

KODIAK/ALEUTIANS SUBSISTENCE
REGIONAL ADVISORY COUNCIL

September 29-30, 2015
Kodiak, Alaska



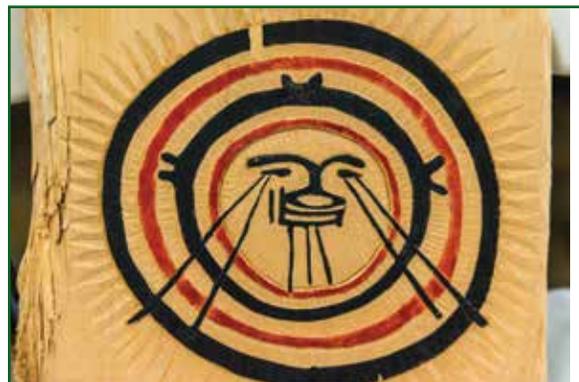
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On the cover...

Wood carving of “Llam Sua”, the Universe’s Spirit to the Alutiiq people. Created by Council member Pat Holmes.



Carl Johnson/USFWS

KODIAK ALEUTIANS SUBSISTENCE REGIONAL ADVISORY COUNCIL

Best Western Kodiak Inn, Kodiak, Alaska
September 29-30, 2015 9:00 a.m.-5:00 p.m. daily

TELECONFERENCE: call the toll free number: 1-866-820-9854, then when prompted enter the passcode: 4801802

PUBLIC COMMENTS: Public comments are welcome for each agenda item and for regional concerns not included on the agenda. The Council appreciates hearing your concerns and knowledge. Please fill out a comment form to be recognized by the Council chair. Time limits may be set to provide opportunity for all to testify and keep the meeting on schedule.

PLEASE NOTE: These are estimated times and the agenda is subject to change. Contact staff for the current schedule. Evening sessions are at the call of the chair.

AGENDA

*Asterisk identifies action item.

- 1. Roll Call and Establish Quorum** *(Secretary)*
- 2. Invocation**
- 3. Call to Order** *(Chair)*
- 4. Welcome and Introductions** *(Chair)*
- 5. Review and Adopt Agenda*** *(Chair)* 1
- 6. Review and Approve Previous Meeting Minutes*** *(Chair)* 5
- 7. Council Service Awards**
- 8. Reports**
 - Council Member Reports
 - Chair’s Report
- 9. Public and Tribal Comment on Non-Agenda Items** (available each morning)
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- 11. New Business** *(Chair)*

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(Time limit of 15 minutes unless approved in advance)

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USFWS

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Izembek National Wildlife Refuge (Stacey Lowe)

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Kodiak National Wildlife Refuge

Migratory Bird Management

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BLM

ADF&G

- Buskin River Sockeye Project Update (Tyler Polum).....146
- Kodiak Deer & Mountain Goat Update (Nate Svoboda)
- Southern Alaska Peninsula/Unimak Island Caribou/Wolf Update (Dave Crowley via teleconference)
- Upper Station Sockeye Salmon Status (James Jackson)
- Afognak Lake Sockeye Salmon Monitoring Project (Darin Ruhl)

OSM 156

13. Future Meeting Dates*

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Select Fall 2016 meeting date and location 165

14. Closing Comments

15. Adjourn (Chair)

To teleconference into the meeting, call the toll free number: 1-866-820-9854, then when prompted enter the passcode: 4801802.

Reasonable Accommodations

The Federal Subsistence Board is committed to providing access to this meeting for all participants. Please direct all requests for sign language interpreting services, closed captioning, or other accommodation needs to Karen Deatherage, 907-786-3564, Karen_deatherage@fws.gov, or 800-877-8339 (TTY), by close of business on September 22, 2015.

DRAFT

REGION 3
Kodiak/Aleutians Subsistence Regional Advisory Council

Seat	Year Apptd Term Expires	Member Name and Community
1	2010 2016	Antone Shelikoff Akutan
2	2001 2016	Patrick Holmes Kodiak
3	2008 2016	Richard Koso Adak
4	2004 2016	Samuel Rohrer Kodiak
5	2011 2017	Thomas Schwantes Kodiak
6	2014 2017	Coral Chernoff Kodiak
7	2014 2017	Rebecca Skinner Kodiak
8	2009 2015	Della Trumble King Cove Vice Chair
9	2000 2015	Speridon Mitch Simeonoff, Sr. Akhiok Chair
10	2012 2015	Melissa Berns Old Harbor Secretary

KODIAK/ALEUTIANS SUBSISTENCE REGIONAL ADVISORY COUNCIL
February 10-11, 2015
Kodiak Best Western Inn, Kodiak

Meeting Minutes

The meeting was called to order at 11:00 a.m., Tuesday, February 10, 2015.

Roll call

A quorum was established with the following council members present or teleconferencing: Melissa Berns, Coral Chernoff, Patrick Holmes, Rick Koso, Sam Rohrer, Rebecca Skinner, Tom Schwantes, Mitch Simeonoff (via telephone), Antone Shelikoff (via telephone), Della Trumble.

Agency Staff in Attendance

Melinda Burke, OSM, Anchorage (telephone)
McCrea Cobb, Kodiak NWR, Kodiak
Doug Damberg, Refuge Manager, Izembek NWR, Cold Bay
Karen Deatherage, OSM, Anchorage
Tom Evans, OSM, Anchorage
Julian Fischer, USFWS Migratory Bird Management, Anchorage
Palma Ingles, OSM, Anchorage
Carl Johnson, OSM, Anchorage
Christopher Long, National Marine Fisheries Service, NOAA
Pippa Kenner, OSM, Anchorage (telephone)
Anne Marie LaRosa, Kodiak NWR, Kodiak
Robbin LaVine, OSM, Anchorage (telephone)
Stacey Lowe, Wildlife Biologist, Izembek NWR, Cold Bay
Tom Kron, OSM, Anchorage
Pat Petrivelli, BIA, Anchorage
Bill Pyle, Supervisory Wildlife Biologist, Kodiak NWR, Kodiak
Dan Sharp, BLM, Anchorage (telephone)
Eric Taylor, USFWS Migratory Bird Management, Anchorage

Drew Crawford, ADFG, Anchorage (telephone)
Dave Crowley, ADFG, King Salmon (telephone)
John Crye, ADFG
Daven Hollen, ADFG
James Jackson, ADFG, Kodiak
Reid Johnson, ADFG, Kodiak
Matt Keyse, ADFG, Sand Point
Bob Murphy, ADFG, Port Moller
Tyler Polum, Sportfishing, ADFG
Dan Rosenberg, ADFG, Waterfowl Division
Nate Svoboda, ADFG Wildlife Biologist

Jeff Wadle, ADFG, Western Region
Jennifer Yuhas, ADFG, Anchorage (telephone)

Tribal and Public Members in Attendance

Natasha Hayden, Native Village of Afognak Tribal Council, Kodiak
Tom Lance, Sun'aq Tribal Council
JJ Marsh, Sun'aq Tribe of Kodiak
John Reft, Vice Chair, Sun'aq Tribal Council
Sharon Wolkoff, Sun'aq Tribal Council member
Paul Chervenak, Kodiak Fish and Game Advisory Council
Tina Fairbanks, Kodiak Regional Aquaculture Association, Kodiak
Kyle Crow, Kodiak
Dick Rohrer, Kodiak
Neal Cooper, Kodiak
Dick Rohrer, Kodiak
Tom Lance, Sun'aq Tribe, Kodiak
Jake Jacobson, Kodiak
Rolf Christiansen, Old Harbor
Julie Herrmann, Kodiak Daily Mirror

Approval of Agenda

The agenda was amended by adding the Ghost Fishing in Women's Bay presentation by Christopher Long (NMFS) and a brief presentation via telephone by the new OSM Native Liaison, Orville Lind. The Rural Determination Process under Old Business was moved to the morning of February 11, 2015 in order to consider comments on the proposed process from the public meeting scheduled for 7:00 p.m. February 10th in Kodiak. Trumble stated that the Aleutian area marine sanctuary petition had been tabled. Holmes remarked that there were a couple of Senators stateside that may try to bring the issue up again. Meeting agenda, as amended, was approved unanimously.

Election of Officers

By unanimous vote, Mitch Simeonoff, Sr. (Chair), Della Trumble (Vice-Chair) and Melissa Berns (Secretary) were elected.

Approval of Minutes from the Fall 2014 Meeting

Koso moved to adopt, seconded by Schwantes. Holmes added Koso's concerns about caribou on Adak, Trumble's comments regarding cattle ownership and subsistence use, and his observations to the FSB regarding rural determination. The minutes, with additions, were approved unanimously.

Council Member Reports.

Rebecca Skinner – Was born and raised in Kodiak. Recently attended the joint North Pacific Fisheries Council (NPFCC) and International Pacific Halibut Commission (IPHC) in Seattle. Lots of discussion on data, data collection, halibut migration and population. Data show that halibut migrate extensively.

Melissa Berns – Has lived in Old Harbor her whole life, shares her knowledge with youth and learns from elders. She emphasized the continued community struggle with tanner crab stocks.

Rick Koso – Has lived in Adak since 2001. Not a big population and its expensive to get there. Lots of subsistence with halibut and caribou. Been having a lot more hunters showing up on Adak, this last year. Everyone is still able to get their subsistence caribou. Working on developing a small king crab fishery. Also attended the IPHC meeting in Canada. There has been a big push back from Canada on trawler bycatch.

Patrick Holmes – Came to Kodiak in 1963, went to college and came back. Neighbors have been giving him halibut, elk, salmon. Guide told him that he had sighted 150 Emperor Geese out west in Women's Bay. Helped do some brainstorming on the soup ducks in Uyak Bay and is working on developing a monitoring program. Discussed clarification that you can keep gray cod on a halibut long line.

Sam Rohrer – Born and raised in Kodiak. Looking forward to discussion of deer population on east side of Kodiak Island. Encourage everyone to come to the meeting tonight on rural determination. People are concerned, but they don't seem to understand the issue.

Tom Schwantes – Is hearing concerns about deer population on east side of the island and crash of sockeye salmon on Pasagshak. Other main issue of concern is the Emperor Geese issue.

Coral Chernoff – Born and raised in Kodiak with a subsistence lifestyle. Is new so didn't have anything to report.

Mitch Simeonoff – People in Akhiok have concerns about decreasing salmon returns on the Upper Station in Olga Bay. Another concern is the low deer population. A lot of people have been coming back with only one, when they used to have 2 or 3. Mild weather may be part of it - deer are way up on the mountain.

Antone Shelikoff – Could not get to Kodiak because plane was canceled. There was only one calf taken on Akun. The sea duck population is good, and emperor geese appear to be on the increase.

Della Trumble – The weather has been fairly mild. Never seen weather like this growing up there. Very hot summer, mild winter. Lots of concern about lack of snow pack, low water in creeks for fish to come up. People were able to harvest caribou through State process. Not aware of any who have harvested under Federal drawings. The guys are out cod fishing right now, pollock fisherman standing down due to bycatch on king salmon. Glad to see people from Migratory Birds in the audience today.

Federal Subsistence Board Meeting Report

Simeonoff unable to attend due to death in the family. Johnson reported no regional proposals from Kodiak/Aleutians. Council had discussed and supported FP15-01 relating to definition of hooks. FP15-01 was submitted by the Southcentral Council, supported by all Councils and

adopted by the Board. There were a few proposals related to the use of gillnets on the Yukon, Kasilof and Kenai Rivers. A Ninilchik community gillnet proposal was passed for the Kasilof and Kenai. The Kenai proposal adoption has received attention from other stakeholders. The Board will hold a work session in June or July.

Meeting resumed after a lunch break. Trumble thanked Vince Tutiakoff and Pete Squartsoff for their past service on the Council.

Tribal and Public Comments on Non-Agenda Items

No comments from Tribes or the public, but several Council members remarked on the passing of Iver Malutin and his past contributions and wisdom to Council proceedings.

Old Business

Southeast Council C&T Briefing presented by Palma Ingles, OSM. Ingles provided an overview of the briefing on a recent Southeast Council proposal to change the C&T process. That briefing is in the meeting supplemental materials. The briefing highlighted what could happen if the 8-factor C&T process were eliminated. The Council discussed the need for more consideration, and agreed to address it again later in the meeting.

New Business

Proposed Rule on Refuges regarding Hunting

Doug Damberg, Refuge Manager for Izembek NWR, provided a paper PowerPoint (PPT) briefing on the proposed changes to refuge regulations that would limit or prohibit certain hunting activities on Refuge lands that are designed as predator control. Mr. Damberg identified five proposed changes which prohibit certain methods of taking predators (page 3 of the PPT). He also indicated these regulations would affect all National Wildlife Refuge lands. Holmes expressed concerns and questions about the proposed changes, specifically as related to the management regimes expressed in the Alaska Statehood Act. Damberg explained how the proposed changes would impact Unit 9 and Unit 10 within the region. Council members expressed concerns over the extension of the emergency and temporary closures. Council members also disagreed that recent Board of Game actions constituted hidden attempts at predator control. Both Damberg and Anne Marie La Rosa, Refuge Manager for Kodiak NWR, answered a variety of questions. Holmes brought up flaws with the public process regarding predator control on Unimak Island in 2011. He expressed frustration about the need for the regulations when there really is not a problem, as these activities are not currently permitted under State or Federal regulation in the region. Skinner discussed the Karluk Lake enrichment project and how that approach seems to conflict with the notion of not interfering with natural populations under this proposed regulatory change. La Rosa noted that these changes are driven by the 1966 National Wildlife Refuge System Act and its 1997 amendments. Rohrer stated that the Council disagreed that the state's actions were for predator control. Trumble expressed concerns about the accelerated timeline for the proposed regulatory change, that there needs to be more discussion, and suggested that the proposed rule be put off until the fall. Holmes suggested a resolution citing disagreement, and a request to delay the rule by one year.

Call for Federal Hunting and Trapping Proposals

Tom Evans, wildlife biologist with OSM, provided an overview on how to submit a proposal, what a proposal should include, and the regulatory process for proposals. Council member Koso asked questions regarding differing state and federal regulations on hunting.

Notice of Funding Availability

Palma Ingles of OSM provided an overview of the types of projects that are funded, the deadline for submitting proposals, where the funding opportunity can be found, and the closing date of the period for submitting proposals. Holmes thanked the OSM for providing funding for the Buskin River salmon studies. Sharon Wolkoff from the Sun'aq Tribe and Holmes also discussed the possibility of funding for crab and sea otter studies in Women's Bay.

Approval of Draft Annual Report

Carl Johnson provided an overview of the role of annual reports under Section 805 of ANILCA and highlighted current language in the draft annual report. Trumble requested removing "possible" from predatory impacts on Unimak caribou. Holmes wished to add "prior meeting Council" to the sea duck first sentence, and dropping "possible" on dual management for caribou. The Council unanimously approved a motion to table action on the annual report until the end of the meeting.

Approval of Changes to Council Charter. Carl Johnson gave an overview of charter changes. The Council endorsed the geographic membership balance and changes to nominations and appointments. Motion passed unanimously.

Agency Reports

U.S. Fish & Wildlife Service

Kodiak National Wildlife Refuge. McCrea Cobb provided a biological overview of wildlife populations on the Refuge and recent survey results. A detailed written report was provided in the meeting book, starting at page 65. LaRosa noted that McCrea will be leaving his position at the Refuge, thanked him for his service, and noted that his position would not be filled, reducing biology staff from four to three. She then provided an overview of the Karluk Lake enrichment project, the public process, and current status. Schwantes asked a question about why surveys are not being conducted on the east side of the Refuge, and McCrea indicated that they are expanding survey areas and trying different survey methods. Rohrer brought up the issue again on the proposed refuge hunting regulations, and how they reconcile managing natural biodiversity with the decision to go ahead with Karluk Lake. LaRosa responded that Karluk Lake relates to historical population and ADF&G escapement and past data. Berns and Simeonoff discussed recent observations on sea otters as taggers in their communities. Holmes noted he would like to have seen an update on Harlequin ducks in Uyak for 2013. Chernoff commented on the three-year time review on the salmon as a short period of time to be able to assess the status of a population.

Izembek National Wildlife Refuge. Stacey Lowe, wildlife biologist for the Refuge, provided the biological and harvest update for various populations on the Refuge. Patrick Holmes complimented Stacey and Doug Damberg on their presence in the village of King Cove at the last Council meeting. Holmes suggested working with commercial fisheries to get updates on caribou seen during their aerial stream surveys, or with the Coast Guard during their exercises. Skinner inquired about the three-year index on the Black Brandt, and the basis for that time period. Is it a biological reason? Lowe noted that they share the data with the Pacific Flyway Management Council, but was not aware of why it is a three-year average. Shelikoff asked if any Brandt migrate to Russia, but Lowe and Damberg indicated there was no known data on that issue. Trumble asked a question about whether the water levels were low in the Cold Bay area, as they were around King Cove. Lowe indicated that the water levels were about 50% capacity, and Damberg noted that was why they were interested in the water temperature surveys. Koso inquired about the subsistence Brandt hunt and the population numbers. Lowe noted that the fall survey showed 170,000 Brandt and noted that the subsistence season was still on. Damberg noted that the Migratory Birds program sets those hunts.

Alaska Department of Fish and Game

Tyler Polum provided an update on the Buskin River sockeye salmon project, which was distributed in the supplemental materials. He provided a quick overview on the history of the project and noted it is currently funded through 2017 through the Fisheries Resource Monitoring Program. He then gave an overview of recent activities and data from the project, from the escapement goals to the counts at the Buskin Lake weir. He discussed the success of the internship program connected with the project and how it has led students to pursue careers in ADF&G. Polum also provided a brief overview on the public outreach regarding the project. Holmes made comments on the escapement goal and project/staff funding. Skinner commented on her work with Polum on youth internships, and noted that she cannot overstate the importance of that program and what Polum brings to the community. Shelikoff asked a question about copepods, which Polum noted is a primary food source for juvenile salmon. Simeonoff inquired about the percentage of subsistence versus sport harvest, and Polum noted that subsistence harvest of sockeye was around 20% on average and sport was 5% on average. Coho, however, had a higher percentage of sport harvest.

February 11, 2015

The meeting was called to order at 9:03 a.m.

The Council returned to **Old Business**.

Rural Determination Process Review

Palma Ingles, Office of Subsistence Management, presented a briefing on the proposed rule to change the rural determination process. Council members expressed concerns over lack of guidance as to how proposals would be analyzed by staff in the absence of written criteria. While it is desirable to get rid of the current criteria, the lack of guidance is disturbing. The Council also wanted to ensure that it was clear that the Board would give weight to Council decisions,

and that any proposals to change rural status should only be allowed to originate from the region affected. Would like to see a limit on how often a request for review would come up. Do not want to see this coming up every year or two years.

Council moved and seconded to include these comments and those of the public last night in a letter, and to attach last 3-4 page previous comment letter. Simeonoff noted he wants to ensure that no one in D.C. changes what is submitted. Holmes wants the Board to be expeditious in making this change, expressing concerns about how the composition of the Board could change after the 2016; there should be an initial rural determination from the Board before the next presidential election. Council would like to see a copy of the last rural comment letter to the Board. Schwantes motioned to include comments in a letter from the Council and those heard at public meeting. Seconded by Simeonoff. Motion passed unanimously.

Customary and Traditional Use Determinations

Palma Ingles and Pat Petravelli, BIA, provided some supplemental information on the C&T process. Petrivelli provided more background behind the Southeast's approach on the issue. Pippa Kenner, OSM, also provided information and explanation regarding the changes that Southeast is considering making, and the desire of that Council to keep other Councils in the loop on what it is considering. Council members expressed general support for the current process. Simeonoff noted that customary and traditional use determinations should be between Tribes, not agencies.

Agency Reports (continued)

Alaska Maritime NWR – Steve Delahanty, Refuge Manager, provided an update on the Chirikof and Wosnesenski Island non-resident cattle issue. He updated on where they were in the public process, noting that public meetings and Tribal/ANCSA consultation process has been completed and they are in the process of writing the draft environmental impact statements. An opportunity to provide comments on the draft EIS will be available through the consultation process and to the public. He provided an overview of public comments: the cattle are a valuable meat source, there should be managed grazing, the cattle are causing damage and don't belong on a national wildlife refuge. Skinner asked why determining the ownership of cattle would be the last step in the process. Steve noted that it is something that the DOI attorney will decide when it happens. Trumble expressed frustration with input from those outside of Alaska and doubt that it will be a positive outcome. Schwantes inquired as to whether the islands have actually been studied, noting he has been to the island and has not seen damage.

Delahanty also provided an update on caribou migrating from Adak to Kagalaska Island. This is not about reducing the Adak herd, but addressing those caribou that periodically migrate over to Kagalaska Island. An environmental assessment has been written, and there is a plan to implement a control effort in 2015. There would be short visits by Refuge staff to seek out any errant caribou and dispatch them. There are logistical challenges, as well as the question of what the Refuge will do with the carcass. The EA provides that salvage of the meat is allowed but not required; employees cannot take it but the clinic on Adak was agreeable to distributing meat to those in need. For the first trip they will take extra people with for the purpose of packing meat back out for transport to Adak. Koso noted that having caribou on Kagalaska is not a problem,

and the island is that hard to get to. There are caribou all over various islands. He also commented he didn't like the suggestion in the briefing that the Adak herd could be reduced to minimize migration to Kagalaska. Delahanty noted that the suggestion to reduce the Adak herd was an alternative that was rejected. Holmes recounted his history on the Aleutian chain and on Adak, and discussed claimed impacts of caribou on the Aleutian shield fern. Trumble recalled issues from about 15-20 years ago regarding Adak caribou – the plan was to remove and transport caribou from Adak to other locations. She suggested that it was a waste of resources to go after a small handful of animals that are not going to present a problem. She expressed opposition to the effort to remove the animals. Rohrer commented on alternatives not considered, and noted that we tolerate non-native species on other refuges, why not on Kagalaska? Skinner inquired as to what the actual negative impacts of caribou on Kagalaska would be, noting that the briefing did not make it clear. Delahanty noted that the standard procedure is to try to control and eradicate a non-native species before it becomes a problem. Jennifer Yuhas from ADF&G noted that they would not like to see the plan move forward, but if it does, she suggested contacting Hunters for the Hungry to assist in distributing caribou after harvesting. Schwantes asked if any studies have been done on Adak to determine if caribou have caused damage. Steve commented on studies done on caribou impacts to vegetation on Adak.

Alaska Department of Fish and Game (ADF&G) - Nate Svoboda from ADF&G provided a broad overview of various population updates in GMU8 and answered questions from the Council. His presentation was provided as a supplemental handout. Jake Jacobson, a Kodiak resident also provided information on field samples he has taken and scientific studies of sterile deer on Kodiak.

Division of Migratory Birds Management, USFWS

Julian Fischer from Migratory Birds provided a PowerPoint presentation on Emperor Geese. He discussed the aerial waterfowl survey process and staffing. He then proceeded with his main presentation. (A copy of that presentation was provided and is included in the administrative record for the meeting.) He covered breeding and wintering areas, historical trends in the Emperor Geese populations, developing of management agreements from the Hooper Bay agreement to the Yukon Delta Goose Management Plan to the Pacific Flyway Management Plan, conduct of the spring Emperor Geese survey, factors that are limiting the growth of the population, the role of subsistence hunting as an inhibitor to population growth, and current work underway in surveys and data collection and revising the Emperor Geese management plan. He then provided a summary of the presentation.

Koso thanked Fischer for the report and commented on the 80,000 threshold, noting that there are large fluctuations in the counts and asked what creates the fluctuations. He also noted it looks like something needs to be done with the illegal harvest in order to improve the population. Fischer noted that most illegal harvest was in the Yukon Delta and Bristol Bay region, with none in the Kodiak/Aleutians Region. There was also discussion about potential for changing the population thresholds in the management plan revision. Trumble asked if there was any correlation with human population increases and the decline of Emperor Geese, and Fischer indicated he did not know. She also asked if anything was being done to limit egg harvest of Emperor Geese, and Fischer indicated it was currently closed. Doug Rosenberg from ADF&G provided information about the AMBCC and the representatives for the region to that process.

Schwantes inquired about whether the 150,000 population goal was realistic. Rosenberg responded by identifying several issues that have been raised recently regarding that and other issues that should be addressed in the revision to the management plan. A discussion ensued regarding ways to improve the survey process and ensure accurate population counts are being conducted.

Skinner asked about next steps. Dan Rosenberg responded that the week of April 6 is the next AMBCC meeting, which will be a regulatory meeting to vote on proposals. Migratory Birds will report on its status at that meeting. Both State and Federal are initiating a process to revise the management plan and reconsider the population objectives and thresholds. Rosenberg suggested that it would be helpful if the Native groups worked out amongst themselves the illegal harvest issue, which could provide for a small legal harvest. Koso brought up the issue of how reducing the subsistence hunt threshold to 70,000 could aid in education and mitigate the illegal hunt. Rosenberg noted that the Migratory Bird Treaty Act amendments precluded having a subsistence preference over sport hunting. Schwantes expressed his appreciation for attending the meeting and providing valuable information.

Eric Taylor of Migratory Birds expressed caution about adjusting population thresholds, noting that Oregon is lobbying to cut the population threshold of Cackling Canada Geese in half because those geese are spending winter time on golf courses, farms and property developments (where locals refer to them as “flying rats”). He noted this was a concern due to the impact on subsistence hunters in the YK Delta, where that species of geese is very important for harvest. So he cautioned on making adjustments carefully and based on sound science. He also explained how the Pacific Flyway Management Plan is utilized in the regulatory process. Simeonoff asked a question about the KARAC proposal that was submitted in 2013, and Eric Taylor noted that the proposal was tabled to allow for revision to the management plan.

Carl Johnson inquired about the status of the Emperor Goose resolution passed at the 2014 Fall KARAC meeting, and if the Council wished to continue with efforts to get the Bristol Bay and Y-K Delta RAC endorsements. It was recommended that summary be given to the RACs as an informational piece until after the April AMBCC meeting.

ADFG

Southern Alaska Peninsula and Unimak Island caribou herd updates. Dave Crowley, area wildlife biologist in King Salmon, gave an update on the Southern Alaska Peninsula caribou herd. He then provided a report on the Unimak Island caribou herd, noting that the population is now estimated to be under 200, with a lower pregnancy rate but decent calf survival. He added that there is a predator control plan on the books, but it is on hold because it is not authorized for federal lands.

James Jackson of Kodiak provided a report on Kodiak subsistence harvest of salmon based on number of harvest permits returned. The report covered sockeye salmon at various locations. Matt Keyse from South Peninsula presented a report on a weir project at McCleese Lake and subsistence salmon harvest information for the Aleutians. Then, Bob Murphy provided a report

on Nelson Lagoon salmon harvest. There were some discussions on staff at various locations and the process on issuing permits.

Davin Hollen provided an update on upcoming issues to be addressed by the Board of Fisheries at an upcoming meeting regarding Tanner crab, Dungeness crab and shellfish in the Kodiak Archipelago.

National Marine Fisheries Service

Chris Long gave a PowerPoint presentation on ghost fishing in Women's Bay and a study of this wasteful take, including biological and life history information and study methodology. The study was originally designed to learn about the behavior, habitat and biology. In the process, they discovered that crabs were getting caught in derelict crab pots (32 out of 192 tagged crabs). 62% of the derelict pots did not have biodegradable releases as are required under State law. The report also noted the effects of ghost pot mortality on the population and causes of ghost pots. Council members appreciated the presentation and suggested education campaigns to inform crab fishermen of this issue and to engage law enforcement and local AC meetings. Patrick Holmes suggested consideration of an emergency closure during the periods when there is ice in the bay. Tom Schwantes asked for suggestions on how to locate these ghost pots and what should be done with them. Chris agreed that closing the crab fishery during the ice periods would be a good idea. Sam suggested adding to education that crabs still go in the pots after the bait is gone.

Sun'aq Tribe

J.J. Marsh, CEO for the Sun'aq Tribe of Kodiak gave a statement on the importance of subsistence crab fishing and the threats to crab fishing in Women's Bay, Larsen Bay and other locations. She noted the impact of sea otters, ghost pots, and concentrated crab fishing efforts. There was a discussion on the possibility of implementing a bounty for ghost pots and for sea otters. Council members asked about the data indicating the increase in sea otter populations, and it was noted that the reports on that will be coming out soon. Rebecca spoke in support of supporting ghost pot removal, but not on taking any action regarding sea otter populations as no data has been provided.

There was an ongoing discussion about how the Southeast region is dealing with sea otters and what Tribes are doing with marine mammal management plans to address sea otters.

Office of Subsistence Management

Tom Kron reported on the Tribal Consultation Policy Implementation Guidelines and ANSCA Corporation Consultation Policy, which were approved by the Federal Subsistence Board on January 23, 2015. These policies will be reviewed on an annual basis for effectiveness. Kron also provided a summary of new staff, including Orville Lind, Native Liaison and Karen Deatherage, the Council Coordinator assigned to the Kodiak/Aleutians RAC. He also stated he had information on other OSM vacancies that had or will be filled shortly.

Future Meeting Dates

Carl Johnson reported on options for the Fall RAC meeting; namely, September 25-26 in Adak or September 29-30 in Cold Bay. OSM staff will compare costs and get back to the Council within the next month or two with information. Johnson also reported on the proposed All-Council Winter 2016 meeting to be held in Anchorage. There will be joint sessions, training sessions and individual council sessions over a 5 day period. We are currently looking at the last week in February or the week after Iditarod.

Annual Report continued ...

The Council confirmed adding the following issues to the annual report: Ghost pots in Women's Bay, concerns over funding for caribou and deer population surveys, approval of council charter, declining sockeye salmon in Upper Station, modified information on Emperor Goose issue, and opposition to the proposed statewide USFWS regulatory changes regarding methods and means for predators and temporary/emergency closures.

Closing Comments

Rebecca Skinner noted she appreciated the agency reports and the dialogue.

Patrick Holmes appreciated what the Council was able to get through in the meeting and was impressed with comments from the new members, being insightful.

Coral Chernoff was very impressed with all of the thoughtful comments and is excited to do more work with the Council in the future.

Tom Schwantes noted it was an excellent and productive meeting.

Sam Rohrer noted it was fun to see the new members and appreciated the new members' comments. He noted he appreciated how well the Council worked together.

