W-005-80

Jeanne E. Tweten  
P. O. Box 867  
Palmer, Alaska 99645

Dear Jeanne,

Recently I reviewed questions, comments, and requests for information about the Susitna feasibility studies received by our office over the past year. I noted that Nancy Blunck responded to your concerns by telephone. I also noted that you had never received a copy of the responses to your comments and questions that are on file in the ACTION system. I thought you might like to have a copy for your own records.

Your concerns are written below, followed by a response written by Acres or Alaska Power Authority staff.

Your request for information:

Please send me results of revised study of comparisons between Dam and other alternatives--as specified in Tussing's report. I would like a revised logistical plan and time line which compensate for expansion of comprehensive studies. I would like results of analysis of cost and risks for Susitna and each viable alternative.

Response from Acres American, Inc.: (Updated March 1981)

Alternatives to the Susitna hydroelectric development are being studied by Battelle Pacific Northwest Laboratories and managed by the Policy Review Committee appointed by the governor. The eighteen month study will be completed by April 1982. By April 30, 1982, the Policy Review Committee will make a recommendation to the legislature and the governor regarding the most cost effective way to meet the electrical energy needs of the Anchorage to Fairbanks railbelt. The first series of workshops in connection with the alternative studies will be held in mid-April 1981. For more information, contact Sherry Valentine, workshop coordinator. Her address is 3501 Heartwood, Anchorage, 99501.

The Alaska Power Authority will also be making a recommendation to the legislature and governor by April 30, 1982, as to whether or not to begin procedures for filing for a FERC license for hydroelectric development on the Susitna River.

A report on the first year of studies was submitted to the legislature March 30, 1981. Copies of that report, which recommend continuation of the studies through April 1982, should be in the Wasilla Library by the end of April.

The electric energy forecasts have been accomplished by the University of Alaska Institute of Social and Economic Research (ISER). To develop their forecast, ISER developed a three component model. The three components are: an economic model analysis of employment and other economic variables, a demographic model which estimates population levels required to support the economic activity projected, and an electricity use analysis which determines, on the basis of the other two components, the electricity consumed in various Railbelt activities. Input into these model components can be modified as more data becomes available.

The economic analysis included an econometric model to calculate a total level of employment and other economic variables on the basis of both basic sector activity and state government economic activity and the corresponding response of support sectors. Basic sector activity included petroleum and other mining, Federal government, agriculture-forestry-fisheries, tourism, and components of construction. Thus, the economic model deals with sectors of industry rather than specific industries.

Population statistics are based on outputs from economic analysis. Major demographic assumptions include: The major determinant of population will be the availability of jobs; and during periods of rapid growth in jobs, many will be filled by immigration. Demand forecasts are then based upon economic sector and residential use using the economic and demographic analysis outputs.

For a more detailed explanation of these inputs and the forecasting approach, consult the May 23, 1980, ISER Report, "Electric Power Consumption for the Railbelt - A Projection of Requirements, Technical Appendices." Types of industries that are most likely to locate in the Railbelt area will be addressed by Subtask 7.05, Socioeconomic Analysis.

Your question:

What data will be utilized to determine load forecasts in the future--at varying intervals? Are studies probing what industries are likely to move into the affected area? How are population statistics and demand figures to be computed?

Response from Alaska Power Authority:

The load forecasts studies, as you know, were conducted by the Institute of Social and Economic Research of the University of Alaska. Their load forecasts, made independent of the Acres studies, are the ones that we are using. ISER, independent of any connection with the Alaska Power Authority, will be updating the forecasts as part of the Battelle study of power alternatives. In connection with the Acres studies, Frank Orth & Associates of Bellevue, Washington, is examining the socio-economic impacts the dam would have.

Your comment:

Mr. Yould: I find it interesting that some of the same doubts I expressed concerning data collection at the public meeting in Wasilla have come to light through Tussing & Assoc. study! Evidently, it is not so easy

Page 3  
Jeanne E. Tweten  
March 24, 1981

to ignore findings by a credible source which are published by the press! I am now "appeased" that the study will more thoroughly investigate and compare alternative power sources with Susitna.

Response from Acres American, Inc.: (Updated March 1981)

Comments on the POS made by Arlon Tussing and others, have led to numerous revisions to the POS. Most notably:

- a) The State has appointed an independent consultant, Battelle Pacific Northwest, to evaluate the alternatives to Susitna in the manner and to the extent recommended by Tussing.
- b) The Acres study has been amended so that study of Susitna Basin alternative developments will be undertaken to a greater depth than had been previously proposed.
- c) For information on the Battelle studies, you may contact: Charles Sitkin, Project Manager, Battelle Pacific NW Laboratories, P. O. Box 999, Richland, Washington 99352.

Your comments and questions, along with all other comments and questions received by our office, are reviewed by the Alaska Power Authority staff and Acres American, Inc., and will be included in a report that will be given to the Alaska Power Authority board of directors and the governor before a decision is made on Susitna.

I've enclosed an ACTION form you may use if you have any further questions or comments.

Sincerely,

Jean Buchanan  
Assistant Director of Public Participation

JB:mgh  
Enclosure

CONCUR: Mohn  
Blunck  
Wozniak

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date April☒ An Individual Citizen☐ An Organizationname JEANNE E. TWETEN

name \_\_\_\_\_

address PO BOX 867

# of members \_\_\_\_\_

**RECEIVED**city PALMER

address \_\_\_\_\_

APR 29 1982state ALASKAzip 99645

city \_\_\_\_\_

ALASKA POWER AUTHORITY

day phone 745-4150

contact person \_\_\_\_\_

day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

- DB-  
revised  
task  
A
- ① Please send me results of revised study of comparisons between Dam and other alternatives - as specified in Tussing's report. I would like a revised logistical plan and time line which compensate for expansion of comprehensive studies. I would like results of the analysis of costs and risks for Susitna and each viable alternative.

- Task  
A
- ② What data will be utilized to determine load forecasts in the future - at varying intervals. Are studies probing what industries are likely to move into the affected area? How are population statistics and demand figures to be computed?

Mr. YOULD:

- ③ I find it interesting that some of the same doubts I expressed concerning data collection at the public meeting in Wasilla have come to light through Tussing's Asso.' study! Evidently it is not so easy to ignore findings by a credible source which are published by the press!

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

turn page →

Task  
12

Please send more response forms!

I am now "appeased" that the study will more thoroughly investigate and compare alternative power sources with Susitna.

Glenn Switzer



# MEMORANDUM

State of Alaska

TO:

DATE:

FILE NO:

TELEPHONE NO:

FROM:

December 17, 1980

ACTION FILE Number W-006-80

Mrs. Deborah M. Dunkle  
P. O. Box 1776  
Palmer, Alaska 99645

Dear Mrs. Dunkle:

You submitted to our office some questions regarding the Susitna hydroelectric feasibility studies. Your questions are listed below, followed directly by a response from Dave Wozniak, Project Engineer, Alaska Power Authority.

Your question:

I would like to find out as much information as possible regarding the Susitna Dam project scheduled to take place in the Matanuska Valley. Specifically, has the project been approved and budgeted for?

Response:

No. Final project approval will not occur for several years.

Your question:

When is construction scheduled to begin?

Response:

If a decision is made to construct, probably not before 1985.

Your question:

Is the state of Alaska planning to build it (the dam), or will the project be awarded to a private contractor?

Response:

If a decision is made to construct the project, the construction will be done by a private contractor.

# MEMORANDUM

State of Alaska

Page 2

December 17, 1980

TO: Mrs. Deborah M. Dunkle

DATE:

FILE NO:

Your question:

TELEPHONE NO:

FROM:

SUBJECT: Is there a private contractor involved at this point? If so, what is the name and address of the company?

Response:

Since no decision has been made to construct the project, there is no contractor at this time to build the project. However, Acres American, Inc. is a firm that is conducting the feasibility studies. Their address is 2207 Spenard Road, Anchorage, 99503.

Your question:

How long is the project expected to last? What is the approximate number of employees the project will provide jobs for?

Response:

Construction could take from nine to fourteen years, depending on how extensive a complex is finally authorized. Potential employment opportunities will vary with the phase of construction: a peak of 1,200 to 1,500 jobs is not unreasonable.

Your question:

Where exactly is the construction site located? This and other information you can supply me with regarding the project will be appreciated.

Response:

On the Susitna River between Devil's Canyon and Watana Creek.

We will put your name on our mailing list to receive information.

All comments, questions, and requests for information received by our office are reviewed by the Alaska Power Authority staff and Acres American, Inc., and will be included in a report that will be given to the Alaska Power Authority board of directors and the Governor before a decision is made on Susitna.

Enclosed is an ACTION form which you may use if you have further comments, questions, or need additional information. We have had a few problems implementing the ACTION SYSTEM. However, some of the circumstances

# MEMORANDUM

State of Alaska

TO: Page 3  
December 17, 1980  
Mrs. Deborah M. Dunkle

DATE:

FILE NO:

TELEPHONE NO:

FROM: that held up the process have been corrected and we believe your next comment or question will be handled more quickly. Please keep in mind, however, that because a number of people will review, and in some cases, comment on each item submitted in the ACTION SYSTEM, it will take at least six weeks to process your request.

SUBJECT:

Sincerely,

Nancy Blunck  
Director of Public Participation

NB:mgh  
Enclosure  
cc: Acres American, Inc.

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

Received by  
APHA

The comments on this form are submitted by:

Date Aug 18, 1980

☐ An Individual Citizen

☐ An Organization

name Mrs. Deborah M. Dunkle name \_\_\_\_\_

address P.O. Box 1776 # of members \_\_\_\_\_

city Palmer, address \_\_\_\_\_

state AK zip 99645 city \_\_\_\_\_

day phone \_\_\_\_\_ contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible. \_\_\_\_\_

I would like to find out as much information as possible regarding the Susitna Dam Project scheduled to take place in the Matanuska Valley. Specifically, has the project been approved and budgeted for, if so when is construction scheduled to begin? Is the State of Alaska planning to build it, or will the project be awarded to a private contractor? Is there a private contractor involved at this point, if so what is the name and address of the company? How long is the project expected to last, and what is the approximate number of employees the project will provide jobs for? Where exactly is the construction site located? This and other information you can supply me with regarding the project will be appreciated.

*Alaska Power Authority*

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

February 4, 1988

M. F. Ebling  
Star Route C, Box 115  
Willow, Alaska 99688

Dear M. F. Ebling:

We received your letter asking for assistance in constructing solar energy projects. I

I'm sorry we can't help you. However, we have forwarded your letter to the Alaska Center for the Environment. I hope they can help you. I also suggest you contact Clarissa Quinlan, Director, Alaska state Division of Energy and Power Development. The division's address and phone number are 338 Denali Street, Anchorage 99501, (276-0508.) The Alaska Center for the Environment's address and phone number are 1069 W. 6th Avenue, Anchorage 99501, (274-3621.)

I hope these suggestions will be helpful to you.

Sincerely,

Jean Buchanan

SUBJECT: Public Participation Program

FROM:

TELEPHONE NO:

cc: ACTION system file

FILE NO:

DATE:

TO:

State of Alaska

MEMORANDUM

Public Participation Program

February 4, 1981

Nancy Lee

Alaska Center for the Environment

1069 West 6th Avenue

Anchorage, Alaska 99501

Dear Nancy,

I don't know if you are still providing assistance to people in constructing solar energy projects; however, if you are, I thought you might be able to help M. F. Ebling (see attached letter.) I also thought you might like to have his name to add to any lists you might have of individuals interested in private solar energy projects.

In a letter to Mr. (?) Ebling, I mentioned I had forwarded his request to the Alaska Center for the Environment. I also suggested he contact the Division of Energy and Power Development.

I expect to receive other requests for information similar to this one. When I do, should I send them on to you? If I don't hear otherwise from you, I'll assume you want requests for information forwarded to you.

Thanks for your assistance. I hope I haven't inconvenienced you too much by sending Ebling's letter on to you.

Sincerely,

Jean Buchanan

enc: one/ cc: ACTION system file

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date December 15, 1980☒ An Individual Citizen☐ An Organizationname M. F. Ebling

name \_\_\_\_\_

address Star Rt. C, Box 115

# of members \_\_\_\_\_

city Willow

address \_\_\_\_\_

state Alaska zip 99688

city \_\_\_\_\_

day phone \_\_\_\_\_ contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

If your office gives individuals help in constructing solar energy projects for self, could you please send such information to us.

We are interested in a greenhouse solar energized construction.

Thank you.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

# MEMORANDUM

State of Alaska

TO:

DATE:

FILE NO:

TELEPHONE NO:

December 15, 1980

SUBJECT:

FROM:

**ACTION FILE Number: T-001-80**

**Ms. Roberta Sheldon Talkeetna, Alaska 99676**

**Dear Ms. Sheldon:**

You submitted as written public testimony at the Talkeetna community meeting on the Susitna hydroelectric project studies a number of comments and questions. Listed below are your comments and questions followed by responses from Acres American, Inc., and the Alaska Power Authority.

**Your comment and question:**

Page 1-4 (i) "Determine the future electrical power and energy needs of the Railbelt area..." and Page 1-5 (ii) "...projected demand." Comment: Future anything is an intangible. In the past, projected power needs encouraged the construction of many dams and facilities that ended up creating the demand that had been projected. The POS should assure that the projected demand studies will take strongly into consideration such elements as political climate, social opinion, and sociocultural needs.

Question: For example, do area residents desire industrial development? If not, this would eliminate industrial power demand from the projected demand.

Comment and question: Of the 6 consumer categories, fully half are industrial. Why this emphasis on industrial use? When the Susitna Dam concept was initially proposed publicly, it was "to meet the electrical needs of the railbelt area residents." Now we are faced with the prospect of 50% industrial use. I object strongly to this proposed consumer list. In connection with my comment on page 1-4 (above) a concept such as "undesired industrial" should influence this consumer list.

**Response by Robert Mohn, Director of Engineering, Alaska Power Authority:**

The categorization used by ISER represents an attempt to reflect existing railbelt electricity use, with the number and nature of the categories being controlled by the data available. As such it neither emphasizes nor deemphasizes any particular consumption sector.

Let us examine the two major "non-residential" categories in a little more detail.

One is the "commercial, industrial, government." This group



# MEMORANDUM

State of Alaska

Page 2

Ms. Sheldon

TO: December 16, 1980

DATE:

FILE NO:

FROM:

is included in the baseline used for Susitna planning, unfortunately the three segments are lumped together, due to data constraints. Accordingly it is difficult to decide just how much is industrial vs. commercial or government. However, based on the general demographic composition of the railbelt area, it is probably fair to say the industrial component is "light" industry, and a small part of the overall category.

Let's see where that category is, and where it is projected to go. Also, let's use the ISER "most likely" projection, which is the Susitna planning baseline. Actual 1978 railbelt consumption was  $1020 \times 10^9$  kwh for "residential" and  $1154 \times 10^9$  kwh for "commercial, industrial, government", or 53% of the total for the latter. In year 2010, the project is for  $3270 \times 10^9$  kwh "residential",  $4542 \times 10^9$  kwh "commercial, industrial, government". or 58% for the latter. Clearly, the "most likely" projection preserves the existing mix relationships.

The second major category is "self supplied industry." These are for the most part "heavy" industry, and they make their own electricity. It is important to note that the self generation assumption holds throughout the forecast, and as such are not in the Susitna planning baseline. Nonetheless, it is interesting to see what ISER thinks will happen relative to heavy industry.

Briefly, the answer is, not much. In 1978, this category was  $414 \times 10^9$  kwh. In 1985 it is projected to grow to  $571 \times 10^9$  kwh, with no growth thereafter. This projection is based on construction of the northwest gasline, water flooding at Prudhoe Bay, some increased gas production in the upper Cook Inlet, development of the National Petroleum reserve and the Outer Continental Shelf, Alpetco and an LNG terminal. Existing industry is considered to experience very moderate to no growth.

Based on the above, it would seem unfair with charging ISER (and, since ISER data is the baseline for Susitna planning, Susitna) with emphasizing or favoring "industrial" consumption. In the same vein, it would be inappropriate to delete existing "industry" from the baseline, or deny that category power from Susitna. The Susitna dam concept continues to be "...to meet the electrical needs of the railbelt residents." The definition of residents does (and must) include all existing and projected consumers. Restrictions on any one category best emerge from the community on a local basis, rather than being imposed by an external entity.

## Your comment:

Page 2-7 (a) Conflicting Interests. A list of special interest groups is given.

This should include "Industrial and Commercial business concerns who wish to expand their business interests and promote industrial growth."

# MEMORANDUM

State of Alaska

Ms. Roberta Sheldon  
December 16, 1980

TO:

DATE:

FILE NO:

Response from Nancy Blunck, Director of Public Participation, Alaska Power Authority:

TELEPHONE NO:

FROM:

I have enclosed a list of the groups and organizations with which we regularly communicate. I would welcome the names of any groups or organizations which you think should be added to the list.

Your question:

Pages 4-24. (a) "...an Alaskan resident with thorough background of Alaskan attitudes, customs, etc...."

Comment: By what criteria was this person chosen? Most important, is this person objective with regard to Alaskan attitudes and customs?

Response from Robert Mohn, Director of Engineering, Alaska Power Authority:

Ms. Nancy Blunck was hired by the Alaska Power Authority to conduct the Public Participation Program. She was selected from among some twenty applicants for the position. A nine year resident of Alaska, she was chosen primarily because of several years experience in the planning and execution of public participation programs in both urban and rural Alaska for the Alaska Public Forum. Further, she showed strong capabilities in managing a large and expensive program. On the other hand, she did not have the public relations background that many of the other applicants offered. In selecting Ms. Blunck, the Power Authority was confident that a thorough, effective, and objective public participation program would be insured.

Your question:

Page 5-5 (f)  
What is this proposal that is pending? More information should be available.

Response prepared by Public Participation Office:

As Nancy has probably told you, an additional study dealing with socio-cultural impacts of project construction and the project itself has been added to the plan of study largely because of your comments and comments by other residents of Talkeetna. This study, which will begin in 1981, will be coordinated with the socioeconomic studies by Frank Orth and Associates which are currently in process.

Your comment:

Page 5-205 (c) A list of socioeconomic profiles is to be developed. This list should include a category entitled "Potential for industrial growth and desirability or undesirability of same."

Response from Kevin Young, Acres American, Inc.:

# MEMORANDUM

State of Alaska

Ms. Roberta Sheldon  
December 16, 1980

TO:

DATE:

FILE NO:

As listed on page 5-205 of the POS, the types of detailed socioeconomic profiles to be developed include:

- business activity, level, and trends
- attitudes towards growth
- attitudes towards lifestyle and quality of life

FROM:

The first profile will characterize recent and current industry activities and trends. The latter two profiles will address past and current attitudes towards growth, lifestyle, and the quality of life. Possible changes in industry activities and trends "caused by Susitna hydroelectric project" and the influence of such change on lifestyles and the quality of life will then be discussed. People's attitudes towards these possible changes will be documented.

## Your comment:

Page 5-228, Paragraph two: Mail questionnaire.

Comment: This questionnaire should not be limited to Anchorage-Fairbanks residents. Talkeetna and other area communities should be included. Ideally, the choice and wording of questions should be judged by an objective panel before being chosen and printed.

## Response prepared by Kevin Young, Acres American, Inc.:

We agree with your suggestion and have instructed our recreational investigator to include residents in the area of Talkeetna, Cantwell, Curry, and Chulitna on the mailing list.

As stated on page 5-228 of our POS, "the design of the questionnaire will be critically reviewed and pretested prior to distribution." The main purpose of this review is to enhance objectivity. The formation of an objective panel would be difficult to achieve. This suggestion was discussed with the recreational investigator.

## Your comment:

Page 5-369 (b) A list of groups to be addressed.

Comment: This list should include the following group: "Area residents impacted by the dam."

## Response from Public Participation Office:

Thank you for your suggestion. It was our intention to include area residents. We grouped them under "others with whom coordination is needed." We agree that it would have been helpful to list them separately, since area residents are such an important group.

## Your question:

Page 5-393 (b) ADF&G personnel to be housed in Acres' project office.

Comment: Does ADF&G pay for use of this facility?

# MEMORANDUM

State of Alaska

Page 5

Ms. Roberta Sheldon

TO: December 16, 1980

DATE:

FILE NO:

Response by Don Baxter, Alaska Power Authority:

FROM:

ADF&G does not pay for their office space in Acres project office. Acres is required, as part of their contract with the Alaska Power Authority, to provide this space free of charge to ADF&G.

Your comment:

Page 6-15 (e) Transmission Corridor Assessment.

Comment: No mention is made whether this half-mile wide corridor impacts open-to-entry property. No mention is made of the residents living on this open-entry property and the potential for social impact on same. The list of studies on this page should be broadened to include impact on this group of area residents.

Response prepared by Kevin Young, Acres American, Inc.:

Clearly the section of corridor of concern is that close to Talkeetna. This operation should, therefore, be addressed by the intertie (Anchorage to Fairbanks transmission connection) contractor, Commonwealth Associates.

Response from Dave Hozniak, Project Engineer, Alaska Power Authority:

We are proceeding on the basis of one north-south transmission right of way for both Susitna and intertie. That final right of way will be 400 feet or less wide, well under the half mile you have noted. The routing of this right of way is being coordinated with the Alaska Department of Lands; they are the agency that administers the open to entry program.

Response from Public Participation Office:

There will be a meeting in Talkeetna regarding the proposed transmission connection between Anchorage and Fairbanks. The meeting is scheduled for 7:00 p.m., Tuesday, January 20th, at the Talkeetna elementary school. We urge you to attend and address your questions to representatives from Commonwealth Associates.

Your comment:

When this POS speaks of social or human impacts, it consistently labels this "socioeconomic." When it speaks of cultural impact, it does so in terms of archeological and historical investigation. I feel that it is desirable and timely that the Plan of study recognize the existence of that concept which is sociocultural, in a contemporary sense. This POS is deficient in that it does not.

Response prepared by Kevin Young, Acres American, Inc.:

We agree that sociocultural aspects are important. Under subtask 7.07 and 7.05, we have included the development of profiles on land use

# MEMORANDUM

State of Alaska

Page 0

Ms. Roberta Sheldon

December 16, 1980

TO:

DATE:

FILE NO:

FROM:

patterns and trends. Under subtask 7.05 we have included the development of profiles of attitudes towards lifestyle and quality of life, attitudes towards growth, and fish and wildlife resource use patterns. All of these profiles have sociocultural aspects associated with them. In our review of general sociocultural conditions (POS page 5-207), we will review literature pertaining to the Alaska social/cultural environment and social conditions. Attitudes of the general public will also be acquired through public participation meetings and open workshops.

We do, however, accept your comment that in our present POS emphasis is more on the socioeconomic aspects than on contemporary sociocultural aspects. As a result, we realized we might be able to fully assess the cultural impacts at the local or even regional level. Therefore, we are adding a special study to deal with sociocultural impacts of construction and existence of the project. This study will begin some time in 1981. It will be coordinated with the socioeconomic studies which are now in progress.

## Your comment:

Page 8-3. (2) "We intend to produce a high quality, technically correct, economically sound, environmentally acceptable report...on time and without permanent damages in the project area."

Comment: One wonders how Acres can do all that without introducing permanent damages.

## Response from Dave Wozniak, Project Engineer, Alaska Power Authority:

We are doing our best to safeguard the project area from permanent damage. Access and field work has been permitted by the Bureau of Land Management, but only with strict stipulations on permissible activities. In part, the cost of the program is much greater than it otherwise would due to the use of rolligons, helicopters, air transportable drill rigs, etc--all for the purpose of leaving the least evidence possible of our having been in the basin.

## Your comment:

Page 2-19 (e) Role of APA. This statement professes that total objectivity can be achieved through the employees of the Power Authority.

Comment: This is questionable. I have observed Eric Yould, Executive Director of APA, in several meetings. He impresses me as harboring strong bias in favor of the proposed dam. Following is a quote from the Anchorage Daily Times, December 19, 1979, included in an article on Susitna Power Now. "Yould said he is glad to see the group of concerned citizens (SPN) has been formed 'to make everybody aware of the need for a project like Susitna.'" I also observed him at a BLM meeting in 1978 when he argued with an environmental lawyer in a

# MEMORANDUM

State of Alaska

Page 1,  
Bertha Sheldon  
December 16, 1980

TO:

DATE:

very condescending manner. I do not believe such behavior represents a desire for objectivity, nor does it create a climate for objectivity within the Alaska Power Authority. (Note: written at April community meeting: Mr. Yould was very helpful and cordial at tonight's meeting in Talkeetna.)

FROM:

SUBJECT:

Comment: One is heartened by the closing two paragraphs (Keeping Objectivity) of the study.

## Response from Public Participation Office:

We have noted your concerns which have been passed on to Acres American and the Alaska Power Authority. Your comments, along with all comments and questions received by our office, will be included in a report that will be given to the Alaska Power Authority Board of Directors and the governor before a decision is made on Susitna.

Enclosed is an ACTION form which you may use if you have further comments, questions, or need additional information. We have had a few problems implementing the ACTION SYSTEM. However, some of the circumstances that held up the process have been corrected and we believe your next comment or question will be handled more quickly. Please keep in mind, however, that because a number of people will review, and in some cases, comment on each item submitted in the ACTION SYSTEM, it will take at least six weeks to process your request.

Sincerely,

Nancy Blunck  
Director of Public Participation

NB:mgh  
Enclosure  
cc: Acres American, Inc.

# COMMENTS, QUESTIONS & REQUESTS

T-001-80

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date 4/15/80

☒ An Individual Citizen

☐ An Organization

name Roberta Sheldon

name \_\_\_\_\_

address \_\_\_\_\_

# of members \_\_\_\_\_

city Talkeetna

address \_\_\_\_\_

state AK zip 99676

city \_\_\_\_\_

day phone \_\_\_\_\_

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

Attached written comments.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

Written Comments on  
Acres American Plan of Study  
1980

Submitted by: Roberta Sheldon, Talkeetna, Alaska

I am a lifelong Alaskan and have lived in Talkeetna for sixteen years. I have read the 1980 A.A.I. Plan of Study and consider it to be superior to the plans of study published by the Corps of Engineers for the past five years. Their approach was always dinosaurian with little, if any, consideration for public opinion.

This POS expresses what appears to be concern for social, environmental and other elements that face potential impact from both the proposed dam and indeed the study itself. One hopes this concern is genuine.

My comments are as follows, following chronological page order of the POS:

Page 1-4 (i) "Determine the future electrical power and energy needs of the Railbelt Area..."

Page 1-5 (ii) "... projected demand."

Comment: Future anything is an intangible. In the past, projected power needs encouraged the construction of many dams and facilities that ended up CREATING the demand that had been projected. The POS should assure that the projected demand studies will take strongly into consideration such elements as political climate, social opinion, and sociocultural needs. For example, do area residents desire industrial development? If not, this would eliminate industrial power demand from the projected demand.

Page 2-7. (a) Conflicting Interests. A list of special interest groups is given.

Comment: This list should include "Industrial and Commercial business concerns who wish to expand their business interests and promote industrial growth."

Page 2-19. (e) Role of APA. This statement professes that total objectivity can be achieved through the employees of the Power Authority.

Comment: This is questionable. I have observed Eric Yould, Executive Director of APA, in several meetings. He impresses me as harboring strong bias in favor of the proposed dam. Following is a quote from the Anchorage Daily Times, December 19, 1979, included in an article on Susitna Power Now: "Yould said he is glad to see the group of concerned citizens (SPO) has been formed, 'to make everyone aware of the need for a project like Susitna.'" I also observed him at a BLM meeting in 1978 when he argued with an environmental lawyer in a very condescending manner. I do not believe such behavior represents a desire for objectivity, nor does it create a climate for objectivity within the Alaska Power Authority.

Note: Mr. Yould was very helpful and cordial at tonight's meeting in Talkeetna.



Page 4-24. (a) "... an Alaskan resident with thorough background of Alaskan attitudes, customs, etc..."

Comment: By what criteria was this person chosen? Most important, is this person objective with regard to Alaskan attitudes and customs?

Page 5-5. (f)

Comment: What is this proposal that is pending? More information should be available.

Page 5-7. (b) Six categories of projected consumers are listed.

Comment: Of the six consumer categories, fully half are industrial. Why this emphasis on industrial use? When the Susitna Dam concept was initially proposed publicly, it was "to meet the electrical needs of the railbelt area residents." Now we are faced with the prospect of 50% industrial use. I object strongly to this proposed consumer list. In connection with my comment on page 1-4, a concept such as "undesired industrial" should influence this consumer list.

Page 5-205. (c) A list of socioeconomic profiles to be developed.

Comment: This list should include a category entitled, "Potential for industrial growth, and desirability or undesirability of same."

Page 5-228. Paragraph two. Mail questionnaire.

Comment: This questionnaire should not be limited to Anchorage-Fairbanks residents. Talkeetna and other area communities should be included. Ideally, the choice and wording of questions should be judged by an objective panel before being chosen and printed.

Page 5-369. (b) A list of groups to be addressed.

Comment: This list should include the following group: "Area residents impacted by the dam."

Page 5-393. (b) ADF&G personnel to be housed in Acres' project office.

Comment: Does ADF&G pay for use of this facility?

Page 6-14. (c) Socioeconomic Analysis.

Comment: See General Comments.

Page 6-15. (e) Transmission Corridor Assessment.

Comment: No mention is made whether this half-mile wide corridor impacts open-to-entry property. No mention is made of the residents living on this open-entry property and the potential for social impact on same. The list of studies on this page should be broadened to include impact on this group of area residents.

Page 8-3. (2) "We intend to produce a high quality, technically correct, economically sound, environmentally acceptable report... on time and without introducing permanent damages in the project area."

Comment: One wonders how Acres' can do all that without introducing permanent damages.

General Comments:

1. When this POS speaks of social or human impacts, it consistently labels this "socioeconomic." When it speaks of cultural impact it does so in terms of archeological and historical investigation. I feel that it is desirable and timely that the Plan of Study recognize the existence of that concept which is Sociocultural, in a contemporary sense. This POS is deficient in that it does not.

2. One is heartened by the closing two paragraphs (Keeping Objectivity) of this study.

15 April 1980

Ronita Sheldon  
Tallentia

October 8, 1980

Mr. Thomas Mercer  
Box 92  
Talkeetna, Alaska 99676

Dear Mr. Mercer:

The attached comment on alternatives to Susitna hydroelectric development, that you submitted to the Alaska Power Authority through the ACTION SYSTEM has been forwarded to Fran Ulmer, chairperson of the Railbelt Energy Alternatives Policy Review Committee. This committee will be providing policy direction to the Susitna alternatives study that Battelle Northwest Laboratories is conducting.

As you may know, the 1980 legislature decided that the alternatives study for Susitna should be completed in such a way that there would be no question of its objectivity. Therefore, the legislature directed that an independent firm be selected to conduct the alternatives study itself (Battelle was chosen) and that Acres American, Inc. continue its work on studying the feasibility of Susitna.

The Office of the Governor is managing the feasibility study of alternatives. The Alaska Power Authority is managing the feasibility study of Susitna. The results of both studies will help determine whether or not the State should develop hydroelectric power on the Susitna River and/or pursue other energy alternatives. Since the State of Alaska will make a decision by April 1982 whether to file a license application for Susitna hydroelectric, Battelle is directed to complete their alternatives study well in advance of this date to permit an informed decision.

Since Acres will not conduct the alternatives study, we directed them not to respond to your ACTION request. It did not make much sense to us to have them respond to your comment, if they were not going to be conducting the study. We thought it better to hold your ACTION request until the new consultant was selected.

In July a request for proposals was sent out seeking consulting services to conduct an alternatives study and prepare an energy plan for the electrical needs of the railbelt. The energy plan will include an evaluation of alternatives, emerging technologies, conservation, and load management. The plan will review, and where necessary, improve the existing data base and demand forecast. It will examine the alternative types of electric generation and help determine whether or not the state should concentrate its efforts on development of the hydroelectric potential of the Susitna River and/or pursue other alternatives.

In September, Battelle Pacific Northwest Laboratories (with Ebasco Service and the Institute of Social and Economic Research) was selected to conduct the alternatives study. Their contract with the Office of the Governor is now signed. Battelle is preparing a work plan which is expected to be finished by the end of October. Battelle anticipates beginning work in November.

Mr. Tom Mercer  
Page 2  
October 8, 1980

In the meantime, further questions and comments concerning the alternatives study (or response to your ACTION request) should be directed to Fran Ulmer or Tom Singer. Both can be reached at the telephone number and address listed below. We suggest that all correspondence to Ms. Ulmer be marked, "Attention: Tom Singer," Division of Policy Development and Planning, Pouch AD, Juneau, Alaska 99811. Phone (907) 465-3577.

You may also wish to contact members of the Railbelt Energy Alternatives Policy Review Committee. They are:

Ms. Clarissa Quinlan, Director  
Division of Energy and Power Development  
338 Denali Street  
Anchorage, Alaska 99501

Mr. Charles Conway, Chairman  
Alaska Power Authority Board of Directors  
2702 Gambell Street, Suite 200  
Anchorage, Alaska 99503

Mr. Ron Lehr, Director  
Division of Budget and Management  
Pouch AM  
Juneau, Alaska 99811

If you have further questions or comments about the Susitna feasibility studies (other than the alternatives study) continue to direct those to the Public Participation Office of the Alaska Power Authority, 333 West 4th Avenue, Suite 31, Anchorage, Alaska 99501, (907) 276-0001.

Sincerely,

Nancy Blunck  
Director  
Public Participation Office

Attachment  
NB:mgh

December 2, 1980

ACTION FILE Number: T-002-80

Mr. Thomas F. Mercer  
Box 92  
Talkeetna, Alaska 99676

Dear Mr. Mercer:

You submitted to our office some comments regarding the Susitna hydroelectric feasibility studies. One comment which related directly to the alternatives study was forwarded to the Governor's office as explained in Nancy Blunck's letter of October 8, 1980. Your other comments are listed below, followed directly by responses from staff of the Alaska Power Authority.

Your comment:

The Watana runway will decrease the cost in that fixed wing is less expensive and more practical than rotary wing. \$3.50 per hour for chopper versus \$1.30 per hour fixed wing.

Response prepared by Don Baxter:

Your point is well taken with respect to the cost differential between rotary wing and fixed wing aircraft. If a runway were built, fixed wing aircraft would primarily be used as transportation to and from camp and rotary wing aircraft would still have to be used to provide transportation for the study teams working in remote areas.

Since the airstrip represents a rather large capital investment, it is felt that a decision about whether or not it is economically feasible must be made after evaluating one field season. That evaluation is in progress, with a decision due this year.

Your comment:

Suggest a Talkeetna based employment service from which Acres can obtain personnel.

Response by Nancy Blunck, Director of Public Participation:

Several Talkeetna residents suggested having a Talkeetna based employment service. Acres gave consideration to this suggestion but determined it was not practical at this time because of the type of hiring it is doing now. If the project goes into a construction phase, a local hire office could possibly be set up within the Talkeetna area.

State of Alaska

MEMORANDUM

Page 2  
 December 2, 1980  
 Mr. Thomas F. Mercer

Right now, because of the nature of the work, the people Acres has hired largely include engineers, geologists, and environmental scientists. Since the project is already eleven months into the first phase of a 30 month study period, it is probably fair to say that not many more people with these highly-technical skills will be hired. Also, for this reason, it does not seem practical to open a Talkeetna-based employment service, although Acres gave consideration to this suggestion which came from several residents. If the project goes into a construction phase, a local-hire office could possibly be set up within the Talkeetna area.

It should be noted that Acres' subcontractors have hired locally on an as-needed basis for clearing, camp construction, and logistics support. Some of those hired were Talkeetna residents, while others were from Wasilla and Willow areas. In addition, base services such as warehousing and supply loading have been provided by small businesses located in Talkeetna because bids were competitive and there was a requirement for locally-performed service.

Statistics show that as of the middle of June 1980 approximately 24 Talkeetna residents were employed either by Acres or its subcontractors. Jim Gill, Acres' Anchorage office manager, said this figure will fluctuate from time to time.

Your comment:

More public input the better. I was generally impressed with Acres in this meeting.

Response prepared by Jean Buchanan, Public Participation Office:

Thank you for your comment.

All comments, questions, and requests for information received by our office are reviewed by the Alaska Power Authority staff and Acres American, Inc., and will be included in a report that will be given to the Alaska Power Authority board of directors and the Governor before a decision is made on Susitna.

TELEPHONE NO:

Enclosed is an ACTION form which you may use if you have further comments, questions, or need additional information. We have had a few problems implementing the ACTION SYSTEM. However, some of the circumstances

DATE:

TO:

State of Alaska

MEMORANDUM

**COMMENTS, QUESTIONS & REQUESTS****Susitna Hydroelectric Feasibility Study**

The comments on this form are submitted by:

Date April 15-80☒ An Individual Citizen

name

Shannon & Meren VP →☐ An Organization

name

Chase Community Assn.

address

Box 92

# of members

40

city

Talkeetna

address

Box 92

state

Alaska

zip

99676

city

Talkeetna Ak.

day phone

contact person

me

day phone

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

DB Task 1. The Watsona run way will decrease the cost in that fixed wing is less expensive and provide them rotary wing. \$350/hr for chopper vs 130/hr fixed wing.

Task 2. Suggest a talkeetna based employment service from which acres can attain personnel.

Task 2. More public input, the letter I was generally impressed with the Acres in this meeting.

Task 4. Geothermal power should be highly considered as an alternative. Hot Spat exist near Devils Canyon.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

Page 2  
 December 2, 1980  
 Mr. Thomas F. Mercer

that held up the process have been corrected and we believe your next comment or question will be handled more quickly. Please keep in mind, however, that because a number of people will review, and in some cases, comment on each item submitted in the ACTION SYSTEM, it will take at least six weeks to process your request.

Sincerely,



FOR THE DIRECTOR OF PUBLIC  
 PARTICIPATION

Jean Buchanan  
 Acting Director of Public Participation

JB:mgh  
 Enclosure  
 cc: Acres American, Inc.

SUBJECT:

TELEPHONE NO:

FILE NO:

DATE:

FROM:

TO:

State of Alaska

MEMORANDUM



November 26, 1980

ACTION FILE Number: T-003-80

Mr. Michael J. Fisher  
General Delivery  
Talkeetna, Alaska 99676

Dear Mr. Fisher:

On behalf of Nancy Robinson, you submitted to our office a comment on the Susitna hydroelectric feasibility studies. A response to the comment has been written by Eric Yould, Executive Director of the Alaska Power Authority. Your comment is written below, followed directly by Mr. Yould's response.

Your comment:

There are certain processes that, in the present state of the art, can only be accomplished with massive amounts of electrical power. The refining of primary aluminum from bauxite ore is one of these. The potentially enormous bauxite deposits on the Tyone drainage north of Lake Louise would be a compelling lure to the Japanese to invest in primary aluminum capacity in this area. In so doing, they would effectively export to Alaska the many economic, social, and environmental problems associated with this inherently dirty process. Additionally, the struggle between pro-development and non-development factions within Alaska would deepen an already painful rift in which the public would be losers.

Response:

Susitna will only produce 6.1 billion kilowatt hours (kwh) of firm annual energy. Watana, the first project to come on line would produce 3.1 billion kwh and the remainder would come from Devil Canyon. Watana could not be on line until the early to mid 1990's. Presently in the railbelt, we consume roughly 3.0 billion kwh, or, the equivalent of Watana. It is anticipated that normal load growth will continue through the 1980's and that even Devil Canyon will be needed to meet our domestic needs before the turn of the century. However, even if that does not occur, it is safe to assume that Watana will be needed and that a decision on Devil Canyon can be delayed until we have better insight on our late 1990's energy needs. Most spokesmen for the aluminum industry have expressed an energy need in excess of half of the total Susitna output. Thus while we will evaluate the desirability of industrial markets for Susitna, it is very unlikely that we would commit Susitna to industrial consumers at the expense of railbelt demands. Furthermore, industrial development policy remains under the control of the legislature and governor, not the Alaska Power Authority.

FROM:

TO:

State of Alaska

MEMORANDUM

Page 2  
 November 26, 1980  
 Mr. Michael J. Fisher

Thank you for sending Nancy Robinson's comments to us.

All comments, questions, and requests for information received by our office are reviewed by the Alaska Power Authority staff and Acres American, Inc., and will be included in a report that will be given to the Alaska Power Authority board of directors and the Governor before a decision is made on Susitna.

Enclosed is an ACTION form which you may use if you have further comments, questions, or need additional information. We have had a few problems implementing the ACTION SYSTEM. However, some of the circumstances that held up the process have been corrected and we believe your next comment or question will be handled more quickly. Please keep in mind, however, that because a number of people will review, and in some cases, comment on each item submitted in the ACTION SYSTEM, it will take at least six weeks to process your request.

Sincerely,

Nancy Blunck  
 Director of Public Participation

NB:mgh  
 Enclosure  
 cc: Acres American, Inc.  
 Nancy Robinson, Trapper Creek

CONCURRENCE: WOZNIAK  
 MOHN

SUBJECT:

FROM:

TELEPHONE NO:

FILE NO:

DATE:

TO:

State of Alaska

MEMORANDUM

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date 4-15-80☒ An Individual Citizen☐ An Organizationname MICHAEL J. FISHERname RECEIVEDaddress GEN DELIVERY# of members APR 25 1980city TALKEETNAaddress ALASKA POWER AUTHORITYstate ALASKA zip 99676city ALASKA POWER AUTHORITYday phone (907) 733-2356contact person day phone

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

THERE ARE CERTAIN PROCESSES THAT, IN THE PRESENT STATE OF THE ART, CAN ONLY BE ACCOMPLISHED WITH MASSIVE AMOUNTS OF ELECTRICAL POWER. THE REFINING OF PRIMARY ALUMINUM FROM <sup>BAUXITE</sup> ~~BAUXITE~~ ORE IS ONE OF THESE. THE POTENTIALLY ENORMOUS <sup>BAUXITE</sup> ~~BAUXITE~~ DEPOSITS ON THE TYONE DRAINAGE NORTH OF LK. LOUISE WOULD BE A COMPELLING LURE TO THE JAPANESE TO INVEST IN PRIMARY ALUMINUM CAPACITY IN THIS AREA. IN SO DOING, THEY WOULD EFFECTIVELY EXPORT TO ALASKA THE MANY ECONOMIC, SOCIAL AND ENVIRONMENTAL PROBLEMS ASSOCIATED WITH THIS INHERENTLY DIRTY PROCESS. ADDITIONALLY, THE STRUGGLE BETWEEN PRO-DEVELOPMENT AND NON-DEVELOPMENT FACTIONS WITHIN ALASKA WOULD DEEPEN AN ALREADY PAINFUL RIFT IN WHICH THE PUBLIC WOULD BE THE LOSERS.

THIS COMMENT SUBMITTED ON BEHALF OF NANCY ROBINSON, TRAPPER CREEK, AK. PLEASE SEND HER ONE COPY OF THE RESPONSE 99688

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

growth & industrial development  
Environ  
Tussock  
report

October 8, 1980

Ms. Anna Fountain  
Box 277  
Talkeetna, Alaska 99676

Dear Ms. Fountain:

The attached questions on alternatives to Susitna hydroelectric development, that you submitted to the Alaska Power Authority through the ACTION SYSTEM has been forwarded to Fran Ulmer, chairperson of the Railbelt Energy Alternatives Policy Review Committee. This committee will be providing policy direction to the Susitna alternatives study that Battelle Northwest Laboratories is conducting.

As you may know, the 1980 legislature decided that the alternatives study for Susitna should be completed in such a way that there would be no question of its objectivity. Therefore, the legislature directed that an independent firm be selected to conduct the alternatives study itself (Battelle was chosen) and that Acres American, Inc. continue its work on studying the feasibility of Susitna.

The Office of the Governor is managing the feasibility study of alternatives. The Alaska Power Authority is managing the feasibility study of Susitna. The results of both studies will help determine whether or not the State should develop hydroelectric power on the Susitna River and/or pursue other energy alternatives. Since the State of Alaska will make a decision by April 1982 whether to file a license application for Susitna hydroelectric, Battelle is directed to complete their alternatives study well in advance of this date to permit an informed decision.

Since Acres will not conduct the alternatives study, we directed them not to respond to your ACTION request. It did not make much sense to us to have them answer your questions, if they were not going to be conducting the study. We thought it better to hold your ACTION request until the new consultant was selected.

In July a request for proposals was sent out seeking consulting services to conduct an alternatives study and prepare an energy plan for the electrical needs of the railbelt. The energy plan will include an evaluation of alternatives, emerging technologies, conservation, and load management. The plan will review, and where necessary, improve the existing data base and demand forecast. It will examine the alternative types of electric generation and help determine whether or not the state should concentrate its efforts on development of the hydroelectric potential of the Susitna River and/or pursue other alternatives.

In September, Battelle Pacific Northwest Laboratories (with Ebasco Service and the Institute of Social and Economic Research) was selected to conduct the alternatives study. Their contract with the Office of the Governor is now signed. Battelle is preparing a work plan which is expected to be finished by the end of October. Battelle anticipates beginning work in November.

Ms. Anna Fountain  
Page 2  
October 8, 1980

In the meantime, further questions and comments concerning the alternatives study (or response to your ACTION request) should be directed to Fran Ulmer or Tom Singer. Both can be reached at the telephone number and address listed below. We suggest that all correspondence to Ms. Ulmer be marked, "Attention: Tom Singer," Division of Policy Development and Planning, Pouch AD, Juneau, Alaska 99811. Phone (907) 465-3577.

You may also wish to contact members of the Railbelt Energy Alternatives Policy Review Committee. They are:

Ms. Clarissa Quinlan, Director  
Division of Energy and Power Development  
338 Denali Street  
Anchorage, Alaska 99501

Mr. Charles Conway, Chairman  
Alaska Power Authority Board of Directors  
2702 Gambell Street, Suite 200  
Anchorage, Alaska 99503

Mr. Ron Lehr, Director  
Division of Budget and Management  
Pouch AM  
Juneau, Alaska 99811

If you have further questions or comments about the Susitna feasibility studies (other than the alternatives study) continue to direct those to the Public Participation Office of the Alaska Power Authority, 333 West 4th Avenue, Suite 31, Anchorage, Alaska 99501, (907) 276-0001.

Sincerely,

Nancy Blunck  
Director  
Public Participation Office

Attachment  
NB:mgh

# MEMORANDUM

State of Alaska

TO:

DATE:

FILE NO:

TELEPHONE NO:

December 15, 1980

SUBJECT:

FROM:

**ACTION FILE Number T-004-80**

**Ms. Anna Fountain  
Box 277  
Talkeetna, Alaska 99676**

**Dear Ms. Fountain:**

You submitted to our office a number of questions regarding the Susitna hydroelectric feasibility studies. One of your questions related to the alternatives studies was forwarded to the governor's office as explained in Nancy Blunck's letter to you in October. Your other questions are listed below, followed by responses from Acres American, Inc., the firm conducting the studies, or the Alaska Power Authority.

**Your question:**

**Where will the power be? I live on the east side of the Susitna at 2335 A. R. R.?**

**Response prepared by Kevin Young, Acres American, Inc.:**

**No Susitna project power lines are planned for your area. However, the proposed Anchorage to Fairbanks transmission line corridor may be close to where you live.**

**Note from Public Participation Office of the Alaska Power Authority:**

**On Tuesday, January 20th, at 7:00 p.m. there will be a meeting in Talkeetna at which the proposed transmission connection between Anchorage and Fairbanks will be discussed. We suggest you attend that meeting. It is expected to be held in the Talkeetna grade school.**

**Your question:**

**Will any provision be made for local hire regardless of the present situation?**

**Response prepared by Jim Gill, Manager of the Anchorage Acres' American office:**

**Right now, because of the nature of the work, the people Acres had hired largely include engineers, geologists, and environmental**

# MEMORANDUM

State of Alaska

Page 2

December 15, 1980

TO: Ms. Anna Fountain

DATE:

FROM:

FILE NO:  
TELEPHONE NO:  
SUBJECT:  
scientists. Since the project is already eleven months into the first phase of a thirty month study period, it is probably fair to say that not many more people with these highly-technical skills will be hired. Statistics show that as of the middle of June 1980 approximately twenty-four residents were employed either by Acres or its subcontractors. This figure will fluctuate from time to time.

It is important to note that the Acres' subcontractors have hired locally on an as-needed basis for clearing, camp construction, and logistics support. Some of those hired were Talkeetna residents, while others were from Wasilla and Willow areas. In addition, base services such as warehousing and supply loading have been provided by small businesses located in Talkeetna because bids were competitive and there was a requirement for locally performed service.

Several Talkeetna residents suggested having a Talkeetna based employment service. Acres gave consideration to this suggestion but determined it was not practical at this time because of the type of hiring it is doing now. If the project goes into a construction phase, a local-hire office could possibly be set up within the Talkeetna area.

## Your question:

Impact on the river - fish, water level, silt?

## Response prepared by Kevin Young, Acres American, Inc.:

As part of our present studies, we are collecting extensive information on the fisheries, hydrology, and water quality of the Susitna River. Following the acquisition of this data and a review of the selected project design, we will be able to predict the impact on these resources and make recommendation for mitigation measures as required. This information will not be available until the spring of 1982 with additional studies continuing beyond that date.

## Your question:

What will be the effects of quakes or slides behind or under the dam?

## Flood Talkeetna?

## Response prepared by Kevin Young, Acres American, Inc.:

The dams will be designed to safely withstand the maximum credible earthquake. Sufficient freeboard will be provided over and above the normal required to contain waves that could be generated by earthquakes or slides within the reservoir for earthfill/rockfill

# MEMORANDUM

State of Alaska

Page 3

December 15, 1980

Ms. Anna Fountain

TO:

DATE:

dam construction. Consideration will also be given to special major crest protection so that no damage would occur in the unlikely event the dam is over-topped.

FILE NO:

TELEPHONE NO:

FROM:

Your question:

SUBJECT:

What about debris floating down during construction?

Response from Kevin Young, Acres American, Inc.:

The conditions of the construction indicate procedures to be followed to minimize introduction of debris into the river during construction activities. A monitoring and inspection program will be undertaken to insure these procedures are followed. Provision will be made to look into specific complaints and to develop acceptable solutions. This approach should prevent any major problems.

Your question:

What will be the level of the river while the reservoir is filling? After?

Response prepared by Kevin Young, Acres American, Inc.:

Preliminary calculations indicate that the contribution to the stream flow from the Chulitna and Talkeetna Rivers is about the same as the flow in the mainstem above the confluence. Therefore, any cutback in Susitna flow would have a smaller effect on flow below the Talkeetna junction.

Reservoir filling sequences will be developed much later in our study program. However, it can be said at this stage that a minimum flow in the river will be maintained at all times to meet the requirements of fish and wildlife, and any other independent needs that are identified during the course of the study. The required flow will be established in conjunction with agencies such as ADF&G and ADNRR and be based on extensive field data and analysis. It will probably not be less than the minimum flow recorded in the river to date.

After the reservoir is commissioned, the river flow will be more or less uniform throughout the year. Winter flow at Talkeetna would be about 10,000 cfs as compared to the current average flows on the order of 2500 cfs. The average summer flows will be about 80% of their present values.

Your question:

Would like to know the name of the legislative independent task force?

NO NUKES.



# MEMORANDUM

State of Alaska

December 15, 1980  
Ms. Anna Fountain

TO:

DATE:

FILE NO:

Response prepared by Robert Mohr, Director of Engineering, Alaska  
Power Authority:

FROM:

SUBJECT:

Brian Rogers and Hugh Malone comprised the legislative subcommittee that conducted independent assessments of Susitna alternatives.

Your questions, along with all comments and concerns received by our office are reviewed by the Alaska Power Authority staff and Acres American, Inc., and will be included in a report that will be given to the Alaska Power Authority board of directors and the Governor before a decision is made on Susitna.

Enclosed is an ACTION form which you may use if you have further comments, questions, or need additional information. We have had a few problems implementing the ACTION SYSTEM. However, some of the circumstances that held up the process have been corrected and we believe your next comment or question will be handled more quickly. Please keep in mind, however, that because a number of people will review, and in some cases, comment on each item submitted in the ACTION SYSTEM, it will take at least six weeks to process your request.

Sincerely,

Nancy Blunck  
Director of Public Participation

NB:ugh  
Enclosure  
cc: Acres American, Inc.

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date 4-15-80

\_\_\_\_\_ An Individual Citizen

\_\_\_\_\_ An Organization

name Anna Fountain

name \_\_\_\_\_

address Box 277

# of members \_\_\_\_\_

city Talkeetna

address \_\_\_\_\_

state AKzip 99676

city \_\_\_\_\_

day phone \_\_\_\_\_

contact person \_\_\_\_\_

day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

1. When will the power line be? (I live on the east side of the Susitna R. at 233.5 A.P.R.)

2. Will any provisions be made for local line regardless of the present situation?

3. What will be the impact on the River - fish, water level, silt?

4. What will be the effects of quakes or slides behind the dam? Flood Talkeetna? or under

5. How much consideration is given to alternative energy to meet your "projected needs"? Tides? Petroleum. Equal to Hydro? Should be.

6. What about debris floating down during construction?

7. What will be the level of the river while the reservoir is filling? After?

8. Would like to know the name of legislative task force? independent

No Nukes

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

### Alaska Power Authority

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

November 26, 1980

ACTION FILE Number: T-005-80

Mr. Eric Denkewalter  
P. O. Box 305  
Talkeetna, Alaska 99676

Dear Mr. Denkewalter:

You asked three questions about the Susitna hydroelectric feasibility studies. Your questions are written below, followed directly by answers given by the staff of the Alaska Power Authority.

Your question:

The Corps of Engineers report (January 1977) shows a number of alternative transmission corridors. Is the present study considering these same routes? Send me a map with all the possible routes to date.

Response from Nancy Blunck, Director of Public Participation:

It is not clear to me whether you are asking about the transmission corridor from the Susitna River dam sites or whether you are asking about the proposed transmission line to connect Anchorage and Fairbanks. Perhaps you are asking about both. The study of the east-west leg from the dam sites is being done by Acres American, Inc., the firm conducting the Susitna feasibility studies. The study of the proposed Anchorage/Fairbanks transmission connection is being done by Commonwealth Associates, Inc. Both studies will include routes suggested by the Corps of Engineers.

The only map we have available to send you at this time is included with the enclosed information sheet on the proposed Fairbanks to Anchorage transmission line. More maps will be available at the public meeting to be held in early 1981 in Talkeetna.

Your question:

Will the next public meeting be held prior to transmission corridor selection?

Response from Nancy Blunck, Director of Public Participation:

Yes. In fact, there will be three or four meetings, with one of them a special workshop on biological hazards of living near transmission lines. The workshop will be held in Talkeetna. No date has been set at this time.

State of Alaska

MEMORANDUM

Page 2  
November 26, 1980  
Mr. Eric Denkewalter

The first public meeting relating to the proposed transmission connection between Anchorage and Fairbanks is tentatively scheduled for Tuesday evening, January 20, 1981.

Your question:

Why is APA against direct funding of the project? (Statement by Yould during welcome.)

Response from Robert Nohn, Director of Engineering:

It has been the position of the Alaska Power Authority that direct state funding of the Susitna Hydroelectric Project is inadvisable, since the state would be better off to conserve its financial resources by importing investment capital. This would be done through the sale of project revenue bonds on national markets. The funds that would have been spent on Susitna could then be used for other purposes. At the same time, it is apparent that state policy is dictating maximum in-state investment of surplus revenues. If the decision is made to invest in Alaskan projects that offer a financial return on that investment, then it would seem that direct equity investment by the state in the Susitna project would become a logical priority.

To summarize, in a period of surplus revenues direct state funding of Susitna may make sense, while such a plan would generally not be advisable in a more normal period of capital shortage.

All comments, questions, and requests for information received by our office are reviewed by the Alaska Power Authority staff and Acres American, Inc., and will be included in a report that will be given to the Alaska Power Authority board of directors and the Governor before a decision is made on Susitna.

Enclosed is an ACTION form which you may use if you have further comments, questions, or need additional information. We have had a few problems implementing the ACTION SYSTEM. However, some of the circumstances that held up the process have been corrected and we believe your next comment or question will be handled more quickly. Please keep in mind, however, that because a number of people will review, and in some cases, comment on each item submitted in the ACTION SYSTEM, it will take at least six weeks to process your request.

SUBJECT:

Sincerely,

FROM:

TELEPHONE NO.:

FILE NO.:

Nancy Blunck  
Director of Public Participation

DATE:

TO:

NB:mgh

Enclosures

State of Alaska  
Acres American, Inc.

MEMORANDUM

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date 4/15/80

☒ An Individual Citizen

☐ An Organization

name ERIC DENKEWALTER

name RECEIVED

address BOX 305

# of members 1

city TALKEETNA

address ALASKA POWER AUTHORITY

state ALASKA zip 99676

city

day phone NONE

contact person  day phone

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

① THE CORPS OF ENGINEERS REPORT (JAN 1977) SHOWS A NUMBER OF ALTERNATIVE TRANSMISSION CORRIDORS. IS THE PRESENT STUDY CONSIDERING THESE SAME ROUTES? SEND ME A MAP WITH ALL THE POSSIBLE ROUTES TO DATE.

② WILL THE NEXT PUBLIC MEETING BE HELD PRIOR TO TRANSMISSION CORRIDOR SELECTION.

③ WHY IS THE APA AGAINST DIRECT FUNDING OF THE PROJECT? (STATEMENT BY YOU'D DURING WELCOME)

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

October 8, 1980

Ms. Rebecca Long  
Box 344  
Talkeetna, Alaska 99676

Dear Ms. Long:

The attached comment on alternatives to Susitna hydroelectric development, that you submitted to the Alaska Power Authority through the ACTION SYSTEM has been forwarded to Fran Ulmer, chairperson of the Railbelt Energy Alternatives Policy Review Committee. This committee will be providing policy direction to the Susitna alternatives study that Battelle Northwest Laboratories is conducting.

As you may know, the 1980 legislature decided that the alternatives study for Susitna should be completed in such a way that there would be no question of its objectivity. Therefore, the legislature directed that an independent firm be selected to conduct the alternatives study itself (Battelle was chosen) and that Acres American, Inc. continue its work on studying the feasibility of Susitna.

The Office of the Governor is managing the feasibility study of alternatives. The Alaska Power Authority is managing the feasibility study of Susitna. The results of both studies will help determine whether or not the State should develop hydroelectric power on the Susitna River and/or pursue other energy alternatives. Since the State of Alaska will make a decision by April 1982 whether to file a license application for Susitna hydroelectric, Battelle is directed to complete their alternatives study well in advance of this date to permit an informed decision.

Since Acres will not conduct the alternatives study, we directed them not to respond to your ACTION request. It did not make much sense to us to have them respond to your comment, if they were not going to be conducting the study. We thought it better to hold your ACTION request until the new consultant was selected.

In July a request for proposals was sent out seeking consulting services to conduct an alternatives study and prepare an energy plan for the electrical needs of the railbelt. The energy plan will include an evaluation of alternatives, emerging technologies, conservation, and load management. The plan will review, and where necessary, improve the existing data base and demand forecast. It will examine the alternative types of electric generation and help determine whether or not the state should concentrate its efforts on development of the hydroelectric potential of the Susitna River and/or pursue other alternatives.

In September, Battelle Pacific Northwest Laboratories (with Ebasco Service and the Institute of Social and Economic Research) was selected to conduct the alternatives study. Their contract with the Office of the Governor is now signed. Battelle is preparing a work plan which is expected to be finished by the end of October. Battelle anticipates beginning work in November.

Ms. Rebecca Long  
Page 2  
October 8, 1980

In the meantime, further questions and comments concerning the alternatives study (or response to your ACTION request) should be directed to Fran Ulmer or Tom Singer. Both can be reached at the telephone number and address listed below. We suggest that all correspondence to Ms. Ulmer be marked, "Attention: Tom Singer," Division of Policy Development and Planning, Pouch AD, Juneau, Alaska 99811. Phone (907) 465-3577.

You may also wish to contact members of the Railbelt Energy Alternatives Policy Review Committee. They are:

Ms. Clarissa Quinlan, Director  
Division of Energy and Power Development  
338 Denali Street  
Anchorage, Alaska 99501

Mr. Charles Conway, Chairman  
Alaska Power Authority Board of Directors  
2702 Gambell Street, Suite 200  
Anchorage, Alaska 99503

Mr. Ron Lehr, Director  
Division of Budget and Management  
Pouch AM  
Juneau, Alaska 99811

If you have further questions or comments about the Susitna feasibility studies (other than the alternatives study) continue to direct those to the Public Participation Office of the Alaska Power Authority, 333 West 4th Avenue, Suite 31, Anchorage, Alaska 99501, (907) 276-0001.

Sincerely,

  
Nancy Blunck  
Director  
Public Participation Office

Attachment  
NB:mgh

December 1, 1980

Ms. Rebecca Long  
Box 344  
Talkeetna, Alaska 99676

ACTION FILE Number T-006-80

Dear Ms. Long:

You submitted to our office a number of comments regarding the Susitna hydroelectric feasibility studies. One comment which related to the alternatives study was forwarded to the governor's office as explained in Nancy Blunck's letter of October 8th. Your other comments are listed below, followed by responses from the Alaska Power Authority.

Your comment:

I really want to know who actually is going to benefit from hydroelectric power.

Response prepared by Robert Mohn, Director of Engineering:

You have asked who will actually benefit from hydroelectric power. Anyone who is connected to the proposed interconnected Anchorage-Fairbanks electrical transmission and distribution system would receive Susitna power. That would include anyone who is provided electricity from Matanuska Electric Association, whose service area includes Talkeetna.

Your comment:

I am concerned about the health affects of living near transmission lines. There have been studies done showing the negative impacts.

Response prepared by Dave Wozniak, Project Engineer:

A great deal of study has been done and a lot of data gathered concerning the effects on people, plants, and animals. In summary, there is no cause for concern at the voltage levels that will be used. However, we acknowledge your concern, which has been raised by others. Accordingly, we will have a workshop in Talkeetna in 1981 at which you will have the opportunity to question a recognized expert on the effects of living near transmission lines.

FROM:

Your comment:

I am concerned that priorities and values and quality of life are not being questioned in your study.

TO:

State of Alaska

MEMORANDUM



Page 2  
 December 1, 1980  
 Ms. Rebecca Long

Response prepared by Jean Buchanan, Public Participation Office:

You are not the only one to express the concern that quality of life was not being given sufficient consideration in the feasibility studies. As a result of your concern and the same concern raised by others, the Alaska Power Authority concluded that an additional look should be made at how the construction of the Susitna project and operation of the resulting project would affect the current life style of the people who live in the vicinity of the dam site. The study will begin in 1981 and will be coordinated with the other studies being done on the economic implications of the project.

Your comment:

Electricity is like a sacred god. I really question its uninhibited use. Of course, that leads to questioning an affluent lifestyle dependent on electric devices?

As you may have noticed, there are a contingent of people in this area who desire to live a non electric life style. We put a lot of work into providing and transporting our energy and avoid time saving devices. We don't want to live like the cavemen but use technology moderately. Perhaps you can understand why the idea of a dam and power lines is abhorrent.

Response prepared by Dave Wozniak, Project Engineer:

We recognize the uniqueness of the Alaskan's lifestyle and that individuals have made choices to live without electricity. The decision to develop hydroelectric power on the Susitna River will not be based solely or even primarily on economic feasibility. Social and environmental aspects will be given full weight in the decision process.

Your comment:

All opposition to this dam and even the feasibility studies occurs when there is not effort at local hire. We have a high level of unemployment around here. There are skilled and unskilled workers. The majority of workers have families to support. Most have to go outside this area, away from home and family to work. To me, it makes a lot more sense to hire local people because they have a vital interest to do a good job. I think the people on this project should go out of their way to hire locally. That's good public relations.

