QUALITY ASSURANCE PROJECT PLAN
for
KODIAK ISLAND TRIBES
SUSTAINABLE FOODS CONSUMPTION ASSESSMENT

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Submitted for consideration to:
U.S. ENVIRONMENTAL PROTECTION AGENCY REGION 10

DATE: July 30, 2014

APPROVALS:

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ACKNOWLEDGEMENTS

This Quality Assurance Project Plan (QAPP) is written and presented in order to satisfy federal EPA requirements.

The SUN'AQ TRIBE OF KODIAK developed this QAPP including the questionnaire from plans developed by the Seldovia Village Tribe, and also in part on the Columbia River Inter-Tribal Fish Commission, and the Squaxin Island and Tulalip Tribes' previous studies. We appreciate the above-mentioned tribal organizations for their work in adopted the appropriate language and format for assessment QAPPs and questionnaire forms to native tribes, which we used as templates. We also wish to than the Village Council members and Tribal staff of Sun'aq, Ouzinkie, Port Lions, Larsen Bay and Old Harbor for their collaboration and efforts to make this project happen. We also with to thank EPA for funding the project

DISTRIBUTION LIST

Official copies of this QAPP, accompanying documents, and any subsequent revisions will be provided to EPA and all those named on the approval page of this document.
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PROJECT BACKGROUND

For thousands of years, native tribes residing on the Kodiak Archipelago have shared and consumed traditional and customary foods originating from the Gulf of Alaska. However, concurrent with historical events and modern environmental pollution has been increasing evidence that human health within certain cultural populations (or subpopulations) may be at risk if traditional foods are consumed. Because traditional foods comprise 40% to 90% of rural-Alaskan diets, elevated levels of contaminants in these resources can be especially dangerous to Alaska natives (ATSDR 2009). Federal and/or state human-foods risk assessments that consider pollutants are typically based on national averages and habits, but application of such information is suspect when used to infer health risks at the local level (NEJAC 2002).

This project focuses on marine or freshwater-derived foods (but simply referred to as "seafood" here) harvested from the northern Gulf of Alaska and streams and consumed by Alaska Native populations at six different locations on Kodiak Island and Spruce Island. Activities proposed for this project will measure present-day food consumption habits and food quantities derived from finfish, shellfish, and marine mammal sources by people located in participating native villages. Our major goal is to calculate accurate estimates of per capita seafood consumption at the tribal village scale.

Geographical Setting

Centered around Kodiak Island, this study will take place in a region about 275 air-miles south-southwest of Anchorage, Alaska. With an area of about 3,600 square miles, Kodiak Island is the second largest in USA and its territories, and is surrounded by highly productive Gulf of Alaska waters. Some islands of the Kodiak Archipelago have been occupied continuously by humans for over 7,500 years (Crowell, 2001) and are the ancestral lands of the Sugpiaq (or today called Alutiiq) Alaska Natives. The original inhabitants of the archipelago relied heavily on maritime food resources. Today's Sugpiaq descendants as well as non-tribal occupants of the archipelago still utilize seafood resources to a very high degree.

PRIMARY STUDY GOAL

This assessment attempts to determine a credible, commercial and non-commercially-obtained finfish, shellfish and marine mammal consumption rates (expressed in grams/person/day) of representative subpopulations of Alutiiq Tribal members across Kodiak Archipelago, during the previous year. This assessment is not intended to document historical fish consumption rates. It is intended to accurately describe the current seafood consumption rates of Native village members at various locations on Kodiak Island and Spruce Island, Alaska.

Study Questions

Due to unique geographic and cultural practices, residents of the Kodiak Archipelago who survive on customary subsistence food diets may differ from national seafood consumption averages, but we do not know how they differ. Are finfish, shellfish, and marine mammal consumption habits of tribal members in four villages and the city of Kodiak located on Kodiak Island and Spruce Island significantly different from the reported national averages? For example, not all groups of people eat the same fish or parts of fish, nor do they each eat the same amount or same kind of meal (e.g., soups vs. fillets) with the same frequency. Because tribes are semi-isolated geographically, this

study will attempt to look at the various seafoods consumed, by type (or species), by quantity consumed, and by age groups within each tribe. Due to timing of fishing seasons and the fact that many potential participants in this survey may be absent from their homes when interviews are conducted, the desired sampling sizes may be unachievable. Sampling data may be pooled for several villages with similar demographics if n-size for an individual village tribe cannot be met (refer to "Project Organization and Study Design" for further discussion).

This assessment is not intended to assess historical fish consumption rates. It is intended to accurately describe the current observed consumption rate of Kodiak Island Tribal members. Determine a credible, non-commercially plus commercially obtained fish and shellfish consumption rate (expressed in ounces & grams /day) by Kodiak Island Tribal members during all four seasons of the previous year.

OBJECTIVES

Collect data and information on overall consumption by Kodiak Island Tribal members of fish, shellfish and other subsistence foods obtained from harvests and grocery stores.

1. Identify the most frequented specific locations where fish, shellfish and marine mammals species (regularly consumed by tribal members) are harvested.
2. Create a questionnaire that will provide a description of the current consumption habits of subsistence foods (both whole and parts) of tribal members in regards to seasonality, special events/ceremonies, and during breast-feeding.
3. Estimate average daily consumption of fish by adults (18 years old and up).
4. Interview 'n-number' of the adult tribal members from each of five Kodiak Island villages and the Sun'aq population of the City of Kodiak.
5. Statistically identify the number of tribal members that consume fish and other subsistence food.

Interviewer Training Plan

The purpose of the Interviewer is to provide a familiar face to the task of contacting, scheduling, interviewing and entering the questionnaire information obtained to a database provided by the Project Manager.

Trainer and Point of Contact for this project is the Project Manager.

Needs and skills necessary: The ability to work without supervision and possibly long hours.

Legible writing skills.

Computer skills (Word and Excel).

Ability to speak with potential interviewees in a natural, friendly and yet businesslike manner. **Training Materials**:

Copy of the QAPP, including the questionnaire form, confidentiality statement and consent

form.
EPA Guidance for Conducting Fish and Wildlife Consumption Surveys.

Training Steps and Methodology

1. View PowerPoint presentation given to each tribal council.
2. View tutorial for random number generator procedure.
3. Discuss the importance of the initial contact with tribal members (behavior and pace of conversation to create a comfort zone).
4. At least one practice interview will be conducted before commencing project interviews.

PROJECT ORGANIZATION AND STUDY DESIGN

During initial project planning and study design, project investigators worked to complete a research design that met all study Objectives while assuming adequate population numbers could be met for making robust, statistical inferences. However, as contacts were made and tribes reported back with their enrollment numbers (**N**), investigators found that tribe sizes for most villages on the Kodiak archipelago were relatively small. This fact, in addition to other constraining issues make the likelihood of obtaining a sufficient number of interviews (plus a margin for error) necessary for making statistically defensible inferences for multiple age groups, for every tribe, low or unattainable. Issues that potentially affect the project's scope include administrative constraints (e.g., small budget and fiscal deadlines), and logistical challenges (e.g., travel weather, and fieldwork timing; lack of qualified help at local level).

To address the sampling size and logistical issues discussed above, and successfully complete this study, investigators find it necessary to:

- Exclude two village tribes from the project (i.e., Akhiok and Karluk) due to low-**N** numbers and logistical concerns;
- Pool data collected from four demographically-similar tribes, to create two populations with sufficient sampling sizes of "***n***"+20% which equals a statistically calculated sample size plus a 20% buffer described in the section below (see **Survey Sample Size**);
- Reduce the number of age groups from three to two, (i.e., adults 18 yrs. and over, and children less than 18 yrs. old);
- Count Kodiak's village tribe (i.e., Sun'aq Tribe of Kodiak) as one population.

Tribes located in Port Lions and Ouzinkie are counted as one population because they have similar enrollments "**N**", are located at the northeastern end of Kodiak Island with frequent or semi-frequent ferry service, and are nearest to the region's hub city of Kodiak. Larsen Bay and Old Harbor village data are similarly pooled to form a different population for making statistical comparisons. While Old Harbor has a larger tribal population than Larsen Bay, these villages are further away from Kodiak (located more SW relative to Port Lions and Ouzinkie), and are less accessible to regular barge or ferry shipments of food and other commercial goods. Sun'aq Tribe

of Kodiak (located on Kodiak's "road system") has the largest tribal enrollment of all tribes in the Kodiak Archipelago, and is treated as a single population.

Survey Sample Size

Based in part on constraints given above, and presumed participant refusals (i.e., unreachable), a survey sample size of *"**n**"*+20% participants, will be calculated for each "population" (based on a log-normal distribution, a typical convention for studies such as this). A statistical precision level of 20% was assumed (and equals standard deviation or *"**s**"* on log-scale = 1.2). Other diet studies have had smaller standard deviation values, but we choose to use slightly broader confidence bounds given our study limitations. Figure 1. displays formulas used to solve for "***n***".

Given: ***n*** = sample size required

N = total tribe enrollment number

s = assumed sample std deviation as log value

$$\exp\left(1.96 \frac{s}{\sqrt{n}} \sqrt{1 - \frac{n}{N}}\right) = 1.2$$

Then simplified as:

$$\frac{1}{n} = \left(\frac{ln\ s}{1.96 * s}\right)^2 + \frac{1}{N}$$

Figure 1. Formula for solving sample size necessary to meet statistical requirements based on log-normal population distribution (as in Toy et al, 1996). Expression on the right is further simplified.

Calculations and desired sample sizes for each population are given in Table 1. It is assumed that the 18 yrs. of age and older groups will also meet the desired ***n*** for asking further interview questions about household members under 18 yrs. of age.

Table 1. Sample Size (number of interviews or surveys) "***n*** + 20%" required per population and age group within each population; Five tribes combined to form 3 population sets.

Village Tribe	Pooled Tribes Enrollment Group Size **(N)**	***s***	Formula to solve for required sample size ***n***		***n***	***n*** + 20% (NON-Participation and Data Errors)
LB+OH G1 (<18)	74.0	1.2	(*ln* s / (1.96 x s)) ^2 + 1/ N	=	52.0	**62**
LB+OH G2 (18 & over)	198.0	1.2	(*ln* s / (1.96 x s)) ^2 + 1/ N	=	91.0	**109**
Totals	272.0					
PL+Oz G1 (<18)	49.0	1.2	(*ln* s / (1.96 x s)) ^2 + 1/ N	=	38.0	**46**
PL+Oz G2 (18 & over)	207.0	1.2	(*ln* s / (1.96 x s)) ^2 + 1/ N	=	93.0	**112**
Totals	256.0					
Kodiak G1 (<18)	152.0	1.2	(*ln* s / (1.96 x s)) ^2 + 1/ N	=	80.0	**96**
Kodiak G2 (18 & over)	599.0	1.2	(*ln* s / (1.96 x s)) ^2 + 1/ N	=	131.0	**157**
Totals	751.0					

Notes:

- G1 and G2 refer to Group 1 age <18 yrs. old, and G2 age 18 yrs. old and greater.