Mitch Simeonoff thanked the Council for keeping him on as Chair and appreciated the comments of the Council at the meeting. He noted he is a real advocate for getting the Council out to the non-hub communities. He also welcomed the new coordinator, Karen Deatherage.

Antone Shelikoff welcomed the new Council members and appreciated the efforts of the new coordinator, Karen Deatherage.

Della Trumble welcomed the new members, thanked Carl Johnson for his work and welcomed Karen Deatherage. She also thanked the many agency personnel and their reports.

Rick Koso welcomed the new members and noted that they will do well and be a good part of the team.

Meeting adjourned 5:15 p.m. February 11, 2015

I hereby certify that, to the best of my knowledge, the foregoing minutes are accurate and complete.

February 11, 2015

/s/
Carl Johnson, DFO
Office of Subsistence Management, USFWS

/s/
Della Trumble, Vice-Chair
Kodiak/Aleutians Subsistence Regional Advisory Council

These minutes will be formally considered by the Kodiak/Aleutians Subsistence Regional Advisory Council at its next meeting, and any corrections or notations will be incorporated in the minutes of that meeting.

DRAFT

**Kodiak/Aleutians Subsistence Regional Advisory Council
U.S. Fish and Wildlife Service
1011 East Tudor Road, MS 121
Anchorage, Alaska 99503
Phone: (907) 786-3888, Fax (907) 786-3898
Toll Free: 1-800-478-456**

RAC KA15024.KD

14 JUL 2015

Mr. Tim Towarak, Chair
Federal Subsistence Board
U.S. Fish and Wildlife Service
Office of Subsistence Management
1011 East Tudor Road, MS 121
Anchorage, Alaska 99503

Dear Mr. Towarak:

The Kodiak/Aleutians Subsistence Regional Advisory Council (Council) submits this FY2014 annual report to the Federal Subsistence Board (Board) under the provisions of Section 805(a)(3)(D) of the Alaska National Interest Lands Conservation Act (ANILCA). At its public meeting in King Cove on September 11, 2014, the Council identified concerns and recommendations for this report, approving it at its February 10-11, 2015 public meeting in Kodiak. The Council wishes to share information and raise a number of concerns dealing with implementation of Title VIII of ANILCA and the continuation of subsistence uses in the Kodiak/Aleutians Region.

1. Emperor Geese

The Council has been advocating for at least ten years for the opportunity to conduct a subsistence harvest of Emperor Geese, which has been illegal since hunting was closed in 1987. This Council has on many occasions expressed doubt about the validity of the 80,000 threshold required before a subsistence harvest will be permitted. The Council also believes that local subsistence users could be utilized, but currently are not, in conducting the population surveys. The Council believes that this could improve the accuracy of Emperor Geese population determinations. As a result, the Council at its fall 2014 meeting adopted a resolution urging a reexamination of the 80,000 population threshold and utilization of local subsistence users in conducting population counts (enclosed). The Council expressed these and other concerns at its winter 2015 meeting to staff present from the Division of Migratory Bird Management and Alaska Department of Fish and Game (ADF&G). The Council was informed that a tabled 2013 Council proposal to the Alaska Migratory Bird Co-management Council (AMBCC) asking for subsistence harvest of emperor geese will be revisited during the April, 2015 meeting of the AMBCC. The Council will delay further action, including seeking formal support from nearby

Mr. Towarak

2

regions, pending review of this proposal and potential changes to the Pacific Flyway Management Plan for Emperor Geese.

2. Management of Caribou Populations and Predatory Impacts

The Council would like to see increased cooperation between ADF&G and Izembek National Wildlife Refuge on the management of the Southern Alaska Peninsula Caribou Herd (SAPCH), from population counts to restorative measures. Dual management of populations such as the SAPCH can only work if the State and respective Federal land managers cooperate. The Council would also like to see integrated management efforts with regard to the Unimak Island herd. The Council would like to stress the importance of funding for continued monitoring of both the Unimak and SAPCH herds. The Council will continue to voice concern over the status of the SAPCH, and predatory impacts of wolves on that herd, so long as the population numbers remain low. Efforts to minimize predator populations and impacts on the herd should be enhanced, not reduced. The Council is very alarmed by the U.S. Fish and Wildlife Service's proposed Statewide Regulatory Changes for Alaska Refuges. The Council believes the proposed changes will reduce opportunities to take predators in areas where caribou populations are greatly affected by predation. Extended emergency and temporary closure periods and limited timeframes for regulatory implementation are likewise disturbing.

3. Deer on Kodiak National Wildlife Refuge

This Council is greatly concerned about the Sitka Black-tailed deer population on the eastern and southern portions of the Kodiak National Wildlife Refuge. The Council has already expressed concern to the Refuge (enclosed), and incorporates the concerns expressed in that letter by reference. The Council also wanted to bring this to the Board's attention under Section 805(a)(3)(D)(ii) as a subsistence need for a particular wildlife population in this region. Given the declining population, and no effort to reduce the harvest, the Council believes that some action should be taken to reduce harvest by hunters who are not Federally qualified subsistence users. Declining population and outside hunting pressure are diminishing the ability of local residents to harvest the deer they need. The Council is also very worried about continued reductions in State and Federal budgets and potential impacts on monitoring deer populations, particularly on the eastern side of Kodiak Island.

4. Sea Duck Mortality in Uyak Bay

In its previous annual report and prior meetings, this Council expressed concern over the declining sea duck population in Uyak Bay. In addition to the requests expressed in that annual report, the Council also invites the Migratory Bird Program and the AMBCC to explore the possibility of coordinating research on that population with Koniag Corporation. Koniag has a research biologist on staff and a resource group, which could potentially provide support for research efforts in Larsen Bay to determine the status of the sea duck populations and potential causes for their decline.

5. Ghost Fishing in Women's Bay

The Council is concerned about the impacts of ghost fishing (lost pots that continue to capture crabs) on king, tanner and Dungeness crab in Women's Bay on Kodiak Island. Crab biologists estimate that 62% of the pots investigated did not have the required biodegradable releases. The study showed up to 40% mortality from ghost fishing for crab in Women's Bay. The Council would like to see increased compliance with the biodegradable release requirements, removal of derelict pots, and designated closure periods to reduce crab pot loss, especially during Bay icing periods. The Council, Sun'aq Tribe and other partners will seek funds for a cooperative effort to address this critical issue affecting subsistence shellfish users in Women's Bay.

6. Declining Salmon in Upper Station and research funding

The Council is troubled with the decline of sockeye salmon in Upper Station, Olga Bay and what appears to be a lack of research in that area. This area is frequently used by subsistence users from Akhiok and Mosher Olga Bay. The resource is declining, yet there does not seem to be attention given to this issue. The Council would like to see funding for research to determine the causes for declines and investigate methods for increasing salmon stocks for subsistence in this area.

7. Council Charter

The Council appreciates the work done by Carl Johnson and the Office of Subsistence Management to draft changes to the Council Charter. The Council approved renewal of the charter with several changes: changing appointment terms from three (3) to four (4) year terms, establishing formal alternate appointments, and providing for carry-over terms. The Council also reinstated its desire to seek geographical balance for Council membership that was removed from the charter by Washington, D.C. in 2011. Given the diverse geographic distribution of our Region, providing for geographic balance is key in this Council's membership balance plan as provided for under the Federal Advisory Committee Act. The Council requests the Board's support on these charter changes and a communication to the Secretaries to approve the changes.

The Kodiak/Aleutians Subsistence Regional Advisory Council appreciates the Board's attention to these matters and for the opportunity to assist the Federal Subsistence Management Program in meeting its charge of protecting subsistence resources and uses of these resources on Federal public lands and waters. We look forward to continuing discussions about the issues and concerns of subsistence users of the Kodiak/Aleutians Region. If you have questions about this report, please contact me via Karen Deatherage, Subsistence Council Coordinator, with the Office of Subsistence Management at 1-800-478-1456 or (907) 786-3564.

Mr. Towarak

4

Sincerely,



Speridon Mitchell Simeonoff
Chair

Enclosures

cc: Federal Subsistence Board
Kodiak/Aleutians Subsistence Regional Advisory Council
Eugene R. Peltola, Jr., Assistant Regional Director, Office of Subsistence Management
Chuck Ardizzone, Deputy Assistant Regional Director, Office of Subsistence Management
Carl Johnson, Council Coordination Division Chief, Office of Subsistence Management
Karen Deatherage, Subsistence Council Coordinator, Office of Subsistence Management
Interagency Staff Committee
Administrative Record

RAC 15002.CJ

RESOLUTION 2014-1

RESOLUTION OF THE KODIAK/ALEUTIANS SUBSISTENCE REGIONAL ADVISORY COUNCIL IN SUPPORT OF MODIFICATIONS TO THE PACIFIC FLYWAY MANAGEMENT PLAN FOR EMPEROR GEESE AND ENHANCEMENT OF POPULATION SURVEY METHODS

WHEREAS, the Kodiak/Aleutians Subsistence Regional Advisory Council (Council) is empowered by Section 805 of the Alaska National Interest Lands Conservation Act to review and evaluate management plans relating to subsistence uses of fish and wildlife in the region and provide a forum for the expression of opinions and recommendations by persons in any matter related to subsistence uses of fish and wildlife in the region;

WHEREAS, the Emperor Goose is a customary and traditional subsistence resource for the rural residents of the Kodiak/Aleutians Region, as well as other regions in southwest Alaska;

WHEREAS, subsistence hunting of Emperor Geese has been prohibited by law since 1987;

WHEREAS, the Council has been advocating for over ten years on behalf of subsistence users in the region to allow for the opportunity to have a limited subsistence hunt of Emperor Geese;

WHEREAS, the Council has raised the issue of subsistence hunting of Emperor Geese on numerous occasions in its annual reports to the Federal Subsistence Board;

WHEREAS, the Council has submitted a regulatory proposal to the Alaska Migratory Bird Co-Management Council to provide for a subsistence hunt of Emperor Geese;

WHEREAS, none of the Council's efforts in following protocol to provide for a subsistence hunt of Emperor Geese have been successful;

WHEREAS, the Council has consistently questioned the validity of the 80,000 population threshold for allowing a subsistence hunt established in 1988 by the Pacific Flyway Management Plan for Emperor Geese;

WHEREAS, the Council has requested a thorough review of the survey methodology that determines the population of Emperor Geese and has not received a response;

WHEREAS, the Council believes that the current survey process could be improved and enhanced by involving local residents and developing a survey document in cooperation with Izembek National Wildlife Refuge staff;

LET IT THEREFORE BE

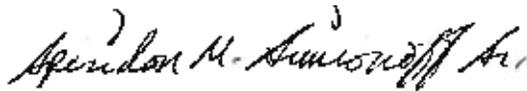
RESOLVED, that, in order to provide for a subsistence hunt of Emperor Geese at some time in the foreseeable future, a revised and reduced population threshold of Emperor Geese be developed in accordance with standard scientific principles and taking into account traditional ecological knowledge, and that such a revision be reflected in the Pacific Flyway Management Plan for Emperor Geese;

BE IT FURTHER RESOLVED, that, in order to improve future population surveys of Emperor Geese, the agencies that currently conduct such surveys should engage in a meaningful effort to coordinate and collaborate with other agencies and with local subsistence users to maximize the potential for developing more accurate population counts.

FINALLY, BE IT RESOLVED, that, in order to ensure maximum input from local subsistence users in the development of future revisions to the Pacific Flyway Management Plan for Emperor Geese, representatives from the Kodiak/Aleutians Subsistence Regional Advisory Council, as well as any other Federal Subsistence Regional Advisory Council representing subsistence users of Emperor Geese which adopts this resolution, should be provided opportunity to review and comment on such revisions.

CERTIFICATION

I hereby certify that the foregoing resolution was adopted by the Kodiak/Aleutians Subsistence Regional Advisory Council on September 11, 2014, at a publicly-noticed meeting in King Cove, Alaska, and in accordance with the Federal Subsistence Board's *Subsistence Regional Advisory Council Correspondence Policy*.



Speridon Simeonoff, Sr., Chair
Kodiak/Aleutians Subsistence Regional Advisory Council

Kodiak/Aleutians Subsistence Regional Advisory Council

c/o U.S. Fish and Wildlife Service
Office of Subsistence Management
1011 East Tudor Road, MS 121
Anchorage, Alaska 99503-6199
Phone: (907) 787-3888, Fax: (907) 786-3898
Toll Free: 1-800-478-1456

RAC 15001.CJ

1 5 JAN 2015

Anne Marie LaRosa
Refuge Manager
Kodiak National Wildlife Refuge
1390 Buskin River Road
Kodiak, Alaska 99615

Dear Ms. LaRosa:

I am writing on behalf of the Kodiak/Aleutians Subsistence Regional Advisory Council to provide the Council's concerns about the deer population on Kodiak Island, within the boundaries of the Kodiak National Wildlife Refuge.

The Council is one of ten regional advisory councils formed under Title VIII of the Alaska National Interest Lands Conservation Act (ANILCA) and chartered under the Federal Advisory Committee Act. Section 805 of ANILCA and the Council's charter establish its authority to initiate, review and evaluate regulations, policies, management plans, and other matters related to subsistence within the Kodiak/Aleutians Region. The Council provides a public forum for discussion and recommendations for subsistence fish and wildlife management in the region.

At its public meeting in King Cove on September 11, 2014, the Council discussed the declining Sitka black-tail deer population on the eastern and southern areas of the Kodiak National Wildlife Refuge. The Council was pleased to hear about new survey methods being utilized on the Refuge, and hopes they will provide statistically robust population estimates for management. Yet, when such surveys show a population of only 460 deer from Cape Ikolik to Kaguyak, the Council gets very concerned.

The Council also expressed concerns about outside hunting pressures, particularly when the deer are most vulnerable in the winter. Once the snow starts to fall, the does and fawns move to lower elevations and outside beaches, making them more vulnerable to harvest. Local residents observe many outside hunters being very successful in their hunts; however, local residents are finding it increasingly difficult to harvest the deer they need. They are having to go farther to hunt or, in many cases, are simply

Anne Marie LaRosa

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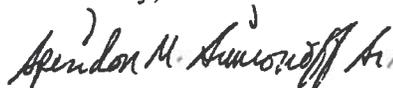
unable to harvest any deer at all. Council members have heard reports from locals regarding conflicts with outside hunters. Council members also noted harvest of deer by outside hunters regardless of gender or age, expressing concern as to how that will affect the population's ability to recover.

The Council therefore requests that all efforts be made to protect this vulnerable population and ensure the population can recover. The Council encourages cooperative efforts between the Refuge and the Alaska Department of Fish and Game to determine what management approaches can be taken to protect this deer population. The Council suggests that if the Refuge manager has authority for management of Sitka black-tailed deer on the Refuge, such authority should be considered to reduce or limit sport hunting, or restrict hunting to Federally-qualified subsistence users.

The Council discussed this issue at length, and the possibility of submitting a special action request or regulatory proposal to the Federal Subsistence Board. In the end, the Council chose to first express its concern to you in the hopes that the applicable managers, both State and Federal, could take action to protect the deer population.

The Kodiak/Aleutians Subsistence Regional Advisory Council appreciates the opportunity to express this concern to you. We look forward to continuing discussions about the issues and concerns of subsistence users of the Kodiak/Aleutians Region. If you have questions about this report, please contact me via Karen Deatherage, Subsistence Council Coordinator, with the Office of Subsistence Management at (907) 786-3564 or by email at karen_deatherage@fws.gov.

Sincerely,



Speridon Simeonoff
Chair

cc: Kodiak/Aleutians Subsistence Regional Advisory Council
Eugene R. Peltola, Jr., Assistant Regional Director, Office of Subsistence Management
Chuck Ardizzone, Deputy Assistant Regional Director, Office of Subsistence Management
Carl Johnson, Council Coordination Division Chief, Office of Subsistence Management
Jennifer Yuhas, Federal Liaison Team Lead, Alaska Department of Fish & Game
Administrative Record

Options for Board Recommendation on Current Secretarial Proposed Rule

The Board has four options for consideration:

1. Adopt as written;
2. Reject,
3. Adopt with Modification; or
4. Adopt and include in the preamble, direction for OSM and the ISC to develop a policy to address future nonrural determinations.

Program staff recommend the proposed rule be adopted as written. This action would be in line with the majority of the Regional Advisory Councils recommendations and public comments. It would also provide the shortest timeline and greatest opportunity for the resolution of this issue prior to the May 2017 deadline. If the Board does not take action prior to the deadline, communities that were selected to change from rural to nonrural in the 2007 final rule will become effective.

Options for Board Action to Determine Start-point for Nonrural Communities/Areas

The Board has three options to address rural determinations following action on the proposed rule. *If no action is taken, the 2007 final rule will become effective in May 2017.*

1. Initiate a direct final rule to adopt the pre-2007 rural determinations;
2. Initiate normal rulemaking to adopt an earlier rural determination;
3. Initiate rulemaking that would not address a start point and address each community individually.

Program staff recommend the Board initiate a direct final rule that would adopt the pre-2007 rural determinations. This action would resolve any current issues with communities/areas that were changed to nonrural in the 2007 final rule. If significant negative response from the public occurred, the direct final rule could be withdrawn and normal rulemaking could be undertaken. This option provides the shortest timeline and greatest opportunity for the resolution of this issue prior to the May 2017 deadline.

Options for Board to Direct Future Nonrural Determinations

To address future nonrural determinations, the Board has two options. The Board may direct staff to develop a draft nonrural determinations policy on how future determinations will be made; or, the Board may initiate rulemaking to address future determinations.

Program staff recommend the Board direct a policy to be drafted to address future nonrural determinations. This action will allow the greatest flexibility for Board action and the inclusion of regional variations. This option addresses concerns raised by some of the Councils (what the process of future nonrural determinations will be). Additionally it would require less time and the policy could be revised without formal rulemaking. Potential policy components could address nonrural characteristics with weighting potential that would accommodate regional variation and criteria for initiating a review of a community or area. The rural subcommittee, whose membership consists of program staff and ISC members, would develop the policy with input from the Councils, tribes, and public over the next 18 months with a goal of adoption by the Board in early 2017.

Rural Determination Recommendation Phases July 28, 2015

Phase I
Options for Board Recommendation on Current Secretarial Proposed Rule

Board Option	Pro	Con	Timeline	Notes
1. Adopt as written	<ul style="list-style-type: none"> - Shortest timeline - Majority of comments support 	<p style="color: red;">Lacks guidance on future actions</p>	<p>Publish mid-August 2015 (timeline is based on how long it would take staff to process the final rule; the response time from the Secretaries will be critical in any timeline)</p>	<ul style="list-style-type: none"> - This option provides the greatest opportunity for the Board to resolve this issue well prior of the May 2017 deadline - Guidance for future actions could be addressed in preamble of final rule
2. Adopt with directive to develop/maintain policy	<ul style="list-style-type: none"> - Would address some of the public comments - Likely will meet proposed timeline for rule completion 	<ul style="list-style-type: none"> - Would probably add 60 days to the publication date - Secretaries could direct another round of public comments, adding considerable time and possibility that will not meet intended timeline for decision making 	<p>Publish October 2015</p>	<ul style="list-style-type: none"> - This option may not meet the May 2017 deadline if the Board is directed to allow for additional public comment - The preamble could address the Board's policy making plan (if that option is selected)
3. Adopt with substantial modification (a) RAC deference (b) List nonrural criteria	<ul style="list-style-type: none"> - Would address some of the public/RAC comments 	<ul style="list-style-type: none"> - Goes against Secretaries' intent to simplify the process - Would likely require additional public comment period - May require additional proposed rule, which could affect ability to meet May 2017 deadline 	<p>Publish November 2016</p>	
4. Reject		<ul style="list-style-type: none"> - 2007 final rule becomes effective on May 7, 2017 - Does not follow Secretarial directive to address rural issue - Does not address the majority of public comments received 	<p>No action to be taken</p>	

Phase II
Options for Board Action to Determine Start-point for Nonrural Communities/Areas

Board Option	Pro	Con	Timeline	Notes
1. Direct final rule adopting the nonrural communities pre-2007 final rule	<ul style="list-style-type: none"> - Shortest timeline - Provides foundation for nonrural 	<ul style="list-style-type: none"> Possible public disapproval due to lack of current public input 	Publish September 2015	Communities that were ruled as nonrural in 2007 final rule would become rural
2. Initiate new formal rulemaking to revert to pre-2007 rural determinations	<ul style="list-style-type: none"> - Would have RAC and public comment periods 	<ul style="list-style-type: none"> Process could take up to a year to complete 	Publish July 2016	
3. Initiate new formal rulemaking with no "start point" and address each nonrural community on a case by case basis.		<ul style="list-style-type: none"> - Process could take 2+ years to complete - 2007 final rule becomes effective on May 7, 2017 	Publish July 2017 or later	Communities selected in 2007 final rule to change status from rural to nonrural become nonrural

Phase III
Options for Board to Direct Future Nonrural Determinations

Board Option	Pro	Con	Timeline	Notes
1. Direct staff to draft policy on nonrural determinations	<ul style="list-style-type: none"> - Allows greatest flexibility for Board actions and the inclusion of regional variations - Requires less time than formal rulemaking 			Would depend on Board's direction for public, RAC and Tribal input
2. Direct staff to initiate formal rulemaking to address future nonrural determination		<ul style="list-style-type: none"> Any future revisions would require formal rulemaking 	Approximately 1 year	



U.S. Fish and Wildlife Service
Bureau of Land Management
National Park Service
Bureau of Indian Affairs

Federal Subsistence Board News Release



Forest Service

For Immediate Release:
July 29, 2015

Contact: Deborah Coble
(907) 786-3880 or (800) 478-1456
deborah_coble@fws.gov

Federal Subsistence Board work session summary

During its work session held on Tuesday, July 28, 2015 the Federal Subsistence Board (Board) discussed deferred Request for Reconsideration RFR14-01. The motion to accept the State's request for reconsideration failed unanimously with a vote of 0-8. The Red Sheep and Cane Creek drainages will remain closed to non-Federally qualified subsistence users during the Aug 10-Sept. 20 sheep season in the Arctic Village Sheep Management Area of Unit 25. No further public comments were received regarding the issue at this work session.

The Rural Determination Process briefing was divided into three phases. Phase I addressed the Board's recommendation on the current secretarial proposed rule. The Board voted to recommend to the Secretaries to adopt the proposed rule as written. Phase II was determining a starting point for non-rural communities/areas. The Board voted to publish a direct final rule adopting the pre-2007 non-rural determinations. Phase III was direction on future non-rural determinations. The Board voted to direct staff to develop options to determine future non-rural determination for the Board's consideration. All three requests passed unanimously (8-0). OSM staff is expected to have a draft of options for the Board by the January 2016 meeting.

The Ninilchik Traditional Council submitted requests concerning the Kenai River gillnet fishery to the Board. The Board voted 7-1 to direct USFWS to continue working with NTC on an operational plan for the fishery. The request to rescind USFWS in-season manager's delegation of authority failed unanimously in a 0-8 vote. The request to reverse the emergency special action that closed the subsistence fishery for Chinook Salmon on the Kenai River failed in a 4-4 vote. NTC's final request to remove or amend current regulatory language on the Kenai River gillnet fishery was deferred and may be addressed during the next regulatory cycle.

Also discussed today during the work session was the 10 Subsistence Regional Advisory Council's Annual Report Replies. The RAC nominations discussion will occur during a closed executive session today, July 29, 2015 and is not open to the public.

1011 East Tudor Road MS-121 • Anchorage, Alaska 99503-6199 • subsistence@fws.gov • (800) 478-1456 / (907) 786-3888
This document has been cleared for public release # 1807292015.

Additional information on the Federal Subsistence Management Program may be found on the web at www.doi.gov/subsistence or by visiting www.facebook.com/subsistencealaska.

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114TH CONGRESS
1ST SESSION

S. 1154

To reverse the designation by the Secretary of the Interior and the Secretary of Agriculture of certain communities in the State of Alaska as nonrural.

IN THE SENATE OF THE UNITED STATES

APRIL 30, 2015

Ms. MURKOWSKI introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

A BILL

To reverse the designation by the Secretary of the Interior and the Secretary of Agriculture of certain communities in the State of Alaska as nonrural.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Subsistence Access
5 Management Act of 2015”.

6 **SEC. 2. DEFINITION OF SECRETARIES.**

7 In this Act, the term “Secretaries” means the Sec-
8 retary of the Interior and the Secretary of Agriculture.

1 **SEC. 3. REDESIGNATION NOT AUTHORIZED.**

2 (a) IN GENERAL.—Notwithstanding any other provi-
3 sion of law, including any regulation, order, or policy, for
4 purposes of administering the Federal Subsistence Man-
5 agement Program on public lands within the State of Alas-
6 ka pursuant to the Alaska National Interest Lands Con-
7 servation Act (16 U.S.C. 3101 et seq.), with respect to
8 a community or area designated as rural by the Secre-
9 taries by regulation effective on or before May 6, 2007,
10 the Secretaries may not, except pursuant to Act of Con-
11 gress—

12 (1) redesignate the community or area as
13 nonrural; or

14 (2) adjust the boundaries of a community or
15 area to render some or all of that community or
16 area nonrural.

17 (b) REINSTATEMENT OF LIST.—

18 (1) IN GENERAL.—The list of communities and
19 areas designated rural (including the boundaries of
20 those communities and areas) in effect on May 6,
21 2007, is reinstated.

22 (2) EFFECT.—Except as modified by Act of
23 Congress, with respect to those communities and
24 areas designated as rural, the list described in para-
25 graph (1) shall be in effect as if the final rule enti-
26 tled “Subsistence Management Regulations for Pub-

•S 1154 IS

1 lic Lands in Alaska, Subpart C; Nonrural Deter-
2 minations” (72 Fed. Reg. 25688 (May 7, 2007))
3 had not been issued.

4 **SEC. 4. EFFECT.**

5 Nothing in this Act prohibits the Secretaries from de-
6 termining that, in accordance with regulations duly pro-
7 mulgated by the Secretaries—

8 (1) a community or area designated nonrural
9 by the Secretaries should be redesignated as rural;
10 or

11 (2) the boundaries of a community or area des-
12 ignated nonrural should be adjusted by the Secre-
13 taries to render some or all of that community or
14 area rural.

15 **SEC. 5. PUBLICATION OF INTERIM FINAL RULE, LIST.**

16 (a) PUBLICATION OF INTERIM FINAL RULE.—Not
17 later than 30 days after the date of enactment of this Act,
18 the Secretaries shall publish an interim final rule amend-
19 ing any regulations inconsistent with this Act.

20 (b) PUBLICATION OF LIST.—Once each year after the
21 publication under subsection (a), the Secretaries shall
22 publish in the Federal Register a list of communities and
23 areas (including the boundaries of those communities and

4

- 1 areas) designated rural and nonrural in accordance with
- 2 this Act.

○

•S 1154 IS

114TH CONGRESS
1ST SESSION

H. R. 2388

To reverse the designation by the Secretary of the Interior and the Secretary of Agriculture of certain communities in the State of Alaska as nonrural.

IN THE HOUSE OF REPRESENTATIVES

MAY 15, 2015

Mr. YOUNG of Alaska introduced the following bill; which was referred to the Committee on Natural Resources

A BILL

To reverse the designation by the Secretary of the Interior and the Secretary of Agriculture of certain communities in the State of Alaska as nonrural.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Subsistence Access
5 Management Act of 2015”.

6 **SEC. 2. DEFINITION OF SECRETARIES.**

7 In this Act, the term “Secretaries” means the Sec-
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•HR 2388 IH

1 lic Lands in Alaska, Subpart C; Nonrural Deter-
2 minations” (72 Fed. Reg. 25688 (May 7, 2007))
3 had not been issued.

4 **SEC. 4. EFFECT.**

5 Nothing in this Act prohibits the Secretaries from de-
6 termining that, in accordance with regulations duly pro-
7 mulgated by the Secretaries—

8 (1) a community or area designated nonrural
9 by the Secretaries should be redesignated as rural;
10 or

11 (2) the boundaries of a community or area des-
12 ignated nonrural should be adjusted by the Secre-
13 taries to render some or all of that community or
14 area rural.

15 **SEC. 5. PUBLICATION OF INTERIM FINAL RULE, LIST.**

16 (a) PUBLICATION OF INTERIM FINAL RULE.—Not
17 later than 30 days after the date of enactment of this Act,
18 the Secretaries shall publish an interim final rule amend-
19 ing any regulations inconsistent with this Act.

20 (b) PUBLICATION OF LIST.—Once each year after the
21 publication under subsection (a), the Secretaries shall
22 publish in the Federal Register a list of communities and
23 areas (including the boundaries of those communities and

4

- 1 areas) designated rural and nonrural in accordance with
- 2 this Act.

○

•HR 2388 IH

H.R. 2388: To reverse the designation by the Secretary of the Interior and the Secretary of Agriculture of certain communities in the State of Alaska as nonrural.

DEPARTMENT OF THE INTERIOR AND UNITED STATES DEPARTMENT OF AGRICULTURE JOINT STATEMENT OF THE DEPARTMENT OF THE INTERIOR AND THE DEPARTMENT OF AGRICULTURE FOR THE RECORD FOR THE HOUSE NATURAL RESOURCES COMMITTEE SUBCOMMITTEE ON INDIAN, INSULAR AND NATIVE ALASKAN AFFAIRS HEARING ON H.R. 2388, THE SUBSISTENCE ACCESS MANAGEMENT ACT OF 2015

July 22, 2015

Thank you for the opportunity to provide a statement on the Administration's views regarding H.R. 2388, the Subsistence Access Management Act of 2015 (HR 2388). The Administration has several concerns about this legislation and opposes its enactment.

H.R. 2388 would prohibit the Secretary of the Interior and the Secretary of Agriculture from changing the status under the Alaska National Interest Lands Conservation Act (ANILCA) of Alaskan communities from rural to nonrural and would also prohibit any regulatory changes to rural Alaskan community boundaries that would result in such a change. It would require the Secretaries to publish an interim final rule within 30 days of enactment to amend any regulations that are not consistent with the legislation, and it would require the Secretaries to annually publish a list of Alaska communities that are designated as rural and non-rural.