Response prepared by Nancy Blunck, Director of Public Participation:

I have talked to Jim Gill, manager of the Anchorage office of Acres American, Inc., the firm conducting the studies. I asked him if there would be local hire during the period of the Susitna feasibility studies. He answered that there has been some local hire.

Alaska State of Alaska

December 1, 1980  
Ms. Rebecca Long

middle of June 1980, approximately 24 Talkeetna residents were employed either by Acres or its subcontractors. Gill said this figure will fluctuate from time to time.

Gill also noted that Acres' subcontractors have hired locally on an as-needed basis for clearing, camp construction, and logistics support. Some of those hired were Talkeetna residents, while others were from Wasilla and Willow areas. In addition, base services such as warehousing and supply loading have been provided by small businesses located in Talkeetna because bids were competitive and there was a requirement for locally performed services.

Right now, because of the nature of the work, the people Acres has hired largely include engineers, geologists, and environmental scientists. Since the project is already 11 months into the first phase of a 30 month study period, it is probably fair to say that not many more people with these highly-technical skills will be hired.

Some people have suggested opening a Talkeetna-based employment service. Acres has given consideration to this suggestion. However, they believe that at this time such an office would not be practical. If the project goes into a construction phase and access to the project is near Talkeetna, a local-hire office could possibly be set up within the Talkeetna area.

Your comment:

I also am concerned about seismic problems and hope that the checks and balances you have created in this process work if enough information is found out against the dam. How can environmental, quality of life, etc. considerations and feasibilities fight money--the economic interests.

Response prepared by Dave Wozniak, Project Engineer:

Insufficient data has been gathered at this point and time to fully evaluate the seismic problems, risks, or lack thereof. However, those aspects are receiving detailed study. For more information, see the enclosed November newsletter, page 4, for an explanation of the methodology being used in the earthquake studies.

Your comment:

SUBJECT:

FROM:

I think you should hold more public meetings than you have planned, although I realize that it requires a lot of effort on your part. People at these meetings tell others what was said so they are benefiting more than just people present. Plus it will keep you people on top of community feelings and responses.

State of Alaska

MEMORANDUM

Page 4  
 December 1, 1980  
 Ms. Rebecca Long

First of all, I want to say that you did an excellent job at the meeting, it's organization, the people involved -- their consideration in answering questions.

Response prepared by Jean Buchanan, Public Participation Office:

We agree that public meetings are an important way to hear the concerns of the community. We are tentatively planning a workshop on two aspects of the Susitna studies, road access and recreation potential. We expect the workshop will be the first Tuesday evening in March in Talkeetna. We are also planning to have a public meeting sometime during the first week in May in Talkeetna. We also want you to note that there will be a workshop in January dealing with the proposed transmission connection between Anchorage and Fairbanks. (The transmission project is separate from the Susitna feasibility studies.) The workshop is tentatively scheduled for Tuesday evening, January 20th, in Talkeetna.

All comments, questions, and requests for information received by our office are reviewed by the Alaska Power Authority staff and Acres American, Inc., and will be included in a report that will be given to the Alaska Power Authority board of directors and the Governor before a decision is made on Susitna.

Enclosed is an ACTION form which you may use if you have further comments, questions, or need additional information. We have had a few problems implementing the ACTION SYSTEM. However, some of the circumstances that held up the process have been corrected and we believe your next comment or question will be handled more quickly. Please keep in mind, however, that because a number of people will review, and in some cases, comment on each item submitted in the ACTION SYSTEM, it will take at least six weeks to process your request.

Sincerely,

FOR THE DIRECTOR OF PUBLIC  
 PARTICIPATION

Jean Buchanan  
 Acting Director of Public Participation

JB:mgh  
 Enclosures  
 cc: Acres American, Inc.

SUBJECT:

FROM:

FILE NO:

DATE:

CONCURRENCE: Wozniak  
 Mohn

TO:

State of Alaska

MEMORANDUM

RE: T-006-80

Date submitted: 4-16-80

Rebecca Long  
Box 344  
Talkeetna, AK 99676

(1) It seems that the course of action for energy sources depends mainly on economic feasibility. That it is a sin to choose a more expensive source even if it means a better choice environmentally.

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date April 16☒ An Individual Citizen☐ An Organizationname Kathleen Long

name

**RECEIVED**address Box 344

# of members

APR 24 1980

city Talkeetna

address

ALASKA POWER AUTHORITY

state ALASKA

zip

99676

city

day phone

contact person

day phone

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

no com

Task 12

quality of life  
social  
cultural

Task 1

DB  
rec  
criteria

RM

Task 7

(14) First of all, I want to say that you did an excellent job at the meeting, it's organization, the people involved - their consideration in answering questions.

(15) I am concerned that priorities values & quality of life are not being questioned in your study. The following are some concerns.

(1) - I seem that the course of action for energy sources depends mainly on economic feasibility... that it is a sin to choose a more expensive source even if it means a better choice environmentally. I would like to see this issue discussed.

(2) - I really want to know who actually will be benefit from hydroelectric power.

(3) - I am concerned about the health effects of living near transmission lines. These major health studies done.

(cont.)

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

### Alaska Power Authority

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

Page 1

Roberta Long  
Box 344  
Tulsa, Okla

Showing the respect we have for you.

Excellence is like a standard. good & usually question it is unimpaired and

appears that leads to great things

an apparent display of excellence

all the good things that we do

are the result of the good things

that we do. There are

a number of people who are

to use a new creative style. The

part of work into producing

transferring our energy & saving time

giving choices. We don't want to leave

the door open but we are

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why the idea of a dance power line is

different. (Also opposition to this kind of

work. The feasibility studies occur

when there is no effort at local level

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have to go outside the area, away from

home & family work. To me, it makes

all the sense to live local people

because they have a vital interest in

the good life. I think the people in this

project should go out of their way to have locally. That's good public relations.

Task 4  
B I was also concerned about seismic problems & hope that the checks & balances you have created in this process will work if enough information is found out against the dam. You can have environmental, quality of life, etc considerations & feasibility's fight money - the economic interests.

BB - explain decision criteria

Task 12  
B I think you should hold more public meetings than you have planned although I realize that it requires a lot of effort on your part. People at these meetings tell others what was said so they are benefiting more than just people present. Plus it will keep you people on top of community feelings & responses.

B  
10 In any way I can get a copy of Acres feasibility study.

Thank you for your time & consideration.

Sincerely, Rebecca Long

# MEMORANDUM

State of Alaska

TO:

DATE:

FILE NO:

TELEPHONE NO:

FROM:

SUBJECT:  
December 17, 1980

ACTION FILE Number: T-007-80

Mr. Keith E. Heffner  
Box 137  
Talkeetna, Alaska 99676

Dear Mr. Heffner:

You submitted to our office some comments regarding the Susitna hydroelectric feasibility studies. Several comments which related directly to the alternatives study were forwarded to the Governor's office as explained to you in my letter of October 8, 1980. Each of your other comments are listed below, followed directly by a response from our office.

Your comment:

I will not go into the usual dialogue of "life style", quality of life, environmental impact, etc. in opposition to this project. Even though they are real concerns and in my estimation are worthy of as much consideration as the economics of the project.

Response:

Those conducting the studies agree that lifestyle, quality of life, environmental impact, etc. are important. For that reason, substantial study resources are being spent on those kinds of studies. (See enclosed newsletter, pages two and eight.)

Lifestyle is considered to be so important that an additional study (sociocultural) will be done to assess the impacts of construction and the Susitna project on the current lifestyles of people who live in the immediate vicinity of the proposed dam sites. This study which was added because of the concerns expressed by you and others from Talkeetna, will begin in 1981. It will be coordinated with studies currently in process on the identification and analysis of socioeconomic conditions. (See page eight of newsletter.)

Your comment:

We must recognize as Alaskans that we have a corner on the market of a commodity, namely natural beauty, which in the future will be worth incalculably more than megawatts of power created from the death of a river, shipped a couple of hundred miles and wasted in someone's Jacuzzi.



# MEMORANDUM

State of Alaska

Page 2

December 17, 1980

TO: Mr. Keith Heffner

DATE:

FILE NO:

TELEPHONE NO:

Response:

FROM:

SUBJECT:

We have noted your concern and passed it on to the Alaska Power Authority staff working on the project and to Acres American, Inc., the firm conducting the feasibility studies. Your comments, along with all other comments and questions received by our office will be included in a report that will be given to the Alaska Power Authority Board of Directors and the Governor before a decision is made on Susitna.

Enclosed is an ACTION form which you may use if you have further comments, questions, or need additional information. We have had a few problems implementing the ACTION SYSTEM. However, some of the circumstances that held up the process have been corrected and we believe your next comment or question will be handled more quickly. Please keep in mind, however, that because a number of people will review, and in some cases, comment on each item submitted in the ACTION SYSTEM, it will take at least six weeks to process your request.

Sincerely,

Nancy Blunck  
Director of Public Participation

NB:mgh  
Enclosure  
cc: Acres American, Inc.

October 8, 1980

Mr. Keith E. Heffner  
P. O. Box 137  
Talkeetna, Alaska 99676

Dear Mr. Heffner:

The attached comments on alternatives to Susitna hydroelectric development, that you submitted to the Alaska Power Authority through the ACTION SYSTEM have been forwarded to Fran Ulmer, chairperson of the Railbelt Energy Alternatives Policy Review Committee. This committee will be providing policy direction to the Susitna alternatives study that Battelle Northwest Laboratories is conducting.

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The Office of the Governor is managing the feasibility study of alternatives. The Alaska Power Authority is managing the feasibility study of Susitna. The results of both studies will help determine whether or not the State should develop hydroelectric power on the Susitna River and/or pursue other energy alternatives. Since the State of Alaska will make a decision by April 1982 whether to file a license application for Susitna hydroelectric, Battelle is directed to complete their alternatives study well in advance of this date to permit an informed decision.

Since Acres will not conduct the alternatives study, we directed them not to respond to your ACTION request. It did not make much sense to us to have them respond to your comments, if they were not going to be conducting the study. We thought it better to hold your ACTION request until the new consultant was selected.

In July a request for proposals was sent out seeking consulting services to conduct an alternatives study and prepare an energy plan for the electrical needs of the railbelt. The energy plan will include an evaluation of alternatives, emerging technologies, conservation, and load management. The plan will review, and where necessary, improve the existing data base and demand forecast. It will examine the alternative types of electric generation and help determine whether or not the state should concentrate its efforts on development of the hydroelectric potential of the Susitna River and/or pursue other alternatives.

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Mr. Keith E. Heffner  
Page 2  
October 8, 1980

In the meantime, further questions and comments concerning the alternatives study (or response to your ACTION request) should be directed to Fran Ulmer or Tom Singer. Both can be reached at the telephone number and address listed below. We suggest that all correspondence to Ms. Ulmer be marked, "Attention: Tom Singer," Division of Policy Development and Planning, Pouch AD, Juneau, Alaska 99811. Phone (907) 465-3577.

You may also wish to contact members of the Railbelt Energy Alternatives Policy Review Committee. They are:

Ms. Clarissa Quinlan, Director  
Division of Energy and Power Development  
338 Denali Street  
Anchorage, Alaska 99501

Mr. Charles Conway, Chairman  
Alaska Power Authority Board of Directors  
2702 Gambell Street, Suite 200  
Anchorage, Alaska 99503

Mr. Ron Lehr, Director  
Division of Budget and Management  
Pouch AM  
Juneau, Alaska 99811

If you have further questions or comments about the Susitna feasibility studies (other than the alternatives study) continue to direct those to the Public Participation Office of the Alaska Power Authority, 333 West 4th Avenue, Suite 31, Anchorage, Alaska 99501, (907) 276-0001.

Sincerely,

  
Nancy Blunck  
Director  
Public Participation Office

Attachment  
NB:mgh

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date April 17, 1980

☐ An Individual Citizen

☐ An Organization

Page 2

name Keith E. Heffner

name \_\_\_\_\_

address P. O. Box 137

# of members \_\_\_\_\_

city Talkeetna, Alaska

address \_\_\_\_\_

state Alaska zip 99676

city \_\_\_\_\_

day phone \_\_\_\_\_

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

4. Another benefit would be a dramatic reduction in transmission line costs as the plants are near the load centers. It is a well known fact that transmission line costs have increased astronomically in the past decade. The policy of placing new generation facilities near load centers because of the economics involved is a common practice of private power companies in the rest of the United States.

5. Coal fired plants would have the spin off effect of creating many new jobs in the private sector of the economy. The coal has to be extracted from the earth and transported to the points of consumption. With a stable base market for their product miners could promote the use of coal for heating purposes. The existing highway and railroad system provides the means by which coal could be transported to the vast majority of Alaskan residents.

Presently most of the larger public and private buildings outside of the metropolitan areas are heated by oil or electricity, both extremely expensive. These buildings could be converted to coal fired heat. Once again a boost for business in the private sector as contractors convert heating systems to the new fuel. The taxpayers and individuals all benefit as the lower fuel costs result in rapid pay-off on their conversion costs and sub-

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date APRIL 17, 1980☒ An Individual Citizen☐ An Organizationname KEITH E. HEFFNER

name \_\_\_\_\_

address PO BOX 137

# of members \_\_\_\_\_

city TALKEETNAaddress RECEIVEDstate AK zip 99676city APR 25 1980day phone 733-2465contact person ALASKA POWER AUTHORITY day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

I was unable to attend the meeting in Talkeetna on April 15, concerning the Susitna Hydroelectric Feasibility Study. Many of my friends and neighbors, however, did attend. Most of those in attendance seemed pleased with the attitude and sincerity of the meeting sponsors and hosts.

Since I was not in attendance I would like to submit some comments for consideration. My primary concern is that a sincere and honest effort be made to evaluate viable alternatives to the Susitna Project.

I will not go into the usual dialogue of "life style", quality of life, environmental impact, etc. in opposition to this project. Even though they are real concerns and in my estimation are worthy of as much consideration as the economics of the project.

There are several alternatives to the Susitna Project. The most promising is construction of coal fired plants in the areas where the load actually exists. When all the rhetoric is sifted out the on going load growth exists in the Anchorage area.

A major coal fired plant could be in the Beluga Area, or Palmer-Wasilla area for that matter. A coal fired plant could be constructed more economically, on line sooner, and provide more jobs for on going operation.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

### Alaska Power Authority

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date April 17, 1980

☐ An Individual Citizen

☐ An Organization

Page 3

name Keith E. Heffner

name \_\_\_\_\_

address P. O. Box 137

# of members \_\_\_\_\_

city Talkeetna,

address \_\_\_\_\_

state Alaska zip 99676

city \_\_\_\_\_

day phone \_\_\_\_\_

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

stantial savings on energy in the long run.

As you can readily see the "spin-off" from the coal fired option are considerable and even more far reaching than I have gone into here.

We realize that all alternatives have their negative trade-offs. With coal, of course, it is atmospheric emissions. The technology exists, however, to minimize the problem. It is an expensive problem, to be sure, but no more so than construction of EHV transmission lines.

Many of the positive aspects of the coal alternative we have covered. Some others are more difficult to define and assign dollar values.

With the coal option we confine our environmental impact to the areas of extraction and consumption. We need not tamper with the ecosystem of a major river which is the thoroughfare for millions of spawning salmon and the wintering area for millions of other sports fish. The real long range value of the Upper Susitna Valley lies in it's virtually untapped potential for recreation, both winter and summer.

We must recognize as Alaskans that we have a corner on the market of a commodity, namely natural beauty, which in the future will be worth incalculably more than megawatts of power created from the death of a river.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

**333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001**

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date April 17, 1980

☒ An Individual Citizen

☐ An Organization

Page 4

name Keith E. Heffner

name \_\_\_\_\_

address P. O. Box 137

# of members \_\_\_\_\_

city Talkeetna, Alaska

address \_\_\_\_\_

state Alaska

zip 99676

city \_\_\_\_\_

day phone \_\_\_\_\_

contact person \_\_\_\_\_

day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

shipped a couple of hundred miles and wasted in someones Jacuzzi.

Respectfully,

Keith E. Heffner

cc: Mr. J. Usibelli  
Usibelli Coal Mine  
Healy, Alaska

Valley Sun

Roberta Sheldon

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

October 8, 1980

Ms. Mary E. McCrum  
General Delivery  
Talkeetna, Alaska 99676

Dear Ms. McCrum:

The attached comments on alternatives to Susitna hydroelectric development, that you submitted to the Alaska Power Authority through the ACTION SYSTEM has been forwarded to Fran Ulmer, chairperson of the Railbelt Energy Alternatives Policy Review Committee. This committee will be providing policy direction to the Susitna alternatives study that Battelle Northwest Laboratories is conducting.

As you may know, the 1980 legislature decided that the alternatives study for Susitna should be completed in such a way that there would be no question of its objectivity. Therefore, the legislature directed that an independent firm be selected to conduct the alternatives study itself (Battelle was chosen) and that Acres American, Inc. continue its work on studying the feasibility of Susitna.

The Office of the Governor is managing the feasibility study of alternatives. The Alaska Power Authority is managing the feasibility study of Susitna. The results of both studies will help determine whether or not the State should develop hydroelectric power on the Susitna River and/or pursue other energy alternatives. Since the State of Alaska will make a decision by April 1982 whether to file a license application for Susitna hydroelectric, Battelle is directed to complete their alternatives study well in advance of this date to permit an informed decision.

Since Acres will not conduct the alternatives study, we directed them not to respond to your ACTION request. It did not make much sense to us to have them respond to your comments, if they were not going to be conducting the study. We thought it better to hold your ACTION request until the new consultant was selected.

In July a request for proposals was sent out seeking consulting services to conduct an alternatives study and prepare an energy plan for the electrical needs of the railbelt. The energy plan will include an evaluation of alternatives, emerging technologies, conservation, and load management. The plan will review, and where necessary, improve the existing data base and demand forecast. It will examine the alternative types of electric generation and help determine whether or not the state should concentrate its efforts on development of the hydroelectric potential of the Susitna River and/or pursue other alternatives.

In September, Battelle Pacific Northwest Laboratories (with Ebasco Service and the Institute of Social and Economic Research) was selected to conduct the alternatives study. Their contract with the Office of the Governor is now signed. Battelle is preparing a work plan which is expected to be finished by the end of October. Battelle anticipates beginning work in November.



Ms. Mary E. McCrum  
Page 2  
October 8, 1980

In the meantime, further questions and comments concerning the alternatives study (or response to your ACTION request) should be directed to Fran Ulmer or Tom Singer. Both can be reached at the telephone number and address listed below. We suggest that all correspondence to Ms. Ulmer be marked, "Attention: Tom Singer," Division of Policy Development and Planning, Pouch AD, Juneau, Alaska 99811. Phone (907) 465-3577.

You may also wish to contact members of the Railbelt Energy Alternatives Policy Review Committee. They are:

Ms. Clarissa Quinlan, Director  
Division of Energy and Power Development  
338 Denali Street  
Anchorage, Alaska 99501

Mr. Charles Conway, Chairman  
Alaska Power Authority Board of Directors  
2702 Gambell Street, Suite 200  
Anchorage, Alaska 99503

Mr. Ron Lehr, Director  
Division of Budget and Management  
Pouch AM  
Juneau, Alaska 99811

If you have further questions or comments about the Susitna feasibility studies (other than the alternatives study) continue to direct those to the Public Participation Office of the Alaska Power Authority, 333 West 4th Avenue, Suite 31, Anchorage, Alaska 99501, (907) 276-0001.

Sincerely,

  
Nancy Blunck  
Director  
Public Participation Office

Attachment  
NB:mgh

October 27, 1980

Ms. Mary E. McCrum  
General Delivery  
Talkeetna, Alaska 99676

Dear Ms. McCrum:

You submitted to our office some questions and a comment regarding the Susitna hydroelectric feasibility studies. Your comment, which related directly to the alternatives study, was forwarded to the Governor's office as explained to you in my letter of October 8, 1980. Your questions are listed below, followed by the name of the person from the Alaska Power Authority making the response.

Your question:

Who are the legislators who want to hear public opinion about Susitna project?

Response from Eric Yould, Executive Director:

Realizing the magnitude of the State's commitment to assess the viability of Susitna and its alternatives, most all Legislators, especially those who represent the Railbelt communities, would be interested in public opinion. Chairman of the House and Senate Resources Committee would be particularly interested in public input, as would Senator Kertulla and Representative Halford, both of whom represent Talkeetna. Finally, Representative Rogers and Representative Malone, members of the House Committee on Alternative Energy, would also be receptive to your input.

Your question:

If the state decided to construct transmission lines early from Anchorage to Fairbanks, will the environmental study have any merit seeing as its completion won't be until 1984-85?

Response from Robert Mohn, Director of Engineering:

You are correct in stating that the Susitna Environmental Impact Statement will not be finalized until about 1984. However, the state, through supplemental capital project appropriations, has decided to proceed with electrical transmission interconnection of Anchorage and Fairbanks. Commonwealth Associates is the firm doing those studies, which include route selection, design, and development of a financing plan. Commonwealth will also complete an environmental analysis, which will collectively address the requirements of federal, state, and local agencies

responsible for the approval of the transmission connection. Anticipating that a federal Environmental Impact Statement will also be required, Commonwealth will meet with the affected agency or agencies to initiate the early designation of the Federal Lead Agency. Such interaction allows Commonwealth to structure its environmental analysis in a manner that will provide the designated Federal Lead Agency with much of the information it will require in the EIS. As you can see, the planning and development of the transmission interconnection will stand on its own and be accompanied by applicable agency clearance and permits. (For more information on the Fairbanks to Anchorage transmission connection, see the enclosed information sheet.)

Your question:

Who will be conducting the study of the transmission lines environmental compability? And when? And what are they looking for? Are people's lifestyle to be considered?

A response from Dave Wozniak, Project Engineer:

The environmental analysis of the transmission lines between Fairbanks and Anchorage will be evaluated by a firm called Commonwealth Associates, Inc. They have highly skilled personnel on their staff who will be able to provide substantial data as to the biological effects and environmental effects of proximity to high voltage transmission lines.

A response from Nancy Blunck, Director of Public Participation:

We've received a high level of concern and questions on the transmission line from Talkeetna residents such as yourself. Because of that, we've planned an extensive public participation program that begins with this information sheet (enclosed) on the Fairbanks to Anchorage transmission line. Talkeetna will have three or four meetings in the first six months of 1981 including one workshop on the medical and biological effects of electric transmission lines. Lifestyle concerns can be expressed at those meetings.

All comments, questions, and requests for information received by our office are reviewed by the Alaska Power Authority staff and Acres American, Inc., and will be included in a report that will be given to the Alaska Power Authority board of directors and the Governor before a decision is made on Susitna.

Page 3  
October 27, 1980  
Ms. Mary McCrum

Enclosed is an ACTION form which you may use if you have further comments, questions, or need additional information. We have had a few problems implementing the ACTION SYSTEM. However, some of the circumstances that held up the process have been corrected and we believe your next comment or question will be handled more quickly. Please keep in mind, however, that because a number of people will review, and in some cases, comment on each item submitted in the ACTION SYSTEM, it will take at least six weeks to process your request.

Sincerely,

Nancy Blunck  
Director of Public Participation

NB:mgh  
Enclosuress  
cc: Acres American, Inc.

RE: T-008-80

Date submitted: 4-18-80

Mary E. McCrum  
General Delivery  
Talkeetna, AK 99676

(3) Alternatives should be given more priority in regards to environmental benefits as opposed to economic benefits. I'm opposed to Nuclear Power - I'd rather have health than wealth. A program of conservation is needed and alternatives, so that industry and individuals can generate power for themselves. I'd like the pursuit of alternatives continued until feasibility study is completed.

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date \_\_\_\_\_

☒ An Individual Citizen☐ An Organizationname Mary E. McCrumname RECEIVEDaddress Gen. Del.

# of members \_\_\_\_\_

city Talkeetnaaddress APPA Buildingstate Alaska zip 99676city ALASKA POWER AUTHORITY

day phone \_\_\_\_\_ contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

TSK 12 Eric ① Who are the legislators who want to hear public opinion about Susitna Project? Done

AN Task 3 NB ② If the state decides to construct transmission lines early from Anchorage to Fairbanks, will the environmental study have any merit seeing as it's completion won't be until 1984-85? Done

DB rev. to task 1; ③ ~~State~~ Alternatives <sup>should</sup> be given more priority in regards to environmental benefits as opposed to ~~economic~~ economic benefits. I'm opposed to Nuclear Power - I'd rather have health than wealth. A program of conservation is needed and alternatives so that industry and individuals can generate power for themselves. I'd like the pursuit of alternatives continued until feasibility study is completed. A

TSK 8 A ④ Who will be conducting the study of the transmission lines environmental compatibility? And when? And what are they looking for - is are people's lifestyle to be considered? Done

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

### Alaska Power Authority

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

# MEMORANDUM

State of Alaska

TO:

DATE:

FILE NO:

TELEPHONE NO:

FROM:

SUBJECT:

December 15, 1980

ACTION FILE Number: T-009-80

Ms. Rose M. Jenne  
Box 300  
Talkeetna, Alaska 99676

Dear Ms. Jenne:

You submitted to our office a number of comments and questions concerning the Susitna feasibility studies. Your comments are written below, followed by responses from the Alaska Power Authority or Acres American, Inc. the firm conducting the feasibility studies.

Your concern:

An explanation of what kinds and types of recreation the dam would create.

Response:

Please see the article on recreation potential in the enclosed newsletter, page 7.

Your comment:

More emphasis on present and future power needs; maps to show where the power would go.

Response from the Public Participation Office, Alaska Power Authority:

We have noted your suggestion regarding more maps to show where the power will go.

On May 5 in Talkeetna, we are tentatively planning to have a community meeting. At that meeting we will try to answer your questions. The meeting is scheduled to be held in the Talkeetna Elementary School at 7:00 p.m. We are also adding your name to our mailing list so that you will receive information that we periodically mail to the public regarding various aspects of the study.

Your concern:

Transmission Lines: Routes, Hazard, etc --

# MEMORANDUM

State of Alaska

Page 2

December 15, 1980

TO: Ms. Rose M. Jenne

DATE:

FILE NO:

TELEPHONE NO:

FROM:

Response from the Public Participation Office, Alaska Power Authority:

In response to your concern and the concern of others, we have tentatively scheduled a workshop on the biological affects of living along transmission lines. We plan to hold the workshop in Talkeetna sometime in 1981 (separate from the May meeting).

There will be a series of workshops on the proposed transmission connection between Anchorage and Fairbanks. The first workshop will be held January 20, 1981, at 7:00 p.m. in the Talkeetna Elementary School. See the section "Public Participation" in the enclosed information sheet on the transmission line for a description of the three workshops planned before next summer.

Your comment:

Talkeetna lifestyle !? I have a lifestyle too -- but it is not the least bit similar to my "hippie" or "up the tract" neighbor. In fact -- what is their lifestyle? A good number of welfare cases, not subsistence life as they would have one believe.

Response from the Public Participation Office, Alaska Power Authority:

We have noted your opinion. It will be included in a report that will be given to Acres American, Inc., their subcontractors, the Alaska Power Authority and the Alaska Power Authority Board of Directors, the Governor.

Your question:

A survey of the "open entry" land owners up the track to establish who really are permanent residents would be interesting. How would those parcels be effected -- i.e. road, power lines, whatever?

Response by Dave Mozniak, Project Engineer, Alaska Power Authority:

To the extent possible, we will avoid houses, etc. where it is absolutely necessary to cross already claimed land (and this could be federal, state, native, or private) we will negotiate with the "owner" a right of way easement. This has been the common practice both here and in the "lower 48" for decades.

All comments, questions, and requests for information received by our office are reviewed by the Alaska Power Authority staff and Acres American, Inc., and will be included in a report that will be given to the Alaska



# MEMORANDUM

State of Alaska

Page 3

December 15, 1980

TO: Ms. Rose M. Jenne

DATE:

FILE NO:

Power Authority board of directors and the Governor before a decision is made on Susitna.

FROM:

SUBJECT:

Enclosed is an ACTION form which you may use if you have further comments, questions, or need additional information. We have had a few problems implementing the ACTION SYSTEM. However, some of the circumstances that held up the process have been corrected and we believe your next comment or question will be handled more quickly. Please keep in mind, however, that because a number of people will review, and in some cases, comment on each item submitted in the ACTION SYSTEM, it will take at least six weeks to process your request.

Sincerely,

Nancy Blunck  
Director of Public Participation

MB:mgh

Enclosure

cc: Acres American, Inc.

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date 4-12-80☒ An Individual Citizen☐ An Organizationname Rose M. Jensenname RECEIVEDaddress Box 300# of members 1city Talkeetnaaddress ALASKA POWER AUTHORITYstate ALASKA zip 99676city ALASKA POWER AUTHORITYday phone 733-2400contact person  day phone 

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

- Task 7 A ① An explanation of what kinds and types of recreation the dam would create Done
- Task 1 A ② More emphasis on present and future power needs, maps to show where the power would go. ?
- Task 2 A ③ Transmission lines, routes, hazards, etc. ?
- Talkeetna Lifestyle Socio-Cult. ④ Talkeetna Lifestyle? I have a lifestyle too - but it is not the least bit similar to my "hippie" or "up the track" neighbors. In fact - what is their "lifestyle"? A good number are welfare cases, not a subsistence life as they would have, one believe. Done
- Task 2+7 Socio-Cultural ⑤ A survey of the "open country" land owners up the track to establish who really are permanent residents would be interesting. How would these parcels be affected - i.e. road, power lines, whatever? Done

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

### Alaska Power Authority

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

December 2, 1980

ACTION FILE Number T-010-80

Mr. Steven C. Cross  
P. O. Box 21  
Talkeetna, Alaska 99676

Dear Mr. Cross:

You submitted to our office two comments regarding the Susitna hydroelectric feasibility studies. Each of your comments is written below, followed directly by a response from Acres American, Inc., the firm conducting the studies, or the Alaska Power Authority.

Your comment:

"Local hire" is my main request. There should be an in-town job service office. There are many ready, willing, and able bodies in Talkeetna that are unemployed. The one way that you would win over the opinions and consent of the local peoples is to give them a job--it's important.

Response from Jim Gill, Manager of Anchorage's office of Acres American:

Right now, because of the nature of the work, the people Acres has hired largely include engineers, geologists, and environmental scientists. Since the project is already eleven months into the first phase of a thirty month study period, it is probably fair to say that not many more people with these highly technical skills will be hired. Also, for this reason, it does not seem practical to open a Talkeetna based employment service, although Acres has given consideration to your suggestion. If the project goes into a construction phase, a local-hire office could possibly be set up within the Talkeetna area.

Acres' subcontractors have hired locally on an as-needed basis for clearing, camp construction, and logistics support. Some of those hired were Talkeetna residents, while others were from Wasilla and Willow areas. In addition, base services such as warehousing and supply loading have been provided by small businesses located in Talkeetna because bids were competitive and there was a requirement for locally-performed service.

As of the middle of June 1980 approximately twenty-four Talkeetna residents were employed either by Acres or its subcontractors. This figure will fluctuate from time to time.

State of Alaska

MEMORANDUM

, 1980  
Steven C. Cross

Your comment:

Air traffic over populated areas is a great intrusion upon one's residence. The railbelt is a populated area up to ten miles wide to the east of it. There is nothing more annoying than to have a helicopter bearing down on you with its tremendous noise pollutions. My request is that air support be strictly not over where anyone lives.

Response prepared by Boyd Brownfield, Acres American:

Your comment concerning air traffic over populated areas has been received and is certainly appreciated.

It is difficult to prohibit helicopter flights over all existing dwellings. However, your concern is real and certainly understandable.

In this respect and in an effort to minimize noise pollution, all pilots supporting the Susitna hydroelectric feasibility studies have been asked to avoid built-up areas to the extent possible and maintain reasonable altitudes while in such congested areas. I would appreciate hearing your evaluation of how the pilots are responding to the directive.

All comments, questions, and requests for information received by our office are reviewed by the Alaska Power Authority staff and Acres American, Inc., and will be included in a report that will be given to the Alaska Power Authority board of directors and the Governor before a decision is made on Susitna.

Enclosed is an ACTION form which you may use if you have further comments, questions, or need additional information. We have had a few problems implementing the ACTION SYSTEM. However, some of the circumstances that held up the process have been corrected and we believe your next comment or question will be handled more quickly. Please keep in mind, however, that because a number of people will review, and in some cases, comment on each item submitted in the ACTION SYSTEM, it will take at least six weeks to process your request.

Sincerely,

FOR THE DIRECTOR OF PUBLIC  
PARTICIPATION

SUBJECT:

*Jean Buchanan*  
Jean Buchanan

Acting Director of Public Participation

FROM:

JB:mgh

TELEPHONE NO:

Enclosure

cc: Acres American, Inc.

DATE:

TO:

State of Alaska

MEMORANDUM

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date **RECEIVED**

☒ An Individual Citizen

☐ An Organization

name Steven C Cross

name

ALASKA POWER AUTHORITY

address Box 21

# of members

city Talkeetna

address

state Alaska

zip 99676

city

day phone none

contact person

day phone

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

**1** "Local hire" is my main requests. There should be an in town job service office. There are many ready, willing, and able bodies in talkeetna that are unemployed. The one way that you could win over the ~~opinion~~ and consent of the local peoples is to give them a job - its important!

**2** Air traffic over populated areas is a great intrusion upon ones residence. The rail belt is a populated area up to ten miles wide to the east of it. There is nothing more annoying than to have a helicopter bearing down on you with its tremendous noise pollution. My request is that air support be strictly not over where anyone lives.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

October 8, 1980

Mr. Bill Glude  
General Delivery  
Trapper Creek, Alaska 99688

Dear Mr. Glude:

The attached comments on alternatives to Susitna hydroelectric development, that you submitted to the Alaska Power Authority through the ACTION SYSTEM has been forwarded to Fran Ulmer, chairperson of the Railbelt Energy Alternatives Policy Review Committee. This committee will be providing policy direction to the Susitna alternatives study that Battelle Northwest Laboratories is conducting.

As you may know, the 1980 legislature decided that the alternatives study for Susitna should be completed in such a way that there would be no question of its objectivity. Therefore, the legislature directed that an independent firm be selected to conduct the alternatives study itself (Battelle was chosen) and that Acres American, Inc. continue its work on studying the feasibility of Susitna.

The Office of the Governor is managing the feasibility study of alternatives. The Alaska Power Authority is managing the feasibility study of Susitna. The results of both studies will help determine whether or not the State should develop hydroelectric power on the Susitna River and/or pursue other energy alternatives. Since the State of Alaska will make a decision by April 1982 whether to file a license application for Susitna hydroelectric, Battelle is directed to complete their alternatives study well in advance of this date to permit an informed decision.

Since Acres will not conduct the alternatives study, we directed them not to respond to your ACTION request. It did not make much sense to us to have them respond to your comments, if they were not going to be conducting the study. We thought it better to hold your ACTION request until the new consultant was selected.

In July a request for proposals was sent out seeking consulting services to conduct an alternatives study and prepare an energy plan for the electrical needs of the railbelt. The energy plan will include an evaluation of alternatives, emerging technologies, conservation, and load management. The plan will review, and where necessary, improve the existing data base and demand forecast. It will examine the alternative types of electric generation and help determine whether or not the state should concentrate its efforts on development of the hydroelectric potential of the Susitna River and/or pursue other alternatives.

In September, Battelle Pacific Northwest Laboratories (with Ebasco Service and the Institute of Social and Economic Research) was selected to conduct the alternatives study. Their contract with the Office of the Governor is now signed. Battelle is preparing a work plan which is expected to be finished by the end of October. Battelle anticipates beginning work in November.

Mr. Bill Glude  
Page 2  
October 8, 1980

In the meantime, further questions and comments concerning the alternatives study (or response to your ACTION request) should be directed to Fran Ulmer or Tom Singer. Both can be reached at the telephone number and address listed below. We suggest that all correspondence to Ms. Ulmer be marked, "Attention: Tom Singer," Division of Policy Development and Planning, Pouch AD, Juneau, Alaska 99811. Phone (907) 465-3577.

You may also wish to contact members of the Railbelt Energy Alternatives Policy Review Committee. They are:

Ms. Clarissa Quinlan, Director  
Division of Energy and Power Development  
338 Denali Street  
Anchorage, Alaska 99501

Mr. Charles Conway, Chairman  
Alaska Power Authority Board of Directors  
2702 Gambell Street, Suite 200  
Anchorage, Alaska 99503

Mr. Ron Lehr, Director  
Division of Budget and Management  
Pouch AM  
Juneau, Alaska 99811

If you have further questions or comments about the Susitna feasibility studies (other than the alternatives study) continue to direct those to the Public Participation Office of the Alaska Power Authority, 333 West 4th Avenue, Suite 31, Anchorage, Alaska 99501, (907) 276-0001.

Sincerely,

  
Nancy Blunck  
Director  
Public Participation Office

Attachment  
NB:mgh

T-011-80  
May 12, 1980

Alaska Power Authority  
333 W 4th Ave  
Suite 31  
Anchorage, AK  
99501

RECEIVED

MAY 27 1980

ALASKA POWER AUTHORITY

Hello,

The feasibility study for the Susitna Dam should include a thorough evaluation of the alternatives; including a number of community-sized small hydro. projects, & other decentralized means of power production. The impact of energy conservation measures (& cost of these as compared with simply providing power on demand) should also be evaluated. Funding for study of alternatives must be adequate to insure that they are not merely glossed over. If the study is to be truly objective, at least as much money should be devoted to consideration of other alternatives as to consideration of the big-dam alternative.

Bill Glude

Bill Glude

General Delivery  
Trapper Creek,  
Alaska  
99688

PS - Please put me on your mailing list.  
I'd like to keep up on what is happening  
with the Susitna Project.



November 26, 1980

ACTION File Number T-012-80

Ms. Nancy Robinson  
P. O. Box 127  
Trapper Creek, Alaska 99688

Dear Ms. Robinson:

You submitted a comment regarding the Susitna hydroelectric feasibility studies. Here is a response to your comment.

Your comment:

The plan sounds good and comprehensive as presented. Seeing it put into action is another thing. One thing I feel would assure Acres American presents a truly unbiased report would be to eliminate any possibility of that firm reaping benefit in presenting a pro-dam report. Acres should not be eligible to bid on or receive any further contracts relating to the dam after they complete this study.

Response from Robert Mohn, Director of Engineering:

The issue of objectivity is recognized as an important one. It is being addressed by both the Board of Directors of the Alaska Power Authority and by the State Legislature. What each of these two groups is doing to insure objectivity is explained in the following paragraphs.

As you probably know, the original plan of study called for Acres to conduct the studies that examined alternatives to Susitna hydroelectric development. However, the Legislature, recognizing that Acres' objectivity might be questioned mandated in the 1980 session that the alternatives study be deleted from the Acres contract.

In September Battelle Pacific Northwest Laboratories (with Ebasco Service and the University of Alaska's Institute of Social and Economic Research was chosen to conduct the alternatives study. Their selection was made by the Policy Review Committee which was appointed by the Governor to provide direction to the study. The Policy Review Committee is chaired by Fran Ullmer, Director of the Division of Policy Development and Planning. Other members of the committee are Clarissa Quinlan, Director of the Division of Energy and Power Development; Ron Lehr, Director of the Division of Budget and Management; and Charles Conway, Chairman of the Alaska Power Authority Board of Directors. The Office of the Governor manages the study.

FROM:

TO:

MEMORANDUM  
State of Alaska

Page 2  
November 26, 1980  
Ms. Nancy Robinson

The alternatives study will be conducted independent of the Acres American, Inc., study of Susitna. When Battelle evaluates alternatives, it will also consider the Susitna hydro "preferred plan" which will present the type of hydroelectric development that is recommended for the Susitna basin. (A number of different types of hydroelectric development, other than Metana and Devils Canyon dams, are being considered.) The Alaska Power Authority will give the "preferred plan" to Battelle in March of 1981.

In April 1982 the five-member Alaska Power Authority Board of Directors will formulate its recommendation to the governor and the legislature in regard to power development along the railbelt. At approximately the same time, the governor's Policy Review Committee will be forwarding its independent recommendation. Final determination on the subject rests with the state in 1982.

The Alaska Power Authority Board of Directors expects that Acres American will give them unbiased information. However, to insure that the board's recommendations--based on Acres field work--are objective, they will hire a six member external review panel. The review panel will be made up of individuals who are experts in the following engineering and scientific fields:

- hydrology
- environment
- economics
- geotechnology
- seismology
- hydroelectric engineering

The experts, who will be hired by the Board of Directors, will be separate from Acres American, Inc. Their task will be to review the Acres studies and recommendations and make an independent assessment to insure the information is complete, thorough, and inclusive of all options. Their findings will be given directly to the Board of Directors, not the staff of the Alaska Power Authority or Acres American, Inc.

The External Review Panel members are expected to be retained and available to the Board of Directors by the end of January 1981. It is also expected that they will be available to the board of directors for the duration of the Acres' studies.

All comments, questions, and requests for information received by our office are reviewed by the Alaska Power Authority staff and Acres American, Inc., and will be included in a report that will be given to the Alaska Power Authority board of directors and the Governor before a decision is made on Susitna.

FILE NO.

Enclosed is an ACTION form which you may use if you have further comments, questions, or need additional information. We have had a few

State of Alaska

MEMORANDUM

Page 3  
 November 26, 1980  
 Ms. Nancy Robinson

problems implementing the ACTION SYSTEM. However, some of the circumstances that held up the process have been corrected and we believe your next comment or question will be handled more quickly. Please keep in mind, however, that because a number of people will review, and in some cases, comment on each item submitted in the ACTION SYSTEM, it will take at least six weeks to process your request.

Sincerely,

Nancy Blunck  
 Director of Public Participation

NB:mgh  
 Enclosure  
 cc: Acres American, Inc.

CONCURRENCE: WEIZNIAK  
 MOHN

SUBJECT:

FROM:

TELEPHONE NO:

FILE NO:

DATE:

TO:

State of Alaska

MEMORANDUM

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date May 6, 1980☒ An Individual Citizen☐ An Organizationname Nancy Robinson

name \_\_\_\_\_

address P.O. Box 127

# of members \_\_\_\_\_

city Trigger Creek

address \_\_\_\_\_

state Alaskazip 99588

city \_\_\_\_\_

day phone 733-2481

contact person \_\_\_\_\_

day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

① The plan sounds good and comprehensive as presented. ~~Spelling it out into action is another thing.~~ One thing I feel would assure Acres-American presents a truly unbiased report would be to eliminate any possibility of that firm reaping benefit in presenting a preliminary report. Acres should not be eligible to bid on or receive any further contracts relating to the dam after they complete this study.

RECEIVED

JUN 10 1980

ALASKA POWER AUTHORITY

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

### Alaska Power Authority

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

March 24, 1981

Action File Number: T-013-80

Mr. Tom Mercer  
Chunilna Community Assn., Inc.  
P. O. Box 292  
Talkeetna, Alaska 99676

Dear Tom,

Your comments and questions sent to us last fall have been submitted to the ACTION system which means that they have been reviewed by the Alaska Power Authority and Acres American, Inc. It also means that your comments and questions, along with all others we receive, will be included in a report that will be submitted to the Alaska Power Authority Board of Directors and the Governor prior to a decision on Susitna in the spring of 1982.

We are including in this letter responses from the Alaska Power Authority and Acres American, Inc. to your comments, questions, and requests for information.

Request for information:

1. One copy of the plan of study.
2. Two hearing transcripts from the Anchorage and Fairbanks meetings in April 1980.
3. All written information available giving final results of Acres' feasibility studies.

Response:

As mentioned in Nancy Blunck's letter to you in November, copies of the plan of study can be found at the Talkeetna library. With that letter we included copies of the verbatim transcripts of the April community meetings and a summary report on the April meetings.

To date, there are no written reports available on study results. Next month, however, the Alaska Power Authority will be releasing its own report recommending whether the feasibility study program should continue. This report, directed to the legislature, should be in the Talkeetna library by the end of April.

Question:

What are the expected water levels of the Susitna River after the dam is built?

Response:

Our studies have, so far, not progressed sufficiently to recommend a selected Susitna scheme. Preliminary indications are, however, that the Watana-Devil Canyon development is the most promising. The comments

below, therefore, pertain to this development.

After the first dam is built and the hydropower station is in operation, the regulated flows in the river will differ from the natural flows. Average flows in the Winter and early Spring months will be higher than the natural flows resulting in higher water levels. On the other hand, average summer flows will be lower than the natural flows as this is the period when the reservoir is filled. These changes will be the most apparent at the dam, with only minor changes apparent at the Cook Inlet confluence. The maximum change in water levels and average levels are currently being assessed. There may be fluctuations in water levels due to peaking operations at the power-houses. These are, however, not expected to raise water levels significantly above the average levels, particularly as far downstream as the Talkeetna area.

Detailed assessment of water levels in the downstream reaches below the dam sites is scheduled to commence this spring. Studies are currently underway to develop baseline information. These include river cross-section surveys, reservoir operation studies and river ice observation programs.

Question:

How does that level compare to the Chulitna?

Response:

It is difficult to give any numbers until the analyses of water levels, which will commence this spring, are completed. The effect of the project on Chulitna water levels near its confluence with the Susitna will be to back-up the water in the winter months slightly increasing the water level and to reduce the water level slightly in the summer months. The effect described above will only be felt on the lower part of the river.

Question:

What erosional changes will occur that would effect Talkeetna?

Response:

With a large reservoir(s) on the river, the sediment transport characteristics of the river may be altered. Our studies on the morphological changes in the downstream river reaches are scheduled to commence Spring 1981 and results should be available by late summer. It is difficult to present any figure at this time. The proposed studies will sufficiently address the changes in the erosional characteristics of the river reach downstream of the dams due to changes in river flows and sediment deposition in the reservoirs.

Comment:

Your selection of Devil's Canyon as a subtle backdrop for Alaska Power Authority letterhead is highly questionable. We members of Talkeetna regard this area as home ground and greatly object to the

Page 3  
Tom Mercer  
March 24, 1981

direct association between the magnificent Devil's Canyon and Alaska Power Authority. We feel this premature assumption exhibits the poorest of taste.

Response:

Regarding your comment about the Alaska Power Authority stationery, your feelings are quite understandable. Devil's Canyon is magnificent and in Talkeetna's back yard. At the same time, it is a resource that belongs to all Alaskans and it happens to offer renewable energy potential of great magnitude. As the Power Authority began operation several years ago, it seemed appropriate symbol to associate with an organization whose charge was to develop sources of renewable energy with the goal of insuring lowest reasonable cost energy to the people of Alaska.

We appreciate hearing from you. Enclosed is another ACTION form you may use if you have additional questions or comments.

Sincerely,

  
Jean Buchanan  
Assistant Director of Public Participation

JB:mgh  
Enclosure

Concur: Mohn  
Wozniak

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Tom Mercer

Date 10-20-80

☐ An Individual Citizen

☒ An Organization

name

Chugiak Community Assoc.

name

Tom Mercer

address

Box 292

# of members

50

city

Tahkeena Alaska

address

Box 92

state

zip

99676

city

Tahkeena City, Pres.

day phone

contact person

Tom Mercer

day phone

None

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

We request all written information available on the topic of the results of the Acres Amer. feasibility study. (Final results I understand won't be available until its completion however we request that info. available at this time. And 7 copy of the study Outline Feb 8.80  
2. Hearing transcripts from this summer from FBX & ANA

State  
What are the expected water levels of the Susitna R. after the dam is in? How does that level compare to the Tahkeena? What erosional changes will occur that would effect TKA.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

RECEIVED

Alaska Power Authority

OCT 23 1980

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

ALASKA POWER AUTHORITY



[ Su. Hydro. Feasibility Study — Comments ... 10-20-80  
[ Chumilna Community Assoc. Inc - Tom Mercer  
[ Page 2 V.P.

[ We would like to be placed on the  
[ mailing list of Battelle Pacific Northwest  
[ Laboratories and EBASCO, and the Institute  
[ of Social and Economic Research.

[ We are interested in establishing indepth  
[ communication with the alternatives review  
[ committee, Mrs. Fran Ulmer and Mr. Tom  
[ Singer.

[ Your selection of Devils Canyon as a subtle  
[ backdrop for Alaska Power Authority letter-  
[ head is highly questionable. We Members  
[ of Iakheutna regard this area as home  
[ ground and greatly object to the direct  
[ association between the magnificent  
[ Devil's Canyon and Alaska Power Authority.  
[ We feel this premature assumption  
[ exhibits the poorest of taste.

[ Our thanks to Nancy Blink in furthering  
[ communication on this significant issue.

March 17, 1981

Action File Number: T-014-80

Mr. Keith Nyitray  
Box 84  
Talkeetna, Alaska 99676

Dear Mr. Nyitray:

We have delayed responding to your letter of November 7, 1980, because most of the information you requested was still under development. Since some of that information will not be available for several more months, we are responding now to your requests as best we can, and we will indicate how you may obtain the other data when it is developed. Your comments and questions are listed below, followed by a response from Alaska Power Authority staff. Also included is a copy of your original letter.

Comment:

...I would like to be placed on both the Commonwealth Associates and Acres American mailing lists for future written materials, study reports and analyses, and descriptions of the work and research done to date. ...I would also appreciate it if I could continue to receive any of your (APA) printed materials and notices of upcoming events...such as public meetings to be scheduled in Anchorage, Fairbanks, and Talkeetna.

Response:

Your name has been added to our mailing list to receive informational materials and notices of meetings for the Susitna feasibility studies and the transmission line studies. At this time, we have no general information materials. Presently it is our policy to send all Talkeetna boxholders notices of any community meetings or workshops we hold.

Comment:

I am deeply interested in the ACRES "Plan of Study" put out on February 4 (1980)... and would like to receive a copy of that study and also the finished reports of that study.

Response:

Your public library in Talkeetna has a copy of the plan of study. We called to insure that they had it.

Comment:

I am particularly interesting in the findings of Task 7 and subtasks 7.05 through 7.08.

Response:

We appreciate your interest in those studies which are currently underway. A newsletter will be available this summer which will summarize the results of the first year of study. The second summer of field activities will not be completed until late this year. Subsequent analysis and report writing carry through until April 1982. Written results of this will not be available in advance of the final study report in 1982. However, we are hoping to hold a workshop next fall at which ~~time~~ we will review the available environmental study information. This workshop, we emphasize, is only tentatively scheduled at this time.

Question:

~~How does an individual~~ like myself obtain copies of that information (reports on Task 7) for review?

Response:

Copies of the final report will be placed in the Talkeetna library.

Comment:

The same interests apply to the Commonwealth's economic feasibility studies for the proposed intertie.

Response:

Hopefully, your questions relative to the economic feasibility analysis of the railbelt intertie were addressed at the community workshop of January 20, 1981, in Talkeetna. If you have subsequent questions, we suggest you write another letter.

Comment:

In as far as my personal thoughts and feelings go on the project, I would have to admit I am currently "cautiously optimistic." Unfortunately, I realize that even the best laid plans of mice and men...can run amuck. I strongly feel that without proper consideration of the alternatives, current demands and proposed demands, and costs...such as economic, scenic, and objective hazards...such a large scale project as this may at best become a minor disaster/fiasco.

Response:

Those managing the studies share your concern. That is the reason the studies are long and involved. Any opinions you have relating to alternatives to developing hydropower on the Susitna River should be directed to Charles Sitkin, Aruthur Little & Company, 730 "I" Street, Anchorage, 99501. He is project manager for the Battelle Pacific Northwest Laboratories contract. They are doing the railbelt area alternative energy studies.

Question:

~~Are the~~  
Are there any current designs of what either of the dams may look like? I am curious about their design and nature...

Page 3  
Keith Nyitray  
March 17, 1981

Response:

No detailed designs are existent nor will they be generated for the dams prior to a decision in April 1982 to proceed or not to proceed with hydro development on the Susitna. Concept designs, however, are being developed as a part of Task 6 and will be summarized in this summer's newsletters. More details will be reflected in the April 1982 final report.

Question:

Which corporation would be handling the construction...if any?

Response:

~~At this time~~ it is not known whether the project will be built. If a decision is made in April 1982 to proceed with the project, a license from the Federal Energy Regulatory Commission must be obtained, a lengthy process. Therefore, the mechanics of contracting for construction will not be established for about three more years.

Your questions and comments have been entered into the Action system. That means that they will be reviewed by the Alaska Power Authority and Acres American, Inc. All questions and comments entered into the ACTION system will be summarized in a report that will be given to the Alaska Power Authority Board of Directors and the governor prior to their making a decision on Susitna next spring.

Enclosed is an ACTION form that you may use if you have further questions or comments.

Thank you for taking time to send us your comments.

Sincerely,

Nancy Blunck  
Director of Public Participation

NB/mgh  
Enclosures

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date

☒ An Individual Citizen

☐ An Organization

name

*Keith Nyitray*

name

address

*Box 84*

# of members

city

*Talkeetna*

address

state

*AK*

zip

*99676*

city

day phone

contact person

day phone

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

*Attached Correspondence*

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

524

Box 84  
Talkeetna, AK 99676

November 7th, 1980

Nancy Blunck  
Dir. of Public Participation  
Alaska Power Authority  
333 West 4th - Suite 31  
Anchorage, AK 99501

RECEIVED

NOV 10 1980

ALASKA POWER AUTHORITY

Dear Nancy;

Having recently recieved your "Transmission Intertie" leaflet several questions have come to mind and I was hoping you would be able to supply some further information to "enlighten" myself as to many of the future consequences of the proposed Susitna Hydroelectric Project.

First, I would like to be placed on both the Commonwealth Associates and Acres American mailings lists for future written materials, study reports and analyses, and descriptions of the work and research done to date. If your office cannot handle this detail I would appreciate that information or particular addresses to which I'd have to turn to. I would also appreciate if I could continue to recieve any of your (A.P.A.) printed materials and notices of upcoming events...such as public meetings to be scheduled in Anchorage, Fairbanks, and Talkeetna.

I am also deeply interested in the ACRES "Plan of Study" put out on February 4th of this year and would like to recieve a copy of that study- and also the finished reports of that study. I am particularly interested in the findings of task #7 and subtasks 7.05 through 7.08. To what extent has the Acres study been completed? And how does an individual like myself obtain copies of that information for review?

The same interests apply to the Commonwealth's economic feasibility studies for the proposed intertie.

I realize that these requests will result in a mass of reports, leaflets, and studies but I also realize the importance of the Susitna Hydroelectric Project and the need to be informed. Here in Talkeetna feelings and thoughts can be all too easily swayed one way or the other by comments often based on ignorance. Besides...I've lots of time for reading!

In as far as my personal thoughts and feelings go on the project I would have to admit I am currently "cautiously optimistic." Unfortunately I realize that even the best laid plans of mice and man (APA, ACRES, etc.) can run amuck. I strongly feel that without proper consideration of the alternatives, current demands and proposed demands, and costs...such as economic, scenic, and objective hazards...such a large scale project as this may at best become a minor disaster/fiasco.

- 2 -

Are there any current designs of what either of the dams may look like? I am curious about their design and nature and of which company or corporation would be handling the construction...if any.

I look forward to the coming deluge of materials and perhaps a meeting at one of the upcoming public meetings...scheduled when?

Sincerely;



Keith Nyitray

Kenneth P. Allen  
Box 6  
Cantwell, Alaska 99729

Dear Mr. Allen:

You wrote us asking for information about the process by which the people in Cantwell would obtain an electric utility.

We cannot help you in this regard. However, I have forwarded a copy of your letter to Gordon Zerbetz, chairman of the Alaska Public Utilities Commission. I hope he will be able to send you the information you need.

I remember seeing you at a meeting we held in Cantwell a few weeks ago. Hopefully, some of your questions and concerns relating to your energy problems were addressed at that meeting.

Please let us know if we can be of further assistance to you.

Sincerely,

Jean Buchanan  
Public Participation Program

January 30, 1981

cc: ACTION file system



Closed

T-015-80

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date December 17, 1980

☒ An Individual Citizen

☐ An Organization

name Kenneth P. Allen

name \_\_\_\_\_

address Box 6

# of members \_\_\_\_\_

city Cantwell

address \_\_\_\_\_

state Alaska

zip 99729

city \_\_\_\_\_

day phone \_\_\_\_\_

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible. \_\_\_\_\_

Please tell me a process by which the people in our community  
could obtain an electric utility.

Any suggestions or sources of help are appreciated.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

Cantwell Bible Church  
Box 6  
Cantwell, Ak. 99729  
12/9/80

Alaska Power Authority  
333 W 4th - Suite 31  
Anchorage, Ak. 99501

Dear Sirs

Please tell me a process by which  
the people in our community could obtain  
an electric utility.

Any suggestions or sources of help  
are appreciated.

Sincerely,

Kenneth P. Allen, Pastor.

June 29, 1981

Action File Number: T-001-81

Mr. John Ireland  
Murder Lake  
Talkeetna, Alaska 99676

Dear Mr. Ireland:

Enclosed you will find responses to several concerns that you raised regarding the proposed Susitna hydroelectric project. These responses were written by Acres American, Inc., the firm conducting the feasibility studies.

Your concern:

The reservoir might be too wide for animals.

Response:

We acknowledge receipt of your concern that the reservoir might be too wide for most animals other than mature moose or caribou to swim and thus would create a barrier for animals driven to its shore by predators.

This concern will be forwarded to our wildlife coordinator who will address it as part of our impact prediction and mitigation planning.

We have to date identified a major concern in relation to the effects of the reservoir on caribou migration, especially as related to drawdown and potential for ice shelving along the shores. To date our concern has been less for non-migratory species.

As the reservoir(s) is less than  $\frac{1}{2}$  mile wide in most places it may be that it will create less of a barrier than the existing fast flowing Susitna River. However, as stated above, our wildlife team will address the concern you have raised.

Your concern:

Talkeetna might be flooded if the dam(s) failed.

Response:

The proposed design of dams would take into account the maximum credible earthquake and maximum probable flood that may be expected

Page 2  
Mr. John Ireland  
June 18, 1981

29  
P

in the river basin at the dam sites. However, even with a conservative design the risk of dam failure cannot be totally eliminated.

A study of a potential dam break problem and an Emergency Action Plan (EAP) will have to be prepared prior to the construction of the project as part of Federal regulations. The EAP will be drawn up by APA in consultation with State and local agencies. During the development of this plan, it is expected that the potential extent of flooding at Talkeetna and all along the river reach below the dam will be defined and discussed with all affected parties. The current studies will not address this problem in detail except in identifying likely maximum water levels in the downstream reaches during passage of large natural floods in the stream.

Your concern:

There will be considerable losses of electricity in transmission lines to Fairbanks and Anchorage.

Response:

Electrical transmission systems in North America are usually designed to limit energy losses to 5 percent of the energy transmitted. Line designs are arrived at by taking account of the economics of a heavier line against the value of energy loss in a smaller line.

Losses in the Susitna transmission are estimated as about 277 percent to Anchorage and 1.5 percent to Fairbanks. The reason for lower loss percentage in the Fairbanks line is the lower amount of energy transmitted.

Regarding your remark that Anchorage may do better to consider energy from Tidal Power, we would like to direct you to the "Alternatives Study" being conducted by Batelle Laboratories. The address of the contact person is below:

Mr. Jim Souby  
Director of the Division of Policy  
Development and Planning  
BPDP, Pouch AD  
Juneau, Alaska 99811

Your concern:

A long reservoir may create conditions causing gale force winds.

Page 3  
Mr. John Ireland  
June 29, 1981

Response:

Your concern on gale force winds developing in the area due to the long reservoir is well taken. Our studies will address the concern as part of the hydrological criteria for the dam design. In our study so far on Susitna and based on our experience in other long lakes we have engineered, it does not appear that severe local gale force winds will be caused by the Matana and Devil Canyon reservoirs, due mainly to the relatively short straight stretches of water surfaces in combination with predominant wind directions in the area. Most of the wind energy will be expended in creating a surface water wave which will be contained in the reservoir. The maximum height of wind-generated waves is estimated at some 4 feet in our preliminary studies. More detailed studies will be completed before the end of 1981 and the potential of such winds better established by that time. Additionally, an evaluation of local effects and changes in local climatic conditions, due to the large reservoirs, will be presented as part of our studies.

You now have responses to all the concerns that you raised in your letter of December 13, 1980. If you have other concerns or additional questions, please contact us again. Enclosed is an ACTION form for that purpose or you may send us another letter.

Sincerely,

Jean Buchanan  
Public Participation Office

JB/mab

enclosure

April 9, 1981

Action File Number: T-001-81

Mr. John Ireland  
Murder Lake, Alaska

Dear Mr. Ireland:

In January we received a letter from you in which you expressed your concerns regarding the proposed Susitna hydroelectric project.s You asked that your letter be read to each community meeting as your "input."

Your letter was read at a community workshop held in Talkeetna on March 17th. It was also included in a packet of information given to people who attended a community workshop in Fairbanks on March 16th.

Your letter has also been entered in the ACTION system, which means it will be reviewed by the Alaska Power Authority and Acres American, Inc., the firm conducting the feasibility studies. Your concerns, along with all other questions and comments we receive during the thirty month study period, will be included in a report that will be given to the Alaska Power Authority Board of Directors and the Governor prior to a decision on Susitna.

We have informed Acres American of the frustration you feel regarding the level of activity of study team members around your home. We understand it takes time to answer their questions; however, it is important for them to talk to those who have lived in the area. Your observations are helpful, particularly since you are one of the few people with extended living experience in the study area.

We have also noted that you are vigorously opposed to a road on the south side of the river. As you can see from the enclosed set of maps, a southern access is one of the possible choices. The decision about which access will be recommended, if the project is built, will not be made until next year. The decision will take into consideration:

- a. the impacts on the environment (people, animals, archaeology, plants, etc.)
- b. the engineering costs and implications (expense and difficulties)
- c. scheduling implications (length of time to construct)
- d. implications of connecting with existing access from supply points (costs, convenience, length of route, suitability for type of equipment and supplies to be brought to project)

Page 2  
Mr. John Ireland  
April 9, 1981

In your letter you registered a number of concerns which we have forwarded to Acres American, Inc. They will prepare a response which we expect to send to you by the end of May. Your concerns forwarded to Acres are --

- a. Concern about possible flooding at Talkeetna if dam broke,
- b. concern that project of size of Susitna is too far from Fairbanks and there would be considerable power losses along the line,
- c. concern about reservoir generating "gale-force" winds,
- d. and concern that the reservoir will be too wide for most animals, other than mature moose or caribou to swim across.

Your letter also included a suggestion to develop tidal power at Whittier. That suggestion, along with a copy of your letter has been forwarded to Charles Sitkin, Project Manager, Arthur Young and Company, 730 I Street, Anchorage, Alaska, 99501.

Mr. Sitkin is manager of the Railbelt Energy Alternatives Study being conducted by Battelle Pacific Northwest Laboratories of Richland, Washington. This study is separate from the Susitna studies and is being managed by the governor's office. It is expected to be completed next spring. The Alternatives Study will evaluate Susitna hydroelectric development in relation to other alternative energy sources for the railbelt area.

Thank you for taking time to write us. We've included a copy of the materials given out at the meetings you did not attend in March. Enclosed is an ACTION form that you may use if you have other comments or questions regarding the studies.

Sincerely,

*Jean Buchanan*  
Jean Buchanan  
Public Participation Office

JB/mgh

Enclosures

Murder Lake, Alaska  
Dec. 13/'80

Alaska Power Authority  
Anchorage  
Greetings;

I have been faithful to respond, to prior communications, which heretofore supplied a prepaid, addressed form for answer; now it seems we must invest postage, together with our time, if, we wish continuing receipt of "newsletters" re: Susitna hydropower project - which could vitally affect our lives. But this is the trend.