- LB= Larsen Bay, OH = Old Harbor, PL=Port Lions, Oz=Ouzinkie

Tribal members will be selected for in-person interviews conducted by one or two interviewers hired locally from each participating village. Tribal members selected to do the interviews will be randomly chosen from tribal member registry lists provided by each tribe. Before any selection process takes place, tribal members under the age of 18 will be removed from the registry lists as well as known non-resident tribal members. "Resident" is defined as presently residing in one of the participating villages. Remaining names on the list will then each be assigned a number. Using a random integer generator, numbers will be generated and they will be contacted for an interview until the "n"+20% of registered tribal members in that village are selected. Selected tribal members will be contacted 4 times before considering them to be "unreachable." In the event of interview refusals or not being able to successfully contact selected tribal members, other tribal members will be contacted in the order that their assigned numbers appear on the random number table until the quota of "n"+20% of the village population interviews is achieved. Attempts will be made to contact selected tribal members who had no valid phone number by sending them a letter informing them of the assessment and asking them to contact tribal staff to arrange an appointment or by speaking to them in-person (if possible).

Interviewees will be shown food models approximating 3 and 5-ounce portions of fish. During the interview, if a tribal member answers "yes" to having youth 17 years or younger living in their household, they will be asked to provide additional dietary information for the youngest. Youth data will later be divided into 3 categories: children ages 5 and under will be considered Group 1, those 6 to 11 Group 2 and 12 to 17 Group 3. Preferably, all interviews will be conducted at a central location within each village. However, interviews may be conducted at the homes of tribal members in the event they cannot physically travel to the location or are very uncomfortable conducting the interview at the central location.

METHOD OF INTERVIEWEE SELECTION

Participation in the study will be based on the following specific criteria:

a) Adult has to be enrolled tribal member residing in the village or city;
b) Adults have to be eighteen years or older.
c) Adults responding for a child have to reside in the same household as the child.

PROJECT SCHEDULE

One to two interviewers will be locally hired in each of the participating villages (Sun'aq, Old Harbor, Larsen Bay, Port Lions and Ouzinkie) to carry out the bulk of the fieldwork of the project work. However, project facilitation, resources (forms, food models, digital recorders, etc.), training, and supervision will be the responsibility of STK Natural Resources staff. Tribal members will be contacted for interviews in July and August , 2014. Within each village, all interviews will preferably take place over a period of two days in August of 2014.

QAPP Approval with EPA consultation	July 30, 2014
Final Assessment forms approved	July 30, 2014
Interviewers hired in each Village	August 2014
Training of interviewers	August 2014
Interviews conducted in Villages	August - September 2014
Data entered	September - October2014
Reviewed and analyzed by STK staff	October – November 2014
Data analysis	October – November 2014
Final Report	December 31, 2014

ASSESSMENT TARGET POPULATION

The assessment includes five of the 10 Kodiak Island Tribes and Sun'aq tribal members from the City of Kodiak. These locations were chosen non-randomly for a geographic representation of the entire archipelago (north, south, east, west and Pacific Ocean and Shelikof Strait sides).

Using standard statistical comparisons, as in Toy et al., 1996, we will compare villages, look at different age groups and see if there are significant differences in fish consumption rates.

QUALITY CONTROL FOR INTERVIEWING

- Interviewers will read and follow *EPA's Guidance for conducting fish and wildlife consumption surveys,* http://water.epa.gov/scitech/swguidance/fishshellfish/techguidance/upload/1999_11_05_fish_fishguid.pdf.

- Drafts of the questionnaire form (see Appendix F) and this QAPP will be approved by EPA, and revised accordingly, before being implemented in interviews.
- At least one pre-test interview will be given by interviewers.
- Before each interview begins, the interviewee will be read a confidentiality statement (see Appendix B).
- All interviewees will sign consent forms (see Appendix C) before interviews begin with the interviewee having the right to end the interview at any time.
- A Quality Assurance Monitor will be present during all interviews to observe and monitor. The Quality Assurance Monitor will be, either STK's Foods Consumption Assessment Program Manager, the STK Biologist or the STK Natural Resource Director as agreed upon prior to interviews being conducted. At the end of each interview, if needed, a de-briefing session will be held between the Quality Assurance Monitor and the interviewer to review any improvements that could be made in interviewing technique.
- Each interview will be recorded provided the interviewee gives consent and the data will be stored in a fire safe, secure file cabinet in the tribal office.
- Food models representing approximately 3-oz and 5-oz fish portions will be shown to interviewees when being asked questions about amounts of fish to increase accuracy (see Appendix I).
- Alaska Fish ID books will be made accessible and available to interviewees during interviews (see Appendix J).
- Number of completed interviews will be tracked by interviewers and STK staff.
- A checklist form will be followed by the interviewers during the interviews to facilitate consistency and dissemination of information to interviewee (see Appendix D).

QUALITY CONTROL FOR DATA ENTRY, MANAGEMENT, STORAGE, AND ANALYSIS

- Tribal members will be selected for interviews randomly.
- A contact activity log will be used when contacting Tribal members for interviews (see Appendix A).
- Interviewers will manually fill out the questionnaire forms during the interviews.
- At the end of each interview, a Quality Assurance Monitor will screen the completed questionnaire to insure accuracy, legibility, and completeness of the form. The Quality Assurance Monitor will initial and date the form to document acceptability.
- Raw data will be given to STK staff and directly entered into a Microsoft Excel Spreadsheet from pre-coded (i.e. numbered) questionnaires.
- Raw data will be entered into a Microsoft Excel Spreadsheet where mathematical calculations, if applicable, are performed by the spreadsheet using formulas.
- Personnel will review data entries to decrease transcription errors.
- If transcription errors are found, that data will be corrected and highlighted with a comment placed noting the date of change, the reason for changing it, and who changed it.
- Hard copies and/or originals of completed questionnaires, consent forms, check list forms, and contact activity log sheets will be filed in a designated "assessment" folder at STKs offices.
- Interviewers and Quality Assurance Monitors will receive procedural training and instruction to be eligible to collect data for this project.
- Interviewers and Quality Assurance Monitors will attend on- going training as time and resources allow, reviewing interviewing procedures, asking questions and fine-tuning skills.
- Based upon 24-hour memory recall of dietary information provided by interviewee, if interviewer and Quality Assurance Monitor deem data to be unreliable, the data will not be used.
- Any statistical analyses performed on data will be verified for appropriateness and accuracy by an outside agency, such as personnel from Alaska Native Tribal Health Consortium (ANTHC).

QUALITY CONTROL FOR CONFIDENTIALITY

- No personal information will be entered with data from completed questionnaires. Each completed questionnaire will be assigned a number and the number will be used to identify and reference data from specific interviews. These same questionnaire numbers will be used on checklist forms to reference specific interviews.

- Respondent code numbers will be used on contact activity log sheets instead of names to reference specific interviewees.

- No other individuals, other than the interviewee, the interviewer, and the Quality Assurance Monitor will be present in the room during an interview.

- At the beginning of each interview, the interviewer will read to the interviewee a confidentiality statement without any additions or deletions to the information.

- Assessment documents pertaining to the interviews will be kept in secured storage.

- No personal statements made by the interviewee during the interview, which could potentially identify the interviewee, will be shared.

FINAL REPORT

The results of this study shall be summarized in a final report. The authors and collaborators (to be identified in the final report) will prepare the report and be the major contact for technical and analytical information. The final report shall include a summary of assessment methods and a description of unusual occurrences. Confidentiality will be expressed and participants, EPA, and Village Council members will be given the results of the assessment upon completion of the final project. Personal data is considered confidential pursuant to the FOIA exemption for personal privacy. The information contained in this survey is personal to tribal members and therefore confidential and so considered confidential personal privacy information as defined in the Freedom of Information Act (FOIA) 40 CFR sec 2.200, and may also qualify as confidential business information pursuant to FOIA.

PROJECT PERSONNEL

The majority of project work will be conducted by the Sun'aq Tribal Special Projects Program Manager Kathy Drabek with assistance from staff of each participating village. Sun'aq Tribal Biologist Tom Lance will assist with technical writing, data analysis, mapping, and fieldwork as necessary Sun'aq Natural Resources Director M. Pamela Bumsted will provide resources, oversight and supervision for the project and assessments to be conducted in each village.

Position Title: Traditional Foods Consumption Assessment Special Project Manager

Kathy Drabek, BARCH, LEED AP is the STK Project Manager for the Sustainable Foods Consumption Assessment. Her work involves overseeing and implementing STK's IGAP Special Fish Consumption Project. Kathy will be facilitating and supervising the majority of the work in this project in collaboration with tribal members from the villages of Sun'aq, Ouzinkie, Port Lions, Larsen Bay and Old Harbor.

Kathy is the primary contact for technical objectives, analytical procedures, QA requirements, problem resolution and general implementation of the QAPP. Key project members from each village (including hired interviewers) will be thoroughly instructed in the specific procedures, methods and quality assurance guidelines prior to tribal member interviews. They will be encouraged to complete research and training courses provided.

Position Title: Tribal Biologist

Thomas Lance, M.S. provides technical support and outreach for Sun'aq Tribe of Kodiak for a variety of natural resources concerns. Mr. Lance will assist this project with technical writing, analysis, mapping, and fieldwork as needed. He has broad academic and work backgrounds in resource assessment and management, both local and foreign. He is responsible for several grant-funded projects designed to enhance and protect important habitats within Kodiak's most-used salmon subsistence fishery watershed (e.g., Buskin River and Lake): Current projects managed include the "STK Salmon Habitat Expansion and Restoration Program" (USFWS, Tribal Wildlife Grant), and is the STK representative on an intra-governmental team to form a "Strategy Development for Establishment of a Voluntary Participation Water Temperature Monitoring Network in the Kodiak Archipelago, Alaska" (Western Alaska Landscape Conservation Cooperative - Grant). He will also manage/conduct a 5-year habitat assessment project starting in Spring 2014, investigating Buskin River estuary conditions, in response to the Kodiak Airport Expansion project (though FAA funding to Alaska DOT).

Position Title:
Natural Resources Director

M. Pamela Bumsted. Ph.D. is the Natural Resources Director for Sun'aq Tribe of Kodiak. Her main work involves overseeing and implementing STK's IGAP programs and associated projects. Pam and her assistants will be supervising the work in this project in collaboration with the Natural Resources staff and Council members from the villages of Sun'aq, Old Harbor, Larsen Bay, Port Lions and Ouzinkie.

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Wampanoag Tribe of Gay Head (Aquinnah) Fish and Shellfish Consumption Survey (2002

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APPENDIX C- **Consent Form**
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Respondent Code #:_____

APPENDIX A

CONTACT ACTIVITY LOG

VILLAGE: _____

DATE CONTACTED TO ESTABLISH INTERVIEW:

Enter month/day/year, and time of day. Allow up to four attempts to arrange an appointment. Enter Code NR for no response, LM for left message with someone who answered the phone or answering machine/voice message, C for completed call.

