

APPENDIX E

**HOUSEHOLD AND WHALING CAPTAIN SURVEYS
AND ETHNOGRAPHIC PROTOCOL**

APPENDIX E

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HOUSEHOLD SURVEY

**Development and Participation in Bowhead Whaling
HOUSEHOLD/ELDER SURVEY**

Hello, My name is (______). I work with a research team that is visiting (_____) to gather survey data about the effects of development on rural Alaskan communities, especially how oil production may affect bowhead whaling and other traditional activities, as well as local employment, household economics, and social relationships.

The study is supported by the Alaska Eskimo Whaling Commission (AEWC) and the North Slope Borough. It is paid for by the U.S. Minerals Management Service and is carried out by a research firm named EDAW. The study will be finished next year and the results presented to participating communities.

The **Paperwork Reduction Act** of 1995 (44 U.S.C. 3501 et seq.) requires us to inform you that we collect this information to assess, mitigate, and monitor the impacts of Outer Continental Shelf oil and natural gas industry activity on Bowhead whale hunting activities of local communities. The MMS will use the information in many future decision making efforts. The interview takes about 45 minutes and we will compensate you for your time [\$40 for general households; \$50 for elders]. Responses are voluntary, but your participation is very important. Requests for confidential information have been minimized and we will safeguard your privacy. Please understand that an agency may not conduct a collection of information unless it displays a currently valid OMB (federal government) control number. The OMB has approved this survey and assigned OMB Control Number 1010-0158, with an expiration date of 3-31-2007. You may send direct comments regarding the time burden estimate or any other aspect of this survey to the Information Collection Clearance Officer, Minerals Management Service, Mail Stop 4230, 1849 C Street, NW, Washington, DC 20240.

Do you have any questions before we begin?

Community			
Date of Interview		Refusal (check)	
Sequence Number/Elder Survey			
Household ID			
Surveyor Name			

Part A. Demographics (Record responses A.2. to A.9 on Table 1)

- A.1. Could you tell me how many people live in this household? _____
- A.2. Could you tell me the way each person is related to you? (Show Card #1)
- A.3. What is the age of each person?
- A.4. How would you describe your/their traditional affiliation?
 1. Iñupiat ____ 2. Bering Straits Yup'ik ____ 3. Other Alaska Native traditional Association ____
 4. No traditional affiliation ____
- A.5. Are they male or female? 1. Male 2. Female
- A.6. What is the highest level of education that each individual in the household has completed? (Show Card #2)
- A.7. How long have you/have they lived in this community? _____
- A.8. What village corporation is each individual a member of? _____
- A.9. What regional profit corporation is each individual a member of? _____

Table I. Demographics

A.1	A.2	A.3	A.4	A.4.1	A.5	A.6	A.7	A.8	A.9
Person #	Relation (Card 1)	Age (Yrs.)	Ethnicity	Other Ethn. (Specify)	Sex (M/F)	Educ. (Card 2)	Yrs Res. (Yrs.)	Village Corp	Regional Corp
1	SELF								
2									
3									
4									
5									
6									
7									
8									
9									

Part B. Subsistence Activities and Values. Now I would like to ask you some questions about your participation in subsistence activities over the last 12 months.

B.1. During the last 12 months did you or members of your household attempt to harvest the following resources: **(Refer to Spread Sheet Below/Check all that apply)**

B.1.a What Land Mammals have you Hunted?	Bison <input type="checkbox"/>	Black Bear <input type="checkbox"/>	Brown Bear <input type="checkbox"/>	Caribou <input type="checkbox"/>	Goat <input type="checkbox"/>
	Lynx <input type="checkbox"/>	Porcupine <input type="checkbox"/>	Squirrel <input type="checkbox"/>	Wolf <input type="checkbox"/>	Wolverine <input type="checkbox"/>
	Beaver <input type="checkbox"/>	Coyote <input type="checkbox"/>	Fox <input type="checkbox"/>	Hare <input type="checkbox"/>	Sheep <input type="checkbox"/>
B.1.b What animals have you trapped?					Moose <input type="checkbox"/>
	Beaver <input type="checkbox"/>	Coyote <input type="checkbox"/>	Fox <input type="checkbox"/>	Hare <input type="checkbox"/>	Lynx <input type="checkbox"/>
	Wolf <input type="checkbox"/>	Wolverine <input type="checkbox"/>	Otter <input type="checkbox"/>	Marten <input type="checkbox"/>	Marmot <input type="checkbox"/>
B.1.c What marine Mammals have you hunted?	Mink <input type="checkbox"/>	Muskrat <input type="checkbox"/>	Weasel <input type="checkbox"/>		
	Polar Bear <input type="checkbox"/>	Oogruk <input type="checkbox"/>	Ribbon Seal <input type="checkbox"/>	Spotted Seal <input type="checkbox"/>	Walrus <input type="checkbox"/>
B.1.d What fish have you fished for?		Gray Whale <input type="checkbox"/>	Beluga <input type="checkbox"/>	Minke Whale <input type="checkbox"/>	Bowhead <input type="checkbox"/>
	Char <input type="checkbox"/>	Grayling <input type="checkbox"/>	Herring <input type="checkbox"/>	Pike <input type="checkbox"/>	Salmon <input type="checkbox"/>
	White Fish <input type="checkbox"/>	Trout <input type="checkbox"/>	Sheefish <input type="checkbox"/>		
B.1.e What birds hunted or eggs Collected?					
	Ducks <input type="checkbox"/>	Geese <input type="checkbox"/>	Swans <input type="checkbox"/>	Crane <input type="checkbox"/>	Shore birds <input type="checkbox"/>
	Other Birds <input type="checkbox"/>	Geese Eggs <input type="checkbox"/>	Shorebird Eggs <input type="checkbox"/>	Other Eggs <input type="checkbox"/>	Duck Eggs <input type="checkbox"/>
B.1.f What plants harvested?					
	Berries <input type="checkbox"/>	Plants <input type="checkbox"/>	Wood <input type="checkbox"/>		
B.1.g What crafts made or sold?					
	Craft #1:	Craft # 2	Craft # 3	Craft # 4	Craft # 5
B.1.h What marine invertebrates harvested?					Other Marine
	Clams <input type="checkbox"/>	Crabs <input type="checkbox"/>	Mussels <input type="checkbox"/>	Shrimp <input type="checkbox"/>	Invertebrates <input type="checkbox"/>

B.2 **(Show Card #3).** In the last 12 months, in which subsistence activities listed on this card did you or other members of your household participate? **[record information in Table 2, first column labeled in terms of relationship of person to respondent]**

B.3 Over the last 5 years, has the distance you have to travel to hunt, fish, and gather subsistence resources changed? If so, how has it changed? **[note any explanation]**
 1) Increased__ 2) Remained the same__ 3) Decreased__
 88) Don't know__

- B.4 Over the last 5 years, has the number of trips you need to make to be successful when you hunt, fish, and gather changed? If so, how has it changed? **[note any explanation]**
 1) Increased__ 2) Remained the same__ 3) Decreased__
 88) Don't know__

Table 2: Household Subsistence Activities (For Recording Information, B.2)												
HH Member Relationship to Respondent	Activity (see Household Survey Card #3 for full category names)											
	A. Spring whaling	B. Fall whaling	C. Sew skins, cloths	D. Make sleds, boats	E. Cook, process, give	F. Hunt land mammals	G. Hunt sea mammal	H. Trap	I. Fish	J. Hunt birds, get eggs	K. Pick berries, plants	L. Other (explain)
Respondent												

- B.5 Are there areas you used to go to hunt and/or fish 5 years ago that you do not use now?
 1) Yes__ 2) No__ 88) Don't know__
 B.5.a Can you explain why? _____

- B.6 How has each of the subsistence resources listed on this card (**Show Card #4**) changed in the last 5 years? **[Record responses in Table 3]**
 1) Increased 2) Remained the Same 3) Decreased 88) Don't know

B.6a If not the same can you tell me why the change has occurred?

Table 3: Summary of Responses about Subsistence Resources
(For Recording Information for B.6)

Resource	B.6 Change	B.6.a Explanations for Changes
Bowhead Whales		
Other Whales		
Caribou		
Moose		
Sheep		
Oogruk		
Other Seals		
Walrus		
Bear		
Birds		
Fish		
Fur Bearers		
Berries Plants		

B.7 During the last year how much of your subsistence foods came from hunting, fishing, and gathering activities from members of your household? **(Card #5)**
 1) None__ 2) About a Quarter __ 3) About Half __ 4) About Three Quarters __
 5) Almost all__ 88) Don't know__

B.8 During the last year how much of your household food was purchased? **(Card #5)**
 1) None__ 2) About a Quarter __ 3) About Half __ 4) About Three Quarters __
 5) Almost all__ 88) Don't know__

B.8.a Why do you purchase these foods? **(Check all that apply)**
 1) Poor hunting season__ 2) Regular part of diet__ 3) Preference__
 4) Other (explain) _____

B.9 During the last year how much of your household's subsistence foods came from the harvests of others (family and friends in the village or from another village)? **(Card #5)**
 1) None__ 2) About a Quarter __ 3) About Half __ 4) About Three Quarters __
 5) Almost all__ 88) Don't know__

- B.10 During the last year how much of your subsistence harvests (meat, fish, birds, berries) did your household give away to friends and relatives? **(Card #5)**
 1) None__ 2) About a Quarter__ 3) About Half__ 4) About Three Quarters__
 5) Almost all__ 88) Don't know__
- B.11 Over the past 5 years, has the amount of subsistence foods your household receives from other households increased, remained the same, or decreased?
 1) Increased__ 2) Remained the same__ 3) Decreased__ 88) Don't know__
- B.12 Over the past 5 years, has the amount of subsistence foods your household has given to other households increased, remained the same, or decreased?
 1) Increased__ 2) Remained the same__ 3) Decreased__ 88) Don't know__
- B.13 Has the amount of subsistence resources, money, and labor exchanged through trade and barter between individuals and families in the last 5 years increased, remained the same, or decreased?
 1) Increased__ 2) Remained the same__ 3) Decreased__ 88) Don't know__
- B.14 In the last 5 years, has the number of meals you have eaten with a relative or friend who lives in another household increased, remained the same, or decreased?
 1) Increased__ 2) Remained the same__ 3) Decreased__ 88) Don't know__
- B.15 During the last 5 years, has your visiting with friends or relatives increased, remained the same, or decreased?
 1) Increased__ 2) Remained the same__ 3) Decreased__ 88) Don't know__
- B.16 Over the last 5 years, has the influence of elders in this community increased, remained the same, or decreased?
 1) Increased__ 2) Remained the same__ 3) Decreased__ 88) Don't know__
- B.17 Over the last 5 years, has respect for elders in this community increased, remained the same, or decreased?
 1) Increased__ 2) Remained the same__ 3) Decreased__ 88) Don't know__
- B.18 Over the last 5 years, has sharing with elders increased, remained the same, or decreased?
 1) Increased__ 2) Remained the same__ 3) Decreased__ 88) Don't know__
- B.19 Which of the following best describes the use of language in your home?
 1) Iñupiaq mostly spoken at home__ 2) Yup'ik mostly spoken at home__
 3) Both English and Iñupiaq/Yup'ik spoken at home__ 4) English mostly spoken at home__
 5) Other (describe)_____

**B.20 What languages can each person speak? Inupiaq Yup'ik English Other (specify)
(Record Information on Table 4.)**

B.20.a For each person is it: 1. Fluent 2. Less Fluent 3. Don't Speak 99. Missing/Refused

B.20.b. Do you/they read this(ese) language(s)? 1) yes ____ 2) no ____

B.21 Do you think the use of Inupiaq/Bering Straits Yup'ik in this community will increase, remain the same, or decrease over the next few years?

1. Increase 2. Remain the same 3. Decrease 88. Don't know

B.21.a Can you explain why? _____

Table 4. Language Use (For Recording Information from B.19 & 20)

Reference								
Person #	Relation (Card 1)	Age (Yrs.)	Sex (M/F)	Inupiaq (Fluency)	Yup'ik (Fluency)	English (Fluency)	Other Language (Specify)	Proficiency in Other Language (Fluency)
1	SELF							
2								
3								
4								
5								
6								
7								
8								
9								
10								

Part C. Employment and Income: Now I have a few questions about the effects of development on employment and income on households in the community. [Record the responses to questions C.1 through C.5 in Table 5]

C.1 What is the employment status of each person in the household? [Show Card #6]

C.2 Who does each person currently work for? [Show Card # 7]

C.3 Does the job for each person make full use of their education, training, and ability?

1. Yes___ 2. No___ 88. Don't know___

C.4 Were any adults in the household unemployed in the last 12 months?

1. Yes___ 2. No___ 88. Don't know___

C. 4.a How many months was each adult unemployed?

C.5 For those household members who are unemployed, what is the reason each person is not employed? [Show Card #8]

C.6 What is your estimate of the annual income of this household? (Include wages from a job, dividends from stock in ASRC and/or the village corporation, Permanent Fund dividends, revenues from sale of crafts, etc.) [Show Card #9]

C.7 During the past 5 years, has your household's financial situation been getting better, stayed the same, or getting worse?

1. Getting better___ 2. Stayed the same___ 3. Getting worse___ 88. Don't know___

C.7.1. Can you explain why? _____

C.8 Is your family's **quality of life** (defined as money available, time and ability to subsistence hunt and fish, educational opportunities, job opportunities in the community, relations with others in the community, and so on) better, about the same, or worse than it has been in the past few years?

1. Better___ 2. About the same___ 3. Worse___ 88. Don't know___

C.8.1. Can you explain why? _____

C.9 Will your children's quality of life (**defined in C.8**), when they become adults, be better, about the same, or worse than yours is now?

1. Better___ 2. About the same___ 3. Worse___ 88. Don't know___

C.9.1. Can you explain why? _____

Table 5. Employment (For Recording information from questions C.1 to C.5)

Reference				C.1	C.2	C.3	C.4	C.4a	C.5
Person	Relation	Age	Sex	Employment	Employer	Under-	Unemployed	Unemployed	Why
#	(Card #1)	(Yrs.)	(M/F)	Status	(Card #7)	Employed?	(Y/N)	(Number)	Unemployed?
				(Card #6)		(Y/N)			(Card #8)
1	SELF								
2									
3									
4									
5									
6									
7									
8									
9									
10									

C.10 Do you agree, disagree, or neither agree nor disagree, with the following statement:
 Given our current financial circumstances, my family and I have a good chance of
 improving our quality of life in the future.
 1. Agree__ 2. Neither agree or disagree __ 3. Disagree__ 88. Don't know__
 99. Refused__

C.10.1. Can you explain why? _____

C.11 Have you or any other adult in this household tried to find employment with the oil
 industry in this community? 1. Yes__ 2. No__ 88. Don't know__ 99. Refused__

C.11.a How many members of the household sought employment with the oil
 industry? _____

C.11.1 Did you fill out an employment application for a job? (**Ask only the respondent**)
 1. Yes__ 2. No__ 88. Don't know__

C.11.2 Were you offered a job? 1. Yes__ 2. No__ 88. Don't know__

C.11.3 Did you accept the job? 1. Yes__ 2. No__ 88. Don't know__

C.11.3.a How long did you work/have you worked at that job? _____

C.11.3.b Can you tell me why you left the job, if you did? _____

C.11.4 Could you tell me why you think you did not get the job?

Part D. Health Now. I have some general questions about your health.

D.1 Is your general health excellent, good, fair, or poor?

1. Excellent 2. Good 3. Fair 4. Poor 88. Don't know

D.2 How many days in the last month was your physical health not good because of injury or physical illness? 1. _____ (# days) 88. Don't know __

D.3 During the last month, how many days did poor physical health keep you from doing your usual activities such as self-care, work, hunting or fishing, or recreation?

1. _____ (number of days) 88. Don't know __

D.4 During the last month, how many days did you not get enough rest and sleep?

1. _____ (number of days) 88. Don't know __

D.5 Do you have back problems, or does anyone in the household experience back pain on a regular basis? (**Record Information on Table 6**).

1. Yes__ 2. No__ 88. Don't know__

D.5.a Who has experienced back pain in your household?

D.5.b Can you tell me the cause of each person's back pain?

Table 6. (Recording Information for D.5 & D.5.a and b)

Person #	Reference			Have	Why Back Pain?
	Relationship (Card 1)	Age (Yrs.)	Sex (M/F)	Back Pain (Y/N)	
1	SELF				
2					
3					
4					
5					
6					
7					
8					
9					
10					

Part E. Community Perceptions: Now I have some questions about whether certain things have changed in the community over the last 5 years. These are only selected indicators. If there are other changes you want to tell us about, feel free to do so at the end of the interview.

- E.1 In the last 5 years:
 - E.1.a Has the number of items you can buy at the store (name) 1. increased, 2. stayed the same, or 3. decreased? _____
 - E.1.b Have the prices you pay for food and clothing 1. increased, 2. stayed the same, or 3. decreased? _____
 - E.1.c Have the opportunities for good jobs 1. increased, 2. stayed the same, or 3. decreased? _____
 - E.1.d Has the amount of space in your home 1. increased, 2. stayed the same, or 3. decreased? _____
 - E.1.e Has the cost of your rent or mortgage 1. increased, 2. stayed the same, or 3. decreased? _____
 - E.1.f Has the quality of education at (name of school) 1. increased, 2. stayed the same, or 3. decreased? _____
 - E.1.g Has the number of visitors to _____ 1. increased, 2. stayed the same, or 3. decreased? _____
 - E.1.h Have incidences of drinking, taking drugs, fighting, or stealing in _____

1. increased, 2. stayed the same, or 3. decreased? _____
- E.1.i Has the number of people who support each other in times of need in the village
1. increased, 2. stayed the same, or 3. decreased? _____
- E.1.j Has the number of people sharing with others in the community 1. Increased,
2. Stayed the same, or 3. Decreased? _____
- E.1.k Have relations between Iñupiat and non-Iñupiat 1. improved, 2. stayed the same,
3. worsened, or 88. Don't Know? _____
- E.1.l Has the quality of health care 1. increased, 2. stayed the same, 3. decreased, or 88.
Don't Know? _____
- E.1.m Has the quality of life in this community 1. increased, 2. stayed the same, or
3. decreased? _____
- E.1.n Has the opportunity to participate in whaling 1. increased, 2. stayed the same, or
3. decreased? _____
- E.1.o Has the quality of services such as protection of hunting and fishing areas
1. increased, 2. stayed the same, or 3. decreased? _____
- E.1.p Has this village as a place to live 1. improved, 2. stayed the same, or 3. become
worse? _____

E.2 Using **Card # 10** please identify the three most important problems in _____ that
have to be addressed in the coming year, the most important one first. Is there an
important problem not on the list?