I am one of very few who live, in my case almost 15 years now, closest to, the proposed project. Other people, who don't, live here, make decisions which could destroy my chosen lifestyle; no one asks me. Glory-seeking politicians and big money are going to do what they are going to do; a few individual lives are considered expendable.

I am in favor of, the concept of energy from renewable resources; but am scornful of the drastically wasteful way of going about it, notably this project: countless, exorbitantly expensive helicopter flights; apparently no restraint practiced. I should know, most fly directly over, here; swarms of super-educated experts studying every facet of the local environment; they, ask me - what I have learned, from living with, and observing, the local flora and fauna. Sometimes I feel I might be on the payroll, too.

Now I worry lest they decide to put in a road near here; I moved out here near a decade and a half ago to get away from, roads; easy access to this really narrow strip of wilderness - to vacationing sports with their mechanized equipment, could soon make it barren as the Moon. I am vigorously opposed to any road running along South of the Susitna River.

Then there is Talkeetna; they have a different, problem: in case a Susitna dam were built, they would be in constant danger of flooding, in case the dam broke; property values would deteriorate, because of unwillingness to invest considering the risk. I'm not saying it would, break, but no one dare say it couldn't, with integrity. I think it would be backing up of the Talkeetna River, against raised waters of the Susitna, would be the cause of damage. The concept of midway power source, supplying both Anchorage and Fairbanks sounds sensible; but the source is about 1/3 the distance between, Anchorage and Fairbanks. I'd think there'd be considerable loss along the long wire system to reach Fairbanks. As for Anchorage, I think they'd do better to consider energy from Tidal Power, say from Whittier, ice-free and having the long narrow Passage Canal - and already with a railroad spur for hauling equipment or whatever. And it's much nearer to Anchorage.

I have no intention to attend any "community meetings", to sit around and listen to some expert confuse the attendants with high-sounding phraseology; I wouldn't have the time; it is quite expensive to travel in and out here by air, the only reasonable access; and I expect the town-bound wouldn't have considered that time for such meetings might coincide with a period of no, travel - except by helicopter. This, is to be my input, my "vote" if any such is allowed; and since the very few of us who live closest to, the proposed project, as opposed to many thousands who do not; one vote from the very center should equal in gravity against thousands from farther away. Unless, of course, we are to be considered expendable.

It is my desire that this letter be read once to the assembly of each "community meeting" for public input re: Susitna hydropower project.

Vrey truly yours, *John Ireland*

P.S. In discussions of, this project, I haven't noticed any dwelling upon the probability that the long lake backed up by proposed dam would encourage generation of gale-force winds, the destruction and discomfort of which would be felt over an extended, area; and, the lake being too wide to swim across by less than a mature Moose or Caribou, would act as a trap for animals driven to its shore by predators.



March 12, 1981

ACTION FILE Number: T-002-81

Ms. Noreen Mercer  
P. O. Box 92  
Talkeetna, Alaska 99676

Dear Noreen,

I have your letter dated March 6, 1981.

You seem frustrated by the lack of information currently available about these aspects of the Susitna studies:

- the alternative energy studies
- the environmental impact studies
- the geological reports

You wrote "these are the important matters prior to decision time, not 'possible recreational plans at proposed reservoirs.' I suggest that no recreational development be part of your consideration."

I would like to respond to each of these:

- a) regarding the alternative energy studies. There will be a future workshop on the alternative energy studies. It will be conducted by Battelle and not the Power Authority. I suggest you check with the project manager to find out when and where. He is:

Chuck Sitkin  
Project Manager of Battelle Studies  
730 "I" Street  
Anchorage, Alaska 99501

- b) regarding the environmental impact studies. Environmental impacts will be discussed next week at the workshop. Terrestrial Environmental Specialists is conducting that work and Cathie Baumgartner from there will report on the environmental considerations of selecting an access route.

I am also anticipating a future workshop in Talkeetna that just has to do with environmental issues and questions.

- c) regarding the geological studies. Geotechnical work began last summer and will continue this summer. This work relates directly to questions of safe and sound dam design, and a future meeting (and future newsletters) will also report these findings.

As a note: When I schedule workshops, I limit the topics to one (or two at most) so we can cover them in depth and have lots of time to answer people's questions.

Page 2  
Noleen Mercer  
March 12, 1981

- d) regarding the timing of the recreation workshop. Here is the situation: There is a FERC requirement for the development of a recreation plan within the project boundaries. Dr. Alan Jubenville from the University of Alaska is developing this plan. Last fall he sent out over 2,000 random surveys to people in Fairbanks, Anchorage and the communities in between. A number of people in Talkeetna received the survey but few returned it. I was concerned about the low return, as was the consultant from the University. We wanted a stronger level of participation from your community, and we felt that one way to do this would be to discuss recreation at the upcoming workshop and ask for people's comments. I realized at the time I made the decision that there was some awkwardness about the timing. But I was willing to live with that to allow an expanded opportunity for Talkeetna to comment.

I appreciate your comments. They help me plan a meaningful program. In future newsletters and meetings in Talkeetna, you will see more detail about the areas you requested.

Again, I encourage you to come next week, as you will begin getting the environmental information you want.

  
Sincerely,

Nancy Blunck  
Director of Public Participation

NB/mgh

RECEIVED

MAR 10 1981

ALASKA POWER AUTHORITY

March 6, 1981

Dear Ms. Blunck of Alaska Power Authority:  
It has come to my attention that your choice of topics for workshop #3 does not reflect the interests of the community and is premature at best. Where are reports, even in progress, from consultants. Where are alternative energy studies? Where are environmental impact studies? Where are geological reports? These are the important matters prior to decision time, not "possible recreational plans at proposed reservoirs". I suggest that no recreational development be part of your consideration. I request any and all materials and reports from consulting firms.

Sincerely,  
Noreen Merce  
Box 92  
Sleetna AK  
99676

cc:

Jay Hammond  
Eric Yould

April 9, 1981

Action File Number: T-002-81

Mr. James W. McCormick  
North Star Bible Camp  
Box 4  
Willow, Alaska 99688

Dear Mr. McCormick:

We have noted your comments recommending the development of tidal power in Cook Inlet, rather than the development of Susitna hydroelectric power. You felt that tidal power would be less dangerous, have fewer environmental effects, and that it would be less costly, particularly since the capitol is expected to move to the Willow area.

You also recommended that there be a joint venture combining a causeway with tidal energy production. We have passed those comments to Sherry Valentine, who is handling the public participation for the Railbelt Energy Alternatives Study now being conducted by Battelle Pacific Northwest. (The Alternatives Study will evaluate Susitna hydroelectric development in relation to other energy sources. This study, expected to be completed next spring, is being managed by the Governor's office.)

Thank you for sending us your comments. They have been entered into our ACTION system which means they will be reviewed by the Alaska Power Authority and Acres American, Inc., the firm conducting the feasibility studies. All comments we receive through the ACTION system will be summarized in a report we will give to the Alaska Power Authority Board of Directors and the Governor prior to making a decision on Susitna next spring.

Enclosed is a copy of an ACTION form which you may use if you have additional comments or any questions regarding the Susitna hydroelectric feasibility studies.

Sincerely,

*Jean Buchanan*  
Jean Buchanan  
Public Participation Office

JB/mgh

Enclosure

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date 4/3/81☐ An Individual Citizen☐ An Organizationname James W. McCormick

name \_\_\_\_\_

address North Star Bible Camp

# of members \_\_\_\_\_

city Box 4, Willow

address \_\_\_\_\_

state Alaska zip 99688

city \_\_\_\_\_

day phone \_\_\_\_\_

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

Attached letter.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

# North Star Bible Camp

A Guiding Light --Matt. 5:14

Box 4 Willow, Alaska 99588

March 28, 1981

RECEIVED

APR - 2 1981

Nancy Blunck

Alaska Power Authority Public Participation Office,  
333 West 4th- Suite 31, Anchorage, AK 99501

ALASKA POWER AUTHORITY

Dear Nancy,

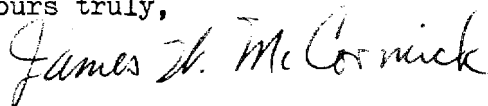
Thank you for the information recently placed in our box in Willow.

We have been hearing for some time about using the tides for generating electric power. I know the tides of the Cook inlet have been considered before, but in the light of the causeway seeming to be more of a reality now, I think this would be a good time to consider joint ventures, not only for the causeway and power generation, but the railroad and power cables, which have been reported to be giving problems under the water of the inlet. This would be good use of the money and a real evidence of there being a real concern about energy by those in higher office.

There would be no concern about backing up water and inundating land as there is behind a dam. No endangering of lives by a possible dam break. The Mat-Su valleys and the Anchorage areas are the most populated areas in the state, so much money could be saved by shorter transmission lines. With the plans for the Capitol move, there will be more growth close to the causeway, making more needs for electricity, close at hand. I would be more favorable of an all electric home or business if the power was from this renewable source, close at hand.

Please keep me informed of any studies in regards to this.

Yours truly,



James W. McCormick-Manager.



MT. FORAKER

MT. MCKINLEY

May 26, 1981

Action File Number: T-003-81

Mr. Dan Mawhinney  
Box 22  
Talkeetna, Alaska 99676

Dear Mr. Mawhinney:

In a recent letter to the public participation office of the Alaska Power Authority, you expressed several concerns regarding the Susitna hydroelectric feasibility studies.

Your first concern was that the flyer for the March workshop gave you the impressions that the proposed Susitna project is an "assured thing." In our view, it is not a certainty. Before the Power Authority can recommend whether or not to build the project, many questions need to be answered concerning environmental impacts, cost feasibility, potential seismic problems, and available markets for the power. Therefore, the feasibility studies are crucial.

Next spring, study results will be analyzed and the Alaska Power Authority will make a recommendation to the Governor and the legislature regarding whether or not to build the Susitna project. The final decision on Susitna will be made by the legislature and the Governor.

Another concern you had was that people would be wasting "time and energy discussing recreation plans for a 'possible' hydro project." Recreation planning is an important part of the feasibility studies on a project such as this. One can't do recreation planning after a decision is made to build a hydro project because recreation development and its impacts (which can be both beneficial and not beneficial) are part of the assessment of whether or not a project is feasible. Therefore, a plan must be developed during the time when one is assessing the feasibility of the project. Before a plan can be developed, people must be asked what kind of development, if any, do they want? That's the kind of input the Alaska Power Authority was looking for at the March meetings.

I know it seems like a waste of time to plan before a decision is made; however, I hope you can now see that the planning that is done affects the decision about whether or not to build a hydroelectric project of this type. If people are to influence those plans, they must do so early in the planning process.

Page 2  
D. Nawhinney  
May 26, 1981

A third concern you had was that you felt we should be discussing the possible alternatives if the studies indicate the Susitna project not feasible. Probably by now you have heard about the Railbelt Energy Alternatives Study that is being done by Battelle Pacific Northwest Laboratories under the direction of the Governor's office. That study, which is expected to be completed next spring, will look at alternatives to Susitna and compare them with Susitna. If you have questions or comments regarding the Battelle studies, please contact Norma Lang, P. O. Box 10-1509, Anchorage, Alaska 99511, 345-5370.

A final concern that you expressed was that "we should be discussing the relevant issues concerning the studies which effect the determination on this project." We hope that you will let us know what issues you have in mind. Enclosed is a form you can use to list those concerns, or you can send them in a letter, whichever is easier for you.

We appreciate your taking time to tell us your concerns. Your comments, along with all other comments received in our office, are reviewed by the Alaska Power Authority and Acres American, Inc., the firm who is conducting the studies. Your comments will also be included in a report to the Governor and the Alaska Power Authority Board of Directors prior to a decision on Susitna next spring.

Sincerely,

Jean Buchanan  
Public Participation Office

JB/mgh

Enclosure

cc: Jay Hammond  
Eric Yould  
Jeff Weltzin  
Pat Petty



# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date March 10, 1981

☒ An Individual Citizen

☐ An Organization

name D. Mawhinney

name \_\_\_\_\_

address Box 22

# of members \_\_\_\_\_

city Talkeetna, Alaska 99676

address \_\_\_\_\_

state \_\_\_\_\_ zip \_\_\_\_\_

city \_\_\_\_\_

day phone \_\_\_\_\_

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible. \_\_\_\_\_

ATTACHED LETTER.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

Alaska Power Authority,  
Attn: Nancy Blumck

3-7-81  
7  
RECEIVED  
MAR 10 1981

ALASKA POWER AUTHORITY

Ms. Blumck,

I am writing in response to the Alaska Power Authority's assumption that the Susitna Hydro Project is assured!

I can draw no other conclusion from the recent (and rather slick), announcement of workshop number three being held in Talkeetna on the 17th of March.

Why waste valuable time and energy discussing "possible" recreation plans for a "possible" Hydro Project???

Instead, we should be discussing the relevant issues concerning the studies which effect the determination on this project.

Why aren't we discussing the Alternatives available if the studies prove The Susitna Project infeasible??

Susitna Maybe!

Sincerely,

cc: Jay Hammond

Eric Fould (A.P.A.)

Jeffrey Welty (Fairbanks Environmental Center)

Pat Petty (Chase Community Assoc.)

Dan Mawhurney

Box 22

Talkeetna, Alaska

99676

May 13, 1981

Action File Number: T-004-81

Erin Aulman  
Box 28  
Talkeetna, Alaska 99676

Dear M. Aulman:

You returned a questionnaire from the recent recreation and road access workshop held in Talkeetna in March. On the back you wrote some comments about how you feel about the public participation process and the proposed Susitna hydroelectric project. You are obviously frustrated and angry about the way things have been done. I am sorry that you feel that way.

I can understand that it is frustrating for you to spend time discussing plans for something you do not want. Whether the project is developed or not, however, access and recreation planning must begin now. The kind of recreation and access proposed figures highly into the feasibility of the project. Therefore, comments from the public now will have the most influence.

I hope that in spite of your frustration you will continue to follow the studies and speak your mind.

Your comments have been entered into the ACTION system, a method we use to keep track of public comments we receive through the mail. Comments are reviewed by the Alaska Power Authority and Acres American, Inc., the firm conducting the studies. All comments will be summarized in a report given to the Alaska Power Authority Board of Directors and the Governor prior to their making a decision on Susitna next spring.

Your note was also forwarded to the study teams for access (R&M Consultants) and recreation planning (the University of Alaska at Fairbanks).

Enclosed is a form that you may use if you have questions or additional comments.

Sincerely,

Jean Buchanan  
Public Participation Office

JB/mgh

Enclosure

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date April 3, 1981

☒ An Individual Citizen

☐ An Organization

name Erin Aulman

name \_\_\_\_\_

address Box 28

# of members \_\_\_\_\_

city Talkeetna

address \_\_\_\_\_

state Alaska zip 99676

city \_\_\_\_\_

day phone \_\_\_\_\_

contact person \_\_\_\_\_

day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible. \_\_\_\_\_

ATTACHED LETTER.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

3/24/81

It was my understanding that a public forum is a situation where the public is allowed to hear information on a variety of plans & viewpoints, and then is allowed to participate in a discussion of same. What I have observed at the last 3 (the first being that held by the Corps of Engineers) meetings/forums regarding the Susitna Hydroelectric Project is merely the lengthy dissemination of information by ~~the~~ the special interest group that stands to gain economically from its construction.

As far as I'm concerned, the meetings held to date are a farce — obviously part of work that is necessary to "meet guidelines". No decision has been made regarding the dam construction. It's obvious that many, very possibly the majority of the people in this area are opposed to the dam. ~~It~~ (Those people that will be most affected, of course.) To me, that makes discussion of access routes & recreation plans irrelevant.

Until (1) a number of unbiased viewpoints are allowed to be examined, and (2) the participants are given a chance to question and comment I will view your <sup>alleged</sup> attempt to gain public input as another state program designed to provide useless work for unemployed public relation "specialists".

Erin Aulman  
Box 28  
Talkeetna, AK 99676

June 11, 1981

Mr. Harden Mebane  
Mile 274½  
Alaska Railroad  
Pouch 7-2111  
Anchorage, Alaska 99510

Harden Mebane came to the Alaska Power Authority Office on May 7, 1981. He asked that his concerns be registered through the ACTION system.

He live on the railroad at mile 274½.

His concerns:

1. He hopes that access from the Parks highway will not be selected. If it is chosen, he hopes it will not go near his property. He does not want the noise and dust.
2. He is not in favor of the Susitna Hydroelectric project.
3. He thought it would be a "disaster" to open up the area between Matana and the Denali highway by putting access through that area.

Response to his concerns:

1. He was given Norm Gutcher's phone number so that he could call and tell him the exact location of his property.
2. He was also given Jim Gill's number in case he could not reach Norm. (Jean Buchanan called both Norm and Jim to let them know that Mr. Mebane might telephone them.)

No written response is needed. Please consider this file closed.

Submitted by,

Jean Buchanan  
May 8, 1981

Copy sent to Kevin Young,  
May 15, 1981

## COMMENTS, QUESTIONS & REQUESTS

# Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date 6/25/81

☒ An Individual Citizen

## \_\_\_\_\_ An Organization

name HARDEN MEBANE  
address MILE 27 1/2 AK RAILROAD  
POUCH 7-2111

name

address POUCH 7-2111

# of members.....

city ANCHORAGE

address \_\_\_\_\_

state AK zip 99510

city \_\_\_\_\_

day phone \_\_\_\_\_

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

# Alaska Power Authority

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

August 18, 1981

Action File Number: T-007-81

Tony Martin  
P.O. Box 374  
Talkeetna, Alaska 99676

Dear Mr. Martin:

In a recent letter you requested information regarding the Susitna hydroelectric project feasibility study and the Anchorage to Fairbanks Intertie project.

I regret we do not have extra copies of technical reports on either project to send to you. Reports are available, however, at the Talkeetna library.

Enclosed is some written information relating to both projects. I hope it will be helpful.

Thank you for your interest in both projects.

Sincerely,

FOR THE EXECUTIVE DIRECTOR

*Jean Buchanan*  
Jean Buchanan  
Public Participation Office

JB/mab

enclosures

P.S.: Mr. Al Carson forwarded your letter to him of July 27, 1981 on the same subject. We wish you to know that this is also a response to that letter.



## COMMENTS, QUESTIONS & REQUESTS

### Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date 1/27/81

~~X~~ An Individual Citizen

## \_\_\_\_\_ An Organization

name Tony MARTIN

name \_\_\_\_\_

address P.O. BOX 374

# of members \_\_\_\_\_

city TALK EETNA

address \_\_\_\_\_

state AK zip 99676

city \_\_\_\_\_

day phone \_\_\_\_\_

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible. \_\_\_\_\_

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

# Alaska Power Authority

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

RECEIVED

AUG 6 1981

ALASKA POWER AUTHORITY

R

7/27/81  
TLK, AK

Dear Mr. Youlet.

Please send me any information, technical reports, surveys, and prospects concerning the Susitna Dam project and the powerline intertie. Your response will be most welcome.

Sincerely,  
Anthony Martin

Tony Martin

P.O.B. 374

Talkeetna, Alaska 99676

RECEIVED  
AUG 18 1981  
ALASKA POWER AUTHORITY

7/27/81

TUK, AK.

Dear Mr. Carson;

Please send copies of technical reports, surveys, and prospects concerning the Sustna Dam project and the powerline initiative. Your response will be most appreciated.

Sincerely,  
Anthony Martin

Tony Martin

P.O.B. 374

Talkeetna, AK 99676 ACTION FILE 1007-71

August 17, 1981

Mr. Kevin Young  
Acres American, Inc.  
900 Liberty Bank Building  
Buffalo, New York 14202

Dear Kevin:

The summary results of the questionnaires we circulated this spring on road access have been filed with the ACTION system. One copy has been filed in the Talkeetna section and one in the Fairbanks section.

The numbers are:

Here is a copy for your action files.

T-009-81  
F-011-81

Sincerely,

  
Jean Buchanan  
Public Participation Office

## MINERS QUESTIONNAIRE -- February and March 1981

This questionnaire was given to the members of the Alaska Miners Association in Fairbanks and the Board of Directors of the Alaska Miners Association in Anchorage. It is not known exactly how many were distributed. Eighteen questionnaires were returned.

1. Member of what group or groups:      Miners Reside in:
- |                              |    |                |    |
|------------------------------|----|----------------|----|
| Fairbanks Alaska Miners      | 11 | Fairbanks      | 10 |
| Anchorage Alaska Miners      | 6  | Anchorage      | 6  |
| Nome Alaska Miners           | 1  | Maclaren River | 1  |
| Interior Alaska Trappers     | 0  | Palmer         | 1  |
| Southcentral Trappers        | 0  |                |    |
| Registered guide             | 1  |                |    |
| Other: Fur Takers of America | 1  |                |    |

2. What part of the Upper Susitna basin is of particular interest to you:  
Almost every respondent had a different answer. Specifically they are:

Watana Creek	1	Butte Creek	1
Coal Creek	1	Clearwater Mtns.	1
Portage Creek-		Fog Lakes	1
Tsusena Creek	1	Gold Creek	1
Valdez Creek	1	Valdez Creek	1
Oshetna and		Chulitna	1
Black Rivers	1	Maclaren	1
Devils Canyon	1		
		All parts	4
		No parts	1
		Upper Susitna Basin	1

One respondent who answered the form in detail said, "Of course, the Maclaren is of major interest to me since that is my home base. However, I would be violently opposed to using the Denali Highway as a dam access. Aside from the esthetic reasons, it would be an economic disaster for me, as a major portion of my trapline runs from Mile 7 Denali Highway to Mile 71."

3. What areas of the river basin do you currently use:

Answers mirrored those above. Specifically:

Watana Creek	2	Butte Creek	1
Coal Creek	1	Clearwater Mtns.	1
Chulitna Canyon	1	Lower Susitna	1
Chulitna Creek	1	Upper Susitna	1
Stephan-Fog Lakes	1	Upper + Middle	1
South side-Susitna		Upper Tsusena Creek	1
drainage of Fhunilma Creek	1	Devil's Canyon	1
		N/A	1
		None	4

Miners Questionnaire continued.

4. What kind of use?

Minerals exploration	2	Recreation/rest	2
Trapping wolves that prey		Mining	5
on wintering moose	1	Hunting/fishing	4
Prospecting	3	Hardrock Minerals	1
Mineral development	1	None	1
Trapping	1	N/A	1

5. What level of use do you give the areas:

Light use was listed most frequently, though moderate and heavy use were also put down. Specific dates:

June-September	7
Oct. 15-April 1 plus	
September hunt deer	1
None	1
N/A	1
Fall and Winter	2
Year-round	1
September-October	1

6. Would you like to see public access via privately-owner vehicle after construction completed?

Yes	16
No	2

7. What is the principal reason for your position on access?

Yes answers:

Access to potentially-productive mineral deposits	5
Public funds, public use	10
Recreation use	3
Hunting and fishing	1

One respondent who answered yes, added: "I strongly feel we should extract all minerals from this area before we complete the dam and begin flooding the area."

No answers:

The area is undisturbed now, don't want to lose that	1
The game population will be driven down	1

October 8, 1980

Ms. Belle Mickelson  
SR 20040  
Fairbanks, Alaska 99701

Dear Ms. Mickelson:

The attached requests for information about Susitna hydroelectric development that you submitted to the Alaska Power Authority through the ACTION SYSTEM have been forwarded to Fran Ulmer, chairperson of the Railbelt Energy Alternatives Policy Review Committee. This committee will be providing policy direction to the Susitna alternatives study that Battelle Northwest Laboratories is conducting.

As you may know, the 1980 legislature decided that the alternatives study for Susitna should be completed in such a way that there would be no question of its objectivity. Therefore, the legislature directed that an independent firm be selected to conduct the alternatives study itself (Battelle was chosen) and that Acres American, Inc. continue its work on studying the feasibility of Susitna.

The Office of the Governor is managing the feasibility study of alternatives. The Alaska Power Authority is managing the feasibility study of Susitna. The results of both studies will help determine whether or not the State should develop hydroelectric power on the Susitna River and/or pursue other energy alternatives. Since the State of Alaska will make a decision by April 1982 whether to file a license application for Susitna hydroelectric, Battelle is directed to complete their alternatives study well in advance of this date to permit an informed decision.

Since Acres will not conduct the alternatives study, we directed them not to respond to your ACTION request. It did not make much sense to us to have them fill your requests, if they were not going to be conducting the study. We thought it better to hold your ACTION request until the new consultant was selected.

In July a request for proposals was sent out seeking consulting services to conduct an alternatives study and prepare an energy plan for the electrical needs of the railbelt. The energy plan will include an evaluation of alternatives, emerging technologies, conservation, and load management. The plan will review, and where necessary, improve the existing data base and demand forecast. It will examine the alternative types of electric generation and help determine whether or not the state should concentrate its efforts on development of the hydroelectric potential of the Susitna River and/or pursue other alternatives.

In September, Battelle Pacific Northwest Laboratories (with Ebasco Service and the Institute of Social and Economic Research) was selected to conduct the alternatives study. Their contract with the Office of the Governor is now signed. Battelle is preparing a work plan which is expected to be finished by the end of October. Battelle anticipates beginning work in November.

Ms. Belle Mickelson

Page 2

October 8, 1980

In the meantime, further questions and comments concerning the alternatives study (or response to your ACTION request) should be directed to Fran Ulmer or Tom Singer. Both can be reached at the telephone number and address listed below. We suggest that all correspondence to Ms. Ulmer be marked, "Attention: Tom Singer," Division of Policy Development and Planning, Pouch AD, Juneau, Alaska 99811. Phone (907) 465-3577.

You may also wish to contact members of the Railbelt Energy Alternatives Policy Review Committee. They are:

Ms. Clarissa Quinlan, Director  
Division of Energy and Power Development  
338 Denali Street  
Anchorage, Alaska 99501

Mr. Charles Conway, Chairman  
Alaska Power Authority Board of Directors  
2702 Gambell Street, Suite 200  
Anchorage, Alaska 99503

Mr. Ron Lehr, Director  
Division of Budget and Management  
Pouch AM  
Juneau, Alaska 99811

If you have further questions or comments about the Susitna feasibility studies (other than the alternatives study) continue to direct those to the Public Participation Office of the Alaska Power Authority, 333 West 4th Avenue, Suite 31, Anchorage, Alaska 99501, (907) 276-0001.

Sincerely,

Nancy Blunck  
Director  
Public Participation Office

Attachment  
NB:mgh



# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date April 14, 1980

☒ An Individual Citizen

☐ An Organization

name Belle Mickelson

name \_\_\_\_\_

address SR 20040

# of members \_\_\_\_\_

city Fairbanks

address \_\_\_\_\_

state Alaska zip 99701

city \_\_\_\_\_

day phone 479-7631

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

1  
A I would like to see Acres American/Alaska Power Authority undertake a test education program in energy conservation to see what that would do to electrical demand. I think potential individual efforts in energy conservation should be considered in the Conservation alternative, not just "government sponsored incentives" & "forced conservation."

DB I would also like to see more money spent on alternative studies as Susitna is of a magnitude to determine Alaska's entire energy future.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

April 15, 1980

Ms. Trish Anderson  
SR 20685  
Fairbanks, Alaska 99701

Dear Trish:

I went through my slides first thing this morning and I found 21 of them that I think may help you with your student display. I think the slides are self explanatory. If you get stuck on what one is, feel free to give me a call.

I am interested to know more about the display you are putting together. I will be doing displays too and may find some of your ideas useful. Do you mind sharing?

Sincerely,

Nancy Blunck  
Director, Public  
Participation Program

Enclosures:  
as noted

# COMMENTS, QUESTIONS & RE

F-002-80

## Susitna Hydroelectric Feasibility Stud,

The comments on this form are submitted by:

Date 4-14-80

☒ An Individual Citizen

☐ An Organization

name Trish Anderson

name \_\_\_\_\_

address SR 20685

# of members \_\_\_\_\_

city Fbx

address \_\_\_\_\_

state AK zip 99701

city \_\_\_\_\_

day phone message 4556718

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

1B  
Took  
12

This is a request for slides illustrating the issues involved concerning the Susitna River + hydrodevelopment. Main points that come to mind —

fisheries, caribou, seismic, social change, glacial view, drainage, view-pictures depicting areas of basin.

Any other slides that you think are good or pertinent will be appreciated.

These will be used for an earth day display to help educate the student body.

Thank-you - I will be careful with them + return as soon as possible

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

October 8, 1980

Mr. Karl Hafllingers  
Inst. Marine Sci., U of A  
Fairbanks, Alaska 99708

Dear Mr. Hafllingers:

The attached comments on alternatives to Susitna hydroelectric development, that you submitted to the Alaska Power Authority through the ACTION SYSTEM have been forwarded to Fran Ulmer, chairperson of the Railbelt Energy Alternatives Policy Review Committee. This committee will be providing policy direction to the Susitna alternatives study that Battelle Northwest Laboratories is conducting.

As you may know, the 1980 legislature decided that the alternatives study for Susitna should be completed in such a way that there would be no question of its objectivity. Therefore, the legislature directed that an independent firm be selected to conduct the alternatives study itself (Battelle was chosen) and that Acres American, Inc. continue its work on studying the feasibility of Susitna.

The Office of the Governor is managing the feasibility study of alternatives. The Alaska Power Authority is managing the feasibility study of Susitna. The results of both studies will help determine whether or not the State should develop hydroelectric power on the Susitna River and/or pursue other energy alternatives. Since the State of Alaska will make a decision by April 1982 whether to file a license application for Susitna hydroelectric, Battelle is directed to complete their alternatives study well in advance of this date to permit an informed decision.

Since Acres will not conduct the alternatives study, we directed them not to respond to your ACTION request. It did not make much sense to us to have them respond to your comments, if they were not going to be conducting the study. We thought it better to hold your ACTION request until the new consultant was selected.

In July a request for proposals was sent out seeking consulting services to conduct an alternatives study and prepare an energy plan for the electrical needs of the railbelt. The energy plan will include an evaluation of alternatives, emerging technologies, conservation, and load management. The plan will review, and where necessary, improve the existing data base and demand forecast. It will examine the alternative types of electric generation and help determine whether or not the state should concentrate its efforts on development of the hydroelectric potential of the Susitna River and/or pursue other alternatives.

In September, Battelle Pacific Northwest Laboratories (with Ebasco Service and the Institute of Social and Economic Research) was selected to conduct the alternatives study. Their contract with the Office of the Governor is now signed. Battelle is preparing a work plan which is expected to be finished by the end of October. Battelle anticipates beginning work in November.

Mr. Karl Haffingers  
Page 2  
October 8, 1980

In the meantime, further questions and comments concerning the alternatives study (or response to your ACTION request) should be directed to Fran Ulmer or Tom Singer. Both can be reached at the telephone number and address listed below. We suggest that all correspondence to Ms. Ulmer be marked, "Attention: Tom Singer," Division of Policy Development and Planning, Pouch AD, Juneau, Alaska 99811. Phone (907) 465-3577.

You may also wish to contact members of the Railbelt Energy Alternatives Policy Review Committee. They are:

Ms. Clarissa Quinlan, Director  
Division of Energy and Power Development  
338 Denali Street  
Anchorage, Alaska 99501

Mr. Charles Conway, Chairman  
Alaska Power Authority Board of Directors  
2702 Gambell Street, Suite 200  
Anchorage, Alaska 99503

Mr. Ron Lehr, Director  
Division of Budget and Management  
Pouch AM  
Juneau, Alaska 99811

If you have further questions or comments about the Susitna feasibility studies (other than the alternatives study) continue to direct those to the Public Participation Office of the Alaska Power Authority, 333 West 4th Avenue, Suite 31, Anchorage, Alaska 99501, (907) 276-0001.

Sincerely,

Nancy Blunck  
Director  
Public Participation Office

Attachment  
NB:mgh

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date \_\_\_\_\_

☒ An Individual Citizen☐ An Organizationname KARL HATWOOD

name \_\_\_\_\_

address INST. MARINE SU. U.S. AR

# of members \_\_\_\_\_

city FAIRBANKS

address \_\_\_\_\_

state ALASKAzip 99708

city \_\_\_\_\_

day phone 479-7931

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

1. The study plan provided some framework, but it is virtually impossible to form an opinion without the lack of specific details. As a member of the Day Subagency I feel somewhat concerned about such details, especially as regards alternative assessments, as I would like to see this project a bit more clearly. Sooner to me know how to obtain even a more overview of your approach to alternative techniques and just in detail your treatment of wind energy conversion systems.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

### Alaska Power Authority

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

October 31, 1980

ACTION File Number: F-004-80

Mr. Mike Kelly  
1433 Dogwood  
Fairbanks, Alaska 99701

Dear Mr. Kelly:

You submitted to our office two comments regarding the Susitna hydroelectric feasibility studies. Your comments were,

- Don't study it to death, but do perform all the reasonable investigations required for a prudent decision. Your plan looks good.
- Maybe we should limit the amount of power one entity could take, such as an aluminum plant.

We appreciate having your comments on the Susitna hydroelectric project. Your comments and all other comments and questions we receive will be included in a report that will be sent to the Alaska Power Authority's board of directors and the Governor before a decision is made on the feasibility of the Susitna hydroelectric project.

Enclosed is an ACTION form which you may use if you have further comments, questions, or need additional information. We have had a few problems implementing the ACTION SYSTEM. However, some of the circumstances that held up the process have been corrected and we believe your next comment or question will be handled more quickly. Please keep in mind, however, that because a number of people will review, and in some cases, comment on each item submitted in the ACTION SYSTEM, it will take at least six weeks to process your request.

Sincerely,

Nancy Blunck  
Director of Public Participation

NB:mgh  
Enclosure  
cc: Acres American, Inc.

F-004-80

Date submitted: 4/14/80

Mike Kelly  
1433 Dogwood  
Fairbanks, Alaska 99701

(1) Don't study it to death, but do perform all the reasonable investigations required for a prudent decision. Your plan looks good.



# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date 4-14-80

☒ An Individual Citizen

☐ An Organization

name Mike Kelly

name \_\_\_\_\_

address 1433 Dogwood

# of members \_\_\_\_\_

city Fairbanks

address \_\_\_\_\_

state AK zip 701

city \_\_\_\_\_

day phone 456-2833

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

① Don't study it to death, but do perform all the reasonable investigations required for a prudent decision. Your plan looks good.

② Maybe we should limit the amount of power ① entity could take such as an aluminum plant.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

November 26, 1980

ACTION FILE Number: F-005-80

Mr. Tom Weingartner  
SR 10080  
Fairbanks, Alaska 99701

Dear Mr. Weingartner:

You submitted to our office a comment and two questions regarding the Susitna hydroelectric feasibility studies. One question which related directly to the alternatives study was forwarded to the Governor's office as explained in my letter of October 8, 1980. Your comment and other question are listed below, followed directly by a response from the Alaska Power Authority staff.

Your question:

Who makes the final decision and who pays for it?

Response prepared by Robert Mohn, Director of Engineering:

The decision on Susitna development is actually a series of decisions made over a period of years by several different entities. In early 1981 the Alaska Power Authority will recommend to the Governor and legislature that the studies be continued, redirected, or halted. The Power Authority will then receive its direction through the state government's appropriation process. In mid-1982, the Power Authority, after a set of public meetings, will decide whether or not to submit to the Federal Energy Regulatory Commission (FERC) an application for a license to construct the project. If submitted and found acceptable for processing, the FERC would over the next two or three years prepare a draft and then a final environmental impact statement. After review and comment by all interested parties, FERC would either grant or not grant the license. If the license is granted, the Power Authority, the Governor, and the legislature will, in concert, decide whether or not to begin construction.

FROM:

The studies are paid for by appropriations from the legislature. The appropriations are from the general operating budget. It has not been determined at this time who will pay for construction if the decision is to develop a hydroelectric project on the Susitna River. Task 11 of the studies will examine various options.

TO:

State of Alaska

MEMORANDUM

November 26, 1980  
Mr. Tom Weingartner

Your comment:

Plan of study broad enough, but I could not assess quality because of lack of detail, which I realize was difficult to do with time allotted.

Response from Jean Buchanan, Public Participation Office staff:

Your comment, as well as all other comments and questions received by our office, will be included in a report that will be sent to the Alaska Power Authority's board of directors and the Governor before a decision is made on the feasibility of the Susitna hydroelectric project.

Enclosed is an ACTION form which you may use if you have further comments, questions, or need additional information. We have had a few problems implementing the ACTION SYSTEM. However, some of the circumstances that held up the process have been corrected and we believe your next comment or question will be handled more quickly. Please keep in mind, however, that because a number of people will review, and in some cases, comment on each item submitted in the ACTION SYSTEM, it will take at least six weeks to process your request.

Sincerely,

Nancy Blunck  
Director of Public Participation

NB:mgh  
Enclosure  
cc: Acres American, Inc.

SUBJECT:

FROM:

TELEPHONE NO:

FILE NO:

DATE:

TO:

State of Alaska

MEMORANDUM

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date \_\_\_\_\_

☒ An Individual Citizen☐ An Organizationname Tom Weingartner

name \_\_\_\_\_

address SR 10080

# of members \_\_\_\_\_

city FAIRBANKS

address \_\_\_\_\_

state AK zip 99701

city \_\_\_\_\_

day phone 479-7931

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

① Plan of study - broad enough but I could not assess quality  
 because of lack of detail, which I realize was difficult  
 to do w/ time allotted

② I think small localized power generating facilities, i.e.  
 hydro, wind etc. generally allow for greater  
 flexibility in the future than one large centralized  
 site. Can you assess this in your analyses?

③ Who makes final decision & who pays for it?

RM

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

### Alaska Power Authority

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

August 20, 1980

Tony Scott Pearce  
HOLD C  
College, Alaska 99701

Dear Tony,

I have been waiting to send you this report and it just came off the press. You have been wanting information about the pros and cons of Susitna hydroelectric development, so that you may form your own opinions. Good for you!

I think you will find this report a very good source of information. It describes the many questions and concerns that 252 concerned citizens expressed at community meetings that were held in April.

You raised one further question: Is there a need for a Susitna dam, and is that need related to an anticipated influx of people, i.e. the capitol move? My office is just now preparing a newsletter that responds to these last two questions. We will put you on the mailing list so that you can get a copy of that newsletter and future ones also.

Thanks for writing...I enjoy hearing about "Gates of the Arctic."

Sincerely,

Nancy Blunck  
Director  
Public Participation Office

NB:mgh

Enclosure

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date \_\_\_\_\_

☒ An Individual Citizen

☐ An Organization

name Tony Scott Pearce

name \_\_\_\_\_

address HOLD

# of members \_\_\_\_\_

city College

address \_\_\_\_\_

state AK. zip 99701

city \_\_\_\_\_

day phone \_\_\_\_\_ contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

misc. [ See attached postcard ]

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

Nancy Blunck  
Director  
Public Participation Program

"Gates of the Arctic"  
Brooks Range  
ALASKA

RECEIVED

JUN 3 1980

ALASKA POWER AUTHORITY

Dear Ms. Blunck

Thank you letting me know that I should expect a delay from your office, regarding my questions, in your note dated June 4, 1980. To refresh your memory I wanted information concerning the Susitna hydroelectric feasibility studies.

I would greatly appreciate effort on your part in my behalf to send to me conflicting reports.

Reports that are pro and con so I may formulate my own opinions. Of course any information that has synthesized the opposing views would be a good addition.

② One further question I have is why do we need the dam, and a question that is an offshoot of this is: do we need a dam across the Susitna because of a suspect influx of people, i.e. the capitol move?

Presently here at the Gates of the Arctic  
the North Fork of the Koyukuk is turning crystal clear and  
reflects the blue azure.

Oh how I do not even you in Anchorage.

③ (However I do appreciate the work you are doing for  
concerned citizens. It is work that must be done so  
that the public can focus its attention and grave and  
long range problems.)

I await patiently for your reply,

humbly yours

T.S.P.  
HOLD  
COLLEGE, AK.  
99701

Tony Scott Pearce 6/24/80  
Gates of the Arctic

A9

Nancy Blumck

Director

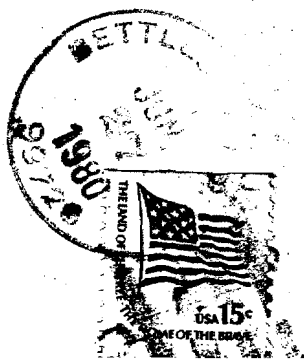
Public Participation Program

333 West 4th Avenue

Suite 31

Anchorage, Alaska

99501





A letter was sent on June 4, 1980 to named person in file!!!!

**ALASKA POWER AUTHORITY**

333 West 4th Avenue, Suite 31  
Anchorage, Alaska 99501  
June 4, 1980

To:

Dear

This is a short note to let you know we have received your comments and questions on the Susitna hydroelectric feasibility studies.

Because of the high interest in the studies and over 100 requests we have had for information since the April meetings, we have not been able to respond to your request as quickly as we would like. We do want you to know, however, that staff members within the Alaska Power Authority and Acres are presently reviewing your comments. You will receive a written response soon.

Sincerely,

Nancy Blunck  
Director  
Public Participation Program

Hi.

3/22/80

Would you please tell me about  
the Susitna River Dam Project and include  
who is in favor, against, ~~and~~ and the implications  
of it.

Thank you

Tony Scott Pearce

October 27, 1980

Mr. R. F. Carlson  
P. O. Box 80234  
College, Alaska 99703

Dear Mr. Carlson:

You submitted to our office some comments regarding the Susitna hydroelectric feasibility studies. One comment which related directly to the alternatives study was forwarded to the Governor's office as explained to you in my letter of October 8, 1980. Your other comments are listed below, followed by responses from staff of the Alaska Power Authority.

Your comment:

This project will end up being subsidized by general revenue funds.

Response from Robert Mohn, Director of Engineering:

It has been the position of the Alaska Power Authority that direct state funding of the Susitna hydroelectric project is inadvisable, since the state would be better off to conserve its financial resources by importing investment capital. This would be done through the sale of project revenue bonds on national markets. The funds that would have been spent on Susitna could then be used for other purposes. At the same time, it is apparent that state policy is dictating maximum in-state investment of surplus revenues. If the decision is made to invest in Alaskan projects that offer a financial return on that investment, then it would seem that direct equity investment by the state in the Susitna project would become a logical priority.

To summarize, in a period of surplus revenues direct state funding of Susitna may make sense, while such a plan would generally not be advisable in a more normal period of capital shortage.

Your comment:

Single, central, large power sources, controlled by government is an idea whose time is past.

Response from Jean Buchanan, Public Participation Office:

Please see the enclosed information sheet on the Fairbanks to Anchorage transmission intertie. The section titled "The Question of Centralization" contains a discussion of the issue of centralized vs. decentralized energy generation.

Your comment:

This project will be inflationary.

It will not be efficient.

This is a boomer project. It is promoted by the government bureaucrats, real estate agents, overpaid utility managers--all with a narrow-minded, short term interest. If we really need the project it will look even better in ten years.

One good thing is that the Corps is not promoting it.

Response from Jean Buchanan, Public Participation Office:

We appreciate your letting us know how you feel about the project. Your comments, as well as all other comments and questions our office receives, will be included in a report that will be sent to the Alaska Power Authority board of directors and the office of the Governor before a decision is made on the feasibility of the Susitna hydroelectric project.

Enclosed is an ACTION form which you may use if you have further comments, questions, or need additional information. We have had a few problems implementing the ACTION SYSTEM. However, some of the circumstances that held up the process have been corrected and we believe your next comment or question will be handled more quickly. Please keep in mind, however, that because a number of people will review, and in some cases, comment on each item submitted in the ACTION SYSTEM, it will take at least six weeks to process your request.

Sincerely,

Nancy Blunck  
Director of Public Participation

NB:mgh  
Enclosures (2)  
cc: Acres American, Inc.

October 8, 1980

R. F. Carlson  
Box 80234  
College, Alaska 99708

Dear M Carlson:

The attached comment on alternatives to Susitna hydroelectric development, that you submitted to the Alaska Power Authority through the ACTION SYSTEM has been forwarded to Fran Ulmer, chairperson of the Railbelt Energy Alternatives Policy Review Committee. This committee will be providing policy direction to the Susitna alternatives study that Battelle Northwest Laboratories is conducting.

As you may know, the 1980 legislature decided that the alternatives study for Susitna should be completed in such a way that there would be no question of its objectivity. Therefore, the legislature directed that an independent firm be selected to conduct the alternatives study itself (Battelle was chosen) and that Acres American, Inc. continue its work on studying the feasibility of Susitna.

The Office of the Governor is managing the feasibility study of alternatives. The Alaska Power Authority is managing the feasibility study of Susitna. The results of both studies will help determine whether or not the State should develop hydroelectric power on the Susitna River and/or pursue other energy alternatives. Since the State of Alaska will make a decision by April 1982 whether to file a license application for Susitna hydroelectric, Battelle is directed to complete their alternatives study well in advance of this date to permit an informed decision.

Since Acres will not conduct the alternatives study, we directed them not to respond to your ACTION request. It did not make much sense to us to have them respond to your comment, if they were not going to be conducting the study. We thought it better to hold your ACTION request until the new consultant was selected.

In July a request for proposals was sent out seeking consulting services to conduct an alternatives study and prepare an energy plan for the electrical needs of the railbelt. The energy plan will include an evaluation of alternatives, emerging technologies, conservation, and load management. The plan will review, and where necessary, improve the existing data base and demand forecast. It will examine the alternative types of electric generation and help determine whether or not the state should concentrate its efforts on development of the hydroelectric potential of the Susitna River and/or pursue other alternatives.

In September, Battelle Pacific Northwest Laboratories (with Ebasco Service and the Institute of Social and Economic Research) was selected to conduct the alternatives study. Their contract with the Office of the Governor is now signed. Battelle is preparing a work plan which is expected to be finished by the end of October. Battelle anticipates beginning work in November.

R. F. Carlson  
Page 2  
October 8, 1980

In the meantime, further questions and comments concerning the alternatives study (or response to your ACTION request) should be directed to Fran Ulmer or Tom Singer. Both can be reached at the telephone number and address listed below. We suggest that all correspondence to Ms. Ulmer be marked, "Attention: Tom Singer," Division of Policy Development and Planning, Pouch AD, Juneau, Alaska 99811. Phone (907) 465-3577.

You may also wish to contact members of the Railbelt Energy Alternatives Policy Review Committee. They are:

Ms. Clarissa Quinlan, Director  
Division of Energy and Power Development  
338 Denali Street  
Anchorage, Alaska 99501

Mr. Charles Conway, Chairman  
Alaska Power Authority Board of Directors  
2702 Gambell Street, Suite 200  
Anchorage, Alaska 99503

Mr. Ron Lehr, Director  
Division of Budget and Management  
Pouch AM  
Juneau, Alaska 99811

If you have further questions or comments about the Susitna feasibility studies (other than the alternatives study) continue to direct those to the Public Participation Office of the Alaska Power Authority, 333 West 4th Avenue, Suite 31, Anchorage, Alaska 99501, (907) 276-0001.

Sincerely,

  
Nancy Blunck  
Director  
Public Participation Office

Attachment  
NB:mgh

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date \_\_\_\_\_

☒ An Individual Citizen☐ An Organizationname R. F. Carlson

name \_\_\_\_\_

address Box 90234

# of members \_\_\_\_\_

city College

address \_\_\_\_\_

state Alaskazip 99703

city \_\_\_\_\_

day phone \_\_\_\_\_

contact person \_\_\_\_\_

day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

1. Single, central, large power sources, controlled by the government is an idea whose time is past.

2. This project will end up being subsidized by general revenue funds. It will be inflationary. It will not be efficient.

3. There is a movement towards more diverse, less centralized generation sources. This project is headed in the opposite direction.

4. This is a boomer project. It is promoted by government bureaucrats, real estate agents, overpaid utility managers; all with a narrow minded short term interest. If we really need the project it will look even better in ten years.

5. One good thing is that the Corps is not promoting it.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

December 2, 1980

ACTION FILE Number: F-008-80

Mr. Tony Gasbarro  
Sr 20249  
Fairbanks, Alaska 99701

Dear Mr. Gasbarro:

You submitted to our office two comments regarding the Susitna hydroelectric feasibility studies. Your comments are written below, followed by responses from Acres American, Inc., the firm conducting the studies, and by the Alaska Power Authority.

Your comment:

It seems that the plan or study lacks a section that would discuss the proposed hydroelectric project and its alternatives in relation to the growth and quality of life goals of the different railbelt communities or, for that matter, the long term development goals of the state. The estimated impacts of the project(s) should somehow be put in perspective with what different interest groups and communities want to see happen in the railbelt.

Response prepared by Kevin Young, Acres American, Inc.:

Under subtask 7.05, socioeconomic analysis profiles will be developed for

- (1) attitudes towards lifestyle and quality of life
- (2) and attitudes towards growth.

These profiles will be developed from information and studies that are already available of the Railbelt and upper Susitna areas and from input provided through the public participation process. Potential changes in these profiles that could occur as a result of construction and operation of a Susitna hydroelectric project will be qualitatively analyzed and discussed.

Response prepared by Nancy Blunck, Director of Public Participation, Alaska Power Authority:

In 1981 an additional study will be made to assess the impacts of construction and the Susitna project on the current lifestyles of people who live in the immediate vicinity of the proposed dam sites. This study will be coordinated with the studies currently in process on the identification and analysis of socioeconomic conditions mentioned above by Mr. Young.

State of Alaska

MEMORANDUM



Page 2  
 December 2, 1980  
 Mr. Tony Gasbarro

Your comment:

Thank you for the efforts you made to inform the public about the plan of study.

Response from Nancy Blunck:

We appreciate the thanks for our efforts. Your name has been added to our mailing list to receive newsletters, such as the one enclosed, which will periodically report on the progress of the studies.

We also want to let you know of meetings scheduled to be held in Fairbanks. The day and time are tentative.

March 2, 7:30 p.m.: Workshop on road access and recreation potential.  
 May 4, 7:30 p.m.: Public meeting giving update on Susitna studies.

All comments, questions, and requests for information received by our office are reviewed by the Alaska Power Authority staff and Acres American, Inc., and will be included in a report that will be given to the Alaska Power Authority board of directors and the Governor before a decision is made on Susitna.

Enclosed is an ACTION form which you may use if you have further comments, questions, or need additional information. We have had a few problems implementing the ACTION SYSTEM. However, some of the circumstances that held up the process have been corrected and we believe your next comment or question will be handled more quickly. Please keep in mind, however, that because a number of people will review, and in some cases, comment on each item submitted in the ACTION SYSTEM, it will take at least six weeks to process your request.

Sincerely,

FOR THE DIRECTOR OF PUBLIC  
 PARTICIPATION

SUBJECT:

*Jean Buchanan*  
 Jean Buchanan  
 Acting Director of Public Participation

FROM:

TELEPHONE NO:

JB:mgh

FILE NO:

Enclosures

cc: Acres American, Inc.

DATE:

TO:

State of Alaska

MEMORANDUM

## COMMENTS, QUESTIONS & REQUESTS

# Susitna Hydroelectric Feasibility Study

**The comments on this form are submitted by:**

Date 19 April 80

✓ An Individual Citizen

## \_\_\_\_\_ An Organization

name Tony Gasbarro

name \_\_\_\_\_ RECEIVED

address SR 20249

# of members

city Fairbanks, Alaska

address \_\_\_\_\_  
ALASKA POWER AUTHORITY

state \_\_\_\_\_ zip 99701

city \_\_\_\_\_

day phone 479-7188

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible. \_\_\_\_\_

① It seems that the plan of study lacks a section that would discuss the proposed hydroelectric project <sup>and</sup> its alternatives in relation to the growth and quality of life goals of the different railbelt communities or, for that matter, the long term development goals of the State. The <sup>estimated</sup> impacts of the project(s) should somehow be put in perspective with what different interest groups and communities want to see happen in the railbelt.

(2) Thank you for the efforts you made to inform the public about the Plan of Study.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

# Alaska Power Authority

**333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001**

April 25, 1980

Mr. Chad Chapman  
2 Timberland Drive  
Fairbanks, Alaska 99701

Dear Mr. Chapman:

You asked me to send you the price of a copy of the relief map of the Susitna study area. A print of the map would be \$59.50.

The Alaska Power Authority owns the negative from which the map is printed. We would be glad to have a print made for you upon receipt of a check in the amount of \$59.50 from you. As you recall from the meeting the map is large and would have to be sent in a tube. The cost of postage and the cost of a tube would be in addition to the price of the map.

Please let us know if you wish us to have a print made. I realize the price is high. For that reason, I will await further communication from you before proceeding.

Sincerely,



Nancy Blunck  
Director  
Public Participation Program

RB:mgh

4-29-80

RECEIVED

MAY 01 1980

ALASKA POWER AUTHORITY

DEAR MS. BLONCK: mgh

THANK YOU FOR YOUR CONSIDERATION IN MY INTEREST  
FOR THE DESIRED MAP. HOWEVER, I NOT ONLY  
THINK THE PRICE IS TOO HIGH; I THINK IT  
IS OBSCENELY HIGH.

IT'S UNFORTUNATE THAT YOU NEVER  
INCLUDED SOME SORT OF MAP WITH THE  
REST OF YOUR POLITICAL FEASIBILITY  
STUDY.

CHAD CHAPMAN  
2 TIMBERLAND DR.  
FAIRBANKS, AK. 99701

SINCERELY,  
Chad

# MEMORANDUM

State of Alaska

TO:

DATE:

FILE NO:

TELEPHONE NO:

December 15, 1980

FROM:

SUBJECT:

**ACTION FILE Number: F-010-80**

**Ms. Shirley M. Thomas  
P. O. Box 68  
Fort Yukon, Alaska 99740**

**Dear Ms. Thomas:**

**You submitted to our office some comments regarding the Susitna hydroelectric project. Your comments were:**

- 1. Here's expressing my opposition to the Susitna hydroelectric project.**
- 2. I'd hate to see what would happen to the Alaskan lifestyle if this dam were to be built. More consideration needs to be given to this plan.**
- 3. This project would bring more changes to Alaska than the pipeline projects. More people and industry -- we can do without. Right now, I don't see the need for the Susitna dam.**
- 4. It seems to me that this project is somewhat biased.**
- 5. Don't build the dam.**

**We have noted your concerns, which will be reviewed by the Alaska Power Authority and Acres American, Inc., the firm conducting the feasibility studies. Your comments, along with all other comments we receive, will be included in a report that will be sent to the Alaska Power Authority Board of Directors and the Governor's office before a decision is made on Susitna.**

**We are also adding your name to a mailing list, so that you will receive more information on the project. Community meetings are planned for March 2nd and May 4th in Fairbanks next year. We hope you will attend. Watch for notice of where the meetings will be held.**

**Enclosed is an ACTION form which you may use if you have further comments, questions, or need additional information. We have had a few**

# MEMORANDUM

State of Alaska

Page 2

Ms. Shirley M. Thomas

TO: December 15, 1980

DATE:

FILE NO:

FROM:

problems implementing the ACTION SYSTEM. However, some of the circumstances that held up the process have been corrected and we believe your next comment or question will be handled more quickly. Please keep in mind, however, that because a number of people will review, and in some cases, comment on each item submitted in the ACTION SYSTEM, it will take at least six weeks to process your request.

Sincerely,

Nancy Blunck  
Director of Public Participation

NB:mgh  
Enclosure  
cc: Acres American, Inc.

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date April 30, 1980☒ An Individual Citizen☐ An Organizationname Shirley M. Thomasname RECEIVEDaddress P.O. Box 68# of members 2 1980city Fort Yukon,address ALASKA POWER AUTHORITYstate Alaska zip 99740

city \_\_\_\_\_

day phone none

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

- OK  
OK in  
style  
with  
+  
but try  
personal
- ① Here is expressing my opposition to the Susitna Hydroelectric Project. I'd hate to see what would happen to the Alaskan lifestyle if this dam were to be built. More consideration needs to be given to this plan.
  - ② This project would bring more changes to Alaska than the Pipeline project. More people and industry, we can do without! Right now I don't see the need for the Susitna Dam.
  - ③ It seems to me that this project is somewhat biased. ~~There are many other~~ ~~and other~~ ~~and other~~
  - ④ Don't build the dam!
- AB

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

### Alaska Power Authority

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

October 8, 1980

Mr. Roger Kate  
1161 Hess Avenue  
College, Alaska 99701

Dear Mr. Kate:

The attached comment on alternatives to Susitna hydroelectric development, that you submitted to the Alaska Power Authority through the ACTION SYSTEM has been forwarded to Fran Ulmer, chairperson of the Railbelt Energy Alternatives Policy Review Committee. This committee will be providing policy direction to the Susitna alternatives study that Battelle Northwest Laboratories is conducting.

As you may know, the 1980 legislature decided that the alternatives study for Susitna should be completed in such a way that there would be no question of its objectivity. Therefore, the legislature directed that an independent firm be selected to conduct the alternatives study itself (Battelle was chosen) and that Acres American, Inc. continue its work on studying the feasibility of Susitna.

The Office of the Governor is managing the feasibility study of alternatives. The Alaska Power Authority is managing the feasibility study of Susitna. The results of both studies will help determine whether or not the State should develop hydroelectric power on the Susitna River and/or pursue other energy alternatives. Since the State of Alaska will make a decision by April 1982 whether to file a license application for Susitna hydroelectric, Battelle is directed to complete their alternatives study well in advance of this date to permit an informed decision.

Since Acres will not conduct the alternatives study, we directed them not to respond to your ACTION request. It did not make much sense to us to have them respond to your comment, if they were not going to be conducting the study. We thought it better to hold your ACTION request until the new consultant was selected.

In July a request for proposals was sent out seeking consulting services to conduct an alternatives study and prepare an energy plan for the electrical needs of the railbelt. The energy plan will include an evaluation of alternatives, emerging technologies, conservation, and load management. The plan will review, and where necessary, improve the existing data base and demand forecast. It will examine the alternative types of electric generation and help determine whether or not the state should concentrate its efforts on development of the hydroelectric potential of the Susitna River and/or pursue other alternatives.

In September, Battelle Pacific Northwest Laboratories (with Ebasco Service and the Institute of Social and Economic Research) was selected to conduct the alternatives study. Their contract with the Office of the Governor is now signed. Battelle is preparing a work plan which is expected to be finished by the end of October. Battelle anticipates beginning work in November.



Mr. Roger Kate  
Page 2  
October 8, 1980

In the meantime, further questions and comments concerning the alternatives study (or response to your ACTION request) should be directed to Fran Ulmer or Tom Singer. Both can be reached at the telephone number and address listed below. We suggest that all correspondence to Ms. Ulmer be marked, "Attention: Tom Singer," Division of Policy Development and Planning, Pouch AD, Juneau, Alaska 99811. Phone (907) 465-3577.

You may also wish to contact members of the Railbelt Energy Alternatives Policy Review Committee. They are:

Ms. Clarissa Quinlan, Director  
Division of Energy and Power Development  
338 Denali Street  
Anchorage, Alaska 99501

Mr. Charles Conway, Chairman  
Alaska Power Authority Board of Directors  
2702 Gambell Street, Suite 200  
Anchorage, Alaska 99503

Mr. Ron Lehr, Director  
Division of Budget and Management  
Pouch AM  
Juneau, Alaska 99811

If you have further questions or comments about the Susitna feasibility studies (other than the alternatives study) continue to direct those to the Public Participation Office of the Alaska Power Authority, 333 West 4th Avenue, Suite 31, Anchorage, Alaska 99501, (907) 276-0001.

Sincerely,

  
Nancy Blunck  
Director  
Public Participation Office

Attachment  
NB:mgh

December 2, 1980

ACTION FILE Number: F-011-80

Mr. Roger Kate  
1161 Hess Avenue  
College, Alaska 99701

Dear Mr. Kate:

You submitted to our office some comments and questions regarding the Susitna hydroelectric feasibility studies. One comment which related directly to the alternatives study was forwarded to the governor's office as explained to you in Nancy Blunck's letter of October 8, 1980. Your other comments and questions are listed below, followed directly by responses from Acres American, Inc., the firm conducting the studies, or the Alaska Power Authority.

Your question:

Are the demand forecasts realistic--and if so, must we meet them in spite of the costs?

Response prepared by John Lawrence, Project Manager, Acres American, Inc.:

Forecasts have been developed by ISER (Institute of Social and Economic Research, University of Alaska) and it is readily acknowledged that limitations of schedule and resources severely influenced their work. Several critiques exist on this forecast which will be the subject of an Acres report due in late 1980. This report will seek to bracket the range of likely forecasts so that the remainder of the Susitna studies can be undertaken. One objective of these studies will be to develop a future generation mix scenario which will involve the least risk and cost to the consumer while preserving environmental, social, and legal values to the greatest extent.

The purpose of any selected development will be to help meet future energy demands rather than creating an excess of energy which might promote unwanted industrialization. However, ISER, as part of their energy demand forecast has included an estimate of increased energy impacts by industry. Our socioeconomic program will address the impacts associated with this increase.

FROM:

A study independent of Acres' Susitna studies will have similar objectives but consider a much broader range of alternatives. These studies will be conducted by ISER, but under contract to Battelle, the firm conducting the independent study. Battelle's contract is

State of Alaska

MEMORANDUM

Page 2  
 December 2, 1980  
 Mr. Roger Kate

being managed by the Policy Review Committee under the governor's office. Fran Ulmer, Director of the Division of Policy Development and Planning, is chairwoman of the committee.

The question of planning capacity to meet forecasts is a matter of public policy as mandated on the power utilities by state and federal governments.

Your question:

More consideration needs to be given to the impact of new industry attracted by the creation of excess energy on the Alaskan lifestyle. What is special about life in Alaska that would be lost by industrialization resulting from the production of surplus energy?

Response prepared by Kevin Young, Acres American, Inc.:

The purpose of any selected development will be to help meet future energy demands rather than create an excess of energy which might promote unwanted industrialization. However, ISER, as part of their energy demand forecast, has included an estimate of increased energy demand by industry. Our socioeconomic program will address the impact associated with this increase.

Response prepared by Nancy Blunck, Director of Public Participation:

The possible impacts upon Alaskan lifestyle will be the subject of a special socio-cultural study that has been added to the plan of study largely because of concerns raised by the public. This study will begin some time in 1981 and will be coordinated with the studies currently underway on the identification and analysis of socioeconomic conditions and impacts.

Your comment:

I would like to express my opposition to the Susitna project.

Response from Nancy Blunck, Director of Public Participation:

We have noted your opinion that you are opposed to the project. We are tracking the number of times this comment is expressed on the studies and this information is given to the Alaska Power Authority and Acres staff.

SUBJECT:

FROM:

All comments, questions, and requests for information received by our office are reviewed by the Alaska Power Authority staff and Acres American, Inc., and will be included in a report that will be given to the Alaska Power Authority board of directors and the Governor before a decision is made on Susitna.

DATE:

TO:

State of Alaska

MEMORANDUM

Page 3  
 December 2, 1980  
 Mr. Roger Kate

Enclosed is an ACTION form which you may use if you have further comments, questions, or need additional information. We have had a few problems implementing the ACTION SYSTEM. However, some of the circumstances that held up the process have been corrected and we believe your next comment or question will be handled more quickly. Please keep in mind, however, that because a number of people will review, and in some cases, comment on each item submitted in the ACTION SYSTEM, it will take at least six weeks to process your request.

Sincerely,

Nancy Blunck  
 Director of Public Participation

NB:mg  
 Enclosure  
 cc: Acres American, Inc.