1) Date	2) Date	3) Date	4) Date
Time	Time	Time	Time
Code	Code	Code	Code

INTERVIEW APPOINTMENT DATE/TIME/LOCATION (Use 2 and 3 only if respondent asks to change original appointment. Circle either board room or fill in "other" for location).

1) MONTH/DAY/TIME (original)

_____

LOCATION

_____

2) MONTH/DAY/TIME (1st change)

_____

LOCATION

_____

3) MONTH/DAY/TIME (2nd change) LOCATION

_____

INTERVIEWER'S NAME

_____

RESULT (*Circle One*)

1) Completed interview - Questionnaire Code #_____

2) Missed appointment – need to reschedule

3) Refused to participate:
Reason _____

4) Could not be contacted for interview

5) Interview not completed
Reason_____

Additional Comments

APPENDIX B
KODIAK ISLAND SUBSISTENCE CONSUMPTION ASSESSMENT – CONFIDENTIALITY STATEMENT

Interviewer: Please read as stated below without additions or deletions to the information provided to the respondent.

Hello, my name is_____and I represent the _____ Tribe. We appreciate your willingness to participate in this survey.

The information given in response to this questionnaire will help the tribes of Sun'aq, Old Harbor, , Larsen Bay, Port Lions and Ouzinkie understand actual rates of fish consumption, as well as that of other subsistence foods, by tribal members, what species are regularly eaten, how fish meals are prepared and cooked, and the locations of where fish are harvested from.

All of the personal identification information which you provide to us during the interview is confidential. The information you share with us will be given to Sun'aq Tribe of Kodiak's Natural Resources Department and will be entered into a database belonging to their department. Your responses to the questions will be combined with those of others so that your answers cannot be identified. No personal identifiers will be used. You will only be identified by a number system. Once the survey is complete, there will be a report completed summarizing the results. All participating members of the tribe will be sent a copy of this report.

The interview will take about a half-hour to an hour. It has 5 sections. To begin with, I'm going to ask you to sign a consent form and to provide some general background information. By signing the consent form, you will be granting your permission to conduct the interview, for the above mentioned tribes to use the information you have provided, and acknowledging being read this confidentiality statement. Additionally, on the consent form, you will be asked to check a box indicating whether you give or do not give permission for the interview to be recorded. We would like to tape-record the interview to insure accuracy and to help with verification of the data. At the beginning, I will also be documenting the time and date of the interview. In section 1 of the questionnaire form, I will be asking you to list everything you have eaten or drank in the past 24 hours as a memory–recall exercise. In section 2, I'll be asking you questions about what kinds of fish and shellfish you eat, how much you eat, and how that fish and shellfish is typically cooked or prepared. In section 3, if there is a child who is 17 years or younger living in your household, I will ask you to provide the same type of information as you gave in section 2 for the children in your household. Any information given about the children will also be confidential in the same ways as mentioned in the above paragraph. If applicable, I may ask you some additional questions regarding nursing. In the final section (section 4), I will ask you questions about where and how you obtain fish, shellfish and marine mammals. This may include asking you to mark on a map where you typically harvest particular subsistence foods.

At the end of this interview, upon request, you will be given the contact information of myself or of other tribal staff involved in this project in case you have any questions or concerns.
At this time, do you have any questions for me?

APPENDIX C
KODIAK ISLAND SUBSISTENCE FOOD ASSESSMENT
CONSENT FORM

I understand that I am being asked to participate in an assessment/questionnaire activity, which will be conducted in-person, that will help the Tribes of Sun'aq, Old Harbor, Larsen Bay, Port Lions and Ouzinkie gather information about the actual rates of fish consumption by tribal members, what species are regularly eaten, how fish meals are prepared and cooked, and the locations of where fish are harvested from.

I have been read a confidentiality statement by the interviewer and have been given general information about the project and the types of questions I can expect to answer about myself and potentially a child (17 years old or younger) living in my household. I understand that any information I provide will be kept confidential, used only for the purposes of this study, and will not be used in any way that can identify me or the child. I understand that by checking one of the boxes below, I will be either giving or not giving consent for the interview to be recorded. All survey/questionnaire responses, notes, tapes, and records will be kept in a secured environment.

I understand that my participation in this project is completely voluntary and that I am free to decline to participate, without consequence, at any time prior to or at any point during the interview. Should I decline to participate, I understand that any information I have provided to the interviewer will be destroyed.

I understand that there are no risks involved in participating in this activity, beyond those risks experienced in everyday life.

I have read the information above. By signing below and returning this form, I am consenting to participate in this assessment/questionnaire project as designed by the Sun'aq Tribe of Kodiak and acknowledging that I have personally checked one of the boxes below.

Please check box

☐ I agree to have the interview tape-recorded

☐ I do not agree to have the interview tape-recorded

Participant's Name _____ Date _____

Signature _____ Date _____

Interview/Questionnaire Code #_____

APPENDIX D

CHECK LIST FOR SUBSISTENCE CONSUMPTION INTERVIEWS

To be checked off by Interviewer

- ☐ Confidentiality statement disclosed to interviewee
- ☐ Signed consent form by interviewee
- ☐ Audio recorder turned on (*if applicable*)
- ☐ Commonly Consumed Items List
- ☐ Start time of interview recorded
- ☐ Name and phone number recorded for interviewee
- ☐ End time of interview recorded
- ☐ Audio recorder turned off (*if applicable*)
- ☐ Number assigned to completed questionnaire
- ☐ Initials of Quality Assurance Monitor on completed questionnaire
- ☐ Contact information given to interviewee (*if applicable*)

Interviewer_____ Date_____

APPENDIX E

MEMORY RECALL – COMMONLY CONSUMMED ITEMS:

To be used with Section 1, Memory Recall as an aid, by Interviewer

Consider:

Breakfast
Lunch
Dinner
& Snacks

Beverages	**Vegetables**
1. Milk 2. Juice 3. Coffee 4. Tea 5. Blended drinks 6. Water 7. Soda	1. Fresh 2. Canned 3. Frozen 4. Dried
Cereals 1. Dry 2. Hot	**Breads, pancakes or pastries** (including cake and pie)
Eggs & Cheese	**Meat & Seafood**
Fruits 1. Fresh 2. Canned 3. Frozen 4. Dried	**Snacks**

Questionnaire Number ____

APPENDIX F

QUESTIONNAIRE FORM

FY2014 Subsistence Food Dietary Assessment of Sun'aq, Old Harbor, Larsen Bay and Ouzinkie Tribes of Kodiak Island, AK

IMPORTANT: READ CONFIDENTIALITY STATEMENT TO RESPONDENT BEFORE BEGINNING INTERVIEW AND HAVE RESPONDENT SIGN CONSENT FORM

BACKGROUND INFORMATION TO ASK PERSON BEING INTERVIEWED:

1.Date	
2.Time Interview begins	
3.Time Interview ends	

4.Name	
5.Gender	
6.Phone	
7.Age	
8.Residence Zip Code	

9.Months of the year at _____ village residence

9.1 January	9.2 February	9.3 March	9.4 April	9.5 May	9.6 June

9.7 July	9.8 August	9.9 September	9.10 October	9.11November	9.12December

Questionnaire Number ____

SECTION 1 - MEMORY RECALL

I am now going to ask you to remember all of the food and drinks that you ate yesterday, from the time you woke up in the morning until the time you went to sleep for the night. In addition to asking you about the type of food, I will show you some examples of serving sizes in order to determine the amount you actually ate.

DIETARY INTAKE - 24 HOUR RECALL
Intake Day

Sunday 1
Monday 2
Tuesday 3
Wednesday.....4
Thursday 5
Friday 6
Saturday.....7

4.1 TimeEaten	4.2 Foods and Beverages	4.3 Amount (ounces/grams)	4.4 Comments

Questionnaire Number ____

Interviewers Opinion of Information		Intake Was	
Reliable.....	1	Typical.....	1
Unable to recall one or more meals....	2	Considerably less than typical.....	2
Unreliable for other reasons.....	3	Considerably more than typical..	3

Interviewer fills out this section:

Intake day_____*(1-7)*

Opinion of Information_____*(1-3)*

Intake was_____*(1-3)*

Questionnaire Number ____

SECTION 2 - ADULT CONSUMPTION OF FISH, SHELLFISH & MARINE MAMMALS

1) During which two months of the year would you say you eat the **most** finfish, shellfish and marine mammals? [Circle response(s)]

Month	1.1a/1.1b Finfish	1.2a/1.2b Shellfish	1.3a/1.3b Marine Mammals
January			
February			
March			
April			
May			
June			
July			
August			
September			
October			
November			
December			
All months the same			
Never/rarely			
Unknown			

2) During the months you indicated you eat the **most** finfish, shellfish or marine mammals, about how many meals of them do you eat on a weekly basis? (Remember to include finfish/shellfish/marine mammals consumed for breakfast, lunch, dinner and snacks).

2.1a/2.1b Average # of finfish meals weekly: _____ (two highest months)
2.2a/2.2b Average # of shellfish meals weekly: _____ (two highest months)
2.3a/2.3b Average # of marine mammal meals weekly: _____ (two highest months)

3) During which two months would you say you usually eat the **least** finfish, shellfish or marine mammals?

Month	3.1a/3.1b Finfish	3.2a/3.2b Shellfish	3.3a/3.3b Marine Mammals
January			
February			
March			
April			
May			
June			

Questionnaire Number ____

July			
August			
September			
October			
November			
December			
All months the same			
Never/rarely			
Unknown			
All months except 2 marked in question 1 are equally low			

4) During the months you indicated you eat the **least** fish, about how many meals of them do you eat on a weekly basis?

4.1a/4.1b Average # of finfish meals weekly: _____ (two lowest months)
4.2a/4.2b Average # of shellfish meals weekly: _____ (two lowest months)
4.3a/4.3b. Average # of marine mammal meals weekly: _____ (two lowest months)

5) On average throughout the year, about how many finfish, shellfish or marine mammals meals weekly do you eat?

5.1a/5.1b Average # of finfish meals weekly: _____ (two lowest months)
5.2a/5.2b Average # of shellfish meals weekly: _____ (two lowest months)
5.3a/5.3b Average # of marine mammal meals weekly: _____ (two lowest months)

6) What is the estimated portion size of fish you eat in those meals that includes fish?

[SHOW THE RESPONDENT FOOD MODELS AND ENTER THE AVERAGE SERVING SIZE IN OUNCES/GRAMS]

Average serving size (ounces/grams):

Questionnaire Number ____

Table 1

I am now going to ask you some questions on specific types of seafood that you eat. For each type mentioned, I am going to ask you several questions concerning how often you eat it and which parts of the fish are usually eaten (see Table 1). See note at end of table for Type Codes (*A, P, B, S, O*).