Most important _____	Organization to deal with it _____
2 nd most important _____	Organization to deal with it _____
3 rd most important _____	Organization to deal with it _____
Other _____	Name of other organization _____

E.3 Which organizations listed on **Card # 11** would do the best job in dealing with these
problems? [**Record responses with answers to E.2**]

E.4 Which organization on **Card #11** is doing the best job in managing oil and gas issues?

E.5 Which organization on **Card #11** is doing the worst job in managing oil and gas issues?

E.6 Do you have a great chance, some, or no chance at all of influencing how things are done
in your community?

1. Great chance ___ 2. Some chance ___ 3. No chance ___ 88. Don't know ___

E.7 Do you have a great chance, some chance, or no chance at all of influencing development
projects that potentially affect your community?

1. Great chance ___ 2. Some chance ___ 3. No chance ___ 88. Don't know ___

Thank you for your time and consideration in answering these questions. I have no further
questions. Do you have any questions for me?

**HOUSEHOLD SURVEY CODING
OF OPEN ENDED QUESTIONS**

HOUSEHOLD SURVEY CODING OF OPEN ENDED QUESTIONS

Coding of Open Ended Questions

Open ended questions in the whaling captain, household, and student surveys were coded or categorized to insure the following: (1) that the codes are meaningful or match the purposes of the research, i.e., to increase our understanding of the attitudes and views of North Slope Borough residents toward offshore oil development; (2) that the codes are **inclusive** or to make sure every observation is counted; and, (3) that the codes are **exclusive**, that every response fits in only one category. If a respondent states more than one variable or explanation the first one mentioned is used.

Household Survey

Questions B3, B4, and B5:

B.3. Over the last 5 years, has the distance you have to travel to hunt, fish, and gather subsistence resources changed? If so, how has it changed? (Explanation for change)

B.4. Over the last 5 years, has the number of trips you need to make to be successful when you hunt, fish, and gather changed? If so, how has it changed? (Explanation for change)

B.5. Are there areas you used to go to hunt and/or fish 5 years ago that you do not use now? Can you explain why?

Codes:

1. Individual explanations*
2. Animal Behavior**
3. Human influences (general developmental activities)
4. Environmental Explanations***
5. Effects of Oil development

*Too old, ill, disabled

**Changes in animal behavior without elaboration

***Warmer climate, change in ice conditions

B.6. How has each of the subsistence resources listed on this card (#4) changed in the last 5 years?

B.6a. If not the same can you tell me why the change has occurred?

Coded for each subsistence resource:

Whales	1. Animal Behavior
	2. Human Influences
	3. Environmental Explanations
	4. Effects of Oil Development
	5. Change without Explanation
Other Whales	1. Animal Behavior
	2. Human Influences
	3. Environmental Explanations
	4. Effects of Oil Development
	5. Change without Explanation
Caribou	1. Animal Behavior
	2. Human Influences
	3. Environmental Explanations
	4. Effects of Oil Development
	5. Change without Explanation
Moose	1. Animal Behavior
	2. Human Influences
	3. Environmental Explanations
	4. Effects of Oil Development
	5. Change without Explanation
Oogruk	1. Animal Behavior
	2. Human Influences
	3. Environmental Explanations
	4. Effects of Oil Development
	5. Change without Explanation
Other Seals	1. Animal Behavior
	2. Human Influences
	3. Environmental Explanations
	4. Effects of Oil Development
	5. Change without Explanation
Walrus	1. Animal Behavior
	2. Human Influences
	3. Environmental Explanations
	4. Effects of Oil Development
	5. Change without Explanation

Bear	<ol style="list-style-type: none"> 1. Animal Behavior 2. Human Influences 3. Environmental Explanations 4. Effects of Oil Development 5. Change without Explanation
Birds	<ol style="list-style-type: none"> 1. Animal Behavior 2. Human Influences 3. Environmental Explanations 4. Effects of Oil Development 5. Change without Explanation
Fish	<ol style="list-style-type: none"> 1. Animal Behavior 2. Human Influences 3. Environmental Explanations 4. Effects of Oil Development 5. Change without Explanation
Fur Bearers	<ol style="list-style-type: none"> 1. Animal Behavior 2. Human Influences 3. Environmental Explanations 4. Effects of Oil Development 5. Change without Explanation
Berries/plants	<ol style="list-style-type: none"> 1. Animal Behavior 2. Human Influences 3. Environmental Explanations 4. Effects of Oil Development 5. Change without Explanation

B.8.a Why did you purchase these foods?

1. Poor Hunting
2. Part of Diet
3. Preference
4. Other Reasons

B.21.a Can you explain why the use of Iñupiaq/Bering Straits Yup'ik in this community will increase, remain the same, or decrease over the next five years?

1. Negative Western Influences (e.g., television, videogames)
2. Language Instruction and Education
3. Language Use
4. Observation without Comment
5. Traditional elders, parents

C.7.1 Can you explain why the financial situation of your household has changed in the last five years?

1. Employment
2. Changes in Income
3. Expenses or debts
4. Family size
5. Health Problems

C.8.1 Can you explain why your family's quality of life has changed in the past few years?

1. Personal circumstances
2. Subsistence
3. Employment issues
4. Impersonal commentary

C.9.1. Can you explain why your children's future quality of life will improve, worsen, or stay the same?

1. Economic Conditions
2. Education
3. Iñupiat/Yup'ik Traditions and Culture
4. Family and initiative

C.10.1 Can you explain why you think your family's future quality of life will change or remain the same?

1. Economic possibilities
2. Personal optimism
3. Education and Technology
4. Iñupiat/Yup'ik Cultural Traditions

C.11.3.b Can you tell me why you left the job with the oil industry?

1. Dissatisfaction
2. Health or accident
3. Other employment opportunity

C.11.4 Can you tell me why you did not get a job with the oil industry?

1. Still waiting
2. Not qualified
3. Another job or problem
4. Don't know

D.5.b Can you tell me the reason for each person's back pain?

1. Work related
2. Subsistence activities
3. Other Accident
4. Disease
5. Other (age, child rearing, weight, spousal abuse)

E.2. Other Organizations and/or Relationships in Addressing Important Local Problems?

1. Arctic Slope Native Association
2. All Organizations Working Together
3. Include Family and the Community
4. Other

Coded responses for open-ended questions in Student Survey

B.3. What are your educational and employment expectations and goals?

1. College
2. Vocational Training
3. No Mention of Education
4. Specific Employment Occupation or Activity
 - a. Plan to Leave Community
 - b. Plan to Return to Community

C.1.a What bowhead whaling activities have you participated in?

1. Crewmember (General)
2. Crewmember (Specific job e.g., striker, lookout, shooter)
3. Fill-in for Crew

C.1.b Could you tell me why you did not participate in bowhead whaling activities?

1. Not Allowed
2. Choice
3. No opportunity

C.7.a Can you tell me why the amount of fish and wildlife has increased, stayed the same, or decreased in the last five years?

1. Pollution
2. Climate Change
3. Restrictions
4. Don't Know

C.8.a Can you tell me why the amount of fish and wildlife may change in the next five years?

1. Government Restrictions
2. Overhunting
3. Increased numbers
4. Hope without Explanation

E.4.a Can you explain why your household is better off, the same, or worse off financially than five years ago?

1. Employment Reasons
2. Changes in Income
3. Expenses or Debts
4. Family Size
5. Don't Know

E.5.a Why do you think your household will be better off, the same, or worse off financially in five years?

1. Employment Reasons
2. Changes in Income
3. Expenses or Debts
4. Family Size
5. Don't Know

F.1.a Amount of subsistence activities

1. Wish to do more
2. Satisfied with quantity
3. Enjoy
4. Help support family
5. Tradition/knowledge

F.2.a Respect for elders

1. I help them
2. They earned it
3. I do/do not respect them
4. Wish could help more
5. Other

F.3.a Ability to speak Iñupiaq/Yup'ik

1. Desire to learn
2. Not needed
3. Quantity of knowledge
4. Other

F.4.a How person handles problems

1. Solve with friends, family
2. Solve alone
3. Don't have large problems
4. Learned to deal with problems
5. Other

F.5.a Amount of respect from others

1. Reciprocated
2. My actions
3. Am/not respected
4. Uncontrollable
5. Other

F.6.a Accomplishments in life

1. Accomplished/goals
2. Personal change
3. School
4. Jobs

F.7.a Educational preparation for life in community

1. Quality
2. Different classes
3. Culture/tradition/community
4. Teachers
5. Other

F.8.a Employment opportunities

1. Quantity of jobs
2. Economic change
3. Uncontrollable
4. Personal
5. Other

F.9.a Feelings about non-residents, non-Iñupiat

1. Take money/jobs
2. Quantity
3. They deserve it
4. Help us
5. Not bothered
6. Other

F.10.a Importance of maintaining Iñupiat/Bering Straits traditional activities

1. Desire
2. Activities
3. Pessimism/problem
4. Youth/elders
5. Other

F.11.a Oil and gas development in area

1. Environment
2. Money
3. Acceptable with restrictions
4. Want animals and money
5. Oil accidents
6. Other

F.12.a Feelings about one's life

1. School
2. Family and friends
3. Personal
4. Goals
5. Other

F.13.a Future plans

1. Graduate
2. Get a job

F.14.a Plans after graduating from high school

1. Go to college
2. Work in community
3. Work outside
4. Go to Vocational-Technical schools
5. Other

HOUSEHOLD SURVEY FLASH CARDS

Flash Response Cards for the Household Survey

Card #1: Relationships (A.2 through A.9)

1. Respondent
2. Spouse
3. Child
4. Parent
5. Parent-in-law
6. Son-in-law
7. Daughter-in-law
8. Grandchild
9. Grandparent
99. Missing/Refused

Card #2: Formal Education (A.6)

1. No Formal Education
2. Elementary School
3. Middle School
4. High School/GED
5. VOC/Tech Graduate
6. Some College
7. Baccalaureate Degree
8. Master's Degree
9. Professional Degree
88. Don't Know
99. Missing/Refused

Card #3: Subsistence Activities (B.2)

1. Work on Spring Whaling Crew
2. Work on Fall Whaling Crew
3. Sew Skins, Make Clothing
4. Make Sleds or Boats
5. Cooking, Cutting Meat, Giving Money/Supplies
6. Hunt Land Mammals
7. Hunt Sea Mammals (Other than Bowhead Whales)
8. Trap
9. Fish
10. Hunt Waterfowl, Gather Eggs
11. Pick Berries and Plants
12. Other (Explain)

Card #4: Resources (B.6)

1. Bowhead Whales
2. Other Whales
3. Caribou
4. Moose
5. Sheep
6. Oogruk
7. Other Seals
8. Walrus
9. Bear
10. Waterfowl (Birds)
11. Fish
12. Fur Bearers (Animals Trapped)
13. Berries/Plants

Response Scale

- 1) Increased 2) Remained the same 3) Decreased 88) Don't know

Card #5: Responses for Household Questions (B.7 through B.10)

1. None
2. About a Quarter
3. About Half
4. About Three Quarters
5. Almost All
6. All
88. Don't Know
99. Missing/Refused

Card #6: Employment Status (C.1)

1. Permanent/Full-time
2. Temporary/Seasonal
3. Part-time
4. Job Sharing
5. Unemployed
6. Retired
7. Other (Student, Homemaker)
88. Don't Know
99. Missing/Refused

Card #7: Employers (C.2)

1. Federal Government
2. Oil Industry
3. Private Firm
4. State Government
5. Regional Corp/Subsidiary
6. NSB CIP
7. City Government
8. NSB Government
9. NSBSD/REAA
10. Village Corp/Subsidiary
11. Tribal/IRA Council
12. Regional Non-Profit
13. Self-Employed
14. Other
88. Don't Know
99. Missing/Refused

Card #8: Unemployment Reasons (C.5)

1. Does not want a job
2. Could not find a job
3. Disability
4. Poor health
5. Taking courses/training
6. Conflict with subsistence activities
7. Other
8. Don't know

Card #9: Household Income (C.6)

1. Less than \$15,000
2. \$15,000 to \$29,999
3. \$30,000 to \$59,999
4. \$60,000 to \$99,999
5. \$100,000 to \$149,999
6. \$150,000 to \$199,999
7. \$200,000 and Above
88. Don't Know
99. Missing/Refused

Card #10: Important Problems (E.2)

1. Improve Schools
2. Provide Jobs
3. Protect Land & Subsistence Resources
4. Improve Health Services
5. Deal with Alcohol and Drug Problems
6. Take Care of Elders
7. Control Behavior (Abuse or Violence)
8. Improve Sewer and Water Facilities
9. Provide Adequate Housing
10. Provide Affordable Child Care
11. Vandalism
12. Regulation of Subsistence Resources
13. Bowhead Quotas
14. Access to Traditional Fishing Places
15. Access to Traditional Hunting Places
16. Provide Traditional Education to Children
17. Other (Explain)
88. Don't Know
99. Missing/Refused

Card #11: Organizations Addressing Problems (E.3 through E.5)

1. State Government
2. Federal Government
3. Arctic Slope Regional Corporation
4. North Slope Borough Government
5. City Government
6. Village Corporation
7. IRA/Traditional Council (Native Village)
8. NSBSD/Bering Straits REAA
9. Oil Companies
10. Other
88. Don't Know
99. Missing/Refused

WHALING CAPTAIN SURVEY

**Development and Participation in Bowhead Whaling
WHALING CAPTAIN SURVEY**

Hello, My name is (_____). I work with a research team that is visiting (_____) to gather survey data about the effects of development on rural Alaskan communities, especially how oil production may affect bowhead whaling and other traditional activities, as well as local employment, household economics, and social relationships.

The study is supported by the Alaska Eskimo Whaling Commission (AEWC) and the North Slope Borough. It is paid for by the U.S. Minerals Management Service (MMS) and is carried out by a research firm named EDAW. The study will be finished next year and the results presented to participating communities.

The **Paperwork Reduction Act** of 1995 (44 U.S.C. 3501 et seq.) requires us to inform you that we collect this information to assess, mitigate, and monitor the impacts of Outer Continental Shelf oil and natural gas industry activity on Bowhead whale hunting activities of local communities. The MMS will use the information in many future decision making efforts. The interview takes about 50 minutes and we will compensate you for your time [\$50 for whaling captains]. Responses are voluntary, but your participation is very important. Requests for confidential information have been minimized and we will safeguard your privacy. Please understand that an agency may not conduct a collection of information unless it displays a currently valid OMB (federal government) control number. The OMB has approved this survey and assigned OMB Control Number 1010-0158, with an expiration date of 3-31-2007. You may send direct comments regarding the time burden estimate or any other aspect of this survey to the Information Collection Clearance Officer, Minerals Management Service, Mail Stop 4230, 1849 C Street, NW, Washington, DC 20240.

Do you have any questions before we begin?

Community			
Date of Interview		Refusal (check)	
Sequence Number			
Household I.D.			
Surveyor			

I would like to start out by asking some information about you.

PART A: Demographics

I would like to start out by asking some information about you.

PART A: Demographics (Responses A.2 to A.10 on Table 1)

- A.1 How many people live in this household?
- A.2 How is each person related to you? (show Card #1)
- A.3 What is the age of each person?
- A.4 How do you identify yourself?
1. Iñupiat__ 2. Bering Straits Yup'ik__ 3. Other Alaska Native__
4. Non-Alaska Native __
- A.5 Are they male or female? 1) Male 2) Female
- A.6 What is the highest level of education that each individual has completed (Show Card #2)?
- A.7 How many years has each individual lived in this community?
- A.8. Do you have any children? 1. Yes 2. No
- A.8.a Are any of your children active on your whaling crew? 1. Yes__ 2. No__
- A.8.b How many are on your whaling crew? 1. Number_____
- A.8.c How old are they now? (Ages)_____
- A.8.c.i How old were they when they first became crew members?
Ages_____
- A.9 What village corporation are you/they a member of? _____
- A.10 What regional profit corporation are you a member of? _____

Table I. Demographics

A.1	A.2	A.3	A.4	A.4.1.	A.5	A.6	A.7	A.8	A.8	A.9
Person #	Relation	Age	Ethnicity	Other Ethn.	Sex	Educ.	Yrs Res.	Children	Village	Regional
	(Card 1)	(Yrs.)		(Specify)	(M/F)	(Card 2)	(Yrs.)	Crew	Corp	Corp
1	SELF									
2										
3										
4										
5										
6										
7										
8										
9										
10										

PART B: Employment and Income. Now I have a few questions about the affects of development on employment and income for households in the community (Record responses to questions B.1 to B.5 in Table 2 Employment and Income).

B.1 What is the employment status for each person in the household ? (Show Card #3)

B.2 Who does each employed person work for? (Show Card #4)

B.3 Were any adults in the household unemployed in the last 12 months?

1) Yes 2) No 8) Don't Know

B.3.a. How many months was each person unemployed?

B.4 For those household members who are unemployed, what is the reason each person is not employed? (Show Card #5)

Table 2. Employment

Reference				C.1	C.2	C.4	C.4a	C.5
				Employment			Months	Why
Person	Relation	Age	Sex	Status	Employer	Unemployed	Unemployed	Unemployed?
#	(Card 1)	(Yrs.)	(M/F)	(Card #3)	(Card #4)	(Y/N)	(Number)	(Card #5)
1	SELF							
2								
3								
4								
5								
6								
7								
8								
9								
10								

B.1 In terms of your job, which statement is most accurate? You are *very happy* and would not take another job if offered, you *like the job, but would take another* if offered, you are *minimally satisfied* with the job, you *do not like the job* and would take another if available, or you strongly dislike the job and are actively *looking for another job*?

1. Very Happy___ 2. Like the job, but would take another___ 3. Minimally satisfied ___
 4. Do not like the job___ 5. Looking for another job___ 88. Don't know___

B.1.a Can you tell me why? _____

B.2 What is your estimate of the annual income of this household? (Show Card #6)

B.3 During the past 5 years, is your household's financial situation been getting better, getting worse, or has it stayed the same?

- 1) Getting better 2) Stayed the same 3) Getting worse 4) Don't know

B.3.1 Can you explain why?

PART C: Participation in Bowhead Whaling. Now I would like to ask you some questions about whaling.

C.1 How many years all together have you been on a whaling crew?

1. Number of years ___ 88. Don't know ___

C.2 How many years have you been captain of your own whaling crew?

1. Number of years ___

C.2.a Are you a captain of a whaling crew this year? 1) Yes 2) No

C.2.b If no, what was the last year that you were a captain? _____ 88) Don't know

C.3 How many people are on your crew now? 1. Number of people___

C.3.a Has this number changed in the last 5 years?

1. Yes___ 2. No___ 88. Don't know___

C.3.a.i Can you tell me what changes have happened?