If enacted, this legislation would effectively undermine the expectations of the Federal Subsistence Regional Advisory Councils (Councils) that they will be given a meaningful voice in future nonrural determinations. The Councils currently have invested and use their voice in shaping the proposed nonrural determination process. Also, permanently prohibiting the Secretaries from changing the status of affected communities from rural to non-rural status would impose permanent rural status on communities in which there is general agreement that a non-rural designation is appropriate. In a rapidly changing landscape, a statutory requirement that freezes such status to that prior to the 2007 rule could mean that access to wild food resources could be dominated by urban communities that are not in need of wild foods and are removed from traditional Alaskan culture.

The Secretaries are presently engaged in a review of changes to the rural determinations under ANILCA to make them more responsive to and less onerous for Alaskans. This has been a rigorous, two-year public process to seek comments on ways to improve the rural determination process. The Secretaries have sought and considered input from affected people across the state, including Alaska natives peoples, including Federally recognized tribes and Alaska Native Claims Settlement Act Corporations. A statutory freeze on the 2007 status of all Alaskan communities would ignore the diversity of views reflected in

comments submitted to date. While we understand there is some frustration in the length of time involved in the Federal rulemaking process, there is a wide diversity of need, values, and preferences among Alaskan communities on the rural determination process. As is occurring in the current process, these voices deserve to be heard and thoughtfully considered, and they deserve to have an ongoing role in a process that is responsive to their changing landscape and community needs.

Finally, the bill imposes an unnecessary and expensive administrative burden on the Secretaries to publish in the Federal Register, on an annual basis, a list of rural and nonrural communities. Under the present system, the rural or nonrural status of the vast majority of communities in Alaska has remained unchanged during the history of the program. Only a limited number of changes have been made to date, and if the proposed rule to eliminate the decennial rural review process is made final, then we expect even fewer such changes in the future. Moreover, when the Secretaries find that a change in status is necessary, it is currently and would continue to be our policy to publish it in the Federal Register.

Review of Rulemaking Process to Date

In 2010, the Secretary of the Interior directed the Federal Subsistence Board (Board) to conduct a public review of the rural determination process. The Board deferred the effective date of the 2007 nonrural determination list in order to provide time to reexamine the rural determination process. That deferral remains in effect today.

In 2012, the Board initiated the public review. A series of meetings and public hearings were held, during which the public was briefed on the current process and invited to provide suggestions on how to improve it. In addition, the Board conducted three consultations involving 20 Alaska Native tribes and 12 Alaska Native Claims Settlement Act Corporations. Through these meetings, it became clear that the public favored removing the rigid rural determination criteria from Secretarial regulations in favor of a more flexible approach that allows the Secretaries to consider a wide range of variables. Specifically, the consensus view was to eliminate the following: population thresholds, aggregation of communities, and the mandatory decennial review.

In January of 2015, in response to this rigorous public and consultation process, the Secretaries published a proposed rule that would eliminate the existing rural determination criteria from Secretarial regulation and focus the process on making nonrural determinations, rather than rural determinations. This would greatly simplify the process and remove the need for communities to "defend" their rural status. It would also empower the public and the Councils to have a stronger role in determinations. The majority of the substantive comments we received were supportive of the proposed rule. The Board will meet in late July, when the Secretaries will consider recommendations from Board members regarding finalization of the rule.

Conclusion

In conclusion, a rural determination is at the heart of eligibility for the Federal subsistence priority under Title VIII of the Alaska National Interest Lands Conservation Act, and it is crucial to ensure that the public has a voice in those determinations. Establishing the determination in statute would diminish the role of rural Alaskan residents in a process that would meaningfully incorporate a diversity of stakeholder needs, values, and preferences. It would also diminish the ability of the Federal Subsistence Advisory Councils to engage in future nonrural determinations. Also, a determination in statute would not readily be responsive to changes on the Alaskan landscape over time and would undo the hard work of a rigorous, 2-year public process and the trust of the public engendered through that process.

We would welcome the opportunity to provide further information on the rulemaking process and the proposed rule to Rep. Young and the Subcommittee and staff and respond to any continued questions and concerns. Thank you again for this opportunity to present the Administration's views on this legislation.

Alaska Refuges

Possible Statewide Regulatory Changes



Lisa Hupp/USFWS

Kodiak brown bear sow with cub.

National Wildlife Refuges (refuges) in Alaska are mandated to conserve species and habitats in their natural diversity and ensure that the biological integrity, diversity, and environmental health of the National Wildlife Refuge System are maintained for the continuing benefit of present and future generations of Americans. The U.S. Fish and Wildlife Service (USFWS) is proposing changes to the regulations governing Alaska refuges (under 50 CFR 36) to ensure that we are managing those refuges in accordance with our mandates and to increase consistency with other Federal laws, regulations, and policies. In addition, we aim to more effectively engage the public by updating our Public Participation and Closure Procedures to broaden notification and outreach methods, ensure consultation with Tribes and the State, provide for increased transparency in our decision-making, and to allow for additional opportunities for the public to provide input.

We recognize the importance of the fish, wildlife and other natural resources in the lives and cultures of Alaska Native peoples and in the lives of all Alaskans. These proposed regulatory changes would not change Federal subsistence regulations (36 CFR 242 and 50 CFR 100) or restrict taking of fish or wildlife under Federal subsistence regulations. The Alaska National Interest Lands Conservation Act (ANILCA) provides a priority to rural Alaskans for the nonwasteful taking of fish and wildlife for subsistence uses on refuges in Alaska. Under ANILCA all refuges in Alaska (except the Kenai Refuge) also have a purpose to provide the opportunity for continued subsistence use by rural residents, as long as this use is not in conflict with refuge purposes to conserve fish and wildlife populations and habitats in their natural diversity or fulfill international treaty obligations of the United States.

The changes we are considering would:

- Codify existing Federal mandates for conserving the natural diversity, biological integrity, and environmental health on refuges in Alaska in relation to predator harvest.

Predator control is not allowed on refuges in Alaska unless it is determined to be necessary to meet refuge purposes, federal laws, or policy and is consistent with our mandates to manage for natural and biological diversity and environmental health. The need for predator control must be based on sound science in response to a significant conservation concern. Demands for more wildlife to harvest cannot be the sole or primary basis for predator control on refuge in Alaska.

- Prohibit the following particularly efficient methods and means for non-subsistence (Federal) take of predators on refuges in Alaska due to the potential for cumulative effects to predator populations and the environment that are inconsistent with our mandates to conserve the natural and biological diversity, biological integrity, and environmental health on refuges in Alaska:
 - take of bear cubs or sows with cubs (exception allowed for resident hunters to take black bear cubs or sows with cubs under customary and traditional use activities at a den site October 15 – April 30 in specific game management units in accordance with State law)
 - take of brown bears over bait;
 - take of bears using traps or snares;
 - take of wolves and coyotes during the spring and summer denning season (May 1– August 9); and
 - take of bears from an aircraft or on the same day as air travel has occurred (take of wolves or wolverines from an aircraft or on the same day as air travel is already prohibited under current refuge regulations).
- Update the Public Participation and Closure Procedures. The following table summarizes the current regulations for the Public Participation and Closure Procedures and updates we are considering.

Public Participation and Closure Procedures

Current	Proposed Updates
Authority	
Refuge Manager may close an area or restrict an activity on an emergency, temporary, or permanent basis.	No updates
Criteria (50 CFR 36.42(b))	
Criteria includes: public health and safety, resource protection, protection of cultural or scientific values, subsistence uses, endangered or threatened species conservation, and other management considerations necessary to ensure that the activity or area is being managed in a manner compatible with refuge purposes.	Add conservation of natural and biological diversity, biological integrity, and environmental health to the current list of criteria.
Emergency closures or restrictions (50 CFR 36.42(c))	
Emergency closure may not exceed 30 days. Closure effective upon notice as prescribed in 50 CFR 36.42 (f) (see below for details). Closures related to the taking of fish and wildlife shall be accompanied by notice with a subsequent hearing.	Increase the period from 30 to 60 days, with extensions beyond 60 days being subject to nonemergency closure procedures (i.e. temporary or permanent). Closure effective upon notice as prescribed in 50 CFR 36.42 (f) (see below for details).
Temporary closures or restrictions (50 CFR 36.42(d))	
May extend only for as long as necessary to achieve the purpose of the closure or restriction, not to exceed or be extended beyond 12 months. Closure effective upon notice as prescribed in 50 CFR 36.42 (f) (see below for details). Closures related to the taking of fish and wildlife effective upon notice and hearing in the vicinity of the area(s) affected by such closures or restriction, and other locations as appropriate	Temporary closures or restrictions related to the taking of fish and wildlife may still only extend for so long as necessary to achieve the purpose of the closure or restriction. These closures or restrictions must be re-evaluated as necessary, at a minimum of every 3 years, to determine whether the circumstances necessitating the closure still exist and warrant its continuation. A formal finding will be made in writing that explains the reasoning for the decision. When a closure is no longer needed, action to remove it will be initiated as soon as practicable. The USFWS will maintain a list of refuge closures and publish this list annually for public review and input. Closure will be subject to notice procedures as prescribed in 50 CFR 36.42 (f) (see below for details). For closures related to the taking of fish and wildlife, consultation with the State and affected Tribes and Native Corporations, as well as the opportunity for public comment and a public hearing in the vicinity of the area(s) affected will be required.
Permanent closures or restrictions (50 CFR 36.42(e))	
No time limit. Closure effective after notice and public hearings in the affected vicinity and other locations as appropriate, and after publication in the Federal Register.	No time limit. For closures related to the taking of fish and wildlife, consultation with the State and affected Tribes and Native Corporations, as well as the opportunity for public comment and a public hearing in the vicinity of the area(s) affected will be required. Closures would continue to be published in the Federal Register.
Notice (50 CFR 36.42(f))	
Notice is to be provided through newspapers, signs, and radio.	Add the use of the Internet or other available methods, in addition to continuing to use the more traditional methods of newspapers, signs, and radio.

For more information, please visit:
http://www.fws.gov/alaska/nwr/ak_nwr_pr.htm



**Questions and Answers on Regulatory Changes Being Proposed
by the U.S. Fish & Wildlife Service for National Wildlife Refuges in Alaska**

1. What are the proposed regulatory changes?

National Wildlife Refuges (refuges) in Alaska are mandated to conserve species and habitats in their natural diversity and ensure that the biological integrity, diversity, and environmental health of the National Wildlife Refuge System (Refuge System) are maintained for the continuing benefit of present and future generations of Americans. The U.S. Fish and Wildlife Service (USFWS) is proposing changes to the regulations governing Alaska refuges (under 50 CFR 36) to ensure that we are managing those refuges in accordance with our mandates and to increase consistency with other Federal laws, regulations, and policies. In addition, we aim to more effectively engage the public by updating our Public Participation and Closure Procedures to broaden notification and outreach methods, ensure consultation with Tribes and the State of Alaska (State), provide for increased transparency in our decision-making, and allow for additional opportunities for the public to provide input.

The changes we are proposing would:

- Codify existing Federal mandates for conserving the natural diversity, biological integrity, and environmental health on refuges in Alaska in relation to predator harvest. Predator control is defined as the intention to reduce the populations of predators for the benefit of prey species. Predator control is not allowed on refuges in Alaska, unless it is determined necessary to meet refuge purposes, Federal laws, or policy and is consistent with our mandates to manage for natural and biological diversity, biological integrity, and environmental health. The need for predator control must be based on sound science in response to a significant conservation concern. Demands for more wildlife for human harvest cannot be the sole or primary basis for predator control on refuges in Alaska.
- Prohibit the following particularly efficient methods and means for non-subsistence take of predators on refuges in Alaska due to the potential impacts to predator populations and the environment that are inconsistent with our mandates to conserve the natural and biological diversity, biological integrity, and environmental health on refuges in Alaska:
 - take of bear cubs or sows with cubs (*exception allowed for resident hunters to take black bear cubs or sows with cubs under customary and traditional use activities at a den site October 15 – April 30 in specific game management units in accordance with State regulations*);
 - take of brown bears over bait;
 - take of bears using traps or snares;
 - take of wolves or coyotes from May 1 – August 9; and
 - take of bears from an aircraft or on the same day as air travel has occurred (*same day airborne take of wolves or wolverines is already prohibited under current refuge regulations*).
- Update the Public Participation and Closure Procedures to make them more consistent with other Federal regulations and more effectively engage the public.

Important notes:

- These proposed changes would not apply to the take of fish or wildlife under Federal subsistence regulations or to defense of life and property as defined in State of Alaska (State) regulations (see 5 AAC 92.410).
- Hunting and trapping is considered a priority use of refuges in Alaska and most State of Alaska hunting and trapping regulations, including harvest limits, would still apply.

2. Why is the U.S. Fish & Wildlife Service proposing making these changes?

We are considering these regulatory changes to ensure that the taking of fish and wildlife on National Wildlife Refuges in Alaska is managed consistent with Federal laws, regulations, and USFWS policies. The proposed regulatory changes we are considering would clarify allowable practices for the non-subsistence take of wildlife on refuges in Alaska, as well as update existing Alaska refuge regulations for closures and restrictions.

The mission of the Refuge System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans. As such, refuges are required to work to conserve species and habitats for the long-term, benefiting not only the present, but also future generations of Americans and in Alaska, this includes the continuation of the subsistence way of life.

The USFWS is required by law to manage refuges “to ensure that . . . biological integrity, biological diversity, and environmental health are maintained” (National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997). The Alaska National Interest Lands Conservation Act (ANILCA) states that the primary purpose of the Act is “to preserve for the benefit, use, education, and inspiration of present and future generations certain lands and waters in the State of Alaska that contain nationally significant natural, scenic, historic, archeological, geological, scientific, wilderness, cultural, recreational, and wildlife values...” The first purpose for all refuges in Alaska under ANILCA is to “conserve fish and wildlife populations and habitats in their natural diversity.”

In managing for natural diversity, the USFWS conserves, protects and manages all fish and wildlife populations within a particular wildlife refuge system unit in the natural ‘mix,’ not to emphasize management activities favoring one species to the detriment of another. The USFWS assures that habitat diversity is maintained through natural means on refuges in Alaska, avoiding artificial developments and habitat manipulation programs, whenever possible. The USFWS fully recognizes and considers that rural residents utilize and are often dependent on refuge resources for subsistence purposes and manages for this use consistent with the conservation of species and habitats in their natural diversity. The terms biological integrity, diversity, and environmental health are defined in the biological integrity policy, which directs the USFWS to maintain the variety of life and its processes; biotic and abiotic compositions, structure, and functioning; and to manage populations for natural densities and levels of variation throughout the Refuge System.

The overarching goal of the USFWS’s wildlife-dependent recreation policy is to enhance opportunities and access to quality visitor experiences on refuges and to manage the refuge to conserve fish, wildlife, plants, and their habitats (605 FW 1.6). We consider hunting to be one of many priority uses of the Refuge System (when and where compatible with refuge purposes) that is a healthy, traditional outdoor pastime, deeply rooted in the American heritage (605 FW 2).

These proposed regulatory changes are aimed at ensuring that natural ecological processes and functions are maintained and wildlife populations and habitats are conserved and managed to function in their natural diversity on Alaska refuges.

3. Will the proposed regulatory changes apply to subsistence hunting and trapping on National Wildlife Refuges?

We recognize the importance of fish and wildlife and other natural resources in the lives of all Alaskans and in the lives and cultures of Alaska Native peoples. We take seriously our responsibility to provide the opportunity for continued subsistence use by rural Alaskans on refuges under ANILCA. These proposed regulatory changes will not change Federal subsistence regulations (36 CFR 242 and 50 CFR 100) or restrict taking of fish or wildlife under Federal subsistence regulations.

We recognize there may be some impacts to local communities that result from these changes. We have worked to address concerns that were raised during Tribal consultations and early public scoping in rural communities, and are open to discussing others that arise through the public comment process.

4. What authority does the U. S. Fish & Wildlife Service have to establish hunting and trapping regulations? Isn't it the State's job to manage wildlife in Alaska?

We recognize that the State has obligations to manage wildlife in Alaska according to the directives in the State constitution. The USFWS similarly must ensure that activities on refuges are consistent with Federal laws and USFWS policy and has final authority for managing plants, fish, and wildlife on refuges in Alaska. We prefer to defer to the State on regulation of hunting and trapping on refuges in Alaska; unless, in doing so, we are out of compliance with Federal laws and USFWS policy.

**5. What is the process and timeline for making these regulatory changes?
Can I participate?**

We have been consulting with Alaska Tribes and Alaska Native Claims Settlement Act (ANCSA) Corporations, as well as having discussions with the State and Federal Subsistence Regional Advisory Councils on the changes we are considering. We anticipate publishing a proposed rule (draft regulations) in the Federal Register around mid to late July of 2015, at which time a 90 day public comment period will begin. We have prepared an Environmental Assessment (EA) in accordance with the requirements of the National Environmental Policy Act (NEPA) for these proposed regulatory changes, which will be made available for comment at the same time. Public input is very important to us and in order to allow additional time for folks to provide input, we will be offering a 90 day comment period, as opposed to the traditional duration of 30 days. During the public comment period, we plan to hold meetings and hearings around the state in locations near Alaska refuges and other locations as appropriate. Comments and input we receive will inform the revision and finalization of the proposed rule. Our goal is to have a final rule published sometime in the beginning of 2016.

Local engagement is very important to us and we are committed to providing meaningful opportunities for consultation with the Tribal Governments and ANCSA Corporations in Alaska. We greatly value local knowledge in our work and are committed to strengthening our Tribal-Federal government relations by working closely with the Tribes on conservation issues in Alaska.

We would like to hear from you, whether at a community meeting or via written comment. We welcome public comment during the comment period, and will continue to offer Tribal Consultation to Federally recognized Tribes and ANCSA Corporations through the end of the comment period.

For the most current information, visit http://www.fws.gov/alaska/nwr/ak_nwr_pr.htm.

WP16–21 Executive Summary	
General Description	Proposal WP16–21 requests a <i>To-be-announced</i> caribou season be established in Units 9C and 9E and open to Federally qualified subsistence users. <i>Submitted by Bristol Bay Subsistence Regional Advisory Council.</i>
Proposed Regulation	<p>Units 9—Caribou</p> <p><i>Unit 9C remainder – Federal public lands are closed to the taking of caribou 1 bull by Federal registration permit or State Tier II permit. Federal public lands are closed to the taking of caribou except by residents of Units 9C and 9E, hunting under these regulations.</i></p> <p><i>Unit 9E – Federal public lands are closed to the taking of caribou 1 bull by Federal registration permit or State Tier II permit. Federal public lands are closed to the taking of caribou except by residents of Units 9C and 9E, hunting under these regulations.</i></p> <p><i>Federal permits may be issued in conjunction with the State Tier II hunt. Both Federal and State agencies will decide how many total permits to issue for both subunits to make sure that the actual harvest will not significantly exceed the harvestable surplus. Quotas and any needed closures will be announced by the Alaska Peninsula/Becharof National Wildlife Refuge Manager after consultation with ADF&G.</i></p> <p><i>No open season To be announced</i></p> <p><i>No open season To be announced</i></p>
OSM Preliminary Conclusion	Support Proposal WP16–21 with modification to specify a May-be-announced season, remove mention of Federal public lands closure, and to remove language referencing the total number of permits to be issued; remove regulatory language

WP16–21 Executive Summary	
	<p>referencing quotas and needed closures and delegate authority to determine quotas, and set season opening and closing dates via a delegation of authority letter.</p> <p>The modified regulation should read:</p> <p>Unit 9 - Caribou</p> <p><i>Unit 9C remainder – Federal public lands are closed to the taking of caribou 1 bull by Federal registration permit or State permit. No open season May be announced</i></p> <p><i>Unit 9E – Federal public lands are closed to the taking of caribou 1 bull by Federal registration permit or State permit. No open season May be announced</i></p> <p><i>Federal permits may be issued in conjunction with the State hunt. The Alaska Peninsula/Becharof National Wildlife Refuge Manager will announce any season and conditions for this hunt.</i></p>
Kodiak/Aleutians Regional Advisory Council Recommendation	
Bristol Bay Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	None

**DRAFT STAFF ANALYSIS
WP16-21**

ISSUES

WP16-21, submitted by the Bristol Bay Subsistence Regional Advisory Council (Council), requests that the caribou season in Units 9C remainder and 9E be modified from having no open season to a To be announced season and open to Federally qualified subsistence users.

DISCUSSION

The proponent notes that the Northern Alaska Peninsula Caribou Herd (NAPCH) population status has been slowly improving since 2008 and in the Oct. 2014 survey, based on the bull:cow ratio, there are more bulls available than are needed to grow the herd. The caribou season has been closed since the 2005/2006 season. The Council believes Federally qualified subsistence users should have an opportunity to harvest the available surplus.

The proponent states that this change will allow the Alaska Peninsula/Becharof National Wildlife Refuge (Refuge) manager to provide opportunities for local subsistence users and open a Federal hunt concurrent with a prospective State Tier II hunt.

Existing Federal Regulation**Unit 9 - Caribou**

Unit 9C remainder – Federal public lands are closed to the taking of caribou *No open season*

Unit 9E – Federal public lands are closed to the taking of caribou *No open season*

Proposed Federal Regulation**Unit 9 - Caribou**

Unit 9C remainder – ~~Federal public lands are closed to the taking of caribou~~ 1 bull by Federal registration permit or State Tier II permit. Federal public lands are closed to the taking of caribou except by residents of Units 9C and 9E, hunting under these regulations. *No open season To be announced*

Unit 9E – ~~Federal public lands are closed to the taking of caribou~~ 1 bull by Federal registration permit or State Tier II permit. Federal public *No open season To be announced*

lands are closed to the taking of caribou except by residents of Units 9C and 9E, hunting under these regulations.

Federal permits may be issued in conjunction with the State Tier II hunt. Both Federal and State agencies will decide how many total permits to issue for both subunits to make sure that the actual harvest will not significantly exceed the harvestable surplus. Quotas and any needed closures will be announced by the Alaska Peninsula/Becharof National Wildlife Refuge Manager after consultation with ADF&G.

Existing State Regulation

Unit 9 - Caribou

Unit 9C remainder

No open season

Unit 9E

No open season

Extent of Federal Public Lands

Federal public lands comprise approximately 86% of Unit 9C and consist of 78% National Park Service (NPS) managed lands, 4% U.S. Fish and Wildlife Service (FWS) managed lands, and 4% Bureau of Land Management (BLM) managed lands (**Unit 9 Map**). Katmai National Park manages the Alagnak Wild River and hunting is not authorized within the park boundaries. Federal public lands comprise approximately 49% of Unit 9E and consist of approximately 44% FWS managed lands, 5% NPS managed lands, and less than 1% BLM managed lands.

Customary and Traditional Use Determinations

Residents of Units 9B, 9C, 17, and Egegik have a positive customary and traditional use determination for caribou in Unit 9C. Residents of Units 9B, 9C, 9E, 17, Nelson Lagoon, and Sand Point have a positive customary and traditional use determination for caribou in Unit 9E.

Regulatory History

Proposals WP99-32, 33 and 34 were adopted by the Federal Subsistence Board (Board) in May 1999, closing Federal public lands to non-Federally qualified subsistence users due to the declining population of the NAPCH and local residents' reliance upon this subsistence resource. Adoption of the proposals changed the harvest limit from 4 caribou in both Units 9C and E to one bull by Federal permit. Additionally it changed the season in Unit 9C remainder from Aug. 10 - Sept. 20 and Nov. 15 - Feb. 28, and in Unit 9E from Aug. 10 - Sept. 20 and Nov. 1 - Apr. 30. The Board approved closure to all users except for residents living in Unit 9c and Unit 9E.

In August 2005 the Board adopted Special Action Request WSA05-02, which temporarily closed Federal public lands in Units 9C remainder and 9E to the hunting of caribou by Federally qualified subsistence users. In April 2006 the Board adopted Proposal WP06-22, which closed Federal public lands in Units 9C remainder and 9E to the hunting of caribou by all user groups. The Board took this action due conservation concerns based on the continued NAPCH population decline.

At its March 2011 meeting, the Council was briefed on Wildlife Closure Review WCR10-06, which discussed the closure for caribou in Units 9C and 9E. The Council recommended retaining the closure based on conservation concerns for the NAPCH.

At its February 2015 meeting the Council was presented with Wildlife Closure Review WCR14-06, which again discussed the Unit 9C and Unit 9E caribou closure. In addition the Alaska Department of Fish and Game (ADF&G) reported that the State may open a very limited Tier II hunt in the fall of 2016 if NAPCH survey results continue to show positive composition counts and population minimum counts (BBSRAC 2015). Based on the closure review and ADF&G's report, the Council unanimously recommended to modify the closure but to also provide for a hunt on Federal public lands to Federally qualified subsistence users should the State open a Tier II hunt. This proposal is the result of that recommendation. If this proposal is adopted it would allow the Federal manager flexibility to provide opportunities for local subsistence users if the NAPCH reaches a point where harvest is deemed feasible. Restricting the hunt to only Federally qualified subsistence users may require a Section 804 analysis to determine the priority of users when the harvest quota may be limited.

ANILCA Section 804

Section 804 states:

Except as otherwise provided in this Act and other Federal laws, the taking on public lands of fish and wildlife for non-wasteful subsistence uses shall be accorded priority over the taking on such lands of fish and wildlife for other purposes. Whenever it is necessary to restrict the taking of populations of fish and wildlife on such lands for subsistence uses in order to protect the continued viability of such populations, or to continue such uses, such priority shall be implemented through appropriate limitations based on the application of the following criteria:

- (1) customary and direct dependence upon the populations as the mainstay of livelihood;
- (2) local residency; and
- (3) the availability of alternative resources.

Biological Background

The NAPCH ranges throughout Units 9C and 9E. Historically, the size of this population has fluctuated widely, reaching peaks of approximately 20,000 caribou around 1900, in the early 1940s, and most recently in 1984 (Riley 2011). Prior to 2005, the last population low of approximately 2,000 animals was during the late 1940s. By 1963, the herd had increased to more than 10,000 animals. In 1981, the estimate was 16,000 and the herd increased to 20,000 by 1984 (Riley 2011). After that period, the herd again entered a period of decline (**Table 1**). Since 2009 there has been a slight population increase and the population is currently estimated at approximately 3,000 animals (Crowley 2014).

State management objectives for the NAPCH are to have a bull cow ratio of 35 bulls:100 cows and a population of 12,000 – 15,000 caribou (Riley 2011). Based on composition counts since 2010, the population is increasing. Surveys in October of 2014 showed a minimum count of at least 2,700 caribou (**Table 1**) (Crowley 2014). The bull:cow ratio currently exceeds the State management objective for the herd, but the population size remains well below the management objective. Based on the 2014 composition survey results, the bull cow ratio is now above the management objective, is at the highest level since 2002 and indicates that there are surplus bulls available for harvest (Crowley 2014).

Table 1. Northern Alaska Peninsula Caribou Herd sex and age composition and herd size estimates, 1984-2014 (FWS 2006, Butler 2007, Riley 2011, Crowley 2014).

Year	Bulls:100 Cows	Calves:100 Cows	Composition Sample Size	Estimated Herd Size^a
1984	39	39	1,087	20,000
1990	41	29	1,484	17,000
1991	42	47	1,639	17,000
1992	40	44	2,766	17,500
1993	44	39	3,021	16,000
1994	34	34	1,857	12,500
1995	41	24	2,907	12,000
1996	48	38	2,572	12,000
1997	47	27	1,064	10,000
1998	31	30	1,342	9,200
1999	40	21	2,567	8,600
2000	38	18	1,083	7,200
2001	49	28	2,392	6,300
2002	46	24	1,007	6,600
2003	36	11	2,776	-
2004	34	7	1,355	3,400
2005	23	7	1,914	2,500
2006	26	14	1,725	-
2007	27	7	1,474	-
2008	19	10	1,841	2,000
2009	19	16	2,126	2,300
2010	25	18	1,795	-
2011	26	20	2,395	-
2012	28	22	1,352	-
2013	31	21	2,076	2,400
2014	40	34	2,295	2,700

^a From 2005 to 2014 the estimate of herd size is based on fall composition surveys that were not designed to estimate population size and are considered a minimum count of herd size.

Harvest History

The decline of the NAPCH prompted both the Alaska Board of Game and the Federal Subsistence Board to implement more restrictive harvest regulations beginning in the spring of 1999. These regulations were designed to protect the survival of the herd yet allow for a limited harvest of bull caribou for qualified subsistence users.

Between 1997 and 2005, hunter success rates were typically above 61% and the reported harvest ranged from 34 to 438 caribou (Table 2).

Table 2. NAPCH harvest, regulatory years 1997-2014 (Butler 2005, Butler 2007; Riley 2011).

Regulatory Year	Local Resident	Nonlocal Resident	Nonresident	Unspecified Residency	Total (% Success)
1997-1998	49	112	277	0	438 (78)
1998-1999	145	136	140	0	421 (68)
1999-2000	157	6	0	2	165 (66)
2000-2001	81	1	0	9	91 (65)
2001-2002	89	0	0	0	89 (67)
2002-2003	74	6	0	2	82 (61)
2003-2004	111	13	0	0	124(72)
2004-2005	34	0	0		34 (69)
2005-2014	-----No permits issued-----				

September was historically the most important month for the harvest of the NAPCH. This was especially true for nonresidents because of the combination of weather and ease of access by boat and aircraft. Some nonresident hunters were in this area on combination hunts for other species during this period. Subsistence harvest had been primarily opportunistic and the chronology of harvests varied depending upon caribou availability.

Other Alternative Considered

Maintaining the *No open season* status was considered since there currently is no State open season. Keeping the closed season would require the Refuge to respond to any potential Special Action Requests for opening the Federal season in response to State management actions. However, there is a possibility that the State may open a Tier II hunt in the fall of 2016. Having a *To be announced* season in regulation will provide the Refuge with management flexibility to provide Federally qualified subsistence users the opportunity to harvest caribou.

Effects of the Proposal

If this proposal is adopted it would establish a *To be announced* season in regulation and limit the harvest to residents of Units 9C and 9E. Quotas and any needed closures would be announced by the Alaska Peninsula/Becharof National Wildlife Refuge Manager after consultation with ADF&G. This will provide the Refuge with management flexibility to allow for a limited Federal season if warranted. The NAPCH composition data has continued to improve, and the minimum population counts have slowly risen since 2009. This *to be announced* season would provide the Refuge Manager the ability to open a subsistence hunt of surplus bulls, which could provide a limited harvest opportunity for Federally qualified subsistence users, while still allowing the herd to grow.