Finfish, Shellfish, or Other Type	**Eaten ? Yes *or* No**	**How frequently do you eat Fish Type** **N** = Never **R** = Rarely (once a week) **S =** Sometimes (2-5 times per week) **F** = Frequently (almost every day)	**Average number of meals per month**	**Parts usually consumed for each species (*circle answers*) Yes *or* No**							
				Fillet	**Skin**	**Head**	**Eggs**	**Bones**	**Belly fat *or* flaps *or* meat**	**Other Organs**	**Stews *or* Chowder *or* Hash**
A Pink (Humpy) Salmon	1.1 Y N	1.2 R S N F	1.3	1.4.1 Y N	1.4.2 Y N	1.4.3 Y N	1.4.4 Y N	1.4.5 Y N	1.4.6 Y N	1.4.7 Y N	1.4.8 Y N
A Chum (Dog) Salmon	2.1 Y N	2.2 R S N F	2.3	2.4.1 Y N	2.4.2 Y N	2.4.3 Y N	2.4.4 Y N	2.4.5 Y N	2.4.6 Y N	2.4.7 Y N	2.4.8 Y N
A Coho (Silver) Salmon	3.1 Y N	3.2 R S N F	3.3	3.4.1 Y N	3.4.2 Y N	3.4.3 Y N	3.4.4 Y N	3.4.5 Y N	3.4.6 Y N	3.4.7 Y N	3.4.8 Y N
A Sockeye (Red) Salmon	4.1 Y N	4.2 R S N F	4.3	4.4.1 Y N	4.4.2 Y N	4.4.3 Y N	4.4.4 Y N	4.4.5 Y N	4.4.6 Y N	4.4.7 Y N	4.4.8 Y N
A Chinook (King) Salmon	5.1 Y N	5.2 R S N F	5.3	5.4.1 Y N	5.4.2 Y N	5.4.3 Y N	5.4.4 Y N	5.4.5 Y N	5.4.6 Y N	5.4.7 Y N	5.4.8 Y N
A Steelhead	6.1 Y N	6.2 R S N F	6.3	6.4.1 Y N	6.4.2 Y N	6.4.3 Y N	6.4.4 Y N	6.4.5 Y N	6.4.6 Y N	6.4.7 Y N	6.4.8 Y N
A Dolly Varden Trout	7.1 Y N	7.2 R S N F	7.3	7.4.1 Y N	7.4.2 Y N	7.4.3 Y N	7.4.4 Y N	7.4.5 Y N	7.4.6 Y N	7.4.7 Y N	7.4.8 Y N
P Rainbow Trout	8.1 Y N	8.2 R S N F	8.3	8.4.1 Y N	8.4.2 Y N	8.4.3 Y N	8.4.4 Y N	8.4.5 Y N	8.4.6 Y N	8.4.7 Y N	8.4.8 Y N
P Halibut	9.1 Y N	9.2 R S N F	9.3	9.4.1 Y N	9.4.2 Y N	9.4.3 Y N	9.4.4 Y N	9.4.5 Y N	9.4.6 Y N	9.4.7 Y N	9.4.8 Y N
P Black Cod (Sablefish)	10.1 Y N	10.2 R S N F	10.3	10.4.1 Y N	10.4.2 Y N	10.4.3 Y N	10.4.4 Y N	10.4.5 Y N	10.4.6 Y N	10.4.7 Y N	10.4.8 Y N
P Lingcod	11.1 Y N	11.2 R S N F	11.3	11.4.1 Y N	11.4.2 Y N	11.4.3 Y N	11.4.4 Y N	11.4.5 Y N	11.4.6 Y N	11.4.7 Y N	11.48 Y N
P Grey Cod	12.1 Y N	12.2 R S N F	12.3	12.4.1 Y N	12.4.2 Y N	12.4.3 Y N	12.4.4 Y N	12.4.5 Y N	12.4.6 Y N	12.4.7 Y N	12.4.8 Y N

Questionnaire Number ____

P Black Rockfish	13.1 Y N	13.2 R S F N	13.3	13.4.1 Y N	13.4.2 Y N	13.4.3 Y N	13.4.4 Y N	13.4.5 Y N	13.4.6 Y N	13.4.7 Y N	13.4.8 Y N
P Red Rockfish	14.1 Y N	14.2 R S F N	14.3	14.4.1 Y N	14.4.2 Y N	14.4.3 Y N	14.4.4 Y N	14.4.5 Y N	14.4.6 Y N	14.4.7 Y N	14.4.8 Y N

Questionnaire Number ____

Finfish, Shellfish, or Other Type	Eaten? Yes *or* No	How frequently do you eat Fish Type **N** = Never **R** = Rarely (once a week) **S** = Sometimes (2-5 times per week) **F** = Frequently (almost every day)	Average number of meals per month	Parts usually consumed for each species (*circle answers*) Yes *or* No							
				Fillet or meat of octopus shellfishetc.	**Skin**	**Head**	**Eggs**	**Bones**	**Belly fat *or* flaps *or* meat**	**Other Organ**	**Stews *or* Chowder *or* Hash**
P Pollock	15.1 Y N	15.2 R S N F	15.3	15.4.1 Y N	15.4.2 Y N	15.4.3 Y N	15.4.4 Y N	15.4.5 Y N	15.4.6 Y N	15.4.7 Y N	15.4.8 Y N
P Greenling	16.1 Y N	16.2 R S N F	16.3	16.4.1 Y N	16.4.2 Y N	16.4.3 Y N	16.4.4 Y N	16.4.5 Y N	16.4.6 Y N	16.4.7 Y N	16.4.8 Y N
P Herring	17.1 Y N	17.2 R S N F	17.3	17.4.1 Y N	17.4.2 Y N	17.4.3 Y N	17.4.4 Y N	17.4.5 Y N	17.4.6 Y N	17.4.7 Y N	17.4.8 Y N
P Eulachon (hooligan, candlefish)	18.1 Y N	18.2 R S N F	18.3	18.4.1 Y N	18.4.2 Y N	18.4.3 Y N	18.4.4 Y N	18.4.5 Y N	18.4.6 Y N	18.4.7 Y N	18.4.8 Y N
P Sandlance or Needlefish	19.1 Y N	19.2 R S N F	19.3	19.4.1 Y N	19.4.2 Y N	19.4.3 Y N	19.4.4 Y N	19.4.5 Y N	19.4.6 Y N	19.4.7 Y N	19.4.8 Y N
P Dogfish Shark	20.1 Y N	20.2 R S N F	20.3	20.4.1 Y N	20.4.2 Y N	20.4.3 Y N	20.4.4 Y N	20.4.5 Y N	20.4.6 Y N	20.4.7 Y N	20.4.8 Y N
P Salmon Shark	21.1 Y N	21.2 R S N F	21.3	21.4.1 Y N	21.4.2 Y N	21.4.3 Y N	21.4.4 Y N	21.4.5 Y N	21.4.6 Y N	21.4.7 Y N	21.4.8 Y N
B Sculpin	22.1 Y N	22.2 R S N F	22.3	22.4.1 Y N	22.4.2 Y N	22.4.3 Y N	22.4.4 Y N	22.4.5 Y N	22.4.6 Y N	22.4.7 Y N	22.4.8 Y N
S Clams (butter, littleneck, razor, surf, horse, geoduck)	23.1 Y N	23.2 R S N F	23.3	23.4.1 Y N	na	na	na	na	na	na	23.4.2 Y N
S Barnacles	24.1 Y N	24.2 R S N F	24.3	24.4.1 Y N	na	na	na	na	na	na	24.4.2 Y N
S Cockles	25.1 Y N	25.2 R S N F	25.3	25.4.1 Y N	na	na	na	na	na	na	25.4.2 Y N
S Mussels	26.1 Y N	26.2 R S N F	26.3	26.4.1 Y N	na	na	na	na	na	na	26.4.2 Y N
S Scallops	27.1 Y N	27.2 R S N F	27.3	27.4.1 Y N	na	na	na	na	na	na	27.4.2 Y N

S Chiton or Limpet	28.1 Y N	28.2 R S F N	28.3	28.4.1 Y N	na	na	na	na	na	na	24.4.2 Y N
S Dungeness crab	29.1 Y N	29.2 R S F N	29.3	29.4.1 Y N	na	na	na	na	na	na	29.4.2 Y N

Questionnaire Number ____

Finfish, Shellfish, or Other Type	Eaten? Yes *or* No	How frequently do you eat Fish Type **N** = Never **R** = Rarely (once a week) **S** = Sometimes (2-5 times per week) **F** = Frequently (almost every day)	Average number of meals per month	Parts usually consumed for each species (*circle answers*) Yes *or* No							
				Fillet or meat of octopus shellfishetc.	**Skin**	**Head**	**Eggs**	**Bones**	**Belly fat *or* flaps *or* meat**	**Other Organ**	**Stews *or* Chowder *or* Hash**
S Crab (includingTanner & King)	30.1 Y N	30.2 R S F N	30.3	30.4.1 Y N	na	na	na	na	na	na	30.4.2 Y N
O Octopus or Squid	31.1 Y N	31.2 R S F N	31.3	31.4.1 Y N	na	na	na	na	na	na	31.4.2 Y N
O Sea Urchin or Sea Cucumber	32.1 Y N	32.2 R S F N	32.3	32.4.1 Y N	na	na	32.4.2 Y N	na	na	na	32.4.3 Y N
Other 1 _____	33.1 Y N	33.2 R S F N	33.3	33.4.1 Y N	33.4.2 Y N	33.4.3 Y N	33.4.4 Y N	33.4.5 Y N	33.4.6 Y N	33.4.7 Y N	33.4.8 Y N
Other 2 _____	34.1 Y N	34.2 R S F N	34.3	34.4.1 Y N	34.4.2 Y N	34.4.3 Y N	34.4.4 Y N	34.4.5 Y N	34.4.6 Y N	34.4.7 Y N	34.4.8 Y N
Other 3 _____	35.1 Y N	35.2 R S F N	35.3	35.4.1 Y N	35.4.2 Y N	35.4.3 Y N	35.4.4 Y N	35.4.5 Y N	35.4.6 Y N	35.4.7 Y N	35.4.8 Y N
Other 4 _____	36.1 Y N	36.2 R S F N	36.3	36.4.1 Y N	36.4.2 Y N	36.4.3 Y N	36.4.4 Y N	36.4.5 Y N	36.4.6 Y N	36.4.7 Y N	36.4.8 Y N

** Fish Type Code: *A* = anadromous, *P* = pelagic, B = bottom, S = shellfish, *O* = Other

Please tell me about how fish is usually (throughout the year) prepared or cooked in your home (more than selection from the following may be given). Please also indicate how often fish is prepared/cooked in that particular manner. (See Table 2)