C.3.a.ii Can you tell me why these changes have happened?

C.4 During the past 5 years has the number of bowhead whales struck and landed by crews in this community increased, remained the same, or decreased?

1. Increased___ 2. Remained the same___ 3. Decreased___ 88. Don't know___

C.4.a Can you tell me all the reasons for this change?

C.5 Do you participate in fall whaling? 1. Yes___ 2. No___

C.5.a How have the fall migration paths of bowhead whales changed over the past 5 years? Have they *changed significantly* or have they *remained essentially the same* as they have been for years?

1. Changed significantly___ 2. Remained essentially the same___ 88. Don't know___

C.5.b Can you tell me all the reasons for changes in their migration paths?

C.6 Do you participate in spring whaling ? 1. Yes___ 2. No___

C.6.a How have the spring migration paths of bowhead whales changed over the past 5 years: Have they *changed significantly* or have they *remained essentially the same* as they have been for years?

1. Changed significantly___ 2. Remained essentially the same___ 88. Don't know___

C.6.b Can you tell me all the reasons for changes in their migration paths?

C.7 Over the last 5 years, have whalers had to change their hunting strategies in order to be successful? 1. Yes__ 2. No__ 88. Don't know__

C.7.a Please explain all the changes that have occurred.

C.7.b Why have these changes occurred?

C.8 Over the last 5 years, have whaling crews seen more, the same number, or fewer whales than they had expected?

1. More__ 2. Same number__ 3. Fewer__ 88. Don't know__

C.8.a Please explain all the reasons this change has occurred.

C.9 Over the past 5 years, would you say that the number of whaling crews in this village has increased, remained the same, or decreased?

1. Increased__ 2. Remained the same __ 3. Decreased__ 88. Don't know__

C.9.a Can you tell me the reasons for this change?

C.9.b Has this change had any negative or positive effects on your ability to recruit and retain crew members? **(Probe for possible effects like instability of crews, relations between crew members, more cooperation/sharing or more competition between crews)**

C.10 Over the past 5 years, would you say that putting a crew together has become easier than in the past, about the same, or harder than in the past?

1. Easier __ 2. About the same__ 3. Harder __ 88. Don't know__

C.10.a Can you tell me the reasons for this change?

C.11 Can you estimate the amount of money you spent in the last year to prepare for a bowhead hunt?
****Explain that this includes preparing the umiak, outfitting crew members, costs of food and equipment while on the ice, costs of purchasing or repairing snow machines, loss of employment salary where applicable, costs of new power boats for fall whaling, providing extras such as crew jackets, the costs of Naluqataq, and so on. [Show Card #2]**

C.12 Is the amount you spent in this last year more, about the same, or less than what you usually expect to pay?
1. More than usual___ 2. Same as usual ___ 3. Less than usual ___ 88. Don't know___

C.12.a Please explain any difference in cost: _____

C.13 In the next 5 years, do you expect that crews from this village will be more successful, about the same, or less successful than usual?
1. More successful ___ 2. About the same___ 3. Less successful___ 88. Don't know___

C.13.a Can you tell me why? _____

C.14 In the next 5 years, do you expect that younger people in _____ will see bowhead whaling as more important, about the same or less important than it is now?
a. More important__ b. About the same__ c. Less important 88. Don't know__

C.14.a Can you tell me why? _____

PART D: Subsistence and cultural activities other than whaling. Now I would like to ask some questions about your other subsistence and cultural activities. **(Refer to spread sheet below/Check all that apply)**

D.1. During the last 12 months did you attempt to harvest the following resources?

B.1.a What Land Mammals have you Hunted?	Bison <input type="checkbox"/>	Black Bear <input type="checkbox"/>	Brown Bear <input type="checkbox"/>	Caribou <input type="checkbox"/>	Goat <input type="checkbox"/>
	Lynx <input type="checkbox"/>	Porcupine <input type="checkbox"/>	Squirrel <input type="checkbox"/>	Wolf <input type="checkbox"/>	Wolverine <input type="checkbox"/>
	Beaver <input type="checkbox"/>	Coyote <input type="checkbox"/>	Fox <input type="checkbox"/>	Hare <input type="checkbox"/>	Sheep <input type="checkbox"/>
B.1.b What animals have you trapped?					Moose <input type="checkbox"/>
	Beaver <input type="checkbox"/>	Coyote <input type="checkbox"/>	Fox <input type="checkbox"/>	Hare <input type="checkbox"/>	Lynx <input type="checkbox"/>
	Wolf <input type="checkbox"/>	Wolverine <input type="checkbox"/>	Otter <input type="checkbox"/>	Marten <input type="checkbox"/>	Marmot <input type="checkbox"/>
B.1.c What marine Mammals have you hunted?	Mink <input type="checkbox"/>	Muskrat <input type="checkbox"/>	Weasel <input type="checkbox"/>		
	Polar Bear <input type="checkbox"/>	Oogruk <input type="checkbox"/>	Ribbon Seal <input type="checkbox"/>	Spotted Seal <input type="checkbox"/>	Walrus <input type="checkbox"/>
		Gray Whale <input type="checkbox"/>	Beluga <input type="checkbox"/>	Minke Whale <input type="checkbox"/>	Bowhead <input type="checkbox"/>
B.1.d What fish have you fished for?					
	Char <input type="checkbox"/>	Grayling <input type="checkbox"/>	Herring <input type="checkbox"/>	Pike <input type="checkbox"/>	Salmon <input type="checkbox"/>
	White Fish <input type="checkbox"/>	Trout <input type="checkbox"/>	Sheefish <input type="checkbox"/>		
B.1.e What birds hunted or eggs Collected?					
	Ducks <input type="checkbox"/>	Geese <input type="checkbox"/>	Swans <input type="checkbox"/>	Crane <input type="checkbox"/>	Shore birds <input type="checkbox"/>
	Other Birds <input type="checkbox"/>	Geese Eggs <input type="checkbox"/>	Shorebird Eggs <input type="checkbox"/>	Other Eggs <input type="checkbox"/>	Duck Eggs <input type="checkbox"/>
B.1.f What plants harvested?					
	Berries <input type="checkbox"/>	Plants <input type="checkbox"/>	Wood <input type="checkbox"/>		
B.1.g What crafts made or sold?					
	Craft #1:	Craft # 2	Craft # 3	Craft # 4	Craft # 5
B.1.h What marine in-vertebrates harvested?					Other Marine
	Clams <input type="checkbox"/>	Crabs <input type="checkbox"/>	Mussels <input type="checkbox"/>	Shrimp <input type="checkbox"/>	Invertebrates <input type="checkbox"/>

For each resource category where R indicated a positive response, ask:

D.2 For each category where you gave a positive response, could you tell me who participated with you in each subsistence activity category? A member of your whaling crew? More than one member of your whaling crew? Other household members? Relative in another household? Friend in another household? Others? (If so please specify) **[Mark all responses in Table #1 for questions D.2 through D.4]**

D.3 Compared to the last 5 years, was the number of times you participated in each activity:
1) Less than before__ 2) Same as before__ 3) More than before__ 88) Don't know__

D.4 Can you tell me why your participation has changed?

Table 1. Subsistence Activities

Resource Category	D.2. Who?	D.3. Participation	D.4. Explanation
Land Mammals			
Animals Trapped			
Fish			
Birds/Eggs			
Plants			
Marine Invertebrates			

D.5 During the last 5 years, would you say that the amount of fish and wildlife around **(Community)** that can be harvested has increased, stayed the same, or decreased?

1) Increased__ 2) Stayed the Same__ 3) Decreased__ 88) Don't know__ 99) Refused__

D.5.a Can you tell me why? _____

D.5.b Has your personal harvest of fish and wildlife around _____ increased, stayed the same, or decreased over the past 5 years?

1) Increased__ 2) Stayed the same__ 3) Decreased__ 88) Don't know__

D.6 Do you think that 5 years from now the amount of fish and wildlife to harvest will increase, stay the same, or decrease?

1) Increase__ 2) Stay the same__ 3) Decrease__ 88) Don't know__

D.6.a Can you tell me why?

D.7 During the last 12 months, how much of your household's subsistence food came from hunting, fishing, and gathering activities by you or members of your household? **(Show Card #3)**

1) None__ 2) About a Quarter__ 3) About Half__ 4) About Three Quarters __
 5) Almost all__ 88) Don't know__

D.8 During the last year, how much of your household's subsistence food came from the harvests of others (family and friends in this village or from another village)? **(Show Card #3)**

1) None__ 2) About a Quarter__ 3) About Half__ 4) About Three Quarters __
 5) Almost all__ 88) Don't know__

D.9 During the last year, how much of your household's subsistence harvests (meat, fish, birds, berries) did you give away to friends and relatives? **(Show Card #3)**

1) None__ 2) About a Quarter__ 3) About Half__ 4) About Three Quarters __
 5) Almost all__ 88) Don't know__

- D.10 Has the amount of subsistence resources, money, and labor exchanged through trade and barter between individuals and families in the last 5 years increased, remained the same, or decreased?
 1) Increased ___ 2) Remained the same ___ 3) Decreased ___ 88) Don't know ___
- D.11 In the last 2 days, how many meals did you eat with a relative in another household?
 1) None___ 2) 1___ 3) 2 ___ 4) 3-4 ___ 5) 5 or more ___ 88) Don't know___
- D.12 During the last week, how often would you say you visited with friends or relatives?
 1) No time___ 2) 1-2 times___ 3) 3-4 times___ 4) 5 or more times ___ 88) Don't know___
- D.13 Over the last 5 years, would you say the influence of elders in the village has increased, stayed the same, or decreased?
 1) Increased___ 2) Stayed the same___ 3) Decreased___ 88) Don't know___
- D.14 Over the last 5 years, would you say that visiting with elders has increased, stayed the same, or decreased?
 1) Increased___ 2) Stayed the same___ 3) Decreased___ 88) Don't know___
- D.15 During the last 5 years, would you say that sharing with elders has increased, stayed the same, or decreased?
 1) Increased___ 2) Stayed the same___ 3) Decreased___ 88) Don't know___
- D.16 Over the last 5 years, has respect for elders in this community increased, stayed the same, or decreased?
 1) Increased___ 2) Stayed the same___ 3) Decreased___ 88) Don't know___
- D.17 Which of the following best describes the use of language in your home?
 1) Iñupiaq mostly spoken at home___ 2) Yup'ik mostly spoken at home___
 3) Both English and Iñupiaq/Yup'ik spoken at home___ 4) English mostly spoken at home___
 5) Other (describe)_____
- D.18 What languages can each person speak? Iñupiaq, Yupik, English, Other (specify) (**Record Information on Table 2.**)
- D.18.a For each person is it: 1. Fluent 2. Less Fluent 3. Don't speak 99. Missing/refused
- D.18.b Do you/they read this(ese) language(s)? 1) yes _____ 2) no _____
- D.19 Do you think the use of Iñupiaq/Bering Straits Yup'ik in this community will increase, stay the same, or decrease over the next few years?
 1. Increase 2. Stay the same 3. Decrease 88. Don't know
- D.19.a Can you explain why? _____

Table 2. Language Use

Reference								Proficiency
Person	Relation	Age	Sex	Iñupiaq	Yup'ik	English	Other Language	in Other Language
#	(Card 1)	(Yrs.)	(M/F)	(Fluency)	(Fluency)	(Fluency)	(Specify)	(Fluency)
1	SELF							
2								
3								
4								
5								
6								
7								
8								

PART E: Community Perceptions. Now I have some questions about whether certain things have changed in _____ over the last 5 years. These are only selected indicators. If there are other changes you want to tell us about feel free to do so at the end of the interview. If you wish please explain your choices.

E.1 In the last 5 years:

E.1a Do you think the amount of respect you get from others has 1. increased, 2. stayed the same, or 3. decreased? _____

E.1b Do you think the amount of respect whaling captains generally get from people in this community has 1. increased, 2. stayed the same, or 3. decreased? _____

E.1c Have the opportunities for good jobs 1. increased, 2. stayed the same, or 3. decreased? _____

E.1d Has the impact of oil and gas development on aspects of the community such as Iñupiaq language, traditional activities, and subsistence been 1. positive, 2. neutral, or 3. negative? _____

E.1e Have relations between Iñupiat (Bering Straits Yup'ik) and non-Iñupiat (Bering Straits Yup'ik) 1. improved, 2. stayed the same, or 3. worsened? _____

E.1f Is maintaining Iñupiaq (North Slope) and Bering Straits Yup'ik (in Savoonga) traditional activities 1. important, 2. neither important or unimportant, or 3. unimportant. _____

E.1g Do you think the participation of young people in cultural activities like Naluqataq is 1. growing, 2. staying the same, or 3. diminishing? _____

E.1h In the next 5 years, do you expect young people will be involved in cultural activities like Naluqataq 1. more than they do now, 2. about the same, or 3. less than they do now? _____

E.1i Do you think offshore oil and gas development in the Beaufort Sea (North Slope) or Bering Straits (Savoonga) is 1. good, 2. equally good and bad, or 3. bad? _____

E.1j Do you think people in _____ have the capability to influence **onshore** oil and gas development? 1. yes, 2. no opinion, or 3. no. _____

E.1k Do you think people in _____ have the capability to influence **offshore** oil and gas development? 1. yes, 2. no opinion, or 3. no. _____

E.1l Please tell me if you agree or disagree with the following statement: "It is possible to have oil drilling in offshore coastal areas and at the same time provide adequate safeguards to protect the environment and important cultural activities."
1. agree, 2. no opinion, or 3. disagree. _____

F. Health Now. I have some general questions about health in this community.

- F.1 Is your general health excellent, good, fair, or poor? 1. Excellent 2. Good 3. Fair 4. Poor 88. Don't know
- F.2 How many days in the last month was your physical health not good because of injury or physical illness? ____ (days) 88. Don't know
- F.3 During the last month, how many days did poor physical health keep you from doing your usual activities such as self-care, work, hunting or fishing, or recreation? ____ (days) 88. Don't know
- F.4 During the last month, how many days did you not get enough rest and sleep? ____ (days) 88. Don't know
- F.5 Do you have back problems, or does anyone in the household experience back pain on a regular basis? **(Record information on Table 3)**
- F.5.a Who has experienced back pain in your household?
- F.5.b Can you tell me the cause of each persons back pain?

Table 3. (Recording information for F.5 and F.5 a & b)

Reference				Have	Why Back Pain?
Person #	Relationship	Age	Sex	Back Pain	
	(Card 1)	(Yrs.)	(M/F)	(Y/N)	
1	SELF				
2					
3					
4					
5					
6					
7					
8					

Thank you for answering our questions. Do you have any questions for me?

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**WHALING CAPTAIN SURVEY CODING
OF OPEN ENDED QUESTIONS**

WHALING CAPTAIN SURVEY CODING OF OPEN ENDED QUESTIONS

Open ended questions in the whaling captain, household, and student surveys were coded or categorized to insure the following: (1) that the codes are meaningful or match the purposes of the research, i.e., to increase our understanding of the attitudes and views of North Slope Borough residents toward offshore oil development; (2) that the codes are **inclusive** or to make sure every observation is counted; and, (3) that the codes are **exclusive**, that every response fits in only one category. If a respondent states more than one variable or explanation the first one mentioned is used.

Whaling Captain Survey

B.3.a Can you tell me why you like or dislike your job?

1. Helping Others
2. Responsibilities
3. Rate of Pay
4. Stress or Not Enough Work
5. Comment without Elaboration

C.4.a What are the reasons for changes in Bowhead Whales struck in the last 5 years?

1. Crews/Leadership
2. Technological Changes/Quota
3. Climate Change/Weather
4. Developmental Activities
5. Oil-Gas Activities

C.5.b What are the reasons for changes in Fall Bowhead Migration patterns in the last 5 years?

1. Development Activities: Oil & Gas
2. Climate: Weather & Ice Conditions
3. General Human Development
4. Observation without Comment

C.6.b What are the reasons for changes in Spring Bowhead Migration patterns in the last 5 years?

1. Development Activities: Oil & Gas
2. Climate: Weather & Ice Conditions
3. General Human Development
4. Observation without Comment

C.7.a Types of changes in hunting strategies?

1. Technological
2. Timing
3. Distances
4. Location

C.7.b Why have hunting strategies changed?

1. Oil Activities
2. Climate Change
3. Human Development
4. Observation without Comment

C.8.a Why have there been changes in the number of whales seen and expected?

1. Oil Activities
2. Climate Change
3. Human Development
4. Observation without Comment

C.9.a Why have there been changes in the number of whaling crews?

1. Population Fluctuations
2. Economic Considerations
3. Personal/Family Matters

C.10.a Why have there been changes in organizing whaling crews?

1. Easier/Economic Factors
2. Harder/Economic Factors
3. Easier/Family-Crew Factors
4. Harder/Family-Crew Factors

C.13.a What are your reasons for why you think whaling conditions will stay the same or change in the future?

1. Cannot Predict Future
2. Depends on Climate
3. Depends on Development
4. Depends on Whale Behavior

D.4.a Why has your participation in hunting land mammals changed in the last 5 years?

1. Individual Explanations
2. Animal Behavior
3. Human Influences
4. Environmental Explanations
5. Effects of Oil Development
6. Observation without Comment

D.4.b Why has your participation in hunting marine mammals changed in the last 5 years?

1. Individual Explanations
2. Animal Behavior
3. Human Influences
4. Environmental Explanations
5. Effects of Oil Development
6. Observation without Comment

D.4.c Why has your participation in fishing changed in the last 5 years?

1. Individual Explanations
2. Animal Behavior
3. Human Influences
4. Environmental Explanations
5. Effects of Oil Development
6. Observation without Comment

D.4.d. Why has your participation in bird hunting changed in the last 5 years?

1. Individual Explanations
2. Animal Behavior
3. Human Influences
4. Environmental Explanations
5. Effects of Oil Development
6. Observation without Comment

D.4.e. Why has your participation in gathering changed in the last 5 years?

1. Human Influences
2. Environmental Explanations
3. Observations without Comment

D. 5a Why are there changes in Fish and Wildlife Available for Harvest?

1. Human Influences
2. Environmental Explanations
3. Effects of Oil Development
4. Observation without Comments

D.6.a Why there will be future changes in availability of fish and wildlife.

1. Subsistence/Tradition
2. Government Policies
3. Human Development
4. Environmental Explanations
5. Effects of Oil Development
6. Cannot Know Future
7. Animal Behavior

D.19.a Why will there be changes in the use of Iñupiaq/Bering StraitsYup'ik in the future?