Having a *To be announced* season in regulation will provide the Refuge with management flexibility to allow for a limited Federal season if warranted by composition counts and population estimates. Restricting the hunt to only Federally qualified subsistence users may require a Section 804 analysis to determine the priority of users when the harvest quota may be limited.

OSM PRELIMINARY CONCLUSION

Support Proposal WP16-21 **with modification** to specify a May-be-announced season, remove mention of Federal public lands closure, and to remove language referencing the total number of permits to be issued; remove regulatory language referencing quotas and needed closures and delegate authority to determine quotas, and set season opening and closing dates via a delegation of authority letter (**Appendix 1**).

The modified regulation should read:

Unit 9 - Caribou

Unit 9C remainder – Federal public lands are closed to the taking of ~~caribou~~ 1 bull by Federal registration permit or State permit. *No open season May be announced*

Unit 9E – Federal public lands are closed to the taking of caribou 1 bull by Federal registration permit or State permit. *No open season May be announced*

Federal permits may be issued in conjunction with the State hunt. The Alaska Peninsula/Becharof National Wildlife Refuge Manager will announce any season and conditions for this hunt.

Justification

The NAPCH population indices have continued to improve, indicating that there may be a limited harvestable surplus of bulls in the population in the near future, while still allowing for growth of the herd. Adopting a *May-be-announced* season into Federal regulation is proactive and will provide the Refuge a better means to provide subsistence users the opportunity to harvest caribou on Federal public lands should the opportunity arise. This regulatory change will give management flexibility to allow for a limited subsistence opportunity in future years. Creating a delegation of authority letter to the Refuge Manager will also simplify the published regulations for subsistence users and allows the Manager to make in-season decisions in response changing caribou populations or harvest levels. Any closure of Federal public lands should be determined by an 804 analysis to identify eligible residents that may hunt caribou under these regulations.

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Watts, D. 2014. Wildlife Biologist. Personal communication: phone. Alaska Peninsula/Becharof National Wildlife Refuge. King Salmon, AK.

Appendix 1

Refuge Manager
Alaska Peninsula/Becharof National Wildlife Refuge
P.O. Box 277
King Salmon, Alaska 99613

Dear Refuge Manager:

This letter delegates specific regulatory authority from the Federal Subsistence Board (Board) to the Manager of the Alaska Peninsula/Becharof National Wildlife Refuge, as approved by the Board, to issue emergency special actions if necessary to ensure the continued viability of a wildlife population, to continue subsistence uses of wildlife, or for reasons of public safety; or temporary special actions if the proposed temporary change will not interfere with the conservation of healthy wildlife populations, will not be detrimental to the long-term subsistence use of wildlife resources, and is not an unnecessary restriction on non-subsistence users. This delegation only applies to the Federal public lands subject to Alaska National Interest Lands Conservation Act (ANILCA) Title VIII jurisdiction within Unit 9C remainder and Unit 9E as it applies to caribou on these lands.

It is the intent of the Board that actions related to management of caribou by Federal officials be coordinated, prior to implementation, with the Alaska Department of Fish and Game (ADF&G), the Bureau of Land Management, the National Park Service and the Chair of the Bristol Bay Subsistence Regional Advisory Council (Council) to the extent possible. Federal managers are expected to work with managers from the State and other Federal agencies, the Council Chair and applicable Council members to minimize disruption to subsistence resource users and existing agency programs, consistent with the need for special action.

DELEGATION OF AUTHORITY

1. Delegation: The Alaska Peninsula/Becharof National Wildlife Refuge Manager is hereby delegated authority to issue emergency or temporary special actions affecting caribou on Federal lands as outlined under the **Scope of Delegation** of this section. Any action greater than 60 days in length (temporary special action) requires a public hearing before implementation. Special actions are governed by Federal regulation at 36 CFR 242.19 and 50 CFR 100.19.

2. Authority: This delegation of authority is established pursuant to 36 CFR 242.10(d)(6) and 50 CFR 100.10(d)(6), which state: “The Board may delegate to agency field officials the authority to set harvest and possession limits, define harvest areas, specify methods or means of harvest, specify permit requirements, and open or close specific fish or wildlife harvest seasons within frameworks established by the Board.”

3. Scope of Delegation: The regulatory authority hereby delegated is limited to the following authorities within the limits set by regulation at 36 CFR 242.26 and 50 CFR 100.26:

- To open and close the season, set quotas, any permit requirements or conditions, and harvest limit, including any sex restrictions, for the To-be-announced season for caribou on Federal public lands in Unit 9C remainder and Unit 9E.

All other proposed changes to codified regulations, such as customary and traditional use determinations, adjustments to methods and means of take, or closures to only non-Federally qualified users shall be directed to the Federal Subsistence Board.

This delegation may be exercised only when it is necessary to conserve caribou populations, to continue subsistence uses, for reasons of public safety, or to assure the continued viability of the population.

The Federal public lands subject to this delegated authority are those within Unit 9C remainder and Unit 9E.

4. Effective Period: This delegation of authority is effective from the date of this letter and continues until superseded or rescinded.

5. Guidelines for Delegation: You will become familiar with the management history of the wildlife species relevant to this delegation in the region, with current State and Federal regulations and management plans, and be up-to-date on population and harvest status information. You will review special action requests or situations that may require a special action and all supporting information to determine (1) consistency with 36 CFR 242.19, (2) if the request/situation falls within the scope of authority, (3) if significant conservation problems or subsistence harvest concerns are indicated, and (4) what the consequences of taking an action or no action may be on potentially affected Federally qualified subsistence users and non-Federally qualified users. Requests not within your delegated authority will be forwarded to the Federal Subsistence Board for consideration. You will maintain a record of all special action requests and rationale for your decision. A copy of this record will be provided to the Administrative Records Specialist in the Office of Subsistence Management (OSM) no later than sixty days after development of the document.

You will notify OSM and coordinate with local ADF&G managers, the Bureau of Land Management, the National Park Service and the Chair of the Bristol Bay Subsistence Regional Advisory Council regarding special actions under consideration. You will issue decisions in a timely manner. Before the effective date of any decision, reasonable efforts will be made to notify the public, OSM, affected State and Federal managers, law enforcement personnel, and Council members. If an action is to supersede a State action not yet in effect, the decision will be communicated to the public, OSM, affected State and Federal Managers, and the local Council members at least 24 hours before the State action would be effective. If a decision to take no action is made, you will notify the proponent of the request immediately. A summary of special action requests and your resultant actions must be provided to the coordinator of the appropriate Subsistence Regional Advisory Council(s) at the end of each calendar year for presentation to the Council(s).

You may defer a special action request, otherwise covered by this delegation of authority, to the Federal Subsistence Board in instances when the proposed management action will have a significant impact on a large number of Federal subsistence users or is particularly controversial. This option should be exercised judiciously and may be initiated only when sufficient time allows for it. Such deferrals should not be considered when immediate management actions are necessary for conservation purposes. The Federal Subsistence Board may determine that a special action request may best be handled by the Board, subsequently rescinding the delegated regulatory authority for the specific action only.

6. Support Services: Administrative support for regulatory actions will be provided by the Office of Subsistence Management, U.S. Fish & Wildlife Service, Department of the Interior.

Sincerely,

Tim Towarak
Chair, Federal Subsistence Board

cc: Assistant Regional Director, Office of Subsistence Management
Deputy Assistant Regional Director, Office of Subsistence Management
Subsistence Council Coordinator, Office of Subsistence Management
Chair, Bristol Bay Subsistence Regional Advisory Council
Commissioner, Alaska Department of Fish and Game
Federal Subsistence Liaison Team Leader, Alaska Department of Fish and Game
Federal Subsistence Board
Interagency Staff Committee
Administrative Record

FISHERIES RESOURCE MONITORING PROGRAM

BACKGROUND

Beginning in 1999, the Federal government assumed expanded management responsibility for subsistence fisheries on Federal public lands in Alaska under the authority of Title VIII of the Alaska National Interest Lands Conservation Act (ANILCA). Expanded subsistence fisheries management introduced substantial new informational needs for the Federal system. Section 812 of ANILCA directs the Departments of the Interior and Agriculture, cooperating with the State of Alaska and other Federal agencies, to undertake research on fish and wildlife and subsistence uses on Federal public lands. To increase the quantity and quality of information available for management of subsistence fisheries, the Fisheries Resource Monitoring Program (Monitoring Program) was established within the Office of Subsistence Management (OSM). The Monitoring Program was envisioned as a collaborative interagency, interdisciplinary approach to enhance existing fisheries research, and effectively communicate information needed for subsistence fisheries management on Federal public lands.

Biennially, the Office of Subsistence Management announces a funding opportunity for investigation plans addressing subsistence fisheries on Federal public lands. The 2016 Notice of Funding Availability Funding Opportunity focused on priority information needs developed either by strategic planning efforts or subject matter specialist input, followed by review and comment by the Subsistence Regional Advisory Councils. The Monitoring Program is administered through regions, which were developed to match subsistence management regulations, as well as stock, harvest, and community issues common to a geographic area. The six Monitoring Program regions are shown in **Figure 1**.

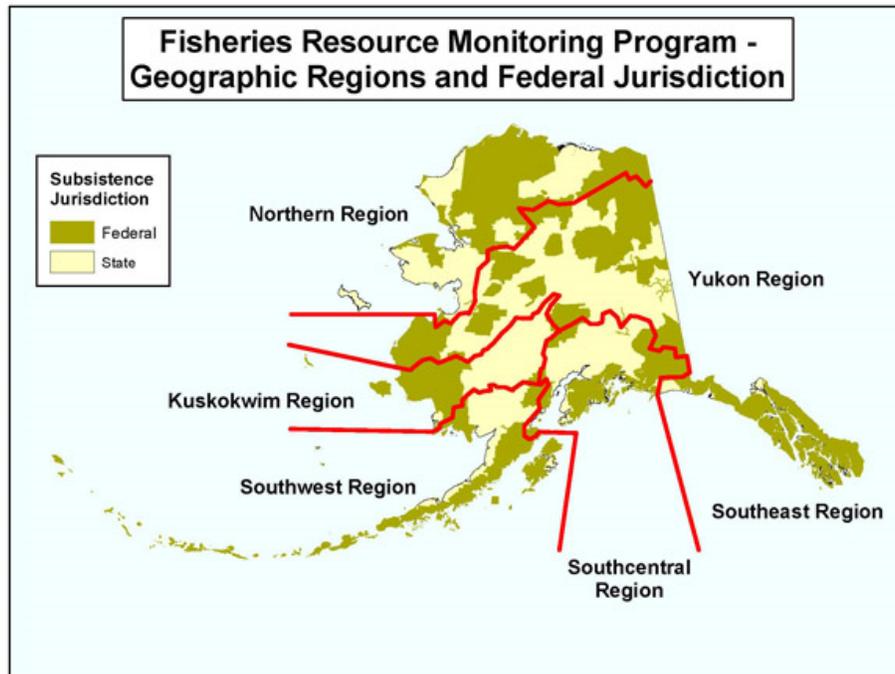


Figure 1. Geographic Regions for the Fisheries Resource Monitoring Program. Federal lands are shaded green and State lands are shaded yellow.

To implement the Monitoring Program, a collaborative approach is utilized in which five Federal agencies (U.S. Fish and Wildlife Service, Bureau of Land Management, National Park Service, Bureau of

Indian Affairs, and U.S. Forest Service) work with the Alaska Department of Fish and Game, Regional Advisory Councils, Alaska Native Organizations, and other organizations. An interagency Technical Review Committee provides scientific evaluation of investigation plans submitted for funding consideration. The Regional Advisory Councils provide review and recommendations, and public comment is invited. The Interagency Staff Committee also provides recommendations. The Federal Subsistence Board takes into consideration recommendations and comments from the process, and forwards a Monitoring Plan to the Assistant Regional Director of OSM for final approval.

Strategic plans sponsored by the Monitoring Program have been developed by workgroups of fisheries managers, researchers, Federal Subsistence Regional Advisory Councils, and by other stakeholders for three of the six regions: Southeast, Southcentral (excluding Cook Inlet Area), and Southwest Alaska. These plans identify prioritized information needs for each major subsistence fishery and are available for viewing on the Federal Subsistence Management, Fisheries Resource Monitoring Program website (<http://www.doi.gov/subsistence/index.cfm>). Individual copies of plans are available by placing a request to the Office of Subsistence Management. Independent strategic plans were completed for the Yukon and Kuskokwim regions for salmon in 2005. For the Northern Region and the Cook Inlet Area, assessments of priority information needs were developed from experts on the Regional Advisory Councils, the Technical Review Committee, Federal and State managers, and staff from the Office of Subsistence Management. Finally, a strategic plan specifically for research on whitefish species in the Yukon and Kuskokwim River drainages was completed in spring 2011 as a result of efforts supported through Monitoring Program project 08-206 (Yukon and Kuskokwim Coregonid Strategic Plan). Currently, all regional strategic plans need to be updated. The OSM, in collaboration with Regional Advisory Councils and agency partners, will be exploring methods to update these plans, develop a schedule into the future and ensure they are current and represent the most up-to-date information about subsistence needs and concerns throughout the state.

HISTORICAL OVERVIEW

The Monitoring Program was first implemented in 2000, with an initial allocation of \$5 million. Since 2001, a total of \$103.6 million has been allocated for the Monitoring Program to fund a total of 431 projects (Figure 2; Figure 3).

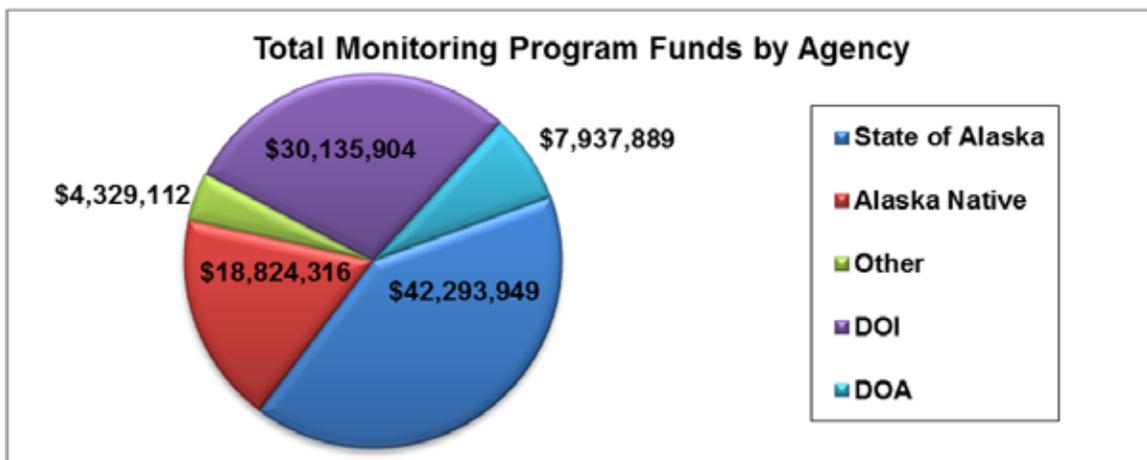


Figure 2. Total Project funds through the Monitoring Program from 2000 through 2014 listed by the organization of the Principal Investigator for projects funded. The funds listed are the total approved funds from 2000 to 2014. DOI = Department of Interior and DOA = Department of Agriculture.



Figure 3. The total number of projects funded through the Monitoring Program from 2000 through 2014 listed by the organization of Principal Investigator. DOI = Department of Interior and DOA = Department of Agriculture.

During each biennial funding cycle, the Monitoring Program budget funds ongoing multi-year projects (2, 3 or 4 years) as well as new projects. Budget guidelines are established by geographic region (**Table 1**) and data type. The regional guidelines were developed using six criteria that included level of risk to species, level of threat to conservation units, amount of subsistence needs not being met, amount of information available to support subsistence management, importance of a species to subsistence harvest and level of user concerns with subsistence harvest. Budget guidelines provide an initial target for planning; however they are not final allocations and will be adjusted annually as needed (**Figure 5**; **Figure 6**).

Table 1. Regional allocation guideline for Fisheries Resource Monitoring Funds.

Region	Department of Interior Funds	Department of Agriculture Funds
Northern	17%	0%
Yukon	29%	0%
Kuskokwim	29%	0%
Southwest	15%	0%
Southcentral	5%	33%
Southeast	0%	67%
Inter-regional	5%	0%

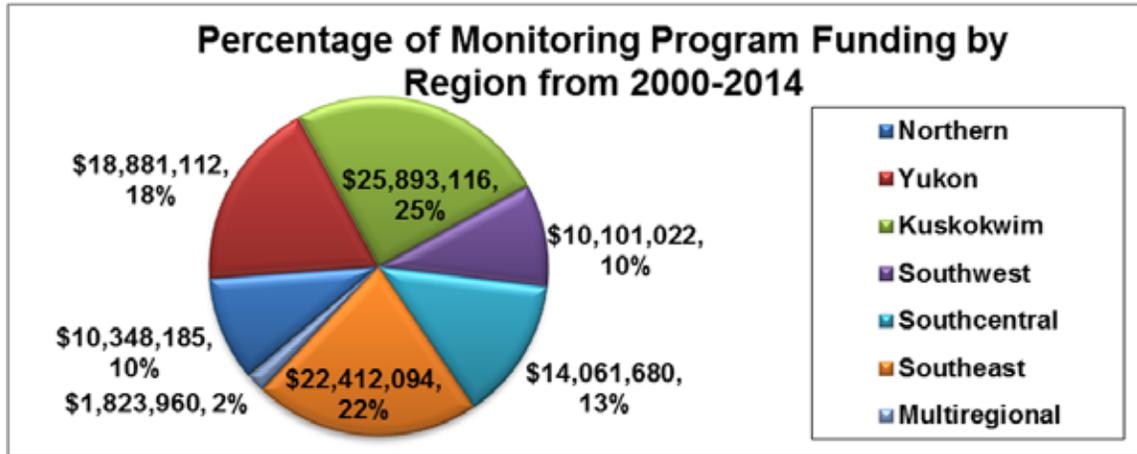


Figure 4. Total Project funding by Geographic Region from 2000 through 2014.

Two primary types of research projects are solicited for the Monitoring Program including Harvest Monitoring/Traditional Ecological Knowledge (HMTEK) and Stock, Status and Trends (SST), although projects that combine these approaches are also encouraged. Project funding by type is shown in Figure 5. Definitions of the two project types are listed below:

Stock Status and Trends Studies (SST) - These projects address abundance, composition, timing, behavior, or status of fish populations that sustain subsistence fisheries with linkage to Federal public lands.

Harvest Monitoring and Traditional Ecological Knowledge (HMTEK) - These projects address assessment of subsistence fisheries including quantification of harvest and effort, and description and assessment of fishing and use patterns.

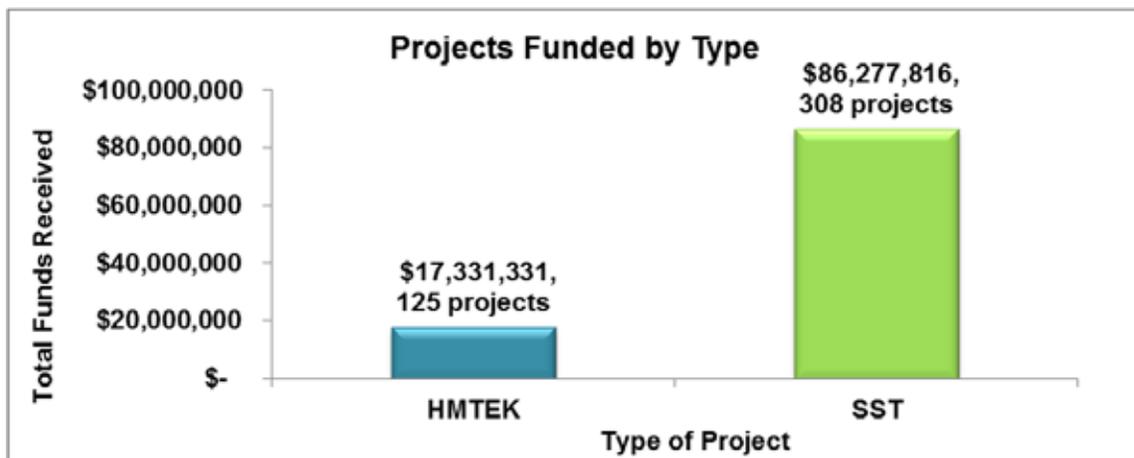


Figure 5. Total Project funding by type from 2000 through 2014. HMTEK = Harvest Monitoring/Traditional Ecological Knowledge and SST = Stock, Status and Trends.

PROJECT EVALUATION PROCESS

In the current climate of increasing conservation concerns and subsistence needs, it is imperative that the Monitoring Program prioritizes high quality projects that address critical subsistence questions. Several changes were implemented in the 2016 Monitoring Program to address the challenges facing Federal subsistence users across the state. These changes will enhance the Monitoring Program by increasing overall program transparency, identifying and funding high quality and high priority research projects and maximizing funding opportunities. This will allow the Monitoring Program to make substantial contributions to Federal subsistence users and to the Federal Subsistence Management Program.

Projects are selected for funding through an evaluation and review process that is designed to advance projects that are strategically important for the Federal Subsistence Program, technically sound, administratively competent, promote partnerships and capacity building, and are cost effective. Projects are evaluated by a panel called the Technical Review Committee (TRC). This committee is a standing interagency committee of senior technical experts that is foundational to the credibility and scientific integrity of the evaluation process for projects funded by the Monitoring Program. The TRC reviews, evaluates, and make recommendations about proposed projects, consistent with the mission of the Monitoring Program. Fisheries and Anthropology staff from the OSM provide support for the TRC. Recommendations from the TRC provide the basis for further comments from Councils, the public, the Interagency Staff Committee (ISC), and the Federal Subsistence Board, with final approval of the Monitoring Plan by the Assistant Regional Director of OSM.

The 2016 Monitoring Program changes involve how projects are submitted and also how they are reviewed. To be considered for funding under the Monitoring Program, a proposed project must have a linkage to Federal subsistence fishery management. This means that a proposed project must have a direct association to a Federal subsistence fishery, and that either the subsistence fishery or fish stocks in question must occur in or pass through waters within or adjacent to Federal public lands. Complete project packages need to be submitted on time and must address five specific criteria (see below) in order to be considered a high quality project. Addressing only some of the criteria will not guarantee a successful project submission. Additionally, project review has been changed to aid transparency and consistency throughout the process. Key modifications include specific guidelines for assessing how and whether a proposed project has addressed each of the five criteria, receiving a single consolidated review from each participating agency, and requiring that agencies recuse themselves from providing reviews for projects involving their agency.

Five criteria are used to evaluate project proposals:

- 1) **Strategic Priority** - Studies must be responsive to identified issues and priority information needs. All projects must have a direct linkage to Federal public lands and/or waters to be eligible for funding under the Monitoring Program. To assist in evaluation of submittals for projects previously funded under the Monitoring Program, investigators must include a synthesis of project findings in their investigation plans. This synthesis should clearly and

concisely document project performance, key findings, and uses of collected information for Federal subsistence management.

- a) *Federal linkage* – Study must have a direct association to a subsistence fishery within Federal Subsistence Management Program jurisdiction. That is, the subsistence fishery or stocks in question must occur in waters within or adjacent to Federal public lands (National Wildlife Refuges, National Forests, National Parks and Preserves, National Conservation Areas, National Wild and Scenic River Systems, National Petroleum Reserves, and National Recreation Areas).
 - b) *Conservation Mandate* – Risk to the conservation of species and populations that support subsistence fisheries and risk to public lands purposes.
 - c) *Allocation Priority* – Risk of failure to provide for Federal subsistence uses.
 - d) *Data Gaps* – Amount of information available to support Federal subsistence management. A higher priority is given where a lack of information exists.
 - e) *Management Application* – The application of proposed project data must be clearly explained and linked to current Federal management strategies and needs.
 - f) *Role of Resource* – Importance of a species or a population to a Federal subsistence harvest (e.g. number of subsistence users affected, quantity of subsistence harvest), and qualitative significance (e.g. cultural value, unique seasonal role).
 - g) *Local Concern* – Level of user concern over Federal subsistence harvests (e.g., allocation, competing uses, changes in populations).
- 2) **Technical-Scientific Merit** - Technical quality of the study design must meet accepted standards for information collection, compilation, analysis, and reporting. Studies must have clear objectives, appropriate sampling design, correct analytical procedures, and specified progress, annual and final reports.
 - 3) **Investigator Ability and Resources** - Investigators must demonstrate that they are capable of successfully completing the proposed study by providing information on the ability (training, education, and experience) and resources (technical and administrative) they possess to conduct the work. Applicants who have received funding in the past will be evaluated and ranked on their past performance, including meeting deliverable deadlines. A record of failure to submit reports or delinquent submittal of reports will be taken into account when rating investigator ability and resources.
 - 4) **Partnership-Capacity Building** - Partnerships and capacity building are priorities of the Monitoring Program. ANILCA mandates that rural residents be afforded a meaningful role

in the management of Federal subsistence fisheries, and the Monitoring Program offers opportunities for partnerships and participation to local residents in monitoring and research. Investigators are requested to include a strategy for integrating local capacity development in their investigation plans. Investigators must not only inform communities and regional organizations in the area where work is to be conducted about their project plans, but must also consult and communicate with local communities to ensure that local knowledge is utilized and concerns are addressed. Letters of support from local organizations add to the strength of a proposal. Investigators and their organizations should demonstrate their ability to maintain effective local relationships and commitment to capacity building. This includes a plan to facilitate and develop partnerships so that investigators, communities, and regional organizations can pursue and achieve the most meaningful level of involvement.

Investigators are encouraged to develop the highest level of tribal, community and regional involvement that is practical. Investigators must demonstrate that capacity building has already reached the communication or partnership development stage during proposal development. Ideally, a strategy to increase capacity to higher levels will be provided in the project proposal, recognizing, however, that in some situations sustainable or higher level involvement may not be desired or feasible by the local organizations. Successful capacity building requires developing trust and dialogue among investigators, tribes, local communities, and regional organizations. Investigators need to be flexible in modifying their work plan in response to local knowledge, issues, and concerns, and must also understand that capacity building should emphasize reciprocity and sharing of knowledge and information.

5) Cost Benefit

- *Cost/Price Factors* – Applicant’s cost/price proposal will be evaluated for reasonableness. For a price to be reasonable, it must represent a price to the government that a prudent person would pay when consideration is given to prices in the market. Normally, price reasonableness is established through adequate price competition, but may also be determined through cost and price analysis techniques.
- *Selection for Award* – Applicant should be aware that the government shall perform a “best value analysis” and the selection for award shall be made to the Applicant whose proposal is most advantageous to the government, taking into consideration the technical factors listed above and the total proposed price across all agreement periods. Matching funds will be factored into the review process based on overall value to the government.

POLICY AND FUNDING GUIDELINES

Several policies have been developed to aid in implementing funding. These policies include:

1. Projects of up to four years duration may be considered in any year's monitoring plan.
2. Studies must not duplicate existing projects.
3. A majority of Monitoring Program funding will be dedicated to non-Federal agencies.
4. Long term projects will be considered on a case by case basis.
5. Activities that are not eligible for funding include:
 - a) habitat protection, mitigation, restoration, and enhancement;
 - b) hatchery propagation, restoration, enhancement, and supplementation;
 - c) contaminant assessment, evaluation, and monitoring; and
 - d) projects where the primary or only objective is outreach and education (for example, science camps, technician training, and intern programs), rather than information collection, are not eligible for funding under the Monitoring Program.

The rationale behind these policy and funding guidelines is to ensure that existing responsibilities and efforts by government agencies are not duplicated under the Monitoring Program. Land management or regulatory agencies already have direct responsibility, as well as specific programs, to address these activities. However, the Monitoring Program may fund research to determine how these activities affect Federal subsistence fisheries or fishery resources.

The Monitoring Program may fund assessments of key Federal subsistence fishery stocks in decline or that may decline due to climatological, environmental, habitat displacement, or other drivers; however applicants must show how this knowledge would contribute to Federal subsistence fisheries management. Similarly, the Monitoring Program may legitimately fund projects that assess whether migratory barriers (e.g. falls, beaver dams) significantly affect spawning success or distribution; however, it would be inappropriate to fund projects to build fish passes, remove beaver dams, or otherwise alter or enhance habitat.

2016 FISHERIES RESOURCE MONITORING PLAN

For 2016, a total of 46 investigation plans were received and 45 are considered eligible for funding (**Table 1**). One project was not eligible for funding because the project falls under habitat mitigation, restoration, and enhancement. Of the projects that are considered for funding, 33 are SST projects and 13 are HMTEK projects.

In 2016, the Department of the Interior, through the U.S. Fish and Wildlife Service, will provide up to \$2.0 million in funding and up to \$2.7 million for ongoing projects that were initially funded in 2014. The Department of Agriculture, through the U.S. Forest Service, has historically provided \$1.8 million annually, but the amount of 2016 funds available projects is uncertain. If the Department of Agriculture funding is not provided, none of the proposed projects submitted for the Southeast Region will be funded.

FISHERIES RESOURCE MONITORING PROGRAM SOUTHWEST REGION OVERVIEW

Since the inception of the Monitoring Program in 2000, 52 projects have been undertaken in the Southwest Region for a total of \$10.1 million (**Figure 1**). Of these, the State of Alaska conducted 22 projects, the Department of the Interior conducted 27 projects, an Alaska Native organization conducted one project, and other organizations conducted two projects (**Figure 2**). Of these, 38 projects were Stock, Status, and Trends (SST), and 14 projects were Harvest Monitoring and Traditional Ecological Knowledge (HMTEK).