Table 2

Is the fish ever... (Circle Yes if cooked that way)	HOW OFTEN? (CIRCLE 1,2, OR 3)		
	Once a week	Less than once a week, but more than or equal to once a month	Less than once a month
a. pan-fried?	1.1 1	1.2 2	1.3 3
b. deep-fried?	2.1 1	2.2 2	2.3 3
c. poached in water?	3.1 1	3.2 2	3.3 3

d. boiled as soup, chowder or stew?	4.1 1	4.2 2	4.3 3
e. baked? (Includes fish pie or Perok)	5.1 1	5.2 2	5.3 3
f. broiled?	6.1 1	6.2 2	6.3 3
g. smoked?	7.1 1	7.2 2	7.3 3
h. dried?	8.1 1	8.2 2	8.3 3
i. eaten raw? (includes pickled)	9.1 1	9.2 2	9.3 3
j. roasted over and open fire or barbecued?	10.1 1	10.2 2	10.3 3
k. canned? (Includes jarred and kippered)	11.1 1	11.2 2	11.3 3
l. salted	12.1 1	12.2 2	12.3 3

Questionnaire Number ____

SECTION 3 – CHILD CONSUMPTION OF FISH

1) Do you regularly prepare the meals in your household? (Circle Yes or No)
Yes No

2) Are there any children 5 years or younger living in your household? (Circle Yes or No)
Yes No

IF NO, GO TO QUESTION 3,

IF YES, CONTINUE WITH REST OF QUESTION 2

2A. Please provide the following information for the youngest person in your household who is 17 years of age or less:

First Name_____

Male of Female (Circle Male or Female)
In what month and year was this child born:
__/____
Your relationship to child (Enter mother, father, aunt, uncle, etc.)
_____

2B. Throughout the year, what is the average portion size of fish this child eats in a meal that includes fish?
[SHOW THE RESPONDENT FOOD MODELS AND ENTER THE AVERAGE SERVING SIZE IN OUNCES OR CIRCLE "EATS NO FISH"]

Average # serving size (ounces):_____ ounces

Eats no fish

IF THEY ANSWERED "EATS NO FISH", SKIP TO QUESTION 3

2C. A few minutes ago you described which types of fish you eat and which parts are normally consumed. This information was put into Table 1 (SHOW TABLE). For the child listed, please provide the same information on a separate table (Table 3).

2D. On average, throughout the entire year, about how many fish meals weekly does the child eat?

Average # of fish meals weekly:_____
Average # of shellfish meals weekly:_____

2E. At what age (in months) did the child begin eating meals that include fish? [ENTER NUMBER OF MONTHS OR CIRCLE EITHER "NOT YET" OR "UNKNOWN"]

_____ Months [ONLY FILL IN MONTHS OR YEARS, NOT BOTH]
_____ Years [ONLY FILL IN MONTHS OR YEARS, NOT BOTH]

Not Yet

Unknown

3) IF RESPONDENT IS MALE, SKIP TO QUESTION #4

The next few questions are being asked to get better information on the diet of very young children in relation to nursing.

SKIP TO QUESTION 3C, IF THEY ANSWERED "MOTHER" IN QUESTION 2A
SKIP TO QUESTION 3B, IF THEY ANSWERED "GRANDMOTHER OR GREAT GRANDMOTHER" IN QUESTION 8A

3A. Have you ever given birth? (Circle Yes or No)

Yes No

IF NO, SKIP TO QUESTION #4

3B. In what month and year was your last child born:

__/____

3C. Was the baby breast fed? (Circle Yes, No, Unknown)

Yes No Unknown

IF NO, SKIP TO QUESTION #4

3D. At what age (in months) did the child stop breast feeding? (ENTER NUMBERS IN MONTHS OR CIRCLE "STILL BREAST FEEDING")

____months SKIP TO QUESTION #4

Still breast feeding

3E. At what age (in months do you plan to stop breast feeding your child?

____months

Questionnaire Number ____

Table 3

I am now going to ask you some questions on specific types of seafood that you eat. For each type mentioned, I am going to ask you several questions concerning how often you eat it and which parts of the fish are usually eaten (see Table 1). See note at end of table for Type Codes (*A, P, B, S, O*).

Finfish, Shellfish, or Other Type	**Eaten? Yes *or* No**	**How frequently do you eat Fish Type** **N** = Never **R** = Rarely (once a week) **S** = Sometimes (2-5 times per week) **F** = Frequently (almost every day)	**Average number of meals per month**	**Parts usually consumed for each species (*circle answers*) Yes *or* No**							
				Fillet	**Skin**	**Head**	**Eggs**	**Bones**	**Belly fat *or* flaps *or* meat**	**Other Organs**	**Stews *or* Chowder *or* Hash**
A Pink (Humpy) Salmon	1.1 Y N	1.2 R S N F	1.3	1.4.1 Y N	1.4.2 Y N	1.4.3 Y N	1.4.4 Y N	1.4.5 Y N	1.4.6 Y N	1.4.7 Y N	1.4.8 Y N
A Chum (Dog) Salmon	2.1 Y N	2.2 R S N F	2.3	2.4.1 Y N	2.4.2 Y N	2.4.3 Y N	2.4.4 Y N	2.4.5 Y N	2.4.6 Y N	2.4.7 Y N	2.4.8 Y N
A Coho (Silver) Salmon	3.1 Y N	3.2 R S N F	3.3	3.4.1 Y N	3.4.2 Y N	3.4.3 Y N	3.4.4 Y N	3.4.5 Y N	3.4.6 Y N	3.4.7 Y N	3.4.8 Y N
A Sockeye (Red) Salmon	4.1 Y N	4.2 R S N F	4.3	4.4.1 Y N	4.4.2 Y N	4.4.3 Y N	4.4.4 Y N	4.4.5 Y N	4.4.6 Y N	4.4.7 Y N	4.4.8 Y N
A Chinook (King) Salmon	5.1 Y N	5.2 R S N F	5.3	5.4.1 Y N	5.4.2 Y N	5.4.3 Y N	5.4.4 Y N	5.4.5 Y N	5.4.6 Y N	5.4.7 Y N	5.4.8 Y N
A Steelhead	6.1 Y N	6.2 R S N F	6.3	6.4.1 Y N	6.4.2 Y N	6.4.3 Y N	6.4.4 Y N	6.4.5 Y N	6.4.6 Y N	6.4.7 Y N	6.4.8 Y N
A Dolly Varden Trout	7.1 Y N	7.2 R S N F	7.3	7.4.1 Y N	7.4.2 Y N	7.4.3 Y N	7.4.4 Y N	7.4.5 Y N	7.4.6 Y N	7.4.7 Y N	7.4.8 Y N
P Rainbow Trout	8.1 Y N	8.2 R S N F	8.3	8.4.1 Y N	8.4.2 Y N	8.4.3 Y N	8.4.4 Y N	8.4.5 Y N	8.4.6 Y N	8.4.7 Y N	8.4.8 Y N
P Halibut	9.1 Y N	9.2 R S N F	9.3	9.4.1 Y N	9.4.2 Y N	9.4.3 Y N	9.4.4 Y N	9.4.5 Y N	9.4.6 Y N	9.4.7 Y N	9.4.8 Y N
P Black Cod (Sablefish)	10.1 Y N	10.2 R S N F	10.3	10.4.1 Y N	10.4.2 Y N	10.4.3 Y N	10.4.4 Y N	10.4.5 Y N	10.4.6 Y N	10.4.7 Y N	10.4.8 Y N
P Lingcod	11.1 Y N	11.2 R S F	11.3	11.4.1 Y N	11.4.2 Y N	11.4.3 Y N	11.4.4 Y	11.4.5 Y N	11.4.6 Y N	11.4.7 Y N	11.48 Y N

		N					N				
P Grey Cod	12.1 Y N	R 12.2 S N F	12.3	12.4.1 Y N	12.4.2 Y N	12.4.3 Y N	12.4.4 Y N	12.4.5 Y N	12.4.6 Y N	12.4.7 Y N	12.4.8 Y N
P Black Rockfish	13.1 Y N	R 13.2 S N F	13.3	13.4.1 Y N	13.4.2 Y N	13.4.3 Y N	13.4.4 Y N	13.4.5 Y N	13.4.6 Y N	13.4.7 Y N	13.4.8 Y N
P Red Rockfish	14.1 Y N	R 14.2 S N F	14.3	14.4.1 Y N	14.4.2 Y N	14.4.3 Y N	14.4.4 Y N	14.4.5 Y N	14.4.6 Y N	14.4.7 Y N	14.4.8 Y N

Questionnaire Number ____

Finfish, Shellfish, or Other Type	Eaten? Yes *or* No	How frequently do you eat Fish Type **N** = Never **R** = Rarely (once a week) **S** = Sometimes (2-5 times per week) **F** = Frequently (almost every day)	Average number of meals per month	Parts usually consumed for each species (*circle answers*) Yes *or* No							
				Fillet or meat of octopus shellfish etc.	Skin	Head	Eggs	Bones	Belly fat *or* flaps *or* meat	Other Organ	Stews *or* Chowder *or* Hash
P Pollock	15.1 Y N	15.2 R S N F	15.3	15.4.1 Y N	15.4.2 Y N	15.4.3 Y N	15.4.4 Y N	15.4.5 Y N	15.4.6 Y N	15.4.7 Y N	15.4.8 Y N
P Greenling	16.1 Y N	16.2 R S N F	16.3	16.4.1 Y N	16.4.2 Y N	16.4.3 Y N	16.4.4 Y N	16.4.5 Y N	16.4.6 Y N	16.4.7 Y N	16.4.8 Y N
P Herring	17.1 Y N	17.2 R S N F	17.3	17.4.1 Y N	17.4.2 Y N	17.4.3 Y N	17.4.4 Y N	17.4.5 Y N	17.4.6 Y N	17.4.7 Y N	17.4.8 Y N
P Eulachon (hooligan, candlefish)	18.1 Y N	18.2 R S N F	18.3	18.4.1 Y N	18.4.2 Y N	18.4.3 Y N	18.4.4 Y N	18.4.5 Y N	18.4.6 Y N	18.4.7 Y N	18.4.8 Y N
P Sandlance or Needlefish	19.1 Y N	19.2 R S N F	19.3	19.4.1 Y N	19.4.2 Y N	19.4.3 Y N	19.4.4 Y N	19.4.5 Y N	19.4.6 Y N	19.4.7 Y N	19.4.8 Y N
P Dogfish Shark	20.1 Y N	20.2 R S N F	20.3	20.4.1 Y N	20.4.2 Y N	20.4.3 Y N	20.4.4 Y N	20.4.5 Y N	20.4.6 Y N	20.4.7 Y N	20.4.8 Y N
P Salmon Shark	21.1 Y N	21.2 R S N F	21.3	21.4.1 Y N	21.4.2 Y N	21.4.3 Y N	21.4.4 Y N	21.4.5 Y N	21.4.6 Y N	21.4.7 Y N	21.4.8 Y N
B Sculpin	22.1 Y N	22.2 R S N F	22.3	22.4.1 Y N	22.4.2 Y N	22.4.3 Y N	22.4.4 Y N	22.4.5 Y N	22.4.6 Y N	22.4.7 Y N	22.4.8 Y N
S Clams (butter, littleneck, razor, surf, horse, geoduck)	23.1 Y N	23.2 R S N F	23.3	23.4.1 Y N	na	na	na	na	na	na	23.4.2 Y N
S Barnacles	24.1 Y N	24.2 R S N F	24.3	24.4.1 Y N	na	na	na	na	na	na	24.4.2 Y N
S Cockles	25.1 Y N	25.2 R S F	25.3	25.4.1 Y N	na	na	na	na	na	na	25.4.2 Y N