1. Observation without Comment
2. Schools/Technology
3. Language Usage
4. Tradition/Elders

WHALING CAPTAIN SURVEY FLASH CARDS

Flash Response Cards for the Whaling Captain Survey

PART A: DEMOGRAPHICS

Card #1: Relationship to Whaling Captain

1. Respondent
2. Spouse/Significant Other
3. Father
4. Mother
5. Mother-in-law
6. Father-in-law
7. Son
8. Daughter
9. Grand Son
10. Grand Daughter
11. Great Grandson
12. Great Granddaughter
13. Brother
14. Sister
15. Foster Son, Official
16. Foster Daughter, Official
17. Foster Son, Informal
18. Foster Daughter, Informal
19. Sister's Son
20. Sister's Daughter
21. Brother's Son
22. Brother's Daughter
23. Spouse's Son
24. Spouse's Daughter
25. Spouse's Brother
26. Spouse's Sister
27. Stepfather
28. Stepmother
29. Adopted Son
30. Adopted Daughter
31. Partner/Spouse of household
32. Sister's daughter's son
33. Friend
34. Brother's Spouse
35. Sister's Spouse
36. Spouse's Sister's Child
37. Spouse's Brother's Child
38. Cousin
39. Uncle
40. Aunt
41. Son-in-Law
42. Daughter-in-Law
43. Stepdaughter
44. Stepson
45. Nephew
46. Sister's Daughter's Daughter
47. Mother's Sister's Son
48. Extended Family
49. Niece
50. Brother-in-law
51. Sister-in-law
52. Boarding Student
53. Significant Other's son
54. Significant Other's daughter
55. Significant Other's brother
56. Significant Other's sister
57. Adopted granddaughter
58. Cousin's daughter
59. Great nephew's daughter
60. Great nephew's spouse
61. Ex-spouse or significant other
62. Son of Partner/Spouse of HH me
63. Daughter of Partner/Spouse of
64. Grandfather
65. Grandmother
77. Refused to Answer
88. Unknown to Respondent
98. Other relationship
99. Missing
999. Non-HH member

Card #2: Education

1. No formal education
2. Elementary School
3. Middle School
4. High School/GED
5. VOC/Tech Graduate
6. Some College
7. Baccalaureate Degree
8. Master's Degree
9. Professional Degree
88. Don't know
99. Unknown

PART B: EMPLOYMENT AND INCOME**Card #3: Employment Status**

1. Permanent/Full-time
2. Temporary/seasonal
3. Part-time
4. Job sharing
5. Unemployed
6. Retired
7. Not In Workforce (student, homemaker, disabled)
88. Don't Know
99. Missing/refused

Card #4: Employer

1. Federal Government
2. Oil Industry
3. Private Firm
4. State Government
5. Regional Corporation or subsidiary
6. NSB CIP
7. City Government
8. NSB Government
9. NSBSD/REAA Schools
10. Village Corporation or subsidiary
11. Tribal/IRA Council/Native Government
12. Regional Non-Profit
13. Self-Employed
14. Other
88. Don't Know
99. Refused/Missing/NA

Card #5: Reason for Unemployment

1. Does not want a job
2. Could not get a job
3. Disability
4. Poor health
5. Taking courses/training
6. Conflict with subsistence activities
7. Other
77. Not Applicable
88. Don't know
99. Missing/Refused/NA

Card #6: Annual Income of Household

1. Less than \$15,000
2. \$15,000 to \$29,999
3. \$30,000 to \$59,999
4. \$60,000 to \$99,999
5. \$100,000 to \$149,999
6. \$150,000 to \$199,999
7. \$200,000 and More
88. Don't Know
99. Unknown

PART C: PARTICIPATION IN BOWHEAD WHALING

Card #1 was not used in final survey

Card #2: Cost of Outfitting a Bowhead Whale Hunt

1. \$5,000 or less
2. \$5,001 to \$7,500
3. \$7,501 to \$10,000
4. \$10,001 to \$12,500
5. \$12,501 to \$15,000
6. \$15,001 to \$17,500
7. More than \$17,500
88. Don't Know
99. Missing

**PART D: SUBSISTENCE AND CULTURAL ACTIVITIES
OTHER THAN WHALING**

Card #3: Amount of Subsistence Food

1. None
2. About a quarter
3. About half
4. About three quarters
5. Almost all
6. All
88. Don't know
99. Missing/refused

SURVEY CONSENT FORM

Quantitative Description of Potential Impacts of OCS Activities on Bowhead Whale Hunting in the Beaufort Sea

SURVEY CONSENT FORM

PRINCIPAL INVESTIGATOR:

Mike Downs, Ph.D.
EDAW, Inc.
San Diego, CA
(619) 233-1454

DESCRIPTION:

This project will examine the social implications of oil exploration and production for North Slope communities. The project originated from North Slope people's concerns about the real and potential effects of development activities on Bowhead whaling and on other aspects of subsistence and community life.

CONFIDENTIALITY:

Your name will not be attached to your interview responses. Any information you provide will be kept in a locked file that is only accessible to me or my research associates. Any information from this study that is published will not identify you by name.

BENEFITS:

The project is intended to offer North Slope communities a scientific analysis of the impact of oil and gas development on people's lives, especially their participation in whaling and other traditional activities. Such information could lead to more informed decisions by the North Slope Borough, the Alaska Eskimo Whaling Commission, village leaders, and other organizations about future work in the Arctic.

RISKS:

It is possible that some of the questions may upset or distress you. However, there are no other known risks to you.

CONTACT PEOPLE:

If you have any questions about this research, please contact the Principal Investigator at the phone number listed above.

VOLUNTARY NATURE OF PARTICIPATION:

Your participation in this study is voluntary. If you don't wish to participate, or would like to end your participation in this study, there will be no penalty or loss of benefits to you to which you are otherwise entitled. In other words, you are free to make your own choice about being interviewed or not, and may quit any time without penalty.

SIGNATURE: (Mark with X only) _____.

Your mark on this consent form indicates that you fully understand the above study, what is being asked of you in this study, and that you are signing this voluntarily. If you have any questions about this study, please feel free to ask them now or at any time throughout the study.

Signature _____

Date _____

A Copy of this consent form is available for you to keep.

ETHNOGRAPHIC PROTOCOL

Summary Protocol

The main topics of interest for the protocol need to be confined to a relative few, due to time constraints, but also must be numerous and broad enough to apply to the full range of people with whom we will talk. Topics 2 and 3 will only apply to individuals involved in whaling, otherwise, all topics should be applicable to all key persons interviewed (but it is unlikely that any one person would be asked about everything).

- 1) Individual community role – history and responsibilities.
Demographic/genealogical information if appropriate for context.
- 2) Individual whaling career – what is this person’s experience in whaling.
- 3) The social organization of whaling – Who is doing what and why; roles, distribution of the harvest, crew recruitment, technology and equipment. How has this changed over time; what is a “typical” whaling career.
- 4) Community characterization – What are the existing conditions in the community, what is the community like, how has the community changed over time. Characterize the local economy and economic and employment outlook.
- 5) Community and whaling “fit” - How does whaling fit into the overall community social, cultural, and economic context -- What does whaling mean to this community, and how has that changed over time.
- 6) Agents of change – what is causing change in the community (perceptions, some “objective” measures). Where does OCS activity fit in with other agents of change? How do agents of change interact with community variables, and how are they related to social disruptions.
- 7) Threats and opportunities and OCS activities – what are the challenges faced by the community and what opportunities does the community have available to it. What are the positive and the negative things that are happening - or are likely to happen - and how is this changing over time. What is similar or different about OCS activities. How does whaling fit in with the threats and opportunities.
- 8) The nexus of OCS and whaling – what are the current interactions, and what are the particular attributes of this interaction or future interactions that are of concern.
- 9) Social disruptions – what are the challenges existing in the community, and how has this changed over time. Areas of concern social disruption, resources and ways to cope. Health concerns

Ethnographic Interview Participants

- Participants in whaling
 - Whaling captains
 - Retired whaling captains
 - Young whaling captains/active crew members
 - Wives of whaling captains
 - Elders who are not/were not whaling captains

- Community “key persons”
 - Elders (identified in the field with local assistance)
 - Community leaders
 - Mayor
 - Tribal/IRA president
 - Corporation president/representative
 - Village coordinator
 - Other locally knowledgeable persons/specialists (identified in the field and dependent on information required/desired)
 - School principal/teachers
 - Health practitioner/clinic staff
 - PSO
 - Store manager

Ethnographic Interview Background and Prompts by Topic Area

TOPIC 1: Community Role.

For those persons to whom we are talking at least in part because of their role in the community (e.g., president of the local corporation), start with a discussion about that role - history and responsibilities (for key person interviews, this is tied to why we are talking to this person – ask about the role they are in). How long in the community, how long in this position, similar or different roles held. Geneology information if appropriate for context, how long has family been in community – establish larger relationships to the community.

TOPIC 2: Whaling Career.

For those persons to whom we are talking specifically because of their whaling experience, start with a request for the “whaling career” or experience of the person approached to provide context for the rest of the interview. We should have some idea of this for many people before the interview but this would serve as a systematic way to document this information for all such discussions. It should also provide items to note (either by their presence or absence) to develop further with follow-up probes. This could also serve to ask a relatively understandable, non-threatening, and logical question at the beginning that will allow the respondent to do most of the talking in a relatively non-directed way and help establish a comfort level. Also ask if this is a “typical” whaling career, and if there is such a thing as a “typical” whaling career.

TOPIC 3: Social Organization of Whaling Activities.

Main thrust: Who is doing what and why; roles, distribution of the harvest, crew recruitment, technology and equipment. How has this changed over time; what is a “typical” whaling career. This area of inquiry should follow logically from the discussion of the respondent’s individual “whaling career” (interview Topic 2). Some areas may have already been covered, and others should have been indicated as areas of higher priority than others. For those areas also covered to some extent on the Whaling Captain’s survey, reduce redundancy as much as possible.

- What are the responsibilities of a whaling captain?
- Crew membership/recruitment
 - How large is your crew (how many members)?
 - WHO whales on your crew – relationship and residence – and what tasks are they expected to perform on the crew?
 - HOW are they recruited/chosen?
 - How many years do crew members stay? (Turnover rate/stability). Have some members/positions more/less stable than others?
 - Do crew members “sit out” a season or two and then come back?
 - Is crew membership exclusive (membership in one and only one crew)?
 - Must a whaling captain be married?
- What takes place during whaling (what is part of whaling)? It is likely that this will be abbreviated or not a large part of most interviews, but is necessary from at least 1 or 2 people to serve as an interpretative context for all other discussions and interview analysis.
 - What activities are part of whaling? (there may well be a division here between “immediate whaling activities” directly associated with preparing the equipment needed and active whaling activity, and the year-round organizational focus that whaling provides, the “always getting ready” sort of model. What we would be asking for here is really sort of a description of each “stage” in the whaling process, in sequence.
 - What activities are specialized (assigned to specific crew members) and which are more generalized (expected of all or most crew members)?
 - Are there activities that are important to whaling that in fact do not necessarily involve formal “crew members”? (obtaining subsistence food to take out while whaling, helping with equipment, other support throughout the year, and so)
 - What whaling activities do men participate in that women do not (and vice versa)?
- When does whaling take place – season (dates), time of day, weather conditions preferred, weather conditions when possible, weather conditions when impossible/dangerous, ice conditions affecting whaling

- How do crews cooperate or interact
 - while scouting for whales?
 - while chasing a whale?
 - while butchering a whale?
 - What are the responsibilities of the crew that took the whale?
 - What are the responsibilities of the other crews?

- Technology of whaling
 - Technology or equipment now used, and for what
 - Variation or range (HP range for motors, size range for boats, material possibilities for boats, methods of beaching whales, possible mechanical aids to butchering, and so on)
 - Historical development or changes in such technology
 - Reasons or explanations or cause for these changes

- How is the whale butchered?
- Who is involved?
- Is there a standard sequence?
- What are the parts of the whale, and how are they butchered/divided?
- What parts of the whale are used by humans?
 - Is this any different from the past? (note that this may start a discussion of the cultural meaning of the whale and whaling).
 - Also note that this is likely to produce information on parts of the whale devoted for use at specific festivals or events at specific times of the year (Nuluqatuk, Thanksgiving, Christmas) – need to decide if we want to ask directly about this aspect of social organization or have it volunteered, maybe prompt for it if not volunteered
- What is done with the parts that are not used by humans?

- Risk assessment
- The risks to participants of whaling activities themselves (whale behavior, weapons, weather, sea conditions, ice, people – crew/non-crew, others?). How have these risks changed over time? Is whaling organized in certain ways to minimize the risks or dangers in whaling?
- The risk to the activity of whaling itself presented by various factors (could be climate change, oil and gas development, increased boat and air traffic, whatever)
- Prompt for:
 - What are the risks today in whaling?
 - Are these risks different than in the past – and if so, how and why?
 - What, if anything, has served to mitigate or reduced some or all of these risks?
 - What, if anything, has enhanced or increased some or all of these risks?
- If the respondent has only addressed one sort of risk (either OF whaling or TO whaling, prompt for the other sort of risk after talking about that category of risk)

- Community participation in whaling
- What percentage of the community participates in whaling?
 - If “all” ask what different degrees of participation are
 - If no “all” ask who is NOT so involved – also ask about differential participation of those who are involved
- Perhaps can be asked as how is the community as a whole involved in whaling?
 - Festivities/ceremonies
 - Support of whaling crews (and what kind of support)
 - Services (sewing skins, hunting and providing subsistence food)
 - Supply use of equipment (boat, motor, harpoon, darting gun, etc.)
 - Provide monetary support
 - Other
 - Whaling crews support of community
- Changes and reasons for change (to the extent not dealt with above)
 - How has crew membership/crew recruitment changed over time? Why?
 - How have gender roles changed over time? Why?
 - How has the timing of whaling changed over time? Why?
 - How has the pace of whaling activity changed over time? Why?
 - How has the actual time spent whaling changed over time? Why?
 - Are other subsistence activities changing in terms of these factors (who participates and how organized, gender roles, timing, pace, time spent)? Why? (and probe in terms of factors both similar to and different from those elicited for more whaling-specific changes)
- Use of the whale
 - What parts of the whale do you use, and how do you use them? (If not already discussed)
 - All of them (ideally, but not in practice) so list them, and how used
 - Muktuk
 - Meat
 - Tongue
 - Baleen
 - Heart
 - Liver
 - Stomach
 - Intestines
 - Kidney
 - Jawbone
 - Other bones
 - How is the whale butchered?
 - How is the whale divided (may be the same question)?
 - Prompt for sharing if it has not come out by this point.

- Why are whale products important for ceremonies if it has not come out by this point, or ask about specific ceremonies if they have been mentioned but not fully explicated.

• Beliefs and whaling

- What is the proper relationship between humans and whales? (possibilities would seem to include individual or species on the whale level; individual, family group, community, Inupiat on the human level – but want the respondent’s answer, not his or her choice(s) from a preconceived list)
 - Is there a story that explains this?
 - Are there specific behaviors (whale as well as human) that exhibit this?
 - How does whaling help contribute to community identity?
- What is the proper way for a whaler/hunter to behave? (purposefully left undefined – can be more narrowly defined if preferred)
 - “Everyday” behavior when not whaling
 - “Everyday” behavior of those NOT whaling when whaling is going on (for instance, behavior of those in Nuiqsut while whalers are out on Cross Island)
 - Hunting behavior when whaling
 - When talking about or speaking of whales
 - What is the proper treatment of whale after harvest
- Why is it important to butcher and divide the whale the way you do?
- How do you show respect for the whale?
- How does the whale show respect for the hunter?

• What is the future of whaling, and why do you think this? [this question then makes sense after asking some of the “meaning” questions – BUT “meaning” questions need to be asked in terms of behavior, at least so it seems to me] [“Continuity and Change” question]

- Possible effects on whales – climate change, offshore oil and gas development, onshore development, etc.
 - Changes in the transmission or learning of whaling behavior – elicit what the changes are and possible explanations
 - Factors fostering continuity – elicit and explain
- Why is whaling important? What benefits does whaling provide? [This question may be “too obvious” or too basic for respondents to take seriously, or may imply that the questioner knows too little – need to think about how to ask it, if we need to]
 - Possibly economic, dietary, spiritual, cultural, individual, family, community, etc.

TOPIC 4: Community Characterization.

Overview – What are the existing conditions in the community, what is the community like, how has the community changed over time. Characterize the local economy and economic and employment outlook.

Each of these communities is unique. It has a history, demography, social processes, and identity that are the context for examining any external or internal change events. This section is intended to develop the community context or environment and develop information to address high level questions such as: what is the community perception of who they are? What kind of place is it they live in? What is changing? (I approach this from a “cultural or social” constructionist framework, i.e., people construct “community” based on their history, experiences, and values -- establishing the construct of “community” as they perceive it is the first task of these discussions.)

- Describe community (e.g., “place”; social environment; cohesiveness, identity, unique characteristics). What makes this the community that it is; what makes it a good place to live.
- Describe community assets and vulnerabilities/strengths and weaknesses (e.g., community and human resources, infrastructure, resources).
- Issues of concern, quality of life.
- Economy and employment – current situation and outlook for the future.
- Political changes, social/cultural changes.
- Listing of “what is changing most” (e.g., environment, community, family life, economy, quality of life, etc....)
- Identify perceptions of change in institutions and lifestyles (infrastructure, facilities, economy, work life, education, health care, communication, transportation, etc...)
 - Identify the changes in “traditional activities” or “custom and culture” (family, kinship, subsistence, social status, seasonal round, sharing, religion, etc....)
 - Identify “environmental” changes, including climate change.
 - Describe orientation to change (e.g., desire for changes, resistance to change, perception of stability, etc..)
 - Identify perceptions and evaluations of pace of change (e.g., recent, over long time period, too fast, too slow, etc...)
- Describe assessments of “traditional/modern” identity. (Contrast with other communities that are traditional and “modern”).

TOPIC 5: Community and Whaling “Fit.”

Community and whaling “fit” - How does whaling fit into the overall community social, cultural, and economic context -- What does whaling mean to this community, and how has that changed over time.

TOPIC 6: Agents of Change.

What is causing change in the community (perceptions, some “objective” measures). Where does OCS activity fit in with other agents of change? How do agents of change interact with community variables, and how are they related to social disruptions.

Identify how change is constructed. Is change slow or fast paced? Is there a perception of stability? Is change perceived as desirable or not? A community may be perceived as reasonably stable or as undergoing change at a fast pace. I expect there will be substantial difference among the communities in perceptions of the rate of change and assessments of community stability. Change usually occurs differentially, some people are more affected than others. It is also important to develop what/who is affected most by change (institutions – government, social control, health care, etc...or population groups (gender, age, occupations, etc...)). Change is the result of some internal or external agent. It is also necessary to try to develop the vector or sources of change, including if the agents are internal/external and the particular types, e.g., wage employment, education, television, OCS activity, etc....) OCS may or may not come up in this context, but this is an open-ended exploration to identify the perceived change agents. Change agents, and especially acculturation changes, have a “locus of control” element that is worth trying to develop. If people perceive they have more control local over change than external sources, then the psychological effect of that is different – you know the sources.