SUBJECT:

FROM:

TELEPHONE NO:

FILE NO:

DATE:

TO:

State of Alaska

MEMORANDUM

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date 30 April 80

☒ An Individual Citizen

☐ An Organization

name ROGER KATE

name \_\_\_\_\_

address 1161 HESS AVE

# of members \_\_\_\_\_

city College

address \_\_\_\_\_

state Alaska zip 99701

city \_\_\_\_\_

day phone 479-3449

contact person \_\_\_\_\_ day phone \_\_\_\_\_

RECEIVED

MAY 02 1980

ALASKA POWER AUTHORITY

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

**B**  
**Task 1**  
**(1)** I would like to express my opposition to the Susitna project. My specific comments on the proposed plan of study are:

**Trust + credibility**  
1. If most of the study funds are not to be spent until after an alternative report is completed, a strong incentive exists for the report to be biased in favor of the project.

**A**  
**Industry & lifestyle**  
**(2)** More consideration needs to be given to the impact of new industry attracted by the creation of excess energy on the Alaskan lifestyle. What is special about life in Alaska that would be lost by industrialization resulting from the production of surplus energy?

**Task 1**  
**A**  
**(3)** Are the demand forecasts realistic - and if so, must we meet them in spite of the costs?

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

# ALASKA POWER AUTHORITY

333 West 4th Avenue, Suite 31  
Anchorage, Alaska 99501  
June 4, 1980

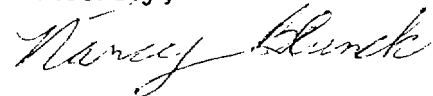
Donald Vernam  
Box 81120  
College, Alaska 99708

Dear Mr. Vernam,

We've received your letter and I have put you on the mailing list to receive information about the Susitna hydroelectric feasibility studies.

Enclosed is an Action form to use if you have specific questions or comments you wish to make regarding the Susitna plan of study.

Sincerely,



Nancy Blunck  
Director  
Public Participation Program

**COMMENTS, QUESTIONS & REQUESTS****Susitna Hydroelectric Feasibility Study**

The comments on this form are submitted by:

Date 5/7/80☒ An Individual Citizen☐ An Organizationname DONALD VERNAMname RECEIVEDaddress Box 81120# of members MAY 12 1980city COLLEGE, AKaddress ALASKA POWER AUTHORITYstate AK zip 99708city ALASKA POWER AUTHORITYday phone                      contact person                      day phone                     

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

Task  
12  
13

[ please place my name on your mailing list  
concerning the Susitna power project.

Thank you,  
Donald J. Vernam

use extra sheets if you need them

Aeres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

# ALASKA POWER AUTHORITY

333 WEST 4th AVENUE - SUITE 31 - ANCHORAGE, ALASKA 99501

Phone: (907) 277-7641  
(907) 276-2715

October 30, 1980

Mr. John Hayden  
Acres American, Inc.  
900 Liberty Bank Building  
Main at Court  
Buffalo, New York 14202

Dear John:

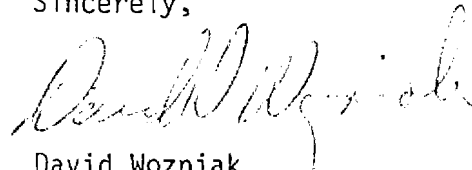
I am attaching two subjects that warrant investigation. They initially surfaced as Action Requests via the Public Participation Program, but perhaps are more appropriately addressed in specific task studies. They are:

- Letter from ADF&G to yourself, May 14, 1980 raising questions as to navigability of Alexander Creek subsequent to dam construction.
- An article from the Spring, 1980 (Volume 12, Number 1) issue of the "Northern Engineer" titled "Potential Caribou-Ice Problems in the Watana Reservoir", which poses several caribou impact questions.

Please advise us as to your proposed actions regarding addressing these two subjects.

Sincerely,

FOR THE EXECUTIVE DIRECTOR



David Wozniak  
Project Manager

Enclosures: Two as noted

cc: J. Gill



# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date June 16, 1980

☐ An Individual Citizen

☐ An Organization

name \_\_\_\_\_

name Geophysical Institute UofA

address \_\_\_\_\_

# of members \_\_\_\_\_

city \_\_\_\_\_

address Geophysical Institute UofA

state \_\_\_\_\_ zip \_\_\_\_\_

city Fairbanks, AK 99701

day phone \_\_\_\_\_

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

Attached Northern Engineer  
Article

Spring '80.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

# THE NORTHERN ENGINEER

applied science & technology in the north

*Re Lusitna p 4*

RECEIVED

JUN 09 1980

ALASKA POWER AUTHORITY

SPRING 1980

VOLUME 12, NUMBER 1

A PUBLICATION OF THE GEOPHYSICAL INSTITUTE  
UNIVERSITY OF ALASKA



# Potential Caribou - Ice Problems in the Watana Reservoir

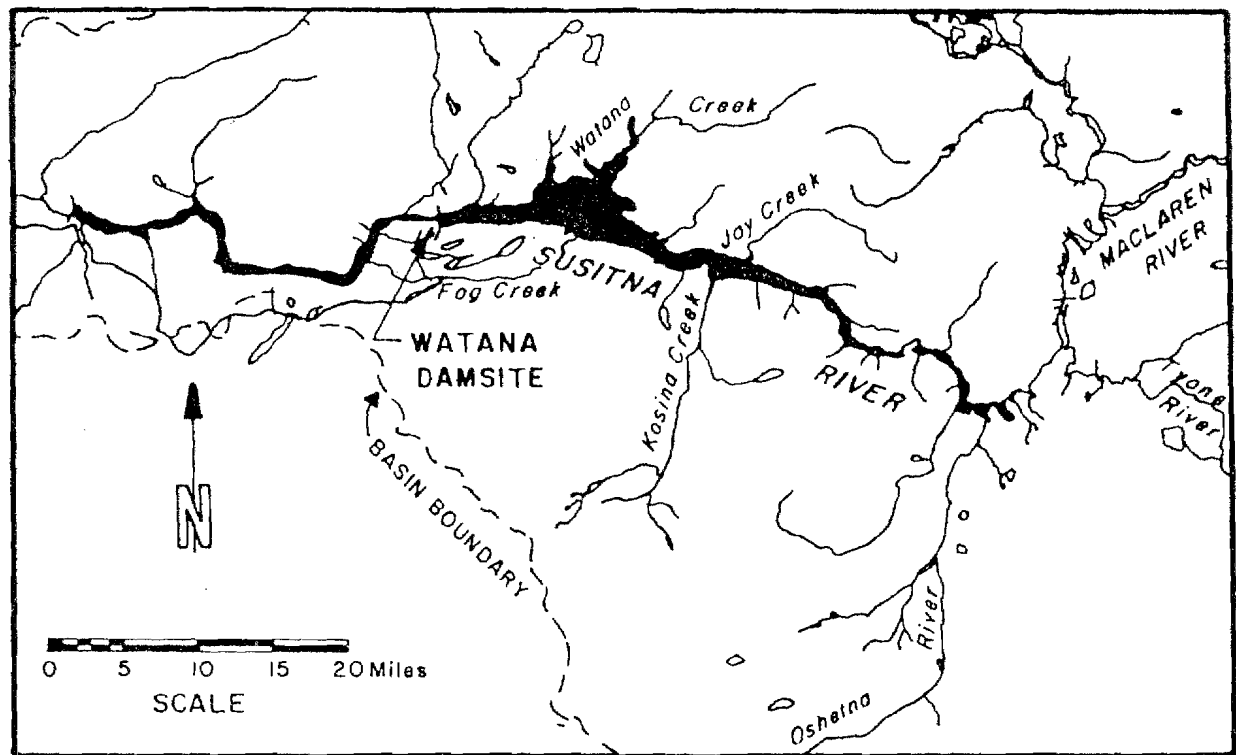


Figure 1. Susitna hydroelectric site.

## INTRODUCTION

Caribou from the Nelchina herd cross the Susitna River biannually in the vicinity of the proposed Susitna Hydroelectric Project. It appears that the Watana Reservoir will be sited near or on three caribou crossing areas. Since past studies<sup>1</sup> of caribou behavior have shown that disturbance of their natural habitat by various construction projects (e.g. roads, pipelines etc.) can disrupt their normal behavior, it is important to try to determine what effect the Susitna Hydroelec-

tric Project will have on the Nelchina caribou herd. The purposes of this article are to show that the Watana Reservoir does have the potential to affect caribou migrations and to raise some questions that should be answered before the nature and extent of the effects that the presence of the reservoir may have on the caribou can be predicted.

The Watana Reservoir on the Susitna River will be 54 miles (90 km) in length with the dam located about 134 miles (216 km) from the mouth of the river (Fig. 1). The reservoir will be contained

# Susitna Hydroelectric Project

within a narrow canyon 1/3 to 1 mile (0.5 to 1.6 km) wide for much of its length, except near the tributaries where it will be wider, particularly at Watana Creek and to a lesser extent at Jay and Kosina Creeks and the Oshetna River.<sup>2</sup> The reservoir level is expected to vary 80 to 125 ft (24.4 to 38.1 m) from October to April of the hydrologic year which corresponds to the period of ice formation and growth in the reservoir. Maximum daily variations should be less than 2 ft (.61 m). Table 1 shows the minimum draw-down schedule for the pool, starting at its maximum level of 2185 ft (666.4 m).

Parts of the Nelchina caribou herd, consisting of 15,000 animals, cross the Susitna River from the north to south in late April and early May to reach their calving grounds. Later in the summer (late July to early September), they recross the river going north.<sup>3</sup> Although very little work has been done on current migration routes, and these may change periodically or may even be random, it is thought that the Watana Reservoir will affect three general crossing areas at Fog Creek, Jay Creek, and the Oshetna River. Caribou have been observed in these areas at the time of breakup, possibly waiting until the largest ice floes clear from the river before crossing.<sup>4</sup> It is not known exactly how many caribou cross at these points.

## POTENTIAL PROBLEMS AND QUESTIONS

Possibly the most serious problem may be the presence of the reservoir; the caribou may not even attempt to cross it. We leave this important problem to



The two caribou photographs in this article are courtesy of Dr. David Klein.

TABLE 1  
Maximum Water Level — Minimum Draw-down Schedule

Mid-month	Starting Level	Ending Level	Change
Oct.	2185'	2185'	0
Nov.	2185'	2185'	0
Dec.	2185'	2175'	-10'
Jan.	2175'	2145'	-30'
Feb.	2145'	2130'	-15'
March	2130'	2115'	-15'
April	2115'	2105'	-10'
May	2105'	2125'	+20'
June	2125'	2170'	+45'
July	2170'	2185'	+15'
Aug.	2185'	2185'	0
Sept.	2185'	2185'	0



Figure 2. Eklutna Lake showing ice shelving on a gently sloping shore. (Photograph by C. Stephens.)

students of caribou behavior and proceed to potential problems caused by the physical nature of the reservoir.

Warm water released from the reservoir will prevent a stable ice cover from forming on the river. This open water may extend downstream to Talkeetna or farther, depending on weather conditions, so that the Fog Creek crossing will be open water at all times of the year. This should not create a problem for the caribou since they normally swim the river, unless they somehow depend on the ice cover for crossing at certain times.

Winter draw-down of the reservoir will produce ice-covered shores or so-called ice shelves. These ice shelves are formed when the floating reservoir ice cover be-

comes grounded on the shores as the reservoir level decreases during the winter. An example of ice shelving on a gently sloping shore at Eklutna Lake, near Anchorage, is shown in Figure 2. The grounded ice cover may assume the same shape as the shore or it may fracture, creating deep cracks, or it may even remain suspended in some places. We suggest that an ice-covered shore that is steep, contains cracks, or has the potential for caving under the weight of caribou, may present a serious obstacle to their crossing the reservoir.

The slope of the ice-covered shores in the draw-down zone can be used to give an indication of the location of very steep areas that the caribou may have dif-

ficulty negotiating. We have measured the slope of the north and south shores of the reservoir using a 1:63,360 scale map. The slope was measured between the 2075 ft (632.9 m) contour line and the 2185 ft (666.4 m) contour line which corresponds to the largest draw-down when starting from maximum pool. Figures 3 and 4 are graphs of the slope values along the north and south shores of the reservoir.

The north shore of Watana Reservoir will be 67.1 miles (108 km) in length and the south shore 51.5 miles (83 km) in length. Jay Creek area lies between 38.8 - 45.1 miles (62.5 - 72.5 km) on the north shore and 18.6 - 28 miles (30 - 45 km) on the south shore. The Oshetna River is at

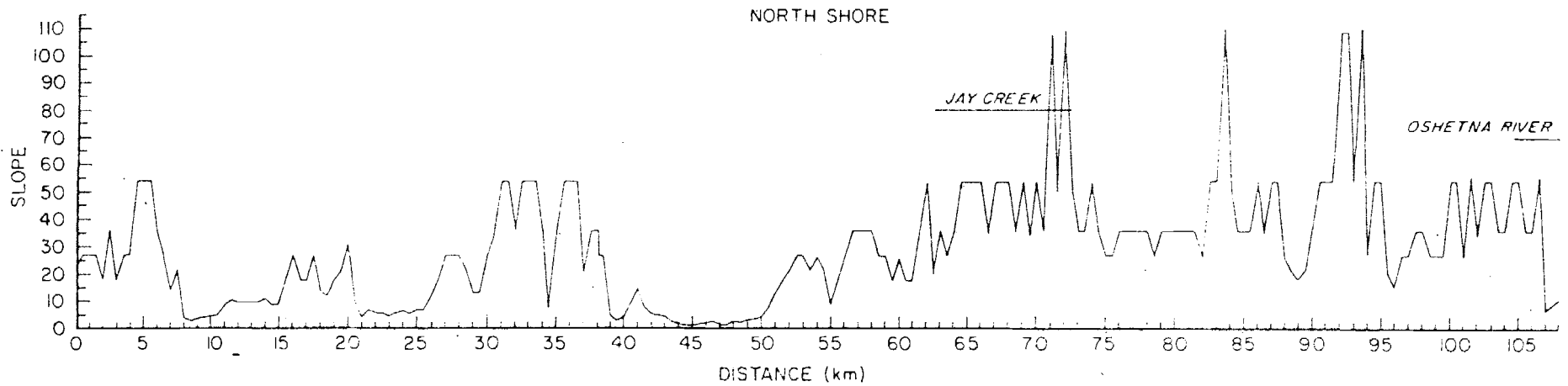
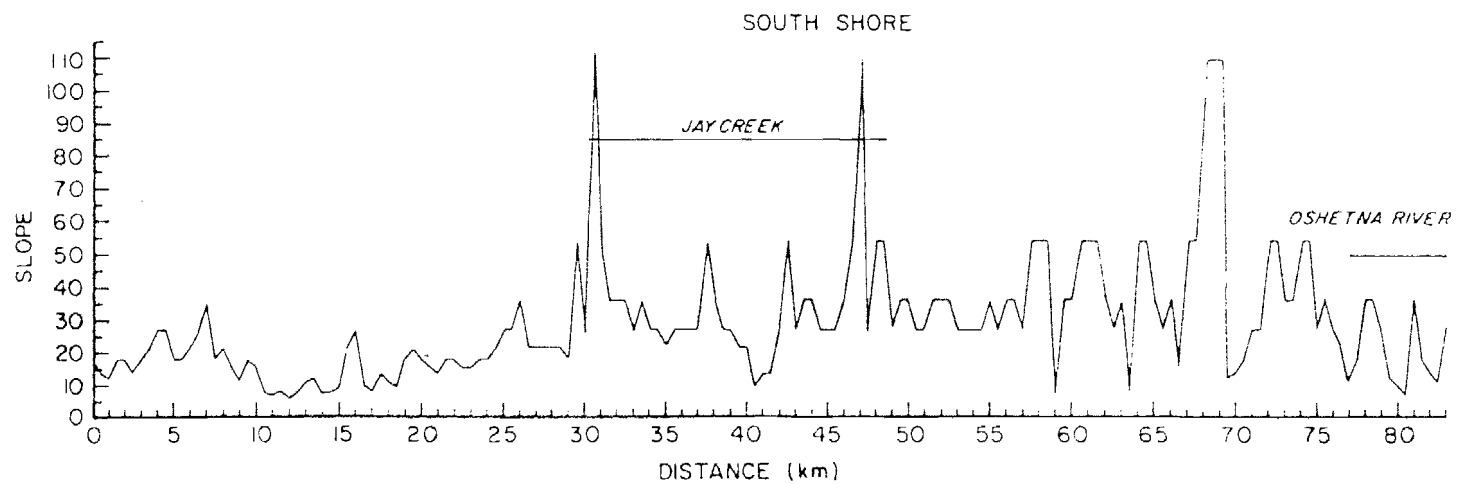


Figure 3. % slope vs. distance along the north shore. The two crossing areas of Jay Creek and Oshetna River are marked on the graphs both where they flow into the proposed reservoir and on the opposite shore. It should be noted that the scale map from which these slopes were taken would not show features such as a small gully which could enable caribou to negotiate easily an area that the graphs indicate would be difficult.

Figure 4. % slope vs. distance along south shore of Watana Reservoir.





65 - 67.1 miles (104.5 - 108 km) on the north shore and 47.8 - 51.6 miles (77 - 83 km) on the south shore. It appears that the two areas have little in common and must be considered separately as caribou crossings.

Realistic assessment of the effects of ice shelving requires consideration of both caribou behavior and ice conditions. With regard to the ice conditions, the greatest need is for a realistic model of the formation, growth and decay of the reservoir ice cover. Some questions that should be addressed are: What are the shore conditions or slope values that may cause the settling ice cover to break, leaving cracks in which caribou could be injured or possibly trapped? What is the timing of this settling, cracking and snow cover development that might mask the cracks? The thickness of the settling ice cover will increase through the winter but what will the thickness distribution be? Will the wind keep the ice clear of snow? What are the maximum slopes of clear ice and snow-covered ice that caribou can negotiate? How long will the ice shelves remain after breakup, and will caribou be forced to negotiate melting (wet) ice shelves?

During the spring caribou migration, the reservoir may still be frozen in the Jay Creek area, where the caribou will be coming from the north down a slope that varies from 109% to 21.5% with much of the shore between 40 - 60% slope. Probably the only problems the caribou would have getting down this shore would be falling into cracks formed as the ice sheet settles or breaking through the areas where the ice has bridged gaps. The south bank has a slope that varies from 109% to 9.0%, with much of the shore between 30 - 60% slope, so it is possible the caribou would have trouble climbing out on the south side.

The breakup dates of Jay and Kosina Creeks would also be important. If these two creeks break up before the caribou try to cross, there could be water flowing on top of the reservoir ice, and melted areas formed at the mouths of the creeks. An overflow, by itself, would probably cause no problems unless it cut a channel through the ice. Then the caribou might have trouble climbing out on the floating ice cover after swimming or walking through the overflow.

In the Oshetna River area these same questions need to be answered, but the situation is a little different. The slope on the north shore varies from 53.8% to 6.8% and on the south shore from 35.9% to 6.8%, so both shores have a more gradual slope than do those at Jay Creek. This area may be affected by the breakup of the Tyone River as well as the Oshetna River. For 3.7 miles (6 km) upstream of the Oshetna River, the draw-down of the reservoir may leave an ice sheet on the river bed and flood plain. When the Tyone River breaks up, water will be flowing into this ice-covered area. The actual effect is unknown but there could be ice jams and/or ice chunks floating in the area which would make it difficult or impossible for caribou to cross.

In conclusion, it seems likely that the reservoir will cause the caribou some problems, but the seriousness of the problems cannot be realistically assessed until more information has been gathered on caribou behavior and on the ice conditions in the reservoir.

#### ACKNOWLEDGMENTS

The Geophysical Institute acknowledges with thanks the assistance of the Department of Community & Regional

Affairs, State of Alaska, and the United States Government, Department of Labor, for providing funding for the labor on this report under the Comprehensive Employment and Training Act.

We also wish to thank Dr. D. Klein, University of Alaska; Mr. Jim Davis, Department of Fish and Game, Fairbanks; and Mr. Sterling Eide, Department of Fish and Game, Glenallen, for information on caribou behavior.

#### REFERENCES

- <sup>1</sup>Klein, D. 1971. Reaction of reindeer to obstructions and disturbances. *Science* July 30, Vol. 173, pp. 393 - 398.
- <sup>2</sup>U.S. Army Corps of Engineers. 1975. Draft Environmental Impact Statement, Southcentral Railbelt Area; Hydroelectric Power Development, Upper Susitna River Basin, U.S. Army Corps of Engineers, Alaska District, Anchorage, Alaska.
- <sup>3</sup>Eide, Sterling. 1979. Personal communication.
- <sup>4</sup>*Ibid.*

....

Janice Hanscom received her B.S. in Biology from the University of Maine at Orono. She has been a technician for Dr. T. Osterkamp for the last year.

T.E. Osterkamp is Associate Professor of Physics, Geophysical Institute, University of Alaska, Fairbanks. His interests lie in the scientific aspects of environmental and engineering problems involving snow and ice, including permafrost and frozen ground.

May 28, 1981

Action File Number: F-014-80

Ms. Libby V. Finesmith  
P. O. Box 81393  
Fairbanks, Alaska 99708

Dear Ms. Finesmith:

Thank you for your thoughtful letter in which you expressed concerns for the proposed Susitna hydroelectric project.

We have heard from a number of people who share your appreciation for the Susitna River and who also value a lifestyle without electricity.

Your letter has been read by the engineer who is project manager for the Susitna feasibility studies. It has also been forwarded to Acres American, Inc., the firm conducting the Susitna studies. Your comments will be included in a report we will give to the Governor and the Alaska Power Authority Board of Directors prior to a decision on Susitna next April.

Enclosed is a copy of an ACTION comment form that you may use if you have further comments.

Sincerely,

*Jean Buchanan*  
Jean Buchanan  
Public Participation Office

FOR NANCY BLUNCK

JB/mgh

Enclosure



# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date 12/1/80

☒ An Individual Citizen

☐ An Organization

name Libby V. Finesmith

name

address P.O. Box 81393

# of members

city Fairbanks

address

state AK zip 99708

city

day phone

contact person day phone

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

See attached letter

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

Dear Ms. Blumck:

11-26-80

I just want to comment on your newsletter. I don't really care if I receive it in the future. But I want to comment on the content of the letter and the entire feasibility study.

I know a large number of people who live in the areas to be affected by the project, and I know lots of folks in more rural parts of Alaska. I hope to be one myself one day. There are a number of points that the Power Authority ought to be more sensitive to:

- 1) Many people, most, who decided to live in rural areas of Alaska do so because they want a lifestyle less encumbered. They don't want electricity, unless they make it themselves on a very small scale, partially for the pleasure of the project. So for them, electricity is an intrusion into their chosen lifestyles; their visual horizon, which would be further chopped up and their pockets.
- 2) A good number of people outside of Anchorage feel this way as stated above. Many living in our state feel this way, including myself.
- 3) The idea that economic development will create a need for electricity even in the face of slower growth of population, is premature. You are assuming that most people here want economic development (I think that again, outside Anchorage it just is not so very true or clear cut). Many people, including myself, feel that people who want industry should go back to the lower 48. We came here to get away from it. There's plenty down there, and you can go ahead and destroy more of what's there if you want. We feel that what makes Alaska unique and wonderful is the ability to live subsistence, in harmony with environment.

back

4) Have you ever seen the Suetna or fished in it?  
It is magnificent. Its special to those of us who fish it, who live by it, who photograph it, paint it and who simply contemplate the magnificence and beneficence of nature by its banks. Its silt waters are an icy iridescent pale green. From it, in some areas, are incredible views of mountains. Alaskans love nature. That's why they live out in it. What a pity to spoil it.

5) Like all pro-progress, pro-development people, everywhere in the world, you will probably finesse your way thru this, convincing city folk and village natives that electricity is the way to go. This progress and white man's ways, which put such emphasis on the convenience of flicking a switch and consequent change in lifestyle, will continue to create cultural disintegration of native ways and rural Alaskan ways. Technology forces us to speed up our concepts of time and space. Would it be so bad not to have to rush back and forth to a job? To run your life in some way other than like a wound up clock?

6) Anchorageites may pride themselves on the growth and development of their city but for me, I am glad the population decreased since pipeline days and I don't look forward to the gas line or any other boom times. As I say, there is plenty in the way of development in the lower 48 for people who like that sort of thing.

I hope the views of people like myself won't be brushed aside as a "fringe" view when we hit the bottom line. When you live in a city its hard not to think that bigger is better but city is the antithesis of what this state is about.

Sincerely,  
Libby Funt Smith

March 19, 1981

ACTION FILE Number: F-015-80

Sister Marie Bertrand  
757 Illinois Street  
Fairbanks, Alaska 99701

Dear Sister Bertrand:

You requested from our office information on the various plant, animal and geological studies now being performed as part of the Susitna hydroelectric feasibility studies.

The studies that you are interested in are still in progress and will not be completed until early 1982. Therefore, we cannot send you any summaries at this time. I suggest you write us again in February 1982, if subsequent newsletters do not answer your questions.

Enclosed is a copy of a form which you may use if you have questions, comments, or need information regarding the feasibility studies.

Sincerely,

Nancy Blunck  
Director of Public Participation

NB/mgh

Enclosure

CONCUR: Wozniak  
Mohn

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date December 1, 1980☒ An Individual Citizen☐ An Organizationname Sister Marie Bertrand

name \_\_\_\_\_

address 757 Illinois Street

# of members \_\_\_\_\_

city Fairbanks

address \_\_\_\_\_

state AK zip 99701

city \_\_\_\_\_

day phone \_\_\_\_\_

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

Response to newsletter.

Request: Would appreciate summaries of the various studies in plants,  
animals that are being conducted--also, in the geologic  
studies too.

Thank you for this service.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

### Alaska Power Authority

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

Todd Hoener  
P. O. Box 80343  
College, Alaska 99708

Dear Mr. Hoener:

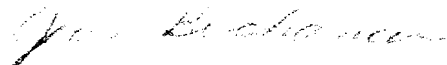
We received your note indicating that you are interested in wind power and storage systems for rural areas.

Since we cannot fulfill your request, I have forwarded your request for information to Clarissa Quinlan, Director of the state Division of Energy and Power Development. I believe that state office has information they can send to you.

We appreciate your interest in being included on our mailing list for future newsletters relating to the Susitna hydroelectric feasibility studies.

Please contact us if we can be of further assistance.

Sincerely,



Jean Buchanan  
Public Participation Program

February 3, 1981

cc: ACTION system file

Clarissa O'Brien  
Director  
Division of Energy and Power Development  
338 Denali Street  
Anchorage, Alaska 99501

Dear Ms. Quinlan:

We received a request from Todd Hoener for information about wind power and storage systems for rural areas. We have no information to send him. Therefore, I am forwarding his request to you with the hope that DEPD will be able to provide him with the information he needs.

Mr. Hoener's address is P. O. Box 80343, College, Alaska 99708.

Thank you for your assistance.

Sincerely,

Jean Buchanan  
Public Participation Program

February 3, 1981

cc: ACTION system file

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date December 19, 1980☒ An Individual Citizen☐ An Organizationname Todd Hoener

name \_\_\_\_\_

address P. O. Box 80343

# of members \_\_\_\_\_

city College

address \_\_\_\_\_

state Alaska zip 99708

city \_\_\_\_\_

day phone \_\_\_\_\_

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible. \_\_\_\_\_

I am particularly interested in WIND POWER and STORAGE SYSTEMS  
FOR RURAL AREAS.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001



# ALASKA POWER AUTHORITY

333 WEST 4th AVENUE - SUITE 31 - ANCHORAGE, ALASKA 99501

Phone: (907) 277-7641  
(907) 276-2715

January 30, 1981

ACTION FILE No.: F-001-81

Mr. Jeff Weltzin  
FAIRBANKS ENVIRONMENTAL CENTER  
218 Driveway  
Fairbanks, Alaska 99701

Dear Jeff,

We have your letter dated January 21, 1981 suggesting that radio tagging be considered in the fish ecology studies on the Susitna River.

The following response comes from Kevin Young, Environmental Coordinator for Acres American, Inc.:

"A major objective of the fish studies is to define the major migration corridors and critical habitat. We are currently assessing the use of radio telemetry (as it compares to other methodologies) to do that.

We are aware of the Alaska Department of Fish & Game's successful use of radio-tagging in other Alaskan glacial rivers. In fact, the fisheries coordinator, Dana Schmidt, hired by TES (Terrestrial Environmental Specialists) was actively involved on the radio tagging efforts on the Kenai River. In his mandate to interface directly with ADF&G, he will be assisting in the decision on whether to apply radio tagging to the Susitna Rivers studies.

Presently Acres is in the process of redirecting funds to allow the use of radio tagging if that is the method selected.

Discussions are ongoing right now between Acres, ADF&G and TES. A decision is expected in the next month. We appreciate the timeliness of your comment and am pleased respond that it is being fully considered.

We will let you know the outcome of our current discussions near the end of February."

Thanks, Jeff.

Sincerely,

Nancy Blunck  
Director of Public Participation

NB:mgh

Date January 28, 1981

~~X~~ An Organization

name FAIRBANKS ENVIRONMENTAL CENTER

# of members 400

address 218 Driveway

city Fairbanks, Alaska 99701

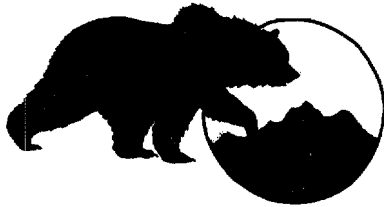
contact person J. Weltzin day phone 907-452-5021

COMMENTS ATTACHED.

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

# Alaska Power Authority

**333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001**



# Fairbanks Environmental Center

218 DRIVEWAY  
FAIRBANKS, ALASKA 99701  
(907) 452-5021

21 January 1981

TO: Eric Yould, Alaska Power Authority

FROM: Jeff Weltzin, Energy Coordinator *J.W.*

RE: Sub Task 7.10 Fish Ecology Studies

RECEIVED  
JAN 26 1981

ALASKA POWER AUTHORITY

The fish ecology studies of the Susitna River Hydro Feasibility Study perform an important role by helping to ensure that the best uses of the Susitna's natural resources can be determined for the long-term benefit of Alaskan citizens.

The fish ecology studies' function of determining relative abundance, distribution, spatial and seasonal habitat requirements for adult and juvenile anadromous fish populations in the Susitna is complicated by the river's glacial braided nature. As a result, state-of-the-art equipment and techniques must be employed to adequately assess adult and juvenile salmon stock escapement and critical habitat.

In reviewing sub task 7.10, it has come to our attention that the use of radio telemetry to define major migration corridors and critical habitat has not been included in the budget of the fish ecology studies. This appears to have happened because of an early conclusion that radio-tagging is ineffective for use in the Susitna.

But since then, radio-tagging has been determined to indeed be a useful tool for these important studies. This conclusion is also substantiated by Alaska Department of Fish & Game's successful use of radio-tagging in other Alaskan glacial rivers.

Considering the difficulty that the Susitna's complex nature presents in salmon stock assessment and the resulting need for useful techniques such as radio-tagging, do you plan to seek additional funding to employ this technique?

We urge you to consider this technique as a valuable part of the fish ecology studies and seek the necessary funds to implement the use of radio-tagging in these studies.

We look forward to hearing from you on this matter.

*"Cherish, Conserve, Consider, Create"*

March 13, 1981

Jeff Weltzin  
Fairbanks Environmental Center  
218 Driveway  
Fairbanks, Alaska 99701

Dear Jeff,

I have your letter dated February 25 raising a number of concerns and recommendations about workshop #3 on recreation and access. Most points you raised were concerned with assessing impacts on existing recreational uses.

The following response was developed by Robert Mohn of the Power Authority and Kevin Young, the Environmental Coordinator from Acres:

"We have made a clear distinction between 1) the FERC requirement for the development of a recreation plan within the project boundaries and 2) an overall assessment of recreation resources and impacts on these resources.

Subtask 7:08 responds directly to the FERC recreation plan formulation requirements and is directed towards a reservoir recreation plan that would be implemented if a Susitna development occurred. Thus the study focus is on recreational opportunities in the impoundment and surrounding area and does assume that the plan would only be implemented if the Susitna dam is built.

The assessment of existing and planned recreation resources, uses and programs and the impacts upon them are addressed under appropriate subtasks, specifically 7:07 (Land Use Analysis) and 7:05 (Socioeconomic Analysis).

The approach for these subtasks, as for all subtasks addressing project impacts, is to formulate a "without project" scenario for comparison to a "with project" scenario. The "without project" condition is developed from a review of current and planned recreation resources, uses and programs. All appropriate local, state and federal agencies will be contacted to provide the information needed to formulate the "without project" scenario. The type of information is presented in the attached outline."

You also requested that procedure manuals for tasks covered by the recreation and road access workshop be available at the workshop -- they will be.

You also requested that a resource person be available at the workshop to provide information on fish, moose and caribou. That person is Cathie Baumgartner from Terrestrial Environmental Specialists, Inc. and she will be there giving the environmental impacts presentation.

You also noted that the workshop should not deal with any recreational development based on the premise of a Susitna hydro project. I disagree with that, and here is my thinking:

page 2  
Jeff Weltzin  
March 13, 1981

When a recreational plan and the potential impacts of that recreation plan are FERC requirements. Last fall, Dr. Alan Jubenville of the University of Alaska, Fairbanks began the development of that plan by sending out over 2000 random surveys to people in Fairbanks, Anchorage and the communities in between. A number of people responded (about 25%). This will form the major input into determining what level of recreational development is seen as desirable by the public. Both Dr. Jubenville and myself were concerned about the lack of opportunity for special interest groups such as the Fairbanks Environmental Center (and the other 45 groups that I regularly communicate with) to have input into determining this desired level of recreational development. We looked at a variety of ways to get this input and adding this item to the workshop was our choice.

It had the added advantage of providing an opportunity to any member of the general public to comment who didn't previously get the random survey.

Last week I sent out a special mailing to all groups and organizations on the recreation question. You should have received that. You may choose to take advantage of it and I encourage you to do so. You may also choose not to. In any case, I felt it was very important that people had the opportunity to comment. I realized at the time I made the decision that there was some awkwardness about the timing. But I was willing to live with that to allow the expanded opportunity to comment.

Sincerely,



Nancy Blunck  
Director of Public Participation

*Attachment*

VIII. RECREATION

A. Utilizing Fish & Wildlife Resources

1. Sport Fishery

a. All species

2. Wildlife

a. Caribou

b. Moose

c. Black Bear

d. Brown Bear

e. Mountain Goats

f. Sheep

g. Wolverine

i. Waterfowl, Birds

j. Other Furbearers

\* Variables to be considered for above

1. Historical

2. Present

a. area (acres and location)

b. effort (visitor days/# of visitors) -

c. Success (harvest)

d. Resident (pt. of origin/% of total)

e. Non-Resident (gen. geo. pt. of origin/  
% of total)

f. Species (stats relative to State)

g. Subsistence (personal consumption/  
business)

h. Trophy

i. Management Plans

i. Regulations

ii. Revenues (total/relative to  
state/flow of money)

iii. Enforcement (ways/numbers/capacity)

B. Not Related to Fish & Wildlife Reserves

1. Water Sports (canoe, kayak, rafting)

a. Historical

b. Area

1. effort

2. resident/non-resident pt. of origin

2. Land Sports (hiking, picnicing, climbing)

a. Historical

b. Area

1. effort

2. resident/non-resident pt. of origin

C. Other

VIII. (cont.)

D. Related Business

1. Guides (#/\$)
2. Air Taxi Operators (#/\$)
3. Lodge Owners (#/\$)
4. Land Owners (#)

E. Projections

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date 3/2/81

☐ An Individual Citizen

☒ An Organization

name \_\_\_\_\_

name Fairbanks Environmental Center

address \_\_\_\_\_

# of members \_\_\_\_\_

city \_\_\_\_\_

address 218 Driveway

state \_\_\_\_\_ zip \_\_\_\_\_

city Fairbanks, Alaska 99701

day phone \_\_\_\_\_

contact person Jeff Weltzin day phone 452-5-21

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

ATTACHED LETTER.

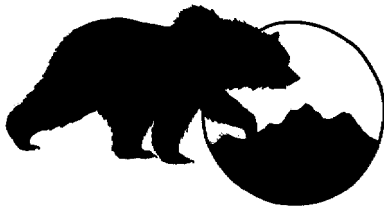
use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001





# Fairbanks Environmental Center

218 DRIVEWAY  
FAIRBANKS, ALASKA 99701  
(907) 452-5021

25 February 1981

Nancy Blunck  
Public Participation Program  
Alaska Power Authority  
333 W. 4th  
Anchorage, Alaska 99501

RECEIVED

MAR 2 1981

ALASKA POWER AUTHORITY

Dear Nancy;

The public participation program as described in the Susitna Hydroelectric Project Plan of Study proposes to keep the public fully informed and provide the means by which the public can influence the study's course of work.

With this in mind, the Fairbanks Environmental Center would like to raise some concerns and offer recommendations regarding the upcoming workshop on Recreation Planning and Road Access.

1. The Susitna River drainage and its fish and wildlife resources provide tremendous recreational opportunity and support heavy recreational use from varied groups of recreationists. It is our hope that the workshop will acknowledge the Susitna's diverse recreational value by seeking public input on the existing recreational resources and by informing the public how the project may change such uses.

In this regard, we feel it is essential that representatives from the Fish and Wildlife study tasks be present to provide the public needed information on recreational resources such as fish, moose and caribou.

2. The recreation portion of the workshop should focus on recreational resources, uses and impacts downstream from Devil's Canyon to the mouth of the Susitna. The workshop should not focus on the impoundment area and should not deal with any recreational development based on the premise of a Susitna hydro project.

Discussion of recreational facilities prior to a decision on the Susitna project is premature. Rather, the workshop should assess existing recreational potential, uses and capabilities without a hydro project and then compare how this type of project could affect these uses.

3. The road access portion of the workshop should also focus on assessing how proposed routes could change existing recreational uses and fish and wildlife populations.

4. The Recreation Planning and Road Access workshop should

provide an opportunity for coordination and information exchange between subcontractors performing the fish and wildlife studies, recreation and road access planners and the public.

5. The procedure manuals for the tasks covered by the Recreation and Road Access workshop should be available at the workshop to provide more detailed information to those requesting it.

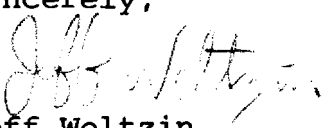
In conclusion, the area proposed for hydro development is the heartland of range for the 22,000 head Nelchina caribou herd. This area also contains significant critical moose winter habitat. Both the caribou and moose of the upper Susitna River provide tremendous recreational opportunities to the sportsmen of the railbelt. Downstream of the proposed dams are the Susitna's abundant salmon fisheries and additional moose populations which provide accessible recreation opportunities for Alaskans. The proposed hydro project could have a large effect on these resources and their recreational users.

The public participation program will have failed in its role to inform and receive input from the public if the upcoming workshop ignores the Susitna's existing recreational resources and uses by focusing on recreational development of the proposed dam project.

We hope this is not the case, for effects to the recreation users of the Susitna basin could be significant and consideration of such uses should be the prime focus of the Recreation Planning and Road Access workshop.

We look forward to hearing from you on this matter.

Sincerely,

  
Jeff Weltzin  
Energy Coordinator

JW/il

cc: Paul Carrier, FERC  
Mark Robinson, FERC

April 16, 1981

Action File Number: F-003-81

Keith Hogarth  
P. O. Box 604  
Delta Junction, Alaska 99737

Dear Mr. Hogarth;

We received your letter of March 9th in which you voiced a strong recommendation that the Susitna River hydroelectric project be built because of the high cost of electricity in Delta Junction.

As you may already know, 1993 is the earliest that Susitna power would be available. At present, no one is able to say precisely what the consumer in Delta Junction would pay for electricity if the project were built. However, most people agree that Golden Valley customers would not pay less than what you are paying today. It is anticipated that Susitna hydro development would keep the cost of electricity from rising as rapidly as it would if Golden Valley continues to be dependent upon fossil fuels to generate electricity. More definite answers will be available at the end of the feasibility study in early 1982.

You also mentioned in your letter that you favored railroad access. We will pass your opinion on to those who will be recommending a preferred access route by next spring.

Your comments have been entered into our ACTION system, which means that the Alaska Power Authority and Acres American, Inc., (the firm conducting the studies), will review what you have said. Also, your comments and all other comments we receive will be included in a report we will give to the Alaska Power Authority Board of Directors and the Governor prior to a decision on Susitna next spring.

Enclosed is a copy of an ACTION form you are welcome to use to send us other comments or any questions you have.

Thank you for taking the time to share your opinions with us.

Sincerely,

Jean Buchanan  
Public Participation Office

JB/mgh  
Enclosure

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date \_\_\_\_\_

☒ An Individual Citizen

\_\_\_\_\_ An Organization

name Keith W. Hogarth

name \_\_\_\_\_

address P.O. Box 604

# of members \_\_\_\_\_

city Delta Junction

address \_\_\_\_\_

state AK zip 99737

city \_\_\_\_\_

day phone \_\_\_\_\_

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

Attached Letter

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

RECEIVED

MAR 9 1981

Keith W. Hogarth  
P.O. Box 604  
Delta Jct., AK 99737

ALASKA POWER AUTHORITY

Dear Sir:

I strongly recommend the building of the Susitna River hydroelectric project with railroads as access. The electric light bills in Delta Junction are a crushing burden to the working man.

Sincerely:

Keith W. Hogarth

June 18, 1981

Action File Number: F-004-81

James and Priscilla Kari  
Alaska Native Language Center  
University of Alaska  
Fairbanks, Alaska 99701

Dear James and Priscilla Kari:

Enclosed is a response from Acres American, Inc. to your letter received by us in March of this year regarding the Susitna hydroelectric feasibility studies.

Response from Acres American, Inc.:

We acknowledge receipt of your letter regarding ethnohistoric - ethnogeographic studies in the Upper Susitna Basin.

Although possibly not to the level you envision, our archaeological studies are being conducted with ethnographic and historic impact. For your information I have attached the sections of our 1980 Cultural Resource Report dealing with these subjects.

Our initial assessment is that additional studies in this subject area are not warranted at this time. However, as we continue to re-evaluate our program and outline Phase II studies, your comments will be taken into account.

Thank you for your participation.

If you have any further comments or questions, we hope that you will send them to us. Enclosed is an ACTION form which you may use for that purpose.

Sincerely,

FOR NANCY BLUNCK

Jean Buchanan  
Public Participation Office

JB/mgh

Enclosures: ACTION form.  
1980 Cultural Resource Report dealing with ethnohistoric  
and ethnogeographic studies.

April 6, 1981

Action File Number: F-004-81

James and Priscilla Kari  
Alaska Native Language Center  
University of Alaska  
Fairbanks, Alaska 99701

Dear James and Priscilla Kari:

Thank you for your letter concerning a suggestion for a change in the Susitna Hydroelectric Feasibility studies. We have passed your letter and article on to Acres American, Inc., the firm conducting the studies. (TES is on contract to them.)

You should receive a response from Acres through our office within six weeks.

Sincerely,

*Jean Buchanan*  
Jean Buchanan  
Assistant Director of Public  
Participation

JB/mgh

May 4, 1981

Mr. Kevin Young  
Acres American, Inc.  
The Liberty Bank Building  
Main at Court  
Buffalo, New York 14202

Dear Kevin,

Two responses from ACRES to ACTION requests are overdue. Could you track them down for me and give them a push to move them along through the system faster?

The two responses are to requests from:

John Ireland, T-001-81  
James and Priscilla Karl, F-004-81

Included in a copy of each ACTION request. If the responses will not be coming by the first of next week, please let me know. I need to notify each person that his or her response has been delayed.

When the responses are sent to Jim Gill, could you please let me know? I can then ask him to look for them and forward them to me quickly.

Thanks for your assistance, Kevin.

Sincerely,

*Jean Buchanan*  
Jean Buchanan  
Public Participation Office

JB/mgh

Enclosures



# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date 3/19/81

☒ An Individual Citizen

☐ An Organization

name Kari, James/Priscilla

name \_\_\_\_\_

address AK Native Language Center

# of members \_\_\_\_\_

city U of AK,

address \_\_\_\_\_

state Fairbanks, AK zip 99701

city \_\_\_\_\_

day phone \_\_\_\_\_

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible. \_\_\_\_\_

Attached letter.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001



# University of Alaska, Fairbanks

Fairbanks, Alaska 99701

March 17, 1981

Nancy Blunck  
Director of Public Participation  
Alaska Power Authority  
333 W. 4th, Suite 31  
Anchorage, Alaska 99501

RECEIVED  
MAR 17 1981  
ALASKA POWER AUTHORITY

Dear Ms. Blunck:

I recently sent a similar letter to TES but have not received a reply. I attended the hearing held in Fairbanks yesterday, and I understand a little more now about the research work in progress on the dam. It concerns me that research on both archaeological sites and on flora and fauna in the middle Susitna is being done without any ethnohistoric-ethnogeographic context. The one paper I've seen on historic use of the area (by Bacon) draws only upon the early 20th century records of non-Native incursion into the area.

My wife, Priscilla, and I are interested in future research projects relating to the proposed Susitna dam. I am a linguist who specializes in Athabaskan languages. My wife is a botanist-anthropologist. We have worked with both the Ahtna and Tanaina languages since 1973, and we have done considerable research on the language, ethnohistory and ethnogeography of the Upper Inlet Tanaina and the Western Ahtna. I have published an Ahtna noun dictionary (co-authored with Mildred Buck), a Tanaina (more properly Dena'ina) Noun Dictionary, which catalogues the flora and fauna as well as many other semantic topics that are known by these people. In addition, I am at present compiling large, comprehensive dictionaries for both Ahtna and Tanaina. My wife has published a popular ethnobotany of the Tanaina, and has gathered extensive ethnobotanical information of the Ahtna. She is presently writing a thesis which analyzes Tanaina ethnobotany and environmental diversity.

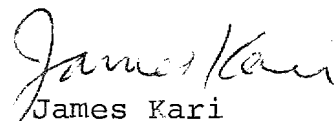
It strikes me that a major gap in the Susitna Research design has been a portrayal of the Native use of that area both in the early 20th century and in the pre-contact period. I feel that there is a wealth of information available with Ahtna and Tanaina elders who are from this region. Enclosed is a paper I published in 1977 which details linguistic diffusions between Ahtna and Tanaina languages. The Susitna River and the Matanuska River have been areas of ancient contact between the Ahtna and the Tanaina. This article makes mention of the (now extinct) Talkeetna River-Stepan Lake band that was actually a bilingual band. I have done language work with descendants of this band and with other elders who knew members of this band. I feel that quite a bit of ethnohistoric information can be assembled about these Middle Susitna people.

In addition, I have collected hundreds of Native place names in both Ahtna and Tanaina along the Susitna River. For example for the Upper Susitna above Devils Canyon, 135 Ahtna place names have been recorded to date. From this data, a detailed ethnogeography could be compiled. The place names coverage is remarkably detailed and could be refined with further research. The ideal approach would be to make a series of tapes in Ahtna and Tanaina with elders in a conference setting and in the field. Transcripts of such tapes would be valuable both as linguistic and as historic documents. Far too often, oral history with Native elders is underregarded as a source of data due to the severe limitations of working through English.

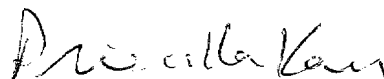
An ethnogeography of the Susitna River, with detailed information on Athabaskan trails, place names, subsistence use and historic events would complement and provide depth to both the archaeological and environmental research and would be of value in future plans for use of the area. Most significantly, such a project would directly involve the Ahtna and Tanaina elders who have ancestral ties with the middle Susitna and ensure that their perspective on the area is being recognized and preserved.

Please keep us informed of plans for futures reseach contracts. We can make a specific proposal for a research project.

Sincerely,



James Kari  
Assistant Professor  
Alaska Native Language Center



Priscilla Kari

August 20, 1981

Retion File Number: F-005-81

Brian E. Lawhead  
Box 81920  
College, Alaska 99708

Dear Brian:

I hope you received a copy of the tunnel scheme report mailed to you last month.

Enclosed are comments from Acres American, Inc. and Eric Yould regarding your concern that the tunnel option be discussed in a public forum.

Comments from Eric Yould, Executive Director, Alaska Power Authority:

The choice of pursuing a tunnel option over a dam at Devil Canyon entails much more than just engineering considerations. The more detailed selection process is contained in the Development Selection Report now available at the University of Alaska library and the Noel Wien Public Library. A summary, however, of why the tunnel scheme proved inferior is in order.

Added energy costs must be weighed against reduced environmental impacts. The tunnel scheme appears to be technically feasible, but a large degree of uncertainty exists in the estimated project costs because of the geotechnical program needed to locate the tunnel. Conversely, a qualitative environmental assessment by TES indicates that the tunnel scheme is superior from an environmental standpoint. However, the tunnel scheme yields 26 percent less energy at a significantly higher cost. In addition, the tunnel scheme limits future energy alternatives, and is not as flexible as the two dam scheme in meeting present and forecasted railbelt power demands. Environmentally, while the tunnel scheme would perhaps preclude the inundation of 3,600 acres, the impact of the tunnel scheme would probably be no less than that of the two dam scheme on fish resources downstream of Devil Canyon. The temporary impact from the tunnel construction would be spread over the length of the tunnel as access tunnels and spoil areas would have to be established.

Brian Lawhead  
Page 2  
August 20, 1981

- C You should be aware that we do not view this selection of the Devil Canyon Dam over the tunnel as being irreversible. The important point is that the Watana phase is common to both plans and would be the first phase constructed in either case. There is ample opportunity to reconsider this decision as time goes on.

While this is only a brief synopsis of why the tunnel scheme was screened out, you also raised specific questions on tunnel technology and seismicity. Acres American, Inc. has responded to the two questions you raised.

Your Concern:

There is a significantly lower risk of seismic damage with a bedrock tunnel.

Response from Acres:

Studies have shown underground structures in rock are less susceptible to earthquake damage than surface structures. "Damage to Rock Tunnels from Earthquake Shaking" by Dowding and Rosen discusses this topic quite well. They show that tunnels may be subjected to very severe earthquakes and experience only minor damage. The most devastating type of damage is when a structure crosses a fault and the fault displaces during an earthquake. Both dams and tunnels can be designed to withstand shaking and both may experience damage if a fault displaces under or through them. However, the potential for damage for a dam due to fault displacement will depend on the type of dam, i.e., earthfill or concrete. If the possibility of a displacing fault is eliminated both structures will survive similar earthquakes but the potential for any damage to the tunnel would probably be less. In case of potential fault movement under the dam, an earthfill/rockfill structure is preferred over concrete dam depending on the type and amount of displacement, and in that case the potential damage to a dam probably will be less than to a tunnel. In either case, both structures are designed to mitigate the effect of an earthquake.

Your concern:

A R & M geologist at Watana Camp said that tunneling technology is more highly developed than dam construction.

Brian Lawhead  
Page 3  
August 20, 1981

Response from Acres:

This is not true. With the availability of "ideal" hydroelectric sites decreasing, the state of the art in both dam and tunnel technology has increased to allow less favorable sites to be used effectively.

Presently, most rock masses can be tunneled through with tunnel cost increasing as the rock mass quality decreases. Very little is known about the detailed geology between the dam sites but the region is geologically complex with probable zones of poor rock quality. More detailed geologic information along the tunnel alignments is required before more accurate costs can be estimated. The cost of obtaining detailed geologic information along the tunnels can be quite high since the alignments are 15 to 30 miles long and the tunnel depth from surface would varie from 250 to 2,000 feet.

If you have further questions, please contact our office. We appreciate your interest in the project.

Sincerely,

FOR THE EXECUTIVE DIRECTOR

Jean Buchanan  
Public Participation Office

JB/mab

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date 4/9/81

☒ An Individual Citizen

☐ An Organization

name Brian E. Lawhead

name \_\_\_\_\_

address Box 81920

# of members \_\_\_\_\_

city College

address \_\_\_\_\_

state Alaska zip 99708

city \_\_\_\_\_

day phone \_\_\_\_\_

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible. \_\_\_\_\_

ATTACHED LETTER.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

7 April 1981

RECEIVED

APR 9 1981

Ms. Nancy Blunck  
Public Information Officer  
Alaska Power Authority  
333 W. Fourth Ave., Suite 31  
Anchorage, AK 99501

ALASKA POWER AUTHORITY

Dear Ms. Blunck:

I apologize for the delay in writing you, but I have been burdened with a heavier-than-normal schedule in the three weeks since the Fairbanks access and recreation workshop on the Susitna hydro project. I should explain that I am the fellow who spoke with you following the workshop about the Devil Canyon tunnel option, and I am herein responding to your request for a specific follow-up letter outlining my concerns.

My primary concern is that the tunnel vs. dam option at Devil Canyon be presented and discussed in a public forum. From my conversation with Jim Gill at the Fairbanks workshop, I got the impression that it is not simply an engineering matter; if such is the case, then the public should be allowed to review the question. Indeed, in talking with an R&M geologist at the Watana camp last September, I was told that tunneling technology is more highly developed than dam construction technology, and that there is a significantly lower risk of seismic damage with a bedrock tunnel. My initial impression is thus that a tunnel might be a better alternative from the standpoint of environmental and aesthetic impact in the Devil Canyon area. As a wildlife biologist, I am obviously interested in seeing the project carried out in the least environmentally damaging manner possible should it be undertaken, and I think that a substantial proportion of the public feels the same. I don't know the relative costs of tunnel vs. dam construction, but this is another question that is most appropriately addressed to the public, I think. In short, I would like to have the options explained more fully and be able to comment on them, and I think others should be afforded the same opportunity.

In addition, I would greatly appreciate a copy of ISER's power demand projections; I neglected to request one at the workshop. In closing, I commend you on the public presentations you have organized (although I am disappointed that earlier ones were not presented in Fairbanks), and I thank you for being so responsive and helpful, both in the meetings and in your mailings. Keep up the good work!

Sincerely,

*Brian E. Lawhead*

Brian E. Lawhead  
Box 81920  
College, AK 99708

P.S. I just found out that we have a friend in common -- Donita Haynes. How bout dat...



# ALASKA POWER AUTHORITY

333 WEST 4th AVENUE - SUITE 31 - ANCHORAGE, ALASKA 99501

Phone: (907) 277-7641  
(907) 276-2715

April 21, 1981

Action File Number: F-006-81

Ms. Sybil Bouett  
865 B, Yak Estates  
Fairbanks, Alaska 99701

OCT 21 1981

Dear Sybil,

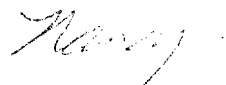
Enclosed are the three information pieces I said I would send you: the November newsletter on the Susitna feasibility studies, report on the first series of community meetings on the Susitna feasibility studies, and the mid report to the governor and the legislature (dated March, 1981). You may keep all but the mid report to the governor and the legislature, which you agreed to return by mail or in person.

I will also add your name to the mailing list for future newsletters as it sounds as if you are interested in following the studies through a decision next spring.

It was interesting talking to you and we will try to answer any further questions you send as quickly as possible.

Please do remember to send a copy of your final paper as I am most interested in reading it. Also, do you have the mailing address for your instructor so I could write him directly to read other students papers?

Sincerely,



Nancy Blunck  
Director of Public Participation

NB/mgh

Enclosures

*Dear Nancy,*

*Thank you for the material - it was most helpful. Through circumstances, I had to take an incomplete in the class, but I will write you later regarding the paper.*

*Sincerely, Sybil Bouett*

August 18, 1981

Action File Number: F-007-81

Timothy R. Jennings  
Box 44  
Delta Junction, Alaska 99737

Dear Mr. Jennings:

This summer you wrote our office requesting the following information on the proposed Susitna hydroelectric project:

- (1) Costs and
- (2) benefits.

The information you have requested is not available at this point in the study process. It will be available next spring. I suggest you contact the Public Participation Office at the Alaska Power Authority in March 1982.

Thank you for your interest in the project.

Sincerely,

FOR THE EXECUTIVE DIRECTOR

Jean Buchanan  
Public Participation Office

JB/mab

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date \_\_\_\_\_

☒ An Individual Citizen☐ An Organizationname Timothy R. Jennings

name \_\_\_\_\_

address Box 44

# of members \_\_\_\_\_

city Delta Jct.,

address \_\_\_\_\_

state Alaska zip 99737

city \_\_\_\_\_

day phone 895-4632

contact person \_\_\_\_\_ day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

Request: I would like copies of all information available at this time on the ① costs & ② benefits of the Proposed Susitna Hydro Project. The costs should include all information on estimated costs of all phases of the project. — As much as possible I would like estimates in dollars of the costs & the costs broken down into the smallest components possible. Likewise for the benefits.

RECEIVED

JUN 18 1981

ALASKA POWER AUTHORITY

Thank you —  
Tim Jennings

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

### Alaska Power Authority

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

August 20, 1981

Action File Number: F-008-81

John Adams, President  
Sierra Club  
Denali Chapter  
c/o FEC  
218 Driveway  
Fairbanks, Alaska 99701

Dear Mr. Adams:

In reviewing some questionnaires returned to our office after the workshops held this spring on access and recreation for the Susitna Hydroelectric Feasibility Study, a comment was made by a person identifying himself as a member of the Sierra Club, the Denali Chapter. Since no name was given, we are sending a response to you as president of the Sierra Club.

If the concern is one still held by members of your organization, I hope you will share this letter with them.

Comment:

We fail to see why APA has taken it upon themselves to plan for recreation. Since when has anybody given you the authority to plan for recreation. We thought Parks was mandated to do so, for the State of Alaska.

Your Director complains of a lack of staff then what is he trying to do to handle something which is not his mandated area?

Response from Robert Mohn, Director of Engineering, for the Alaska Power Authority:

The full and careful assessment of the Susitna Hydroelectric Project requires the formulation of a development plan and the evaluation of the plan's impact. In other words, a decision on the feasibility and desirability of the project cannot be reached without knowing what the project consists of and how it impacts our cost of living, quality of life, and the Railbelt's natural systems.

John Adams  
Page 2  
August 20, 1981

The recreation component is an integral aspect of a Susitna development plan and is required by the Federal Energy Regulatory Commission. There is no doubt that we would receive sharp criticism if we attempted to assess project impacts and feasibility without addressing project aspects as important as the recreation component.

The development of the recreation plan is the responsibility of the Power Authority as the applicant for the FERC license to construct the project. The University of Alaska is developing the plan under contract to Acres (and thus for the Power Authority). They are working closely with the Division of Parks in this effort.

In conclusion, the formulation of the recreation component of the Susitna Hydroelectric Project is not premature and is within the mandate of the Alaska Power Authority.

A copy of this letter has been filed in the ACTION System, a process we have for keeping track of public comments received on the Susitna project outside the format of public meetings. A summary of the concerns on file in the ACTION System will be given to the Board of Directors of the Alaska Power Authority and the Governor prior to a decision on Susitna next spring.

Sincerely,

FOR THE EXECUTIVE DIRECTOR

Jean Buchanan  
Public Participation Office

JB/mab

# COMMENTS, QUESTIONS & REQUESTS

## Susitna Hydroelectric Feasibility Study

The comments on this form are submitted by:

Date 7/1/81

☐ An Individual Citizen

☒ An Organization

name \_\_\_\_\_

name Sierra Club, Denali

address \_\_\_\_\_

# of members \_\_\_\_\_

city \_\_\_\_\_

address 4600 F.E.C. 218 Driveway

state \_\_\_\_\_ zip \_\_\_\_\_

city Box 99701

day phone \_\_\_\_\_

contact person Mr John Adams day phone \_\_\_\_\_

Individual citizens or community groups and organizations are encouraged to submit written comments. Please number each comment, question or request separately. Be as brief and specific as possible.

Attached Note.

use extra sheets if you need them

Acres American, Inc. and the Alaska Power Authority will review and respond to all comments in writing. You may make your comments on this form and leave it at a community meeting or mail it to:

**Alaska Power Authority**

333 West Fourth Avenue, Suite 31/Anchorage, Alaska 99501/(907) 276-0001

We fail to see why APA has  
taken it upon themselves to plan for recreation.  
Since whom has any body given you the  
authority to plan for recreation. We  
thought Parks was mandated to do  
so, for the state of Alaska.

Your Director complains of a lack  
of staff then what is he trying to do  
to handle something which is not his mandated  
area?

Sierra Club Denali  
Group of Alaska Chapter

July 1, 1981

Action File Number: F-009-81

David F. DeLong  
317 Senate Loop  
Fairbanks, Alaska 99701

Dear Mr. DeLong:

You wrote us asking for a copy of the seismic reports for 1980 and 1981, if available. There has been no report issued for 1981. At this time, regrettably, we have no extra copies of the December, 1980 report to give or sell to you. We are in the process of having extra copies printed to put in the Noel Wien and Elmer Rasmusson libraries in Fairbanks and to distribute at cost to interested members of the public.

I do not know at this time when we will have extra copies in the libraries or available for purchase. I also do not know what the cost per copy will be, but estimate it will be quite high (between \$30 and \$50) because of the special way information is presented.

If you come to Anchorage, you are welcome to review our copy in the Power Authority's office library. We will also let you know when copies are available in public libraries and for individual purchase.

Sincerely,

Jean Buchanan  
Public Participation Office

JB/mab



June 13, 1981

Dear Mrs. Blonck,

I am writing to obtain a copy of A.P.A.'s 1981 Seismic study. I don't know what firm you have specified working on this project, but I know <sup>one of</sup> the purpose of your 1981 was to "assess potential impact of 15 potentially significant features identified in 1980. If the 1981 study is not complete I would like a copy of the 1980 report.

As per State law I will be willing to pay for copies of this report.

Thank you.

Sincerely,  
David F. DeLong  
317 Senate Loop  
Fairbanks, AK  
99701

RECEIVED  
JUN 25 1981  
ALASKA POWER AUTHORITY

August 17, 1981

Mr. Jim Gill  
Acres American, Inc.  
2207 Spenard Road  
Anchorage, Alaska 99503

Dear Jim:

The summary results of the questionnaires we circulated this spring on road access have been filed with the ACTION system. One copy has been filed in the Talkeetna section and one in the Fairbanks section. The numbers are:

Here is a copy for Tyoon edition files.

F-011-81  
T-009-81

Sincerely,

  
Jean Buchanan  
Public Participation Office

## GAME GUIDE QUESTIONNAIRE - February and March 1981

This questionnaire was mailed to 200 game guides registered to hunt in Unit 13, the upper Susitna River basin area. Twenty-nine responded for a return of fifteen percent.

1. What areas of the Susitna River basin do you use?

General answers included Upper Susitna, Tsusena Valley, Clark Creek, Talkeetna River to Kosina Creek, Denali Creek area, Clarence Lake, Lake Louise, Watana Creek.

8 said they used all or most of it.

5 said they used none of it.

2. What kind of use?

25 considered themselves primarily game guides. Of these, 19 included the word "fishing" as part of their occupation, such as in "guiding and fishing trips." A total of 22 included "fishing" plus some other use, such as "rafting" or "photography."

3. What level of use do you give these areas?

The words, "heavy," "moderate," and "light" were used in similar proportion. The seasons listed most were spring through fall.

Specifically:

May - October:	3	July - Sept.:	1
June - October:	2	May - Dec.:	1
July - August:	1	10 mo./year:	1
June - Sept.:	1	Apr.-May/Aug.-Sept.:	1
August - Sept:	2		

4. What game habitats should not be disturbed?

There was no pattern to the answers, all were different. However, specific locations mentioned included Watana Creek, Kosina Creek, Jay Creek, the area along the Susitna River, Fog Creek, north and southwest of Moosehorn Lake, Stephan Lake, Clarence Lake, Big Lake, along the Alaska Railroad proposed, Portage Creek, Butte Lake, Otter Lake. One person expressed concern about the possible disturbance of swan and salmon spawning grounds, several expressed concern for the habitats of moose and grizzly bear.