		N									
S Mussels	26.1 Y N	R 26.2 S N F	26.3	26.4.1 Y N	na	na	na	na	na	na	26.4.2 Y N
S Scallops	27.1 Y N	R 27.2 S N F	27.3	27.4.1 Y N	na	na	na	na	na	na	27.4.2 Y N
S Chiton or Limpet	28.1 Y N	R 28.2 S N F	28.3	28.4.1 Y N	na	na	na	na	na	na	24.4.2 Y N
S Dungeness crab	29.1 Y N	R 29.2 S N F	29.3	29.4.1 Y N	na	na	na	na	na	na	29.4.2 Y N

Questionnaire Number ____

Finfish, Shellfish, or Other Type	**Eaten?** **Yes *or* No**	**How frequently do you eat <u>Fish Type</u>** **N** = Never **R** = Rarely (once a week) **S =** Sometimes (2-5 times per week) **F** = Frequently (almost every day)	**Average number of meals per month**	**Parts usually consumed for each species (*circle answers*) Yes *or* No**							
				Fillet or meat of octopus shellfishetc.	**Skin**	**Head**	**Eggs**	**Bones**	**Belly fat *or* flaps *or* meat**	**Other Organ**	**Stews *or* Chowder *or* Hash**
S Crab (includingTanner & King)	30.1 Y N	30.2 R S F N	30.3	30.4.1 Y N	na	na	na	na	na	na	30.4.2 Y N
O Octopus or Squid	31.1 Y N	31.2 R S F N	31.3	31.4.1 Y N	na	na	na	na	na	na	31.4.2 Y N
O Sea Urchin or Sea Cucumber	32.1 Y N	32.2 R S F N	32.3	32.4.1 Y N	na	na	32.4.2 Y N	na	na	na	32.4.3 Y N
Other 1 _____ __	33.1 Y N	33.2 R S F N	33.3	33.4.1 Y N	33.4.2 Y N	33.4.3 Y N	33.4.4 Y N	33.4.5 Y N	33.4.6 Y N	33.4.7 Y N	33.4.8 Y N
Other 2 _____ __	34.1 Y N	34.2 R S F N	34.3	34.4.1 Y N	34.4.2 Y N	34.4.3 Y N	34.4.4 Y N	34.4.5 Y N	34.4.6 Y N	34.4.7 Y N	34.4.8 Y N
Other 3 _____ __	35.1 Y N	35.2 R S F N	35.3	35.4.1 Y N	35.4.2 Y N	35.4.3 Y N	35.4.4 Y N	35.4.5 Y N	35.4.6 Y N	35.4.7 Y N	35.4.8 Y N
Other 4 _____ __	36.1 Y N	36.2 R S F N	36.3	36.4.1 Y N	36.4.2 Y N	36.4.3 Y N	36.4.4 Y N	36.4.5 Y N	36.4.6 Y N	36.4.7 Y N	36.4.8 Y N

** Fish Type Code: *A* = anadromous, *P* = pelagic, B = bottom, S = shellfish, *O* = Other

2D. On average, throughout the entire year, about how many fish meals weekly does the child eat?

Average # of fish meals weekly:_____
Average # of shellfish meals weekly:_____

2E. At what age (in months) did the child begin eating meals that include fish? [ENTER NUMBER OF MONTHS OR CIRCLE EITHER "NOT YET" OR "UNKNOWN"]

_____ Months [ONLY FILL IN MONTHS OR YEARS, NOT BOTH]
_____ Years [ONLY FILL IN MONTHS OR YEARS, NOT BOTH]

Not Yet

Unknown

3) IF RESPONDENT IS MALE, SKIP TO QUESTION #1 in Section 4
The next few questions are being asked to get better information on the diet of very young children in relation to nursing.

SKIP TO QUESTION 3C, IF THEY ANSWERED "MOTHER" IN QUESTION 2A
SKIP TO QUESTION 3B, IF THEY ANSWERED "GRANDMOTHER OR GREAT GRANDMOTHER" IN QUESTION 2A

3A. Have you ever given birth? (Circle Yes or No)
Yes No
IF NO, SKIP TO QUESTION #1 in Section 4

3B. In what month and year was your last child born:
__/____

3C. Was the baby breast fed? (Circle Yes, No, Unknown)
Yes No Unknown
IF NO, SKIP TO QUESTION #1 in Section 4

3D. At what age (in months) did the child stop breast feeding? (ENTER NUMBERS IN MONTHS OR CIRCLE "STILL BREAST FEEDING")
____months SKIP TO QUESTION #1 in Section4
Still breast feeding

3E. At what age (in months do you plan to stop breast feeding your child?
____months

Questionnaire Number ____

SECTION 4 – OTHER SUBSISTENCE FOODS

1) I am now going to ask you some questions about your consumption of marine mammals and other non-fish subsistence foods.

Table 4

		Parts usually consumed for each species (Circle answer)						
Type of marine mammal (Circle yes if commonly eaten)	Average number of meals in a year	Meat	Ribs	Intestines	Liver	Blubber/Fat	Flippers	Other organs /Parts (example: oil)
Seal Yes No (if Yes, go to next columns)	1a	1a.1 Yes No	1a.2 Yes No	1a.3 Yes No	1a.4 Yes No	1a.5 Yes No	1a.6 Yes No	1a.7 Yes No
Sea Lion Yes No	1b	1b.1 Yes No	1b.2 Yes No	1b.3 Yes No	1b.4 Yes No	1b.5 Yes No	1b.6 Yes No	1b.7 Yes No

Answer Questions 2 through 5 only if respondent answers "yes" in Table 4 for consuming marine mammals – if not, skip to question #6.

2.) How do you typically prepare harbor seal? If part is typically prepared this way, please put "X" under the cooking/preparation method

Part	Boiled	Fried	Other cooking method
Meat	2a.1	2a.2	2a.3
Ribs	2b.1	2b.2	2b.3
Intestines	2c.1	2c.2	2c.3
Liver	2d.1	2d.2	2d.3
Skin/Blubber or Fat	2e.1	2e.2	2e.3
Flippers	2f.1	2f.2	2f.3
Other (please specify)	2g.1	2g.2	2g.3

Please explain if "other" is filled in for sea lion (or parts) or for cooking method:
2h.1

3.) How much seal meat (or parts) do you typical eat in a meal?

3.1 Less than half a plate (regular dinner size plate)
3.2 Half a plate (regular dinner size plate)
3.3 A full plate (regular dinner size plate)
3.4 More than one full plate (regular dinner size plate)

4) How do you typically prepare Sea Lion? If part is typically prepared this way please put an "X" under the cooking/preparation method

Part	Boiled	Fried	Other cooking method
Meat	4a.1	4a.2	4a.3
Ribs	4b.1	4b.2	4b.3
Intestines	4c.1	4c.2	4c.3
Liver	4d.1	4d.2	4d.3
Skin/Blubber or Fat	4e.1	4e.2	4e.3
Flippers	4f.1	4f.2	4f.3
Other (please specify)	4g.1	4g.2	4g.3

Please explain if "other" is filled in for Sea Lion part or for cooking method: 4h

5.) How much Sea Lion meat (or parts) do you typically eat in a meal?

5.1 Less than half a plate (regular dinner size plate)
5.2 Half a plate (regular dinner size plate)
5.3 A full plate (regular dinner size plate)
5.4 More than one full plate (regular dinner size plate)

6.) How often do you eat bidarkis (Black leather chitons) in a year?
[ENTER NUMBER OF TIMES A YEAR OR CIRCLE NEVER]

6.1 _____ times a year 6.2 = Never

Never – SKIP TO 8

7.) How many bidarkis do you generally eat in a meal? _____

8.) How often do you eat limpets (china caps) in a year?
[ENTER NUMBER OF TIMES A YEAR OR CIRCLE NEVER]
_____ times a year
Never - SKIP TO 10

9.) How many limpets (china caps) do you generally eat in a meal? _____

10.) How often do you eat mussels harvested from local beaches?
[ENTER NUMBER OF TIMES A YEAR OR CIRCLE NEVER]
_____ times a year
Never - SKIP TO 12

11.) How many mussels do you generally eat in a meal? _____

12.) How often do you eat butter clams harvested from local beaches?
[ENTER NUMBER OF TIMES A YEAR OR CIRCLE NEVER]

_____ times a year

Never - SKIP TO 14

If respondent eats butter clams but gets them from other sources (like grocery stores):

Source(s) (please list)	# of clams (in a year) from source
12.1a_____	12.1b_____
12.2a_____	12.2b_____
12.3a_____	12.3b_____

13.) How many butter clams do you generally eat in a meal? _____

14.) How often do you eat steamers (or little neck) clams from local beaches?
[ENTER NUMBER OF TIMES A YEAR OR CIRCLE NEVER]

_____ times a year

Never - SKIP TO 16

If respondent eats steamers but gets them from other sources (like grocery stores):

Source(s) (please list)	# of clams (in a year) from source
14.1a_____	14.1b_____
14.2a_____	14.2b_____
14.3a_____	14.3b_____

15.) How many little neck clams do you generally eat in a meal? _____
16.) How often do you eat snails in a year?
[FOR EACH SNAIL SPECIES, ENTER NUMBER OF TIMES A YEAR OR CIRCLE NEVER]

Hairy tritons (large snails) **Periwinkles (very small snails)**

16a_____ times a year 16b_____ times a year

Never - SKIP TO 18

17.) How many snails do you generally eat in a meal? (Enter number for each snail species)

17a_____**Hairy tritons** 17b_____**Periwinkles**

18.) How often do you eat octopus harvested from local beaches?
[ENTER NUMBER OF TIMES A YEAR OR CIRCLE NEVER]

_____ times a year

Never - SKIP TO 20

19.) How many octopus do you generally eat in a year?
_____ times a year

20.) How often do you eat sea birds (including ducks)?
[ENTER NUMBER OF TIMES A YEAR OR CIRCLE NEVER]

_____ times a year

21.) How many sea birds (including ducks) do you generally eat in a year?

_____ times a year

Questionnaire Number ____

SECTION 5 - OBTAINING FISH

1.) These next questions deal with where and how you obtain fish and other species.

1A. Do you catch fish for either personal consumption or for use by your tribe in some way?