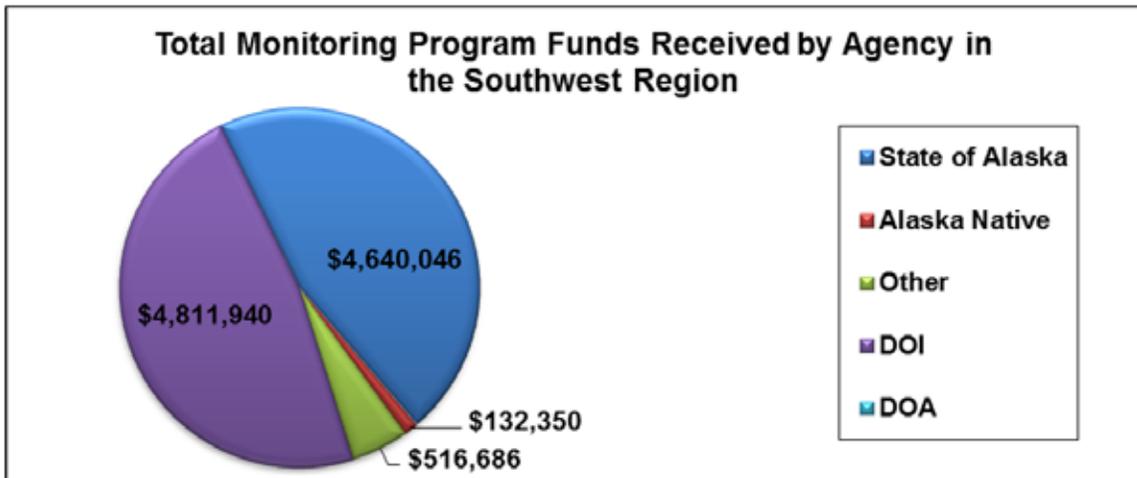


Figure 1. Monitoring Program funds received by agencies for projects in the Southwest Region. The funds listed are the total approved funds from 2000 to 2014. DOI = Department of Interior and DOA = Department of Agriculture.

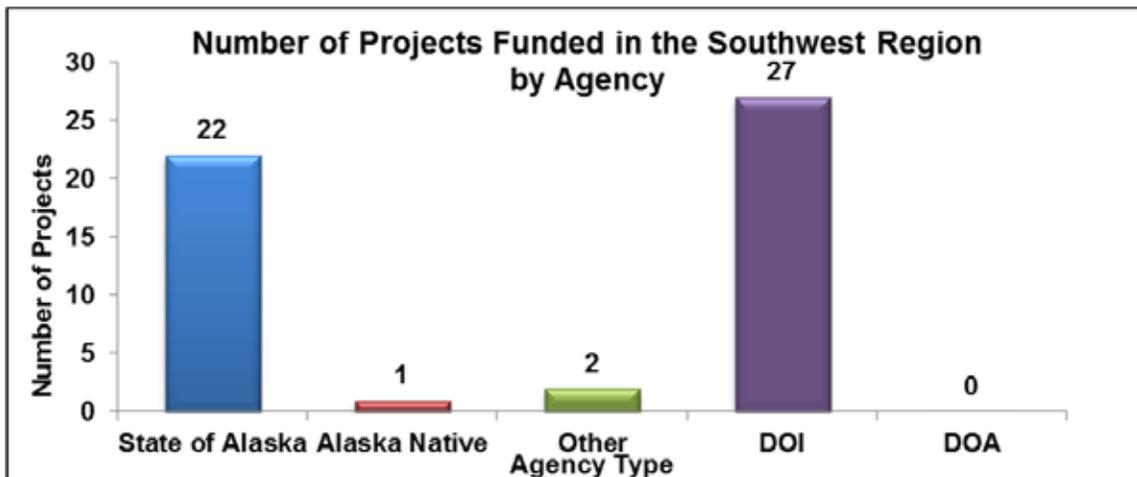


Figure 2. Total number of Monitoring Program projects funded, by agency, in the Southwest Region from 2000 to 2014. DOI = Department of Interior and DOA = Department of Agriculture.

2016 DRAFT SOUTHWEST REGION FISHERIES RESOURCE MONITORING PLAN

Priority Information Needs

The 2016 Notice of Funding Opportunity for the Southwest Region identified 11 priority information needs:

- Reliable estimates of Sockeye and Coho Salmon escapements in the Lake Clark watershed (for example, from projects utilizing a weir, sonar, tower and/or mark-recapture methods).
- Historical salmon escapement to the Lake Clark watershed using isotopic analysis of lake sediment cores.
- Document the diversity in size and age structure of sockeye salmon among spawning populations within Lake Clark National Park and Preserve.
- Identify location and extent of rearing habitat capacity for juvenile Sockeye Salmon in Lake Clark National Park and Preserve.
- Distribution and timing of spawning by Sockeye Salmon in the major Bristol Bay watersheds of Katmai National Park and Preserve.
- Reliable estimates of Chinook Salmon escapement and evaluation of “quality of escapement” measures (for example, potential egg deposition, sex and size composition of spawners, spawning habitat quality and utilization) for determining the reproductive potential of spawning stocks in the Meshik River.
- Evaluation of quality of escapement measures (for example, potential egg deposition, sex and size composition of spawners, spawning habitat quality and utilization) for determining the reproductive potential of spawning stocks in Big Creek, Naknek River, Alagnak River, Nushagak River and Chignik River.
- Reliable estimates of Chinook Salmon escapement into the Togiak River (for example, from projects utilizing a weir, sonar, tower and/or mark-recapture methods).
- Description and analysis of the social network underlying the distribution of fish harvested for subsistence by residents of the Bristol Bay Area and Chignik Area.
- Harvest of salmon for subsistence by residents of the communities of Cold Bay, King Cove, and Sand Point, including harvest methods by species and distribution practices.
- Comparative ecological evaluation of lake rearing habitats of subsistence Sockeye Salmon stocks in southwest Kodiak Island, Alaska, including Olga Lakes and Akalura Lake watersheds; assessment of (1) the decline in salmon stocks and associated subsistence harvest opportunities, and (2) the potential effects of climate change on salmon production in these lake systems.

Available Funds

Federal Subsistence Board guidelines direct initial distribution of funds among regions and data types. While regional budget guidelines provide an initial target for planning, they are not final allocations. Prior commitments to the 2014 Monitoring Program are up to \$2.7 million. The anticipated funding available for the 2016 Monitoring Program is up to \$2.0 million.

Technical Review Committee Proposal Ranking

The mission of the Monitoring Program is to identify and provide information needed to sustain subsistence fisheries on Federal public lands for rural Alaskans through a multidisciplinary and collaborative program. It is the responsibility of the Technical Review Committee to develop the strongest possible Monitoring Plan for each region and across the entire state.

For the 2016 Monitoring Program, six proposals were submitted in the Southwest Region. The Technical Review Committee evaluated and scored each proposal for Strategic Priority, Technical and Scientific Merit, Investigator Ability and Resources, Partnership and Capacity Building, and Cost/Benefit. The final score determined the ranking of each proposal within the region (**Table 1**). Projects that rate higher comprise a strong Monitoring Plan for the region by addressing strategically important information needs based on sound science and promote cooperative partnerships and capacity building. The projects listed are currently being considered for Funding in the 2016 Fisheries Resource Monitoring Program. Projects which were not eligible due to the nature of the activity are not included. For more information on projects submitted to the 2016 Fisheries Resource Monitoring Program please see the Executive Summaries in **Appendix A**.

Table 1. Technical Review Committee (TRC) ranking for projects in the Southwest Region. Projects are listed by TRC ranking and include the total matching funds, total funds requested, and the average annual request for each project submitted to the 2016 Monitoring Program within the Southwest Region. The projects listed are currently being considered for Funding in the 2016 Fisheries Resource Monitoring Program. Projects which were not eligible due to the nature of the activity are not included.

TRC Ranking	Project Number	Title	Total Matching Funds	Total Project Request	Average Annual Request
1	16-451	Bristol Bay Subsistence Salmon Networks	\$72,970.0	\$302,803	\$100,934
2	16-452	Western Alaska Salmon and Other Harvests on Federal Lands and Waters	\$0	\$348,174	\$87,043.50
3	16-404	Pre-historical Salmon Abundance in the Lake Clark System	\$35,566	\$62,670	\$31,335
4	16-402	Utilization of a time lapse camera system to monitor timing and abundance of the sockeye salmon (<i>Oncorhynchus nerka</i>) return to Akalura Lake, Kodiak Island, Alaska	\$69,027	\$41,965	\$10,491
5	16-401	Southwest Kodiak Ecological Assessment	\$184,214	\$367,340	\$91,835
6	16-403	Abundance and Distribution of Togiak River Chinook Salmon, 2016-2019	\$766,644	\$1,586,598	\$396,650
**	16-453	Togiak River Chinook Salmon Subsistence Harvest Assessment	\$70,994	\$299,498	\$74,875
Total			\$1,128,421	\$2,709,550	\$718,289

**Project number 16-453 Togiak River Chinook Salmon Subsistence Harvest Assessment has not been rated by the TRC to date. An updated table with project rankings will be provided prior to the Bristol Bay and Kodiak/Aleutians Subsistence Regional Advisory Council meeting during the Fall 2015 meetings.

2016 PROJECT SUMMARY AND TRC JUSTIFICATION FOR PROJECT RANKING

TRC Ranking: 1

Project Number: 16-451

Project Title: Description and analysis of the subsistence salmon network in Bristol Bay

Project Summary: This project proposes to document subsistence salmon harvests in five communities and examine the sharing patterns that exist among harvesters and their families in neighboring communities. The goal of the proposed research is to provide data on how the social network functions in the allocation and management of subsistence resources and how it could be used by Federal subsistence managers. The proposed objectives include:

- Estimate the harvest and use of salmon by residents of Chignik Lake, Chignik Lagoon, Egegik, Perryville, and Port Heiden.
- Describe the harvest of salmon in terms of species, gear, location, timing of harvests, and distribution patterns.
- Illustrate the sharing networks both within each community, across the broader region, and throughout Alaska, using harvest surveys and key respondent interviews.

Justification: All residents of the proposed study communities are eligible to participate in Federal subsistence fisheries on Federal lands and waters. The proposed communities are in, near, or adjacent to three Federal conservation units. The Federal Subsistence Board has recognized customary and traditional uses of salmon for these rural residents, and sockeye salmon are particularly important to their way of life.

The proposed study addresses a priority information need for Southwest Alaska and would address a number of cultural practices such as harvest, processing, sharing, and barter.

The proposed study builds on previous research and could have important implications for the Alaska Peninsula and the entire Bristol Bay Region. Salmon harvested in these communities is believed to be widely distributed throughout Alaska. Documenting sharing networks would provide insight into how, when, and why salmon are distributed in the region and beyond. The results and implications would help the Federal Subsistence Board, managers, and regional advisory councils develop comprehensive management plans for salmon.

The objectives are clearly written, measurable, and achievable. The study design is well thought out and organized. The description of the methodology is detailed. The proposed methods are well established and would achieve technical results, and the strategy for data analysis is sound and achievable. The investigators should include the interview protocols with the final investigation plan.

The investigators have substantial resources, skills, and access to staff and facilities for completing the proposed study. The investigation plan outlines how and when objectives would be met and reports completed. We did recommend that the investigators clarified the roles and involvement of the lead investigator and other State personnel not listed as primary investigators.

Alaska Department of Fish and Game, Subsistence Division and Bristol Bay Native Association have a demonstrated track record of successful completion of similar projects and reporting requirements. There have been no serious problems with their progress or performance.

The investigators received two letters of support for the investigation plan from local leaders. The project would build some technical capacity and provide temporary employment. Bristol Bay Native Association would gain technical capacity. There would be some consultation with local tribes, but no formal local partnerships with residents or groups would be created above and beyond the investigators' existing relationships in the region.

The annual average cost of this project to the Office of Subsistence Management would be \$100,934. The cost of funding this project would be reasonable for the amount of work and deliverables being proposed and the potential benefits to management of subsistence fisheries.

TRC Ranking: 2

Project Number: 16-452

Project Title: Western Gulf of Alaska Salmon and Other Harvests on Federal Lands and Waters

Project Summary: This 3-year project spans 4 calendar years and proposes to document and analyze the subsistence and sport harvest of salmon and the subsistence harvest of all other species for the communities of Cold Bay (108 residents), King Cove (938 residents), and Sand Point (976 residents) on the Alaska Peninsula. Specifically, it looks to contextualize harvest data through community needs, sport harvesting activity, and the lens of changes in ecological, socioeconomic, and political environments which the investigator writes is lacking for these communities.

This proposal was submitted to the 2014 Monitoring Program Notice of Funding Opportunity and was not recommended for funding due in large part to a lack of strategic priority for that year. The Principal Investigator was encouraged to address the reviewer comments and reapply. Since 2014 the strategic priority was strengthened and many of the reviewer comments were addressed. The 2016 investigation plan and research questions have remained the same while the objectives differ only slightly from the 2014 proposal. Other differences include a decrease in project personnel and a significant decrease in project cost.

Justification: The proposal is strong in scope and moves beyond the immediate need for subsistence salmon harvest data as stated in the 2016 call to recognize the utility of a current and comprehensive baseline subsistence survey in the three study communities; the existing subsistence baseline data is old in two communities and was never conducted in Cold Bay. The social network analysis more specifically addresses the distribution practices of Federally qualified subsistence users and has direct management implications in understanding the significance of a resource beyond the standard household and the web of relationships statewide that participation and distribution enhance. Additional value is seen in the development of an independent authority with expertise (connections, trust, working relationships) in Southwest Alaska, and a dataset that could possibly contribute to the Community Subsistence Harvest

Information System (CSIS); a publically accessible database for immediate assessment of community subsistence harvests comparable across regions and over time. The database developed by the University would expand a unique genealogical dataset of the region and will provide researchers the opportunity for more detailed analysis of the social structures that support a local subsistence economy, but it is unclear how accessible the University database will be to Federal and State Management agencies or to the general public.

TRC Ranking: 3

Project Number: 16-404

Project Title: Pre-historical Salmon Abundance in the Lake Clark System

Project Summary: This proposal requests funds for two years to “*estimate pre-historical sockeye salmon abundance in the Lake Clark system.*” “*This project will address that data gap by reconstructing sockeye salmon abundance during the past ~500 years in key locations within the Lake Clark system using lake sediment cores.* The proposed project title and references thereafter may be more reflective of the project if the term historical were used in place of “*pre-historical*”. Regardless, “*Resulting data will facilitate sustainable management by defining the natural variability of sockeye salmon in the system, placing recent fluctuations of abundance into a long-term historical context*”. Similar studies were funded by the National Park Service in 2003 to fill this data gap using sediment cores and isotope analysis. At the time, the technology was new and pre-historical abundance information was not completed as part of the 2003 study. Since then the methods have been refined.

The investigation plan alludes that core samples were taken in 2003 but were not analyzed. Assuming the samples taken in 2003 were preserved and the methods of collecting the samples haven’t changed it is recommended that the PI investigate the potential use of those samples to accomplish the proposed objectives.

Justification: The proposed study requests funds for two years to “*estimate pre-historical sockeye salmon abundance in the Lake Clark system.*” “*This project will address that data gap by reconstructing sockeye salmon abundance during the past ~500 years in key locations within the Lake Clark system using lake sediment cores.* Nutrients from historical salmon runs are deposited onto lake bottoms throughout natal lakes each year within the proposed study area. The size of the salmon runs depositing the nutrients can be quantified by the amount of annual nutrient deposition.

This project has a direct linkage to Federal lands within and around the Lake Clark National Park and Preserve. Subsistence fisheries including those harvesting salmon are essential to the diet, economy, and culture of local communities in the Bristol Bay region of Alaska. This study proposal directly addresses one of the priority information needs identified in the 2016 Fisheries Resources Monitoring Program’s Notice of Available Funding for the Southwest Region “*Historical salmon escapement to the Lake Clark watershed using isotopic analysis of lake sediment cores*”. The proposed study has wide geographic implications because Sockeye Salmon returning to the Lake Clark system support subsistence fisheries throughout the Bristol Bay Region.

Information collected from this study “*will facilitate sustainable management by defining the natural variability of sockeye salmon in the system, placing recent fluctuations of abundance into a long-term historical context*”. However, the investigators do not specially address the implications to subsistence fisheries in the region nor identify any immediate or urgent subsistence concerns. The subsistence fishery in the region has never been restricted by any means, not even during the worst salmon return years. It is unclear how the proposal would be significant to any subsistence management. The proposal appears to be mostly research based and is not of the highest priority to managing subsistence fisheries. Any resulting management would likely have greater implications to commercial fisheries management because the Bristol Bay Region is the World’s largest commercial sockeye fishery which operates under intensive management.

The investigators indicate that a similar study with multiple objectives including the use of sediment coring and isotope analysis was conducted in 2003 in the same region. Objectives from that study pertaining to the isotope analysis and historical salmon abundance estimates were not completed. It is recommended that the investigators address the utility of those samples for use to achieve the proposed project objectives. The investigators also noted that the methods used to quantify historical salmon abundance have been improved and expanded on since the first attempt.

Each investigator has resources needed to accomplish the proposed objectives of this study. The National Park Service brings all the infrastructure and logistical support to conduct field studies in the Lake Clark region and the University of Washington brings the analytical and laboratory resources need to accomplish the objectives.

The cost of the project appears to be reasonable and prudent. The total project cost is \$62,670 with an annual cost of \$31,335. Costs associated with year one are to conduct the field collections and costs for year two are necessary to run the laboratory analysis.

None of the investigators represent a rural, Alaska Native, or tribal organization. However, each entity has a history working with and disseminating information to rural communities and organizations. The National Park Service’s, Lake Clark National Park and Preserve have partnered with the Bristol Bay Native Association since 2008 to hire, recruit and train local residents. This study proposal would continue collaboration between the National Park Service and the University of Washington.

TRC Ranking: 4

Project Number: 16-402

Project Title: Utilization of a time lapse camera system to monitor timing and abundance of the sockeye salmon (*Oncorhynchus nerka*) return to Akalura Lake, Kodiak Island, Alaska

Project Summary: This proposal seeks four years of funding to operate a remote time lapse camera system to estimate sockeye salmon returning to the Akalura Lake system in Southwest Kodiak Island.

The proposed project site would be located near the outlet of Akalura Lake within Akalura River. Sockeye Salmon returning to Akalura Lake system have been intermittently monitored by several entities over the last century since 1923 using varying techniques. Currently, there are no escapement goals associated with Sockeye Salmon returning to the Akalura Lake system.

Justification: This proposal marginally addresses one of the priority information needs identified in the 2016 Fishery Resource Monitoring Program Priority Information Needs for Southwest Region. The average annual cost of the project is \$10,491. The project is inexpensive because the principal investigator is supplying all the equipment and field time is minimal due to the type of proposed camera system. As written, information collected from this study would give an estimate/index of abundance with no relative confidence or scalable precision. The objective is clear; however, the methods presented may not be sufficient to achieve the objective as written. To meet the objective as written, the methodology would need to change which ultimately would increase the cost of the project during year one. Project budget for subsequent years would be substantially less. Video technology used in fisheries management has largely shifted from analog to digital and from aerial to underwater video for several reasons. Underwater video allows for complete census of multiple species simultaneously migrating, allows for fish enumeration during all water conditions, and minimizes the amount of time required to analyze video data through motion detection algorithms and digital file selection—all while maintaining a complete census of the population alleviating the need for estimates and introduction of sample bias. Some concerns that should be addressed are how poor visibility from wind, glare and turbidity would be handled in the estimates/index and how fish species would be differentiated from one another. Biases associated with the proposed method would need to be evaluated to determine the direction of the bias. To do this the project cost would likely increase substantially.

The investigator should have the resources available from the Kodiak National Wildlife Refuge to complete the proposed study; however, he did not identify those resources. Most of the data analysis will be completed in Kodiak at the Refuge headquarters using an intern from the Alaska Native Science and Engineering Program. The investigator also indicated that the collected information would be shared with the Alaska Department of Fish and Game. Although this study would provide an estimate/index of Sockeye Salmon abundance in the Akalura river/lake, it remains unclear as to how the information would be used to manage subsistence fisheries. Currently, there are no escapement goals identified for the Akalura Lake Sockeye Salmon population. The proposed study likely has localized implications and would assist commercial fisheries management more than subsistence management.

TRC Ranking: 5
Project Number: 16-401
Project Title: Southwest Kodiak Ecological Assessment

Project Summary: This proposal seeks four years of funding to conduct a comparative evaluation of lake rearing Sockeye Salmon habitats from Akalura, Olga, Red, and Horse Marine lakes in Southwest Kodiak Island region. *“This project will obtain smolt condition and lake habitat quality data over time for Akalura and Upper Olga lakes and compare them to similar systems (Red and Horse Marine lakes) that*

are in close proximity but have had relatively stable sockeye salmon production. Smolt condition and age data, when coupled with limnological data, provide the information for identifying critical linkages in sockeye salmon life histories when they are most susceptible to mortality as juveniles.”

Justification: Fisheries Resource Monitoring Proposal 16-401 directly addresses one Southwest Regional priority information need identified in the 2016 Notice of Funding Availability, “*Comparative ecological evaluation of lake rearing habitats of subsistence sockeye salmon stocks in southwest Kodiak Island, Alaska, including Olga Lakes and Akalura Lake watersheds; assessment of (1) the decline in salmon stocks and associated subsistence harvest opportunities, and (2) the potential effects of climate change on salmon production in these lake systems*”. Information collected from this project would be applied to management of Sockeye Salmon returning to Southwest Kodiak Island lake systems located in Olga Bay, including Akalura, Horse Marine, Olga, and Red lakes. The proposed project is technically sound and the objectives, with minor modifications, are clear, measureable and, achievable. Minor modifications include establishment of confidence intervals and bounds of precision for objectives that include estimates of age, weight, and length of Sockeye Salmon. All investigators appear to have the knowledge and resources available to accomplish the proposed objectives. The proposed cost of the project is reasonable and justified averaging \$91,835 annually for a total request of \$367,340. None of the investigators are rural, Alaskan Native, or from a tribal organization. However, this partnership will help develop partnerships and build collaboration between Alaska Department of Fish and Game, U.S. Fish and Wildlife Service, Kodiak Regional Aquaculture Association, and subsistence users.

With regards to subsistence management of fishery resources, the investigation plan does not clearly address or indicate how the proposed study would affect management of subsistence resources within the region. The investigation plan also does not identify any immediate or urgent subsistence concerns within the region. It remains unclear but appears as if the proposed study would have greater implications to commercial fisheries management rather than federal subsistence fisheries because project results could be a prescription for lake fertilization and potentially future enhancement. The investigation plan indicates that Sockeye Salmon stock would be managed for optimal sustained yield. Currently, there are no escapement goals associated with Akalura Lake but biological and optimal escapement goals do exist for other nearby systems including Olga Lake system.

TRC Ranking: 6

Project Number: 16-403

Project Title: Abundance and Distribution of Togiak River Chinook Salmon, 2016-2019

Project Summary: This proposal seeks four years of funding to conduct a mark-recapture study on Chinook Salmon in the Togiak River Drainage using a combination of Spaghetti-tags, radio-tags, a float resistance board weir, and ground surveys. Additionally, this study will attempt to correlate aerial counts to escapement estimates to develop correction factors to be used in future aerial index surveys. This project would resume a recent study completed by the USFWS, Anchorage Fish and Wildlife Field Office between 2009 and 2012 (latest funding through FRMP project # 10-402). There are concerns as to whether the proposed methods can accomplish the objectives listed in the investigation plan.

Justification: This proposal addresses one of the Southwest Regional priority information needs listed in the 2016 Fisheries Resource Monitoring Program Notice of Funding Availability. This project as written essentially resurrects previous work and proposes nearly identical methodologies used by the U.S. Fish and Wildlife Service, Anchorage Fish and Wildlife Field Office from 2009 to 2012. The prior project completed was unable to provide accurate estimates of abundance due to complications in the capture and recapture of marked fish. Therefore, proposed objectives for this proposal may not be achievable. There is concern as to whether the investigators can achieve the sample goals required to meet their confidence and precision levels identified in objective one of the investigation plan and whether or not they will be able to establish estimates of Chinook salmon abundance in the Togiak River from 2016 to 2019. Effort during the mark and recapture of Chinook Salmon would need to be substantially greater in this study over prior studies which would increase the cost of the project. This was minimally addressed by the investigators but was not quantified. It is also unclear as to whether the objective to correlate the estimated escapement to aerial survey indices to develop more accurate correction factors for future aerial surveys is warranted given the aerial surveys have been discontinued since 2005 due to the inconsistent flights.

The cost to complete the study appears to be excessive and the total proposed price across all agreement periods is unreasonable. The cost of this project is not well documented and appears unjustified. In addition, it is unclear in the project budget the intent for inclusion of a request for a BBNA Partner's Program position requesting annually \$76,018 in addition to an annual request for \$36,067 by BBNA. Further explanation of the budget is warranted and could have been covered in the Budget Justification; however a Budget Justification was not included in the proposal package. In the Notice of Funding Availability and Application Instructions it specifically states that a Budget Justification is a required document. The cost/price of the proposal is not reasonable and does not represent a price to the government that a prudent persona would pay when consideration is given to the prices in the market.

The investigators did not identify or discuss the long term effects of this study and establishment of aerial survey correction factors to the management of Chinook Salmon. It is recommended that the investigators discuss the likelihood of future aerial surveys routinely taking place beyond the scope of this study. The implication to federal subsistence fisheries from this study proposal is also unclear because escapement goals pertaining to Chinook Salmon returning to the Togiak River drainage are not established and other fisheries harvesting Chinook Salmon, i.e. commercial and sport, continue persist in the area.

APPENDIX A

The following Executive Summaries were written by the Principle Investigators and submitted to the Office of Subsistence Management as part of the proposal package. The statements and information contained in the Executive Summaries were not altered and they may not reflect the opinions of the Office of Subsistence Management or the Technical Review Committee. The Executive Summaries listed are for projects that are currently being considered for Funding the 2016 Fisheries Resource Monitoring Program. Projects which were not considered for funding were not eligible due to the nature of the activity and are not included in this appendix.

Project Number: 16-401
Title: Southwest Kodiak Ecological Assessment
Geographic Region: Southwest Region / Kodiak-Aleutians Area
Data Type: Stock Status and Trends (SST)
Principal Investigator: Heather Finkle, Alaska Department of Fish and Game
Co-Investigators: Nathan Weber, Kodiak Regional Aquaculture Assoc.
 Bill Pyle, U.S. Fish and Wildlife Service

Project Cost:	2016: \$90,050	2017: \$91,493	2018: \$93,001	2019: \$92,796
Total Cost: \$367,340				

Issue: Over the last 15 years, very little to no effort has been exerted to assess declines in sockeye salmon returns to Akalura and South Olga lakes, which have negatively impacted Alitak and Olga Bay subsistence fishery opportunities, in particular for Akhiok residents. This ecological assessment will obtain smolt condition and lake habitat quality data over time for Akalura and Upper Olga lakes and compare them to climatic conditions and similar systems (Red and Horse Marine lakes) that are in close proximity but have had relatively stable sockeye salmon production. By understanding the linkages between climate, juvenile sockeye salmon health, and lake rearing conditions, this holistic approach will allow biologists to better manage for optimum sustained yield improving subsistence harvest opportunities. This project will also help identify how past management actions have affected sockeye salmon production vital to Akhiok residents and the Alitak and Olga Bay subsistence fisheries, providing management biologists a frame of reference to better assess current conditions and future actions.

Objectives:

1. Estimate the age composition and average size of juvenile sockeye salmon from Akalura, Horse Marine, Red and the South Olga lakes annually from 2016 through 2019.
2. Evaluate the effects of the water chemistry, nutrient status, and plankton (phytoplankton and zooplankton) production of each lake on the smolt production and future adult returns from 2016 through 2019.
3. Re-evaluate Akalura, Upper Olga, Red, and Horse Marine lake bathymetry, while collecting high resolution water quality data and juvenile fish distribution using an Ecomapper AUV, once in each lake over the course of the study.

4. Build the smolt age composition and condition dataset for comparison to available historical fisheries and limnological data in relation to climate change and anthropogenic (i.e. oil spill, management, etc) effects upon completion of objective 1.
5. Assess available historical fisheries and limnological data in relation to climate change effects, upon completion of objectives 1–4.

Methods: This project will directly exercise collaboration among ADF&G, KRAA, and USFWS. Juvenile sockeye salmon and limnological sampling from Akalura, Horse Marine, Red, and Upper Olga lakes will occur once every two weeks May through June and once every four weeks from July through September in each year of the project (2016-2019). Adjacent to limnological sampling stations, temperature arrays will be launched each April and retrieved and downloaded each October of the project. Each May, beach seine and limnological stations will be logged with a global positioning system (GPS); limnological stations will be marked with a buoy. For each lake, beach seining and limnological sampling will be paired events. Data collection and sample processing will adhere to the following methods:

- Dissolved Oxygen, Light, and Temperature

Water temperature (°C) and dissolved oxygen (mg/L) levels will be measured with a YSI dissolved-oxygen/temperature meter. Readings will be recorded at half-meter intervals to a depth of 5 m, and then increased to one-meter intervals. Upon reaching a depth of 20 m, the intervals will be increased to every five meters up to a depth of 50 m. A photometer will measure photosynthetically active wavelengths (kLux). Readings begin above the surface, at the surface, and proceed at half-meter intervals until reaching a depth of 5 m, going to one-meter intervals until the lake bottom or 0 kLux light penetration is reached. The depths at which a Secchi disc disappears and reappeared when lowered and raised in the water column will be averaged to measure water transparency. For temperature arrays, Hobo® U22 Water Temperature Pro v2 data loggers will be set at 5-m depth intervals for the 5-30 m depth range and at 10 m intervals where lake depth exceeds 30 m. Data loggers will be programmed to record temperature on an hourly basis.

- Water Sampling

Four to eight liters of water will be collected from each station with a Van Dorn bottle from the 1 m and from the hypolimnion (depth of ≥ 29 m depending on lake morphometry). Water samples will be refrigerated until initial processing. One-liter samples will be filtered for chlorophyll-*a* and particulate N and P analyses. Samples will be stored frozen for further processing. A pH meter and acid titration will be used to assess alkalinity and pH. Components of phosphorous, nitrogen, and silicon will be measured using a SEAL Analytical AA3 segmented flow autoanalyzer following the manufacturer's instructions and established EPA chemistries. Chlorophyll *a* and phaeophytin will be measured with a spectrophotometer.

- Zooplankton

One vertical zooplankton tow will be made at each limnology station with a 0.2-m diameter, 153-micron net from one meter above the lake bottom to the surface. Each sample will be stored in a 10% buffered formalin solution. Three subsamples will be keyed to zooplankton family or genus, counted

and averaged. Mean length (± 0.01 mm) will be measured and biomass will be calculated via species-specific linear regression equations between weight and length measurements.