Those who specifically foresee no problems if game habitats are disturbed: 9

Those who mentioned concern about the disturbance in specific locations, or of specific animals, or disturbance of the wilderness in general: 16

5. Which access do you prefer?

Corridor 1	5	Railroad	16
Corridor 2	10	Left it blank	4
Corridor 3	9	Answered "none of the above"	1

6. Reasons for the above choice:

As varied as the spread of the answers above. Comments supporting the railroad included, "Less vehicle access means less impact on the animal population and the environment," OR "It would be more direct." When specific corridors were chosen, the comments tended to be general about the possible disturbance of one or another animal population. Occasionally there was a specific, individual comment, such as, "I suppose it's just selfishness but Corridor 1 comes closest to the access I use."

7. Would you like to see public access to the project area by privately-owned vehicles after construction is completed?

Yes:	15	Not sure:	2
No:	8	Limited access only:	1

8. Reason for position on public access:

Those who said yes: A combination of I'm paying for it so I'll use it; I support hydro power; all Americans have the right to all of America with the exception of land that is privately owned; we need tourist development and recreational development.

Those who said no: There will be an inundation of people; business will suffer; animal habitats will be destroyed along the river; would prefer the area be left a wilderness; what will happen to the fish; this is a power project, not a recreational facility.

Respondents to this questionnaire reside in:

Anchorage	9	Haines	1
Eagle River	1	Chugiak	2
Palmer	3	Homer	1
Cantwell	1	Ketchikan	1
Willow	3	Juneau	1
Gustavus	1	Kasilof	1
Fairbanks	1	Wasilla	1
Tok Hwy	1	No name or address	1



November 9, 1981

Barbara Wright  
Mile 131½ Denali Highway  
Cantwell, Alaska 99729

Dear Mrs. Wright:

Thank you for your timely response concerning the question of access to the Susitna Hydroelectric project. Your response has been noted and incorporated into our findings concerning local community preferences. We have submitted your letter to our ACTION system. Your response, as well as all other questions and comments we receive on the Susitna feasibility studies, will be included in a report sent to the Alaska Power Authority's Board of Directors and the Governor before a decision is made on the feasibility of the Susitna Hydroelectric project.

We will contact you as soon as we know what recommendation concerning access will be made.

Sincerely,

George E. Gleason  
Assistant Director  
Public Participation Office

GEG:ct

ALASKA POWER AUTHORITY

M. O. WRIGHT & SON

RECEIVED

F-013-81

AIR TAXI/CHARTER  
ARCTIC CAT SALES  
WILDERNESS OUTFITTERS

PHONE: 907-683-2231

MELVIN O. WRIGHT  
JAMES M. WRIGHT  
MILE 131½ DENALI HWY.  
CANTWELL, ALASKA 99729

Mr. George Gleason  
Alaska Power Authority  
334 - W. 5<sup>th</sup>  
Anchorage, Ak 99501

Dear Mr. Gleason:

We appreciated the informative meeting held in Cantwell on 10/22/81. Thank you and your associates for coming. After further discussion and consideration our family (3 adults) would be very much in favor of Plan # 6 first, and plan # 7 second.

Yours Truly,

(Barbara) Wright  
for the  
Wright family

December 7, 1981

Mr. Kirk Martakis  
P. O. Box 88  
Cantwell, Alaska 99729

Dear Mr. Martakis:

Some time ago you submitted a coupon to receive the Susitna Hydroelectric Project newsletter. On the coupon you included two requests:

1. "I'd like to know more about the Alaska Power Authority."
2. "I'd like to know who to write in support of the dam project."

The Power Authority is a public corporation made up of a seven member Board of Directors who are appointed by the Governor and approved by the Legislature. Its offices are in Anchorage where a staff of thirty conducts the day-to-day business of the Authority. The present members of the Board of Directors are Mr. Charles Conway, Chairman; Dr. Robert Weeden; Commissioner Charles Webber; Mr. John Schaeffer; Commissioner Robert Ward; Commissioner Ernst Mueller; and Dr. Ronald Lehr.

The role of the Power Authority is to identify, evaluate and develop electrical power production facilities utilizing the most appropriate technology from among those that are commercially available (except nuclear power generation). The Power Authority's degree of involvement varies depending upon local desires and capabilities. While power project facilities recommended for development can be financed, constructed, owned and operated by the Power Authority, in many cases involvement is confined to financing alone, or just to the early phases of project evaluation and development.

By its nature as a public corporation, the Power Authority is eligible subject to IRS regulations to sell bonds whose interest to bondholders is tax free. This status lowers the cost of debt capital.

For certain projects such as Susitna, legislation dictates a multi-step process leading to power facility construction. The Power Authority first performs a reconnaissance study to assess the electrical energy needs of a community or region and to identify the power production alternatives available to satisfy those needs. The reconnaissance study serves as the basis for recommending more detailed data collection activities, resource assessments, or detailed feasibility studies of one or more specific power project alternatives. Reconnaissance study results are used to guide Power Authority budget requests and reports are provided to the Legislature, the Administration, and to the communities involved.



Kirk Martakis  
December 7, 1981  
Page 2

As a subsequent step, the Power Authority performs feasibility studies to obtain detailed information and analyze the technical, economic, and environmental aspects of a particular project or program previously recommended in a reconnaissance study. In identifying the preferred project or program for a community or region, the Power Authority considers all available energy alternatives in terms of cost, technical suitability, environmental impact, and local preferences. Feasibility studies are accomplished at a level of detail comparable to that required for license applications submitted to the Federal Energy Regulatory Commission.

Accompanying the feasibility report is a plan of finance that compares project financing alternatives and recommends the most appropriate means to ensure project financing while minimizing state assistance. When state financial assistance is recommended, the plan of finance identifies the estimated value of the state assistance, whether it comes in the form of a subordinated loan, loan guarantees, equity contribution, or other means.

The Power Authority submits feasibility reports and accompanying plans of finance to the Legislature. Concurrently the reports are reviewed by the Division of Budget and Management, and this review is also submitted to the Legislature. The Power Authority cannot proceed with advanced engineering or design of a proposed project until the Legislature enacts law authorizing the project. This sequential development process of reconnaissance study, feasibility study, finance plan, Division of Budget and Management review, and legislative authorization is required for any new project that will generate more than 1.5 megawatts of power and that either requires a state appropriation or is based on a plan of finance requiring the issuance of general obligation bonds or other pledge of the credit of the state. Specifically excepted from this criterion are certain projects which the Legislature has already acted upon.

As to whom you should write in support of the Susitna project, we suggest you write your preference to your State legislators and the Governor's office. We have noted your preference and your comment will be filed in our ACTION System. All questions, comments, and requests for information will be included in a report that will be given to the Power Authority Board of Directors, the Governor, and the Legislature before a decision is made on Susitna.

Sincerely,

George E. Gleason  
Assistant Director  
Public Participation

Is public information document on the Susitna hydropower project was developed by the Alaska Power Authority Public Participation Office, Nancy Blunck, Director. Comments on the substance of this newsletter and ideas for future publications should be forwarded to the Public Participation Office by way of the following coupon.

Last First Initial  
 Name MARTAKIS KIRK S  
 Mailing Address Box 88  
 City Cantwell State AK Zip 99529

and mail to: Alaska Power Authority  
 Public Participation Office  
 333 W. 4th - Suite 31 - Anchorage, AK 99501

- ① I'd like to know more about the Alaska Power Authority  
 ② I'd like to know who to write in support of the Dismal Project

THANK YOU FOR  
 YOUR INTEREST

November 19, 1981

Dale L. Nord  
P. O. Box 9  
Cantwell, Alaska 99729

Dear Mr. Nord:

Thank you for your timely response concerning the question of access to the Susitna Hydroelectric project. Your response has been noted and incorporated into our findings concerning local community preferences. We have filed your letter in our ACTION system. Your response, as well as all other questions and comments we receive on the Susitna feasibility studies, will be included in a report sent to the Alaska Power Authority's Board of Directors and the Governor before a decision is made on the feasibility of the Susitna hydroelectric project.

We will contact you as soon as we know what recommendation concerning access will be made.

Sincerely,

George E. Gleason  
Assistant Director  
Public Participation Office

GEG:ct

Nov 5, 1981

F-015-81

F 015 81



Dale L. Nord  
P.O. Box 9,  
Cantwell, Alaska  
99729

George Gleason  
Alaska Power Authority  
Public Participation Office  
334 West 5th Avenue,  
Anchorage, Alaska 99501

Sir;

My residence is located off the Denali Highway, Mile 131.5. I oppose the Denali Highway to Watana Roadway for the following reasons.

The unknown social and environmental impacts it would impose upon the area of cantwell and areas along the roadway.

Plan 8 has been shown to have the least environmental impact according to Power Authority studies. The opposite is true with the Denali to Watana route.

Plan 8 has been shown to have the least expensive construction and logistics costs.

The principle advantage sited for the Denali to Watana route is the time element. I don't believe the time element should be the priority factor in deciding this route. This project is being advertised to the public as being built causing the least adverse social and environmental impacts. This will not be true if more routes than necessary are constructed to the site.

The Denali Watana route would open up more area to public access than routes to the south. I would like to see the whole area left as undisturbed as possible.

Dale L Nord

*Oak 2 Mol*

To: Alaska Power Authority  
attn. Mary Blunick

10-20-81

Ref: Susitna Dams Access

I have leased five acres in the Indian River remote parcel near mile 269 of the Alaska Railroad.

Any new roads in this area would increase access, traffic, and vandalism. A road from the Parks Highway past mile 269 of the railroad would destroy the remote and wild nature of my land. It would deny my family the wilderness experience that I am working hard to provide.

The Indian River entry was desired by many people for its remote qualities. The requirements and restrictions on this entry at the time of release would have attracted only people interested in difficult access, wilderness surroundings, cabin building, etc.

I am in favor of rail-only access to Susitna dams with construction camps in the Palmer/Willow area. Please make this part of the official public comment.

Sincerely

Bruce Benson

SRA Box 1622-T  
Anchorage, Ak.

staking map attached  
my plot shown as #5

BB.

9507 27-5316

I 000

# ALASKA POWER AUTHORITY

333 WEST 4th AVENUE - SUITE 31 - ANCHORAGE, ALASKA 99501

Phone: (907) 277-7641  
(907) 276-2715

November 3, 1981

Dear Kevin

I received a phone call from Frank Lowe of Anchorage who has staked property at Indian River remote. He was not in favor of a road from the Park Highway. He stated that he purchased the property because of its remote setting and felt that any road would change the character of the property.

Frank Lowe  
3105 Brookside Drive  
Anchorage Ak 99503  
(907) 248 4312

Sincerely

George Gleason  
Assitant Director of Public Participation

November 5, 1981

Telephone conversation with Cliff Crabtree, husband of Kathryn Crabtree, one of the stakers at Indian River remote.

They received our letter to the Indian River people and are opposed to access from Hurricane to Gold Creek by road. They would prefer rail from Gold Creek to the Devil Canyon site. They want no roads in the area. We forwarded them a list of the other owners of Indian River remote parcels, because they expressed the desire to contact the other owners.

November 6, 1981

Mr. Barry Moe came into the Public Participation Office. He was in favor of access by road from the Parks Highway and thought a road from Talkeetna would be even better. He was opposed to any road from the Denali. He felt that roads into the Indian River area were going to happen with or without Susitna.



Nov 3, 1981

Alaska Power Authority

334 W 5th Ave

Anchorage, AK 99501

RECEIVED

NOV 09 1981

ALASKA POWER AUTHORITY

Dear Mr. Gleason,

I am writing in response to your letter to Indian River stakers.

I would not appreciate having a road anywhere near the land I have already staked. The fact that there were no roads in the area and hopefully no need to build any in the future was a major consideration when I put in for the lottery. If I had wanted an area near a roadway I would have put in for a homesite.

Sincerely,  
Charmee Wiken

RECEIVED

Anchorage, Alaska  
November 3, 1981

George E. Gleason  
Assistant Director of Public Participation  
Alaska Power Authority  
334 West 5th Avenue  
Anchorage, Alaska 99501

Dear Mr. Gleason:

Thank you for your letter of October 29 advising of the various routes which are being contemplated for access to the hydroelectric dams on the upper Susitna.

Please add the voice of my husband and myself to those persons who wish to keep the area remote -- that is to have no access other than Railroad to our property in the Indian River area near Canyon.

The main reason we participated in the lottery was to gain access to a section of land which had limited visitation. A highway into this remote area would ruin the privacy which we now have.

Sincerely,

  
Mrs. Bonita Prudence

RECEIVED

NOV 07 1981

George Gleason / November 1981  
ALASKA POWER AUTHORITY  
334 W 5th Ave.  
Anchorage, Alaska 99501

Dear Mr. Gleason:

In reference to  
your letter of Oct. 29, 1981,  
My husband and I  
staked our Indian River  
property with the idea  
of having a retreat  
for ourselves and family  
& friends. We are  
not interested in  
speculation. We would  
rather not have a  
road go near the  
Indian River. Enough  
folks come now by  
railroad to be  
pleasant companies; A

5432 Emmanuel Drive  
Anchorage, Alaska  
99504

I 008-81

road would bring  
a different kind of  
Folks and would  
destroy the present  
atmosphere.

Thank you for  
requesting our  
opinion

Sincerely,  
Maria Baskous

ALEX & MARIA BASKOUS  
5432 Emmanuel Drive  
Anchorage, AK 99504

RECEIVED  
RMB3

Debra D. Vostry  
Rt. 1 Box 394-I  
Ketchikan, Alaska 99901

November 7, 1981

Alaska Power Authority  
334 W. 5th Avenue  
Anchorage, Alaska 99501

Attn: Mr. George E. Gleason  
Assistant Director of Public  
Participation

Dear Mr. Gleason:

This letter is in response to your October 29, 1981 letter regarding possible access routes to the dam sites on the upper Susitna River.

I have staked land in the Indian River remote parcel area and am very concerned with the possibility of an access road going through this area. My husband and I chose this area because it is "remote" and want you to be aware of our desire to keep it that way.

Our first preference for an access route to the dam sites is a railroad spur on the south side of the Susitna River. Our second preference is the third alternative as stated in your letter. That is, a new road from the Denali Highway near Seattle Creek south along the Deadman's Creek drainage to Watana.

We are hopeful that an access route will not go through our immediate area, and are grateful for the opportunity to express this. Thank you for taking the people in the Indian River area into consideration before making a decision on the access route.

Sincerely,

*Debra D. Vostry*  
Debra D. Vostry

RECEIVED  
ALASKA POWER AUTHORITY

November 6, 1981

Alaska Power Authority  
334 West 5th Avenue  
Anchorage, Alaska 99501

Attention: George E. Gleason  
Assistant Director of  
Public Participation

Dear Sir:

Thank you for your concern over the matter of a road to the Indian River area.

I do not want a road to spoil the beauty of the area. If a road is built in the area, I don't see any way it could possibly benefit those of us who have staked remote parcels at Indian River simply because a road could not border all of our parcels. It would only be of benefit to those who would come to camp, hunt, and fish. Then there would be no beauty to the area.

If there has to be a road, I believe it should start from the Denali Highway and go due south to the dam project.

Thank you for your concern.

Sincerely,



Robert W. Durkee

November 7, 1981

Mr. George E. Gleason  
Assistant Director of Public Participation  
334 West 5<sup>th</sup> Avenue  
Anchorage, AK 99501

RECEIVED  
NOV 11 1981  
ALASKA POWER AUTHORITY

Re: Indian River Remote Parcel

Dear Mr. Gleason;

I am in receipt of your letter dated, Oct. 29, 1981 concerning access routes to hydroelectric dams on the upper Susitna River.

I have staked and leased 20 acres in the Indian River remote parcel. I have staked and intend to live with my family in this area due to the remoteness and pristine beauty of the Indian River parcel. I do not want to see this parcel's remoteness or beauty destroyed, marred or changed in any way.

Since the land that I have staked is in the corner of the parcel nearest to Hurricane, a Parks Highway access (no matter how limited) would destroy the remoteness of my land and ruin my hopes and dreams for my land and for my children's future in this area.

The only access that I would favor or even consider (if indeed the dams actually need to be built) is a railroad spur from Gold Creek to the site.

Thank you for your time and consideration  
Sincerely,

Helene Barbara Dalke

I 011 81

RECEIVED  
NOV 11 1981

November 11, 1981

George E. Gleason  
Ass't Director of Public Participation  
Alaska Power Authority  
334 west 5th  
Anchorage, Ak 99501

Re: Devils Canyon Proposed Dam

Dear Mr. Gleason:

Thank you for your letter of October 29, 1981 regarding the access routes being considered in conjunction with the Susitna power study. I lease approximately ten acres three miles up the Susitna River from the confluence of the Susitna and Indian Rivers. Since my use of my land is recreational I am especially concerned that development of a Susitna dam not unduly detract from the recreational quality of the area.

Before responding more specifically to the three proposed access routes mentioned in your letter I would appreciate your sending me a sketch of the proposed routes. It was unclear from your letter how the "Chulitna Pass" route would be charted from Indian River to the Devil Canyon or Watana sites.

Thank you again for notifying me and inviting my input. I look forward to receiving a sketch of the three routes being considered.

Very truly yours,

*Barbara L. Schuhmann*  
Barbara L. Schuhmann  
S.R. Box 40465  
Fairbanks, Alaska 99701



I 012-91

RECEIVED  
11/28/81

P.O. Box 1685  
Suward, Alaska  
November 3, 1981

Alaska Power Authority  
334 West 5<sup>th</sup> Ave  
Anchorage, Alaska

Dear Mr. Gleason

I recently received your letter of October 29 concerning routing of access roads to the Devil's Canyon dam site. I am one of the 34 people who have staked a remote parcel within the Indian River remote parcel area. Personally, I am in favor of routing any access road outside of the remote parcel area. I too staked my parcel with the intention of developing a relatively remote homesite with limited access. I do not favor access from the Parks Highway

I am not opposed to the Gold Creek Spur road, nor am I opposed to a Denali Highway road to the Watana site.

I do appreciate your effort to contact me on these matters and hope you will keep me informed on future developments.

Sincerely  
Jack DiMarchi

RECEIVED

NOV 13 1981

ALASKA POWER AUTHORITY

SRA Box 1628  
Anchorage, Ak. 99607  
10 November, 1981

Alaska Power Authority  
334 West 5th Avenue  
Anchorage, Alaska, 99501

Dear Ms Blunck,

As a lease holder and a future property owner in the Indian River area (S.W. Corner, Sec. 27, T32N, R2W), I want to thank you for the informational letter on the proposed status of the transportation corridor to the Susitna Dam site.

I have already talked to you in person about my feelings and now I'd like to take this opportunity to put them down in writing for the record along with my wife and family's feelings.

Of all the original proposed routes, We would have preferred the construction of the highway from Talkeetna because of the long term benefits it would have. ( It is the shortest driving distance from Anchorage, the major population center of the State, whoes population will use the impounded lake for a major recreation area after the completion of the project.) But in our discussions , you stated this route was disregarded long ago because of the opposition from the people in the Talkeetna area on it. Also you stated that the route from the Parks Highway via Portage River was thrown out because of the high enviromental problems, both natural and construction wise.

This leaves only three routes for discussion - from the Parks Highway via Indian River, from the Denali Highway, and either a railroad spur or a road from Gold Creek.

Of the three routes left, we are in favor of the Denali Highway route since it will open up the greatest amount of undeveloped State (or Federal) land for the general public with the least amount of Native Land involved. The State and it's present administration over the last seven years has had a "hands off" policy for new road construction outside of developed communities which has caused a degradation of the recreation values along the exsisting road systems and has deprived the majority of the public the opportunity to see and use the vast areas of the State. The Denali Highway route, with the establishment of proper management quidelines, will help disperse the recreation minded Alaskans and would reduce the pressure on the exsisting roads.

We oppose the Indian River route mainly because it will duplicate an already exsisting transportation corridor - The Alaska Railroad. All though the Railroad is a restricted means of transportation, the general public can use it to obtain access to the Indian River area at a reasonable cost. Also the limited amount of fishery and wildlife in the immediate vicinity will not support a higher consentration of sportsman the road would bring into the area, thus eliminating one of the main reasons for obtaining the land in the area.

Other reasons for obtaining land in the area were: 1. It has limited access by the public. 2. It has a reliable means of transportation ( other than a road ) to and from the area at a reasonable cost.

Another factor in opposing of the Indian River route is it will open up only a short distance of undeveloped State land (approximately 10 miles) between Gold Creek and the Native Land surrounding the dam projects to the public. The rest is on Native Land (approximately 45 miles) and public funds should not be used for the benefit of one particular private corporation when another route can be selected that will open up a greater amount of undeveloped State (or Federal) land at a comparable construction cost.

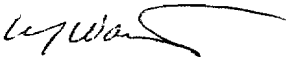
As to the third route, either a railroad spur or road from Gold Creek, we oppose this because the route will not allow for readily accessible public access to the dam site for the general public. Base on prior knowledge of dam projects, they have created a valuable water base source of recreation for the public and the public will want access to it. It is quite certain the Railroad would not have a scheduled passenger train to the dam site because of the high cost of operating it. As to the road, a person would have to leave a vehicle at Gold Creek if they wanted to use the area which would eliminate the use to a few individuals. A public bus system would not be practical because of the multi-transportation system involved would discourage the people to use it.

The local public sentiment the Alaska Power Authority has taken into consideration for the route selection is a very interesting aspect. The Talkeetna route was disregarded because you stated the majority of the people in the Talkeetna area ( a population of 407 ) was opposed to the route. By the establishment of this precedent, the APA Board has no recoil but to disregard the Indian River route if the majority of the residences (a projected residency of approximately 133 ) in the Indian River - Chuletna area are opposed to the route. The difference in population between the two areas is not that great. If the Board does not disregard the route because of this, then the residence of the area affected have good grounds to take the APA to court for a reversal of the decision.

As you stated, the residences along the Denali Highway route want the route not only for the economical benefits, but also they feel the new road would allow for better management of the wildlife resources in the immediate area of the road. This is a very sound reasoning for the APA to select this route since, according to Mr. Gleason in your office, the actual over all cost between this particular route over the Indian River route is nearly the same.

We would like to be kept fully informed on the outcome of the past public hearings or opinions you received on the proposed routes to the dam site and of any future hearings you may have on the project. At the same time, we would appreciate any material you have gathered or your consultants have prepared on the routes that the APA Board will use for making the route selection. Otherwise, there is no way a person can make any sound judgement on the particular routes or talk to other affected persons on the pro and cons of the project.

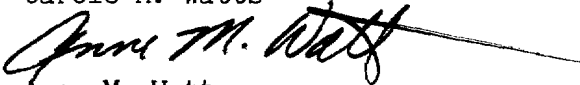
Sincerely,



Wallace J. Watts



Carole M. Watts

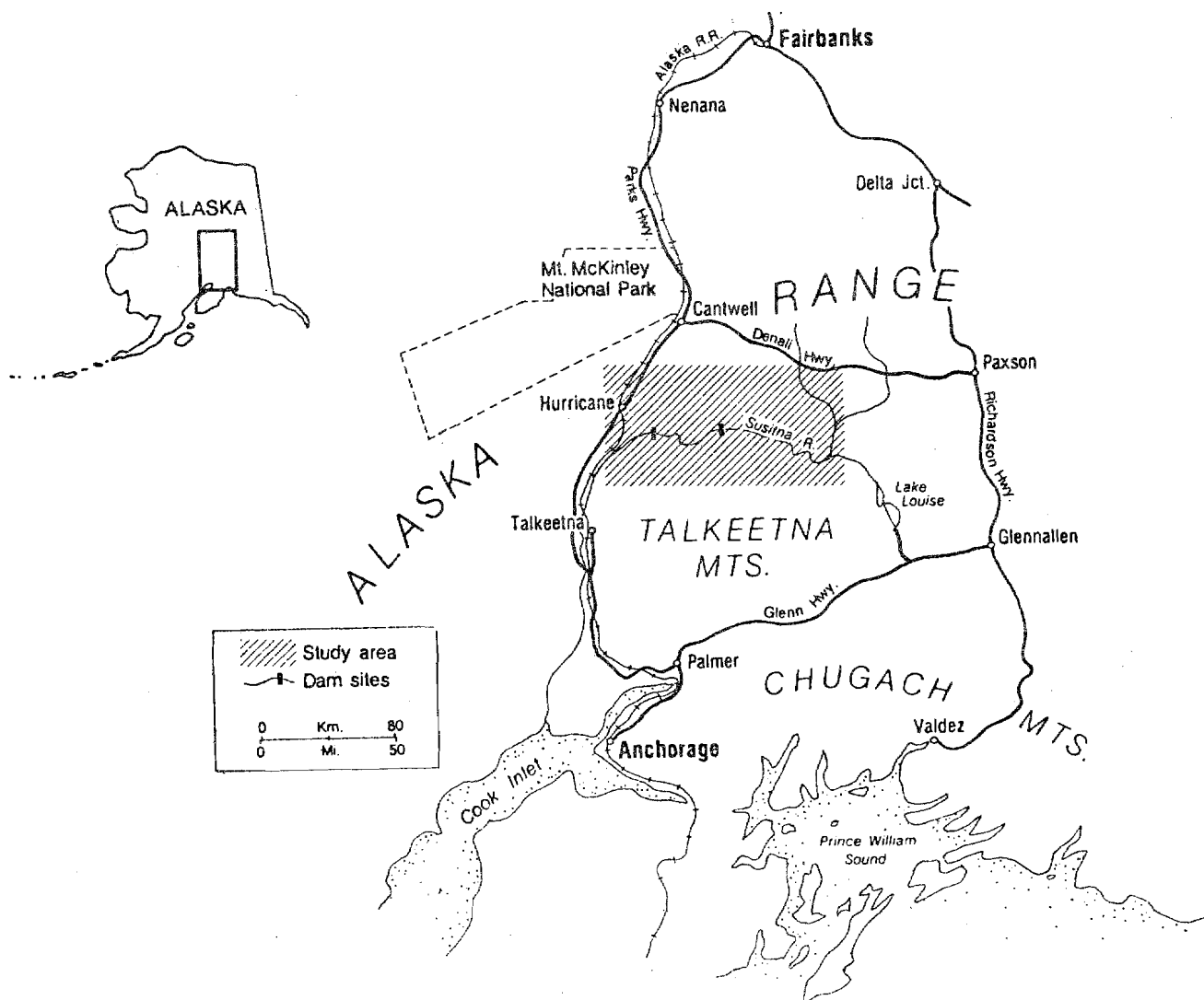


Anne M. Watts

EXHIBIT 3
















## PART I—BACKGROUND INFORMATION ON PROPOSED SUSITNA HYDROELECTRIC PROJECT

1. Location: The two dam sites are in the upper Susitna River, about 125 air miles north of Anchorage, 150 air miles south of Fairbanks, and 70 miles northeast of Talkeetna.
2. Dams: Two dams are currently proposed: one at Watana and one at Devil Canyon. The first to be built would be Watana, followed by Devil Canyon when needed (projected to begin about eight years later).
3. Reservoirs: The Watana reservoir would be about 50 miles long, one-half mile to five miles wide. The Devil Canyon reservoir would be about 30 miles long and one-half mile wide.
4. Land Ownership: The major land owners in the reservoir and access areas are: Cook Inlet Region, Inc. and its village corporations, the State of Alaska, and the federal government. Inholdings include mining claims, native allotments, open-to-entry parcels, and homesteads.
5. Present Land Use: Hunters, private cabin owners, miners, trappers, lodge owners, and kayakers.



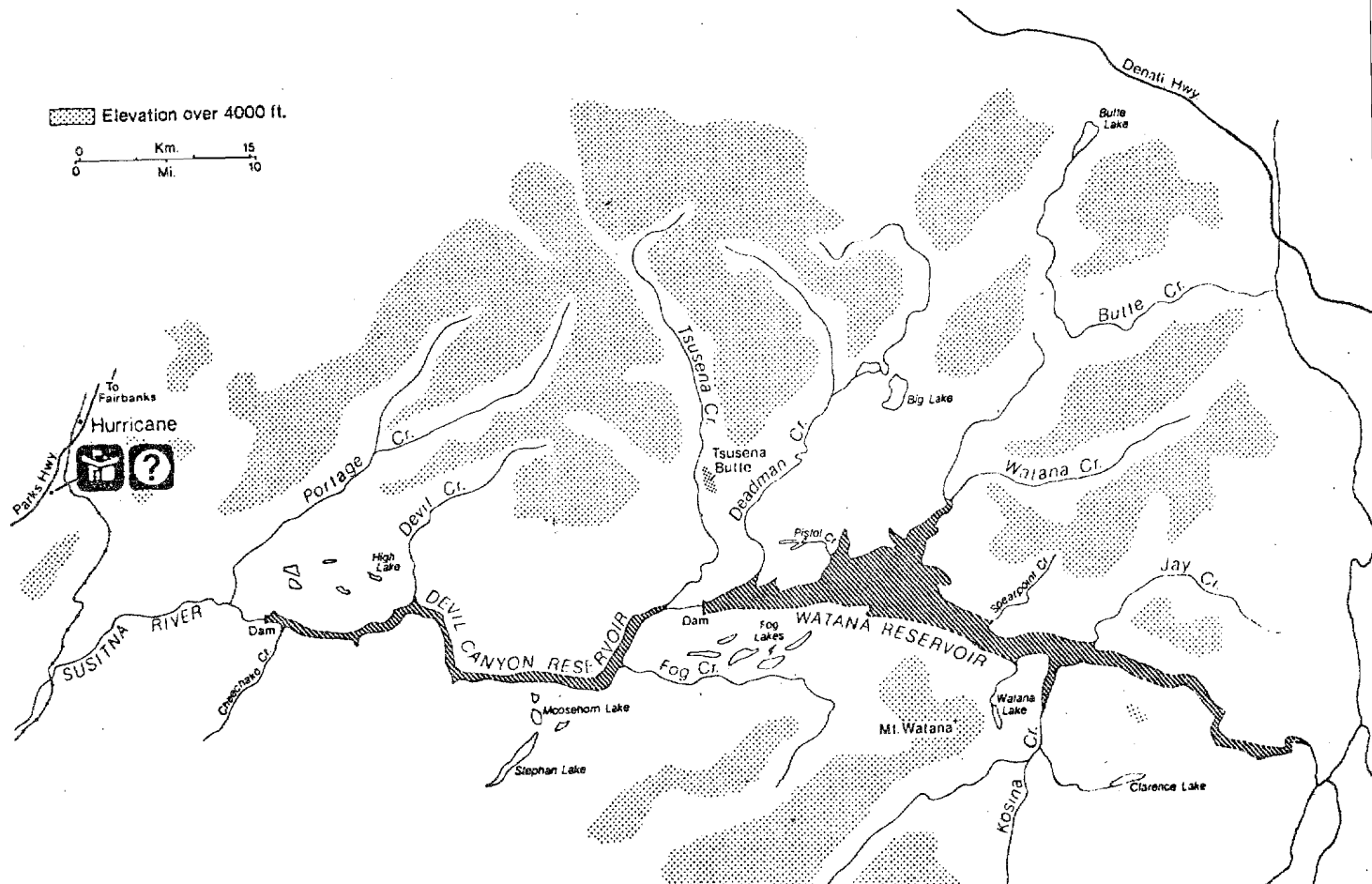
## PART II—POSSIBLE RECREATION DEVELOPMENT APPROACHES

Please review the five possible approaches described on the pages that follow and indicate the acceptability of each. If you feel some modifications can improve the acceptability of an approach, include your suggestions in the space provided. The key given below explains the type of development represented by the various symbols used on each of the maps.

- (1)  Visitor Center: services would probably include information, natural history and resources interpretive displays, tour schedules, gift shop/bookstore, restrooms, and a parking area all designed and operated to meet the needs of the majority of visitors. The most strategic location for a visitor center would be along the Parks Highway.
- (2)  Information: interpretive displays and oral and written information concerning facilities and services available to the public in sheltered locations.
- (3)  Picnic Area: would likely include picnic tables, a picnic shelter, a drinking water source, restrooms, and a parking area.
- (4)  Campground (Primitive/Boat-in): these sites would be relatively small and include 5-10 campsites spread over an area of 2 to 3 acres. Facilities available would probably be: picnic tables, pit toilets, bear-proof food caches, and boat tie-ups where necessary.
- (5)  Campground (Developed): improved campsites consisting of parking spurs for vehicles, trailers and motor homes, picnic tables, fireplaces, and complete water and sanitary facilities.
- (6)  Campground (Group): organizational campground that could be either developed or primitive depending on location. Developed group facilities would include tent sites, tables, fireplaces, campfire circle, parking, restrooms, water supply and cooking shelters. Minimal facilities would be available at the primitive, backcountry group campgrounds.
- (7)  Boat Ramp: a concrete boat ramp providing access to a reservoir; including parking for vehicles and boat trailers.
- (8)  Docking/Marina: simple docking facilities providing mooring and docking space. A developed marina would also offer parking and docking space for boats and storage of vehicles and boat trailers, on-shore restrooms, water and electric services, boat sanitary dump station, and boat fuel, as well as rentals and supplies. Developed marinas would probably be constructed only at major developments near the damsites.
- (9)  Store: groceries, dry goods, and souvenirs.
- (10)  Service Station: full service for all types of recreation area users' vehicles.
- (11)  Lodging: complete overnight accommodations.
- (12)  Food Service: restaurants and other food outlets that may or may not be associated with lodging facilities.
- (13)  Float Plane Access: suitable access, shelter, mooring and aviation fuel supplies provided at areas used heavily by aircraft.
- (14)  Guided Boat Tour: would probably be tied in with a bus tour originating at a visitor center or overnight accommodations complex. It might include a one-day tour of the Devil Canyon Reservoir.
- (15)  Scenic Trail: short, (one or two mile) day-use trails to scenic areas or interesting natural features.

## APPROACH "A"—A MINIMALLY DEVELOPED AND MANAGED WILDERNESS

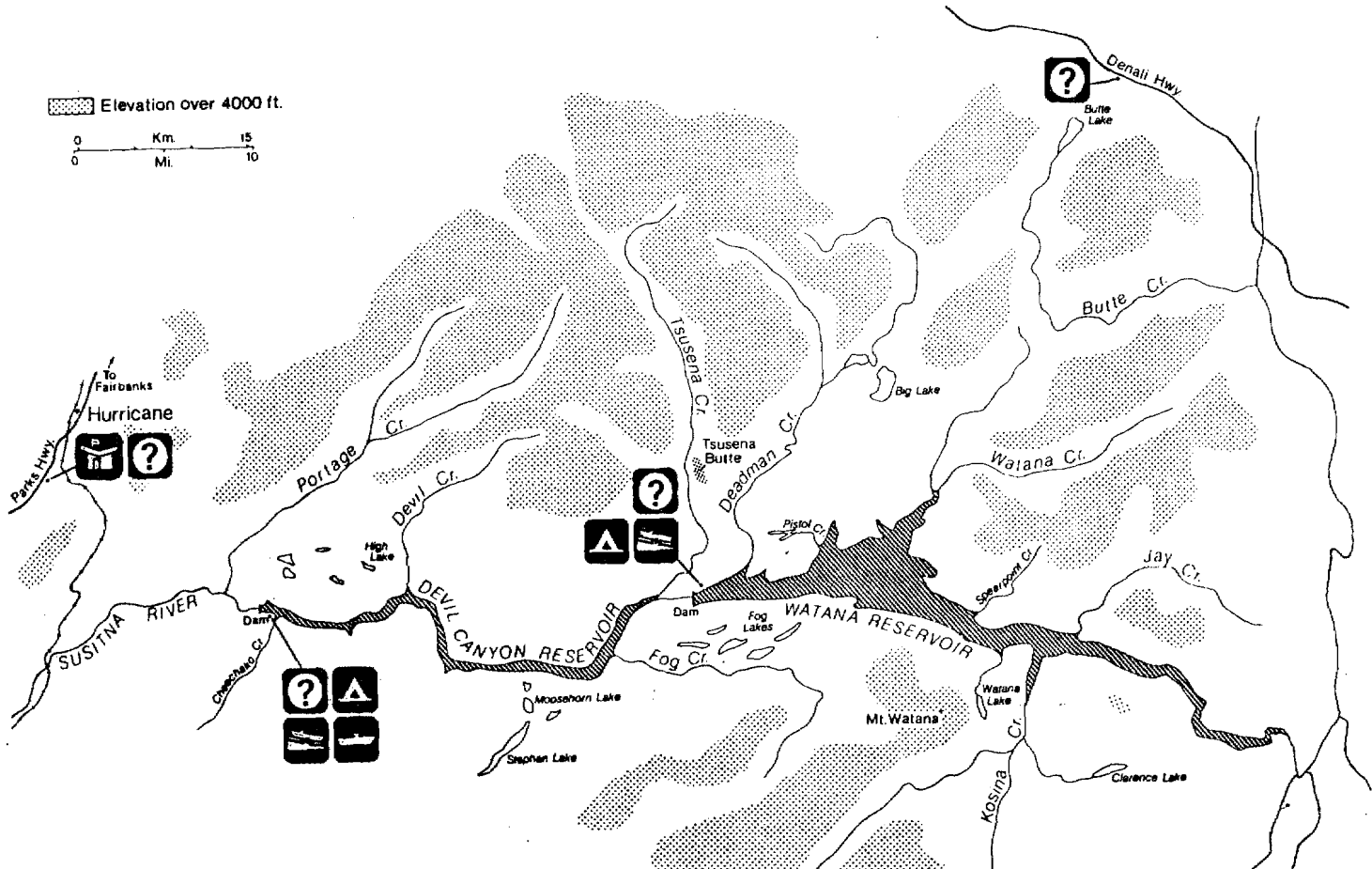
This approach could be used in the event that public access by road to the Susitna reservoir areas is restricted or not permitted at all. In this case, development will probably be limited to a visitor information center on the Parks Highway. Access by float plane would likely be extended to include the reservoirs. Access by canoe, kayak, and riverboat via the upper Susitna, Maclaren, and Tyone rivers would continue. Land use within the project area would probably be much the same as at present with management limited to fish and game management and the regulation of mining activities.





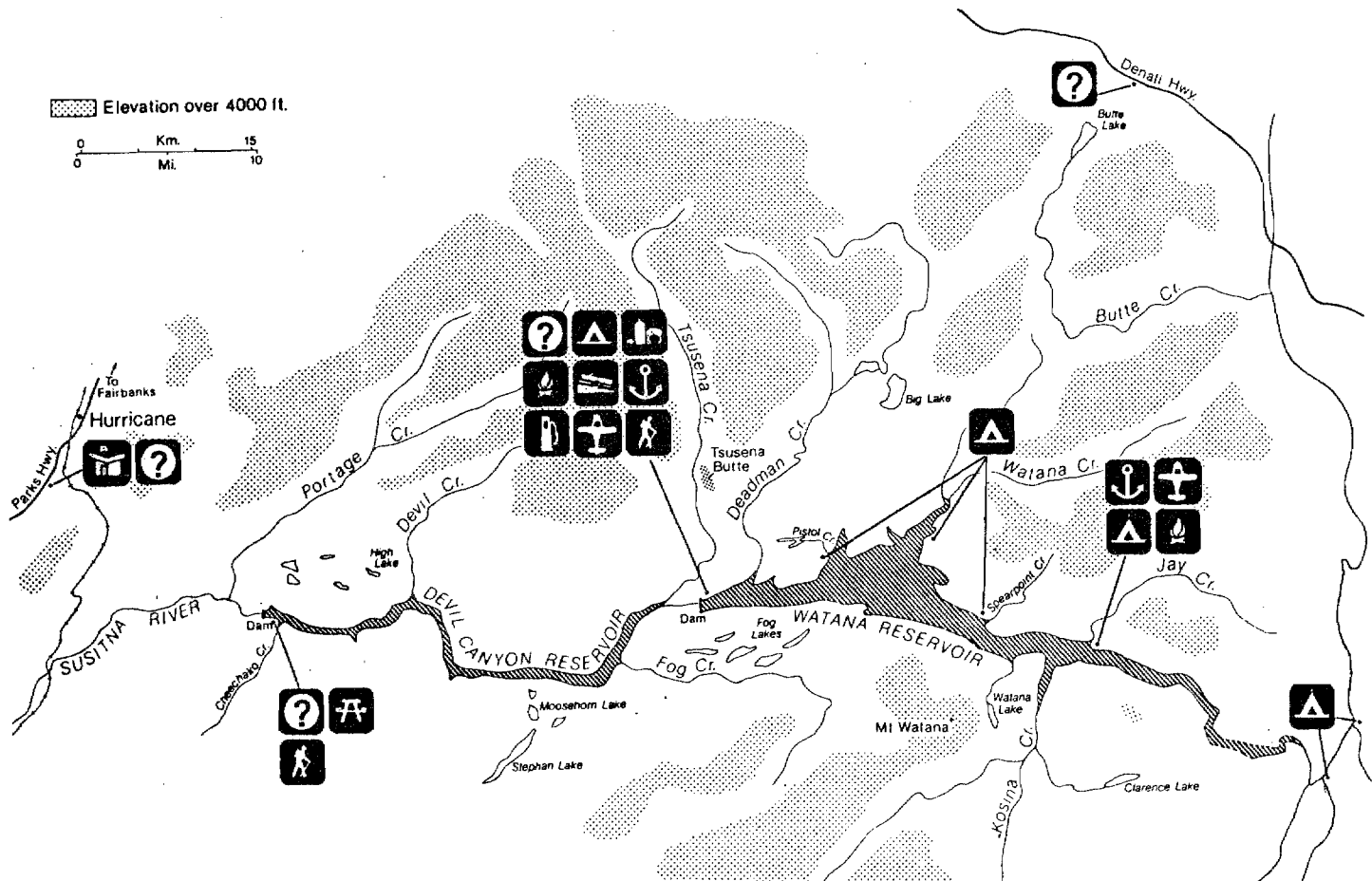
## APPROACH "B"—LIMITED ACCESS WILDERNESS

In the event that access to both reservoirs is possible, the area could be managed as a wilderness recreation area, with development limited to minimal interpretive services, primitive campgrounds, and simple boat ramps at both damsites. These ramps would facilitate access by boat to the reservoir shorelines and adjacent areas for camping, hunting, fishing, and other backcountry activities. As in Approach "A", a visitor center would be built on the Parks Highway. Information would be provided on the Denali Highway should access be available at this location (see access map). A tour boat service would be offered at the Devil Canyon damsite for day tours of the reservoir.



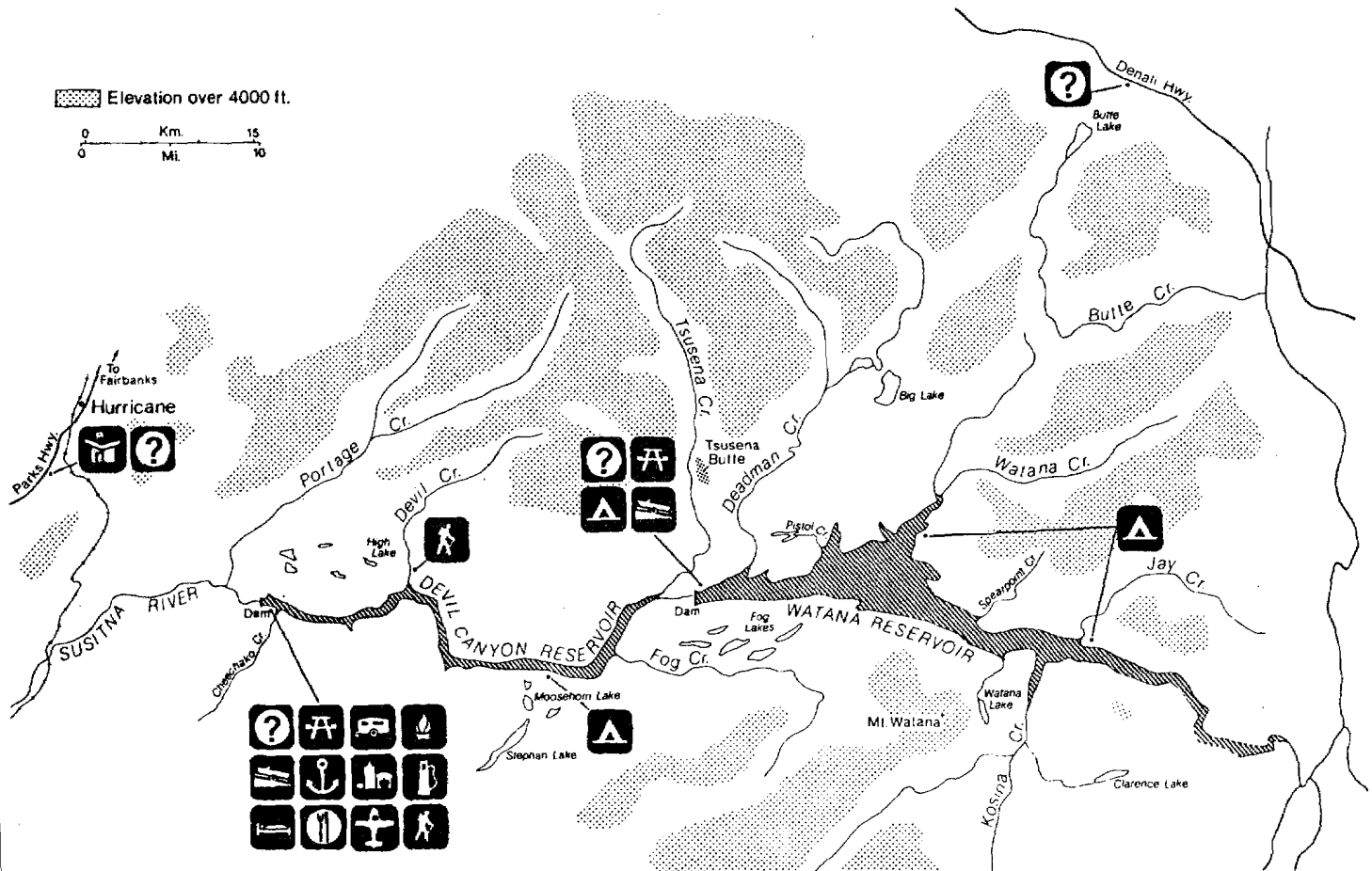
## APPROACH "C"—WATANA RESERVOIR DEVELOPMENT

One possible approach to more extensive recreational development is to offer highly developed facilities at the Watana damsite and only minimal interpretive services at the Devil Canyon damsite. In addition to the services offered at both reservoirs in Approach "B", there would be greater development at the Watana damsite to accommodate increased visitor use. Simple backcountry campsites would be provided at selected locations around the Watana reservoir, with additional improvements being made at the mouth of Jay Creek. More intensive resource management would be necessary around the Watana reservoir but the remaining project area would still be managed as wilderness. As in Approaches "A" and "B", visitor information would be available at highway entrance(s).



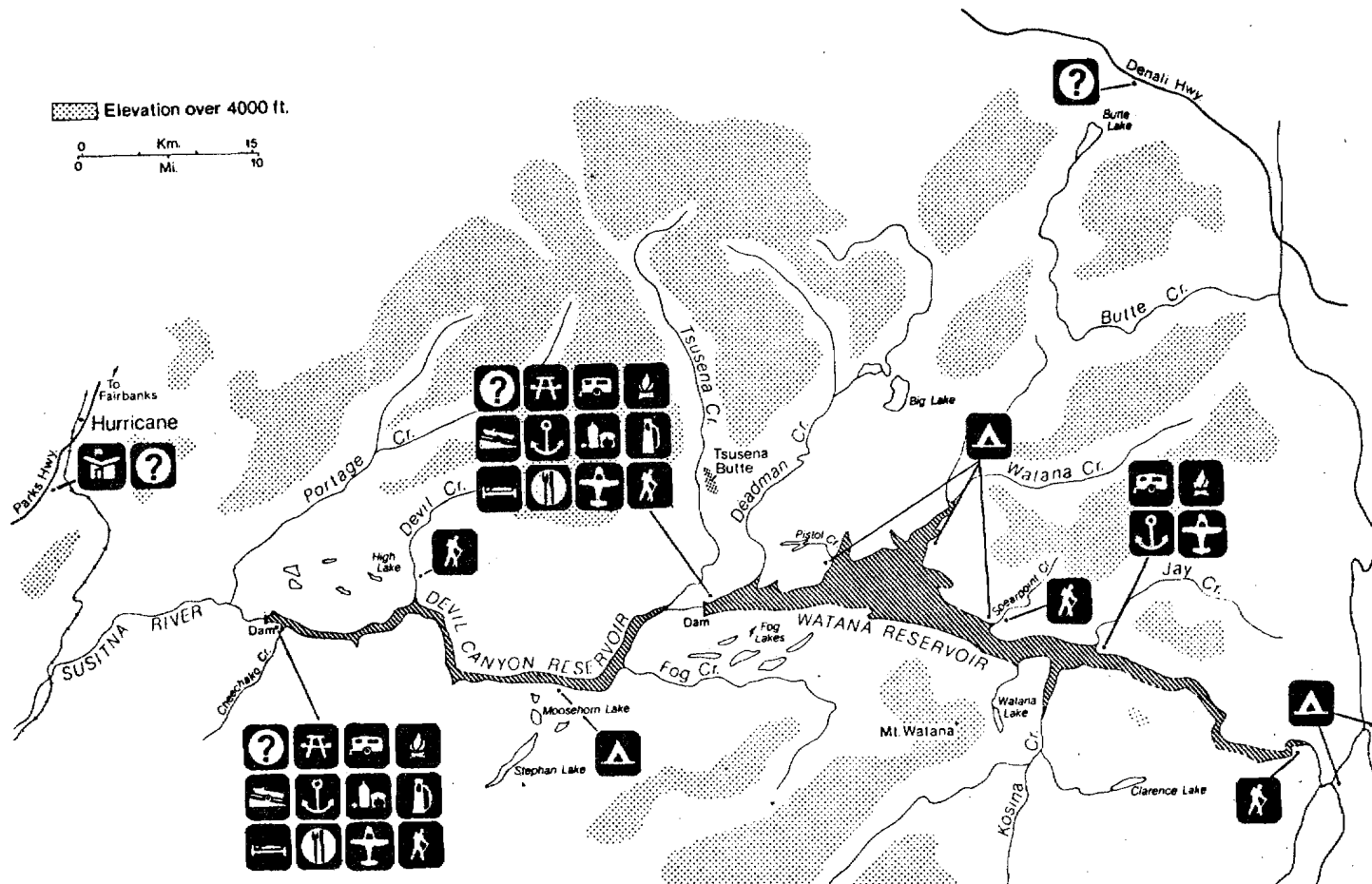
## APPROACH "D"—DEVIL CANYON RESERVOIR DEVELOPMENT

In this approach highly developed facilities would be offered at the Devil Canyon reservoir and damsites and only minimal facilities at the Watana damsites. The Devil Canyon area would be developed and managed intensively to provide a diversity of recreational opportunities, while the Watana reservoir area could be developed and managed in a manner that would maintain its wilderness character.



## APPROACH "E"—HIGHLY DEVELOPED AND MANAGED THROUGHOUT

This approach involves a high level of recreational development and offers a wide variety of recreation activities around both reservoirs. Complete visitor facilities would be located at the damsites, with additional improvements made at the Jay Creek site, and backcountry boat-in campsites built at 5 locations. Intensive resource management would be necessary throughout much of the recreation area to reduce conflicts between uses and to maintain the quality of the environment.



# RESULTS OF RECREATION QUESTIONNAIRE AT WORKSHOPS #3, March 1981

Number of people responding in favor of Plan A was 26 (out of 43 questionnaires received).

By community workshop:

Fairbanks	13	(Out of 17 questionnaires received.)
Talkeetna	9	(Out of 16 questionnaires received.)
Anchorage	4	(Out of 10 questionnaires received.)

Number of times comment made.	Reason given for favoring plan:
19	Retain the natural beauty and existing recreation uses of project area; recreational development would bring more people into the area and adversely impact the environment.
2	Recreation development would promote other commercial development in the area.
2	Unmanaged recreation area is preferred.
1	Recreation development and management would cost taxpayers too much money.
1	Less development is preferred: "Big is not necessarily better."
1	Recreation can be developed later: wait until we really need it.
1	Alaska already has enough recreation areas.
	Modifications suggested:
5	Access should be by backpacking/ski trails only and not by road.
5	No development and no access is preferred.
3	Provide no access at all.
1	The least access provided, the better.
3	Provide railroad access only.
1	Provide road access from Parks Highway to Gold Creek, and rail access from Gold Creek to reservoirs.
2	Confine float plane access to specific areas, such as reservoirs.
1	No float plane access should be allowed.
1	Boat access should be only form of access allowed.

# RESULTS OF RECREATION QUESTIONNAIRE AT WORKSHOPS #3, March 1981

Number of people responding in favor of Plan B was 5 (out of 43 questionnaires received).

By community workshop:

Fairbanks	2	(Out of 17 questionnaires received.)
Talkeetna	2	(Out of 16 questionnaires received.)
Anchorage	1	(Out of 10 questionnaires received.)

Number of times comment made.	Reason given for favoring plan:
1	People prefer camping at areas designated for that purpose.
2	Some people would use the camp sites and the surrounding environment would be less impacted by camping.
1	Local people feel more comfortable knowing that there are campsites available for campers to use rather than just camping where they please.
1	Little recreation development is preferred because existing use is fine.
	Modifications suggested:
1	Provide the least amount of access possible.

# RESULTS OF RECREATION QUESTIONNAIRE AT WORKSHOPS #3, March 1981

Number of people responding in favor of Plan C was 7 (out of 43 questionnaires received).

By community workshop:

Fairbanks	1	(Out of 17 questionnaires received.)
Talkeetna	4	(Out of 16 questionnaires received.)
Anchorage	2	(Out of 10 questionnaires received.)

Number of times comment made.	Reason given for favoring plan:
2	This plan is a good balance of high and minimal development.
2	We might as well develop the area; people will use it anyway.
2	Recreation resources should be available to all people, not just those who enjoy primitive outdoor experiences.
1	Watana is a better area for higher recreation development than Devil Canyon.
1	There will be management problems, but they can be solved.
1	Campsites are needed to protect the environment because people will camp in the area anyway.
	Modifications suggested:
3	Provide rail access, not road access.
1	Add hotels.
1	Develop Watana as a fishing area.

# RESULTS OF RECREATION QUESTIONNAIRE AT WORKSHOPS #3, March 1981

Number of people responding in favor of Plan D was 4 (out of 43 questionnaires received).

By community workshop:

Fairbanks	1	(Out of 17 questionnaires received.)
Talkeetna	1	(Out of 16 questionnaires received.)
Anchorage	2	(Out of 10 questionnaires received.)

Number of times comment made.	Reason given for favoring plan:
1	All people should be able to enjoy recreational resources of Alaska.
1	There would be fewer environmental impacts if higher development occurred at Devil Canyon rather than at Watana. Particular concern was expressed for the caribou.
1	Alaskans need more camper/trailer camping sites.
	Modifications suggested:
1	There should be full facilities along the access roads, such as car turnouts, food service, and camping sites.
2	Provide camp sites with electricity.
1	Camping sites should include: <ul style="list-style-type: none"> <li>a. barbeque pits</li> <li>b. water</li> <li>c. sewer</li> <li>d. solid waste disposal</li> <li>e. chopped wood and fire pits</li> </ul>
1	Boating facilities should include: <ul style="list-style-type: none"> <li>a. Provide well designed and paved ramps.</li> <li>b. Provide several boat ramps to accomodate peak traffic.</li> <li>c. Provide a marina with fuel facilities.</li> <li>d. Have a waterfront area with bar and hotel.</li> <li>e. Have freshwater facilities for drinking and service use at the docks.</li> </ul>



# RESULTS OF RECREATION QUESTIONNAIRE AT WORKSHOPS #3, March 1981

Number of people responding in favor of Plan E was 2 (out of 43 questionnaires received).

By community workshop:

Fairbanks	0	(Out of 17 questionnaires received.)
Talkeetna	1	(Out of 16 questionnaires received.)
Anchorage	1	(Out of 10 questionnaires received.)

Number of times comment made.	Reason given for favoring plan:
1	High level of development desired at both lakes.
1	Recreation resources should be available to <u>all</u> Alaskans, not just those who are able to hike or fly to remote areas.
	Modifications suggested:
1	Provide rail access.
1	Development could be less as long as <u>full</u> (road, air) access is provided.
1	It is possible to manage as other areas have been managed.

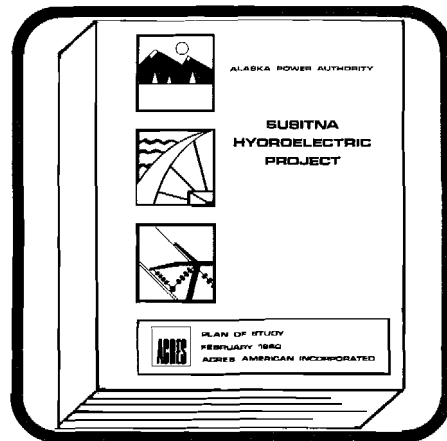


A report on  
the first series of  
community meetings  
on the feasibility studies for the

# **Susitna hydroelectric project and other power alternatives**

**April 1980**

**Fairbanks  
Talkeetna  
Wasilla  
Anchorage**



**ALASKA  
POWER  
AUTHORITY**

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Compiled by

THE PUBLIC PARTICIPATION OFFICE  
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# INTRODUCTION



In April 1980, over 250 Alaskan citizens attended community meetings in Fairbanks, Talkeetna, Wasilla, and Anchorage to comment on the adequacy of the Plan of Study for the Susitna hydroelectric study.

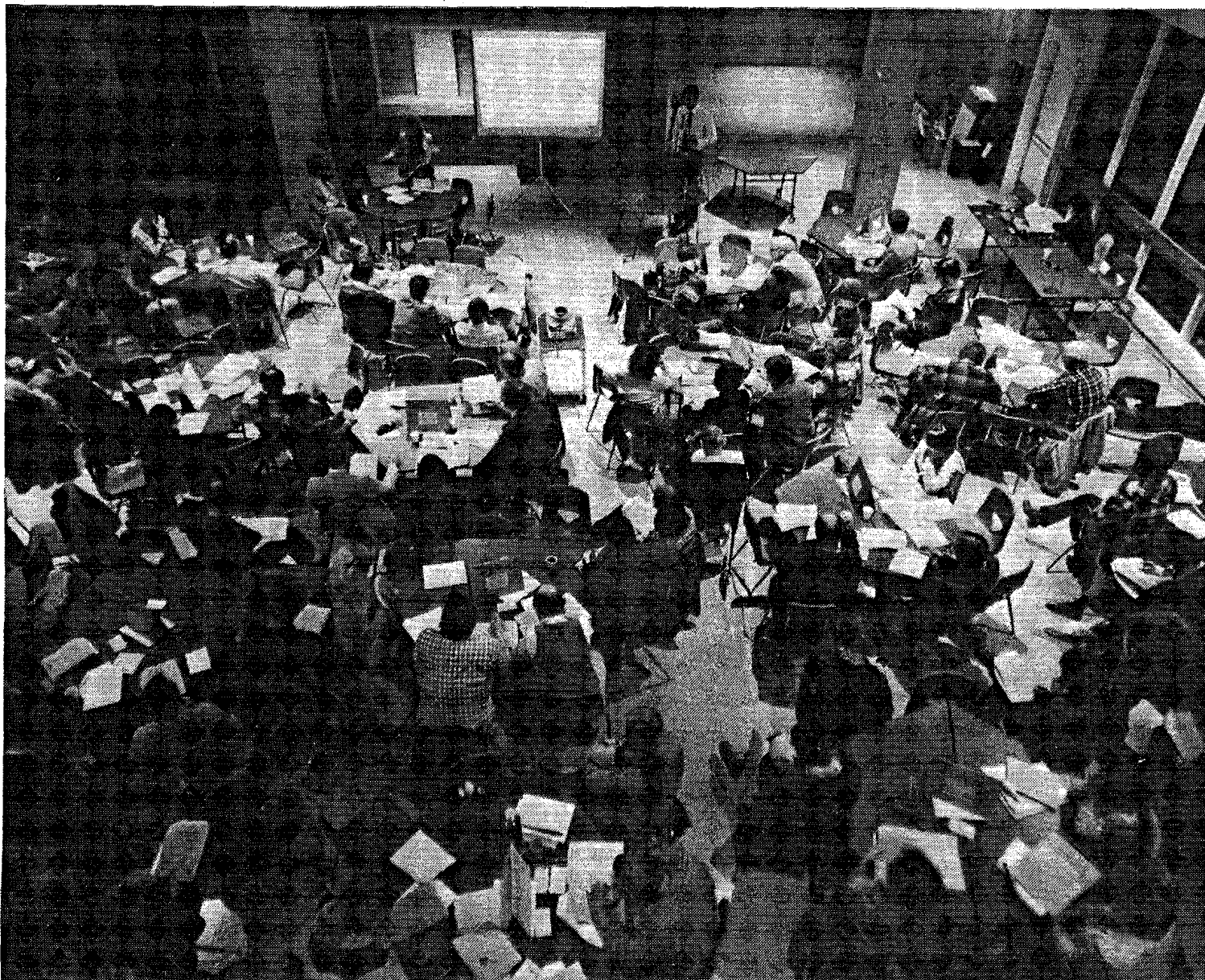
What is the Plan of Study? It is a 528-page document that describes the individual studies that will be conducted to determine the feasibility of Susitna hydroelectric development. It describes how the studies will be conducted, who will do each study, and the time frame for completion. There are two aspects to a final decision on Susitna. First, there is the question of technical feasibility. This is determined by engineering studies. The other aspect is how desirable any alternative or group of alternatives is, and this is the part the public is involved in. Together both parts form the basis for an informed decision on Susitna hydroelectric development.

The Plan of Study is intended to be a dynamic document. That means it can be changed when changes are appropriate and the Plan of Study can be improved. Changes can be suggested from the public, from the legislature, from the governor, from state and federal agencies, from Acres American, Inc., from utilities, from anyone. This report describes the comments, the questions, and the suggested changes that came from the public at the April community meetings.