Yes No

IF NO, SKIP TO QUESTION #3

1B Please indicate on the map(s) (show map(s)) where you usually catch the following species:

REFER TO MAPS - please write in locations as well next to species

Fish

1Pink Salmon 1b.1_____
2Chum Salmon 1b.2_____
3Coho Salmon 1b.3_____
4Sockeye Salmon 1b.4_____
5Chinook Salmon 1b.5_____
6Steelhead 1b.6_____
7Dolly Varden 1b.7_____
8Rainbow Trout 1b.8_____
9Halibut 1b.9_____
10Black Cod 1b.10_____
11Lingcod 1b.11_____
12Grey Cod 1b.12_____
13Black Rockfish 1b.13_____
14Red Rockfish 1b.14_____
15Pollock 1b.15_____
16Greenling 1b.16_____
17Herring 1b.17_____
18Eulachon 1b.18_____
19 Needlefish 1b.19_____
20Dogfish Shark 1b.20_____
21Salmon Shark 1b.21_____
22Sculpin 1b.22_____

Shellfish

23Clam 1b.23_____
24Barnacles 1b.24_____
25Cockles 1b.25_____
26Mussels 1b.26_____
27Scallops 1b.27_____

28Chiton/Limpet 1b.28_____
29Dungeness crab 1b.29_____
30Crab(TannerKing) 1b.30_____
31 Octopus 1b.31_____
32Sea Urchin 1b.32_____
33Other 1b.33_____
34Other 1b.34_____
35Other 1b.35_____
36Other 1b.36_____

Marine Mammals
37Seal 1b37_____
38Sea Lion 1b38_____

2.) About how far from home do you usually travel to fish? (Circle response)

2.1 0-5 miles
2.2 6-10 miles
2.3 11-15 miles
2.4 16-20 miles
2.5 21-25 miles
2.6 26-50 miles
2.7 51-75 miles
2.8 76-100 miles
2.9 more than 100 miles

3.) Of all the fish you eat in a year, approximately how many do you get from?

	Total	Percent
Fish caught by yourself or family members	3.1a_____	3.1b_____
Grocery Stores	3.2a_____	3.2b_____
Other Sources:		
Friends who fish	3.3a_____	3.3b_____
Ceremonies (example: potlucks)	3.4a_____	3.4b_____
Distribution by the tribe	3.5a_____	3.5b_____
Other (list) (example: restaurants)		
_____	3.6a_____	3.6b_____
_____	3.7a_____	3.7b_____

Percent column filled in by STK

4.) On average, throughout the year, how often do you attend ceremonies or other community events (examples: potlucks, weddings, etc.)? (Circle response)

4.1 never - END OF INTERVIEW
4.2 less than 1 time per month
4.3 1-3 times per month
4.4 4-6 times per month
4.5 more than 6 times per month

5.) How often do you eat fish at these ceremonies? (Circle response)

4.1 rarely/never - END OF INTERVIEW
4.2 less than 1/2 of the ceremonies or events
4.3 at about 1/2 of the ceremonies or events
4.4 at nearly all ceremonies or events

6.) How much fish do you usually consume at each of these events?

6.1 none
6.2 1-2 6oz/grams servings
6.3 3-4 6oz/grams servings
6.4 5-6 6oz/grams servings
6.5 more than 6 6-oz/grams servings

Questionnaire Number ____

Conclusion:

Thank you for your cooperation in participating in this assessment. Your participation will significantly contribute to information needed to help protect your natural resources and provide guidance for public health programs for your tribe.

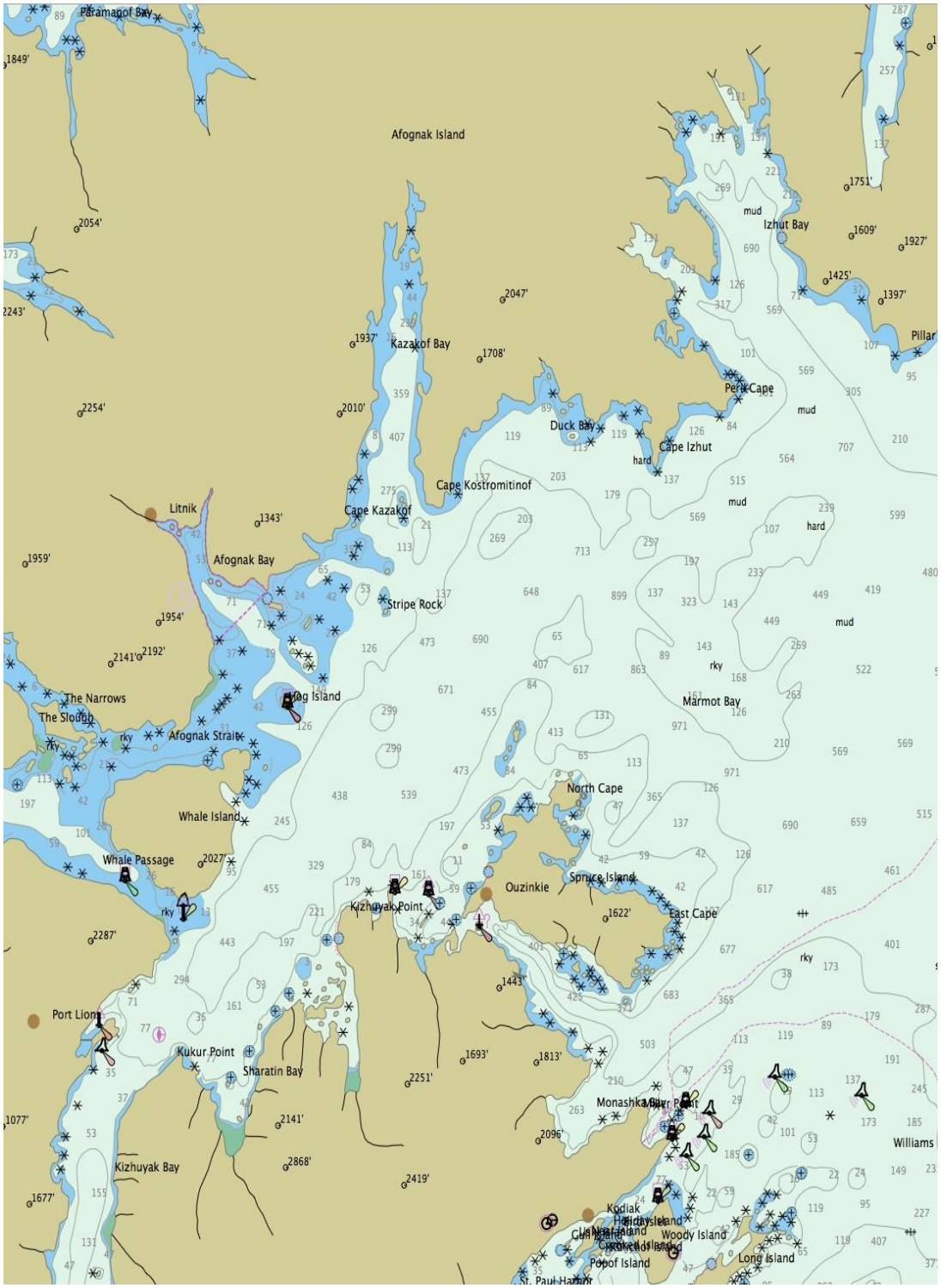
Time Interview Ends: __ /__

Section filled out by interviewer	**Section filled out by Quality Assurance Monitor**
Number assigned to adult interviewed: _____ Number assigned to child in household: _____ Assessment received on __/__/____	I have examined this questionnaire form and to my knowledge the data has been recorded accurately and there is no missing data or incompleteness. Print name_____ Initials_____ Date_____