Asking about the future engages different cognitive processes than asking about specific experiences. Some people do this well, but for others it just does not work. My experience is that someone within any culture can “vision” the future. There may be more general cultural impediments to visioning the future, but culture is an adaptive process and there is at least some limited ability to anticipate the future, even if that information resides in some cultural specialists. Consequently, the last part of this section is intended to develop how the Inupiat vision the future of their community. What is the trajectory of change? Is the community (values, beliefs, lifestyles, institutions, religion, etc...) now recognizable to ancestors? Will it be recognizable in the future? Or, can people envision a future and the substance of that future? If not, then that is its own message.

- Identify change agents.
 - Listing of types of change agents
 - Identify internal/external agents.
- Assess change agent consequences/effectiveness.

- Is OCS activity perceived as a change agent? (actual, anticipatory, other)
- Who most affected by changes (age, gender, occupations, future generations/present generations, etc...)
- Identify assessments of local control over change (types, pace, change agents).
- Identify perceptions of potential for future change – (likelihood of future change, areas of those likely changes - community, culture, lifestyles)

TOPIC 7: Threats and Opportunities and OCS Activities.

What are the challenges faced by the community and what opportunities does the community have available to it. What are the positive and the negative things that are happening - or are likely to happen - and how is this changing over time. How does is whaling effected by particular threats and opportunities.

- Areas of community life more susceptible than others to threats/opportunities.
- What areas of (Inupiat/Yupik) custom/culture affected by those activities
 - Economic
 - Social
 - Cultural
 - Community
 - Individual/Family
 - Subsistence
 - Whaling specific
- Identify the potential of threats/opportunities to effect Inupiat/Yupik custom, culture, and community.
- What can be done to limit the effects of the threats?
- What can be done to enhance the potential benefits?

Any change agent has characteristics that are either real or imagined in their intensity, what they affect, how they act, and the types of outcomes experienced. This section is intended to develop the specifics of OCS as either a “threat” or an “opportunity.” The methodological issues of focusing on only threat or opportunity are self evident. It is also likely that people will have little to no direct experience with OCS activity. It will be something they have either heard about or imagined. First developing the “image” of OCS activity (What comes to mind when you think about OCS? Or Have you ever seen people doing OCS work? or any question that gets to either experience or imagery) is the starting point to understand if how OCS is perceived is based on direct experience, external knowledge, or anticipatory worries/hopes.

Once the image or experience is elicited, then the task is to understand imagery details and what is either threatening or promising. The issues of distribution are then are developed just as the preceding section: who will benefit or who will be threatened (may be individuals, may be specific occupation groups, maybe the whole community). The

issue is to identify how the effects of OCS are constructed. If individuals or groups are to benefit or to be threatened, then it is important to understand the consultant's assessment of "distribution of effects." The specific effects of OCS activity on whaling are then developed. Some individuals are likely to have experienced based knowledge about this, others only imagery or information from others.

This information has a "cultural models" structure: what are the characteristics of the threat/opportunity? What are the perceived effects? How do these effects occur? Who will be affected? What can be done to enhance positive effects and limit negative effects? How each of us as ethnographers approach this will be different depending on the consultant and our own interviewing styles.

- Consultants image of OCS -- what comes to mind.
- Identify perceptions of current OCS development and activity. (past, present, future)
- Contrast with other oil and gas development activity (environmental context, observable, consequences, opportunities, etc...)
- Similarities/differences in onshore and offshore/OCS oil development
- Specific activities of OCS development (actual, anticipated).
- Specific opportunities associated with those activities.
- Specific threats with activities.
- Probabilities of each threat/opportunity -- Likelihood of threats from OCS
- Intensity/scaling of the threat/opportunity -- Consequences of OCS activity.
- Community resources to cope with OCS threats

TOPIC 8: The Nexus of Whaling and OCS.

What are the current interactions of whaling and offshore oil and gas related activities, and what are the particular attributes of this interaction or future interactions that are of concern.

- What are the present interactions. What are positive interactions between oil and gas activities and whaling – and what are the negative interactions.
 - Whales, or whaling (activities), or both
 - Maybe we just need a few more general questions:
 - What are the positive benefits that come out of OCS activities?
 - What are the greatest dangers to community from OCS activities?
 - What are the greatest dangers to whaling (if that is not the answer to the first question) from OCS activities?
 - What is the best way to try and deal with these dangers?
 - Assuming that OCS activities will take place, what is the best way to try and deal with these dangers (ask if the answer to the previous question is "stop all OCS activities")?

- What is the future of whaling, given what you know and believe about OCS activities?

Interaction of whales with OCS

Implications for whalers

Implications for communities and individuals

Remedies and resources for responding for implications

Futures for whaling and OCS

TOPIC 9: Social Disruptions.

This is a topic of central concern to the NSB and the AEWC. What are the social disruptions (and social pathologies) in the communities and how have these changed over time?

This section also uses a “cultural models” approach to develop how “social/community disruption” is constructed. As a “cultural category” social disruption is information that is likely to be distributed within any one individual’s cognitions. Because it is distributed, it will take more effort to elicit. Some individuals are more likely than others (e.g., community leaders, health workers, elders, etc...) to have a coherent perspective that is easier to elicit. The task is to find those who are in a position to address questions such as, “What is not working in this community?” “Is it serious?” Who is most affected? Are some individuals/groups more susceptible than others to “problems” whatever their source? Are these problems ones the community can solve? Are the resources to solve the problems external or internal? Are there “traditional” resources for addressing such problems or do these problems require new types of resources? The final issue to develop is also about assessment of future problems/vulnerabilities. Perhaps this type of information cannot be developed, but if it cannot, that is important cultural information. The task is to ask consultants to anticipate or vision future problems or types of problems they or their descendents will encounter. This visioning also addresses perceptions of what they can do about future problems, if anything. This should get at issues such as locus of control, the coping effectiveness of existing and future institutions, and the assessments of current/future vulnerabilities.

- Identify community assessments of social problems/issues of concern
 - Infrastructure
 - Economic
 - Social integration community cohesiveness
 - Health
 - Education
 - Psychosocial (alcohol, drugs, crime, etc...)
 - Other concerns about quality of life
 - Unique to this place.
- Ordering of problems of concern and reasons for ordering.
- Identify vulnerable populations/institutions.
 - Population vulnerabilities (children, teens, families, elders, etc.)

- Economic/social vulnerabilities
- Infrastructure vulnerabilities.
- Sources of issues/problems.
 - Environmental
 - Economic/work related
 - Resource deficiencies
 - Lack of Community resources/social capital
 - Governance and leadership
 - External /development related
- Resources for coping and responding
 - Adequacy of formal resources to respond to community problems.
 - Volunteer/community actions to respond to identified problems.
 - Assessments of success in responding to community problems.
 - Friends/family as resources for responding to social problems.
 - Needs for responding to identified problems.
- Future vulnerability for social problems (economic, social, cultural, psychosocial, environmental).
- Role of whaling (and/or other subsistence activities) in ameliorating social disruption

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OMB SUPPORTING STATEMENT - SURVEYS

SUPPORTING STATEMENT

**QUANTITATIVE DESCRIPTION OF
POTENTIAL IMPACTS OF OCS ACTIVITIES ON
BOWHEAD WHALE HUNTING ACTIVITIES
IN THE BEAUFORT SEA**

Number 0101CT31135

Prepared for:

U.S. Department of the Interior
Minerals Management Service
Alaska OCS Region
Environmental Studies Section
949 East 36th Avenue
Anchorage, Alaska 99508-4302

Prepared by:

EDAW, Inc.
1420 Kettner Boulevard, Suite 620
San Diego, CA 92101
and
Circumpolar Research Associates
Anchorage, Alaska
with
Applied Sociocultural Research
Anchorage, Alaska

February 2004

SUPPORTING STATEMENT
QUANTITATIVE DESCRIPTION OF POTENTIAL IMPACTS OF OCS ACTIVITIES
ON BOWHEAD WHALE HUNTING ACTIVITIES IN THE BEAUFORT SEA
MMS OCS STUDY
Contract Number 0101CT31135
OMB Control Number 1010-NEW (2003)

A. JUSTIFICATION

1. What circumstances make the collection necessary?

The Minerals Management Service (MMS) of the U.S. Department of the Interior (USDOI) is responsible for oil and gas leasing on the Outer Continental Shelf (OCS) under the OCS Lands Act of 1953, the OCS Lands Act Amendments of 1978 (OSCLAA), and the National Environmental Policy Act of 1969 (NEPA). Section 18 of the OSCLAA mandates that management of the OCS shall consider the ...

economic, social, and environmental values of the renewable and nonrenewable resources contained in the Outer Continental Shelf, and the potential impact of oil and gas exploration on other resource values of the marine, coastal, and human environments. (43 U.S.C. 1344).

It defines the “human environment” to include...

The physical, social, and economic components, conditions, and factors which interactively determine the state, condition, and quality of living conditions, employment, and health of those affected, directly or indirectly, by activities occurring on the Outer Continental Shelf... (43 U.S.C. 1333).

The NEPA creates requirements for Federal agencies engaged in significant land actions to undertake impact assessments, including impacts on the human environment. The Council on Environmental Quality’s Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR 1500-1508) state that the “human environment” is to be “interpreted comprehensively” to include “the natural and physical environment and the relationship of people with that environment” (40 CFR 1508.14). An action’s “aesthetic, historic, cultural, economic, social, or health” effects must be assessed, “whether direct, indirect, or cumulative” (40 CFR 1508.8). To this end, USDOI/MMS acquires and analyzes and/or oversees collection and analysis of environmental, socioeconomic, and socio-cultural information relevant to OCS decisions and uses that information in Environmental Assessments (EA) and Environmental Impact Statements (EIS).

This study will survey the potential impacts of OCS activities on bowhead whale hunting activities in the Beaufort Sea. In part, this study is a response to concerns among North Slope Borough (NSB) residents that oil exploration and development activities in general, and OCS activities in particular, are having an adverse effect on whale hunting and Iñupiat life. There are

three general areas of concern. First are the worries over the physical effects of seismic testing, the movement of barges, aircraft, and other transport vessels, and the erection of platforms. Many think these disruptions alter the feeding and migration patterns of bowhead whales and other marine mammals. The result is that fall whaling crews must move further out to sea, thereby increasing both the danger and the costs of the hunt. There is also considerable anxiety over the contamination of wild foods and the environment from drilling cuts, mudflows, and production water wastes and petroleum discharges. Many of the residents in the smaller villages question the long-term consequences of altering freshwater habitats by draining lakes to build ice roads, and the interference of oil well structures, fences, and pipeline on caribou crossings, the behavior of other land mammals and the ability of local residents to access marine and land mammals.

The social, cultural, and economic impact of energy development is a second area of interest and apprehension. There are the direct benefits of economic growth that many look forward to: more employment opportunities, more discretionary income, improved public services, and so on. There are also negative trends associated with industrialization: general anomie; excessive alcohol and drug use; abusive and self-destructive behavior; higher accident rates; loss of territory; restrictions on land use; loss of language and subsistence skills; dissolution of family relations; decline in community rituals and festivities; and the dilution of cultural values such as sharing, reciprocity, respect for others, and consensual decision making.

There is another, more intangible, worry about what some social scientists call an “opportunity-threat impact,” or fears about what might happen to the health and well-being of one’s family and community. The implications of economic and social change in the Arctic are not fully understood. Some welcome the transformation of the community and the availability of freshwater, sewers, and better housing. According to others, Iñupiat peoples have “over adapted” to the new industrial economy, which in the end threatens the long-term survival of cultural traditions and a distinctive way of life.

Whether the changes that accompany economic development are positive or destructive depends heavily on the regulatory regimes and mitigation measures that are in place, a final area of contention. Here complaints have been voiced about the pressure on the NSB to deal with the accidents and the damages tied to development for which it is not responsible. This puts added stress on the capacity of the NSB to serve the needs of residents. This is particularly troublesome in a time of declining revenues and personnel layoffs.

Borough and community officials have little authority to ensure that there are protective measures in place before development occurs. They feel there is little opportunity to plan, and that coordination and cooperation between private, State, and Federal administrations and Iñupiat governments are virtually impossible to achieve. In the words of one participant: “Effective authority to regulate oil and gas activities over the life of the production process does not exist on the North Slope.” There are provisions in the OCS Lands Act stating local governments “are entitled to an opportunity to participate in the policy and planning decisions made by the federal government relating to the exploration for, and the development and production of, minerals of the Outer Continental Shelf.” Nevertheless, many people feel excluded from the policy-making

process and claim that they have little voice over activities that endanger their families and their way of life.

2. How, by whom, and for what purpose will the information be used?

The MMS proposes to collect the information in this study to: (1) describe participation in bowhead whale hunting and its importance to and relationship with other traditional activities in three Iñupiat communities on Alaska's North Slope and one control community of similar size in the western part of the State; (2) describe and analyze community assessments of the effects of oil and gas development and modernization on participation in traditional activities, especially bowhead whale hunting; (3) describe and analyze community assessments of desired future conditions for whale hunting and related traditional activities; and (4) describe how oil and gas development and other forces of modernization influence these desired future conditions for whaling and other traditional activities. The information collected will be used in regional Environmental Assessments (EAs) and Environmental Impact Statements (EISs) and will be used to make decisions on future oil and gas lease sales in the Beaufort Sea, currently scheduled for 2005 and 2007. The MMS uses social science data and analysis in all phases of decision making, from 5-year planning, through pre-lease and leasing activities, exploration, development, and production. Without these data, MMS and the Secretary of the Interior will not have sufficient information to make informed leasing and development decisions about the Beaufort Sea. (Refer to the discussion at the end of section A for more details on the survey and data collection.)

3. Does the collection involve the use of information technology, does it reduce the burden, and to what extent?

No, the interviews for each survey will be done orally, face to face in a setting that is most comfortable for the respondent. This personal method is more expensive and time consuming. However, these drawbacks are outweighed by improvements in the quality of information obtained and the rapport established between the surveyor and the person interviewed. Telephone interviews have not been successful on the North Slope.

4. Is the information duplicated by any other Federal agency, and can similar information be used or modified for this collection?

No, no other prior studies provide information comparable to that targeted by this proposed survey. This response interprets "federal agencies" in a broad sense, in order to consider essentially any and all current, recent, or foreseeable information-gathering efforts on the North Slope that could conceivably involve any of our proposed study communities (Barrow, Nuiqsut, Kaktovik). The following list is not comprehensive, as it does not include possible but still undefined research by the Alaska Department of Fish and Game nor studies that may be required prior to the construction of roads on State of Alaska land between the Dalton Highway and National Petroleum Reserve-Alaska. None of the studies listed below provide information comparable to that targeted by the proposed survey. Some of the listed studies provide partial comparative information of a limited sort or are otherwise likely to provide mutually interesting

information. Each such study will be briefly discussed in terms of the information to be gained by the proposed survey.

A number of these study efforts can be characterized as geographically defined EISs:

- **Beaufort Sea Multiple Sale EIS** (completed – MMS);
- **Northeast National Petroleum Reserve-Alaska (NPR-A) Planning Area EIS** (completed – BLM);
- **Northwest NPR-A Planning Area EIS** (in progress – BLM);
- **Southern NPR-A Planning Area EIS** (including the Colville River Special Area Multiple Use Activity Plan, deferred until the northwest plan is completed – BLM);
- **Alpine Satellite Development Plan EIS** (in process – BLM/Conoco Phillips)

All the above EISs are based on existing information. The survey information that is available includes the NSB series of censuses and economic profiles, and the MMS Social Indicators Project. These areas provide historical, demographic and other descriptive information, but this information is dated and available only within limited categories. Public comments submitted during the EIS process provide some of the information sought by this survey, but only in an unsystematic and uncontrolled fashion. The EIS process is more conducive to the summation of knowledge, rather than the expansion of knowledge. The proposed survey will collect current information, and information about recent changes, that is essential for EIS efforts such as those listed above.

Other components of a longer term research program (often with “applied” goals) are listed below:

- **North Slope Borough Census and Economic Profile** (latest currently in progress – NSB);
- **MMS Social Indicators Research** (of which this project is the latest incarnation).
- **Alpine Development Project Environmental Evaluation Document** (completed – USACOE/ARCO Alaska, results for the most part proprietary).
- **Sustainability of Arctic Communities** (in progress – NSF/ISER)
- **Cumulative Environmental Effects of Oil and Gas Activities on Alaska’s North Slope** – National Research Council (2003)
- **Synthesis/Book of Information on the Socioeconomic Effects of Oil and Gas Industry Activity, Alaska OCS** (in progress – MMS);
- **North Slope Traditional Knowledge Project** (in progress – MMS);
- **Bowhead Whale Feeding in the Eastern Alaskan Beaufort Sea: Update of Scientific and Traditional Knowledge** (completed – MMS);

- **Subsistence Mapping at Nuiqsut, Kaktovik, Barrow, and Wainwright: Past and Present Comparison** (in progress – MMS);
- **ANIMIDA Task Order 004: Cross Island Whaling Documentation Project** (in progress – MMS);
- **Survey on Living Conditions in the Arctic** (in progress – NSF with other funding sources/ISER and other participants)

The NSB censuses are useful primarily for historical comparative demographic information, as well as for some economic, subsistence, and other socioeconomic measures that the proposed survey has incorporated. That is, the proposed survey will extend the time series for some of the NSB measures, while extending their analytical utility to a wider research context. Similarly, selected measures from the MMS Social Indicators Project have been incorporated into the proposed survey, although that survey, as a whole has not been adopted. To a large extent, the “Living Conditions in the Arctic” replicates the descriptive nature of the earlier MMS Social Indicators survey (in a much more detailed way), while the proposed survey focuses more on selected measures of recent socio-cultural change, within the context of sufficient descriptive information for analysis.

The Alpine Development Project Environmental Evaluation Project used both survey and interview techniques, but because private industry was the sponsor, the results have not been widely released. This information is essentially unavailable for purposes of this survey. The “Sustainability in Arctic Communities” project has not used survey methods and has not produced information comparable to that expected from the proposed survey. The Cumulative Environmental Effects of Oil and Gas Activities on Alaska’s North Slope reviewed only existing (incomplete and dated) information and is thus very similar to the EIS efforts discussed above. The MMS “Synthesis” effort is similarly based solely on existing information, as is the “NSB Traditional Knowledge” project, and thus does not provide information comparable to the proposed survey.