- Bathymetric Mapping

A YSI Ecomapper autonomous underwater vehicle will measure each lakes' bathymetry in accordance with the manufacturer's protocol. The georeferenced depth data collected from each mission will be edited and plotted with Surfer software to estimate bathymetric statistics.

- Beach Seining of Juvenile Salmon

A single haul will be made at established sites around each lake with a beach seine net. All fish species caught will be identified and counted. A total of 40 juvenile sockeye salmon will be randomly sampled for age, weight, and length (AWL) data.

Partnerships/Capacity Building: This project will directly foster partnerships, capacity building by collaboration among ADF&G, USFWS, and KRAA. The dissemination of deliverables created by the collaboration of these three agencies will enable and establish dialogues among project investigators and the Akhiok community, its tribal leadership, and the Kodiak Island Borough Assembly. In turn, Akhiok residents and Akhiok-Kaguyak, Inc. will benefit from 1) having current robust information for understanding the changes to the local subsistence fishery and 2) having developed partnerships and developed the capacity for interacting with the agencies that manage subsistence fisheries.

Project Number: 16-402
Title: Utilization of a time lapse camera system to monitor timing and abundance of the sockeye salmon (*Oncorhynchus nerka*) return to Akalura Lake, Kodiak Island, Alaska
Geographic Region: Southwest Region / Kodiak-Aleutians Area
Data Type: Stock Status and Trends (SST)

Principle Investigator: Kevin Van Hatten, US Fish & Wildlife Service, Kodiak National Wildlife Refuge

Project Cost:	2016: \$9,810	2017: \$10,309	2018: \$10,710	2019: \$11,136
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Total Cost: \$41,965

Issue Addressed: The proposed project will partly address the *Southwest Alaska Region Priority Information Needs*. Specifically we propose to re-instate monitoring of the Akalura Lake stock of sockeye salmon as a priority component and the initial and essential first step required to evaluate the potential for restoration of the subsistence fishery resource. Monitoring of this stock needs to be reinstated for several reasons. Since the abundance of returning salmon largely determines the capacity of lakes to rear juvenile salmon (Schmidt et al 1998), management of the stock and fishery requires knowledge of stock status and trend. Although many factors may be limiting the abundance of sockeye salmon in the Akalura system, one of the likely primary causes is reduction in the capacity of lake-rearing habitat to support juvenile sockeye salmon stemming from low returns of adults and limited delivery of nutrients to the lake derived from returning salmon. Restoration of the value of this fishery as a subsistence fishery resource may require a range of management actions; however, one of the initial primary and essential steps involves re-instatement of monitoring the return of adults.

Objectives: Adults

1. Monitor the timing and abundance of returning sockeye salmon to Akalura Lake between 2016 and 2019.

Methods: To understand the variation in sockeye salmon run of Akalura River, we will use a remote video method. Managers utilize several different methods, each with their own strengths and weaknesses, to monitor variation in timing and abundance of adult salmon in natal streams. Fixed or floating weirs, counting towers, or sonar are used on many large rivers in Alaska. Although these methods collect the desired information, they are expensive and labor intensive. Data of the same quality may be collected with a remote video method in smaller river at comparatively lower cost requiring minimal field labor. This remote video method was developed and successfully tested in small streams of southwest Kodiak Island, during 2012-2014 (Deacy and Leacock 2014). The remote video method entails collection of data in the field and processing of data in the office. In the field, a weatherproof time-lapse camera and video camera will be attached to a 10m pole which can be adjusted as needed. The pole will be affixed to the top of a four-legged tower set adjacent to the stream and surrounded by an electric fence to prevent damage by brown bear. The camera system will be solar-powered with battery backup. Concurrently, contrast panels will be affixed to the streambed spanning the stream channel cross-section adjacent to the camera station. The upstream edges of the contrast panels will be secured to steel chain. The steel chain

will span the creek and be anchored on each shore with rebar or t-posts. Contrast panels will be secured to each other and the steel chain with zip ties.

The time lapse cameras will be programmed to take three rapid sequential photos per minute, 24 hours/day. Images acquired from these three photos will reveal the number, direction and species of fish across the contrast panels. To record nocturnal movement of salmon, infra-red (IR) lights will be attached to the top of the tri-pod and pointed towards the submerged panels. A light sensitive “eye” will be located on the top of the lights and is used to judge daylight. At a certain/specific natural light setting, such as dusk, the lights will be illuminated. To provide contrast of salmon movement we will use 3mm polyethylene white panels to aid the ability of the camera to capture those movements. We will service the system on a weekly basis. C and video SD cards will be exchanged and debris will be removed from panels.

Partnerships and Capacity Building: The project will employ an undergraduate intern affiliated with the University of Alaska Anchorage’s Alaska Native Science and Engineering (ANSEP) program. Students with home bases in the Kodiak area will be sought, but if not available, ANSEP-affiliated students from other regions of Alaska will be employed. The ANSEP intern will be employed at a GS-3 equivalent level between mid-May and mid-August. Approximately 50% of the ANSEP intern time will be committed to support this project, and the balance will be committed to support other Refuge projects. Consequently, we request funds in our project budget needed to support the 50% of the intern’s time dedicated to this proposed fisheries project.

The consultations described above will help develop partnerships and build the capacity of individuals such as the ANSEP intern, agencies, and organizations to meaningfully participate in the project which contributes to the management of federal subsistence fisheries.

Project Number: 16-403
Title: Abundance and Distribution of Togiak River Chinook Salmon, 2016-2019
Geographic Region: Southwest Alaska
Principle Investigator: Keggie Tubbs, Bristol Bay Science and Research Institute (BBSRI)
Co-Investigators: Courtenay Carty, Bristol Bay Native Association (BBNA)
 Mark Lisac, Togiak National Wildlife Refuge (TNWR)
 Tim Sands, Alaska Department of Fish and Game (ADFG)

Project Cost:	2016: \$414,494	2017: \$393,844	2018: \$393,844	2019: \$384,416
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Total cost: \$1,586,598

Issue Addressed: Togiak River Chinook salmon support the largest subsistence fishery with Federal nexus and jurisdiction in Bristol Bay, and are a high-value component of subsistence, recreational, and sport fisheries. Recent Chinook salmon production throughout the Southwest region and much of Alaska is in decline. Accurate assessments of Togiak River Chinook salmon escapement are no longer being conducted, however, and the escapement goal for this stock was eliminated as part of the 2012/2013 Alaska Board of Fish cycle. Estimates of escapement are needed for effective long-term management that will ensure adequate subsistence harvests into the future.

This project will resume escapement estimates discontinued after 2012, thereby addressing a priority information need identified in the Fisheries Resource Monitoring Program’s 2016 Notice of Funding Availability: to produce “Reliable estimates of Chinook salmon escapement into the Togiak River (for example, from projects utilizing weir, sonar, tower and/or mark-recapture methods).” Togiak River Chinook salmon are a resource managed through the Federal Subsistence Management Program (in the Bristol Bay Management Area section of the 2013-2015 Fish and Shellfish Regulations). Subsistence harvests for Chinook salmon in the Togiak River are within the Federal Conservation System boundaries of the Togiak National Wildlife Refuge (TNWR); providing a harvest priority to subsistence users in these waters is mandated under Title VIII of the Alaska National Interest Lands Conservation Act. Commercial harvests are in Togiak Bay and are managed by the Alaska Department of Fish and Game (ADF&G).

Objectives:

1. Estimate the annual abundance of Chinook salmon in the lower Togiak River such that the estimates will have a 90% probability of being within 25% of the true abundance;
2. Document Chinook salmon spawning locations in the Togiak River watershed;
3. Estimate the proportion of Chinook salmon that spawn in each of the tributary and mainstem index areas that are used for reporting aerial spawner survey results, including Gechiak Creek;
4. Estimate the weekly age and sex composition of Chinook salmon in Gechiak Creek, such that simultaneous confidence intervals have a maximum width of 0.20;

5. Estimate the mean length of Chinook salmon by sex and age; and
6. Use abundance and distribution results to develop a correction factor for aerial surveys.

Methods: Study Design: The study design and field methods proposed for this project will incorporate many of the successes by AFWFO and partners in their 2012 project (Sethi and Tanner 2014; Tanner and Sethi 2014). A two-sample mark-recapture experiment will be used to estimate adult Chinook salmon abundance in the lower Togiak River. In the first sample event, fish will be captured using drift gillnets, tagged with spaghetti and radio tags, and released in the mainstem of the Togiak River within 5 river kilometers (rkm) of the mouth. The tagging site will be located upstream of the majority of harvest effort, but downstream of the majority of spawning areas. For the second sample event, fish will be captured and inspected for marks at a floating picket weir located on Gechiak Creek (2 km upstream from the Togiak River confluence). Additional second-event samples will be obtained from spawning ground (carcass) surveys, conducted throughout the spawning period (mid-August to early September). Based on an inriver abundance of 10,000 Chinook salmon, a feasible scenario to achieve the statistical criteria is deploying 450 tags (150 radio + 300 spaghetti) in the first sample event and inspecting 886 fish in the second sample event. Age, sex, and length data will be collected from Chinook salmon at the Gechiak Creek weir using a temporally stratified sampling design.

Radio-tagged fish will be tracked throughout the Togiak River drainage using a combination of eight fixed-station receiver sites and mobile-tracking surveys. Fixed stations will be operated from late June to early September each year. Receivers at each site will be checked and downloaded approximately every 7-10 days while in operation. Boat-tracking surveys will be conducted from early July to early September (likely every 7-10 days if paired with visits to the fixed stations). From early July to mid-September, an aerial tracking survey will be flown approximately once every two weeks.

Aerial spawner surveys will be conducted by ADF&G to count Chinook salmon. Each year an expansion factor will be calculated from the ratio of the escapement count (mark-recapture estimate) to the index count (aerial spawner surveys). The long-term goal of the expansion factor is to generate ongoing estimates of escapement using aerial surveys.

Partnerships and Capacity Building:

- The BBSRI will be responsible for the project and provide the necessary biological expertise and training to ensure that all project objectives are achieved.
- The BBSRI will provide field crews responsible for the day-to-day operations at the tagging site and Gechiak Creek weir, as well as the spawning ground and mobile-tracking surveys. BBNA will provide an additional technician and Alaska Native Science and Engineering Program intern for the field crew.
- BBNA will work with local villages to provide outreach and education; the outreach plan will include project updates at annual meetings of local tribal councils, Togiak Fish and Game Advisory Committee (AC) and the Bristol Bay Subsistence Regional Advisory Committee (RAC).

- The Togiak NWR will provide equipment and personnel for aerial surveys, as well as camp gear, and logistical support.
- ADFG, divisions of Commercial Fisheries and Sport Fish, will provide experienced aerial survey biologists and play a key role in the development of aerial survey correction factors.
- Wherever possible, all investigators will transfer knowledge and skills to local technicians.
- This project will enhance the existing partnerships among many of these groups including the tribal councils in the Togiak Bay area, the Togiak AC, and the Bristol Bay RAC.

Project Number: 16-404
Title: Pre-Historical Salmon Abundance in the Lake Clark System
Geographic Area: Southwest Region
Information Type: Stock Status and Trends (SST)
Principal Investigator: Krista Bartz National Park Service – Inventory and Monitoring Program – Southwest Alaska Network
Co-Investigators: Daniel Schindler, University of Washington – School of Aquatic and Fishery Sciences.
 Dan Young, National Park Service – Lake Clark National Park and Preserve

Project Cost:	2016: \$7,797	2017: \$54,873	2018: \$0	2019: \$0
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Total Cost: \$62,670

Issue: The world’s largest sockeye salmon fishery occurs in Bristol Bay, Alaska. The fishery is divisible into nine stocks, each of which contains multiple populations. Asynchronous, population-specific variation in adult abundance characterizes sockeye salmon in the region. This variation is apparent at short and long time scales, and is considered key to the resilience of the Bristol Bay stock complex as a whole. The fact that abundance varies asynchronously among populations means that annual returns of nearby populations are not necessarily correlated, and data gaps cannot be filled using simple numerical models. One such data gap involves pre-historical returns to the Lake Clark system. This project will address that data gap by reconstructing sockeye salmon abundance during the past ~500 years in key locations within the Lake Clark system using lake sediment cores. Resulting data will facilitate sustainable management by defining the natural variability of sockeye salmon in the system, placing recent fluctuations in abundance into a long-term historical context. These data will fill the second priority information need identified in the Notice of Funding Availability for the Southwest Alaska Region.

Objectives: The overarching goal of this study is to estimate pre-historical sockeye salmon abundance in the Lake Clark system. Four specific objectives must be met in order to reach this goal:

1. Collect sediment cores
2. Establish sediment core age chronologies
3. Determine sediment core N isotope ratios
4. Infer pre-historical salmon abundance from N isotope ratios

Methods:

- Objective 1 – Collect sediment cores
 Sediment cores will be obtained from six lakes in the Lake Clark system, including four salmon-bearing lakes and two reference lakes. One site per lake will be cored at all lakes except Lake Clark, where three sites will be cored, summing to eight sites total. At each site, three cores will be collected, but only one core per site will be used for subsequent analyses. Cores will be collected using a gravity corer and sectioned in the field into samples <1 cm in thickness (n ≈ 150 samples per core, depending on core length).

- Objective 2 – Establish sediment core age chronologies
 ^{210}Pb dating techniques will be the primary method for estimating ages of sediments. ^{14}C dating techniques will be used as a secondary method to validate the ^{210}Pb results. Approximately 15 samples from each core will be thawed, sub-sampled, and analyzed at an offsite lab for ^{210}Pb activity via α -spectrometric analysis. A similar process will be used to analyze approximately 2 samples per core for ^{14}C .
- Objective 3 – Determine sediment core N isotope ratios
Stable N isotopic analysis will be conducted on all core samples. Samples will be thawed, sub sampled, and analyzed at the University of Washington via continuous flow isotope ratio mass spectrometry. Results of stable N isotopic analysis will be expressed in terms of N isotope ratios ($^{15}\text{N}/^{14}\text{N}$), which can be converted easily to $\delta^{15}\text{N}$ values using a simple equation.
- Objective 4 – Infer pre-historical salmon abundance from N isotope ratios
A two-member mixing model will be used to convert sediment core $\delta^{15}\text{N}$ values to adult salmon abundance, as described in Schindler et al. 2005. Sediment core $\delta^{15}\text{N}$ values will be used to estimate pre-historical salmon escapement densities through time. Monte Carlo analyses of the mixing model will produce confidence intervals of these estimates based on measured variability in sediment $\delta^{15}\text{N}$, and other components of the mixing model (Schindler et al. 2005).

Partnerships and Capacity Building: The LACL Natural Resources Program has an established history of partnerships and capacity building. Please review FIS files from past projects for the history of communications and collaborations. Our program is dedicated to improving management of subsistence fisheries by providing data on status and trends of sockeye salmon to subsistence users and managers in the region. Our capacity building efforts have focused on education and job opportunities related to sockeye salmon and dissemination of acquired information to all stakeholders. Since 2008, we have partnered with Bristol Bay Native Association to assist with the hiring, recruitment, and training of local residents on our projects.

Project Number: 16-451
Title: Description and Analysis of the Subsistence Salmon Network in Bristol Bay
Geographic Region: Southwest Alaska
Data Type: Harvest Monitoring Traditional Ecological Knowledge (HMTEK)
Principal Investigator: Davin Holen, Subsistence Program Manager, Division of Subsistence, Alaska Department of Fish and Game
Co-Investigators: Courtenay Gomez, Director of Natural Resources, Bristol Bay Native Association
 Dr. Drew Gerkey, Assistant Professor, Department of Anthropology, Oregon State University

Project Costs:	2016: \$0	2017: \$150,613	2018: \$98,302	2019: \$53,888
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Total Cost: \$302,803

Issue: The 2015 Fisheries Resource Monitoring Program has identified an information need for a “description and analysis of social networks underlying the allocation and management of subsistence salmon fisheries in villages in the Bristol Bay-Chignik Area,” within the priority information needs for Southwest Alaska. This project will focus on 5 communities, Chignik Lake, Chignik Lagoon, Perryville, Egegik, and Port Heiden, each of which has a unique regional sharing pattern as identified during previous studies carried out by project researchers. The goal of this project is to provide information on how the social network “functions in the allocation and management of subsistence resources... and how such a model might be applied and utilized in Federal subsistence management.”

Customary trade – the exchange of subsistence harvest salmon for cash – is a recognized subsistence use under ANILCA (and state law), along with sharing and bartering, and is part of long-standing subsistence traditions throughout Alaska (Langdon and Worl 1981; Wolfe and Magdanz 1993). Krieg et al. (2007; FIS 04-454) described the sharing, bartering, and cash trade of subsistence resources in the Bristol Bay region. The proposed research will expand upon Krieg’s study by identifying and analyzing the social networks underlying the exchange of salmon not only within a community, but within the larger Bristol Bay–Chignik area. Furthermore, the proposed communities of Chignik Lake, Chignik Lagoon, Perryville, Egegik, and Port Heiden exhibit an extensive range of sharing patterns which could help researchers and managers understand how salmon from this region are shared throughout Alaska and elsewhere.

This project will investigate the social networks of shared subsistence salmon resources in Bristol Bay and Chignik communities and how these networks could be understood within the federal subsistence management system. All residents of the Bristol Bay Management Area qualify for participation in Federal subsistence fisheries. Because of the number of communities in Bristol Bay and the depth of knowledge this project seeks to gather, a sample of communities representative of different areas were chosen based upon researchers’ prior experiences with sharing networks. In addition these communities represent different and sometimes overlapping Federal nexus within the Bristol Bay – Chignik area.

These communities include:

- Chignik Lake, Chignik Lagoon, and Perryville - *Alaska Peninsula National Wildlife Refuge*
- Egegik - *Becharof National Wildlife Refuge*
- Port Heiden - *Aniakchak National Monument and Preserve*

Objectives:

1. Estimate the harvest and use of salmon by residents of Chignik Lake (pop. 70), Chignik Lagoon (pop. 72), Egegik (pop. 106), Perryville (pop. 101), and Port Heiden (pop. 114).
2. Describe the harvest of salmon in terms of species, gear, location, timing of harvests, and distribution patterns.
3. Through harvest surveys and key respondent interviews illustrate the sharing networks both within each community, across the broader region, and throughout Alaska.

Methods: The research will employ two integrated social science data gathering methods which will be discussed in detail below. These are 1) systematic household surveys, and 2) key respondent interviews.

1. Household harvest survey. The subsistence household harvest survey is useful to meet Objective 1 which is to estimate the harvest of salmon by residents of Chignik Lake, Chignik Lagoon, Egegik, Perryville, and Port Heiden and Objective 2 which is to describe the harvest of salmon in terms of species, gear, location, and timing of harvests.

The harvest surveys will inquire about the harvest and use of all salmon species during the study year 2016. Specifically the survey will document household demographics, harvest of salmon, and location of harvests. In addition a network module will be added to ask question about who residents share salmon within the community and these will be documented using a household survey list. From this a network can be created for community harvest. If the household shared outside the community the community name will be noted and the researchers will document the amount of harvest that is shared outside the community.

2. Key Respondent Interviews. Key respondent interviews will provide information on sharing networks within each of the study communities, the broader Bristol Bay – Chignik area, and the entirety of Alaska. Key respondent interviews will be open-ended and semi-structured and their foci will build on previous interviews conducted in these communities by Hutchinson-Scarborough and Krieg in Egegik for a comprehensive harvest assessment survey and by Hutchinson-Scarborough and Marchioni in Chignik Lake and Chignik Lagoon for an AKSSF funded salmon ethnography (Fall et al. 2013, Hutchinson-Scarborough and Marchioni in press). Key respondent interviews will follow an interview protocol developed to understand sharing networks and distribution of salmon to meet Objective 3.

Partnerships/Capacity Building: ADF&G and BBNA will share the responsibilities for conducting field investigations in this project, including identifying study communities, obtaining community

approvals, administering the survey, interviewing key respondents, and distributing follow-up materials in the study communities.

Tribal councils in study communities will be consulted about the project, and project approvals will be obtained prior to conducting fieldwork. Temporary field assistants will be hired by BBNA in each study community to assist with administration of the survey instrument and to help coordinate local logistical support and participation.

Number: 14-452
Title: Western Gulf of Alaska Salmon and Other Harvests on Federal Lands and Waters
Geographic Region: Southwest Region, Alaska Peninsula Area.
Data Type: Harvest Monitoring and Cultural Knowledge/Traditional Ecological Knowledge
Principal Investigator: Dr. Katherine Reedy Department of Anthropology

Project Cost:	2016: \$67,170	2017: \$108,048	2018: \$114,318	2019: \$58,638
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Total Cost: \$331,126

Issue: This proposal fully addresses the priority information need identified in the Southwest Alaska section of the 2016 Request for Proposals and in the Strategic Plan on the harvest of salmon for subsistence by residents of the communities of Cold Bay, King Cove, and Sand Point, including harvest methods by species and distribution practices. This project will address the harvest of salmon and all species in these three communities in the context of community needs, sport harvesting activity, economic impacts to harvesting, environmental and wildlife observations, and changing access to subsistence resources. This project also addresses the lack of information on subsistence and sport harvesting identified by the Kodiak Aleutians Regional Advisory Council and addresses all concerns and suggestions arising from RAC meetings in January 2014 and the TRC. Federal subsistence uses in these three communities is under-documented but they have been engaged in many natural resource issues for which current data would have assisted the decision-making process, making information of strategic importance. Basic subsistence harvest data from these communities are decades old or have never been collected (Cold Bay), and harvest numbers contextualized in the broader changing ecological, socioeconomic, and political environments are lacking. Current detailed information on all subsistence harvests is needed for management of fish and other species in federal public lands. This work will also analyze social networks underlying subsistence practices, and demonstrate the value of these models to the management of fish. Findings from this study will be linked to one previous and one nearly completed study involving the collection of similar data eight regional communities. These data will be presented and analyzed by species, season, community, characteristics of harvesters, permit authority, harvest methods, in layers of aggregation, and using social networks that will provide Federal subsistence fisheries management with analytical options and multiple scales of evaluation. The study will also collect information on changes to subsistence harvests so managers can better understand factors that have shaped current practices, for example lost or increased access, food security, regulations, predator issues, sport harvesting, and socioeconomic influences.

Objectives: The overarching research questions are, what is the current role of subsistence fisheries to Alaska Peninsula Area residents and to other users of the region? What is the social map of food harvesting and distribution, and how is it shaped by socioeconomic and political circumstances? How can this social map be useful to subsistence managers?

The objectives are:

- Estimate the harvest levels, methods, and locations of all subsistence and sport species in and around the study communities for calendar year 2016, especially salmon.
- Characterize sharing and distribution patterns of species and products between individuals, households, and communities.
- Use social networks of wild food exchange to model sustainability and resilience of households and communities.
- Determine changes in harvesting, access, and uses over time.
- Contextualize subsistence fisheries in the broader regional economy.
- Compare survey data with harvests reported in the State's permit system, communicate with the State to identify reporting issues, and make recommendations for improvements.
- Discover community subsistence concerns, observed changes in abundances and locations, predator issues, and observed environmental changes.
- Project environmental scenarios and demographic conditions to forecast potential strength and weaknesses of human communities.
- Provide Federal subsistence managers with a description and analysis of the social map of harvesting and demonstrate how models can support subsistence allocations and management.
- Link and compare harvests by communities to eight other Bering Sea communities, providing a regional quantitative and qualitative assessment.
- Contribute all data to the state databases.

Methods:

Connect with Alaska Peninsula communities and National Wildlife Refuges, give presentations on the goals and methods of the project, and create opportunities for local involvement.

Conduct key informant interviews to determine harvest access, methods, frequency and use, village socioeconomics, local politics, demographics, and cultural factors. Perform a literature review.

Conduct household surveys for the three study communities (100% of Cold Bay, 50% of King Cove and Sand Point) that capture harvest numbers of salmon, other marine fish, freshwater fish, land mammals, birds and eggs, and plant species for all household members; sharing and distribution of whole species and products between individuals; household economics; harvest locations; and species health/abundance observations. Participants shall be remunerated for their time and effort.

Integrate these data into a database from one recent and another ongoing study containing similar harvest and network data on eight other communities in the region.

Compare survey data with harvest numbers reported to the State to address data gaps.

Analyze survey field data, perform social network analysis, and use qualitative data to guide interpretation.

Prepare reports to the OSM and to the communities. Products: Annual reports that will include a review of previous literature and subsistence studies, the survey instrument, and ethnographic fieldwork on subsistence and sharing behaviors to obtain local perspectives that will aid in interpreting survey results; performance reports; a draft report and technical summary reviewed by the study communities a final report and technical summary which will contain survey and other household data, and thoroughly address all objectives. At least one peer-reviewed journal article and conference papers will also result. Project data will be publicly available on the CSIS.

Investigator Ability and Resources: Dr. Reedy will serve as PI and administrator. She has a Ph.D. in Social Anthropology from the University of Cambridge, has worked in ten Aleut communities for two decades, and is an Associate Professor of Anthropology at ISU. She will be responsible for human subjects approval, building community interest and involvement, interviews, survey development and implementation, supervising data entry, data analysis, and all report writing and delivery. Resources at ISU include an Ethnographic Laboratory managed by Dr. Reedy employing students who will enter data entry, transcribe interview, and perform GIS analysis. A research assistant and local participants will assist in surveying and mapping. ISU has a Financial Technician who manages grants and spending. Partnerships and Capacity Building: This project actively solicits local research assistants who will be trained in administering the surveys. Assistants and survey respondents will be compensated for their time and efforts. A protocol for facilitating community partnership will be established. The project also actively seeks analytical input from local communities and refugees in interpreting survey results.

Project Number: 16-453
Title: Subsistence Harvest Assessment and Biological Sampling of Chinook Salmon in the Togiak River Drainage
Geographic Region: Southwest Region
Date Type: Harvest monitoring and traditional ecological knowledge (HMTEK)
Principal Investigator: Sarah Hazell, Subsistence Resource Specialist III, Alaska Department of Fish and Game (Division of Subsistence)
Co-Investigators: Courtenay Carty, Director of Natural Resources, Bristol Bay Native Association (BBNA)

Project Cost:	2016: \$49,771	2017: \$107,384	2018: \$97,456	2019: \$44,887
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Total Cost: 299,498

Issue: This project responds to an information need identified in the “Priority Information Needs” document prepared by the USFWS Office of Subsistence Management after consultation with the Bristol Bay Regional Subsistence Advisory Council by conducting research that will contribute to “reliable estimates of Chinook salmon escapement into the Togiak River.” Additionally, this project proposes to collect subsistence harvest information, biological samples and information to assess Togiak River Chinook salmon stock composition and health, conduct participant observation in-season to better understand how subsistence users are reporting their harvests, and gather Traditional Ecological Knowledge (TEK) about potential causes for the decline in harvests of Chinook salmon by Togiak River subsistence users.

Togiak River Chinook salmon support the largest subsistence fishery with Federal nexus and jurisdiction in Bristol Bay. Since 1983, a permitting system documenting the subsistence harvests of Chinook salmon by Alaska residents has been administered by the ADF&G Division of Subsistence. In 2013, the estimated harvest of Chinook salmon by subsistence users of the Togiak River was 691 fish (Togiak and Twin Hills combined) which is the lowest documented harvest since 1997. In general, subsistence harvests of Togiak River Chinook salmon exhibit a downward trend beginning in 2009. Based on available data, it is difficult to determine causal factors (i.e. abundance, disease, competition) and it is not clear if this decline is linked to poor Chinook salmon returns that have affected other watersheds in the state. The stock does not currently have an escapement goal or an in-river monitoring program. To gain a better understanding of Chinook salmon population and health profile and identify factors that are affecting the subsistence harvest of Chinook salmon in the Togiak River watershed, this project proposes to conduct in-season participant observation, post-season harvest surveys, and stock composition and health assessments over a two year period.

Objectives:

1. Through participant observation in-season, learn how residents are recording and reporting their harvest of Chinook salmon.
2. Conduct interviews with local subsistence users to document their knowledge of Chinook salmon of the Togiak River and potential factors affecting the decline of reported subsistence harvests (e.g. Chinook salmon health, competition, trends, lack of reporting).
3. Collect age, sex, length (ASL) information to determine Chinook salmon stock composition.
4. Collection and analysis of Chinook salmon hearts to determine the prevalence of fish infected by Ichthyophonus in the fishery.

5. Conduct post-season harvest surveys to obtain amount and locations of household harvests to estimate the subsistence harvests (which contribute to total run estimates).
6. Compare harvest estimates with permit data and historical harvests to provide recommendations for a revised harvest monitoring program based on the study findings.

Methods: This research will employ three integrated social science data gathering methods and two biological methods to assess Chinook salmon composition, health, and subsistence harvests. These are: 1) participant observation, 2) key respondent interviews (TEK), 3) systematic households surveys, 4) ASL measurements, and 5) Ichthyophonus testing.

In June of both study years, ADF&G and BBNA staff will travel to the study communities when the Togiak River Chinook salmon run begins to conduct in-season participant observation and assist processing of Chinook salmon to document how subsistence users are recording their harvests (Objective 1 and 6). During this fieldwork, researchers will also conduct TEK interviews concerning local knowledge of the general health of Chinook salmon, in addition to questions about potential factors affecting subsistence harvests with knowledgeable subsistence harvesters (Objective 2). Furthermore, biological samples will also be collected at salmon harvesting and processing locations, specifically the collection of age, sex, length data and Ichthyophonus samples of Chinook salmon (Objectives 3 and 4). Subsistence harvest surveys will be administered post-season which will be compared with permit and historical harvest data to determine factors affecting the harvest and issues related to harvest reporting (Objective 5). Surveys will be conducted in January when community members are less involved in subsistence activities and more likely to be home.

Partnerships and Capacity Building: Tribal governments in the study communities have been and will continue to be consulted about the project and project approvals will be obtained prior to conducting fieldwork. The project will work with the tribal councils to identify potential LRA's who would be interested in developing their interview, communication, and observation skills. Researchers will work closely with selected LRA's to provide technical training and experience. The TCT has expressed interest in having ADF&G and BBNA staff work with the council and/or the local school to develop activities and presentations for students about subsistence issues/resources. These activities will be coordinated through the BBNA Partners for Fisheries Monitoring Program. Researchers will work with TCT over the study period to identify appropriate topics and activities to teach students, including for instance TEK, Chinook salmon biology, or resource management.