## PUBLIC PARTICIPATION THROUGH APRIL 1980

The April community meetings were actually a continuation of public participation in developing the Plan of Study, as shown in the following chronology:

- |                       |  |
|-----------------------|--|
| <b>July 1979</b>      | Environmental panel raised key issues to engineering firms desiring contract for Susitna feasibility studies.                                      |
| <b>September 1979</b> | Public reviews three plans of study, listens to presentations, questions top three engineering firms, and prefers Acres American, Inc.             |
| <b>December 1979</b>  | Agreement signed between state of Alaska and Acres American, Inc., to conduct feasibility study.   |
| <b>February 1980</b>  | Acres American, Inc. publishes Plan of Study. Alaska Power Authority distributes for review to groups, agencies, individuals and public libraries. |
| <b>April 1980</b>     | Fairbanks, Talkeetna, Wasilla and Anchorage citizens comment on adequacy of Plan of Study at community meetings.                                   |



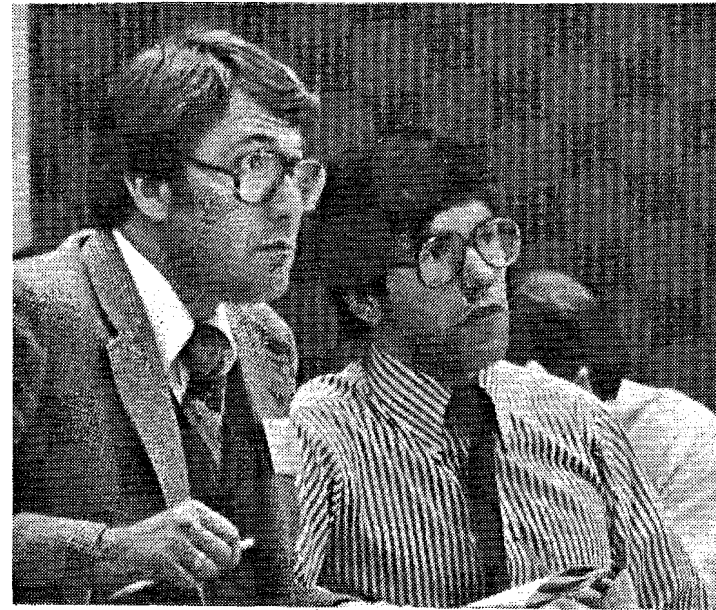
Anchorage community meeting

## HOW PEOPLE WERE INVITED

1. Personal letters were sent to the presidents and contact persons for 46 groups and organizations in the railbelt communities, including commercial fishing groups, sportsmen's groups, general public interest groups, environmental groups, recreation groups, energy-related groups, business groups, and mining groups.
2. Personal phone calls were made to the groups and organizations.
3. Personal letters were sent to legislators, state and federal agencies, and utilities.
4. Personal letters were sent to members and subcontractors of the House Power Alternatives Study Committee.
5. Large display ads were published in community newspapers a week before the meetings.
6. Paid radio ads and public service announcements were aired on local stations.
7. Daily notices of meetings were placed in newspaper columns like "Today in Anchorage."
8. Press releases were issued informing the public that Plans of Study were available for review in public libraries and giving dates of upcoming community meetings.
9. The Fairbanks **Daily News Miner** wrote a five-part series on the Susitna hydroelectric project. The series ran the week prior to the meetings and helped to inform people about the issues and invite them to the meetings.

## HOW MANY ATTENDED

<b>Fairbanks</b>		
April 14	Travelers Inn	70 persons
<b>Talkeetna</b>		
April 15	Talkeetna Elementary School	31 persons
<b>Wasilla</b>		
April 16	Wasilla High School	42 persons
<b>Anchorage</b>		
April 17	Bartlett High School	109 persons
		<u>252 TOTAL</u>



Eric Yould and Robert Mohn, Alaska Power Authority

## HOW THE MEETINGS WERE ORGANIZED

The meetings were designed to meet three objectives:

- to describe the Plan of Study in understandable terms
- to give the public a variety of opportunities to comment on the adequacy of the Plan of Study and to suggest additional areas of concern that the Power Authority should be looking at
- to record all comments and questions in a useful way for decision makers.

This part of the report describes how information was given to the public and what methods were used to get information back from the public.

### Giving Information to the Public

Describing the Plan of Study was accomplished by three formal presentations. It lasted about an hour and a half and included the following:

SLIDE SHOW HIGHLIGHTING PLAN OF STUDY  
John Lawrence, Acres American, Inc. (consultants conducting the studies)

SLIDE SHOW DESCRIBING HOW ALTERNATIVES WOULD BE REVIEWED AND EVALUATED  
Robert Mohn, Alaska Power Authority

DESCRIPTION OF PUBLIC PARTICIPATION PROGRAM AND ACTION SYSTEM  
Nancy Blunck, Alaska Power Authority

## Getting Information Back From the Public

A variety of methods was used to listen to what the public said and to record it. The methods are summarized below with a brief description:

### QUESTION AND ANSWER PERIOD.

		Questions were written on cards because of time constraints and the large numbers at some of the meetings. 165 questions were received in writing at all four meetings. Only in Anchorage was there not enough time to respond to all written questions. A complete list of questions is in Appendix B of this report.
Wh	How many	
my	was there	
cm	was there	

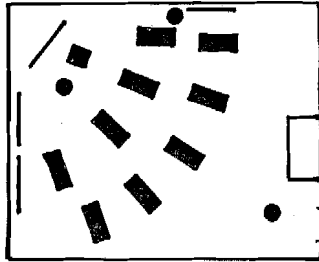
In all communities, some time was also given to informal questions from the floor. These questions are recorded in the verbatim transcript stored at the Alaska Power Authority offices but are not included in this report.

Questions were answered by members of Acres American, Inc. study team and by members of the Alaska Power Authority.



Nancy Blunck, Alaska Power Authority

## TABLE TOP DISCUSSIONS.



These discussions were held in Fairbanks, Talkeetna, and Anchorage, and gave each participant a chance to voice his or her concerns and opinions in small groups of 6-8 people.\*\* Each table had a

group member record all comments in writing, and this provided the raw data for the tables in Appendix A of this report. Each group was asked to consider these two questions:

- Is this an adequate Plan of Study?
- Are there other concerns or questions that the Alaska Power Authority should address?

The results of the table top discussions were reported to the Alaska Power Authority and to Acres American, Inc. in a summary form that night. The complete results are in this report. There were 182 table top comments received on the adequacy of the Plan of Study.

*\*\*Wasilla's meeting operated as a group of the whole and did not include individual table top discussions.*

## INFORMAL CONVERSATIONS.

During breaks, during table top discussions, and after the meeting, members of the public individually talked with Acres American, Inc. and Alaska Power Authority staff.



Top and below: Talkeetna citizens giving table top discussion reports.



## **PUBLIC COMMENT PERIOD.**

There was a formal opportunity at each meeting for people to give written or oral comments to the groups as a whole. Three persons presented written comments they had prepared ahead of time. The complete texts are included in the verbatim transcripts at the Alaska Power Authority offices. Additionally the testimonies have been entered into the ACTION SYSTEM and are being responded to in writing by Acres American, Inc. and the Alaska Power Authority.

A summary of the testimonies is included here:

### **TALKEETNA - Roberta Sheldon:**

- Acres American, Inc. Plan of Study appears superior to previous Corps plans of study
- concern for objectivity of Alaska Power Authority
- concern for objectivity of public participation program
- concern for potential impacts of industrial growth associated with Susitna
- request that Talkeetna and other communities be included in recreation survey to be conducted by Acres American, Inc.
- request that "area residents impacted by dam" be included in list of groups addressed in the public participation program
- request that transmission corridor assessment include impact on open-to-entry property owners
- request that Plan of Study include sociocultural analysis of Talkeetna area

### **WASILLA - Michael Bronson:**

- concern that environmental and social criteria be used in combination with cost information in

determining the feasibility of Susitna hydroelectric development

- further concern that environmental and social standards be established *prior* to a decision

### **ANCHORAGE - Floyd Heimbuch, Executive Director of Cook Inlet Aquaculture Association:**

- request that any mitigation plan or system have payment in salmon, not in cash payments, and not in a plan to fund research activities
- concern that the technology of stock separation is not yet developed and request that the technology be developed as a part of the Plan of Study
- concern that procedures for developing a quantitative description of rearing and spawning habitat are not well developed and therefore not highly accurate
- statement that not necessarily opposed to Susitna project and will help to provide answers to complex questions of fish impact

The following two persons gave oral comments:

### **FAIRBANKS - Ron Punton:**

- support the immediate go ahead with the intertie between the Healy site and the Talkeetna site\*
- \* *the Public Participation office interprets this to mean the intertie between Fairbanks and Anchorage*

### **ANCHORAGE - Paul Johnson, President of Anchorage Chapter of the Sierra Club:**

- concern that it is very important to not get locked into Susitna but take a fair and good look at alternatives and that the public be involved in this

## ACTION SYSTEM.

The Action System was introduced to the public during the week of the community meetings. Essentially this is a method for insuring that all questions or concerns raised by the public get a written response from

the Alaska Power Authority and from Acres American, Inc. At the meetings, time did not allow adequate or full answers to all questions. An easy-to-use form was distributed at the meeting and people were encouraged to use it to get additional information. As of the writing of this report, over a hundred individual questions and concerns have been received by the Alaska Power Authority. Responses to these are being individually prepared and sent to the author of each request. The content of the Action System comments will be regularly summarized in future reports by the Public Participation office.



Talkeetna community meeting

## MEETING SUMMARY

	Fairbanks	Talkeetna	Wasilla	Anchorage
Number of table top discussion groups	11 groups	2 groups	*	14 groups
Number of written comments from table top discussions	79 comments	25 comments	*	78 comments
Number of written questions received	23	26	37	79
Number of written questions responded to	23	26	37	27
Verbal comments given during public comment period	1 person	none	none	1 person
Written comments submitted during public comment period	none	1	1	1

*\*The same basic format was followed at all the meetings but was adapted to the size of the audience and to the community. Wasilla's meeting operated as a group of the whole and did not include individual table top discussions.*

## **ROLE OF THE ALASKA POWER AUTHORITY, THE STATE LEGISLATURE AND THE GOVERNOR**

During the 1970's the federal government studied the feasibility of Susitna hydroelectric development through the U.S. Army Corps of Engineers.

In 1978 Alaska's congressional delegation advised the state of Alaska to consider its own sponsorship of the Susitna project because of the political climate in Washington D.C. It did not appear that any major hydroelectric project in Alaska would be funded with federal dollars.

The Alaska Power Authority is a state corporation and is the vehicle set up by the state to conduct feasibility studies and to finance and construct electrical power projects. Policy is set by a five-member Board of Directors appointed by the governor. The Authority has a staff of eleven, including an Executive Director, a Director of Finance, a Director of Engineering, and a Director of Public Participation.

Through the Alaska Power Authority Board, preliminary reports will be sent to the governor and the legislature. The first is due March 30, 1981, and the second is due April 30, 1982. Both reports will recommend whether to continue studies on Susitna and the other viable alternatives.

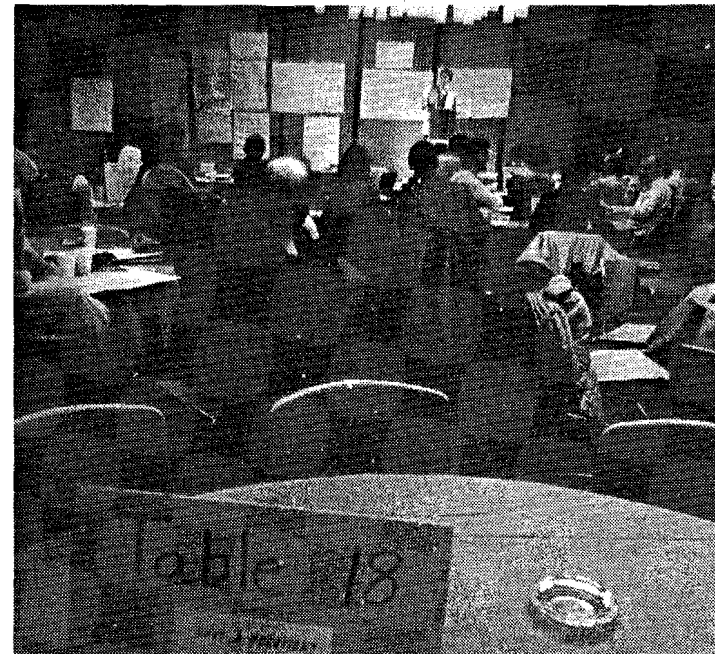
Additionally, the Power Authority will:

- manage the public participation process.
- monitor the work of Acres American, Inc. on all Susitna feasibility studies except the alternatives study (this will be conducted by an

independent contractor and be managed by the Office of the Governor).

- submit a license application to the Federal Energy Regulatory Commission if Susitna hydroelectric development is selected as the most feasible and desirable alternative.
- recommend a financing plan and sell bonds if bonds are a part of the financing plan.

What is the role of the legislature and the governor? The legislature funds all studies and oversees the study process. The governor manages the alternatives study, and acts to accept, reject, or modify the recommendations from the Power Authority Board in selecting the most feasible and desirable way to meet future electrical needs.



One of the roles of the Alaska Power Authority is to manage the public participation program, as seen at the Fairbanks community meeting.

## **WHY ACRES AMERICAN, INC. WAS SELECTED TO CONDUCT THE SUSITNA FEASIBILITY STUDIES**

At its November 1979 meeting, the Alaska Power Authority Board selected Acres American, Inc. to conduct Susitna feasibility studies. Comments from the public were included in this selection as were comments received from the House Power Alternatives Study Committee. Both the public comments and the House Power Alternatives Study Committee supported the choice of Acres American, Inc.

Here is a summary of the reasons:

1. Acres American, Inc. possessed the greatest experience with sub-Arctic construction and planned to retain the most experienced firm in Alaska for geotechnical work.
2. Acres American, Inc. planned to spend a greater portion of its budget in-state than other firms.
3. The Acres American, Inc. proposal contained the most objective and detailed studies of power market demand and power alternatives.
4. The Acres American, Inc. proposal provided for the most extensive and direct public participation process.



Chuck Debelius and John Lawrence, Acres American, Inc.

## WHO THE DECISION MAKERS ARE...

The Alaska Power Authority Board will make two preliminary reports to the governor and the legislature. The reports will be based on Acres American, Inc.'s work, on the work of the alternatives study, and on public input. The first report is due March 30, 1981, and will recommend whether studies should continue on the Susitna hydroelectric project. If the recommendation is that study should continue, the report shall explain the following in detail: economic evaluations and preliminary environmental impact assessments for the Susitna



Current members of the Alaska Power Authority Board are: (left to right) Charles Conway, Chairman (Sitka); Arnold Espe, Vice Chairman (Anchorage); Commissioner Charles Webber, Department of Commerce and Economic Development, member (Juneau); Robert Weeden, member (Fairbanks); and Tom Kelly, member (Anchorage).

hydroelectric development and all viable alternatives; a description of the federal and state permits needed before construction can begin; and the expected construction start date.

The second report is due April 30, 1982 and shall again recommend if work should continue on the Susitna project and other viable alternatives. If the recommendation is to continue Susitna studies, the report will give more detail on design, on phases of construction, expected completion dates of each phase of construction, expected costs of each phase, and the costs to the state and to the consumers of the project under different methods of project financing (including revenue bonds, general obligation bonds and general fund appropriations).



Governor Hammond

## II. SUMMARY OF WHAT THE PUBLIC SAID

### 8 MAJOR CONCERNS

The following areas received the most comments during the table top discussions:

- 15 comments saying Plan of Study adequate.
- 29 comments saying alternatives study not adequate and why.
- 25 suggestions for energy sources that should be considered in alternatives study.
- 17 suggestions for serious consideration of decentralized alternatives.
- 17 comments describing what the socioeconomic studies should address.
- 11 comments suggesting a level of effort on studies on fish, wildlife and plants.
- 8 comments describing concerns about transmission studies.
- 8 suggestions for getting information *to* the public.

### THE 8 MOST ASKED QUESTIONS

Written questions were asked most often in the following areas (listed in rank order):

- 27 questions expressing concern for completeness of alternatives study
- 13 questions on adequacy of energy forecasts
- 11 questions on objectivity of those conducting the alternatives study
- 10 questions on the decision making process and the timing of decisions
- 10 questions on construction costs and schedules
- 8 questions on marketing and financing of Susitna
- 7 questions on access roads to damsites
- 7 questions on local hire in feasibility studies

## TABLE TOP DISCUSSION SUMMARY

This chart summarizes the total number of table top comments received on the adequacy of the Plan of Study.

	# of comments	% of total
Plan of Study	29	16%
Task 1: Power Studies	84	46%
Task 2: Surveys and Site Facilities	none	-0-
Task 3: Hydrology	7	4%
Task 4: Seismic	4	2%
Task 5: Geotechnical	none	-0-
Task 6: Design Development	2	1½ %
Task 7: Environmental	30	17%
Task 8: Transmission	8	4%
Task 9: Construction Costs and Schedules	none	-0-
Task 10: Licensing	none	-0-
Task 11: Marketing and Financing	4	2%
Task 12: Public Participation	14	8%
<b>TOTALS</b>	<b>182</b>	<b>100%</b>

## QUESTION AND ANSWER SUMMARY

This chart shows how many questions were asked about each TASK in the Plan of Study.

	# of questions asked	% of total questions
Plan of Study	5	3%
Task 1: Power Studies	79	48%
Task 2: Surveys and Site Facilities	9	6%
Task 3: Hydrology	2	1%
Task 4: Seismic	7	4%
Task 5: Geotechnical	2	1%
Task 6: Design Development	7	4%
Task 7: Environmental	9	6%
Task 8: Transmission	5	3%
Task 9: Construction Costs and Schedules	13	8%
Task 10: Licensing	1	less than 1%
Task 11: Marketing and Financing	8	5%
Task 12: Public Participation	6	4%
Miscellaneous	12	7%
<b>TOTALS</b>	<b>165</b>	<b>100%</b>

# III. EVALUATION OF THE MEETINGS

The following is a summary of the evaluations filled out by those attending all four community meetings.

## HOW UNDERSTANDABLE WAS EACH OF THE THREE PRESENTATIONS? *(statistical averages)*

### A. Plan of Study (first slide show by Acres American, Inc.)

terribly  
confusing 1 2 3 4 5 6 **7.3** 8 9 10 very  
understandable

### B. Selection Process and List of Alternatives (second slide show by Robert Mohn, Alaska Power Authority)

terribly  
confusing 1 2 3 4 5 6 **7.0** 8 9 10 very  
understandable

### C. Public Participation Program (description by Nancy Blunck, Alaska Power Authority)

terribly  
confusing 1 2 3 4 5 6 7 **8.0** 9 10 very  
understandable

1. Is the handout on the overall decision-making process clear enough to understand without a verbal description?

85% . . . . yes

15% . . . . no

2. Are the proposed methods for responding to public comments and questions adequate?

70% . . . . yes

10% . . . . tentative yes/perhaps/somewhat

11% . . . . no

9% . . . . other

100% TOTAL

3. Anything else we could be doing to get information to the public?

Mentioned the most . . . . USE OF TELEVISION  
(mentioned 19 times).

Second . . . . . USE OF NEWSPAPERS  
(mentioned 10 times).

Third . . . . . EXPAND MAILING LIST  
AND MAIL IN ADVANCE  
(mentioned 7 times).

*NOTE: "use of television" was most often mentioned in Anchorage and Fairbanks, but was also mentioned in Talkeetna and Wasilla.*

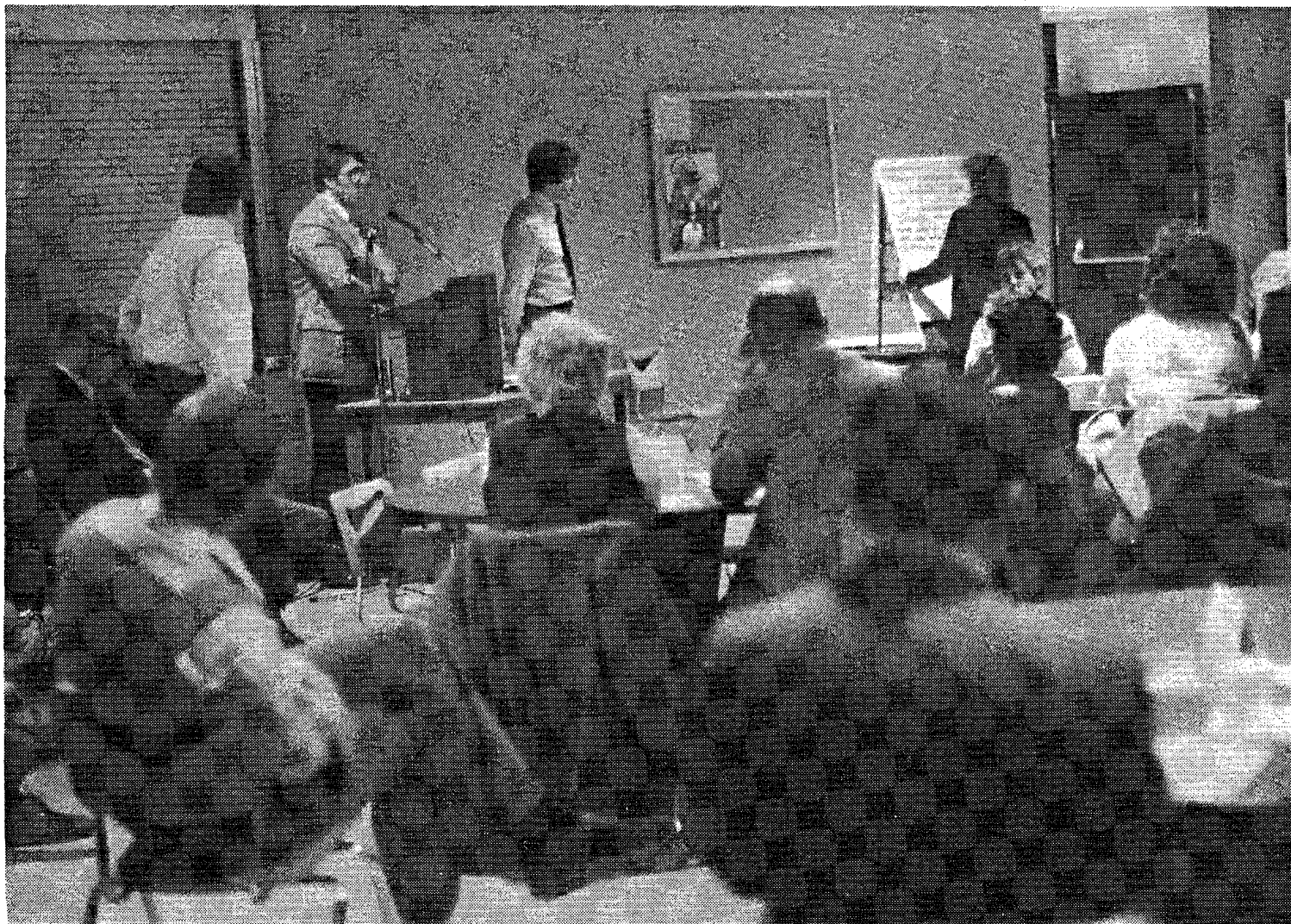
4. Other comments:

There were 33 comments on the meeting format. About 75% (24 comments) said that the table top discussions were very effective. Other issues appeared only once or twice.





Members of the public evaluate the content and design of the Talkeetna meeting.



The purpose of the public participation program is the incorporation of citizen ideas into the feasibility study...that's what happens in the NEXT STEP.

Wasilla community meeting

## IV. THE NEXT STEP

The 1980 Legislature appropriated an additional \$1,365,000 to make changes in the Plan of Study. The revised plan was prepared by the Alaska Power Authority and Acres American, Inc. It reflected the suggestions for change from the public at the community meetings, from consultants to the House Power Alternatives Study Committee, and from state and federal agency review of the Plan of Study.

The major suggested alterations in the alternatives study are summarized below:

- change the time frame for decision making and stretch it over an additional year
- increase the work allotted to identification and description of power alternatives, including conservation and load management
- present a *number* of alternative power plans for public review during the *second* year
- augment the demand forecast data base
- increase the level of effort allotted to financial and marketing aspects of the alternatives, and to risk analyses
- utilize a multidisciplinary review panel
- increase the environmental studies of alternatives
- conduct a more complete sensitivity analysis.

Additionally, the Office of the Governor is now overseeing the alternatives study. An independent firm will be hired to conduct the alternatives study, and this effort will be entirely separate from the Acres American, Inc. work on Susitna feasibility.

## V. WHAT HAPPENS TO THIS REPORT?

Several things:

1. Acres American, Inc., their subcontractors, the Alaska Power Authority, and the Alaska Power Authority Board will have copies of this report so they are aware of the concerns expressed and so they can assure that the studies are responsive to the concerns.
2. The Federal Energy Regulatory Commission will have this report to assist them in their determination of the adequacy of the public participation program: how was the public encouraged to participate and how were their comments incorporated into the study process?
3. This report is the first of several documents that will be the major part of the Public Participation Director's report to the governor and to the Alaska Power Authority Board prior to decision making on Susitna. *(Also included in the report will be the reports from future meetings, workshops and ACTION list comments.)*
4. This report will help form the agenda for future workshops. The Public Participation office has kept track of those questions that were asked most frequently and those questions that were not adequately answered at the first set of meetings.
5. The Public Participation office will use this report to help plan the agenda for the next series of community meetings in 1981.
6. Communities will have the opportunity to see what concerns other communities had. The table top discussion comments and the questions are identified by community for comparison purposes.
7. This report will go to the Office of the Governor with the hope that it will be used in the conduct of the new alternatives study.
8. Others to receive this report:
 

—public libraries within the railbelt region	—sportsmen's groups
—commercial fishing groups	—environmental groups
—general public interest groups	—energy groups
—recreation groups	—mining groups
—business groups	—individuals upon request
—media	

# **APPENDIX A: COMPLETE LIST OF TABLE TOP DISCUSSION COMMENTS**

Following is a complete list of table top discussion comments received. They are organized by TASK in the same manner as the original Plan of Study document.



# COMMENTS ON PLAN OF STUDY

20

## Plan of Study—adequate

F	T	A	TOTAL
1	0	1	2
1	1	0	2
1	0	2	3
3	0	2	5
1	0	1	2
1	0	0	1
			15

Plan of Study considered adequate.  
 Plan of Study adequate *only* if studies completed properly.  
 Plan of Study *more* than adequate.  
 Enough studies have been done already—build Susitna now.  
 Studies are an improvement over previous studies.  
 People conducting studies appear to be open and objective.  
 TOTAL

## Plan of Study—difficult to understand and evaluate

2	0	2	4
0	1	0	1
0	1	0	1
			6

Studies difficult to evaluate without knowing *how* studies will be done.  
 Plan of Study should indicate more clearly what its priorities are.  
 Plan of Study difficult to understand: break into smaller parts.  
 TOTAL

## Plan of Study—comments on scope of work

0	0	1	1
0	0	4	4
			5

Plan of Study should include previous studies done by Corps of Engineers.  
 Studies too broad, costly and are difficult to complete in time allowed.  
 TOTAL

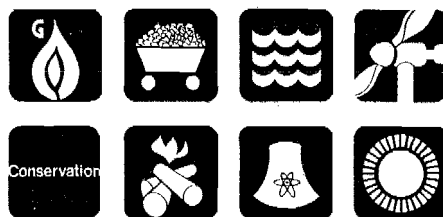
## Plan of Study—assumptions questioned

1	0	0	1
1	0	0	1
0	0	1	1
			3

Plan of Study appears to assume that railbelt people would favor converting to electric heat.  
 Plan of Study appears to assume that we *should* be meeting future energy demands.  
 Plan of Study appears to assume that hydro is best and only solution.  
 TOTAL

F airbanks T alkeetna A nchorage

# TASK 1



# POWER STUDIES

- determine the need for power generation facilities in the railbelt
- consider and evaluate all viable alternatives for satisfying the need

**ADEQUACY:** 113 comments on adequacy of power studies:

alternatives study—  
not adequate

F	T	A	TOTAL
4	0	1	5
1	0	2	3
2	2	1	5
1	1	0	2
1	0	0	1
5	1	0	6
1	0	4	5
0	1	0	1
1	0	0	1
			29

Alternatives studies not adequate.

Criteria for evaluating alternatives appears vague and too mechanical. Specific concerns raised for evaluating alternatives were:

.... Will cost outweigh socioeconomic values?

.... Will value of Alaska's wilderness be given any weight?

.... Will "emotional public sentiment" outweigh economic considerations?

Not enough money for alternatives studies.

Acres American, Inc. experience and objectivity questioned.

Not enough time to do adequate alternatives studies.

Only "legitimate" alternatives should be considered.

TOTAL

**alternatives study—  
suggestions**

F	T	A	TOTAL
4	2	0	6
2	0	1	3
1	0	1	2
0	0	1	1
0	0	1	1
0	1	0	1
1	0	0	1
1	0	0	1
1	0	0	1
2	0	1	3
2	1	2	5
			<hr/>
			25

Alternatives study should include CONSERVATION, both voluntary and government enforced.  
 Alternatives study should include SMALL HYDROELECTRIC development.  
 Alternatives study should include TIDAL.  
 Alternatives study should include SOLAR.  
 Alternatives study should include BURNING WOOD TO GENERATE ELECTRICITY.  
 Alternatives study should include GEOTHERMAL near Devils Canyon.  
 Alternatives study should include North Slope NATURAL GAS via pipeline.  
 Alternatives study should include BELUGA COAL.  
 Alternatives study should include NUCLEAR.  
 Alternatives study should incorporate new technologies as they develop.  
 Alternatives study should take into consideration some kind of overall energy plan.

TOTAL

**centralization versus  
decentralization**

1	2	12	15
1	0	1	2
			<hr/>
			17

Alternatives study should consider decentralized alternatives to Susitna hydro; 8 of 15 comments suggested studying various combinations of decentralized alternatives.  
 Alternatives study should evaluate vulnerability of centralized power source.

TOTAL

*continued*



power studies, *continued*.

	F	T	A	TOTAL
energy forecasts— suggestions	1	0	1	2
	1	0	1	2
	1	0	0	1
	0	0	1	1
				6

Load forecasts should identify seasonal variations as well as daily variations.  
 Power studies should anticipate the effects of public reaction to increasing cost of energy and public desire to reduce energy consumption.  
 Demand forecast should include possible electrification of Alaska Railroad.  
 Load forecasts should provide for auxiliary back-up power in addition to main power supply.  
 TOTAL

power costs	0	0	1	1
	0	0	1	1
	1	0	0	1
	1	0	0	1
				4

Studies should show how much of Susitna costs will be paid by consumer.  
 Studies should compare consumer costs of Susitna relative to other alternatives.  
 Studies should consider ways to lower power costs.  
 Studies should show how the most economic power production is determined.  
 TOTAL

energy independence	2	0	0	2
				2

Studies should evaluate possibility of selecting a power plan that would achieve energy independence.  
 TOTAL

	F	T	A	TOTAL
decision making	0	0	1	1
				1

Plan of Study should allow flexibility of decision making.  
 TOTAL

Fairbanks    Talkeetna    Anchorage

*continued*

**QUESTIONS:**

four questions on power studies in table top reports:

- What kinds of power (other than hydro) will be available in the future? (Talkeetna)
- Looking beyond current technologies, what alternatives sources can be expected in the near future?
- If natural gas generators are to be prohibited in the future and/or fossil fuels become prohibitively costly, what would be the alternatives or how much power would be available without the use of hydropower—in the next 20 years? (Talkeetna)
- When will the Golden Valley Electric Association be bringing on capacity from the oil pipeline stations (the waste heat power project)? (Fairbanks)

**VALUES:**

27 values expressed on power studies during table top discussions:

**pro Susitna**

- I am in favor of it. (Fairbanks)
- Agree that it is a good project. (Fairbanks)
- Get going with project. (Anchorage)
- Build the dam first, then develop alternatives. (Fairbanks)
- Susitna is good, long term energy supplier. (Fairbanks)
- Project is environmentally desirable and inflation proof. (Fairbanks)
- Build dam now before costs are too high. (Fairbanks)
- Susitna is large in cost, but not in capacity. It is less affected by inflation. (Fairbanks)
- Feel that we lost out by not getting Rampart Dam—cost of energy will be too high if dam isn't built. (Fairbanks)

**against Susitna**

- Opposed to dam. (Fairbanks)
- Is Susitna a dinosaur egg that we'll be sorry we hatched? (Anchorage)
- For the \$3 billion cost of Susitna project, with existing technology, distribution of that amount on a per capita (\$10,000 per person) basis should be considered to reduce consumption and eliminate need for more generation capacity. (Anchorage)

*continued*

power studies, *continued*.

**pro hydro**

- In the presence of a shortage of energy, we shouldn't question hydro. (Anchorage)
- Hydro should be used by those who have access to the renewable resource; the fossils should be saved for those who don't have hydro potential. (Anchorage)
- Alaska does have hydro potential; it's clean and we should use it. (Fairbanks)
- Stationary energy requirements should be supplied by large hydro in preference to using coal. (Fairbanks)
- Hydro is the only form of energy other than nuclear that we could look to for the long term. (Fairbanks)
- “The water is all running down hill
  - Better get at it—
  - The gas we can sell; water we can't.
  - Never seen a hydroproject blow up—just get wet.” (25-year Alaskan; Anchorage)

**alternatives study**

- No need to study nuclear. (Anchorage)
- Conservation should be a priority in any projection of needs, as Alaska has a uniquely large potential for saving in that area. (Anchorage)
- Conservation is less costly than building new project. (Fairbanks)
- Should not consider heating homes with electricity—not efficient. (Anchorage)

**power costs**

- Reason for developing new energy sources should be lower cost of energy, not attracting new industry. (Talkeetna)
- Fairbanks pays a lot for electricity. (Fairbanks)

**opposed to centralized  
power sources**

- Opposed to centralization of energy sources. (Fairbanks)
- Opposed to government controlled centralization of energy sources. (Fairbanks)

## TASK 2 SURVEYS AND SITE FACILITIES

- provide safe, cost effective and environmentally acceptable logistical support for the feasibility studies
- conduct topographic surveys of the project area
- resolve real estate issues

**ADEQUACY:** no table top comments received on adequacy of this section of Plan of Study.

**QUESTIONS:** three questions included in table top reports:

- Will native lands around dams be purchased at unreasonable prices? (Fairbanks, twice)
- Who owns the land at dam sites? (Fairbanks)
- Will any federal land withdrawals delay dam? (Fairbanks)

**VALUES:** no values expressed about the work to be done in this section of the Plan of Study.

## TASK 3



## HYDROLOGY

- collect data and perform analysis for the hydrologic, hydraulic, ice and climatic factors in project planning and design

**ADEQUACY:** seven comments on adequacy of hydrology studies:

F	T	A	TOTAL
0	1	1	2
2	1	1	4
0	0	1	1
			7

Studies should examine effects of large reservoirs on climate.

Studies should examine silting problems both behind dam and in river.

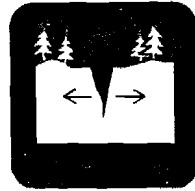
Studies should determine effects of ice break-up on Susitna.

TOTAL

**QUESTIONS:** no questions on hydrology included in table top reports.

**VALUES:** no values expressed about the work to be done in the hydrology section of the Plan of Study.

# TASK 4



# SEISMIC STUDIES

- assess seismic potential of Susitna basin
- determine seismic design criteria
- evaluate seismic stability of project structures
- assess the potential for reservoir-induced seismicity and landslides

**ADEQUACY:** four comments on adequacy of seismic studies:

F	T	A	TOTAL
2	0	1	3
0	0	1	1
			4

Studies should include extensive seismic analysis which would continue after June 1982.

Studies should evaluate reliability of current knowledge about the effects of large reservoirs on highly seismic areas.

TOTAL

**QUESTIONS:** no questions on seismic studies included in table top reports.

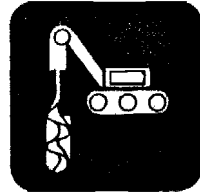
**VALUES:** no values expressed about the work to be done in the seismic section of the Plan of Studies.

Fairbanks

Talkeetna

Anchorage

## **TASK 5**



# **GEOTECHNICAL EXPLORATION**

- **determine the surface and subsurface geology and geotechnical conditions of the project sites**

**ADEQUACY:** no table top comments received on adequacy of this section of Plan of Study.

**QUESTIONS:** no questions on geotechnical exploration included in table top reports.

**VALUES:** no values expressed about the work to be done in the geotechnical section of the Plan of Studies.

## TASK 6



## DESIGN DEVELOPMENT

- prepare the optimal plan for Susitna hydroelectric development (includes whether tunnel or dam, number of dams, types, where, size and timing of development if staged)
- prepare preliminary engineering and design information for the selected development plan

**ADEQUACY:** two comments on adequacy of design development studies:

F	T	A	TOTAL
1	0	1	2
			2

Studies should identify appropriate minimum levels of stream flow during filling of reservoir.

TOTAL

### QUESTIONS:

three questions included in table top reports:

- How much voltage will be produced by the dam? (Talkeetna)
- What impacts would there be on railbelt communities if there was a major breakdown of Susitna hydro while it was on the line at -60 degrees? (Talkeetna)
- What is the life span of the dam project? (Fairbanks)

### VALUES:

no values expressed about the work to be done in the design development studies.

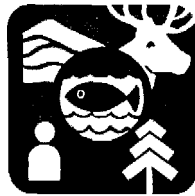
Fairbanks

Talkeetna

Anchorage



## TASK 7



## ENVIRONMENTAL STUDIES

- collect baseline data
- compare alternative plans from an environmental standpoint
- assess the socioeconomic, archaeological, historical, land use, recreational, water resource, fish, wildlife, and plant ecology impacts of Susitna development

**ADEQUACY:** thirty comments on adequacy of environmental studies.

socioeconomic

F	T	A	TOTAL
2	1	0	3
3	1	1	5
1	0	0	1
6	1	1	8
			17

Socioeconomic studies should address goals of railbelt.  
Studies should consider socioeconomic effects of Susitna hydro on railbelt communities.

Specific concerns mentioned were:

—Will the rate of inflation increase like it did during pipeline days?

—What will the effects of new industrial development be?

TOTAL

	F	T	A	TOTAL	
impact on fish, wildlife, plants	1	1	3	5	Studies should consider impact of fish populations in Susitna River and its tributaries.
	0	0	3	3	Studies should be more thorough and include inventory of plant and animal resources.
	1	0	0	1	Studies should continue for at least one normal animal cycle (a hare cycle is plus or minus ten years).
	2	0	0	2	Studies should consider impact on moose and caribou, particularly in Susitna flat estuary and Beluga calving grounds.
				11	TOTAL
environmental trade-offs	0	0	1	1	Studies should establish guidelines for acceptable environmental tradeoffs.
				1	TOTAL
Susitna as navigable river	1	0	0	1	Studies should evaluate Susitna as a navigable river.
				1	TOTAL

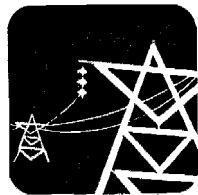
**QUESTIONS:** no environmental questions asked during table top discussions.

**VALUES:** three values expressed related to environmental studies:

**wilderness** Alaska has plenty of wilderness areas. (Fairbanks)  
**industrialization** Opposed to industrialization—keep things the way they are. (Fairbanks)  
**preserve river as natural system** Susitna is a beautiful, unique river. (Fairbanks)

Fairbanks Talkeetna Anchorage

# TASK 8



# TRANSMISSION

- select the transmission route
- produce conceptual designs for transmission facilities

**ADEQUACY:** eight comments on adequacy of transmission studies:

F	T	A	TOTAL
1	0	0	1
0	4	0	4
1	1	0	2
1	0	0	1
			8

- Studies should examine negative aspects of intertie.  
 Studies should identify health hazards of living near transmission lines.  
 Studies should examine best routes for transmission lines.  
 (NOTE: "best route" not defined at meetings.)  
 Design of transmission lines should accommodate transmission of electricity from variety of sources.  
 TOTAL

**QUESTIONS:** three questions included in table top reports:

- Can you live near transmission lines and not receive power? (Talkeetna)
- Why does there need to be new transmission lines if there's already a connecting power line from North Pole to Homer? (Talkeetna)
- Will Cantwell be bypassed? (Fairbanks)

**VALUES:** two values expressed during table top discussions:

- Build intertie now. (Fairbanks, three times)
- Recommend putting transmission lines along highway and not along railroad—too many people live along railroad. (Talkeetna)

**TASK 9****CONSTRUCTION COST  
ESTIMATES AND  
SCHEDULES**

- develop cost estimates for the Susitna project
- prepare detailed engineering and construction schedules
- conduct risk analysis of all possible things that could affect cost overruns

**ADEQUACY:** no table top comments received on adequacy of this section of Plan of Study.

**QUESTIONS:** one question included in table top reports:

—Is there a minimum acceptable benefit/cost ratio that will permit construction of the project? Will cost overruns be somehow included in contingency factor? (Anchorage)

**VALUES:** no values expressed about the work to be done in this section of the Plan of Study.

## TASK 10



## LICENSING

- prepare and assemble all documentation for the license application to the Federal Energy Regulatory Commission (FERC)

**ADEQUACY:** no table top comments received on adequacy of this section of Plan of Study.

**QUESTIONS:** one question included in table top reports:

—If the state of Alaska funded a significant (major) portion of this project, would federal environmental guidelines need to be followed and met? (Anchorage)

**VALUES:** one value expressed during table top discussions:

—Our consensus is that federal intervention is necessary to speed up the time frame of the project—to save real dollars and eliminate possible brownout. (Anchorage)

**TASK 11****MARKETING AND FINANCING**

- assess methods of financing the Susitna project
- prepare draft support documentation for bond offering, including risk analysis

**ADEQUACY:** four comments on adequacy of marketing and financing studies:

F	T	A	TOTAL
1	0	0	1
0	0	1	1
1	0	0	1
0	0	1	1
			4

Studies should determine costs of Susitna hydroelectric development.

Studies should determine whether or not Susitna project is economically feasible in a traditional sense (without big state inputs).

Studies should evaluate whether state can afford to finance both gas pipeline and Susitna hydro.

Financial studies should be delayed until conclusion of all other studies.

**TOTAL**

**QUESTIONS:** no questions on marketing and financing included in table top reports.

**VALUES:** no values expressed about the work to be done in the marketing and financing section of the Plan of Study.

Fairbanks    Talkeetna    Anchorage

## TASK 12



## PUBLIC PARTICIPATION

- keep the public fully informed of plans, progress and findings
- provide a means whereby the public can influence the course of the work

**ADEQUACY:** fourteen comments on adequacy of public participation program:

	F	T	A	TOTAL	
information to the public	1	0	3	4	Need to educate public better. Suggestions included T.V., radio, attending community council meetings, using shopping center displays, and finding ways to reach persons who are unable to attend meetings (such as those in Pioneer Home). Preliminary reports should be available to public prior to community meetings and decision times. Final reports should be concise and easy to read.
	0	0	3	3	
	0	0	1	1	
				8	
TOTAL					
input from the public	0	0	3	3	Public needs more input—more time to speak at meetings. Public needs to know <i>how</i> their comments influence decisions; 2 or 3 comments expressed doubt that public comment has <i>any</i> affect on decisions.
	0	0	3	3	
				6	
TOTAL					

**QUESTIONS:** one question on the public participation program included in table top reports:

—Will the issue be brought up to a public vote? Possibility of making it so? (Fairbanks)

**VALUES:** five values expressed about the public participation program:

—Governor appoints Alaska Power Authority Board, yet input of Acres and public goes to Board. (Talkeetna)

—Four comments were included on the April 1980 community meetings:

—Slide shows should have more numbers, fewer cartoons. (Fairbanks)

—Slide show was clear, informative. (Fairbanks)

—Rather than break for table top discussions, would have preferred you continue with written questions. (Anchorage)

—The handout on alternatives did not emphasize alternatives enough. (Anchorage)



## **APPENDIX B: COMPLETE LIST OF QUESTIONS**

Following is a complete list of written questions submitted at the meetings. They are organized by TASK in the same manner as the original Plan of Study document.



# GENERAL QUESTIONS ON THE PLAN OF STUDY

## use of past data

1. What's become of past data? Is it available? Will it be used? (Wasilla)
2. What additional information could possibly be needed after all the work that's been done? (Wasilla)

## cost of feasibility studies

1. What is the total amount of the contract with Acres American, Inc.? (Anchorage)

## exchange of information

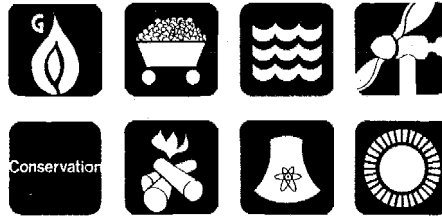
1. Are there any avenues for exchange of information between Acres American, Inc. and engineering firms which have completed large earth or concrete dams in other Arctic locations—such as in Scandinavia or Siberia? (Talkeetna)

**UNANSWERED QUESTION** *(in Anchorage this was not answered because of time and the very large number of written questions submitted)*

## title of plan of study

1. Doesn't the title of the project, "Hydroelectric Feasibility Study," give the false assumption on the part of the general public that the study is not on all or many different power alternatives? Why was it named this?

# TASK 1



# POWER STUDIES

- determine the need for power generation facilities in the railbelt
- consider and evaluate all viable alternatives for satisfying the need

## general on alternatives

1. Can you outline top three alternatives? (Wasilla)
2. Will anybody evaluate employment opportunities provided by different alternatives, both immediate and long term? (Fairbanks)

## budget for alternatives

1. How much money is in the budget for alternatives? (Talkeetna)
2. How much money is being spent on Susitna feasibility study? By contrast, how much is being spent on the alternative feasibility studies? (Anchorage)
3. How much of the study plan's budget will be spent on identifying and evaluating alternatives? What percentage? (Fairbanks)

## who is studying alternatives?

1. Who exactly is studying alternatives to Susitna? (Talkeetna)
2. Please clarify who is doing the alternatives investigation and when results will be available? (Anchorage)

*continued*

**decentralized vs.  
centralized power**

1. Will Category 'B' on the lavender sheet attempt to quantify and/or compare the risks (costs and otherwise) of a centralized source of power as opposed to decentralized sources? Will this take into account the cost of necessary backup (standby) systems? (Anchorage)
2. Considering the immensity and high cost of this project and the favorability of local decentralized power sources (wind and solar), what kind of assurance can you give that these alternatives will receive proper consideration? (Fairbanks)

**Susitna hydro**

1. Is there really an alternative better than Susitna? No need to look at alternatives. (Wasilla)

**how Susitna power  
used**

1. What are the uses envisioned for Susitna electricity? Space heat for residences, industry, transportation? (Anchorage)
2. What is the purpose of the Susitna project? To provide power for increased population? residential use? provide power for industrial development and expansion? to create jobs? other? (Anchorage)
3. Would you anticipate total electrification of the railbelt area, i.e. power substations for smaller communities which are currently without commercial electricity? (Fairbanks)

**other hydro**

1. Will Acres American, Inc. evaluate the 64 potential hydro sites identified by the federal government in southcentral and interior Alaska? In what detail? (Fairbanks)
2. What are other possible hydro sites (outside the railbelt)? (Wasilla)
3. What other hydro sites are being studied? (Talkeetna)

**tidal**

1. Is tidal power feasible for Anchorage? (Talkeetna)
2. Is the Cook Inlet tidal power project an alternative which could be considered competitive in cost with Susitna? (Anchorage)

*continued*

power studies, *continued*.

**other alternatives**

1. I understand there are questions concerning the availability of NATURAL GAS. How long will natural gas from Beluga and the Kenai Peninsula last? (Anchorage)
2. What has been done with the in-state GAS line idea and study of Bonner and Moor? (Fairbanks)
3. Why is the SOLAR alternative limited to centralized electrical generating units? (Anchorage)
4. What is the role of SOLAR residential applications (specifically, active and passive systems in new and existing housing stock)? (Anchorage)
5. With regard to WOOD, will the residential space heat potential be assessed (i.e. wood used in wood stoves as opposed to being burned in a generator)? (Anchorage)
6. Are studies of alternatives limited to a specific geographic area (i.e. railbelt)? GEOTHERMAL may not be a viable alternative for the railbelt but perhaps in the Copper River basin it would be. (Anchorage)
7. Will CONSERVATION, our #1 alternative, be tested extensively through application in existing facilities, or alternatively, will more efficient design be considered? (Anchorage)
8. Among the conservation measures considered, will direct LOAD CONTROL techniques and innovative rate structures be considered as a means of conserving generating capacity? (Anchorage)

**costs of Susitna to consumer**

1. I understand that Susitna power will be equal to \$80/barrel of oil. Comment? (Fairbanks)
2. Whatever happened to the Rampart dam proposal? Is Susitna more cost effective? (Wasilla)
3. Will the Susitna project be economically viable? (Fairbanks)
4. If the federal government won't foot the construction bill, will power from Susitna (including transmission line costs) cost more than using natural gas in gas turbine, combined cycle power plants? (Fairbanks)

*continued*

**costs of alternatives  
to consumer**

1. Do you have any estimated costs on the alternatives? (Wasilla)

**energy forecasts**

1. What are power use trends in Alaska relative to nationwide trends? (Wasilla)
2. How have past population and power usage projection figures been formulated? (Talkeetna)
3. How will future population and power usage figures be formulated? (Talkeetna)
4. How are future energy projections determined? Is social opinion considered in making these projections? (Talkeetna)
5. How will we insure that our energy need projections will not be exaggerated? (Anchorage)
6. Doesn't a large forecast of energy become a self-fulfilling prophecy and be an invitation to industry to come in? (Wasilla)
7. Will the Susitna hydroelectric project produce excess energy? (Wasilla)
8. If the dam is to provide power for increased population—where are the people going to come from and what will they be doing? Hasn't population declined? (Anchorage)
9. Are energy load forecasts ready? Figures ready? (Wasilla)
10. What is the background for the Institute of Social and Economic Research (ISER)? Is it private? Is it funded? How long in Alaska? (Talkeetna)
11. Is anyone from ISER here? Their demand projections seem crucial and subject to conscious or unconscious bias. (Fairbanks)
12. ISER mentioned six consumer categories—half were industrial categories. Why the emphasis on *industrial use*? (Talkeetna)

**how decisions made**

1. Will the go/no go decision be made by the legislature or by a general voting opportunity? (Anchorage)
2. Will social and environmental factors be a part of the criteria for determining feasibility, or will cost be the only criteria? (Wasilla)

*continued*

power studies, *continued.*

**timing of decisions**

1. Why conduct detailed Susitna studies before alternative studies are complete? (Wasilla)
2. Why aren't considerations of environmental impacts involved in the first go/no go decision? Necessary environmental studies will not be completed in time for this important decision. (Fairbanks)
3. Will any decisions regarding Susitna (go/no go) be made before 1982? Or will phase I study results precede any decision at all? (Fairbanks)
4. Why is the decision schedule so long and drawn out? Considering the vast amount of studies already done, can't this process be expedited? (Fairbanks)
5. Why is the go-ahead decision being made in February 1981 before the seismic studies are done? (Talkeetna)

**objectivity of  
Acres American**

1. Acres American, Inc. seems to have a history of dam building proposals. Therefore I sense a predisposition to seeing Susitna as the only viable alternative. I would like Acres American, Inc. to tell in detail what past research they have done on alternatives to large-scale hydro? Has Acres American, Inc. ever done a study and decided a dam wasn't the best alternative? (Anchorage)
2. Can Acres American, Inc. be an advocate of such alternatives? (Anchorage)
3. We have seen many impressive slides of hydro projects in which Acres American, Inc. has been involved. What experience has Acres American, Inc. had in less imposing alternative energy sources such as solar and retrofitting of energy-saving alternatives? Have they been advocates for any alternatives? (Anchorage)
4. Acres American, Inc. has done feasibility studies on other dams. What percentage were actually built? (Talkeetna)
5. Isn't it in the financial interest of Acres American, Inc. to give a 'go' signal at the go/no go decision point? How can Acres American, Inc. be objective at this point? Who will review them? (Fairbanks)
6. Question to Acres American, Inc.: based on previous experience, what are the odds as you estimate them now that the study will be positive for hydro construction? (Fairbanks)

**objectivity of  
Alaska Power  
Authority**

1. Does the Alaska Power Authority have a vested interest in the project? i.e. How would your agency and you as individuals be affected by cancellation of the project? (Anchorage)

*continued*

**UNANSWERED QUESTIONS** (*in Anchorage these were not answered because of time and the very large number of written questions submitted*)

**general on alternatives**

1. What types of power sources is the APA studying besides hydro?
2. Concerning "parameters for evaluating alternatives": Where will you look at the (1) environmental quality and (2) socioeconomic opportunity costs of present or probable future uses of resources affected?
3. Will assessment of alternatives take into account the "state of the art" in 1990 as well as projected "cost" or "need"?

**who is studying alternatives**

1. What sort of experts will be employed in evaluating the alternatives, such as conservation, solar, and wind?

**decentralized vs. centralized**

1. How can the value and advantages of a decentralized system be realistically compared to a centralized system? A specific area of concern is the reliability of a large centralized system.

**how Susitna power to be used**

1. What is the potential power output of the Susitna project as it is now envisioned?
2. Will the dam meet all of Anchorage area energy needs?
3. For how many years will the Susitna Dam project (assuming Watana and Devils Canyon dams are built) be sufficient for our energy needs? I understand the Corps did a study showing that the dams will carry our energy load for only a few years. Then new sources will be needed to supplement.

**industrial growth**

1. I have heard conflicting justification for the second dam (Watana). Can you clarify what the purpose is for Watana: either additional storage or for anticipated industrial growth, or something else?
2. Will the dam cause heavy industry?

*continued*



power studies, *continued*.

**other alternatives**

1. Will you clarify passive solar and wood burning for heat?
2. Explain "additional aspects" under *wind power* on pink page 2 Power Alternatives?
3. To what degree is the possible reduced demand in electricity resulting from alternatively promoting conservation measures being studied?
4. What consideration is given to economic uses of waste heat from thermal generation plants (industrial, residential, agricultural, etc.) in the study?

**cost of Susitna to consumer**

1. How many barrels of oil to produce an equivalent amount of electricity? of coal?

**energy forecasts**

1. Bucky Fuller made a speech in Anchorage in December 1979 and discussed his prediction regarding Alaska's future. Will these comments be used in your energy forecasting efforts?

**how decisions made**

1. It appears that alternate energy advocates are continually voicing objection to this and other hydro projects without credible alternatives. How does the Alaska Power Authority intend to make a *final* decision determination in order to prevent this project's being its life's work?

**timing of decisions**

1. How much time will there be between completion of the "project overview" and the go/no go decision?

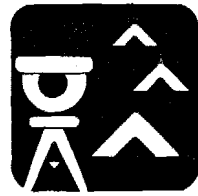
**objectivity of Acres**

1. Question to Acres American, Inc.—Given the strong political support for the Susitna project, how seriously do you believe other viable alternatives will be considered?
2. Robert Mohn stated that Acres American, Inc. and Woodward Clyde would study the power alternatives (i.e. coal-fired generation). Doesn't it seem a conflict since Acres American, Inc. was hired to study a dam proposal and their experience is designing dams?

**experience of Acres**

1. Aside from hydroelectric projects in the north and elsewhere, what other energy developments has Acres American, Inc. been in charge of or involved with?
2. How many coal-fired plants has Acres American, Inc. designed?

## TASK 2



## SURVEYS AND SITE FACILITIES

48

- provide safe, cost effective and environmentally acceptable logistical support for the feasibility studies
- conduct topographic surveys of the project area
- resolve real estate issues

### land ownership

1. Who owns the land at the dam sites and upriver in the reservoir areas? (Wasilla)

### road access

1. What are the probable access routes? primary roads? secondary roads? (Talkeetna)
2. How will route selections for road access be made? (Wasilla)

### airport access

1. Where would the runway be located and what size would it be? (Wasilla)

### UNANSWERED QUESTIONS *(in Anchorage these were not answered because of time and the very large number of written questions submitted)*

### road access

1. At what stage of the planning process will a road be built to the construction site?
2. When is actual construction of road access?
3. What about roads and access?
4. If the dam(s) were constructed, how would the workers, officials, and general public gain access to the site(s) or to any developed recreational facilities or areas?
5. Once the right-of-way for the road has been established, will it be open for public use?

## TASK 3



## HYDROLOGY

- collect data and perform analysis for the hydrologic, hydraulic, ice and climatic factors in project planning and design

No questions were asked in Fairbanks, Talkeetna and Wasilla.

**UNANSWERED QUESTIONS** *(in Anchorage these were not answered because of time and the very large number of written questions submitted)*

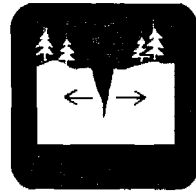
### climate

1. Are there studies on the effects of large reservoirs on climate throughout the Susitna River area?

### ice

1. What types of studies are being planned to estimate the impact and problems of potential additional ice formation and icing problems in the lower reaches of the Susitna River (from Talkeetna to the mouth) and in Cook Inlet?

# TASK 4



# SEISMIC STUDIES

- assess seismic potential of Susitna basin
- determine seismic design criteria
- evaluate seismic stability of project structures
- assess the potential for reservoir-induced seismicity and landslides

## general

1. What will two years of seismic monitoring tell us? (Talkeetna)
2. What is the maximum size quake that would preclude building a dam? (Wasilla)

## faults

1. Where does the Susitna fault lie? (Fairbanks)
2. How close is the Susitna fault to the dam sites? (Fairbanks)
3. How would major seismic activity on the Susitna fault affect the dams? (Fairbanks)

## dam failure

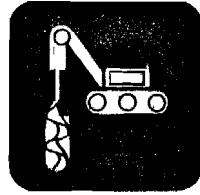
1. What would be the consequences if the dam broke? (Wasilla)

**UNANSWERED QUESTION** *(in Anchorage this was not answered because of time and the very large number of written questions submitted)*

## reservoir induced earthquake

1. How does a large dam induce earthquakes?

## **TASK 5**



# **GEOTECHNICAL EXPLORATION**

- **determine the surface and subsurface geology and geotechnical conditions of the project site**

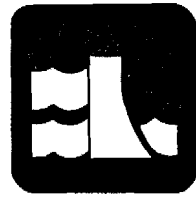
### **soils assessment**

1. What soils assessment will be conducted? (Wasilla)

### **mineral resource assessment**

1. Will the Plan of Study undertake detailed mineral resource assessments? Concern that significant deposits not become inaccessible. (Wasilla)

# TASK 6



# DESIGN DEVELOPMENT

- prepare the optimal plan for Susitna hydroelectric development (includes whether tunnel or dam, number of dams, types, where, size, and timing of development if staged)
- prepare preliminary engineering and design information for the selected development plan

## size of reservoir

1. How large would the lake be? (Wasilla)
2. How many miles long would the reservoirs be? (Wasilla)
3. How wide would the reservoir be? (Wasilla)

## employment potential

1. How many people would the dam employ? (Wasilla)
2. What is the maintenance level of employment on the Susitna project? (Wasilla)

## tunnel alternative

1. Explain the tunnel alternative: the cost, time, head, environment. (Fairbanks)  
(Head: vertical drop from top of tunnel to bottom of tunnel.)

**UNANSWERED QUESTION** *(in Anchorage this was not answered because of time and the very large number of written questions submitted)*

## how design for ice

1. How do you get power from the dam when the river is frozen?

## TASK 7



## ENVIRONMENTAL STUDIES

- collect baseline data
- compare alternative plans from an environmental standpoint
- assess the socioeconomic, archaeological, historical, land use, recreational, water resource, fish, wildlife, and plant ecology impacts of Susitna development

### **Talkeetna local hire**

1. Will there be more inclusion of local labor in the study? Many skilled, able and willing are unemployed here. (Talkeetna)
2. I would like to know what efforts are being made toward local hire of workers for this study? Local hire is good public relations. (Talkeetna)
3. To what extent is Alaskan hire involved in present feasibility work and if it is a go decision, what process will be used to hire skilled and unskilled laborers? (Talkeetna)
4. Could a Talkeetna-based job service roster be established on a preferred basis to fill Acres American, Inc. positions? (Talkeetna)

### **recreational benefits of lake**

1. What possible benefits would the lake have? (Wasilla)

environmental studies, *continued.*

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**UNANSWERED QUESTIONS** (*in Anchorage these were not answered because of time and the very large number of written questions submitted*)

**environmental  
objectivity**

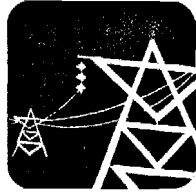
1. The Department of Fish and Game is a state agency and so is the Alaska Power Authority. Both agencies are subject to the same bureaucratic pressures. Acres American, Inc. has been successful in getting dams built! Their job is to *satisfy* licensing requirements. Where does the objectivity for studying and reporting environmental impact come from?

**Alaskan hire**

1. How many Alaskans will be employed?
2. How big a *non*-Alaskan staff will be working on the plan of study? 10%, 30%, or 50%? How much of this report will be done outside the state of Alaska? 10%, 30% or 50%?
3. How much money will not go directly to Alaskans?



## TASK 8



## TRANSMISSION

- select the transmission route
- produce conceptual designs for transmission facilities

### health impacts

1. In the report it stated that “transmission corridors will also be studied for environmental compatibility.” Does this mean that the same type of transmission lines and towers that are now operating elsewhere will be studied as to the impact they have on the health of the people who live near them? (Talkeetna)

### route selection

1. At this time what are alternative transmission corridors? (Talkeetna)
2. Do the transmission corridors encroach upon open-to-entry land in this area? (Talkeetna)
3. How will transmission route selection be done? (Wasilla)

### intertie

1. Would an intertie between Anchorage and Fairbanks be of value at this time, before completion of studies? (Fairbanks)

**TASK 9****CONSTRUCTION COST  
ESTIMATES AND  
SCHEDULES**

- **develop cost estimates for the Susitna project**
- **prepare detailed engineering and construction schedules**
- **conduct risk analysis of all possible things that could affect cost overruns**

**costs**

1. If two dams are constructed, what will be the cost of concrete, rebar, and temporary damming or channeling of the river? (Fairbanks)
2. SB 295: are these costs an accurate estimate? (Wasilla)
3. In the figure \$4.3 billion; have cost overruns been considered? (Wasilla)
4. Have you looked at the pipeline history of cost overruns? (Wasilla)

**timing**

1. If all goes to plan, when would the first phase of the dam be operational? (Wasilla)
2. When would construction begin? (Anchorage)

**transportation for  
construction**

1. What kind of transportation would be used for construction activities? (Wasilla)

*continued*

construction cost estimates and schedules, *continued*.

**UNANSWERED QUESTIONS** (*in Anchorage these were not answered because of time and the very large number of written questions submitted*)

**costs**

1. How many barrels of oil will it take to build the Susitna dam?
2. What is the present estimated total cost of this project?
3. Aside from the direct cost of studies, what are the costs of escalation during the study period, i.e. what would be the cost of an extra year of studies?

**timing**

1. Based on long drawn out issuance of a FERC license, when will the first kilowatt of electricity leave the dam site?
2. Present generating facilities have fairly definite replacement dates. How well does the proposed Susitna construction schedule fit those replacement schedules?

**fast tracking the Susitna project**

1. What are the procedures for placing the Susitna hydroelectric development on the federal "fast track" (the Energy Mobilization Board) assuming one is established?

## TASK 10



## LICENSING

- **prepare and assemble all documentation for the license application to the Federal Energy Regulatory Commission (FERC)**

**Why FERC review**

1. Why does FERC have to review a license application to construct Susitna? (Fairbanks)

# TASK 11



# MARKETING AND FINANCING

- assess methods of financing the Susitna project
- prepare draft support documentation for bond offering, including risk analysis

## public or private funds

1. Would public or private entity finance, construct, and operate the Susitna dam? (Wasilla)
2. What state involvement would there be in the Susitna project? (Wasilla)

## UNANSWERED QUESTIONS *(in Anchorage these were not answered because of time and the very large number of written questions submitted)*

### financing

1. What are the financing options for the dam (7.5% or what?)
2. How will the Susitna project be financed? Bond issue? State sales tax?
3. What would the pro rata share for the federal government be?
4. What would the pro rata share for the state government be?

### ownership of project

1. As the project is now proposed, will other utilities have the opportunity for participation as joint owners or will the project be 100% state funded?
2. Is the Alaska Power Authority willing to allow other utilities to purchase a portion of the total project?

## TASK 12



## PUBLIC PARTICIPATION

- keep the public fully informed of plans, progress and findings
- provide a means whereby the public can influence the course of the work

### weight given to public input

1. What weight will be placed on public input in the evaluation process? (Talkeetna)

### future workshops

1. The first workshop was scheduled for May 1980 in the Plan of Study. When is it now scheduled? Will it be advertised? (Wasilla)

### citizens' advisory board

1. Is there an ongoing citizens' review and advisory board or citizens' review of each independent study? (Anchorage)

### UNANSWERED QUESTIONS *(in Anchorage these were not answered because of time and the very large number of written questions submitted)*

### meeting location

1. Why was this meeting held here rather than at a more central location that was more accessible to public transportation?