Three ongoing MMS projects (Bowhead Whale Feeding, Subsistence Mapping, and Cross Island Whaling Documentation) are pertinent to the proposed survey effort, although none of the three will use survey methods. All have used or will use interview techniques to collect information about subsistence activities and changes in such activities over time. This information will complement and enrich, but will not duplicate, the information to be collected by the proposed surveys. Care has been taken in the construction of the surveys to facilitate comparable analysis of issues, albeit with different sorts of data.

The “Survey on Living Conditions in the Arctic” is in many ways complementary, but not directly comparable, to the proposed survey. It is a broad (multi-national, multi-regional) survey aimed at gathering current in-depth descriptive information on health and other sorts of socioeconomic conditions. Its intent is to collect quantitative data at one point in time that can be used to compare groups of people at a relatively aggregated level – regions, sub-regions, and perhaps “community size” (regional hub, other large communities aggregated as a group, small- to medium-size communities aggregated as a group). If similar surveys were to occur in the future, comparisons over time would also be possible. No community comparisons are

anticipated for this survey, due to sample size constraints. The proposed surveys are focused on three specific North Slope communities and a control community. These surveys aim to collect information on a limited number of measures, consistent with past efforts, to potentially enable the analysis of change over time in those measures. Some of these measures are similar to those collected by the “Survey on Living Conditions in the Arctic” and so can be used to relate that (future) broad database to the analysis of the information obtained from the proposed survey efforts. The proposed surveys are much shorter and focused than is the “Survey on Living Conditions in the Arctic.”

5. What is the Agency doing to minimize the burden on small businesses or other small entities?

Some individuals connected with small businesses might be interviewed, but the collection of information will not have a direct impact on small businesses.

6. Are there any technical or legal obstacles to reducing the burden, and what are the consequences to the Federal program if the information is not collected or is collected less frequently?

We have minimized the burden on respondents as much as possible. We will collect this information only once; there are no plans to follow up the present study. Future work on the impact of OCS development on bowhead whaling and Iñupiat subsistence would have the benefit of baseline results from this study for comparative purposes.

MMS uses social science data and analysis in all phases of decision making, from 5-year planning, through pre-lease and leasing activities, exploration, development, and production. Without these data, MMS will not have sufficient knowledge to make fully informed decisions about leasing and development in the Beaufort Sea. We would not be able to make management decisions without an adequate understanding of the impact these decisions would have on Native villages and their culture and subsistence.

7. Are there any special circumstances for exceptions to 5 CFR 1320.5(d)(2) requiring respondents to: (i) report more often than quarterly, (ii) prepare written responses in fewer than 30 days after receipt, (iii) submit more than an original and two copies of any document, or (iv) retain records for more than 3 years?

No, the collection of information for this study is consistent with these provisions.

8. What efforts did the Agency make to consult with the public and a representative sample of respondents?

As required in 5 CFR 1320.11, MMS published a 60-day review comment notice in the Federal Register on July 14, 2003 (68 FR 41658). We have received no comments. In addition, the research team consulted with officials of the NSB School District; Whaling Captain’s Associations of Barrow, Kaktovik, and Nuiqsut; the Arctic Slope Native Association; the NSB Mayor’s Office, Department of Planning, and Iñupiat Culture and Heritage Office; the Alaska

Eskimos Whaling Commission; the Arctic Slope Regional Corporation; and the leaders of the city governments, Indian Reorganization Act Councils, and village corporations in all three communities. Public notification of the survey in each community will be made before interviewing begins.

The respondents will also receive a cover sheet that displays the required Paperwork Reduction Act (PRA) statement. The statement will explain that respondents may comment on any aspect of the survey including burden estimates and will provide the address to which comments may be directed.

9. Will payments or gifts be provided to the respondents?

Respondents will be paid for taking part in the survey. The primary reason to remunerate survey participants is the need to reduce non-response within small community settings where a token of “reciprocity” has come to be expected. High rates of non-response will undermine randomness and introduce bias into the data. Remuneration is intended as an additional incentive to participate, and will be one of many complementary strategies used to maximize survey response rates. These strategies are to: develop *organizational support*; provide *information* to individuals to understand the purposes and process of the surveys; provide *incentives* to participate; *limit barriers* to participation; and use *field procedures* to maximize participation. Each of these strategies is discussed in detail in Section B. 3. “Maximize Response Rates”.

It would be appropriate to remunerate respondents per session at the rate of \$40, with an elevated rate of \$50 for those respondents with special status and knowledge (such as whaling captains and elders). This strategy is consistent with the socio-cultural expectations that currently exist in the local communities. Our estimate of the expenses to cover respondent remuneration is \$27,000.

10. What assurance of confidentiality is provided to the respondents?

Survey completion is voluntary. The questionnaires will be administered under the guidelines established in 45 CFR 46. The introduction that will be read to each person interviewed stresses that their participation is voluntary and that their confidentiality will be safeguarded. No names will appear on a survey form. Number and relationship identify individuals. Parents will sign consent forms with an X for minor children who will be interviewed. Procedures designed to protect the confidentiality of the information provided will include the use of coded selection and identification numbers to protect the identities of respondents. Recent legislation, the Confidential Information Protection and Statistical Efficiency Act of 2002 (CIPSEA) which appears as title V of PL 107-347, provides strong protection for information gathered for exclusively statistical purposes under a pledge of confidentiality. Disclosure of confidential information by employees or agents of the agency are subject to either \$250,000 fine or 5 years in prison or both for willful disclosure of confidential information.

11. Does the information collected include any questions of a sensitive nature?

In the *Household* and *Whaling Captain Surveys* there are three potentially sensitive questions on annual household income, unemployment, and household finances. These questions have been used many times in past studies with few complaints. During the interviews, respondents will be warned that sensitive questions are coming up and that they may refuse to answer any query to which they object.

12. What is the estimated reporting and recordkeeping “hour” burden?

Potential respondents number approximately 614 from Alaska’s North Slope communities and a control group in western Alaska. Households in Barrow, Kaktovik, Nuiqsut, and Savoonga (control village) will be randomly chosen for interviews. To achieve the desired statistical confidence level, smaller communities are sampled at a higher rate than are larger ones (see discussion below). The overall sampling rate for all four study communities is about 33.9% (351 of 1035). All of the whaling captains (91) and the universe (135) of high school juniors and seniors in the four communities will be asked to participate in the survey. In the pretest of the *Household* and *Student Surveys*, the interviews averaged 45 minutes in length; for whaling captains and elders, pretest interviews lasted approximately 50 minutes. The summary of the total burden hours is estimated to be 474, as described in Table I.

Table I. Summary of Burden Hours

Respondent Categories	Estimated Hour Burden	Estimated Number of Respondents	Estimated Annual Burden Hours (Rounded)	Personal Time Value (Estimated)
Whaling Captains				(\$50/interview)
Barrow	50 minutes	43	36	1290
Kaktovik	50 minutes	10	8	300
Nuiqsut	50 minutes	10	8	300
Savoonga	50 minutes	28	23	840
Subtotal		91	75	4550 (dollars)
Households				(\$40/interview)
NSB	45 minutes	281	211	5620
Control Village	45 minutes	70	53	1400
Subtotal		351	264	14,040 (dollars)
Elders				(\$50/interview)
NSB	50 minutes	42	35	1260
Control Village	50 minutes	20	17	600
Subtotal		62	52	3100 (dollars)
High School (total)				(\$40/interview)
	40 minutes	110	83	4400 (dollars)
GRAND TOTAL		614	474	26,090 (dollars)

13. What is the estimated reporting and recordkeeping “non-hour cost” burden?

Beyond labor for the administration of the survey, the proposed information collection poses no cost burden to respondents. Respondents will incur no costs.

14. What is the estimated annualized cost to the Federal Government?

This survey will be conducted by a private contractor. The current contract was awarded through a competitive procurement process. The amount budgeted for the study is approximately \$559,000. This amount includes costs for staff labor and travel. The annualized cost will be approximately \$186,400, which is derived from approximately 1.5 years to develop the survey instruments and at least 1.5 years estimated to conduct the surveys and analyze the data.

15. Are there any program changes or adjustments in items 13 or 14 of the form OMB 83-I?

This is a new information collection resulting in a program increase of 474 hours to OMB’s inventory. There are no cost burdens.

16. Will the results of the information collection be tabulated and published?

The results of the data collection will be tabulated for presentations in two different public forums. One forum of presentation is publication of the findings in refereed scientific journals that are appropriate for the research topic (e.g., Society and Natural Resources or Arctic). The other forum for the presentation of findings is in presentations to the Village Councils of participating communities.

17. Is the Agency seeking approval not to display the expiration date?

No, we will display the expiration date of the OMB approval on the surveys.

18. Is the Agency requesting exceptions to the certification statement in item 19 of form OMB 83-I?

To the extent the topics apply to this collection of information, we are not requesting exceptions to the “Certification for Paperwork Reduction Act Submissions.”

Survey and Details of the Data Collection Process

An integral aspect of the research effort is the development and administration of three survey instruments that will collect information about the North Slope communities of Barrow, Kaktovik, and Nuiqsut and the control community of Savoonga on St. Lawrence Island in the Bering Straits. The survey data are divided into five broad categories: demographic and economic characteristics; quantitative and qualitative summaries of participation in bowhead whaling and other subsistence activities; an assessment of residents' perceptions of the potential threats and benefits of OCS development to subsistence and other traditional activities, especially bowhead whaling; changes in the quality of life in each community, measured in both economic and traditional/cultural terms; and the way residents view the likely future of their communities.

From October 2001 to April 2002, the research team developed separate survey instruments: one for whaling captains, a second for adult-headed households and elders, and a third for high school juniors and seniors. The content of each survey was derived from three principal sources: discussions with key individuals and groups in Anchorage, Barrow, Kaktovik, and Nuiqsut about their ideas and concerns with regard to offshore and onshore oil and gas exploration and production; previous studies of subsistence practices and energy development in the Arctic sponsored by MMS, the National Research Council, and other agencies; and related surveys that have examined the social and behavioral changes that accompany the use of natural resources.

Table II summarizes the five categories of information from each survey and their relation to specific questions.

Table II. Survey Categories with Specific Questions

Category I. Demographic Characteristics

Questions: Specific data for whaling captains

- Length of residency
- Age
- Ethnicity
- Marital status
- Level of education
- Gender
- Number of children
- Children on Whaling crew
- Shareholder in Village and Regional Corporation

Questions: Specific data for students

- Class standing
- Age
- Gender and Ethnicity

Questions: Specific data for households/elders

- Number that live in household
- Relation of those living in household
- Ages
- Gender
- Ethnicity
- Level of education
- Length of residency
- Village corporation affiliation
- Regional corporation affiliation

Table II (continued)

Category II. Participation in Whaling and Subsistence

Question: What resources are harvested?

- Land mammals hunted, animals trapped
- Marine mammals hunted
- Fish harvested
- Birds hunted, eggs collected
- Plants and greens gathered or picked
- Crafts made or sold
- Other resources harvested

Question: What subsistence activities do individuals participate in?

- Work in spring whaling crew
- Cooking, sharing money or supplies
- Sewing skins, clothing
- Constructing sleds or boats
- Work on fall whaling crew
- Hunt land animals
- Hunt sea mammals
- Hunt waterfowl, gather eggs
- Fish
- Trap
- Gather berries, greens
- Other

Category III. Perceived Impacts of OCS Development on Iñupiat/Bering Straits Culture, Subsistence, and Economy

Questions: What are the changes in subsistence practices?

- Distance traveled
- Areas used
- Frequency of trips to hunt, fish, and gather

Table II (continued)

Questions: What are the changes in subsistence uses?

- Number of different resources harvested
- Consumption of Native foods
- Purchase of store foods

Questions: What are the changes in culture?

- Sharing and receiving subsistence resources
- Sharing and giving of subsistence resources
- Eating and visiting with others
- Influence of elders
- Respect for elders
- Sharing with elders
- Language use
- Language fluency

Questions: Changes in contemporary economies

- Employment general
- Employment oil industry
- Income
- Underemployment
- Unemployment
- Household finances

Questions: Changes in health

- General health
- Incidence of poor health, absenteeism
- Rest, anxiety
- Back problems

Category IV. Changes in Community and Quality of Life

**Questions: Family quality of life
Changes in community life**

- Array of items in stores
- Prices for food and clothing

Table II (continued)

- Opportunities for good jobs
- Amount of space in home
- Cost of rent or mortgage
- Quality of school
- Number of visitors to community
- Incidence of drinking, taking drugs, fighting, stealing
- Number of people who help each other
- Relations between Iñupiat and non-Iñupiat
- Quality of health care
- Quality of life
- Services for protecting hunting and fishing

Questions: Changes in behavior

- Tobacco use
- Alcohol and other drug use
- Physical abuse
- Sexual activities
- Carrying a weapon
- School safety
- Fighting on school property
- Plans to graduate
- Plans after school

**Questions: What are the most important problems in the community?
Which organizations are effective responding to problems?
Which organizations are best managing oil and gas issues?
What are the opportunities to influence community processes?**

Category V. Expectations about the Future

**Questions: What is the future of Iñupiaq/Bering Straits Yup'ik language in the community?
What about the children's quality of life in the future?
What are the chances of improving family's life in the future?
What are the expectations about success of whaling crews in the future?
What perception do the youth have of whaling hunting in the future?**

Category I. Demographic Characteristics

All three surveys follow the substantive breakdown in Table II. However, there is a different mix of questions that relate to the purpose of each questionnaire. The *Whaling Captain Survey* focuses on the patterns of participation in whale hunting activities and the possible impact of OCS development on these patterns. Demographic questions about age, length of time in the community, education, gender, shareholder status in village and regional corporations, and family relations will reveal, in part, a captain's experience, understanding, and perspectives on social change and resource development. It is assumed in all three surveys that Native ancestry is predictably tied to participation in subsistence and other traditional cultural activities. Since only coastal Alaskan Natives can legally hunt bowhead whales and other marine mammals, the survey will include only Native residents. Variation in participation in subsistence and other traditional activities among groups, as well as over time, will be a key analytical focus.

The purpose of the *Household Survey* is to gather information about the effects of offshore oil industry activities on individual residents, households, and groups in each community. Population characteristics such as age, number and relationships of people in the household, and level of education are related to changes in employment, income, and economic opportunity. Gender, ethnic background, length of residency, and corporate membership can also result in divergent views about subsistence, development, language, and many other factors.

The intent of the *Student Survey* is to discover student perceptions about the effects of OCS oil and gas activities; student attitudes about Iñupiat traditions; and changes in student behavior to assess inter-generational continuities. Here responses may vary depending on age, ethnicity, and gender.

Category II. Participation in Whaling and Subsistence

What Resources Are Harvested

The first series of questions in the *Household Survey* (Section B.1) asks the interviewee to list the different subsistence resources harvested by that individual. This series of questions appears on all three surveys and is intended as a measure of intensity of subsistence activity. Past studies have indicated that the number of different subsistence resources harvested or used is an indicator of how active a person or household is in subsistence activities. Active adults (and especially whaling captains) would be expected to list many different resources, and less active participants (and perhaps especially students) would be expected to list fewer different resources. The principal aim here is to gain a measure of the number of different resources listed. Individuals may in fact not recall all of the different resources that they harvested, but it is expected that more active harvesters will recall more resources than less active hunters and fishers. Since for the *Household Survey* the person interviewed will be an adult member of the household, chosen at random, the information generated by the *Household Survey* administration of these questions is expected to represent the adult population of the community sampled (in terms of sex and age). This is in essence the sample with expected responses "in between" those of whaling captains and students. This will represent a less intensive sample than for either

whaling captains or students but is important for comparative purposes. There are also data comparable to the research findings found in the Social Indicators Study of Alaskan Native Villages (1992) sponsored by MMS.

What Subsistence Activities Do Individuals Participate In

The next set of questions asks about the subsistence activities of each individual household member using categories of subsistence resources. Categories of subsistence resources are used instead of individual resources for three reasons. First, the respondent cannot be expected to know the answers to questions about each individual resource for other members of the household. Second, it is considered culturally inappropriate for one person to answer such detailed questions about the activities of another (even if that knowledge is known). Third, such responses would require a great deal of time, and again impose too large a time burden for the level of information required. This question is asked only on the *Household Survey*, although the other surveys ask several questions about individual subsistence activities based on the same subsistence resource categories. The question will obtain information on the relative participation of each member of the household in subsistence activities (although less precisely than the first series of questions does for the interviewee). It will thus provide a characterization of intensity of subsistence participation for all adult household members (thus potentially increasing the effective sample size for comparisons with “question series one” responses) as well as for the household as a whole. This is more general (categorical) information than collected by prior MMS Social Indicators efforts but encompasses a far broader range of activities and includes all members of the household.

The *Whaling Captain Survey* will be administered only to whaling captains. The whaling captains (umialiq) are the most prestigious persons in the network of relations between families and households in the whaling communities in the Arctic. The survey focuses on their knowledge of the organization of whaling activity, and patterns of change in that organization. More general questions are included to the extent that they are pertinent to this more detailed information and fit within the time burdens set for the survey. The whaling-specific questions are asked early in the interview, in the second section of the questionnaire, because of the importance of the information.

Questions C.1 through C.3 seek information about the whaling captain’s whaling experience and current activities. C.3 specifically allows the captain to detail the history of his crew. It is expected that some captains will provide lengthy answers to C.3 while others will be more reticent.

Part D questions are for the most part parallel to the subsistence questions included on the *Household Survey*. Question D.1 asks each whaling captain to list the different resources that he harvests. The justification for this form of the question is discussed above (B.1 of the *Household Survey*). It is expected that whaling captains will list a relatively large number of different subsistence resources (with the possible exception of retired or less active whaling captains).

Questions D.2 through D.4 were not included on the *Household Survey*, as they could not be put into an appropriate form for that instrument. For whaling captains (and also for students, see

below), these questions will draw out information about activities associated with categories of subsistence resources. Asking about specific subsistence resources would take too much time and provide too much detail, whereas asking about broader categories of resources will provide sufficient information.

In public hearings and personal consultations, Iñupiat whaling captains and elders have expressed worries about young people and their understanding of important cultural traditions and practices, and their future involvement in bowhead whaling and other subsistence activities. The *Student Survey* looks at the participation of youth in whaling, hunting, and fishing and their relations with elders, friends, and relatives, using questions comparable to the other surveys. The *Student Survey* will be administered to all high school junior and senior students in the study communities.

Questions C.1 through C.3 ask for information about the student's participation (or lack of participation) in bowhead whaling. It does so through a combination of forced-choice short answers and more open-ended explanations of such answers. It is our intention to use the explanations and interviewer prompts to discover the full whaling experience of each student. Most should have relatively short periods of experience, although some will have whaled from an early age. Question C.3 requests each student to list all the different subsistence resources he or she harvests. This is the same as for the other two surveys and serves the same purpose. Questions C.4 through C.6 are the same as on the *Whaling Captain Survey*, and the *Student Survey* also collects some information comparable to that collected by the *Household Survey*.