APPENDIX B

Table B.1. Fisheries Resource Monitoring Program projects funded in the Southwest Region from 2000 to 2014.

Project Number	Project Title	Investigators
<i>Bristol Bay Salmon</i>		
00-010	Togiak River Salmon Weir	USFWS
00-031	Alagnak River Sockeye Salmon Escapement	ADF&G, NPS, BBNA
00-033	Alagnak River Angler Effort Index	ADF&G, NPS, BBNA
00-042	Lake Clark Sockeye Salmon Assessment	USGS
01-047	Togiak River Subsistence Harvest Monitoring	BBNA, ADF&G, USFWS
01-075	Nondalton Sockeye Salmon and Freshwater Fish TEK	NPS, NTC, USGS
01-095	Lake Clark Sockeye Salmon Escapement	USGS, NTC
01-109	Traditional Ecological Knowledge of AkPeninsula/Becharolf NWR	ADF&G, BBNA
01-173	Alagnak River Harvest Salmon Assessment of Recreational Fishery	ADF&G
01-204	Ugashik Lakes Coho Salmon Escapement Estimation	USFWS
03-046	Fisheries Biotechnician Training Program	NPS
04-411	Lake Clark Sockeye Salmon Run Timing	USFWS, BBNA
04-454	Bristol Bay Sharing, Bartering, and Trade of Subsistence Resources	ADF&G, BBNA
05-402	Lake Clark Sockeye Salmon Escapement	NPS, USGS
08-402	Togiak River Chinook Salmon Radio Telemetry	USFWS, BBNA
08-405	Lake Clark Sockeye Salmon Assessment	NPS, USS&E, BBNA
10-402	Togiak River Chinook Salmon Adult Assessment	USFWS, BBNA, ADF&G,
<i>Chignik Salmon</i>		
02-098	Kametalook River Coho Salmon Escapement & Carrying Capacity	USFWS, BBNA
02-099	Clark River Estimation of Sockeye and Coho Salmon Escapement	USFWS, BBNA
03-043	Perryville Coho Salmon Escapement	USFWS
05-405	Perryville-Chignik Coho and Sockeye Salmon Aerial Surveys	USFWS
07-404	Perryville-Clark River Coho and Sockeye Salmon Aerial Surveys	USFWS
<i>Bristol Bay-Chignik Freshwater Species</i>		
00-011	Togiak River Dolly Varden Genetic Baseline Development	USFWS
00-012	Bristol Bay Traditional Knowledge of Fish	ADF&G
02-034	Kvichak River Resident Species Subsistence Fisheries Assessment	ADF&G, BBNA
04-401	Ungalikthlik and Negukthlik Rivers Rainbow Trout Assessment	USFWS

Continued on next page

Table B.1 continued

Project Number	Project Title	Investigators
<i>Bristol Bay-Chignik Freshwater Species</i>		
04-415	Tazimina Rainbow Trout Assessment	ADF&G
05-403	Lake Clark Whitefish Assessment	ADF&G
07-408	Togiak River Rainbow Smelt Assessment	USFWS, BBNA
07-452	Kvichak Watershed Subsistence Fishing Ethnography	ADF&G, BBNA, NPS
<i>Kodiak-Aleutians</i>		
00-032	Buskin River Sockeye Salmon Stock Assessment	ADF&G
01-059	McLees Lake Sockeye Salmon Escapement	USFWS
01-206	Mortenson Creek Sockeye and Coho Salmon Escapement	USFWS
02-032	Lower AK Peninsula/Aleutians Subsistence Fish Harvest Assessment	ADF&G, APIA, ISU
03-047	Afognak Lake Sockeye Smolt Enumeration Feasibility	ADF&G
04-402	Mortenson Creek Sockeye and Coho Escapement	USFWS
04-403	McLees Lake Sockeye Salmon Escapement	USFWS
04-412	Afognak Lake Sockeye Salmon Stock Assessment	ADF&G
04-414	Buskin River Sockeye Salmon Stock Assessment	ADF&G
04-457	Kodiak Subsistence Fisheries Harvest and TEK	ADF&G, KANA
07-401	Afognak Lake Sockeye Salmon Smolt Assessment	ADF&G
07-402	Buskin River Sockeye Salmon Weir	ADF&G
07-405	McLees Lake Sockeye Salmon Weir	USFWS, ADF&G, QT
10-401	Afognak Lake Sockeye Salmon Smolt and Adult Assessment ^a	ADF&G
10-403	Buskin River Sockeye Salmon Adult Assessment	ADF&G
10-404	Buskin River Sockeye Salmon Smolt Assessment Feasibility ^a	ADF&G
10-406	McLees Lake Sockeye Salmon Weir	USFWS, ADF&G, QT
12-453 ^a	Kodiak Salmon Fishery Changing Patterns	ADF&G
14-401 ^b	Buskin R Sockeye	ADF&G
14-402 ^b	Afognak L Sockeye	ADF&G

^a = Final Report in Preparation.

^b = On-going projects during 2016.

Abbreviations used for investigators are: **ADF&G** = Alaska Department of Fish and Game, **APIA** = Aleutian-Pribilof Islands Association, **BBNA** = Bristol Bay Native Association, **ISU** = Idaho State University, **KANA** = Kodiak Area Native Association, **NTC** = Nondalton Tribal Council, **NPS** = National Park Service, **QT** = Qawalangin Tribe, **USFWS** = U.S. Fish and Wildlife Service, **USGS** = U.S. Geological Survey, **USS&E** = US Science and Education, and **UW** = University of Washington.

ANNUAL REPORTS

Background

ANILCA established the Annual Reports as the way to bring regional subsistence uses and needs to the Secretaries' attention. The Secretaries delegated this responsibility to the Board. Section 805(c) deference includes matters brought forward in the Annual Report.

The Annual Report provides the Councils an opportunity to address the directors of each of the four Department of Interior agencies and the Department of Agriculture Forest Service in their capacity as members of the Federal Subsistence Board. The Board is required to discuss and reply to each issue in every Annual Report and to take action when within the Board's authority. In many cases, if the issue is outside of the Board's authority, the Board will provide information to the Council on how to contact personnel at the correct agency. As agency directors, the Board members have authority to implement most of the actions which would effect the changes recommended by the Councils, even those not covered in Section 805(c). The Councils are strongly encouraged to take advantage of this opportunity.

Report Content

Both Title VIII Section 805 and 50 CFR §100.11 (Subpart B of the regulations) describe what may be contained in an Annual Report from the councils to the Board. This description includes issues that are not generally addressed by the normal regulatory process:

- an identification of current and anticipated subsistence uses of fish and wildlife populations within the region;
- an evaluation of current and anticipated subsistence needs for fish and wildlife populations from the public lands within the region;
- a recommended strategy for the management of fish and wildlife populations within the region to accommodate such subsistence uses and needs related to the public lands; and
- recommendations concerning policies, standards, guidelines, and regulations to implement the strategy.

Please avoid filler or fluff language that does not specifically raise an issue of concern or information to the Board.

Report Clarity

In order for the Board to adequately respond to each Council's annual report, it is important for the annual report itself to state issues clearly.

- If addressing an existing Board policy, Councils should please state whether there is something unclear about the policy, if there is uncertainty about the reason for the policy, or if the Council needs information on how the policy is applied.
- Council members should discuss in detail at Council meetings the issues for the annual report and assist the Council Coordinator in understanding and stating the issues clearly.

- Council Coordinators and OSM staff should assist the Council members during the meeting in ensuring that the issue is stated clearly.

Thus, if the Councils can be clear about their issues of concern and ensure that the Council Coordinator is relaying them sufficiently, then the Board and OSM staff will endeavor to provide as concise and responsive of a reply as is possible.

Report Format

While no particular format is necessary for the Annual Reports, the report must clearly state the following for each item the Council wants the Board to address:

1. Numbering of the issues,
2. A description of each issue,
3. Whether the Council seeks Board action on the matter and, if so, what action the Council recommends, and
4. As much evidence or explanation as necessary to support the Council's request or statements relating to the item of interest.



United States Department of the Interior



U.S. Fish and Wildlife Service
Izembek National Wildlife Refuge
P.O. Box 127
Cold Bay, Alaska 99571

Izembek National Wildlife Refuge Report for the
Kodiak/Aleutians Federal Subsistence Regional Advisory Council
Fall Meeting – September 2015
(Compiled in July 2015)



INVENTORY AND MONITORING STUDIES

Caribou

Unit 9D (Southern Alaska Peninsula)

The 2014-2015 Federal Subsistence hunt closed on March 31, 2015 and resulted in only 1 out of 20 permits being filled. In total, 20 permits were allocated to five communities (4 permits each; Cold Bay, King Cove, Sand Point, False Pass, and Nelson Lagoon). The Federal hunt is a split season and will be open this year from August 10 to September 20, 2015 and November 15, 2015 to March 31, 2016.

Izembek staff conducted an aerial winter minimum population count of the Southern Alaska Peninsula Caribou Herd on Game Management Unit 9D on 7, 8, 9, 11, and 12 March 2015. Weather conditions were highly variable throughout the survey and ground cover conditions were mostly bare. In total, we observed 1,316 caribou.

Table 1. Summary of Southern Alaska Peninsula caribou herd winter minimum population counts and fall composition surveys (2004 to 2015) conducted by U.S. Fish and Wildlife Service and Alaska Department of Fish and Game.

Year	Winter minimum population count	Fall Bulls : 100 Cows	Fall Calves : 100 Cows	Fall composition sample size
2004-2005	1,872	36	7	966
2005-2006	1,651	30	6	1,040
2006-2007	770	16	1	713
2007-2008	NA	15	1	431
2008-2009	NA	10	39	570
2009-2010	NA	21	43	679
2010-2011	NA	28	47	532
2011-2012	1,061	40	20	920
2012-2013	NA	45	20	500
2013-2014	NA	50	40	600
2014-2015	1,316	45	45	884

“NA” indicates no data was collected.

“Year” covers the period October-April. USFWS winter minimum population counts are normally conducted December through April; ADF&G fall composition ratios are calculated from an October survey.

Unit 10 (Unimak Island)

Izembek staff conducted an aerial winter minimum population count of the caribou on Unimak Island on 24, 25, and 31 January 2015. In total, we observed 230 caribou on Unimak Island during this survey.

Table 2. Summary of Unimak Island caribou herd winter minimum population counts and fall composition surveys (2004 to 2015) conducted by U.S. Fish and Wildlife Service and Alaska Department of Fish and Game.

Year	Winter minimum population count	Fall Bulls : 100 Cows	Fall Calves : 100 Cows	Fall composition sample size
2004-2005	1,006	NA	NA	NA
2005-2006	1,009	45	7	730
2006-2007	806	NA	NA	NA
2007-2008	NA	31	6	433
2008-2009	NA	9	6	260
2009-2010	400	5	3	221
2010-2011	224	8	8	284
2011-2012	94	6	7	117
2012-2013	NA	9.5	3	83
2013-2014	NA	10	19	67
2014-2015	230	15	22	127

“NA” indicates no data was collected.

“Year” covers the period October-April. USFWS winter minimum population counts are normally conducted December through April; ADF&G fall composition ratios are calculated from an October survey.

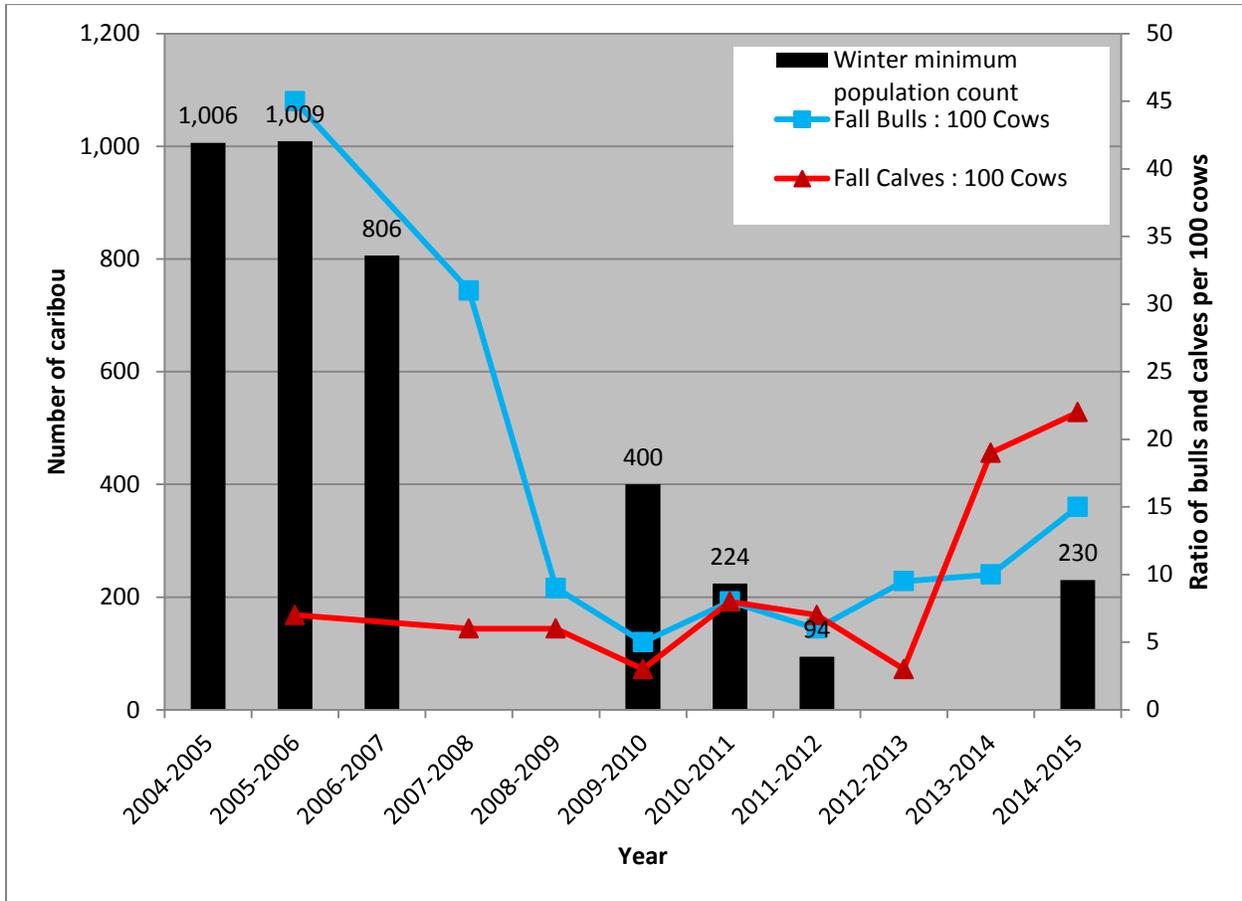


Figure 1. Population trends (winter minimum count, fall bull to cow ratio, and fall calf to cow ratio) for Unimak Island caribou from 2004-2015.

The Alaska Department of Fish and Game continued conducting a caribou calf mortality research project in June 2015. Radio collars were deployed on newborn calves to investigate cause specific mortality and estimate survival rates.

Brown bear

The index of brown bear population size and productivity is estimated annually in the fall from aerial surveys flown along salmon streams on Izembek Refuge and Unimak Island. The survey is planned to be conducted during the last two weeks in August 2015.

WATERFOWL

Pacific Brant

An index of productivity for the entire Pacific population of brant is generated from ground-based counts conducted in Izembek Lagoon and adjacent areas each fall when the birds are staging for migration. Brant productivity data have been collected at Izembek National Wildlife Refuge for 50 consecutive years. Brant production counts will be conducted this fall between 10 September and 5 November 2015 at observation points throughout Izembek Lagoon including: Grant's Point, Round Island/Outer Marker, Operl Island mud flats, and the areas between Neuman Island and Blaine Point. Counts will also be conducted in southwestern areas of Izembek Lagoon inside Norma Bay, from the south

shoreline of Norma Bay, and from the shoreline in the south central area of the lagoon between Norma Bay and Applegate Cove.

Origin of Juvenile Black Brant

This fall Izembek NWR will collaborate with USGS scientists for a second year to collect primary feathers from juvenile Pacific Black Brant that are harvested by hunters in Izembek Lagoon. The purpose of this research is to determine the breeding origin for juvenile brant that use Izembek Lagoon in the fall. Stable isotope techniques will be used to measure the amount of hydrogen in the feathers since this varies by geographic location. Current speculation is that a greater portion of the annual production of brant is coming from breeding areas in the Arctic rather than in western Alaska, where brant production has traditionally occurred.

A preliminary sample of primary feathers collected from juveniles during the post-breeding period on the Yukon Delta (YKD) and in Arctic Alaska were analyzed for hydrogen ($\delta^2\text{H}$) in 2014. The isotopic signatures of the feathers from these two locations were quite different, indicating that the stable isotope technique can be used to delineate geographic origin of the brant productivity. We also obtained a good initial sample of primary feathers from juvenile brant ($n = 104$) taken by sport hunters at Izembek Lagoon in fall 2014. Preliminary analyses of these samples using stable isotope techniques show isotopic signatures spread over a wide range of values, representing birds from YKD and Arctic breeding locations (Figure 2). The results are intriguing, though preliminary, and provide support for the notion that the source of brant productivity may be shifting to the Arctic. Figure 2 shows the isotopic signatures (Deuterium, $\delta^2\text{H}$, and Oxygen, $\delta^{18}\text{O}$) of primary feathers obtained from first year brant shot by sport hunters at Izembek Lagoon in fall 2014.

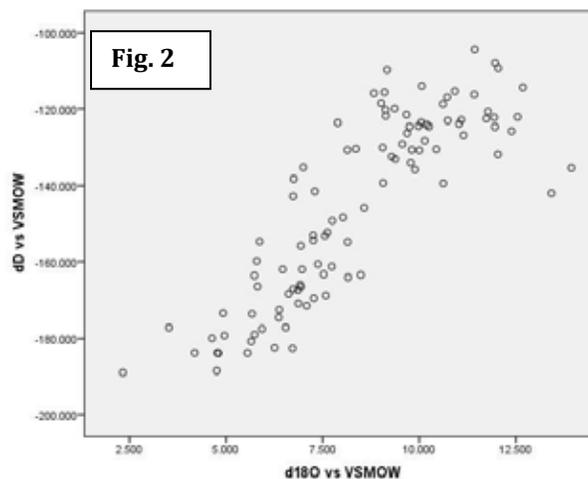


Figure 2. Preliminary analyses of 104 samples using stable isotope techniques show isotopic signatures spread over a wide range of values, representing birds from YKD and Arctic breeding locations.

Tundra Swan

The annual Tundra Swan survey was conducted on the Izembek and Pavlof Units from 6-9 May 2015. We observed a total of 812 swans and 95 nests in both units combined. In the Izembek Unit we observed a total of 120 swans and 21 nests. There were 24 single swans, 4 single swans with nests, 8 pairs, 17 pairs with nests, and 42 in flocks. The density of swans in the Izembek Unit, 0.29 swans/mi², was slightly higher than 2014 (0.21 swans/mi²; Figure 3) but below the long term average of 0.31 swans/mi² (\pm 0.03 SE, 1998-2009). The density of breeding pairs observed on the Izembek Unit, 0.10 swans/mi², was also slightly higher than 2014 (0.09 swans/mi²; Figure 3) and equal to the long term average of 0.10 swans/mi² (\pm 0.01 SE, 1998-2009).

In the Pavlof Unit, we observed a total of 692 swans and 74 nests. The total was composed of 75 single swans, 25 single swans with nests, 71 pairs, 49 pairs with nests, and 352 in flocks. There was one large flock of swans located on a lake that contained 242 swans. The density of swans in the Pavlof Unit, 0.98 swans/mi², was greater than 2014 (0.51 swans/mi²; Figure 4) and the long term average of 0.57 swans/mi² (\pm 0.03 SE, 1998-2009). The number of breeding pairs observed on the Pavlof Unit, 0.26 swans/mi², increased from 2014 (0.18 swans/mi²) and was higher than the long term average of 0.23 swans/mi² (\pm 0.01 SE, 1998-2009).

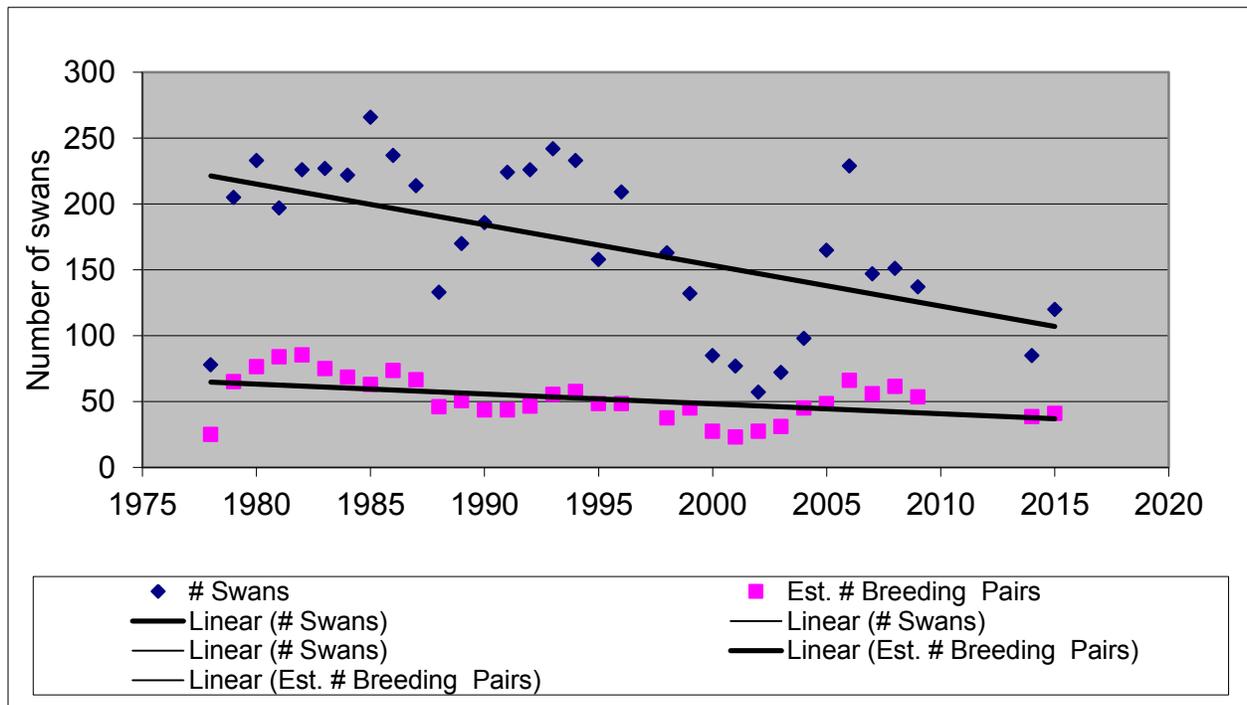


Figure 3. Annual Tundra swan aerial population survey trends (1978-2015) for the Izembek Unit on Izembek National Wildlife Refuge, Alaska.

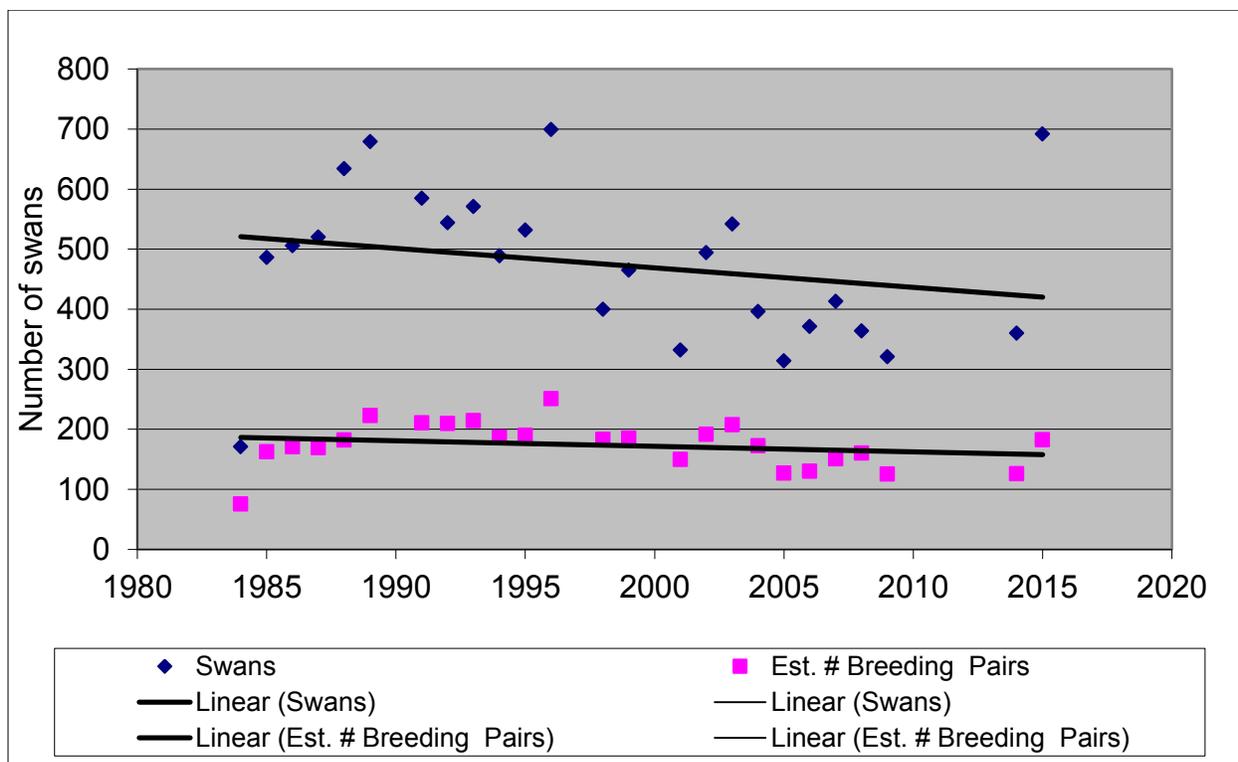


Figure 4. Annual Tundra swan aerial population survey trends (1984-2015) for the Pavlof Unit on Alaska Peninsula National Wildlife Refuge (managed by Izembek National Wildlife Refuge), Alaska.

Avian Influenza and Avian Blood Parasites

Izembek NWR will continue working in cooperation with the U.S. Geological Survey (USGS) to collect Avian Influenza and blood parasite samples from hunter-harvested waterfowl in September and October 2015.

As a result of the research conducted at Izembek Refuge, Andrew Ramey and his colleagues have published a research article in the scientific journal *Virology* (August 2015). The article is titled “Dispersal of H9N2 influenza A viruses between East Asia and North America by wild birds”. This article highlights some of the outcomes of their work, and the results provide evidence for intercontinental viral dispersal by migratory birds.

Eelgrass Monitoring

In collaboration with USGS scientists, we are continuing to conduct monitoring surveys on the eelgrass located in Izembek Lagoon. The Izembek Lagoon has one of the largest eelgrass beds in the world and is a critical habitat resource for many species. Bimonthly surveys are conducted from April through October at Grant’s Point in Izembek Lagoon to provide information on seasonal changes in eelgrass productivity and abundance, and information on trends relative to environmental factors such as sea level rise, water temperature, light levels, salinity, and turbidity. In addition, this information will be utilized to examine regional trends and develop a monitoring plan for eelgrass in four refuges within southwest Alaska.

The staff at Izembek Refuge are currently working with USGS partners and the USFWS Inventory and Monitoring program from the Regional Office to develop a more intensive monitoring program to observe and quantify the trends in health and productivity of the eelgrass habitat in Izembek Lagoon. This has involved developing a formal study protocol and refining the current survey methods. The comprehensive monitoring effort will incorporate a multi-scale design to assess health and distribution trends annually over the next 30 years. The bimonthly surveys at Grant's Point (Level 3) will be continued as 1 of 3 parts of the overall survey design. Level 2 of the survey consists of an extensive point sampling design that covers a grid pattern of 120 points across the lagoon where abundance and standing crop estimates are measured; this survey will be conducted annually. In July 2015, Level 2 of the survey was conducted. Level 1 of the survey will entail collecting and classifying satellite imagery every 5-10 years to document changes in the spatial extent of eelgrass across the lagoon. The three levels will be combined to assess overall health and changes in distribution of eelgrass throughout the lagoon over time.

Steller's sea lion population monitoring

During summer 2013 we initiated a population monitoring effort for the Steller's sea lions that utilize haul out areas on Unimak Island. The Steller's sea lion populations in Alaska are listed under a threatened status. In 2013 and 2014 we deployed a total of 9 cameras at 6 haul out sites (Figure 5). One photo is collected every hour during the day on each camera (Figure 6). The photos from 2014-2015 will be retrieved in late July 2015. The photos will be used to document important haul out areas, conduct minimum population counts annually, and determine timing of the use of haul out sites on Unimak Island.



Figure 5. Camera stand deployed with remote camera to photograph Steller sea lion haul-out at Oksenof Pt. on Unimak Island, Alaska.