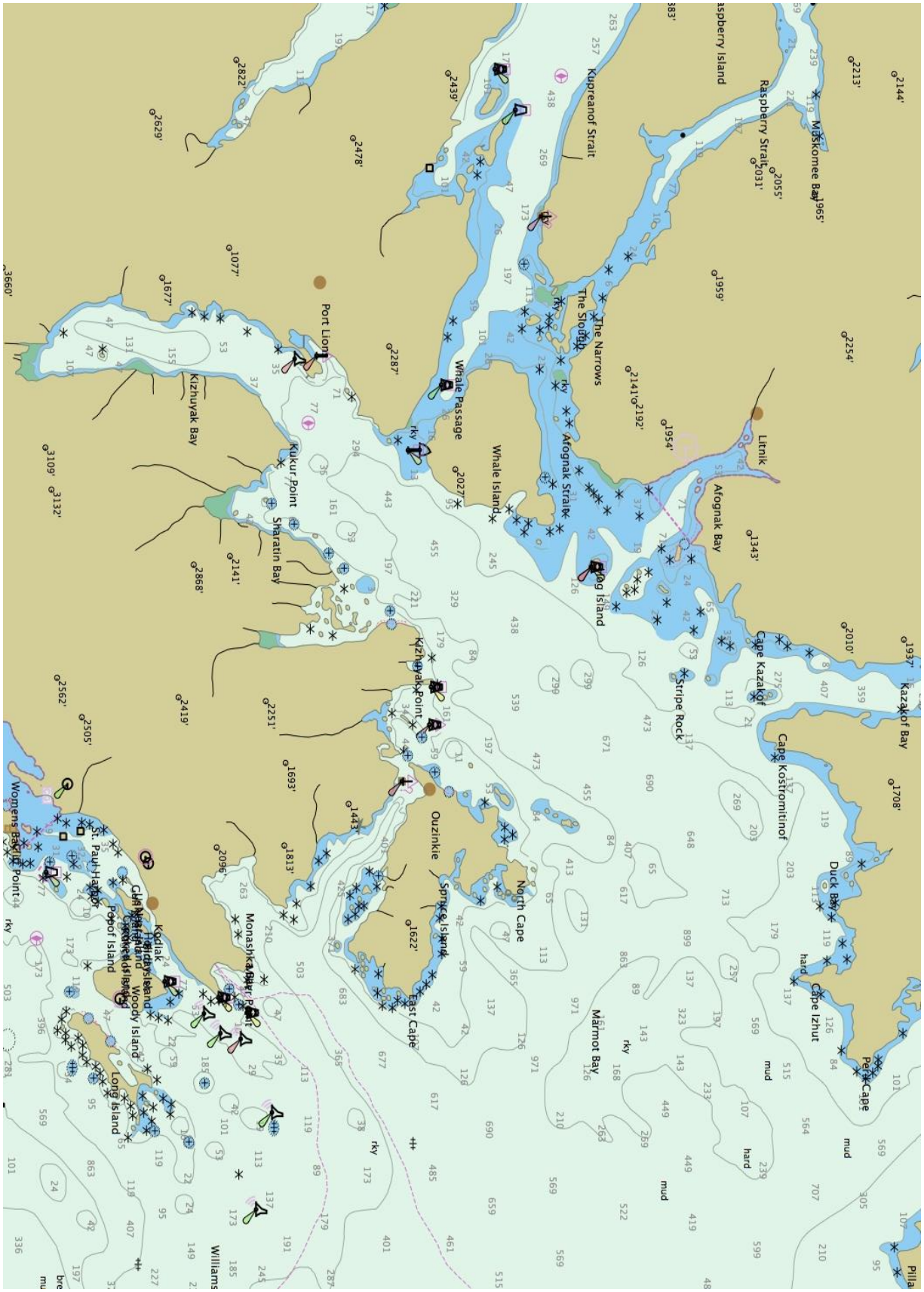
APPENDIX G

REFERENCE MAPS FOR IDENTIFYING FISHING LOCATIONS

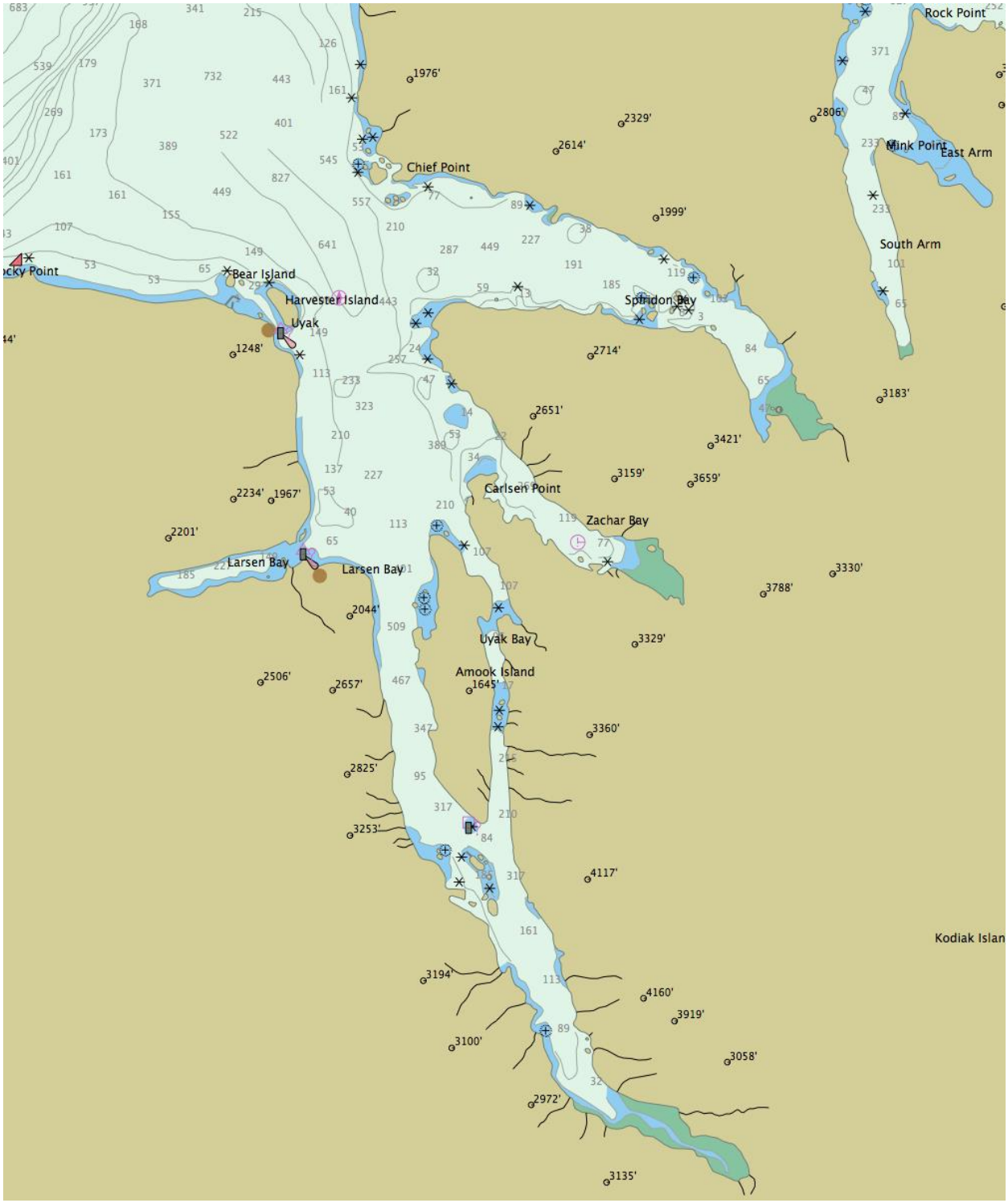
Ouzinkie Subsistence Area Map



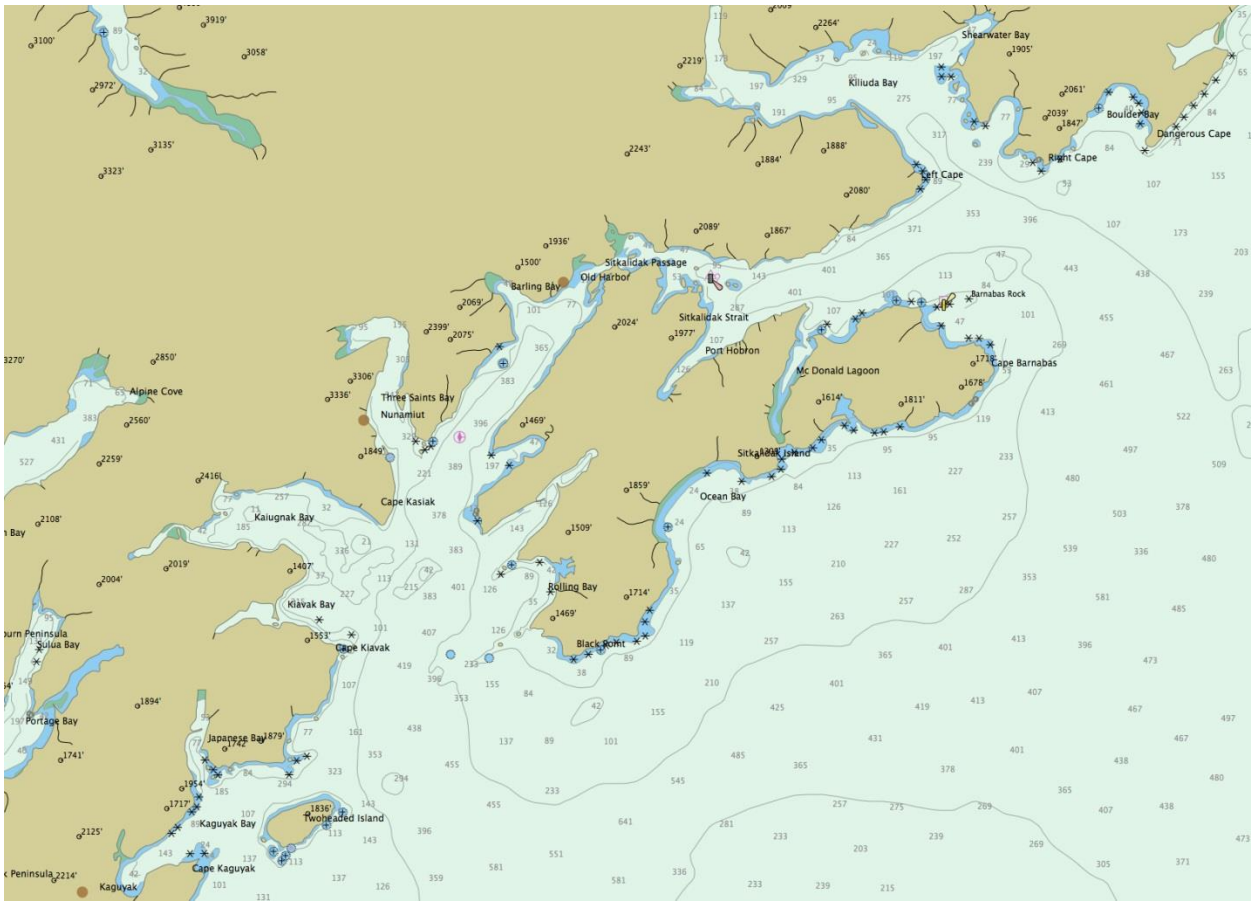
Port Lions Subsistence Area Map



Larsen Bay Subsistence Area Map



Old Harbor Subsistence Area Map



APPENDIX H
PICTURES OF SHELLFISH

Blue mussel
Fragile black/blue shell,
Long and thin pointed at hinge
Attached to a hard surface

Razor clam
Long oval fragile shells
Unable to close shells

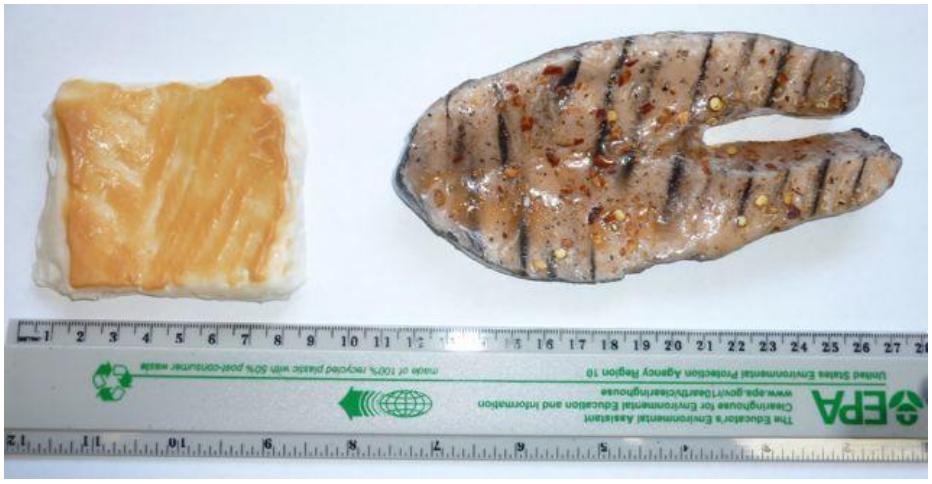
Butter clam
Often heavy thick shell,
Only circular grooves
on shell surface

Pinkneck clam (Surf clam)
Can be very large, thick heavy shell,
Brownish/olive colored shell layer that
is partially eroded, pink neck (siphon)

Pacific littleneck clam
Shape similar to butter clam,
Often smaller, has two types of
grooves on the shell surface (circular
and radial) forming a cross etched pattern

Heart cockle
Two types of grooved on
shell surface (shallow circular
and deep radial gooves
Often found surface of beach

APPENDIX I
PICTURES OF FOOD MODELS



APPENDIX J
BIBLIOGRAPHIC LIST OF FISH ID BOOKS IN THE COLLECTION OF SUN'AQ TRIBE OF KODIAK'S NATURAL RESOURSES DEPARTMENT

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