Category III. Perceived Impacts of OCS Development on Iñupiat/Bering Straits Culture, Subsistence, and Economy

The MMS and the National Research Council (1994, 2003) have supported many studies that document the impact of resource development on rural and Native communities. This accumulated knowledge, in combination with the concerns of North Slope residents, and more general works on social, economic, and political change, led to the formation of questions around four interrelated aspects of life that could be affected by oil and gas activities. Foremost would be the **cultural and social impacts** of exploration and production on subsistence or the Iñupiat way of life. Inquiries here would include the range and time devoted to hunting, fishing, and gathering; the continued availability and health of wild foods and accessible lands; fluctuations in purchases of commercial food, trading, and bartering; and changes in language use, the place and influence of elders, and important values of sharing, cooperation, and mutual responsibility. A second section in each survey looks at the **economic effects** of development on employment, unemployment, and underemployment; family incomes and household living standards; and perceptions of household living standards and quality of life. There are also expected changes in **individual health** related to accidents and injuries, improved health facilities, anxiety, and mental illness. Finally, there are the views and perceptions of residents about the **social and political changes** in their communities and the important issues that confront them. It is here one finds an assessment of what has improved and what has deteriorated over the years, an evaluation of what the most pressing problems are, and what organizations can best address them.

What are the Changes in Subsistence Practices

Questions B.3 through B.6 in the *Household Survey* are forced-response questions about specific behavioral changes over the last 3 years that may be linked to other environmental or sociocultural changes. These behavioral changes have been chosen as those most often representing significant changes in subsistence land and resource use patterns, intensity of effort (distance traveled, number of trips), areas used, and resource population levels. For the areas used and resource population levels, the interviewee will be prompted for an open-ended explanation of any changes that have occurred. The five-year period was chosen to be long enough to encompass recent changes, but short enough for easy recall. Years are used rather than references to a specific natural or developmental event, to maintain consistency among the study communities. These questions have not been included on prior MMS survey instruments, although the resources asked about in question B.6 are in line with previous research queries.

Questions C.4 through C.10 in the *Whaling Captain Survey* ask captains for their best judgments about recent trends in whaling-related behavior. In all cases the whaling captain will be prompted to expound upon his or her forced-choice short answer. All the trends asked about were gleaned from public testimony and other NSB sources, and were pre-tested with whaling captains. These questions have not been asked in previous surveys.

The specific activities asked about in questions D.2 to D.4 of the *Whaling Captain Survey* – hunting partners, frequency of trips, and reasons for changes in the last 3 years – are expected to be significant measures of change. If for some reason the resource categories we ask exhibit a significant range of variation (for instance, hunting partners for hunting caribou are very different than for hunting polar bear), we would expect whaling captains to hesitate before answering or to say that the question is a bad one. In such a case, we will prompt for a more detailed answer. Questions C.5, C.6, and C.7 in the *Student Survey* are the same as these questions for whaling captains (D.2, D.3, and D.4).

Questions C.11 and C.12 of the *Whaling Captain Survey* ask specifically about the annual costs of whaling and a comparison with past expenditures. To decrease the sensitivity of the question (and increase the response rate), we do not ask for an exact cost. Rather, each captain will be asked for the range within which his whaling costs fall. The most recent and detailed information available on costs of bowhead whaling is from the North Slope Borough Census and Economic Profile that asks about estimated expenditures for all subsistence activities over the past year. It is clear from the level of expenditures that are reported which households are represented by whaling captains.

What are the Changes in Subsistence Uses

Questions B.7 through B.10 in the *Household Survey* ask about household consumption patterns of subsistence resources for the past 12 months. This period of time makes them comparable to similar questions asked on each of the NSB censuses (including the current one). The MMS Social Indicators survey also includes similar questions. This will expand the time series of this information available for analysis and broaden the analytical possibilities.

Questions D.5 and D.7 of the *Whaling Captain Survey* ask for basically the same information on subsistence uses from whaling captains with a few differences. Whaling captains are not asked about purchases of store foods (question B.8 in the *Household Survey*) because it is not necessary. Changes in general consumption patterns of persons will be derived from the household and elder queries. Question D.5 is a “trend” question for the last five years for subsistence harvest in general that is similar to the series of such questions asked earlier about specific aspects of whaling activity. The prompt for a narrative explanation of this answer may elicit some lengthy answers. Students are asked only one question about subsistence harvests over the last five years (C.7).

What are the Changes in Culture

Questions B.9 through B.18 in the *Household Survey* ask about distinctive ethics and practices that are central to the Iñupiat way of life. Inquiries about sharing of wild resources, the exchange of labor and money, visiting with friends and relatives, and the influence and status of elders are included in this part of the survey. Many of these questions were derived from the North Slope Borough Census and Economic Profiles (1978/1979 to 2002/2003) and the Social Indicators Study of Alaskan Native Villages (1992).

Questions B.19 through B.22 ask about language use in the household and by each household member. Language use is a potential “cultural marker” and fluency in Iñupiaq or Bering Straits Yup’ik is expected to correlate with greater participation in subsistence and other “traditional” activities. Similar questions have been included on the NSB censuses and the MMS Social Indicators survey, although not in as much detail. It is important to determine the age of those who speak and read Iñupiaq in order to assess the viability of the language. These questions have been part of past studies of northern languages by Michael Krauss (1992, 1995) and the Bilingual Task Force of the North Slope Borough School District (1999). The question on language fluency also goes beyond the Bureau of Census’s vague query about whether a person speaks a language other than English.

Questions B.9 through B.15 again ask a series of forced-response questions about specific behavioral changes in household consumption and other social patterns over the last five years. The time period is chosen for the same reason as for questions B.3 through B.6. Responses are intended to measure recent change and will be analyzed in those terms. It should be able to test the degree to which these questions are real measures of change by comparing these results to those obtained from the time series of questions B.7 through B.11 and similar questions from the earlier NSB censuses.

Questions D.7 through D.21 in the *Whaling Captain Survey* roughly parallel questions on sharing, social relations, elder status, and so on found in the *Household Survey*. The questions about eating and visiting with relatives and friends are specific because of the importance of understanding the relation of whaling captains to the communities they reside in.

Questions C.7 through C.12 on the *Student Survey* are also the same as questions asked the whaling captains except for C.9. It makes little sense to ask a whaling captain when he last asked an elder for advice, when many whaling captains are elders.

Changes in Contemporary Economies

The intent of this section is to understand the direct effects of offshore economic development on employment, income, subsistence, and the quality of life in Arctic Slope communities.

Questions C.1 through C.5 on the *Household Survey* are factual inquiries about individual employment, time at work (full or part time, seasonal or temporary), underemployment (or if one thinks their job does not fully use their skills, training, or potential), who they work for, and whether anyone has been unemployed during the last year and why. Question C.6 asks for an estimate of the annual income of the household that falls within the ranges listed on Card #9. The analysis of this information will be important in assessing changes in employment and unemployment, alterations in public and private employment, trends in household incomes, differential rates in unemployment, poverty, the type of work available, labor force participation, and the economic impact of both Native village and regional corporations and also outside resource firms.

Questions C.7 and C.8 ask individuals for their assessment of the benefits of the development of resources on the Arctic Slope. The queries are purposely general and allow people to comment on the benefits and drawbacks of the economic changes of the past few years.

Typically the employment of Alaska Natives and Iñupiat people by the oil and gas industry has been rare, according to figures compiled by the NSB and the Alaska Department of Labor. Questions C.11 and C.12 ask whether members of the household have sought employment with a resource development firm, whether they actually filled out an application, and whether they were offered a job. These questions relate to the contention that the Iñupiat do not want to work for the oil and gas companies because it would interfere with hunting and fishing, and that they would be required to leave their homes for extended training.

The *Household Survey* will provide the clearest view of the impact of recent events on the economy of the North Slope. The employment questions for **whaling captains** are secondary to their answers about whaling and subsistence and will mainly further the connection between whaling, hunting, fishing, and wage employment. Question B.1 asks about involvement in subsistence while B.2 and B.3 are concerned with employment, time at work, and job satisfaction. In the *Student Survey* juniors and seniors are asked about work apart from the time they are in school. It is expected that most will be employed part time for a variety of reasons. Question B.1 asks about individual employment, type of work, employer, amount of time on the job, and monthly income. This information will offer a more complete picture of student activities and opportunities for younger people in areas undergoing significant social and economic change.

Changes in Health

Iñupiat people frequently speak of the contributions of the oil and gas industries to the improvement in community facilities, better schools, and more accessible health care. At the same time there are regular expressions of concern about the changing behavior of whales, the possible contamination of traditional foods, the scarcity of game, the safety of hunters, and the demands of both hunting and fishing and wage employment. These worries may lead to stress and anxiety. Questions D.1 through D.4 on the *Household Survey* assess the effects of these fears on individual health, accidental injuries, daily routines, and nightly rest. Question D.5 explores the connection between subsistence activities, the use of all-terrain vehicles, snow machines, and back pain, a regularly reported malady on the North Slope. The questions on the *Household Survey* will provide a succinct summary of individual health on the Arctic Slope. It will not be necessary to ask whaling captains and students the same questions.

Category IV. Changes in Community and Quality of Life

Family Quality of Life and Changes in Community Life

Questions about community perceptions address different issues on each survey. On the *Whaling Captain Survey*, questions E.1a through E.1l are forced choice, followed by an opportunity for a more extended explanation of one's reply. The responses should reflect one's view of cultural, social, economic, and political changes that touch on the life of the entire community. Question E.1a and E.1b ask whaling captains for their perception of the respect they receive in the community first as individuals, then as whaling captains. Differences are expected based on age and the extent of economic change in the community.

Question E.1c asks whaling captains to assess employment opportunities for local residents of the community. Similar questions were contained in the North Slope Borough Census and Economic Profile that indicated a correlation between increased employment and development activities in North Slope communities. However, the questions do not specifically focus on employment opportunities available to residents as opposed to non-residents of the communities in which development has occurred. Question E.1e follows up on E.1c, asking for perceptions of the presence of non-Iñupiat (non-Bering Straits Yup'iks) in the community.

Questions E.1d, E.1i, E.1j, and E.1k ask about perceptions of the influence that oil and gas development has on important aspects of community life, such as attempts to revive the Iñupiaq language, to maintain significant aspects of traditional culture, and to strengthen important subsistence practices. Similar questions in the North Slope Borough Census and Economic Profile reports indicate a possible trend away from traditional practices as development activities increase. These questions represent an attempt to determine whether the trend is related to development, at least in the eyes of community residents.

Input gleaned from public hearings, personal consultations, and the initial pretests of the interview schedules indicate a great deal of concern among North Slope residents about young people, particularly their understanding of important cultural traditions and practices and their future participation in those. Questions E.1f, E.1g, and E.1h ask whaling captains to express

their views of the importance of maintaining Iñupiaq culture in the community, the extent to which younger residents are participating in cultural activities, and their (whaling captains') expectations of younger peoples' participation in the next five years. These questions have not been asked in this context in other studies.

Question E.11 is a forced-response question asking whaling captains whether they agree or disagree with the statement: "It is possible to have oil drilling in off-shore coastal areas and at the same time provide adequate safeguards to protect the environment and allow for important cultural activities." This is an issue of major contention among all groups in Alaska and generates especially heated debate in whaling communities. It serves as a check on earlier questions relating to changes in whaling occurring over the past five years, and as a basis for comparison with official NSB statements concerning the viability of off-shore versus on-shore development of oil and gas activities on the North Slope.

Part E of the *Household Survey* also addresses community perceptions of changes that affect the lives of individuals and families. Questions E.1a through E.1p are a forced-choice series asking for the individual's perceptions about changes in selected indicators that have occurred in the community over the last five years. The indicators reflect the concerns expressed by residents in public hearings and personal conversations, and trends demonstrated in the North Slope Borough Census and Economic Profile reports. The indicators ask for time comparisons in the number of items available for purchase in the local store, and the prices paid for food and clothing, opportunities for employment, floor space in the home, cost of housing, quality of education, number of visitors to the community, incidences of disruptive behavior, mutual support, sharing, group relations, quality of health care, quality of life, opportunities to whale, effectiveness of regulations to protect subsistence resources, and changes in living conditions. These same questions are part of *Student Survey* questions E.1a through E.1p.

The last part of the section on community perceptions explores (E.2) the opinions of household heads and elders on the three most important problems in their community; (E.3) the organizations (such as the regional or village corporations; Native villages [tribes]; and city, State, or Federal Government) that would best deal with these problems and (E.4 and E.5) the organization that would be most effective (and least effective) in resolving oil and gas issues. Finally, people are asked about their ability to influence events in the community (E.6) and economic development (E.7).

Category V. Expectations about the Future

Questions C.13 and C.14 in the *Whaling Captain Survey* ask to project current trends in whaling into the future. It is expected that some captains will be willing to give answers, while others will not find the question meaningful (culturally inappropriate or impossible to answer). For both questions the whaling captain will be prompted to expand on the answer that is given. All three sorts of information will be useful – whether an answer is even given or thought possible, what that answer is, and the more detailed reasoning behind that answer. Question D.6 asks this same question projected five years into the future.

In the *Household Survey*, forced-response inquiries are made about the future of the quality of life of children in the household when they become adults (C.9) and the chances of improving the quality of life for the family (C.10). Questions about the vitality of Iñupiaq (or Bering Straits Yup'ik) and the survival of the language are found in this survey (B.19 through B.23) and questions D.17 through D.21 in the *Whaling Captain Survey*.

B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS

1. Respondent Universe

This research project anticipates the selection of four separate samples.

a. Whaling Captain Survey Sample:

Whaling captains are prominent individuals in all of the sample communities. The MMS is particularly concerned with obtaining their opinions and perspectives on the impacts of offshore development on whaling practices. To this end whaling captains, all belonging to a formal association, have been identified in the survey communities, including the control community of Savoonga. All identified captains will be interviewed in what has been called a “census” procedure; that is, all entities in the universe will be contacted and attempted to be interviewed.

b. Household Survey Sample:

A random or probability sample of Alaska Native households will be selected in each of the study communities. Households have been loosely defined as co-residents (or single individuals) living in a dwelling and sharing domestic function (e.g., cooking). Barrow, Kaktovik, and Nuiqsut are all coastal (or near coastal) communities that are directly impacted by offshore oil leases. Each of these communities has a geographic information system (GIS) generated map of all occupied dwellings. Dwellings will be systematically numbered beginning in the northwest quadrant and working to the southeast. A table of random numbers will select the sample households. In Barrow, 57% of the population is Alaska Native, although proportionally they number fewer households than non-Natives because of a larger mean household size and because a significant proportion of non-Natives are single men living in group quarters. Non-Natives will not take part in the survey. Thus the 672 households listed as the universe in Table V for Barrow represent Alaska Native households. Total households for the community number slightly over 1,400.

Households selected and contacted in the random sample will be queried as to their race and ethnicity. The definition of “Alaska Native” will be more expansive than restrictive; self-identification by the household informant or the existence of any Alaskan Native within the household will make that household eligible for the study. More restrictive definitions (e.g., blood quantum or membership in a Native Corporation) were excluded as being too contentious.

The control community of Savoonga lacks GIS generated maps. For this community, Indian Health Service maps, containing service hook-ups for all dwellings within the community, will provide a base map that researchers will ground truth. Once a map census of all occupied

dwellings has been completed, all dwellings will be numbered and a sample will be selected using a table of random numbers.

Samples from the three smaller sample communities of Kaktovik, Nuiqsut, and Savoonga will also exclude non-Native households. Since each of these communities is characterized by Alaska Native populations of greater than 90%, exclusion of the non-Native households will be less problematic.

c. High School Student Sample:

All junior and senior students enrolled in the high schools for all four sample communities will be contacted to participate in this survey. Their contact information will be derived from lists provided by the local school district. Researchers will obtain a parental permission release form for each student prior to the interview. Interviews will be conducted at the student's home and not at the high school or other venues.

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There are three reasons that explain our rationale for conducting the student interviews in the home, rather than at school:

1. Comparability - Each of the four survey categories will be administered in participants' homes. By conducting the high school survey in the home, rather than school, we are maintaining parity across surveys and increasing control over potential variables.

2. Parental Consent -- Conducting the high school surveys in the home streamlines the process for obtaining signatures for parental consent by receiving the consent at the same time as the survey is administered.

3. Schools prefer not to be associated with non-school research. Our previous experience indicates that doing research in the schools themselves would be problematic. When exploring the possibility of conducting the surveys in the schools for this particular project, leaders in the schools expressed reluctance for the following reasons:

- time is taken away from educational activities and allocated to non-school related research;
- school administrators expressed their wish to avoid the appearance of sponsoring or otherwise appearing to endorse non-school related research;
- school administrators would rather not have to deal with any of the issues that might arise out of the research, if anything is construed as being controversial.

d. Elder's Survey Sample:

Using a modified form of what some social scientists term a Delphi technique, a sample of elders in each community will be contacted. In this case several well-informed individuals in each community will be asked to list those elderly in their community who they consider to be

“elders.” All elderly are not elders; the role of elder is given to individuals of both sexes who exhibit sound judgment, who have detailed skills and experience in subsistence activities, and who may be noted for their mediating skills. Individuals who appear on several lists will be discussed as possible informants with all decisions for inclusion being reached by consensus among the key informants. It is anticipated that all elders in Kaktovik and Nuiqsut, tentatively thought to be 10 and 12 individuals, respectively, will be contacted. A sample of 20 elders each will be drawn from the larger communities of Barrow and Savoonga.

Table III. Sampling Procedures

Questionnaire	Universe	Sample	Sampling Procedure
Whaling Captains			
Barrow	43	All	Census
Kaktovik	10	All	Census
Nuiqsut	10	All	Census
Savoonga (control)	28	All	Census
Total	91	91	
Households (NSB)*	875	281	Random
Households (control)*	160	70	Random
High School Survey	110	All	Census
Elders			
Barrow	Unknown	20	Delphi
Kaktovik	10	All	Delphi
Nuiqsut	12	All	Delphi
Savoonga (control)	Unknown	20	Delphi
Grand Total	Unknown	614	

*See Table V, Standard Error of the Proportion for Community Samples

2. Rationale: Sample Selection and Stratification Methodology

Most decisions in small (or even relatively large) indigenous communities are based on consensus. Considerable effort is expended in the political and social arenas not just to achieve a majority decision but also to fashion a compromise that involves everyone’s commitment. Given this philosophy, it should be no surprise that the NSB strongly championed an inclusive approach to data collection. A compromise was reached when the research design allowed for the voices of all the whaling captains to be incorporated as well as all the high school juniors and seniors. Due to limited resources, probability sampling, with reasonable levels of confidence, is to be implemented for the household sample, with a combination of both approaches being used for the elders.