### Kenai area public hearing

1. Why has the Kenai area been eliminated from having its own public hearing? Environmental impacts of this project on salmon resources may affect the available harvest allocated to this area.



## MISCELLANEOUS QUESTIONS

60

### **Acres relationship to Corps of Engineers**

1. What is the relationship between your proposed study and the Environmental Impact Statement, Upper Susitna River Basin, Southcentral Railbelt Area, Army Corps of Engineers? (Talkeetna)
2. What is the relationship of Acres American, Inc. to the Corps of Engineers or vice versa? (Talkeetna)

### **how Acres selected**

1. How was Acres American, Inc. selected as the prime consultant for the study? (Anchorage)

### **who would build dam?**

1. Who would build the actual dam if Acres American, Inc. okays feasibility? Would Acres American, Inc. build it? (Talkeetna)

### **who is the Alaska Power Authority?**

1. With a change in administration (i.e. governor and legislature) what effect would there be on the Power Authority? (Fairbanks)
2. By what authority is the Power Authority established? (Wasilla)
3. What is the purpose of the Alaska Power Authority? Why does it exist? (Anchorage)

### **who appoints advisory board?**

1. Who will make the appointments to the \$1 million Advisory Board? (Anchorage)

### **other**

1. HB 967—what is MEA's Project? (Wasilla)
2. One slide John Lawrence showed states that manpower of Acres American, Inc. would peak at 45. This figure seems low. Is it correct? (Anchorage)

### **UNANSWERED QUESTIONS** *(in Anchorage these were not answered because of time and the very large number of written questions submitted)*

1. If additional areas are requested for study by the Alaska Power Authority, Acres American, Inc. will be paid more money. Is there any chance that payroll could be reduced if the Power Authority weeded out some of the unnecessary study items?
2. Over the next 10 years, how much money will be spent per year?

# Credits

The following individuals assisted in conducting the community meetings and in the preparation of this report.

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# the susitna hydro studies

january 1982

## Background information on proposed Susitna project

The upstream dam, Watana, is proposed to be developed first. It would be an earthrockfill dam, approximately 900 feet high, creating a 54-mile long reservoir. The downstream dam at Devil Canyon would be a concrete arch dam approximately 650 feet high, creating a 4.6-mile long reservoir.

The feasibility study is being conducted by Acres American, Inc. for the Alaska Power Authority. A

draft feasibility report detailing research efforts in 10 different areas including economics, engineering, and environmental aspects of the proposed power project is due March 15, 1982.

Total installed capacity would be 1600 MW with average annual energy of 11.7 million Mwh.

This newsletter is dedicated to discussing the environmental aspects of the proposed project.



C.D. Evans

## Preliminary information available on fish and wildlife impacts

### Studies describe possible changes in upstream and downstream moose habitat

Studies of moose populations and habitat focused on two separate areas: upstream and downstream of the proposed dam sites.

**Upstream of the dams:** Moose populations in the upper Susitna basin are estimated to be about 3,300 animals. The primary impact would be the loss of habitat (and the resultant loss of moose) in the portion of the basin to be inundated. Studies to date suggest that areas to be inundated are used by moose during winter and spring. Loss of this habitat during this time would result in a reduced moose population for the area.

These areas do not appear to be important for calving or breeding. It appears that the period of time moose occupy the impoundment areas is heavily dependent on winter severity. During the 1980-81 winter (which was mild) 72 moose were counted in the impoundment areas. During severe winters significantly more moose would use the area with a resultant larger impact.

Available data indicate that the Watana impoundment is likely to have a greater impact on moose than Devil Canyon.

The only mitigation option that might prove usable in the upper Susitna area is controlled burning of areas to improve moose habitat. However, moose habitat management in other areas could be used to compensate for moose habitat losses in the upper basin.

**Downstream of the dams:** Current data by the Alaska Department of Fish and Game indicate that most moose use the areas nearest the Susitna River in the winter and tend to range away from it the rest of the year. Some moose remain year-round on the larger river islands.

Changes in downstream river flow (due to operation of Susitna) may change the plant succession trends downstream. In the long run, this could reduce the amount of winter browse available for moose to eat.

Moose feed on willow, balsam poplar, birch, high bush cranberry, and rose. These plants grow on the river bars and islands that are created in part by natural floods.

Two changes could occur by lessening the occurrence of the natural floods.

First, many areas that currently are washed away by river flooding will no longer be washed away. This would stabilize those habitats and create an initial 15 to 20 year increase in the amount of moose browse in those areas.



From Dumas/Koch/Bohag Daily News

### Fewer moose could mean fewer wolves

Moose are a major source of food for all the packs identified in the area of the proposed Susitna reservoirs. In the long term, any reduction in the number of moose would also reduce the number of wolves for a considerable distance from the proposed reservoirs.

Second, without the constant washing away, plant succession would continue and vegetation would become too tall or mature for moose to eat. The problem would be greatest in years of deep snow because there would be more moose in the river competing for the same amount of browse.

The downstream loss of moose habitat could be offset by habitat management. This would entail encouragement of commercial logging of mature balsam poplar, the burning of vegetation on selected river islands, and the use of a vegetation crusher in areas east of the river.

Sources 1 and 2

1. Susitna Hydroelectric Project Environmental Studies Annual Report 1980 Subtask 7.11 - Big Game, July 1981, Terrestrial Environmental Specialists, Inc.

2. Susitna Hydroelectric Project Draft Analysis of Wildlife Mitigation Options, December 1981, Terrestrial Environmental Specialists and Acres American, Inc.

# Questions and answers on caribou



Banfield

Dr. Frank Banfield is a wildlife zoologist specializing in the study of mammals, particularly caribou and reindeer; he has studied mammals in the Soviet Union, Japan, Canada, and Alaska. He also serves on the Susitna Wildlife Mitigation core group which is assessing the impacts of the proposed Susitna project on wildlife.

After obtaining his PhD in 1951 from the University of Michigan (where he focused on the utilization and management of caribou), Dr. Banfield began work for the Canadian Wildlife Service. In 1957 he was appointed chief of the zoology section of the National Museum of Canada and from 1963 to 1968 was director of the National Museum of Natural Sciences.

In 1969, Dr. Banfield was appointed professor of ecology at Brock University near Niagara Falls. Of his move from government he says, "I became disenchanted with government work and more attuned to the environmental imperative... I decided to try teaching the next generation to recognize the environmental crisis." Before retiring in 1979, he became director of Brock's Institute of Urban and Environmental Studies.

Dr. Banfield is currently a full-time consultant in the environmental field specializing on the problems of caribou. He has visited and worked in Alaska numerous times since 1951 and has studied the Central Arctic and International Porcupine herds. He served as an environmental consultant to Alaska Arctic Gas Company from 1971 to 1977, studying the effect of alternative pipeline routes across northern Alaska on caribou.

**Question:** What are the major issues concerning caribou on the Susitna project?

**Banfield:** I believe that the most important issue is the indirect effect of providing new

access to the relatively inaccessible heartland of the Nelchina caribou herd.

Unless controls are imposed, the access road could provide a jumping off point for all-terrain-vehicles (ATV's) to take off on unplanned trails across alpine tundra. In this case, it would become possible for campers, hunters, and fishermen to reach sensitive areas of caribou range such as calving grounds and main migratory paths.

Caribou biologists generally accept that certain sensitive areas that caribou use necessitate special protection. These include the calving grounds, the post-calving aggregation areas, as well as traditional migration routes.

As you can well appreciate, such an unplanned network of ATV tracks would make control of hunting opportunities far more difficult for the agencies. Speaking of agencies, this would represent a real challenge to the state and federal agencies responsible for management of the caribou herd and adequate protection of the caribou habitat.

Some public attention has also been focused on the risk to caribou attempting to cross the proposed Watana reservoir during their migrations, particularly during the spring migration when the reservoir would be at its lowest level in late April or mid-May.

At that time the shores of the reservoir are expected to be covered with steeply sloping, stranded iceshelves. These ice shelves are expected to be broken up and detached from the floating ice covering the middle of the reservoir.

Conditions like this are generally perceived as being hazardous to migrating caribou, particularly pregnant cows that are attempting to reach the calving area south of the Susitna River in the Kosina Creek and Oshetna River

drainages.

Other important issues include the disturbance to caribou by the construction of ancillary facilities such as access roads, transmission lines, and the activities of construction workers and operational personnel on the project. This would include vehicle traffic on the access roads, the use of aircraft, and any hunting opportunities allowed the Susitna project personnel.

**Question:** What is "ice shelving"?

**Banfield:** A reservoir with an ice sheet on it, such as in northern parts of the continent, must be drawn down during the winter to provide power. Not much water is being added to the reservoir from the river during this time because the rivers are freezing and drying up.

The ice in the middle of a reservoir is really supported and floating on the water. As you start drawing down the water, the ice collapses to the new water level. When you draw water down again, the ice collapses again.

All winter long the ice goes through a series of collapses following the level of the water down to the minimum level of the reservoir.

Something different happens on the sides of the reservoirs. As the water recedes from the shoreline, the ice collapses onto the shore where the shore is now exposed. With each subsequent drawdown, there is more shore exposed. Each time the ice collapses on the reservoir, more ice comes to rest onto the exposed shore.

Furthermore, pressure from the expanding ice on the reservoir pushes the shore ice up into ridges that break up into chunks. Eventually you have a shelf of ice or ridges of piled ice that follow the slope of the shore.

In the case of Susitna, the Watana reservoir will be a very deep reservoir with very steep shorelines. The ice shelf will be tilted quite precipitously in spots. There will also be large areas of relatively flat shore ice in the big bays. An example of this would be where Watana Creek comes into the Susitna.

**Question:** How does ice shelving create problems for caribou?

**Banfield:** In the spring the sun would have had some time to melt this ice shelf. This is the time of the spring migration and the caribou might have to cross areas of smooth tilted ice behind other areas of piled up ridges of broken ice near the shore line.

If the migration period were delayed into late spring the sun might have caused much of the shore ice to disintegrate and the reservoir ice might be rotten and covered with pools of melt water.

**Question:** Are there natural occurrences that caribou encounter that are similar to ice shelving?

**Banfield:** Yes. Ice shelves are naturally produced along river banks after the first flood of spring water and at ice jams. Generally, however, I would say that ice shelving will be a new experience locally for the Nelchina caribou.

**Question:** What impacts could result from ice shelving?

**Banfield:** There are several levels of impact that could result from ice shelving.

First, the icing conditions resulting from the drawdown may not prove to be a barrier to migrating caribou. The situation may not be that much different from the existing ice that now forms on the river banks.

## Ice shelving on a Swedish hydroelectric reservoir

**A:**  
Spring: the water is at its lowest level and the shore is covered with ice. This is suggestive of ice shelving that could occur on the Watana reservoir. The ice on Watana would be thicker than what is shown.  
**B:**  
Early summer: the water is still at its lowest level but the ice has melted and the shore is exposed.  
**C:**  
Late summer: the water is at its highest level.

Source:  
Dynamics of the Shore Vegetation of a North Swedish Hydroelectric Reservoir During a 5-year Period, 1961, doctoral thesis at Umeå University, Christer Nilsson.



Second, substantial mortality may occur in attempted crossings at dangerous spots. Generally, however, caribou are known to seek safe crossing points and avoid hazardous conditions.

Third, the migrating herd may refuse to cross the reservoir and would turn back to calve in the northwestern portion of their range. This would probably result in increased calf mortality since the calves would be dropped in less than optimal terrain.

This could also confine the herd to a much smaller portion of its total range. In this event, it is likely that a second calving area may be established over time. The entire movement pattern of the Nelchina herd would be reorganized, including the possibility of an isolated portion of the herd forming in the northwestern portion of the range.

Fourth, the possibility exists that if the crossing is

too hazardous, the caribou would travel eastward along the north shore of the reservoir and cross above the Oshetna River where the channel would be dry and covered by grounded ice or contain a natural flowing river.

This would result in a longer, but less hazardous route to the traditional calving grounds.

**Question:** Are there any access routes that could impact the caribou more than others?

**Banfield:** Considering only caribou, the proposed access route from the Denali Highway south to the Watana reservoir would have a greater impact on caribou than other alternative access routes to the west (from the Parks Highway or from the Alaska Railroad at Gold Creek).

This is because the plateau that the Denali route would

cross is actually the home of a part of the Nelchina herd. At various times in the past this plateau has been occupied by even larger numbers of caribou than are occupying it at the present.

There could be two problems with the Denali access route.

The first deals with activities during the construction phase: some loss of habitat to borrow pits for road construction, disturbance by workers, and possible direct mortality of migrating caribou as a result of collisions with vehicles.

A second problem could be created by providing public access to the area after the construction period. This could bring campers with ATV's and hunters into the calving and post-calving aggregation areas.

**Question:** What was learned about caribou from the con-

struction of the Trans-Alaska pipeline?

**Banfield:** Caribou studies were conducted in connection with the original environmental assessment, prior to the approval of the Trans-Alaska pipeline. Probably most of the undesirable impacts were alleviated by mitigative procedures during construction.

These procedures included burying and insulating sections of the pipeline where caribou tend to cross. It appears that the most negative impacts that were possible during construction did not occur.

**Question:** What about ongoing impacts on caribou from the pipeline and its accompanying haul road?

**Banfield:** The impacts that currently occur along the pipeline and haul road are of a more subtle nature. For example, there has been an avoidance reaction to the haul road, particularly by the cows and calves. The bulls are less

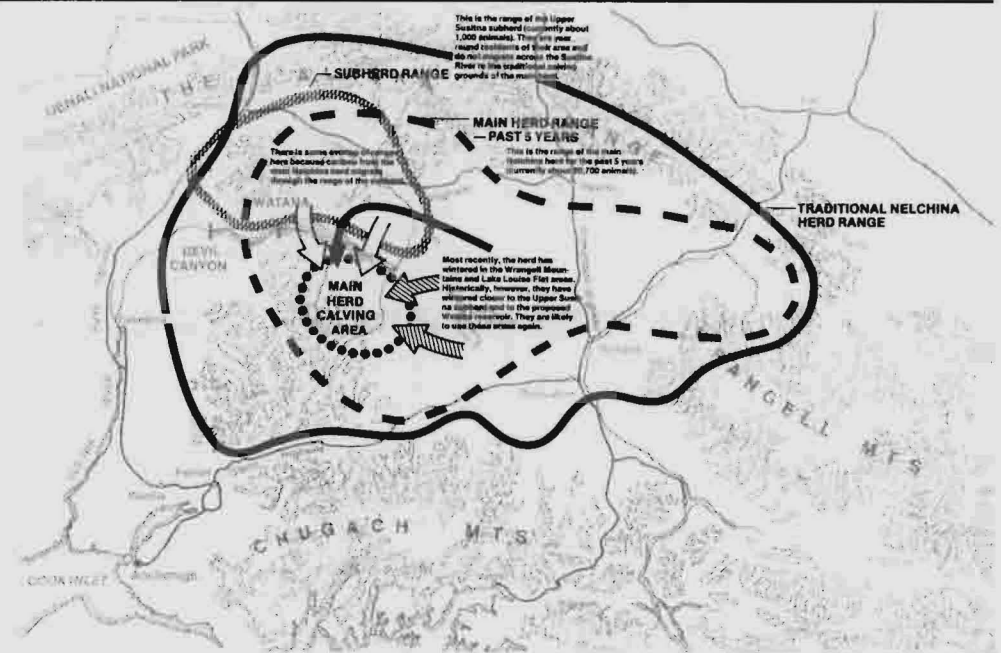
disturbed by the pipeline and haul road.

There is also some indication that the pipeline corridor has tended to divide the north and south movements of the Central Arctic herd into two parallel ribbons, one on each side of the pipeline corridor from winter ranges to the calving grounds and not permitting or encouraging a cross-over during migration.

There's also some indication that wolf predation on caribou is facilitated along the haul road.

Overall, however, the Central Arctic herd is managing to maintain its population. This points to the conclusion that the herd is coping with the disturbances caused by the pipeline.

## Caribou in the Susitna area



The Nelchina caribou herd area is bounded by four mountain ranges: the Alaska Range; the Talkeetna Mountains; the Chugach Mountains; and the Wrangell Mountains.

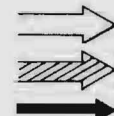
Within this very large area there is a heartland range that is most frequently occupied by the core population of the Nelchina caribou herd. This area is about half the size of the entire range.

The caribou still cross the Richardson and Denali Highways with some regularity.

major routes a. historical

b. current

minor routes c. current



## Recent history of the Nelchina caribou herd

About 1962 the Nelchina caribou herd reached a peak of about 71,000 animals. Between 1962 and 1969 the herd stopped growing and began a steep decline which resulted in an estimated population of 8,000 caribou in 1972.

Biologists have attributed this decline primarily to poor survival of calves to one year of age. A secondary reason was hunting (65,000 caribou were reported legally harvested between 1962 and 1972).

Possible contributing factors to this decline included emigrations of caribou to other herds to the north and increased natural mortality of adults by wolves and bears.

In 1972, the Alaska Department of Fish and Game initiated restrictive hunting regulations on the herd. Hunting is currently controlled by a permit system.

Currently, the herd has recovered back to 20,700 caribou. 16,000 of these are adults (one year old or older). This is approaching the management goal of 20,000 adults, set by the Alaska Department of Fish and Game. This goal may be reached within the next several years, and is the number of caribou the range can support without problems of overpopulation.

Written by Ken Pitcher, Research Biologist, Alaska Department of Fish and Game.







The following responses to questions about the effects of the proposed Susitna hydroelectric project on fish have been provided by Dana Schmidt and Woody Trihey, two members of the Fisheries Mitigation core group.

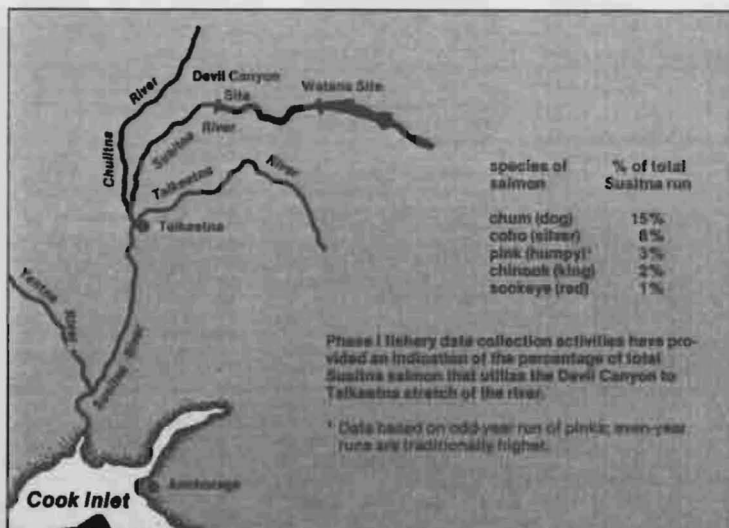
The Fisheries Mitigation core group has reviewed and concurred with them.



Schmidt



Trihey



The primary area of salmon fishery impact is the stretch of river between Devil Canyon and Talkeetna. Appreciable fishery impact is not anticipated below the Chulitna confluence. Further studies are being planned to increase the level of confidence in this assessment.

**1. What portions of the Susitna River have you studied?**

Basically the river has been divided into three segments for study:

1. from Cook Inlet to Talkeetna;
2. from Talkeetna to Devil Canyon; and
3. the impoundment areas of the Devil Canyon and Watana reservoirs.

**2. Where do you expect the greatest changes to occur?**

We expect the greatest changes to occur in the impoundment areas and in the Talkeetna to Devil Canyon reach of the river. The first phase of downstream fishery studies has concentrated on determining effects from the project in the river segment between Talkeetna and Devil Canyon.

**3. Will the post-project flows from the dams significantly affect the fisheries between Talkeetna and Devil Canyon?**

The final decision regarding post-project flows has not been made. However, a set of post-project flows which optimize power production has been proposed as a starting point for impact assessment and mitigation planning.

Our assessment of these flows indicates that they will result in a major loss of spawning habitat between Devil Canyon and Talkeetna for the species of salmon which have traditionally used these habitats.

**4. Where is this spawning habitat?**

Most of the spawning habitat is located within the side channels and sloughs that adjoin the mainstem Susitna. These sloughs are only accessible to adult salmon when the river is

high enough to cause a surface water connection at their lower end.

Detailed measurements to determine relationships between the water levels in the sloughs and stream flow in the mainstem have only been made at a small number of sites.

But it appears that virtually all of the sloughs measured are inaccessible to adult salmon when mainstem flows are less than 10,000 cfs at Gold Creek (the U.S.G.S. gauging station).

**5. Would stream flow in the range of 12,000 to 14,000 cfs at Gold Creek maintain the slough habitat?**

No. Stream flows in this range would only maintain access to the slough from its downstream end. To maintain the slough habitat, significantly larger flows would also have to be occasionally provided.

At present, stream flows in excess of 25,000 cfs at Gold Creek are common during summer months. These flows enter the sloughs from the upstream end and flush out undesirable sediments. Without periodic flows through the sloughs, the sloughs would gradually silt-in and become covered with vegetation.

Our preliminary analysis of existing information indicates that stream flows in the range of 19,000 cfs at Gold Creek are necessary to allow water to flow into the sloughs from the upper end.

**6. Which fish species use the slough habitat?**

All species of Pacific salmon except chinook have been observed spawning in the side channels and slough areas. The chum salmon is the predominant user.

In addition the sloughs provide important rearing habitat for juvenile chinook and coho.

**7. In the absence of mitigation measures, how significant would the chum salmon loss be to the Cook Inlet commercial fisheries?**

This year's data suggests that 20,000 to 30,000 chum salmon spawn in the Devil Canyon to Talkeetna reach of the river. If the spawning habitat for these fish were lost, it would mean a reduction in the Cook Inlet fishery of approximately 70,000 chum salmon.

Over the last 20 years, the total Cook Inlet chum harvest has ranged from 270,000 to 1.2 million fish.

With available data, the best estimate we can provide of the significance of the chum salmon loss to the Cook Inlet commercial fishery would be approximately a 15% reduction in harvestable chum salmon.

This percentage is based on two assumptions: 1) a total loss of the chum salmon population between Devil Canyon and Talkeetna; and 2) that this year's salmon spawning data reflects the average size of the run of chum salmon using this portion of river during the last 20 years.

**8. How might other species be affected?**

Sockeye salmon use spawning habitats similar to chum salmon in the Devil Canyon to Talkeetna reach, but this year's sockeye populations utilizing the sloughs are rather small in comparison to the chum population.

Very little is known about the pink salmon runs that use this river segment. Even-year runs (1980, 82, 84, etc.) are normally larger than odd-year runs.

We will have to wait until spawning areas are studied in 1982 before an assessment can be made of project impacts on pink salmon spawning in the Devil Canyon to Talkeetna River segment.

Chinook and coho salmon primarily spawn in tributary streams below Devil Canyon. These streams should not be directly affected by post-project flows.

However, juvenile chinook and coho depend upon the side channels and sloughs of the mainstem Susitna for summer and winter rearing habitat. Rearing habitat in side channels and sloughs may be affected under flows which optimize power production.

The average monthly stream flows resulting from optimizing power production range from 5,000 to 17,000 cfs during the summer.

**9. What options exist for mitigating the loss of the side channel and slough habitats?**

Several mitigation options are being explored at this time.

Although the preferred method of mitigating this loss would be to avoid the impact altogether (by adopting reservoir operating recommendations), it seems unlikely that this can be done if the project is operated for optimal power production.

The next best method of mitigation would be a combination of things. The first is to provide adequate downstream flows and design structural features into the dams to minimize adverse impacts. The second is to undertake feasible mitigative actions such as river channel modifications (to provide replacement spawning areas), in an attempt to offset the losses that do occur.

However, numerous technical questions still remain concerning the overall feasibility of depending upon stream channel modifications for the continued propagation of salmon in this river segment.

Compensatory types of mitigation alternatives such as fish hatcheries, artificial spawning channels, or enhancement activities in other parts of the Cook Inlet basin are also being considered.

**10. Besides affecting stream flow, what other types of impacts on the fishery resources are possible from the construction of Susitna?**

Other concerns to the fishery that are being evaluated are: changes in ice cover and channel morphology; changes in intergravel temperature and flow rates in spawning areas; as well as changes in stream temperatures, water quality, and suspended sediment concentrations.

# 11. How would the dams affect the turbidity (suspended sediment concentrations) in the Susitna River?

During the summer, mainstem river sediment concentrations should be reduced by the reservoirs to levels that would be similar to the lower Kenai River. This should provide improvements in mainstem rearing habitat for resident fish and rearing salmon.

Turbidity should increase above the current levels in the winter. This is not expected to adversely affect the fisheries.

# 12. Will changes in water quality and temperature prevent salmon from homing (finding their spawning areas)?

No. Salmon use their sense of smell to find their spawning areas. Changes in water quality and stream temperature are not known to affect this, providing the original scent source is still present.

Large decreases in stream temperature can delay the upstream migration of fish, postpone the time of spawning and ultimately affect their spawning success. However, post-project stream temperatures during the spawning period are not predicted to be sufficiently different from pre-project temperatures to affect the migratory behavior of the fish.

Salmon in streams in the lower 48 that have been drastically altered by hydro projects appear to be able to home to their natal areas. These projects often decreased salmon runs but this is attributable to factors other than homing.

# 13. Could any other homing problems develop?

A homing problem could

develop with construction of spawning areas in the main channel (as mitigation for the lost slough habitats).

Fish will attempt to return to traditional spawning areas in the sloughs. It is uncertain whether they will accept new man-made spawning areas. This would be a matter of concern if the decision is made to depend entirely on man-made spawning areas in the mainstem river (as replacement for lost slough habitat) to sustain the existing run.

# 14. Will the Susitna project affect water quality?

Preliminary investigations have not identified any chronic water quality problems which would cause a toxic downstream condition for young fish or food organisms.

# 15. What are the possible impacts from increases in winter stream temperature?

Increases in river temperatures will affect the formation of an ice cover on the upper Susitna River. It is predicted that an ice cover will not form above Talkeetna in most years. The effects of this on fisheries are unknown, but are not suspected as being significant.

However, the increased winter stream temperatures may have a significant adverse effect on salmon eggs incubating in streambed gravels.

Warmer temperatures in the gravel may cause the fry to emerge early. If the newly emerged fish swim downstream (below Talkeetna) they will encounter cold winter water temperatures and suffer notable mortalities due to temperature change and a lack of food.

Both pink and chum salmon juveniles outmigrate to Cook Inlet within a few weeks of emerging from streambed gravels. These immature fish would likely incur the greatest

mortalities.

# 16. Will the reservoirs cause any problems on fisheries above the Canyon?

Yes. Grayling habitat in the river and tributary streams within the impoundment zones will be lost as a consequence of building the project. Compensatory types of mitigation for this loss are being examined.

# 17. Will there be any impacts downstream of the confluence of the Chulitna and Susitna Rivers?

There are several unknowns regarding the effects of the proposed Susitna project on the river below the Chulitna confluence. No obvious adverse impacts on fisheries have yet been determined. In part, this is because the Phase I studies have been concentrated in the impoundment areas and in the Devil Canyon to Talkeetna reach.

It is also due to the fact that the upper Susitna River contributes about 40 percent of the total stream flow at the confluence. Water from the Talkeetna and Chulitna Rivers will mute most project effects downstream of this confluence during summer months when fish are most active.

Further studies are being planned to increase the level of confidence in the present assessment.

# 18. Will there be adequate flows for the fish that spawn in major tributary streams above the town of Talkeetna, like Indian River and Portage Creek?

The project will not affect spawning areas in these streams, nor does there appear to be any problem with post-project stream flows adversely affecting the ability of adult salmon to enter the major tributary streams.

These streams have high

enough seasonal flows and gradients which should downcut through their delta fans to the new level of the Susitna River and establish a new channel to the mainstem river.

However, the rearing habitat for the juvenile chinook and coho from these streams may be adversely affected. These young fish depend on the slough habitat during the summer months. These sloughs are expected to be substantially dewatered (left without enough water for fish to survive) if power production is optimized.

# 19. Is the data currently available adequate to determine the full extent of fishery impacts from Susitna and to provide detailed mitigation solutions to the problems?

No. The data base collected by the Alaska Department of Fish and Game to date, as well as the precision of the engineers' current forecasts regarding post-project flows and water temperatures, are adequate only to identify major areas of impact and to support generalized statements concerning the project's feasibility.

The actual determination of the degree of impact and the development of specific mitigation recommendations will require additional information and study.

This was foreseen at the beginning of the feasibility study, however. In fact Acres' February 1980 plan of study includes a statement to this effect:

"A preliminary impact analysis will be done prior to license application using the data available. However many of the fisheries studies will be extended to include a complete life cycle of the fish, as much as five years. The final impact study will be prepared during the post-license application

period when the data are available."

# 20. Is it possible to construct the dams and improve the fisheries?

Yes, if it were decided to do so, and the fish cooperate.

Habitat improvement would be most probable if we did several things in concert: 1) provide adequate stream flows to maintain or minimize the impact on the slough habitats; 2) store undesirable peak flows in the reservoirs to prevent destruction of mainstem spawning areas; and 3) install the necessary outlet works in the Watana and Devil Canyon dams to provide adequate downstream temperatures and to prevent other water quality problems such as gas supersaturation.

If these actions were taken, it is quite likely that the existing fishery resource could be improved.

Were additional mainstem spawning areas constructed, and the fish cooperate, the fishery could be improved even more.

Conceptually, it may also be possible to improve fish habitat elsewhere in the lower Susitna basin to more than offset the losses which would occur in the Talkeetna to Devil Canyon reach. Other methods to offset the losses or to improve the fisheries include the construction of artificial spawning channels or fish hatcheries.

Each of these alternatives would require a feasibility study before making a decision.

## Specialists assess impacts of Susitna on fish



Atkinson

A team of five specialists with a wide variety of experience and knowledge in the area of fisheries has been assembled to serve as the core group of the Fish Mitigation Task Force.

They are analyzing the fisheries data collected during the Phase I field studies in order to determine general impacts and to begin formulating mitigation concepts.

The impact and mitigation information will be incorporated into the March 1982 Susitna feasibility report.

If the State of Alaska decides to apply for a FERC license on Susitna, the core group will continue to refine their impact assessments and mitigation plans. The results of the Phase I study will determine the nature of Phase II study.

Members of the Fisheries core group include Dr. Clint Atkinson, Mr. Milo Bell, Dr. Dana Schmidt, Mr. Woody Trihey, and Mr. Robert Williams.

Clint Atkinson is an internationally recognized expert in nearly all phases of salmon fishery. For more than forty years, he has worked in industry, government, and academia studying the Pacific and Atlantic salmon fisheries.

For nearly 15 years, Mr. Atkinson served as director of the Mortlake Laboratory in Seattle and later served for several years as fisheries attaché at the American Embassy in Tokyo, Japan.

Milo Bell has over 50 years of experience in fisheries working primarily in the state of Washington and the Pacific Northwest. He is considered a pioneer in the design of fishways and fish ladders and is a professor emeritus at the University of Washington where he taught and researched the engineering

biological aspects of fisheries programs.

Dr. Dana Schmidt received his PhD in Fisheries from Oregon State University in 1973. Since then he has worked on fisheries impact analysis studies in several western states on projects ranging from the effects of coal development and thermal plants on fish populations to in-stream flow studies.

Most recently he has worked for the U.S. Fish and Wildlife Service conducting telemetry and habitat requirement studies on juvenile salmon in the Kenai River.

Woody Trihey is a civil engineer specializing in hydraulics and in-stream flow assessments. While employed by the U.S. Fish and Wildlife Service, he participated in the development of the Fort Collins, Colorado in-stream flow group's incremental methodologies.

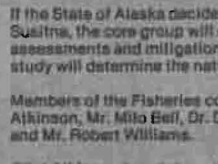
For nearly 10 years, he has worked in all phases of in-stream flow assessment including instructor, special project engineer, and author of manuals on field methods and data reduction.

Robert Williams serves as the coordinator of the Fisheries Mitigation Task Force and also serves as fisheries ecology coordinator for Terrestrial Environmental Specialists, Inc. (TES). TES is the firm coordinating the environmental studies on Susitna.

Since receiving his master's degree in zoology from the University of Vermont in 1968, Mr. Williams has coordinated and supervised numerous biological studies on river and lake systems throughout the eastern United States. These studies were on hydroelectric, thermal generation, and nuclear power plants.



Schmidt



Trihey



Williams

# Intensive fishery investigations conducted in 1981 by Alaska Department of Fish and Game

During the summer of 1981 the Alaska Department of Fish and Game conducted baseline surveys of the fishery resources of the Susitna River basin.

These studies focused on those portions of the basin that would be most affected by the proposed Susitna project: the impoundment areas above the proposed dams and the river between Devil Canyon and Talkeetna.

The surveys were part of Phase I of the Susitna Hydro Aquatic studies. Phase I is the beginning of the process by which the impact of the Susitna project on the river's fishery will be assessed and mitigation measures will be recommended.

The Phase I fish studies fall into three major categories: — the adult anadromous studies; — the resident and juvenile studies; and — the aquatic habitat studies.

These categories cover all fish species and habitats found in the Susitna River and its primary tributaries. There are many elements to each of these studies.

Data collected during the summer is currently being analyzed to identify general impacts and to discuss fishery mitigation on a conceptual basis.

If developmental efforts on Susitna proceed, further study will be necessary to more clearly define impacts and to prepare a detailed mitigation plan required by the Federal Energy Regulatory Commission (FERC) licensing process.

## The adult anadromous studies

Anadromous fish are fish which spawn in fresh water, rear in salt water, and return to

fresh water to spawn. The predominant anadromous fish in the Susitna River basin are the five species of Pacific salmon: coho, chum, chinook, pink, and sockeye salmon.

Five monitoring stations were operated to assess the adult anadromous fish returning to the Susitna River basin to spawn. At nearly all of these stations, side scan sonar (SSS) counters and fishwheels were utilized.

## Sonar counters

Sonar counters are devices that use sound waves to count fish migrating upstream.

An aluminum tube called a substrate is placed on the river bottom. Fish are directed over the aluminum tube by nets attached to the shore.

A sound wave is continuously projected just above the tube. When a fish passes over the tube, sound waves are reflected to the scanner. The scanner will not count objects such as logs or boats because it sorts out echoes that are not moving at the same speed as the fish.

## Fishwheels

Fishwheels were used to capture and tag salmon. The salmon were sampled daily for age, length, and sex, and were tagged with color and number coded tags.

Data from fishwheel catches and from the sonar counters provide information on how many fish are migrating, when, and where.

## Radio telemetry

Radio telemetry studies were conducted in the mainstem Susitna River between Talkeetna and Devil Canyon.

Low frequency radio transmitters were placed in the stomachs of adult salmon collected at two fishwheel sites near Curry and Talkeetna. These radio-tagged fish were tracked by boat and aircraft during their migration and spawning.

The telemetry studies provided information on rate of movement and milling behavior of adult salmon in the vicinity of Devil Canyon. This investigation provided information on salmon spawning areas which had not previously been known.

## The juvenile anadromous studies

Field investigations focused on chinook and coho salmon, the predominant juvenile salmon species that overwinter in the Susitna River.

Information on the numbers and habitats of juvenile salmon were also collected. These data are necessary to determine the downstream effects of the Susitna project on the overwintering habitat for juveniles.

Although sockeye juveniles also use the river, detailed information gathering on the rearing habitats of this species was not planned for Phase I study.

Young pink and chum salmon outmigrate to Cook Inlet shortly after hatching and do not use the river for rearing.

## The resident fish studies

The resident fish studies provided information on the types, numbers, migrational patterns, and habitats of resident fish (fish that live year-round in the river). Of particular importance are the tributary creeks which will flow into the proposed im-

poundment areas.

Gill nets, hook and line, beach seines, electrofishing, minnow traps, as well as tagging and recapture, were used to gain information on migration.

Data on numbers and habitat location of Arctic grayling, rainbow trout, burbot, round whitefish, long nose suckers, slimy sculpins, and other species were collected to determine the possible impacts of the Susitna project on resident fish.

## The aquatic habitat studies

The aquatic habitat and in-stream flow investigations were undertaken to describe physical and chemical characteristics of the various types of fish habitat within the project area.

Detailed water quality and hydraulic measurements were collected at five side channel sloughs between Devil Canyon and Talkeetna.

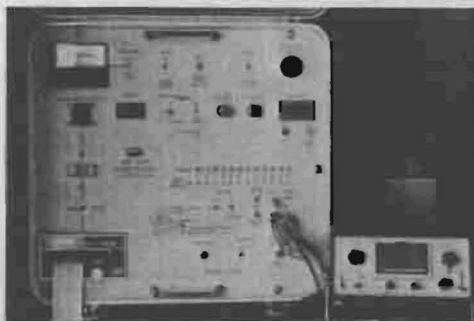
These data were used to estimate the Susitna River flow in areas of important fisheries habitats (i.e. the sloughs and side channels).

In addition, similar, but less detailed, data were collected at numerous mainstem and other side channel slough locations.

Used in conjunction with the rest of the studies, the aquatic habitat information clearly demonstrates that clear water sloughs provide the most important salmon habitat in the Devil Canyon to Talkeetna segment of the river.

Sources: "Adult Anadromous Fisheries Project, Phase I Final Draft Report," Subtask 7.10, Alaska Department of Fish and Game, Su Hydro 1981.

Draft of "Juvenile Anadromous Fish and Resident Fish Investigations, Phase I Report," Alaska Department of Fish and Game, Su Hydro 1981.



The side scan sonar counters are devices that use sound waves to count fish migrating upstream.

This photograph shows a sonar counter (left) and oscilloscope (right).



Fishwheels were used to capture and tag salmon.

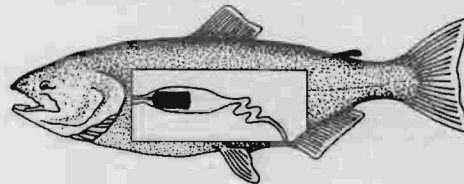




Removing debris from the aluminum tube on a sonar counter which has been raised to the surface for cleaning.



Investigators prepare to release a radio-tagged salmon while tracking another chum in the Susitna River near the Curry station.



The transmitters were placed in the front portion of the stomach.



Low frequency radio transmitters were placed in the stomachs of adult salmon.

Photo Series Alaska Department of Fish & Game

## Can the Susitna be another Columbia?

The history of hydroelectric development on the Columbia River in Washington state is a good illustration of the conflict that can develop between the construction and operation of dams and the maintenance of a viable salmon fishery.

Because of this, comparisons to the Columbia River system are sometimes made when a project is proposed on a river that supports a salmon fishery.

This article is intended to clarify some of the similarities and differences which exist between the Columbia and Susitna systems.

Hydroelectric development on the Columbia had severe effects on the natural salmon runs in that river.

The first large Columbia hydroelectric projects

(Bonneville and McNary) were quite far downstream and reduced access to upstream spawning grounds. Later downstream projects (Dalles, John Day, Priest Rapids, and Wanapum) further blocked passage and also flooded spawning areas.

The large reservoirs also caused problems for young salmon finding their way downstream through the new lake-like conditions of the impoundments. The fish suffered high mortalities when they reached the dams because they could only pass the dams by going through the turbines or over the spillways.

In summary, the fish impacts on the Columbia can be listed in three general categories. They are:

- 1) the blockage of upstream salmon migration and the flooding of spawning areas;
- 2) high mortalities of young

salmon migrating downstream past the dams; and

- 3) the lack of adequate downstream flows and water quality conditions to maintain the fisheries.

The first two of these situations, which occurred on the Columbia, would not occur on the Susitna. Because the steep gradients and rapid flows in Devil Canyon already prevent salmon migration into the upper Susitna, access to upstream spawning areas and downstream migration are not problems for the Susitna hydroelectric project.

The third situation on the Columbia (that of inadequate downstream flows for fisheries) has some application to the Susitna. On both rivers, the maintenance of adequate downstream flows is important. The reasons, however, are different.

Downstream flow requirements in the Columbia are generally necessary to maintain outmigrating fish passage.

On the Susitna, adequate downstream flows would be necessary to preserve access to the side sloughs between Devil Canyon and Talkeetna. These sloughs are the most productive spawning and overwintering areas between Devil Canyon and Talkeetna.

The loss of these side sloughs between Devil Canyon and Talkeetna has implications for the fishery resources in the Susitna and in Cook Inlet. The magnitude of these implications is discussed in the article entitled "We've Been Asked..."

Source: analysis provided by Milo Bell, Woody Trihey, and Bob Williams, all members of the Fish Mitigation core group.

If you want  
to get future  
newsletters

This public information document on the Susitna hydropower project was developed by the Alaska Power Authority Public Participation Office, Nancy Blunck, Director. Comments on the substance of this newsletter and ideas for future publications should be forwarded to the Public Participation Office by way of the following coupon.

Last                      First                      Initial

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and mail to: Alaska Power Authority  
Public Participation Office  
334 W. 5th Avenue Anchorage, Alaska 99501

THANK YOU FOR YOUR INTEREST

## Black bear populations to be affected more severely than brown bear populations



Both black and brown bear will lose habitat to the proposed Susitna impoundments. This loss will be more severe for black bear populations, which will lose both denning and foraging areas from the fill of the reservoirs. Brown bear will lose habitat utilized primarily in spring and early summer.

Black bear populations in the area are restricted to a narrow band of spruce forests along the Susitna River during most of the year. These forests provide important escape habitat from the surrounding large and healthy population of brown bears.

Brown bears are less restricted to areas that will be inundated by the dams than black bears and will lose a lower proportion of their total annual habitat. Habitat used by brown bears, especially in the spring and early summer, however, will be affected by the dams.

**Black bears:** Until the Susitna study, no black bear research had been done in the Susitna River basin. The abundance of black bears and relatively light hunting pressure has permitted light hunting restrictions.

For this study, twenty-seven black bears were radio collared. Results indicate that black bear density is higher near Devil Canyon than near Watana.

Black bear are more common on the north side of the river than on the south side. Overall black bear density in the area is moderate to high relative to other Alaskan black bear habitats.

Because bear habitat loss cannot be directly mitigated, the only compensation possible for black bear is to improve their habitat in some other area or to improve habitat for some other wildlife species.

**Brown bears:** In the past twenty years, brown bear populations have increased. The current population is thought to be abundant, young, and productive.

Forty-two brown bear were captured and nineteen were successfully radio collared for this study. Most brown bear were found to den at elevations well above the proposed impoundment levels.

Brown bear use of the impoundment areas was greatest in spring and early summer. These are the first areas to become clear of snow and the first areas where forage needed by bears after emergence from their winter dens is available.

In the summer, many brown bear migrate to the Prairie Creek area between Stephan Lake and the Talkeetna River where there is an abundant king salmon run.

Sources 1 and 2.

## Overall impact on bird populations not seen as high

During field studies of birds in the upper Susitna basin, 136 species of birds were identified. Twenty-one of these were waterfowl. No endangered species of birds were found or identified.

Overall, the ponds and lakes of the region support relatively few waterfowl during both summer and migratory periods.

The project's overall impact on most bird populations should not be great because the habitats lost to the project are common in other parts of Alaska.

The impoundments created by Susitna would reduce the number of suitable cliff nesting sites used by raptors. To lessen this impact, measures would be needed to keep people away from the remaining sites during sensitive nesting times, to avoid clearing in areas that could provide nesting habitat after flooding, and to restrict helicopter and air traffic over known nesting areas.

The impoundments will also eliminate several nesting sites of bald eagles. Despite this, the bald eagle population could possibly increase. Proper clearing of the reservoirs would be needed to leave clumps of tall spruce trees at half to one mile intervals along the reservoirs. The clumps would have to be far enough from the high water zone to keep the trees from being washed away.

Sources 2 and 3.

## Watana reservoir would inundate Dall sheep mineral lick

Three populations of Dall sheep were identified in areas above 4,000 feet, well above the level of the proposed reservoirs. A possible project impact on Dall sheep would be the partial inundation of a major mineral lick at Jay Creek.

A mineral lick is a place where sheep go to get certain mineral elements that are lacking in other parts of their range. The lick at Jay Creek appears important to the Dall sheep population. The exact magnitude of importance is currently unknown.

Sources 1 and 2.

1. Susitna Hydroelectric Project Environmental Studies Annual Report 1980 Sub-task 7.11 - Big Game, July 1981, Terrestrial Environmental Specialists, Inc.

2. Susitna Hydroelectric Project Draft Analysis of Wildlife Mitigation Options, December 1981, Terrestrial Environmental

Specialists and Acres American, Inc.  
3. Susitna Hydroelectric Project Environmental Studies Annual Report 1980, Sub-task 7.11 Wildlife Ecology Birds and Non-Game Mammals, April 1981, University of Alaska Museum and Terrestrial Environmental Specialists, Inc.

# the susitna hydro studies

This is the third of several newsletters published by the Alaska Power Authority for citizens of the railbelt. The purpose is to present objective information on the progress of the Susitna hydroelectric feasibility studies so that readers may make their own conclusions based on accurate information.

Eric P. Yould, Executive Director  
Nancy Blumek, Director of Public Participation

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# the susitna hydro studies

november 1980

## Fairbanks, Anchorage and Railbelt face major energy decision

Citizens in the "railbelt region" will face a major energy decision in 1982.

At that time, the feasibility studies on the proposed Susitna hydroelectric project and a study of the feasibility of a variety of other energy alternatives will both conclude with their findings.

Information on the energy alternatives study can be anticipated from the Office of the Governor.

The purpose of this newsletter, the first of several, is to present what is going on with the Susitna studies that are now underway. The intent is to present the information objectively so that readers may make their own conclusions based on facts.

### A BRIEF HISTORY

There has been a great deal of interest for many years in the building of a hydroelectric project on the Susitna River.

It was initially looked at in the 1940's by the U.S. Bureau of Reclamation and later studied by the U.S. Army Corps of Engineers.

The previous assessments indicated that the Susitna project was economically feasible and that anticipated environmental impacts would not be of such a magnitude as to warrant it undesirable. Consequently, in 1976 the Alaska State Legislature created the Alaska Power Authority and asked the new state corporation to begin detailed feasibility studies on the development of the hydroelectric

potential of the upper portion of the Susitna River. Initial funding was provided in July 1979, and the explorations were initiated in January 1980.

Those explorations, never adequately undertaken before, are now 10 months into a 30-month examination period. Acres American, Inc. (Acres) has been retained by the Power Authority to manage the \$30 million effort.

The state is also funding a related but separate \$1 million study to consider alternatives to Susitna hydroelectric power. That study, contracted by the governor's Policy Review Committee, is being conducted by Battelle-Pacific Northwest Laboratories. It will be completed in the spring of 1982, concurrent with the Susitna feasibility studies.

### INDEPENDENT REVIEW BY EXTERNAL CONSULTANTS

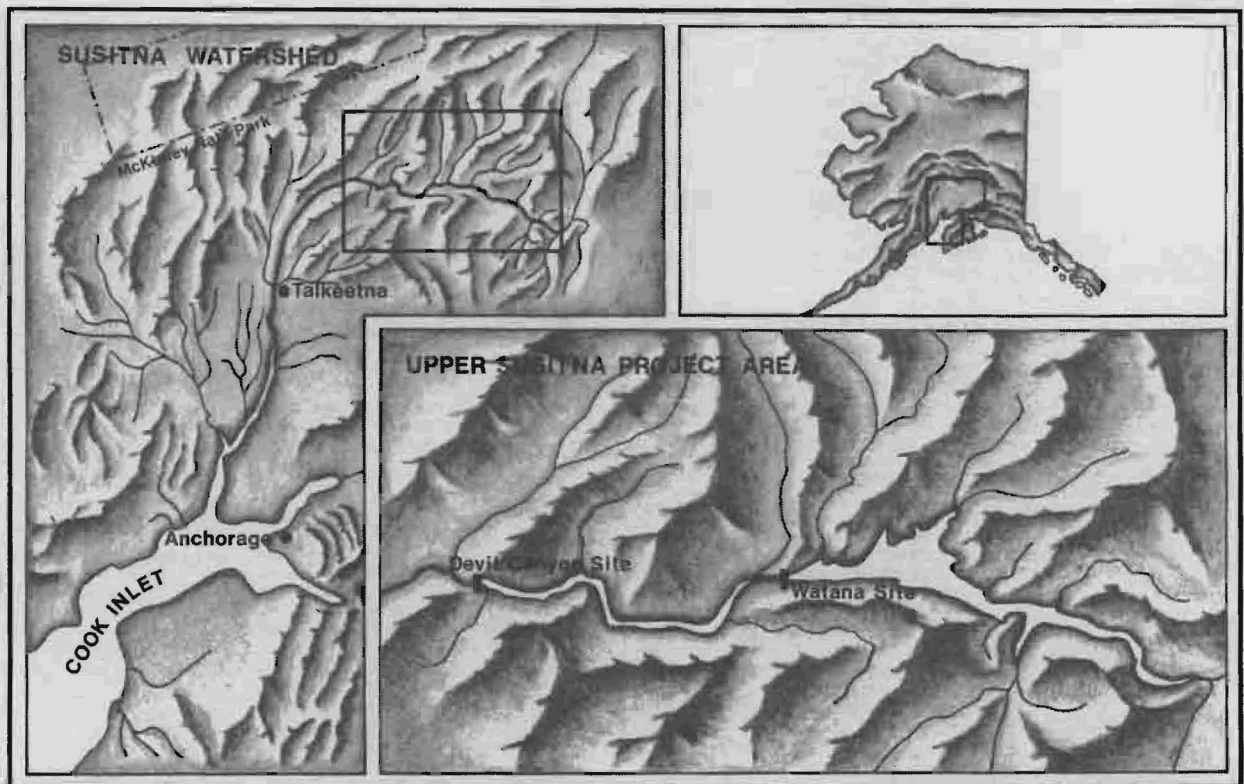
As a part of the Susitna explorations, the Alaska Power Authority is appointing an external review board composed of eminent engineers, scientists, and economists to review the feasibility studies performed by Acres. Approximately \$1 million has been budgeted by the Alaska Power Authority for this review, which will include an independent cost estimate of constructing the Susitna project.

### THE SUSITNA HYDRO STUDIES

The Susitna investigations fall into 10 general categories. Not all the studies are going on at this time, nor are all described in this newsletter. They include:

- forecasts of future electrical needs in the railbelt area between the Kenai Peninsula and Fairbanks from 1990 through 2010
- hydrologic analysis of the Susitna River
- seismic examination
- geotechnical exploration near the dam sites
- engineering design development
- environmental data collection and impact assessment
- transmission line analysis

continued on page 3





Jim Gill, Resident Manager, Anchorage office of Acres American, Inc.

## Firm brings extensive cold region experience to hydro studies

In November 1979, the Alaska Power Authority Board of Directors selected Acres American, Inc., an international consulting engineering firm, to conduct the feasibility studies on the Susitna hydroelectric project.

Reasons for the selection included Acres' past experience with hydroelectric projects in sub-arctic regions.

Also important was Acres' decision to utilize Alaskan expertise

in the field work (which would maximize the expenditure of monies within the state), and its proposal to provide for an extensive and direct public participation process.

The selection was made with support from both the public and the State House Power Alternatives Study Committee, a legislative subcommittee set up to oversee the feasibility work.

The Acres organization is active in diversified fields of planning, engineering, feasibility studies, environmental assessment, and project management. Among other energy technologies, the company has more than fifty years of experience with large and small hydroelectric development.

Included in these are the Churchill Falls project in Labrador and the Nelson River project in Canada, both of which

are located in northern climates and presented problems similar to those the proposed Susitna project may encounter.

The Susitna project is managed by Acres out of its main office in Buffalo, New York. Its resident office is in Anchorage and the field camp is in the upper Susitna basin close to Deadman Creek.



## Expertise applied to socioeconomic questions

The construction and operation of a hydroelectric project in the Susitna River basin might affect the lives of Alaskans, in both positive and adverse ways. While Railbelt residents generally might experience energy independence and lower costs for electricity (relative to other alternatives), certain groups of people might experience population shifts, changes in service requirements, tax rate and revenue changes, and changes in the general quality of life.

Frank Orth & Associates, Inc.,

a firm with experience in conducting socioeconomic analyses, particularly in Alaska, is presently conducting the first phase of a two-phase study that will identify and analyze potential changes in socioeconomic conditions.

Between now and spring of 1981, the firm is developing socioeconomic profiles for local, regional, and to some extent, statewide areas. These profiles are descriptions of existing conditions such as population levels, availability and type of housing, employ-

ment and income levels, business activity, education enrollment and cost, transportation facilities, and land use patterns.

Later, between late spring and early fall 1981, these same conditions will then be described for a future without the Susitna project. The result will be a baseline from which comparisons can be made. A preliminary assessment of socioeconomic impacts that could result from a Susitna development will be made prior to a state decision on Susitna in

1982.

If the state decides to file a license application in 1982, a detailed analysis of what affect construction and operation of the Susitna project might have on social and economic conditions will then be conducted.

Frank Orth & Associates will identify and examine changes in socioeconomic conditions so that people can make their own evaluations of how such changes could affect their life styles.

## Background information on proposed Susitna project



### LOCATION

The proposed Susitna River hydroelectric project is located on the upper Susitna River, approximately 125 air miles north of Anchorage, 150 air miles south of Fairbanks, and 70 miles northeast of Talkeetna.

### POTENTIAL POWER

For a year with typical precipitation and climatic conditions, the average energy potential of the basin is about 7 billion Kwh. This is about twice what the railbelt generation was in 1979. There are a number of development concepts that can be designed to use all or a portion of this energy potential.

### SUSITNA ALTERNATIVES

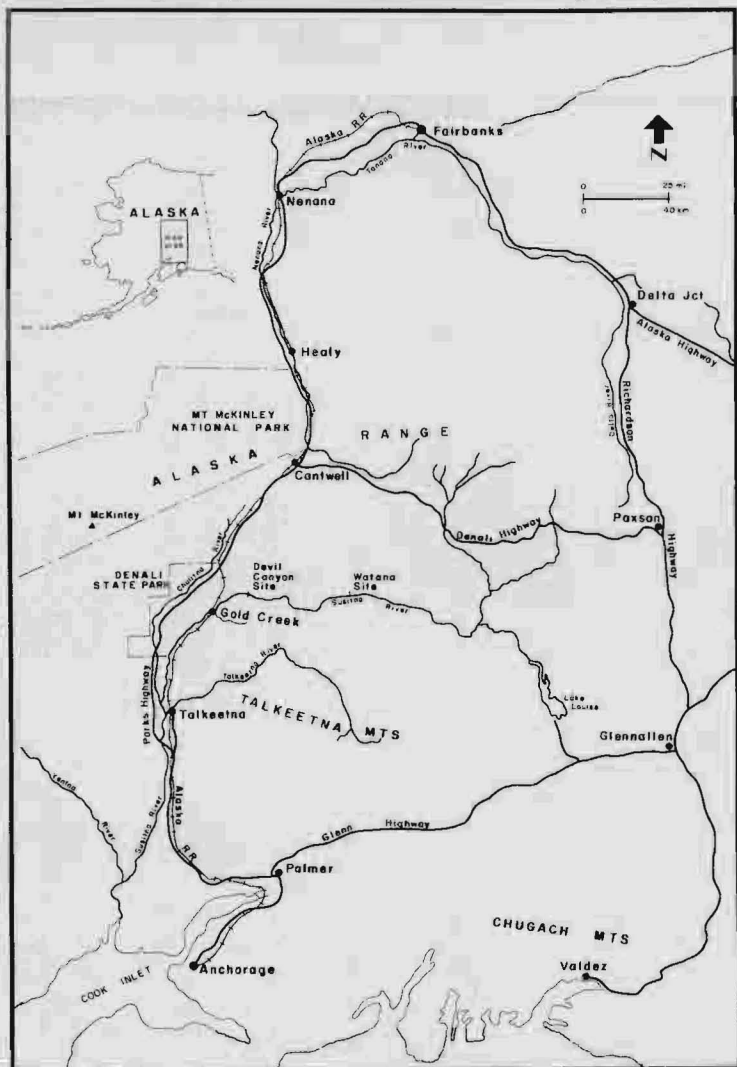
Between the Denali Highway upstream and Gold Creek downstream, twelve dam sites and two primary tunnel plans are being considered as possible building blocks in the formulation of a preferred development plan.

### PRESENT LAND USE

The project area is presently used by guided hunters operating principally out of the Stephan Lake area, with scattered private cabins being present on most of the larger lakes in the upper Susitna basin. In addition, mining claims have been filed on many of the tributary streams within the drainage. Access to the area is predominantly by aircraft, although there is limited access by river from the east.

### LAND OWNERSHIP

The major land ownership is by Cook Inlet Region, Inc., and its Native village corporations. There are also some inholdings within the project area, such as mining claims, Native allotments, open-to-entry parcels, and homesteads.



continued from page 1

- cost estimating
- preparation of FERC (Federal Energy Regulatory Commission) licensing documents, if appropriate
- marketing and financing analysis

#### THE SUSITNA WORK THUS FAR

Last summer, scientists and engineers went into the field to begin the Susitna work. An explanation and first examination of this work is the text that follows on the inside pages of this newsletter. Further information will follow in subsequent reports.

#### FINAL RECOMMENDATIONS ON POWER DEVELOPMENT

In April 1982 the five-member Alaska Power Authority Board of Directors will formulate its recommendation to the governor and the legislature in regard to power development along the railbelt. At approximately the same time, the governor's Policy Review Committee will be forwarding its independent recommendation.

#### THE DECISION

Final determination on the subject rests with the state in 1982. If the decision is made to proceed with the development of Susitna, a license application for construction will be filed with the Federal Energy Regulatory Commission in Washington, D.C.

## Who is the Alaska Power Authority

The Alaska Power Authority is a public corporation funded by the state and headed by a five-member board of directors

appointed by the governor and approved by the legislature. Its day-to-day business is conducted by a sixteen-member staff located in Anchorage.

The purpose of the Power Authority is to assist the residents of Alaska in both urban and rural areas in constructing, acquiring, financing, and operating power production facilities of various types. Those types include fossil fuel, wind power, tidal, geothermal, hydroelectric, solar energy production, and waste energy conservation facilities. The Power Authority is currently developing a number of hydropower and alternative energy projects statewide.

# Alternative energy study goes to Battelle



To assure sufficient checks and balances, the 1980 state legislature determined that an independent consulting firm should conduct the Railbelt power alternatives study.

In the original plan of study presented to the Alaska Power Authority by Acres American, Inc., Acres was to conduct the alternatives study in parallel with feasibility level studies of the Susitna hydroelectric project.

This fall the governor's Policy Review Committee selected Battelle-Pacific Northwest Laboratories to make the alternatives study. A final report is expected in the spring of 1982.

Battelle-Pacific Laboratories, a Richland, Washington, research and development firm, is the newest in a number of Battelle offices in the United States and Europe. The company, founded in 1929, has a staff today of 6,000. Research in the Northwest office focuses primarily on the technological and environmental issues of energy production and use.

Recent studies by Battelle have

included a national coal utilization assessment and an assessment of the effects of thermal power plant site and design alternatives on the cost of electric power, both for the federal government.

"Battelle has a lot of experience doing exactly what this request for proposal calls for, and they have a great amount of experience doing projects in Alaska," said Fran Ulmer, chairwoman of the Policy Review Committee and director of Policy Development and Planning in the governor's office.

In addition to Ulmer, members of the Review Committee include Clarissa Quinlan, director of the Division of Energy and Power Development; Ron Lehr, director of the Division of Budget and Management; and Charles Conway, chairman of the Alaska Power Authority Board of Directors.

While Acres American, Inc. reports to the Alaska Power Authority for the Susitna studies, Battelle will report directly to the Policy Review Committee.

#### OBJECTIVE / COST

The objective of the alternatives study is to determine if there are more cost effective ways to meet the energy needs of the Anchorage-Fairbanks railbelt area than through the development of the Susitna River's hydroelectric potential.

Cost of the 18-month study is \$1 million.

#### WHAT ABOUT THE RECOMMENDATION?

When the Battelle study is completed in April, 1982, the Policy Review Committee and the Alaska Power Authority Board of Directors will consider the results in formulating their respective recommendations for Railbelt power develop-

ments to the governor and the legislature.

#### WHERE QUESTIONS SHOULD GO

Questions regarding the alternatives study should be directed to Fran Ulmer, Director of the Division of Policy Development and Planning (DPDP), Pouch AD, Juneau, Alaska 99811, phone (907) 465-3577.

Questions regarding the Susitna hydroelectric exploration should be sent to Eric Yould, Executive Director of the Alaska Power Authority, 333 West 4th Avenue, Suite 31, Anchorage, Alaska 99501, phone (907) 276-0001.



Ward Swift of Battelle Northwest explains his firm's proposal to members of the public and the governor's Policy Review Committee this fall. Battelle was selected to conduct the energy alternatives study. Battelle's work is expected to be completed at the same time as the Susitna feasibility studies in spring 1982.

## ISER expects more than doubling of electricity needs despite slower growth rate



Dr. Scott Goldsmith, Institute of Social and Economic Research.

Initial forecasts from the Institute of Social and Economic Research (ISER) indicate that future growth of electric utility sales is expected to be slower than the historical Alaskan growth rate. Because of anticipated high rates of economic growth, however, utility sales will equal or exceed recent national elec-

tricity consumption growth rate projections.

Several forecasts were made to reflect the uncertainty surrounding both future economic activity and relative prices of energy. ISER's "most likely" forecast indicates that electrical utility sales in the year 2000 are likely to be about 2.4

times what it is in the railbelt today.

The railbelt region generally includes these areas: Fairbanks, Talkeetna, Palmer/Wasilla, Anchorage, the Kenai Peninsula, Glenallen, and Valdez.

The ISER forecasts are considerably lower than previous forecasts that served as a basis

of earlier studies of the Susitna hydroelectric project by the Corps of Engineers.

Historically, the annual growth rate from 1965 to 1975 was about 14%. During the last five years, it has been 7%. The projected annual growth rate over the next 20 years averages 4 1/2%.

## Design options include tunnels

Previous plans indicated a basin development preference ranging from a four-dam basin development plan to the more recent preference for two dams located at Devil Canyon and Watana.

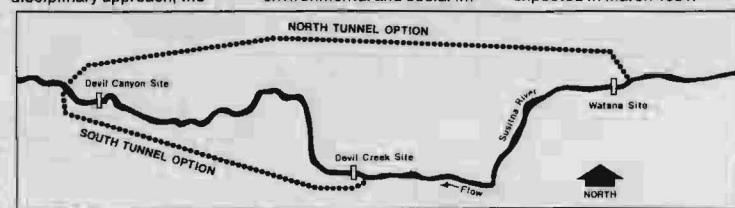
Tunnels are also being considered in the options for development of power within the upper Susitna. Two conceptual tunnel plans are shown in the map to the right, along with three of the potential dam sites.

The sites and tunnels shown do not imply all would be developed. Using a multi-disciplinary approach, the

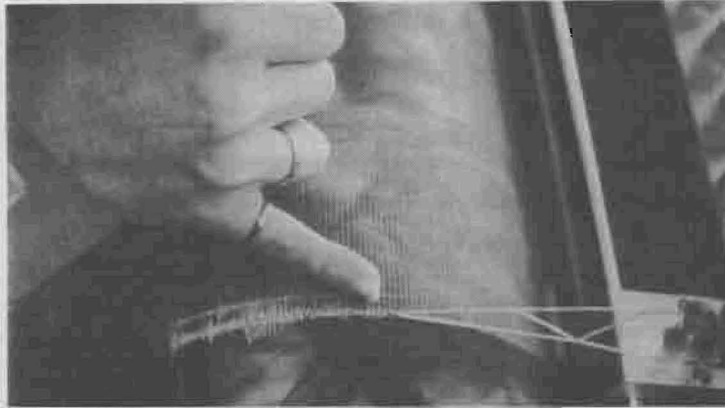
preferred concept plan will be based on such things as anticipated power needs, costs, environmental and social im-

pacts, safety and reliability.