The sample for each group will be analyzed separately, and comparisons between and among groups will be made with the core set of measures that are identical. Table IV, below, outlines the topical coverage for each survey instrument. The *Whaling Captain Survey* and the *Student Survey* are clearly the most specialized in terms of topical coverage. The *Whaling Captain Survey* focuses on the nuts and bolts of putting a whaling crew together, and details the long-term life experience and observations of this group of experts in the context of whaling. The *Student Survey* attempts, among other things, to measure the existential condition of students in these communities – especially with respect to their feelings about their community and their future plans. For these topics the samples will be analyzed independently, and since both the universe and sample population are the same for both surveys, issues of representation (barring non-response) are moot.

Table IV. Topical Coverage of Survey Instruments

Questionnaire Topic	Whaling Captains	Households/Elders	Students
Demography	x(9)	x(9)	x(4)
Employment and Income	x(3)*	x(13)	x(3)
Participation in Bowhead Whaling	x(14)	-	x(3)
Subsistence Activities and Values	x(20)	x(23)	x(12)
Perceptions on Status of Community	x(12)	x(7)	x(5)
Health	-	x(5)	-
Leisure Activities	-	-	x(4)
Life in Community	-	-	x(12)
Behavioral Health Patterns	-	-	x(23)**

Numbers in parentheses indicate the number of questions under each topic.

*no income

**self-administered

The *Household Survey* employs the same instrument. However, with the exception of elders whose households are drawn in the random sample, the responses from the elder survey will not be integrated with the household sample. The elders’ sample, which is not selected randomly and is stratified to balance gender, will be analyzed independently. Of course parameters from this sample will be compared with similar measures from the other samples. Issues of representation for the elders’ sample are difficult because the universe of elders in the larger communities of Barrow and Savoonga are unknown. We do know the number of elderly in each community, but how many in these cohorts exhibit the character and attributes of “elders” remains unknown until the lists are generated inductively in each community. Even then, elders will not be randomly sampled from the list but will be selected under the advice and consensus of key informants within each community. Previous extensive fieldwork and the advice of key informants from these communities have provided the sample estimates for Kaktovik and Nuiqsut.

The next section will provide a more detailed discussion of the *Household Survey* on these and other issues.

The Household Survey: Level of Precision

A reasonable perusal of the *Household Survey* indicates a significant proportion of nominal data. A number of ordinal measures are also included but questions utilizing interval level responses are in the decided minority.

Given the nature of this research enterprise (objectives and measures used), it was decided to calculate confidence intervals around the sample estimators by using the standard error of the proportion [SE(p)], rather than other measures (e.g., standard error of the mean). The formula used to calculate the SE(p) [without replacement] is:

$$SE(p) = \sqrt{(1-f) \frac{pq}{n-1}}$$

$f=n/N$ is the sampling fraction and where $q=1-p$.¹

In the implementation of this formula we have employed the easiest and most conservative strategy, namely assuming $p=.5$. The variance of a sample proportion reaches its maximum value when this proportion is used.

The last column in Table V provides the SE(p) at the 95% confidence limit (\pm two SE's). For example, we can be 95% confident that the sample parameter for question C.4 "Were any adults in the household unemployed in the last 12 months?" is within $\pm 6\%$ of the population parameter. That is if 50% of the sample households respond in the affirmative, we can be 95% confident that the population parameter lies between 44 and 56. Actually it is unlikely that p will be 50%, most likely, our confidence intervals will be tighter than this.

Table V. Standard Error of the proportion for Community Samples

Community	Universe (households)	Sample (households)	Standard Error of the Proportion \pm
Barrow	672*	170*	6.6%
Kaktovik	85	51*	8.9%
Nuiqsut	118	60*	9.1%
NSB Three Coastal Communities directly affected by OCS	875	281*	4.9%
Savoonga (control community)	160	70*	9.0%

*Alaska Native Households only

¹ See Bernard Lazewitz, "Sampling Theory and Procedures," Chapter 8 in Hubert M. Blalock, Jr. and Ann B. Blalock, *Methodology in Social Research*, McGraw-Hill, New York, 1968.

It was our intent to keep the SE under $\pm 10\%$ for any intra- and intercommunity inferences, a reasonable level given available resources and the precision required of the study. Part of the reasoning for this goes to the fact that the MMS is much less interested in individual community responses (although variance in this realm may prove interesting) than in the general reaction of the Iñupiat households directly affected by their offshore leases – in this case, the aggregated households of the three study communities – Barrow, Kaktovik and Nuiqsut. In this aggregate, we can be 95% confident that the sample parameter is less than $\pm 5\%$.

Data Collection Team and Qualifications

Mike Downs, Ph.D. (EDAW), Barbara Bamberger (EDAW), John Russell, Ph.D. (EDAW), Michael Galginaitis (Applied Sociocultural Research), David C. Maas, Ph.D. (Circumpolar Research Associates), and Don Schug (Northern Economics) will be responsible for conducting the surveys. The research team will work closely with Anne Jensen (Science Division of Ukpeagvik Iñupiat Corporation, Barrow) to recruit and use local surveyors whenever possible. Jana Harcharek (Director of bilingual programs with the NSB School District) will provide translation support, when required.

Questionnaire and Response Cards

The response cards will enable the respondent to review quickly the survey questions with numerous choices and privately answer sensitive inquiries (e.g., income).

Quality Control Measures

This research design addresses two kinds of quality control issues. First, because the design lacks a panel many controls for reliability, e.g., a Solomon four group, are not available. Some tests comparing the results of this research with a recently conducted demographic survey [100% sample] that was sponsored by the NSB will be implemented. However, these tests will be at the level of sample parameters and are thus open to issues of “ecological fallacy.” That is, because of privacy issues we will not be able to link discrete households between the two surveys. However, we anticipate the sample parameters on household size, income, and so forth will not experience a statistically significant difference between the two surveys. Obviously, we will investigate any parameters that do prove to be statistically different.

At the level of the survey research itself a number of quality control features will be implemented. Interviews will be conducted by staff with considerable experience both in the community and with the survey research process. Coding manuals will be developed to minimize ambiguity with coding decisions. Coding will be completed by the researcher who conducted the interview. Data entry will have reliability checks and wild code errors will be examined on data files using routines incorporated within the Statistical Package for the Social Sciences (SPSS).

Coding of Open-ended Responses

Inter-rater reliability will be accomplished in two ways. First, during training sessions, interviewers will be instructed to be aware of any implied metrics within open-ended questions. For example, the student questionnaire asks:

F.1. How do you feel about the amount of subsistence activities that you do?

F.1.a. Why?

Implied in the first part of this question is the ordinal metric -- not enough, enough and too much. Interviewers will be instructed to be aware, for this question and others like it, to be sure they understand the respondent's position on this rough scale.

The second part of the question, "why", really has no implied metric and is open to a wide variety of responses from - the impact of school activities, family responsibilities, opportunity, skills, interest and so forth. All of the "why" responses will be diligently recorded and after a critical number of interviews, perhaps 200, will be transcribed into a long list of bullets. The primary investigator and all field investigators will then take this list, organize the range of responses into rough categories and then inter-subjectively reach a consensus on the final list of attributes.

Second, each attribute will be assigned a unique code for that question. Code sheets may apply to several questions or may be unique.

Interviewers will be instructed to keep track of any additional responses that are not covered by these coding lists. It is anticipated that few uniquely new attributes will be uncovered. However, if a substantial number of new attributes are discovered they will be discussed during periodic reviews of the interviews by the principal investigators. It may be the case that new coding sheets will need to be distributed via email during the last half of the field season. More likely scheduled contacts with interviewers will simply add new attributes periodically to coding sheets.

Establishing coding sheets halfway through the field work is preferable for two reasons. We assume by this point that most (if not all) of the variability in open ended responses will have been encountered. First, this midpoint coding will facilitate the time each interview takes during the second half of the field season. Secondly, and most important, the process outlined here provides a completely coded set of interviews at the end of the field season and saves scarce personnel resources from a completely after the fact coding endeavor.

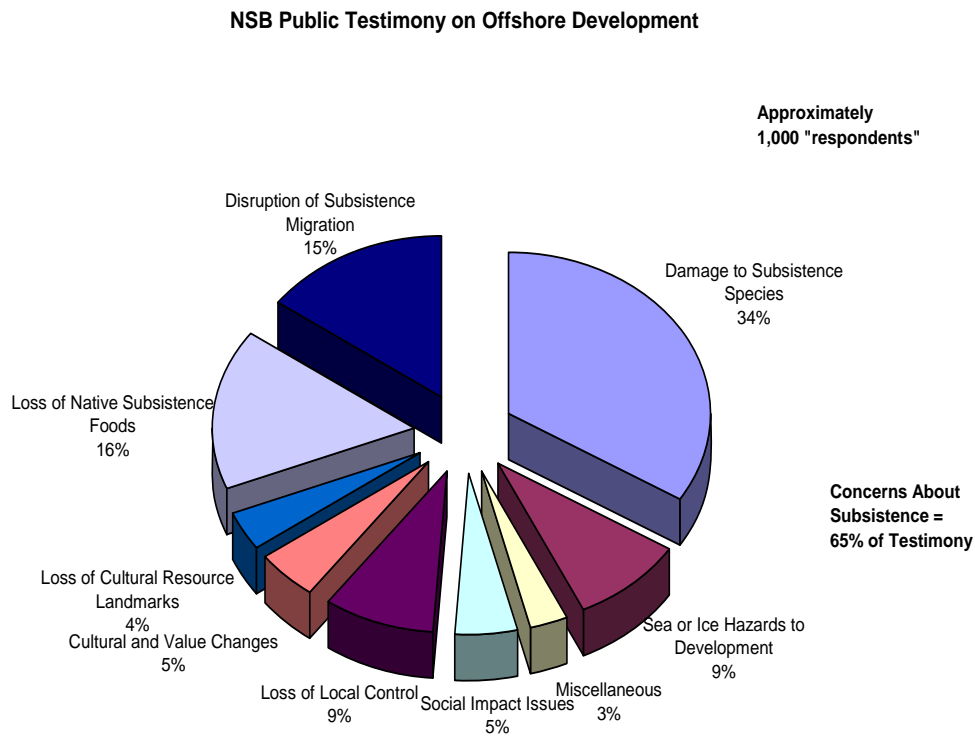
Missing Data

Individual codes for missing data will be included in the SPSS package. Codes will be specified for "not applicable," "respondent declined to answer," and "missing." There are no plans for imputation of missing data. Missing data will be excluded from the calculation of descriptive statistics, and pair wise deletion will be used in most bivariate statistical procedures.

3. Maximize Response Rates

Traditionally, surveys sponsored by the MMS on the North Slope have experienced non-response rates of less than 5% (e.g., see the Social Indicators Project). It is anticipated that the

Figure 1. NSB Public Testimony on Offshore Development



non-response rates for this project will be equally low. The most crucial reason for this assumption is the nature of the research topic. The ability to continue subsistence activities (most prominently whaling) is the most important public issue for North Slope indigenous residents. Analysis of public testimony was conducted by Kruse et al. (1983). The chart above summarizes this analysis and graphically illustrates their concerns.

To realize the importance of this issue, one has to understand that subsistence activities provide more than simple nutrition. Collective subsistence activities, whether gathering berries, processing fish at a fish camp, or seal hunting with a father or brother, provide the most basic memories in an individual's life. These activities define the sense of family and community. They teach how to identify and harvest resources, and how to process them efficiently and non-wastefully into a variety of food items. Distribution of resources promotes the most basic values of Native and rural culture: generosity, respect for the knowledge of elders, self-esteem for successful harvest, and public appreciation for sharing the harvest. No other set of activities in these indigenous communities provides a similar moral foundation for continuity between generations.

Methods Used to Maximize the Response Rate

This work will use complementary strategies to maximize response rates for each of the three surveys. These strategies are to: develop *organizational support*; provide *information* to individuals to understand the purposes and process of the surveys; provide *incentives* to participate; *limit barriers* to participation; and use *field procedures* to maximize participation.

Organizational Support

- Enlisting support from and developing collaborative working relationships with key leaders and organizations in the study communities are essential for maximizing response rates in the *Household Survey*. Without this support, it is likely that individuals in these relatively small communities would be more skeptical about the purposes, goals, and motives of the surveys. This skepticism might decrease response rates. To develop community support and allay community skepticism, the project team has worked with individuals in key entities such as the Alaska Eskimo Whaling Commission (AEWC); Whaling Captain Associations in the project communities; the NSB Mayor's Office; The Division of Wildlife and the Superintendent of Schools for the North Slope Borough; the Mayor's offices of the project communities; and the offices of the Native Corporations for the project communities. The AEWC and the NSB Mayor's Office have provided written letters of support to be given to everyone approached for interviews (attached as Appendix 1). The introductory statement in each survey expresses the support for the survey of AEWC and the NSB Mayor's Office. This expressed support for the work by key persons should decrease skepticism and questions about project motives and increase overall response rates.
- The AEWC will provide letters of support for the participation of whaling captains in the *Whaling Captain Survey* (attached as Appendix 1). Additionally, the Whaling Captains Association in each of the project communities will be asked to meet with the survey team and provide the necessary introductions to the whaling captains in each community. Each of these actions will maximize response rates for this survey.
- The Superintendent of Schools in the project will introduce the project to the families of high school juniors and seniors in the study communities. They will encourage participation in the survey and provide contact telephone numbers for any questions regarding the content and purpose of the survey. Additionally, letters from the NSB Mayor's Office and the AEWC (attached as Appendix 1) will be sent to the student families.

Information to Promote Participation

- Providing information about the project and its uses and outcomes for participants will contribute to maximizing response rates. Prior to the surveys, a letter will be sent to key individuals and groups within the project communities explaining the surveys and the dates the survey team will be on site. Using existing contacts, a community meeting will be arranged to introduce the survey team and explain the survey process and goals. These meetings will increase community awareness about the project and familiarize community

members with the survey team. Information about the project will be presented in a culturally appropriate forum that will contribute to maximizing survey responses.

- In addition to community meetings, research team members will make arrangements with the local radio station for an on-air presentation about the project. Local radio is an important means of communication of information about events in these communities. A presentation in this forum will provide another information channel to residents in the project communities.

Incentives to Participate

- Providing compensation to respondents for participation in the study will contribute to maximizing response rates. Individuals in some communities expect compensation for participation in survey projects. These expectations have been fostered by other research projects that provide compensation for respondents. We will provide compensation for participation in this survey project in all communities.

Limit Barriers to Participation

- Using interpreters to translate survey questions for non-English speakers or for those who are more comfortable in their native language will contribute to maximizing response rates. The NSB and others have indicated that community elders and some other persons may be more comfortable responding to questions in their native language. The NSB and others have indicated a willingness to provide interpreters to ensure that language issues will not impede respondents from participating in the survey.
- Developing culturally appropriate survey instruments that are responsive to the needs of the project communities should assist in maximizing response rates. The project team has worked with a range of community members (whaling captains, school board members, community leaders, and other locally knowledgeable persons) to construct surveys that are both culturally appropriate and responsive to community concerns about the relationship of development activities to participation in bowhead whaling. Surveys have been reviewed with these individuals to ensure that questions are culturally appropriate and also to solicit assessments of the topics addressed. This work has developed some good will among key individuals that will assist in providing a broad base of support for the work. This should contribute to maximizing response rates.
- The use of interviewers who are culturally aware of the conditions for the surveys will contribute to maximizing response rates. Native Alaskans are hospitable people, but culturally inappropriate behavior by interviewers can result in refusals and lowered response rates. The project is using interviewers with experience in Native Alaskan communities and providing additional training in culturally appropriate behavior as part of the training regimen for all interviewers. This will further contribute to maximizing response rates.
- Respondents will be assured of the confidentiality of their responses to the survey questions. A confidentiality form will be provided that makes an explicit guarantee of confidentiality of

all responses collected during the interview. A copy of the form signed by the interviewer will be provided to the respondent.

- We will also maximize response rates by ensuring that the survey is administered at an appropriate season in these Native Alaskan villages. We will concentrate on the post-whaling season months of May and June when residents are more likely to be home and amenable to participation in the interviews. We will avoid summer months when they may be at fish camp and the fall and spring months when whaling or preparations for whaling are underway.

Field Procedures

- Field stays will be sufficient to allow for community familiarization with the project and its representatives.
- Interviewers will perform up to eight follow-up visits to obtain participation by individuals or households selected as part of the survey sample.
- A senior interviewer will be designated for each field site to monitor implementation and address follow-up issues that may affect response rates.

4. Pretest

The pretest report is on file with MMS Anchorage office and has been provided to the U.S. Office of Management and Budget.

5. Statistical Consultants

Donald Callaway, Ph.D. a consultant for Circumpolar Research Associates.

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Appendix: Letters of Introduction

Letter of Introduction:

This is a letter of introduction from the Alaska Eskimo Whaling Commission regarding your participation in the project titled “A Quantitative Description of Potential Impacts of OCS Activities on Bowhead Whale Hunting Activities in the Beaufort Sea.” The study is supported by the Alaska Eskimo Whaling Commission (AEWC) and the North Slope Borough. It is paid for by the U.S. Minerals Management Service and is carried out by a research firm named EDAW. The study will be finished next year and the results presented to participating communities. We ask that you participate in the surveys and interviews for this project. If you have any questions about the project, please contact Mike Downs, the EDAW, Inc. Project Manager at (619) 233-1454, or Anne Jensen, the local project representative at 852-3050. You may also contact AEWC at 852-2392 or the North Slope Borough Mayor’s Office at 478-6606.

Maggie Ahmaogak
Executive Director
Alaska Eskimo Whaling Commission

Letter of Introduction:

This is a letter of introduction from the Mayor’s Office of the North Slope Borough regarding your participation in the project titled “A Quantitative Description of Potential Impacts of OCS Activities on Bowhead Whale Hunting Activities in the Beaufort Sea.” The study is supported by the Alaska Eskimo Whaling Commission (AEWC) and the North Slope Borough. It is paid for by the U.S. Minerals Management Service and is carried out by a research firm named EDAW. The study will be finished next year and the results presented to participating communities. We ask that you participate in the surveys and interviews for this project. If you have any questions about the project, please contact Mike Downs, the EDAW, Inc. Project Manager at (619) 233-1454, or Anne Jensen, the local project representative at 852-3050. You may also contact AEWC at 852-2392 or the North Slope Borough Mayor’s Office at 478-6606.

George Ahmaogak
Mayor
North Slope Borough

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