The preferred concept plan is expected in March 1981.







#### MICROEARTHQUAKE MEASURES 2.0:

Portable seismographs like this one have been set up at the Watana base camp to register microearthquake activity. This particular microearthquake, with an epicenter in the southwest corner of Mt. McKinley Park, measured 2.0 on the Richter scale last August 27th. Microearthquakes usually are not felt by human beings. They occur constantly throughout the railbelt.

## Microearthquake studies review old data, collect new

Seismic activity in the project area is being studied by Woodward-Clyde Consultants' seismologists.

In addition to reviewing historical earthquakes, seismologists have been monitoring microearthquake activity in the vicinity of the dam sites. During this year 10 very sensitive seismometers were installed in shallow holes within a 25-mile radius of the dam sites.

The seismometers measure ground motions for earthquakes as small as Richter magnitude zero (magnitude 3 or larger earthquakes usually can be felt).

The signal from each seis-

meter was transmitted from radio to recording seismographs that were installed at the Watana base camp.

Analysis of the records (seismograms) from the seismographs provides information on microearthquakes in the vicinity of the dam sites. This information includes the size, location, and depth of each microearthquake.

The microearthquake data and geological data are studied by both geologists and seismologists. This interdisciplinary approach provides scientists with information to evaluate the seismic design criteria for the dam sites.

## How to study earthquake potential

Geologic and seismologic studies are conducted to obtain an understanding of the seismic activity within an area. These studies begin with a comprehensive review of the literature and aerial photography to identify all faults and lineaments. Faults and lineaments that may be potentially important to dam design are then studied in the field.

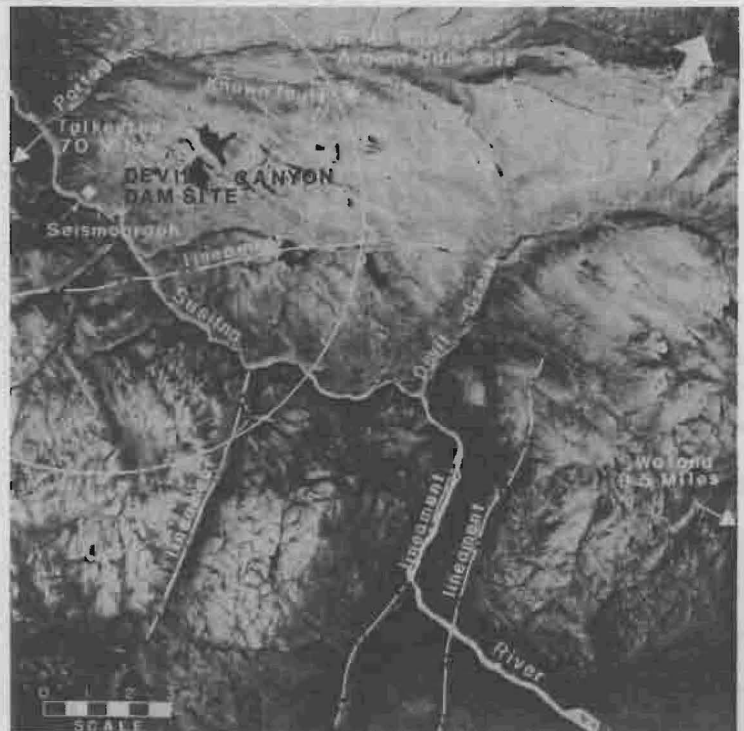
A lineament is a straight line feature observed on aerial photographs, maps or from an aircraft. A lineament may be produced by glacial ice, by faults, or by other earth shaping forces. All lineaments are not necessarily faults.

For the Susitna project, all potentially important faults and lineaments within approximately 60 miles of either dam site have been studied. During the past year, these preliminary studies have included aerial reconnaissance with helicopters and small airplanes, along with investigations on the ground.

Features that are considered to be of potential importance are scheduled to be studied in detail next year.

The objective of these studies is to determine if the lineaments are faults and to estimate how recently the faults may have moved. Active faults, those that have moved during recent geological time, are important to dam design.

The Denali Fault is an example of a fault which has had movement during recent geological time. The fault is 40 miles north of both the Devil Canyon and Watana dam sites. The Denali Fault is more than 800 miles long as it runs in generally an



The figure above shows a portion of the area around the Devil Canyon dam site. The location of a mapped fault and several lineaments are shown on a high-altitude aerial photograph taken by a U-2 aircraft. These features along with others in the vicinity of two dam sites are being analyzed by geologists and seismologists from Woodward-Clyde Consultants. In addition, the Alaska Power Authority will retain independent experts to review the work done by Woodward-Clyde, a conservative policy much like "getting a second opinion" within the medical profession.

east-west direction through the Alaska Range.

Studies by a number of geologists show that movement has occurred along various sections of the Denali fault during large earthquakes that have occurred over several hundred thousand to several million years. The average rate of movement has been approximately one-half

inch per year.

Woodward-Clyde Consultants are working under contract to Acres American, Inc., to evaluate potential seismic activity.

The first data from Woodward-Clyde Consultants is expected by the end of 1980. It will include information obtained to

date and a discussion of lineaments and faults that need to be studied in more detail to understand their potential significance to the design of project facilities.

The Alaska Power Authority will schedule meetings in Spring 1981 and information collected and analyzed by the consultants will be presented to the public.

## Plant study considers effects on moose habitat

William Collins of the University of Alaska's Agricultural Experiment Station in Palmer notes that plant ecology studies will support and assist the studies being made on wildlife within the Susitna River basin. For instance, moose eat the leaves, twigs, and bark of birch, cottonwood, and willow. When these trees grow by rivers, they are subject to flooding, which exposes new sites for the trees to grow. Young trees, with branches no thicker than one

inch in diameter, are excellent forage for moose, since the animals cannot break large branches with their mouths. How will the disruption of river flows and flooding affect new plant growth that moose rely on for adequate food supplies?

Collins also notes that the plant studies will have a lasting value beyond the immediate role they are playing as part of the feasibility studies on the Susitna hydroelectric project.

For instance, few descriptions of vegetation have been made for the area. Therefore, the species list of vegetation and the first detailed vegetation maps will be two important products of the current Susitna studies.

The specific goals of the two-year plant ecology studies are to forecast what effect construction of the dams would have on plant life within the area, to identify the wetland

areas, and to identify plants that are endangered, rare, or threatened. Collins and his assistants will accomplish this by studying old and new aerial photographs, and by observing the area on foot, noting such findings as the age of vegetation and the effect of seasonal flooding on the establishment and maintenance of plants that are important as forage for moose. Their first vegetation maps will be completed by December of this year.

## Studies identify change in downstream water flow

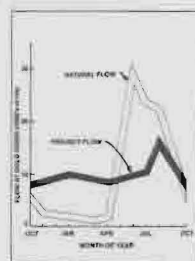
### GENERAL

Flow studies are one of a number of types of hydrologic investigations. Also included are assessments of reservoir operation, sediment yield, river morphology, glacial contribution and ice formation.

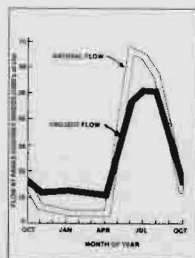
The development of any hydroelectric scheme on the upper Susitna will result in seasonal changes in downstream flow patterns. Taking the two-dam proposal as an example, the three graphs show the difference between natural seasonal flow patterns and project seasonal flow patterns at three points along the Susitna River. As one goes downstream, the difference between natural and project flows begins to dissipate as the effects are diluted by the normal flows from the other tributaries.

Changes in flow patterns can have a positive or negative impact on such things as fisheries, moose habitat, flooding, and navigation.

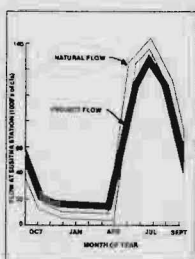
Fisheries directly depend on water flow. Since the effects of flow are greater on the upstream portion of the river, the initial emphasis of study efforts is most intensive upstream. Following the review of the basic river hydraulics, Acres will determine the required extent of assessment of downstream resources.



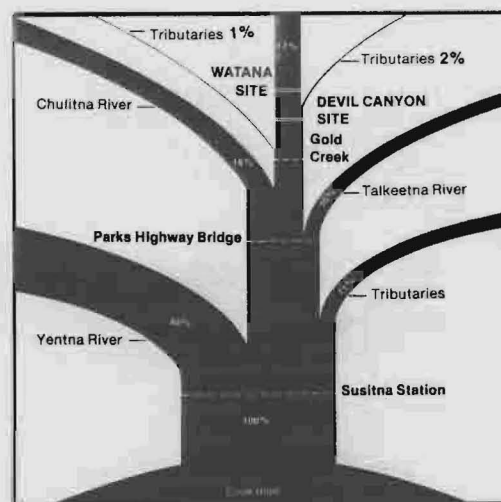
GOLD CREEK



PARKS HIGHWAY BRIDGE



SUSITNA STATION



This is a schematic diagram of the Susitna River system. An important aspect of this system is that the upper Susitna (the area under consideration for hydroelectric development) contributes less than 20 percent of the river's average total flow. Other tributaries, including the Yentna, Chulitna, and Taiketa Rivers, contribute the other 80 percent.

## Radio collaring used to study wildlife

What effect would the construction of a large hydroelectric project have on the wildlife that inhabits the upper Susitna basin and downstream areas? Since this is a question of serious concern to those studying the feasibility of building the project in the Susitna River basin, a number of respected scientists have been hired to find the answer.

"It is important that people know we are not politicians, that we are not here to decide if the Susitna project should be built in the first place," said Dr. Phil Gipson of the University of Alaska, Fairbanks, Cooperative Wildlife Research Unit.

"We are here to study the area and to determine the impact on the animal life if construction takes place. The purpose of all the studies is to give the decision makers the facts so that they can make the best decision with full knowledge of the positive and negative consequences," he said.

There are vast numbers of animals that live within the Susitna basin. Bears, wolves, caribou, moose, fox, otter, and mink all live in abundance. Why do they live there? And could they live somewhere else just as well?

As part of the Power Authority investigations, the Alaska Department of Fish and Game began monitoring big game animals last summer by airplane following earlier tagging and radio collaring efforts. Studies

will continue this winter as the researchers note animal distribution, abundance, habitat preference, and movement patterns. It is easier to study most animals during the winter months, because they are more visible and it is easier to follow their tracks.

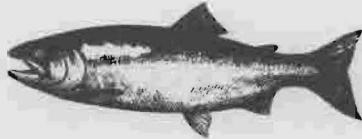
The group of scientists headed by Gipson has begun a two-year study of the furbearing animals that live within the area. Again, the purpose is to identify and count them, observe their seasonal habits, and determine what kind of habitat they need in order to live. In view of existing fodder, how large a

range, for instance, does a red fox need? Gipson and his colleagues are studying the animals by tracking them in the snow and by radio collaring. Survey lines are established in representative types of vegetation and tracks of furbearers are identified in each vegetation type.

Karl Schneider of the Alaska Department of Fish and Game puts a radio collar on moose number 38. An iridescent orange ear tag makes the moose more visible from the air. Schneider heads a team of researchers who have identified big game animals within the Susitna basin. The scientists began monitoring the animals last summer by airplane following earlier tagging and radio collaring efforts.



## \$3 million budgeted to study Susitna fish



Alaska Department of Fish and Game  
Wildlife Notebook Series

The fish populations in the Susitna River system are major contributors to commercial and recreational fisheries in the Cook Inlet basin. Susitna salmon, for example, occur in commercial fishery catches from the entrance of Cook Inlet to the mouth of the Susitna River.

Some of the salmon for recreational fisheries use the Susitna River for migration, spawning and rearing. The Susitna salmon inhabit an area as far south as Deep Creek on the Kenai Peninsula and as far north as Portage Creek, which is a short distance below the Devil Canyon site.

Resident fish species, such as grayling and rainbow trout, also contribute to recreational fisheries throughout the Susitna system, from its mouth to its headwaters.

The value of these fisheries to the State of Alaska requires that the potential for hydro impacts on resident and anadromous fish (such as salmon) be assessed.

The Alaska Power Authority has budgeted about 3 million dollars for the study of the fisheries of the Susitna River.

Field data on the fish populations and habitat of the Susitna River will be collected by biologists of the Alaska Department of Fish and Game

(ADF&G). Utilizing data supplied by ADF&G, existing fisheries information, and past experience, the private consulting firm of Terrestrial Environmental Specialists (TES) will assess the positive or negative impacts of development and operation of the proposed hydroelectric project and suggest measures to avoid, minimize, or compensate for possible adverse affects. Comparisons will be made to similar systems found in other cold regions of the world (for instance, Sweden and Russia).

TES will be assisted by noted specialists from the University of Washington, Dr. Clinton Atkinson and Dr. Milo Bell. Clint Atkinson has extensive experience with Alaska salmon fisheries, including those in the Susitna basin, while Milo Bell has 50 years of experience working on related engineering problems throughout North America on hydropower projects.

The Department of Fish and Games' responsibility during the field studies will be to determine existing fisheries conditions in the Susitna River. This includes identifying the distribution and abundance of salmon and resident fishes in the system as well as the seasonal importance of the river to their migration, spawning, and rearing.

Initial field work for these

studies will begin late in 1980 and continues for 15 months. If the project goes to the Federal government for license approval, studies will continue through the post license application period.

A major question in the fisheries study is what would happen to the Susitna River fisheries if the dams were built. For example, will important fish habitats for migration, spawning, and rearing be favorably or unfavorably altered? If the impacts are negative, can they be minimized or offset in some manner such as by hatchery propagation of fish or through a scheme of regulation of river flows and discharge through the dams?

Tom Trent, one of the study coordinators from the Department of Fish and Game, emphasizes that study efforts of those conducting river hydrology and water quality studies must be closely coordinated.

Mr. Trent also noted that, "The Department of Fish and Game conducted very limited assessment work during the years 1973 to 1978, but the intensity and design for the next fifteen months and beyond will be aimed at collecting information enabling the State to make objective judgements of probable project impacts on the Susitna River fishery resources."

### Environmental studies use Alaska experts

Terrestrial Environmental Specialists (TES), the consulting firm retained by Acres American, Inc., to conduct the environmental studies on the proposed Susitna project, has contracted with the University of Alaska on a number of the studies.

They include: furbearers, birds

and small mammals, land use and recreation, cultural resources, and plant ecology.

"We chose the university because experts there are familiar with environmental conditions in Alaska," Jeffrey O. Barnes, TES president, said. TES is headquartered in Phoenix, New York.

### Drilling program completes first year

Deep drilling (over 700 feet per hole) into the areas around the proposed dam sites determines the types of rock, the rock structure, its strength, and the

stability of the bedrock on which dams would sit or through which a tunnel would pass. Core samples are then retrieved and studied by geologists.

R & M Consultants is the subcontractor conducting the drilling program at the Watana and Devil Canyon sites.

## Keys to upper Susitna prehistory may be found

"Before any land-disturbance activities may take place on federal or state lands, an inventory of cultural resource sites must be made and recommendations developed to lessen or avoid the impact of the project on them," George Smith, an archaeologist with the University of Alaska Museum in Fairbanks, noted last summer.

In other words, before the construction of a hydroelectric project in the Susitna River basin may begin, there must be an archaeological survey to locate sites within the area.

Last summer archaeologists examined 55 sampling sites, determining that 33 of them were of archaeological importance. Next summer the museum will send several crews into the field to systematically test and analyze a portion of each site in order to evaluate its significance and to then make recommendations to minimize possible adverse effects. Sites

that might be adversely impacted by project construction will be excavated if the decision to construct the hydroelectric project is made.

During the extensive testing scheduled for 1981, each site will be divided into a checkerboard of squares one meter in size. Artifacts found in the sampled squares will be catalogued and become a part of the University of Alaska Museum's archeological collection, where they will be available for display and research.

Although it may be premature to assess the significance of artifacts before their analysis is complete, Dixon and Smith are excited about the results of the survey. They have discovered several sites which will help unravel the poorly understood prehistory of this area of the state and which will provide important information about the way people lived in the upper Susitna thousands of years ago.



University of Alaska-Fairbanks Photograph

Dr. E. James Dixon and Mr. George S. Smith of the University Museum head a team of scientists who will investigate the area for evidence of human activity which, they say, may extend back 10,000 years. Shown above are Les Baxter and George Smith. They are looking at buried animal bone fragments.



## How YOU can be involved...

**COMMUNITY MEETINGS** are held prior to important study decisions at four locations throughout the railbelt area. Meetings review the progress of studies and provide people with an opportunity to make comments and have questions answered.

**WORKSHOPS** are held as needed in individual railbelt communities. Workshops are narrower in scope than community meetings and serve as a forum for presenting in-depth information on a limited number of subjects.

**NEWSLETTERS** are widely distributed to the public and report factual information about the studies. This newsletter is the first of several. To receive future newsletters, clip and mail the coupon on page 7.

The **ACTION SYSTEM** is a means of suggesting changes to the plan of study. Send comments to the Public Participation Office for review and comment by Acres and Power Authority staff.



Community meetings (like this one in Anchorage in April) will be held in spring 1981. They are tentatively scheduled for Fairbanks, Talkeetna, Kenai/Soldotna, and Anchorage. Another set of meetings will be held in spring 1982, just prior to the decision on Susitna.

## Public concerns bring changes in study plan

For about a year, individuals and agencies have had a number of opportunities to comment on the adequacy of the Susitna study plan. Their comments have steadily improved the document. For instance, the 1980 legislature appropriated an additional \$1,365,000 to add more resources and take more time in conducting the energy alternatives study. An independent firm was also hired to conduct the study.

Another example began with a concern expressed last spring. One person from Talkeetna articulated a concern for anticipated impacts on life style with the following comment:

"When this plan speaks of social or human impacts, it consistently labels this 'socio-economic.' When it speaks of cultural impact, it does so in terms of archaeology and

historical investigation.

"I feel that it is desirable and timely that the plan recognize the existence of that concept which is socio-cultural, in a contemporary sense. The Plan of Study is deficient in that it does not."

As a result of this comment and similar comments from other residents of the Talkeetna area, the Alaska Power Authority con-

cluded that an additional look should be made on the subject to which the comment spoke: how would the construction of the Susitna project affect the current life style of the people who live in the immediate dam-site vicinity?

The study will begin in 1981, and will be coordinated with Frank Orth's work on the identification and analysis of socio-economic conditions.

# the susitna hydro studies

This is the first of several newsletters published by the Alaska Power Authority for citizens of the railbelt. The purpose is to present objective information on the progress of the Susitna hydroelectric feasibility studies so that readers may make their own conclusions based on accurate information.

Eric P. Yoal, Executive Director  
Nancy Brunck, Director of Public Participation

Alaska Power Authority  
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# the susitna hydro studies

September 1981



Talkeetna

For the Susitna project all faults and lineaments (possible faults) within 100 km (62 miles) of either dam have been compiled from published and unpublished reference materials, satellite imagery, radar imagery, high-altitude aerial photography, and low altitude aerial photography.

Based on this work, the only faults in the North American Plate

within approximately 62 miles of the dams which are judged to be active are the Denali fault and the Castle Mountain fault.

Beneath the upper 15 to 20 miles of the earth's crust is the Benioff Zone. This is also an active fault zone. The depth to the Benioff Zone beneath the Susitna dam sites is about 34 miles.

## Preliminary findings available on Susitna basin seismicity

This issue gives information about the seismicity of the upper Susitna River basin and discusses the question of building safe dams in seismic areas.

The following are the preliminary seismic conclusions.

1. No faults with known recent movement (movement in the last 100,000 years) pass through or near the proposed Susitna dam sites.
2. The known faults with recent movement are: the Denali fault (north of the sites), the Castle Mountain fault (south of the sites) and the Benioff Zone (about 34 miles beneath the sites).
3. The closest distances of these faults from each site and the preliminary maximum credible earthquake magnitudes for the faults are the following:

Fault	Preliminary Maximum Credible Earthquake Magnitude	Closest Distance of Fault to Site (miles)	
		Watana	Devil Canyon
Denali	8.5	43	40
Castle Mountain	7.4	65	71
Benioff Zone	8.5	31	37

4. Within the site region, 13 faults and lineaments (potential faults) are receiving additional study in summer 1981 to better define their potential effect on dam design. Four of these faults and lineaments are near the Watana site and nine are in the area of the Devil Canyon site.

5. At present, the 13 features are not known to be faults with recent movement. If present studies show any recent movement, then the potential for surface rupture through either dam site and the ground motions associated with earthquakes on the fault will need to be evaluated.

6. Preliminary estimates of ground motions at the sites were made for the Denali and Castle Mountain faults and the Benioff Zone. Of these sources, an earthquake of magnitude 8.5 occurring within the Benioff Zone would create the maximum ground shaking at the dam sites.

Source:  
Interim Report on the Seismic Studies for (the) Susitna Hydroelectric Project, December 1980,  
prepared by Woodward-Clyde Consultants for Acres American, Inc. and the Alaska Power  
Authority.



## We've been asked



Lovegreen

The following are responses to frequently asked questions. The information was developed by Jon R. Lovegreen, Senior Project Geologist, Woodward-Clyde Consultants.

### 1. Do earthquakes occur only along faults?

No. There are four general categories of earthquakes. These categories are collapse earthquakes, volcanic earthquakes, explosion earthquakes, and tectonic earthquakes.

Tectonic earthquakes are the most common type of earthquakes and are the earthquakes pertinent to the design of the Susitna project.

Tectonic earthquakes result when stresses within the earth build up to the point that the strength of the rock is exceeded. Relatively instantaneous release of strain energy takes place along a zone of weakness. The energy release causes the ground shaking of the earthquake and the zone of weakness is the fault.

### 2. How do you ensure that you are identifying virtually all sources of earthquakes that could affect the dam?

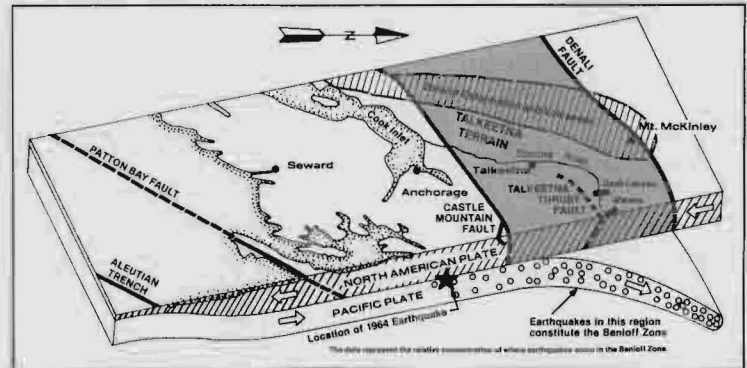
The identification of sources for earthquakes in Alaska is based on experience with faults and earthquakes in Alaska and worldwide. From this experience, it is possible to make judgements about the potential sources of earthquakes in a region such as the Talkeetna Mountains. These judgements do not ensure that all sources are identified, rather, the judgements identify all sources of earthquakes which experience has shown could be possible.

For large projects such as the Susitna hydroelectric project, a conservative approach is used. This approach includes the study of faults which are only remotely possible sources of earthquakes.

The past experience of the firm which is studying the faults and earthquakes (Woodward-Clyde Consultants) includes examination of active faults and earthquakes in Alaska, California, Nevada, Utah, Central and South America, Europe, Africa, the Middle East, Australia, New Zealand, and Japan.

### 3. You use the term "maximum credible earthquake." What is that?

A Maximum Credible Earthquake is considered to be the most severe earthquake associated with a fault and is assumed to oc-

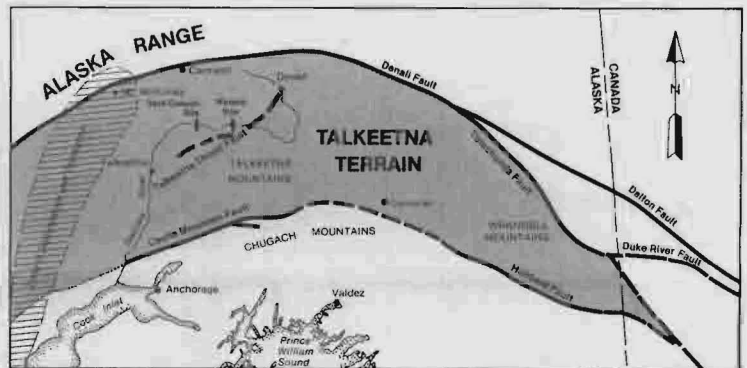


Alaska is part of a large continental landmass (the North American Plate) which lies adjacent to an oceanic mass (the Pacific Plate). The Pacific Plate is moving northwest at a rate of about 2 inches per year.

This 2 inches of movement gets absorbed along a feature in the Gulf of Alaska called the Aleutian Trench. Here one plate is thrust below the other (in a process called subduction) as shown in the diagram. The zone of seismicity associated with the subduction is referred to as the Benioff Zone.

Earthquakes can occur along the Benioff Zone where the two plates are in contact. This is where the 1964 earthquake occurred as shown in the diagram.

Earthquakes are also caused within the plates themselves. Movement of the plate causes stresses to build up and the energy is released by rapid movement along planes of weakness (faults).



To date no active faults have been identified in the Talkeetna Terrain itself. Studies in 1981 are further evaluating 13 faults and lineaments (potential faults) in the vicinity of the Watana and Devil Canyon damsites to determine whether or not the faults and lineaments may be active. One of those receiving additional study is the Talkeetna Thrust Fault.

cur at the point on the fault closest to a proposed project, such as a dam site.

It is based on geological and historical data, and is usually of a magnitude greater than historical earthquakes.

### 4. How reliable is it?

The Maximum Credible Earthquake is considered to be a reliable parameter to use for dam design. There are over 11,000 dams worldwide. Some of these have been built in moderate to high seismic areas such as Oroville dam in California and several dams in the San Francisco Bay Area along the San Andreas fault.

Several dams have been damaged during earthquakes, such as Koyna in India and Hsinfengkiang in the People's Republic of China. This damage was due in large part to the absence of design considerations for reservoir-induced seismicity.

### 5. What are your estimates for the largest earthquakes that could occur in the area of the proposed dams?

One is a magnitude 8.5 earthquake on the Denali fault, 40 miles from the dams; the other is a magnitude 8.5 earthquake in the Benioff Zone, about 34 miles below the surface of the earth at the dams.

### 6. How much ground shaking would that cause?

The ground shaking that would occur at the dams from a magnitude 8.5 earthquake on the Denali fault is considered to have an average peak acceleration of 20%g.

The ground shaking that would occur at the dams from a magnitude 8.5 earthquake in the Benioff Zone is considered to have an average peak acceleration of 40%g.

### 7. How does that compare to the 1964 earthquake?

As a comparison, the average peak acceleration estimated at Susitna would be 1/3 to 1/2 as much as the average peak acceleration estimated at Valdez during the 1964 earthquake.

### 8. Just how seismically active is the area where the proposed dam sites are?

The Susitna dam sites lie within a region that is believed to be relatively stable. This region is known as the Talkeetna Terrain.

The boundaries of the Terrain are the Denali fault, the Castle Mountain fault, and the Benioff Zone (which is about 34 miles below the surface of the earth). These are all active fault areas.

Energy release appears to be occurring primarily along the boundaries of the Talkeetna Terrain rather than within it.

Within the Terrain, no evidence of active faults has been observed. Some earthquake activity is occurring and has occurred within the Terrain, but the earthquakes are typically small to moderate in size.

To date no active faults have been identified in the Talkeetna Terrain itself. Studies in 1981 are further evaluating 13 faults and lineaments (potential faults) in the vicinity of the Watana and Devil Canyon damsites to determine whether or not the faults and lineaments may be active.

9. How can there be no active faults in the area of the dam sites when historic records show many earthquakes occurring there?

In the area of the proposed Susitna dam sites earthquakes occur within the North American Plate (which includes the upper 15 to 20 miles of the earth's crust) and in the Pacific Plate (which is being subducted, or drawn downward, beneath the North American Plate).

Preliminary evaluation of the seismicity in these two plates, within the Talkeetna Terrain, suggests that many of the earthquakes, including virtually all of the moderate to large earthquakes are occurring in the Pacific Plate at depths of at least 34 miles beneath the dam sites.

Activity occurring in the North American Plate is associated with energy release on small fault planes which are too deep and too small to cause displacement at the earth's surface.

10. Why do your studies not consider faults that are inactive?

All faults and possible faults within about 100 km (62 miles) of the Susitna dam sites have been evaluated to determine whether or not they are active faults. Those faults which have not had displacement in recent geologic time are considered to be inactive. Faults which are inactive are not important for seismic design of a dam because earthquakes are not expected to occur along inactive faults.

11. What is considered an active fault?

Various governmental and regulatory agencies have defined active faults in order to assess the importance of faults to the

design of critical facilities such as dams. Initially these definitions were based on how recently there has been movement along a fault.

For example, the U.S. Bureau of Reclamation defines a fault which has moved in the last 100,000 years as active. The U.S. Army Corps of Engineers uses 35,000 years.

Recently there has developed an increasing consensus that the activity of a fault should be considered by how often it moves, how much movement is likely to occur and what type of movement will occur. From this information the likelihood of fault movement can be made and incorporated into dam design.

12. When you refer to active faults, how long a period of time are you referring to?

As a guideline for the Susitna project, Acres American, Inc. has defined an active fault as one which has had movement, or displacement, in the last 100,000 years.

Susitna Report on Seismic Studies for Susitna Hydroelectric Project, December 1980, prepared by Woodward-Clyde Consultants for Acres American, Inc. and the Alaska Power Authority.

In Anchorage, copies are available at the Alaska Resources Library in the Federal Building; at the University of Alaska Consortium Library; at the Arctic Environmental Information and Data Center; and at the Z.J. Loussac Library.

In Fairbanks, copies are available at the Elmer E. Rasmuson Library, University of Alaska, and at the Noel Wien Library.

In Talkeetna, a copy is available at the Talkeetna Public Library.

## Three ways to measure the force of an earthquake

Modified Mercalli Intensity Scale (1931, Wood and Neumann)	Accelerations		Magnitude (Instrumental)	Energy Release (Ergs)
	cm/sec <sup>2</sup>	Gravity Fraction		
1. Detected only by sensitive instruments.			2	10 <sup>14</sup>
2. Felt by few persons at rest, especially on upper floors; delicately suspended objects may swing.			3	10 <sup>15</sup>
3. Felt noticeably, but not always recognized as earthquake; standing autos rock slightly, vibration like passing truck.	0.01g		4	10 <sup>16</sup>
4. Felt indoors by many, outdoors by few; at night some awakened; dishes, windows, doors disturbed; motor cars rock noticeably.			5	10 <sup>17</sup>
5. Felt by most people, some breakage of dishes, windows, and plaster; disturbance of tall objects.	50	0.05g	6	10 <sup>18</sup>
6. Felt by all, many frightened and run outdoors; falling plaster and chimneys, damage small.			7	10 <sup>19</sup>
7. Everybody runs outdoors; damage to buildings varies depending on quality of construction; noticed by drivers of automobiles.	200	0.2g	8	10 <sup>20</sup>
8. Panel walls thrown out of frames; fall of walls, monuments, chimneys; sand and mud ejected; drivers of autos disturbed.	500	0.5g	9	10 <sup>21</sup>
9. Buildings shifted off foundation, cracked, thrown out of plumb; ground cracked; underground pipes broken.			10	10 <sup>22</sup>
10. Most masonry and frame structures destroyed; ground cracked; rails bent, pipes broken.	800	0.8g	11	10 <sup>23</sup>
11. Few structures remain standing; bridges destroyed; fissures in ground; pipes broken, landslides, rails bent.			12	10 <sup>24</sup>
12. Damage total; waves seen on ground surface; lines of light and level distorted; objects thrown up in air.				10 <sup>25</sup>

**Modified Mercalli scale**  
This scale verbally describes the effects of earthquakes.

**Acceleration**  
Engineers often use acceleration to measure the severity of earthquake motions. The relationship of acceleration to magnitude must include a consideration for the distance from the earthquake source.

**Magnitude and amount of energy release**  
These two columns show that each increase in magnitude (for example, from 5 to 6) is approximately a 30-fold increase in energy release.

Source:

Modified from Earth-Rock Dams, Engineering Problems of Design and Construction, J.L. Sherard, R.J. Woodward, S.F. Gizienski, W.A. Clavenger, John Wiley and Sons, Inc., New York.

## What about reservoir-induced seismicity (RIS)?



Dr. Harry Seed

1. What is reservoir-induced seismicity (RIS)?

Reservoir-induced seismicity (RIS) refers to earthquakes which are triggered by the filling of a reservoir. Typically these earthquakes occur beneath the reservoir area. Recent studies suggested that RIS earthquakes are triggered in certain geologic and seismologic terranes by the weight of the water in the reservoir and by the reduced friction along fractures (caused by water being forced into the fractures.)

2. Does that mean reservoirs can cause earthquakes?

"A reservoir cannot induce more seismic activity than an area could have produced if the reservoir had not been there. In other words,

a seismic event that would have occurred sooner or later is induced to occur sooner."

"If, at the time of the filling of the reservoir, the accumulated strain energy is small, the corresponding seismic event could be small. Conversely, if the accumulated strain energy is high, the resulting event could be large, but not larger than what would naturally occur sooner or later."

3. What is the potential for RIS at Watana and Devil Canyon dam sites?

The potential for RIS is largely a function of the size and depth of the reservoir. Since the Watana reservoir would be both very large and very deep, Woodward-Clyde Con-

sultants has estimated both the probability of RIS occurrence and the potential magnitude of the resulting earthquakes.

Preliminary results suggest a moderate reservoir-induced earthquake could occur at the Watana site. The estimated magnitude of such an earthquake is 5.5 or less, because no active faults have been found in the immediate area of the Watana reservoir. The probability of occurrence was estimated by comparing the Watana reservoir with other very large and very deep reservoirs that have experienced RIS worldwide.

Preliminary results indicate a similar likelihood of RIS at Devil Canyon.

Additional evaluation of the likelihood of reservoir-

induced seismicity is currently being done.

4. Is the potential for RIS taken into account in dam design?

Yes. The design criteria for the dam actually exceeds design criteria for a reservoir-induced earthquake.

Dam design criteria will incorporate both the effects of earthquakes on more distant active faults (the Denali Fault and Benioff Zone) as well as earthquakes which occur near the sites including those which are reservoir-induced.

Source:  
Dr. Harry Seed,  
Specialist in Earthquake-Resistant Design,  
University of California, Berkeley.

# Designing Dams in Earthquake Country

## —An Interview With Dr. Harry Seed

Dr. H. Bolton (Harry) Seed, is a specialist in earthquake-resistant design and professor of civil engineering at the University of California, Berkeley. He also serves on the Susitna External Review Panel which is made up of six eminent engineers and scientists who provide independent review of the Susitna hydroelectric feasibility study.

Dr. Seed has been a consultant on soil mechanics and seismic design problems since 1953. Over the years, he has worked extensively with a variety of clients, including the U.S. Army Corps of Engineers, the Executive Office of the President of the United States, the World Bank, the Federal Power Commission, Bechtel Corporation, Woodward-Clyde, the Metropolitan Water District of Los Angeles, the Canadian Ministry of the Environment, and many foreign government agencies. He has worked on about 80 dams worldwide, most of which were in seismic areas. After a dam failure in California in the early 70's, Dr. Seed authored design procedures for California so that dam failures would not happen again. These procedures are now used throughout the world to produce safe, seismic designs for dams.

Following are excerpts from an interview conducted by Nancy Blunck, Director of Public Participation, the Alaska Power Authority. The complete text is available upon request.

**QUESTION:** What is your personal experience with dam design?

**SEED:** Since I am a specialist in earthquakes, I tend to get involved more with dams in highly seismic regions than other areas. So, for example, I've worked on a lot more dams in California than with dams in Texas or Florida, which are nonseismic regions. My experience includes the design of perhaps 80 dams—50 or 80 dams for earthquake problems of one kind or another. I suspect that I have worked on more earthquake problems related to dams than anybody else in the world.

**QUESTION:** What about the question of building safe dams in a seismic area?

**SEED:** First of all, it is comforting that at the present level of knowledge of the Susitna project the intensity of shaking which can be anticipated at either dam site is considerably less than those in areas for which we have already designed dams. Secondly, the people in Alaska should know that dams have been proposed to be built in some extremely critical areas.

**QUESTION:** What must dam design in highly seismic areas take into account?

**SEED:** The first thing in a highly seismic area is to study the dam site and find out if there is a fault in the foundation of the dam or very close to the dam. We prefer not to build dams directly over faults, although once in a while we have done that when there is no way to avoid it.

Even if you avoid the faults in a highly seismic region, that doesn't eliminate the problem of the dam being subjected to extremely strong ground shaking in the event of a major earthquake...

So the second aspect of the problem is to design the dam to remain stable even though it is shaken by very strong motions from an earthquake. There are various ways in which that is effected. One is by controlling the materials of which the dam is built. When I say controlling them, I mean selecting materials which are capable of withstanding earthquakes better than others. Also, placing them in the dam using construction techniques which enhance their natural ability, and providing a finish-

ed product which can safely withstand the effects of the earthquake shaking.

The primary construction procedure involved in placing earth materials in dams is in compacting the material to a high enough density to make it strong enough to withstand the earthquake shaking. That has been done in many areas, but first you must carefully predict the effects of earthquake shaking on the dam and how dense the material needs to be to withstand a given level of earthquake motions.

**QUESTION:** What projects are you familiar with that resemble the Susitna project?

**SEED:** Oroville Dam in California is a cobble and gravel fill dam 700 feet high. Auburn dam in California is a concrete dam about 600 feet high...The Uribante-Caparo project in Venezuela is a complex of four dams and three powerhouses, with 400 to 500 foot high dams. The Alicura project in Argentina is a complex of three dams about 400 feet high...The Pueblo-Viejo dam in Guatemala is a rockfill dam 500 feet high...And many others.

**"I suspect that I have worked on more earthquake problems related to dams than anybody else in the world."**

**QUESTION:** How do these projects resemble Susitna, and are there greater or lesser problems?

**SEED:** The Oroville dam is in California. The region in which it was built was supposedly nonseismic, but in 1965 they had an earthquake very near the dam. So the design earthquake for Oroville is now a magnitude 6.5 (on the Richter scale) earthquake occurring directly under the dam site, which is a very strong earthquake.

Oroville is about the same height as the proposed Watana dam and, as a matter of fact, was the one we suggested in our first report as probably being the best model for that particular dam. I have been on the consulting board for that dam since it became an earthquake problem, which

means having responsibility for determining the adequacy of the seismic design.

The Auburn dam in California is a highly controversial dam. Again, the design earthquake is a magnitude 6.5 event directly at the dam site. The complicating feature of that dam is that there is much debate about the possibility of a fault going through the foundation of the dam and, therefore, directly through the dam.

The Consultant Board on which I served determined that the dam ought to be designed for a fault offset in the foundation of about 6 inches. That recommendation led to redesign of the dam from the thin arch dam to a concrete gravity dam...

The Uribante-Caparo project in Venezuela involves four dams and three powerhouses and some parts of this project are built about 15 miles from the Bocono fault, which is one of the largest faults in the world.

The seismic design of the project in Venezuela is an important controlling aspect of the project. The materials available for building the dams there are not the best in the world. There is a lot of friable sandstone (friable means breaks easily, from solid to sand), and so it turns out that designing the dam to be seismically stable is a critical aspect of the design...One of the design earthquakes is a magnitude 7.5 event occurring about seven miles from the dam. This is almost identical with one of the possible design earthquakes for the Watana dam unless Acres is successful in proving that the Talkeetna thrust is not active...

The Talkeetna thrust is a fault near the Watana dam site whose activity is questionable, but it is believed to be inactive. If it remains in the inactive category, then the severity of shaking for Watana will be less than that for Uribante-Caparo project in general.

The Pueblo Viejo project in Guatemala is designed for a magnitude 7.75 earthquake passing directly through the project site—not the site of the dam, but the overall project site. The fault passes through a power tunnel very close to the dam site. The shaking there is of the order of 0.7g acceleration, lasting for maybe 45 seconds—one of the most severe seismic en-

vironments of any dam in the world. Nevertheless, a safe design has been worked out for that project.

Incidentally, on all these dams, designs have been produced which have been adequate to accommodate the motions produced by the earthquakes. It is a matter of how you build the dam, how you arrange the dam, what materials you use in the dam, and how you place the materials in the dam. These factors will determine whether the dam will adequately withstand the effects of the earthquake.

**"...on all these dams, designs have been produced which have been adequate to accommodate the motions produced by the earthquakes. It is a matter of how you build the dam, how you arrange the dam, what materials you use in the dam, and how you place the materials in the dam."**

**QUESTION:** What knotty problems have you encountered on other hydroelectric projects?

**SEED:** Any problems that you encounter are essentially related to three major ones—the amount of water to be stored and the amount of flooding water that has to be stored at any given time; the stability of the foundation materials; and the possible effects of faults in the foundation. The first is not my area of expertise. It is a hydrological problem and there are other specialists who can handle that part of the problem. I would say the most difficult problems, in the earthquake sense, are primarily those of evaluating the stability of the foundation materials on which dams are to be built.

For example, there was much debate about the safety during earthquakes of Revelstoke Dam in Canada and what they should do about the foundation. I was invited to be a consultant on that project because of the different points





of view about the safety of the dam...

They were dealing with a very difficult foundation soil. As a matter of fact, I told them that the foundation soils in some parts of the dam foundation bore a great resemblance to those at Turnagain Heights in Alaska (the soils that failed in the 1964 earthquake). Some of the foundation material for Revelstoke Dam reminded me a lot of Bootlegger Cove clay. I told them that it was an unstable material, especially at the level of shaking they were designing for. I advised them to excavate the material out, and that's what they elected to do. I would say that was a knotty problem.

Other knotty problems involve faults in the foundation. After the San Fernando dam nearly failed in the San Fernando earthquake in California, the people living downstream did not want another dam to be built at that site, but it turns out to be a critical point of entrance for water into California for the city of Los Angeles. Therefore, the Department of Water and Power in Los Angeles considered it essential to have a reservoir in that area, and it was necessary to rebuild the dam at that location. There was a possibility of a fault movement in the foundation, so we had to devise a special design which could accommodate a very high level of shaking and the possibility of a fault movement in the foundation both occurring at the same time. That was successfully done.

**"...it is a comforting fact that at the present level of knowledge of the Susitna project, the intensity of shaking which can be anticipated at either dam site is considerably less than those areas for which we have already designed dams."**

The Teton dam involved problems with highly erodible soils. The dam failed, but I believe that if the design had been modified, a safe dam could have been built at that site. The knotty problem there

was assessing the effect of the jointing of the rock and the simultaneous erodibility of the soils used to build the dam on the safety of the dam. That was a tricky problem. The engineers who made the design thought they had solved it, but as events eventually proved, they had not. The dam failed. I believe we know enough about it now that we could rebuild the dam very safely... To tell you the truth, I don't know of any dam which doesn't involve one or two knotty problems.

**QUESTION:** How does the seismicity of the Susitna area compare to the seismicity of other regions where you have worked?

**SEED:** I would say that the seismicity of the Susitna area as it is presently understood (and if it is established) is somewhat less than that which I have encountered in other parts of the world. There are a number of faults whose activity has not yet been established in the Susitna area. They are believed to be inactive faults, but they are on record for being investigated very carefully during the 1981 summer. The Talkeetna thrust fault is one of these and probably the most important of them. If all the faults that are presently not clearly recognized as active are found to be inactive, then the seismicity of the Susitna area (or the intensity of ground shaking that would develop) would not be as strong as many of the dams that we have already designed.

**QUESTION:** And what if the opposite were true?

**ANSWER:** If the opposite were true, if the Talkeetna thrust turns out to be an active fault, then the level of shaking at Susitna would be comparable to that of some of the strongest seismic regions where dams have been built.

Since we have been able to build and design dams which can be shown to be seismically stable in those regions, then I believe that the same techniques would be capable of demonstrating the same thing for the dams of the Susitna project.

The design in any case will require great care, but it would require even more care if those faults like the Talkeetna thrust turn out to be active faults...



The design of the Oroville dam in California has been suggested as an appropriate model for preliminary design of the Watana dam. It is an earthfill dam like Watana is proposed to be, is in a seismic area, and is of a similar height (Oroville is 770 feet, Watana is proposed to be 880 feet).

The design earthquake for Oroville was a magnitude 6.5 earthquake occurring directly under the dam site. The Oroville dam design can accommodate strong ground motions very near the dam for a relatively large earthquake.

There has been tremendous progress in the field of earthquake engineering, and the earthquake-resistant design of dams has been totally revolutionized in the last 10 years. It is almost like the developments of space technology. Things we can do now, our understanding of the problems now, are so very much greater than they were 10 years ago that we can feel enormous confidence now in comparison. In those days people felt confident because they didn't really understand the problems. Now we feel confident because we have a very good understanding of the problems.

**QUESTION:** Can you give some examples of why you can be so confident?

**SEED:** We can point to virtually dozens of dams which have withstood very strong earthquake shaking, even the strongest imaginable earthquake shaking. In California, in 1906 there were at least 15 dams within 5 miles of the San Andreas fault on which a magnitude 8.3 earthquake occurred, and they were built by the rather primitive pre-1900

construction methods. There wasn't a single one of them that suffered any major damage due to the earthquake. During the last 10 years we have learned what the properties of those dams are that enabled them to do that. We can also point to a few dams that have failed during earthquakes and what we have learned over the last 10 years is what made those dams fail as compared with the other ones that haven't failed.

**"...the earthquake-resistant design of dams has been totally revolutionized in the last 10 years."**

The record is very positive. There have been literally hundreds of dams which have withstood strong earthquake motions. In the total history of the United States, so far as I know, I think there are only four or five known failures of dams during earthquakes, and some of those were quite small dams... We better

understand which ones are likely to be vulnerable and which ones are likely to be safe and how to transform the unsafe ones into safe ones...

In the most recent survey of the safety of dams in California, the conclusion was that there are no dams in California which are a threat to the public... In the last 10 years there have been a number of dams in California which have been recognized as earthquake hazards that have either been taken out of service or rebuilt or modified in some way to eliminate the threat to the public.

California is obviously one of the more seismically active states in the United States, along with Alaska, and if we can do it here, you can do it in Alaska, too.

## Earth dams combine natural materials and careful construction

### Earth/rockfill dam:

*"Any dam constructed of excavated materials placed without addition of binding materials other than those inherent in the natural material. The materials are usually obtained at or near the dam site."*

—The International Commission on Large Dams

Earth/rockfill dams contain about 25 percent earth to retain the water and 75 percent rock to hold the earth up and ensure stability.

In seismically active regions it is not unusual to flatten the slopes of the dam more than in non-seismic areas. The actual slope and proportions at a particular site is dependent on the materials available for construction and the size of the design earthquake.

One of the most important requirements for earth dams is that the materials be selected and compacted—and the foundation stabilized—so that settlement of the earth and rock is minimized. For dams in high seismic regions, any river bed materials under the dam which would be unstable during earthquakes is either removed or improved.

#### The core

The core is a membrane built within an earth dam to form an

impermeable barrier. It may be of natural materials (clays, sands, etc.) or prepared materials (cement or asphaltic concrete), or of metal, plastic, or rubber.

In the case of Watana, the core is proposed to be of glacial till (a mixture of gravels, sands, silts, and clays). It would be more than 400 feet thick at the riverbed level, and tapered to about 30 feet in thickness at the crest of the dam.

Unlike concrete, earth cores cannot support their own weight even though they are as effective as concrete at impounding water. Gently sloping man-made mountains of compacted sand, gravel, and rockfill are needed to support the dam's core and keep it in position.

#### Location of core

In general, a centrally located core provides the best security under earthquake conditions. A central core is illustrated in the diagram of the Watana cross-section.

#### Design

Each earth/rockfill dam is unique—its watertightness and stability are directly related to the materials used for its construction and the materials upon which it is founded.

Earth/rockfill dams are usually constructed in zones. The

primary purpose of this is to ensure safety in terms of strength, control of seepage, and protection against cracking.

### Earthquake-resistant features in earth/rockfill dams:

Some of these provisions are being considered for the Watana dam.

All earth/rockfill dams are compacted to make them dense. In earthquake areas the process of compaction is no different but more compaction is done because denser rock provides more stability. Most materials can be compacted by 3 to 8 passes with heavy machinery. Tests are made in the field as the dam is being constructed to ensure that maximum compaction is achieved.

All dams also have freeboard. This is the height above normal water level and it allows for waves, floods, and ice. In earthquake areas, additional height is added to allow for settlement.

If there is a potential for waves passing over the crest of earth/rockfill dams, the crest can be treated so that the waves pass safely. Such a wave could result from a seismic disturbance or a landslide into the reservoir. Preliminary studies indicate there is no potential for land-

slides in the Watana reservoir because of the topographic character of the valley.

Earth/rockfill dams are usually zoned for strength and stability. In earthquake areas, wider filter zones are provided to increase stability.

In addition, the materials in the filter zones are selected to provide self-healing of cracks. This conservative approach increases the level of confidence in the design. The dam is designed not to crack and also designed to self-heal if it did crack.

#### Slope Protection

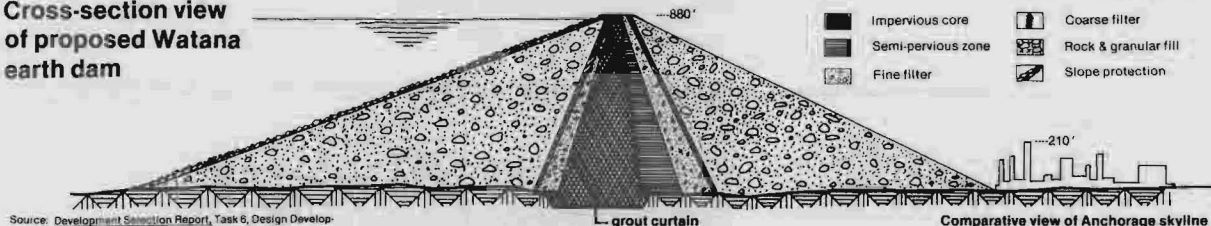
Both faces of an earth dam must be protected against structural damage.

The downstream face needs protection against natural erosion and may be covered with grassed soil or rock.

The upstream face must be protected against damage by wave action, ice, or floating debris. Various methods include rock (rip-rap), precast concrete forms, soil cement, or the waterproofing membrane of the dam.

Source: The Engineering of Large Dams Part II, Henry H. Thomas, 1976, John Wiley & Sons Publishers, New York, A Wiley-Interscience Publication.

## Cross-section view of proposed Watana earth dam



## Susitna construction not assured by SB 25

The 1981 Alaska Legislature authored a far-reaching bill that relates closely to the evaluation of the Susitna project's feasibility and to the possible development of the project. SB 25 provides for direct State funding of at least a portion of the construction costs of certain power projects and it provides for a single wholesale rate for power from all projects that are part of the State program.

The following discussion answers some questions about SB 25 and the Susitna studies.

### What SB 25 Does Do

1. The new law, along with a companion appropriation bill (SB 26), DOES indicate a desire on the part of the 1981 Legislature to lower the cost of power to Alaskans. The portion of the Susitna construction cost funded by the State would not have to be recovered through power sales. The rates for the power would, however, have to be set sufficiently high to cover the costs of project operation, maintenance, and inspection and high enough to also cover the debt service associated with any borrowed construction costs not funded by the State.
2. SB 25 DOES mean that the Susitna project will be easier to finance if the decision is made to build it. It is recognized that Wall Street is hesitant to buy revenue bonds for the full cost of Alaskan hydroelectric power projects. The primary problem is Wall Street's perception that Alaskan projects are extremely expensive in relation to the size of the population that will use the power.
3. SB 25 DOES indicate an intent by the 1981 Legislature to appropriate as much as \$5 billion for the construction of power projects over the next five years. Based on very preliminary estimates, this amount would be enough to fund most of the construction costs of all the power projects presently under serious consideration throughout the State, including the Susitna project. Several projects have already been funded under this program, but Susitna is not one of them.
4. SB 25 DOES differentiate between power rates to utilities and those to industrial consumers. According to the legislation, the rate for industrial consumers may not be less than the rate charged residential consumers and it may be higher.

### What SB 25 Does Not Do

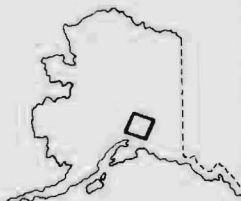
1. The new law DOES NOT mean, at least as far as the Alaska Power Authority is concerned, that a decision has already been made to build the Susitna project.

Several points should be kept in mind. They are:

- According to SB 25, State money can only be used for a power project that will provide the lowest power cost to utility customers. It has not been determined that the Susitna project is, in fact, the lowest cost alternative for the Railbelt. The Susitna project feasibility study and the companion Battelle alternatives study will provide this relative cost information during the first three months of 1982.
  - A decision has not yet been made by the Alaska Power Authority to recommend the preparation and submittal of a license application to the Federal Energy Regulatory Commission (FERC). That decision will be made in late April 1982.
  - Construction of the project cannot begin until the FERC prepares an environmental impact statement and grants a license.
2. SB 25 DOES NOT affect the determination of project feasibility, either in the Susitna feasibility study program or in the independent Battelle power alternatives study.

The basic approach being used in both studies involves a comparison of Railbelt electrical system power production costs with various combinations of power alternatives. The costs associated with any alternative will reflect the actual full cost of construction, operation, and maintenance without any consideration of subsidies. This approach is designed to ensure that, if the State is going to contribute funds to power project construction, those funds will go towards the most economical and preferred alternatives.

## Background information on proposed Susitna project



The Susitna hydroelectric project as currently proposed involves two dams and reservoirs on the Susitna River in the Talkeetna Mountains of southcentral Alaska.

The project area is about 50 miles northeast of Talkeetna, Alaska and 118 miles north-northeast of Anchorage, Alaska.

The upstream dam, Watana, is

proposed to be developed first. It is currently being considered as an earth/rockfill dam, approximately 880 feet high. This would make it the fifth highest dam in the world and the highest in North America. It would impound a 54-mile-long reservoir.

The downstream dam at Devil Canyon is currently being considered as a concrete arch dam approximately 635 feet

high. It would impound a 28-mile long reservoir.

These dimensions are approximate and subject to change during detailed design.

The feasibility study is being managed and conducted by Acres American, Inc. for the Alaska Power Authority. The studies conducted to date represent the first year of a planned two-year study (1980

and 1981). A draft feasibility report detailing research efforts in 10 different areas including economics, engineering, and environmental aspects of the proposed power project is due in March next year.

## How proposed Susitna projects compare with existing dams

Name	Year completed	River or Basin	Nearest city	State or Province	Country	Dam type	Height above lowest foundation m	Crest length m	Reservoir capacity m <sup>3</sup> × 10 <sup>6</sup>	Rated capacity (MW)	Rated capacity planned (MW)	Year of initial operation
'Bonneville	1943	Columbia	Portland	Oregon-Washington	USA	concrete gravity	32	277		588	1,076	1938
'Glen Canyon	1964	Colorado	Page	Arizona	USA	concrete arch	216	475	33,305	1,021	1,431	1964
'Grand Coulee	1942	Columbia	Coulee City	Washington	USA	concrete gravity	168	1,272	11,795	7,460	10,830	1942
'Hoover	1936	Colorado	Boulder City	Nevada-Arizona	USA	concrete arch/gravity	221	379	36,703	1,345	1,345	1936
'Mica	1973	Columbia	Revelstoke	British Columbia	Canada	earth rockfill	245	792	24,670	1,736	2,610	1976
'Oroville	1968	Feather	Oroville	California	USA	earth	235	2,316	4,299	679	679	1967
'Devil Canyon	(Proposed) ( 2090 )	Susitna	Talkeetna	Alaska	USA	concrete arch	200	378	1,235	0	400	(Proposed) ( 2090 )
'Watana	(Proposed) ( 1993 )	Susitna	Talkeetna	Alaska	USA	earth rockfill	271	1,662	12,347	0	800	(Proposed) ( 1993 )

Sources

\*Civil Engineers, Portland, Oregon

\*Western Area Power Office, Golden, Colorado.

\*Major Dams of the World, T. W. Marshall, International Water Power and Dam Construction, Special Issue May 1981, Published by IPC

\*Electricity Statistics, Power Ltd, Government House, The Quadrant, Sutton, Surrey SM2 6AB, England

\*Civil Design, State of California, Oroville, California

\*Atomic Associates, Inc., Anchorage, Alaska

\*Atomic Associates, Inc., Anchorage, Alaska

1 Meter = 3.25 Feet

## Construction timed to match power demand

The proposed Susitna development is presently envisioned as having three distinct stages:

- 1) the Watana dam with installed capacity of 400 MW;
- 2) an addition to the Watana capacity of another 400 MW; and
- 3) the Devil Canyon dam with an installed capacity of about 400 MW.

Both the Watana capacity addition and the Devil Canyon project could be brought on line earlier or at the same time, if needed, while all three stages could be postponed if demand turned out to be less than anticipated.

This staging provides some flexibility in the sequence and timing of construction. At the same time, there are certain constraints on that flexibility.

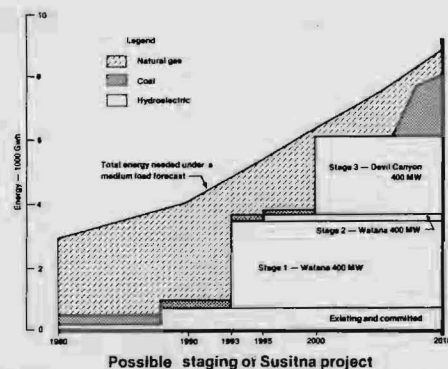
In staging the Susitna development, the primary objective is to keep the cost of power as low as possible. This is done by minimizing expenditures while selling as much of the available power as possible. But the power cannot be sold if there aren't consumers.

ready to buy it. The energy consumption forecasts provide estimates of how much power can be sold in the years ahead.

The Power Authority's approach, then, is to postpone spending money for the next stage as long as possible to ensure that there is the demand for purchasing the project's power. Money spent on a project whose power cannot be sold is money wasted.

Waiting too long to construct the next stage, however, is unacceptable because there would be an increasing likelihood of not being able to meet the peak demands. If this occurred, customers would have to go without electricity during high use periods. Thus, a balance has to be struck between postponing additional investments and ensuring adequate generation to meet peak loads.

Meanwhile, the balancing has to be done in the midst of a great deal of uncertainty about what the actual demand for power is going to be in the future. As time goes on and future power demands become more certain, the planned staging would be adjusted to suit actual conditions.



This diagram shows how the Susitna development would be staged under the medium forecast of future energy requirements. With this energy demand and ensuring that adequate generating reserves are maintained, power costs would be minimized if:

- 1) The Watana dam with 400 MW would be completed in 1993, which is the earliest possible date because of time periods involved in project evaluation, permitting, and construction;
- 2) the additional 400 MW of capacity at Watana is ready for operation in 1995; and
- 3) the Devil Canyon dam with its 400 MW is completed in the year 2000.

**If you want  
to get future  
newsletters**

This public information document on the Susitna hydropower project was developed by the Alaska Power Authority Public Participation Office, Nancy Blunck, Director. Comments on the substance of this newsletter and ideas for future publications should be forwarded to the Public Participation Office by way of the following coupon.

[illegible]

**and mail to: Alaska Power Authority  
Public Participation Office  
333 W. 4th - Suite 31 - Anchorage, AK 99501**

**THANK YOU FOR  
YOUR INTEREST**



## Independent panel reviewing Susitna feasibility studies

### External Review Panel Members:



Copen



Douma



Leopold



Merritt



Seed



Rohan

Six leading scientists and engineers have been named to an independent external review panel by the Alaska Power Authority Board of Directors. The specialists, who collectively have more than 200 years' experience in their fields, are reviewing the Susitna feasibility studies conducted by Acres American and other research contractors.

Interview with members of the review panel will be available in future publications as the specialists comment on general plans for the Susitna development and specific feasibility studies.

Exerpts from an interview with Dr. Seed appear in this newsletter.

**Merlin D. Copen** is an expert on concrete dams. He has had major responsibility for the design of the Glenn Canyon Dam on the Colorado River, California's Auburn Dam (proposed as one of the longest concrete arch dams in the world), and many others. He has consulted on numerous international projects as well as other Alaskan developments.

**Jacob H. Douma** served as chief of the Hydraulic Design Branch of the U.S. Army Corps of Engineers prior to his retirement from active government service after more than 40 years. In addition to his

government work on American dams, he has extensive consulting experience with Canadian hydroelectric projects.

**Dr. A. Starker Leopold** is a distinguished zoologist who has been associated with the University of California since 1946. A one-time vice-president of the Sierra Club, he has served on many wildlife and conservation organizations and has conducted extensive research around the world.

**Dr. Andrew H. Merritt** is a geologist who has been involved in the research, design, and review of major construction projects around the world. A specialist in tunnels and rock work, he has extensive experience with hydroelectric and nuclear power projects.

**Dr. H. Bolton Seed** is a former chairman of the Department of Civil Engineering at the Berkeley campus of the University of California. A specialist in earthquake engineering problems, he has consulted on dozens of the world's largest dam projects.

**Dr. Dennis M. Rohan** is an economist with the Stanford Research Institute who specializes in energy matters. He has been involved in economic analyses of all phases of energy production and consumption.

## Dam at Devil Canyon recommended over tunnel

Following 2,500 manhours of study (in excess of one man year of effort) a twin power tunnel plan has been eliminated as an alternative to a dam at Devil Canyon.

The tunnels, 15 miles long and 30 feet in diameter, were eliminated from further consideration when it became clear that they would generate 26% less electricity and would cost \$637 million more than a dam at Devil Canyon.

The difference in energy output, primarily due to friction losses along the length of the tunnel, is equivalent to about 30% of the total energy generated in 1980 by both Anchorage utilities (Municipal Light and Power and Chugach Electric Association).

In the long term, an additional generating plant would have to be added to fill this gap and this could create an additional source of environmental impact which has not been included in the comparison at this time.

Excluding consideration of this additional generation to make up the shortfall, the tunnels' main advantages were environmental. The adverse effects upon the aesthetic value and uniqueness of Devil Canyon would be lessened with a tunnel, although the flows through the canyon would be

severely depleted because the water would be flowing through the tunnel instead.

The kayaking experience at Devil Canyon could be preserved, but not in the same way that it exists now. With a tunnel, kayaking would be dependent upon the controlled release of water through the canyon.

In addition, by virtue of size alone, construction of the smaller re-regulation dam (245 feet) would have less environmental impact than the Devil Canyon dam. The river miles flooded and the reservoir area created by the re-regulation dam for the tunnel would be about half those of the Devil Canyon dam, thereby reducing negative consequences such as loss of wildlife habitat and possible archeological sites in the reservoir area.

With the tunnel, there could conceivably be a rare mitigation opportunity of creating new salmon spawning habitat in an 11-mile section of the river above Devil Canyon. Presently, Devil Canyon presents a physical barrier to fish migration.

Source:  
"Susitna Hydroelectric Project, Tunnel Alternatives Report, Task 6, Design Development," prepared by Acres American, Inc. for the Alaska Power Authority, July 1980.

## the susitna hydro studies

*This is the second of several newsletters published by the Alaska Power Authority for citizens of the railbelt. The purpose is to present objective information on the progress of the Susitna hydroelectric feasibility studies so that readers may make their own conclusions based on accurate information.*

Eric R. Youild, Executive Director  
Nancy Blunch, Director of Public Participation

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