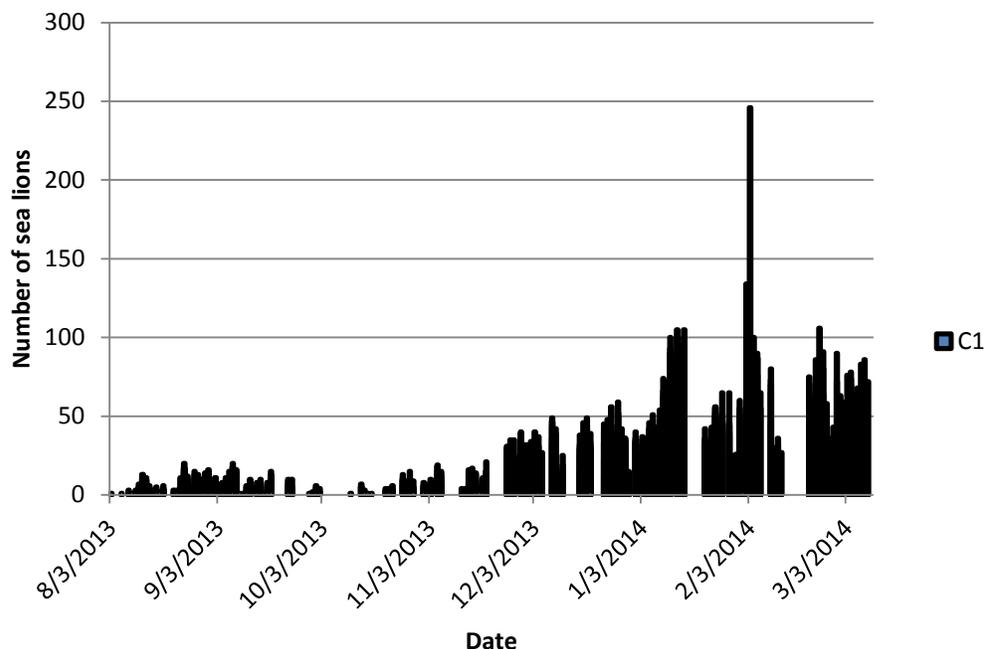


Figure 6. Number of Steller sea lions observed in photographs collected from a remote camera (C1) placed at a haul-out location on Cape Sarichef, Unimak Island, Alaska

Walrus Monitoring

In 2014, as many as 2,000 walrus were observed hauled out on Unimak Island during July to November. In July 2015, we deployed a remote camera near Uria Bay to monitor the continued presence of Pacific walrus on Unimak Island. Intermittent monitoring has shown this to be the only location the walrus are currently using for a haul out site on the island. The camera will capture a photograph once every hour from 0600h-2200h. We will periodically download the photos to count the number of walrus hauled out and to document the timing and frequency of use of the haul out site.



Walrus Mortality Event

From late May through July, there were a number of reported dead walrus observed on Amak Island, the barrier islands on Izembek Lagoon, and on Unimak Island. We estimate there may have been as many as 30 dead walrus in this area based on field observations, reports from other marine mammal taggers, and reports from fishing vessels. The cause of death is currently unknown. The carcasses observed were too decomposed to collect viable organ samples for analysis. We encourage people to contact the refuge office as soon as possible when these events occur to facilitate rapid collection of samples when possible.

Seabird Mortality Event

The first apparent die off occurred in early May and consisted mostly of Common murrelets and some gull species. The bird carcasses were observed on the inner shore of Izembek Lagoon and on the barrier islands of the lagoon (100-200 birds). They were too decomposed to obtain samples for analysis. In early July, more seabird carcasses were noticed as well as sick birds that were still alive. There were gulls, horned puffins, black legged kittiwakes, and a few other species that were reported and observed either dead or very sick. This occurred in Izembek Lagoon, near the Cold Bay dock, and in False Pass. We collected 5 birds and sent them to the USGS National Wildlife Health Center lab in Wisconsin for analysis. Cause of death was unknown at the time of submission of this report.

Water Temperature Monitoring

In August 2015, the water temperature sensor stations that were deployed in streams utilized by salmon last year will be visited to download data, exchange sensors, and collect additional discharge data. The data will be used to establish a baseline for the refuge, and will also be added to a statewide database that hosts a monitoring network for southwest Alaska.

EDUCATION AND OUTREACH ACTIVITIES

Christmas Bird Count and Trivia Night

By sunrise on December 18, 2014, the Cold Bay Christmas Bird Count was underway as several students and Izembek staff donned their binoculars and bird field guides and headed out on the refuge. Students from the Cold Bay School assisted Izembek Staff with conducting nearly eighty percent of the local count. The students had the opportunity to test out high powered optical equipment while observing many different bird species. They also learned the importance of keeping accurate records and detailed notes. Members of the community completed the remainder of the count and volunteered several hours of their day to make observations in critical areas around town. In total, 24,186 birds were counted during the survey and participants recorded 25 different species of birds. These results were compiled and submitted to an online database where the data are publically available (<http://birds.audubon.org/christmas-bird-count>).

After the count was completed, members of the community joined together for a potluck celebration followed by a trivia game night. There was an impressive turnout with almost

one third of the town participating in the evening activities. The trivia questions were all related to birds and their habitats on the refuge. The students and adults all displayed their impressive knowledge of the local bird species and waterfowl hunting regulations.



Refuge Open House

Refuge staff hosted the annual open house at the refuge office in April 2015. Local adults and youth participated in a scavenger hunt and tours of the hangar and refuge aircraft. All had the opportunity to explore biology displays throughout the office and were surprised by a visit from Puddles, the refuge mascot. We all gathered for a BBQ lunch to share stories about the refuge and catch up on new programs and accomplishments at the refuge.



Youth Conservation Corps (YCC) visit Izembek Refuge

In July 2015 the YCC crew from Alaska Maritime Refuge spent 10 days working at Izembek Refuge. The crew consisted of a leader, an assistant youth leader, and four members who were all from Alaska (Sand Point, Homer, Adak, and St. Paul). The YCC completed several maintenance projects on the refuge and had the opportunity to learn about programs and projects happening at Izembek NWR.

Ferry Tours

Refuge volunteers and staff continued to provide refuge tours to passengers arriving in Cold Bay every two weeks between May and September on the Tustumena ferry via the

Alaska Marine Highway System. Up to 24 visitors can be accommodated on each tour. The tours are popular and provide a great outreach opportunity for the Refuge and local community. Tour destinations include the Refuge office and Grant's Point overlook. Stops are made along the route when wildlife (bears, birds, caribou, etc.) are visible to provide wildlife observation and photography opportunities. The tours are supported by local volunteers that serve as tour guides on the bus and provide local stories and facts about the refuge and Cold Bay. For many ferry passengers, this tour is the highlight of their trip.

Waterfowl Decoys

This spring students from the Cold Bay School attended a series of workshops hosted by the staff at Izembek Refuge to design and carve their very own waterfowl decoys. Students were initially provided with a block of wood that was roughly shaped to emulate a specific waterfowl species such as a green-winged teal, northern pintail, or goldeneye. The students learned about wood carving techniques, safety, waterfowl anatomy, feather structure, artistic painting, and wildlife observation. After watching videos and demonstrations, students started to practice carving techniques on scrap wood. These early practice sessions allowed them to learn the advantages of each carving tool and develop confidence with their techniques. The students quickly progressed to shaping and carving their own decoys using a variety of tools and sandpaper. Small details such as feathers and nostrils were carefully carved out by the enthusiastic and dedicated students. In the final phases, decoys were enhanced with glass eyes and several coats of paint to achieve a life like appearance. The hard work and many hours of careful attention to detail resulted in impressive artwork and an incredible learning experience for all involved in the project.



Refuge Website

For further information on some of the programs and studies that are conducted on the refuge, please refer to our website. The refuge maintains a website at the following location: <http://www.fws.gov/refuge/izembek/>. We often post articles about recent activities and results of surveys on the site.

AERIAL SURVEY OF EMPEROR GEESE AND OTHER WATERBIRDS
IN SOUTHWESTERN ALASKA, SPRING 2015

By

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and
Heather M. Wilson

Key Words: Aerial survey, emperor geese, waterbirds, southwest Alaska.

July 2015

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AERIAL SURVEY OF EMPEROR GEESE AND OTHER WATERBIRDS IN
SOUTHWESTERN ALASKA, SPRING 2015

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Abstract: We conducted the 33rd annual spring aerial emperor goose survey during 25–28 April 2015. This survey has been completed every year since 1981, except 2013. The survey includes coastline and estuarine habitats from the mouth of the Kuskokwim River to Wide Bay, including the north and south sides of the Alaska Peninsula. We counted a total of 98,155 emperor geese, which was 22.9% above the 2014 count of 79,883 geese, and 48.8% above the long-term average (65,923 geese, 1981–2014). The recent 3-year average (2012, 2014, and 2015) count was 81,875 geese (10.8% above the previous 3-year average of 73,879 geese). The recent 3-year average count is the highest on record since 1984 and is above the threshold for consideration of an open hunting season on emperor geese, as specified in the Yukon Delta Goose Management Plan and the Pacific Flyway Council Management Plan for Emperor Geese. Pacific brant and Steller's eider counts were 74,015 and 59,713, respectively.

INTRODUCTION

The distribution, abundance, and population trends of emperor geese and other waterbirds have been monitored since 1981 in spring at migratory staging areas throughout southwestern Alaska. The survey area includes the coastline and estuarine habitats from Kuskokwim Bay south and west along the north side of the Alaska Peninsula to Bechevin Bay, as well as the south side of the Alaska Peninsula east to Wide Bay. The survey focuses on a series of primary emperor goose use areas. A 3-year moving average of annual emperor geese counts is used as the population index for management purposes (Pacific Flyway Council Emperor Goose Management Plan 2006). The survey also provides data to calculate long-term population trends and variation in seasonal migratory phenology, distribution, and habitat use for emperor geese and associated species.

METHODS

We conducted the 2015 survey from 25–28 April within core use areas divided among 143 shoreline or estuarine segments (Mallek and Dau 2000; Figs. 1 and 2). We used electronic map displays along with 1:500,000 aeronautical and 1:63,360 topographical maps for navigation. We recorded habitat and survey conditions during the survey including wind, temperature, sky condition, visibility, sea and fresh-water ice conditions and tide stage.

We used an amphibious Cessna 206 (N9623R) as the survey platform. The aircraft was flown at a ground speed of approximately 175 km/hr (95 kts) and an altitude of 45 m (150 feet) above sea

level. Survey timing was determined based on reported and observed phenological indices of ice conditions and migration. Survey timing is intended to precede the arrival of emperor geese on the Yukon-Kuskokwim Delta and follows goose departures from the eastern Aleutian Islands and Kodiak Island (R. MacIntosh, S. Golodoff, S. Berns, B. Pyle, R. Corcoran and T. Lee, personal communications). We began the 2015 survey on 25 April at the mouth of the Kuskokwim River (Segment 12) and completed the survey on 28 April, ending at Segment 137 along the South side of the Alaska Peninsula. Daily itineraries and associated survey area conditions are presented below. We used laptop computers to receive input from the aircraft Global Positioning System (GPS), which saved coordinates for each input of voice recorded observations. Record and transcribe programs were used to process data (J. Hodges, USFWS R7 MBM).

SURVEY CONDITIONS

Climatic and habitat conditions (ice and snow on the landscape) were mild during the 2015. Ice break-up was very early in 2015 (Table 1). In southwest Alaska, sea and estuarine ice was absent and snow cover was light, only the largest lakes in northern Bristol and Kuskokwim bays (Segments 11–22) had remnant ice. Snow cover was absent below 300 feet above mean sea level from the Kuskokwim south to Nanvak Bay (Segment 22) and absent at ground level elsewhere in the survey area.

Survey Day 1 (April 25, Segments 12-36, Southwest Alaska and Bristol Bay, Mouth of Kuskokwim River to Egegik Bay): The Kuskokwim River was ice covered with melt water on top of the ice. There was no sea ice or estuarine ice in these segments and larger lakes near Cape Pierce had ≤ 40 percent ice cover. Larger lakes near Egegik Bay were ice free, as were smaller lakes between Bethel and Egegik Bay. Estuarine tides were low. Survey conditions were good except for moderate sun glare seaward of Segments 32 and 33. Winds were easterly at 5–15 knots and ceilings were scattered to overcast at 2,000–3,500 feet. Air temperatures were 35–50° F.

Survey Day 2 (April 26, Segments 35, 37-39, North side of the Alaska Peninsula, King Salmon to Cold Bay): Survey conditions were fair, but significant glare was encountered in Ugashik Bay, Herendeen Bay and the Nelson Lagoon complex. Winds were northerly at 15–20 knots turning northwesterly from Nelson Lagoon south. Mostly clear skies persisted until Cape Seniavin (Segment 49) and were 400–600 feet overcast from there south to Cold Bay. Estuarine tides were high throughout the survey. Air temperatures increased from 40 to 45°F during the day.

Survey Day 3 (April 27, Segments 60-68, 80-81, and 84–85, Izembek Lagoon Complex, including Bechevin and Morzhovoi Bays): Survey conditions were good with low tides along the Bering Sea side of the Alaska Peninsula and mid-high tides along the Pacific side. Ceiling was 2,000 feet scattered to overcast with calm to variable wind < 5 knots. Air temperature was near 40°F.

Survey Day 4 (April 28, Segments 86-137, South side of the Alaska Peninsula, Cold Bay to Wide Bay): Survey conditions were initially characterized by ceilings of 1,000 feet overcast with light rain and visibility of 5 miles. Precipitation stopped near Canoe Bay (Segment 93) and winds increased to 10–15 knots southeast to Aniakchak Bay (Segment 128). Winds became 15–

20 knots southeast eastward to Wide Bay (Segment 137). Air temperatures increased from 40 to 50°F during the day.

RESULTS

Historical emperor goose totals and details of annual surveys are provided in Table 2. Counts for all species by survey segment are provided in Appendix A.

Emperor Goose

The 2015 spring emperor goose count was 98,155; 22.9% above the 2014 count of 79,883 geese (Table 2) and 48.8% above the long-term average (1981–2014) of 65,923 geese. The recent 3-yr (2012, 2014, 2015, no data are available for 2013) average of emperor geese is 81,875, 10.8% above the previous 3-year (2011, 2012, 2014) average count of 73,879 geese (;Table 3).

Emperor geese were most concentrated at staging sites on the north side of the Alaska Peninsula (Segments 26-65) from Egegik Bay to Izembek Lagoon (94.2% of birds observed in 2015), versus the long-term (1981–2014) average of 89.8%. The largest aggregations of emperor geese were observed from Ugashik Bay to Port Moller-Nelson Lagoon (Segments 38–57). Fewer emperor geese were counted in 2015 compared to the long-term (1981–2014) average north of the Alaska Peninsula (545 versus the average of 3,629) and west of Izembek Lagoon (0 versus the average of 459), but more than average were observed along the south side of the Alaska Peninsula. In 2015, a total of 5,254 geese (5.4% of the total) were observed along the south side of the Alaska Peninsula (Segments 88–137) versus the historical (1981–2014) average of 3,306 (4.1% of the total).

Elevated numbers of emperor geese along the south side of the Alaska Peninsula in 2015 may have been the result of a slightly delayed migration relative to other years. However, overall observations of departures of emperor geese from Unalaska and Kodiak Island suggested that most geese were likely in the survey area during the survey. Observers at Unalaska, in the eastern Aleutian Islands, reported that most emperor geese departed over a week early in 2015 (1 April) with a flock of ten remaining until about 8 April (S. Golodoff, personal communication). At Womens Bay on Kodiak Island, half the wintering population of about 655 departed on 24 April (R. MacIntosh and S. Berns, personal communications) and all were gone before 27 April (T. Lee, Kodiak NWR, personal communication).

Pacific Brant

We observed a total of 74,015 brant during the 2015 survey (Appendix A), which is 3.8% above the long-term (1981–2014) average (mean = 71,275 brant). We counted 53,408 brant (72.2% of the 2015 brant total) in Izembek Lagoon and adjacent areas (Segments 60–68, 80–85). The long-term (1981–2014) average brant count in Izembek Lagoon and adjacent areas was 78.1% of the total (mean = 54,112 brant, Segments 60–68, 80–85). Also, we observed 15,635 brant in Chagvan and Nanvak bays (Segments 20, 22) which was 23.4% above the long-term average of 12,667 brant for those segments.

Steller's Eider

We counted 59,713 Steller's eiders during the 2015 survey (Appendix A). The 2015 count was 23.7% above the long-term average (1981–2014) of 48,283. A total of 6,227 Steller's eiders were counted from Kuskokwim Bay south to Cape Pierce (Segments 12–22). As in previous years, most Steller's eiders (53,428 birds, 89.5%) were observed from Port Heiden to Izembek Lagoon (Segments 44–68, 80–85). Steller's eider flock composition, recorded by the right seat observer, showed that all 74 flock (i.e., ≥ 5 birds) observations were of equal apparent sex ratios (i.e., adult males versus brown-plumaged birds).

DISCUSSION AND MANAGEMENT IMPLICATIONS

The spring emperor goose population indices (annual and 3-year averages) have remained essentially flat since surveys began in 1981 (<1% growth rate; Figure 3, Table 2), but more recent surveys (2007–2015) indicate an increasing population growth rate. The recent 3-year average count is the highest reported since 1984 and is above the threshold (80,000) for consideration of an open hunting season on emperor geese, as specified in the Yukon Delta Goose Management Plan and the Pacific Flyway Council's Management Plan for Emperor Geese (Pacific Flyway Council 2006).

While the population appears to be recovering, reasons for the historically slow growth of emperor geese are still not fully understood. However, additional mortality associated with increased harvest (especially if additive), could undermine population gains that may have led to recovery. Better harvest data and continued long-term aerial surveys will be required to quantify the effects of harvest on the population.

We believe careful consideration of harvest management is required for emperor geese, including a greater commitment to comprehensive harvest surveys in Alaska (and Russia) and expanded logistical and analytical support for such surveys. In addition to measuring take, harvest surveys should provide data to assess temporal and spatial distribution, and age composition within the harvest. A better understanding of additive losses from harvest is critical (Wolfe and Paige 2002, Naves 2015). Finally, we suggest that increased compliance with regulations should also be sought, through improved outreach, co-management, and cooperative enforcement.

The findings and conclusions in this article are those of the author(s) and do not necessarily represent the views of the U.S. Fish and Wildlife Service.

ACKNOWLEDGMENTS

On 24 April 2015, the U. S. Fish and Wildlife Service, Migratory Bird Management Program, sent out a request for emperor geese observations to select rural residents located within and outside the spring staging survey area (E. Taylor, personal communications). Observations of emperor geese at Kodiak Island were provided by Richard MacIntosh, Shirley Berns, Bill Pyle, Pat Holmes, Robin Corcoran and Tonya Lee, and at Unalaska by Suzi Golodoff. We appreciate

the continued lodging and vehicle support provided by Yukon Delta, Alaska Peninsula/Becharof and Izembek NWRs. We also thank Alaska Peninsula/Becharof NWR for logistical assistance with fuel to Port Heiden. Bob Platte (MBM-R7) prepared Figures 1 and 2.

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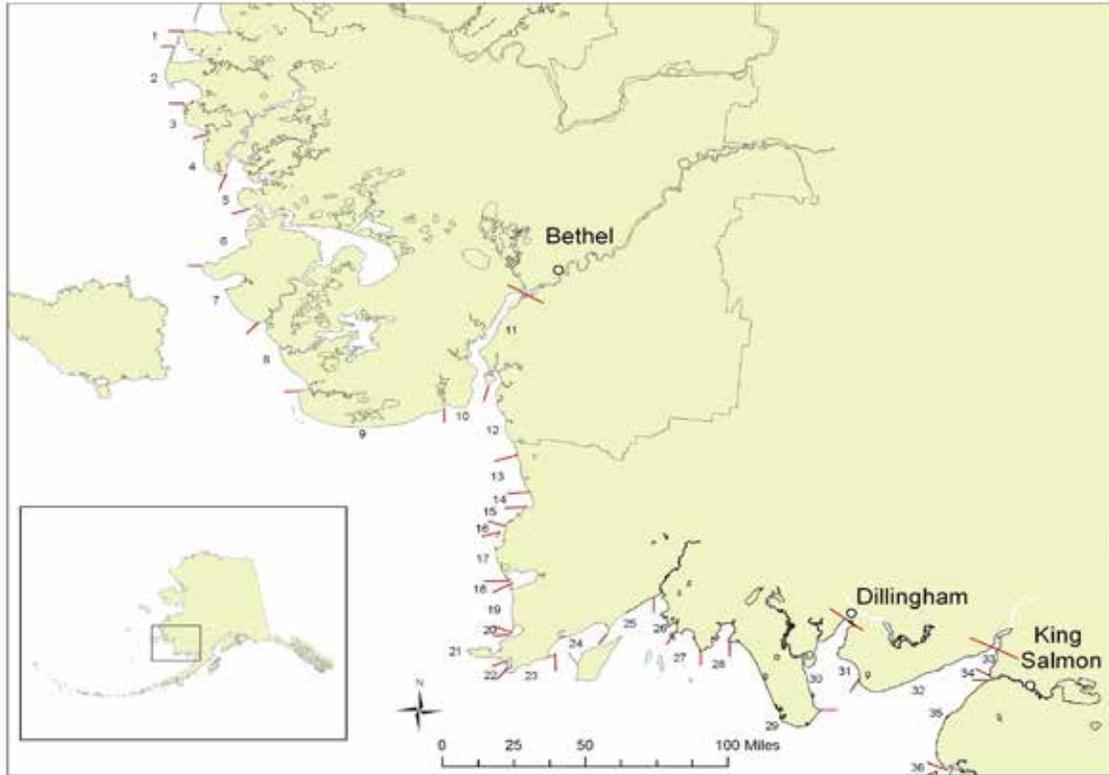


Figure 1. Emperor goose aerial survey segments 1–35, southwest Alaska.

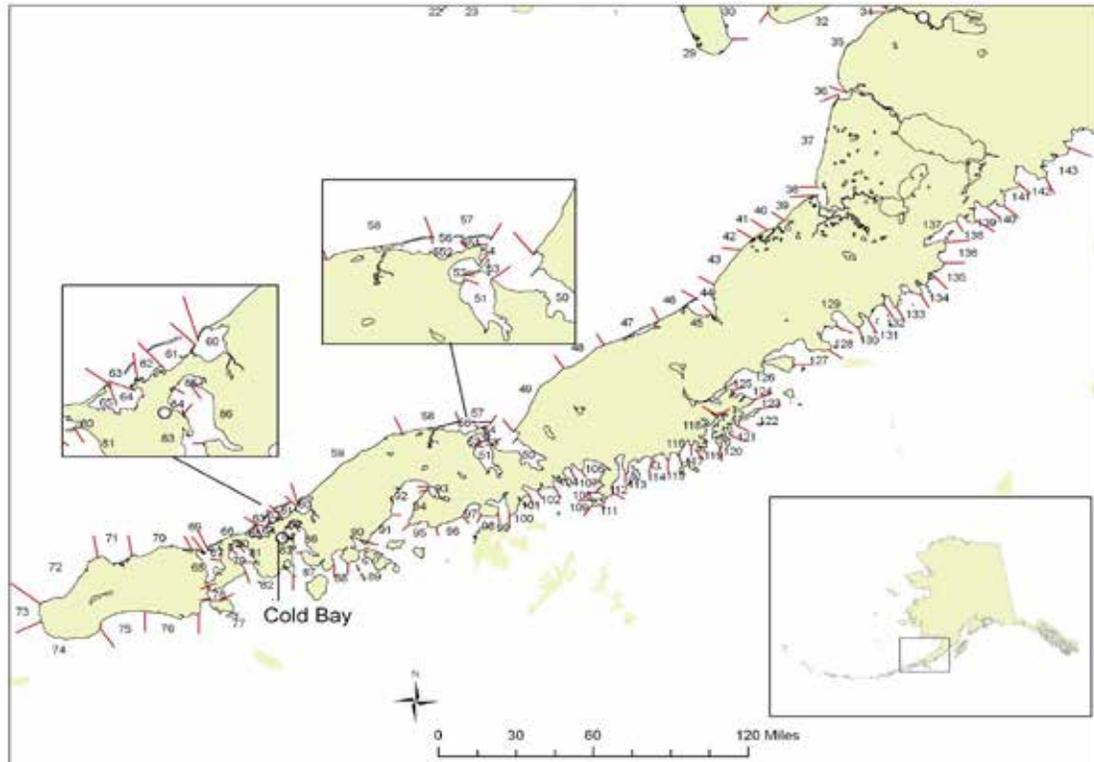


Figure 2. Emperor goose aerial survey segments 35–143, southwest Alaska.

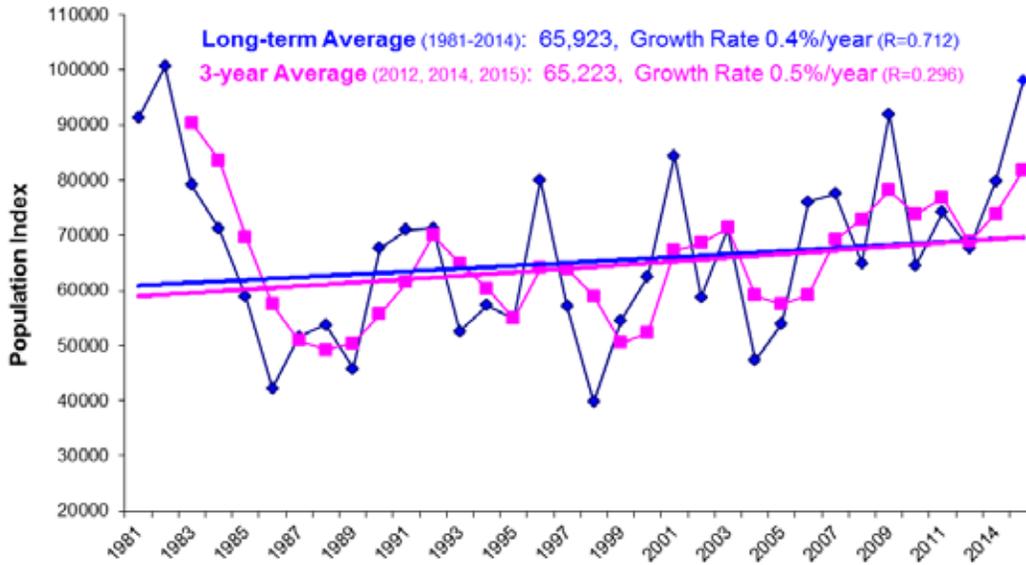


Figure 3. Spring emperor goose annual and 3-year average population indices, 1981-2015. No survey was conducted in 2013. Blue indicates data and trend for annual population counts. Pink indicates data and trend for 3-year averages.

Table 1. Snow and ice conditions during spring emperor goose survey in southwest Alaska, 25–28 April 2015. Overall relative phenology was very early based on ice and snow cover.

Area	Snow Cover¹	Marine Ice Cover²
Kokechik Bay	Not Surveyed	Not Surveyed
Hooper Bay	Not Surveyed	Not Surveyed
Hazen Bay	Not Surveyed	Not Surveyed
Carter Bay	Trace <300' AGL	0
Goodnews Bay	Trace <300' AGL	0
Chagvan Bay	Trace <300' AGL	0
Nanvak Bay	Trace <300' AGL	0

¹ Percent snow cover on near-shore freshwater marshes. NS = not surveyed.

² Percent of marine ice cover in estuary.

Table 2. Spring emperor goose survey results, southwest Alaska, 1981- 2015.

Year	Total	% Change Total	3-yr ave.	% Change 3-yr ave.	Dates	Observers	Survey Area
1981	91267				4/23-4/27	R.King/R.Gill/J.Sarvis/ C.Dau	Y-K Delta to Wide Bay
1982	100643	0.093			5/2-5/4	R.King/C.Dau/M.Reardon/ B. Reiswig	Kuskokwim Bay to Wide Bay
1983	79155	-0.271	90355		4/25-4/29	R.King/C.Dau/V.Berns/ J.Solberg	Kuskokwim Bay to Wide Bay
1984	71217	-0.111	83672	-0.074	4/26-5/4	R.King/C.Dau/V.Berns/ R.Arment	Kuskokwim Bay to Cape Douglas
1985	58833	-0.210	69735	-0.167	5/12-5/16	R.King/C.Dau	Kuskokwim Bay to Cape Chiniak
1986	42231	-0.393	57427	-0.176	5/4-5/7	"	Nelson Island to Cape Atushagvik
1987	51633	0.182	50899	-0.114	4/30-5/4	"	Hooper Bay to Puale Bay
1988	53784	0.040	49216	-0.033	5/2-5/6	"	Hooper Bay to Cape Chiniak
1989	45800	-0.174	50406	0.024	5/3-5/6	"	Hooper Bay to Portage Bay
1990	67581	0.322	55722	0.105	4/28-5/4	"	Hooper Bay to Portage Bay
1991	70972	0.048	61451	0.103	5/2-5/7	"	Hooper Bay to Puale Bay
1992	71319	0.005	69957	0.138	4/30-5/5	"	Hooper Bay to Cape Kubugakli
1993	52546	-0.357	64946	-0.072	4/30-5/5	"	Hooper Bay to Wide Bay
1994	57267	0.082	60377	-0.070	4/29, 5/2-6	"	Hooper Bay to Wide Bay
1995	54852	-0.044	54888	-0.091	5/3-5/6	"	Hooper Bay to Chignik Lagoon
1996	80034	0.315	64051	0.167	4/27-4/30	"	Hooper Bay to Puale Bay
1997	57059	-0.403	63982	-0.001	4/25-4/28	"	Hooper Bay to Wide Bay
1998	39749	-0.435	58947	-0.079	5/4-5/7	"	Hooper Bay to Wide Bay
1999	54600	0.272	50469	-0.144	4/27-5/1	"	Hooper Bay to Wide Bay
2000	62565	0.127	52305	0.036	4/28-5/3	E.Mallek/C.Dau	Hooper Bay to Chignik Lagoon
2001	84396	0.259	67187	0.285	4/29-5/4	"	Hooper Bay to Puale Bay
2002	58743	-0.437	68568	0.021	5/3-5/6	"	Kuskokwim Bay to Wide Bay
2003	71160	0.174	71433	0.042	4/29-5/3	"	Hooper Bay to Wide Bay
2004	47352	-0.503	59085	-0.173	4/30-5/3	"	Hooper Bay to Wide Bay
2005	53965	0.123	57492	-0.027	4/20-4/23	"	Kuskokwim Bay to Wide Bay
2006	76108	0.291	59142	0.029	4/27-5/2	"	Kuskokwim Bay to Wide Bay
2007	77541	0.018	69205	0.170	4/24-4/29	"	Kuskokwim Bay to Kuiukta Bay
2008	64944	-0.194	72864	0.053	4/29-4/30	"	Naknek to Bechevin Bay
2009	91948	0.294	78144	0.072	5/1-5/3	"	Kuskokwim Bay to Wide Bay
2010	64562	-0.424	73818	-0.055	4/27,5/1-5/2	"	Kuskokwim Bay to Canoe Bay
2011	74166	0.129	76892	0.042	4/27, 4/29-5/1	"	Kuskokwim Bay to Canoe Bay
2012	67588	-0.097	68772	-0.106	4/25-4/27	"	Kuskokwim Bay to Wide Bay
2013						No Survey	
2014	79883	0.182	73879	0.074	4/23-25,4/29	H.Wilson/C.Dau	Kuskokwim Bay to Wide Bay
2015	98155	0.186	81875	0.098	4/25-4/28	"	Kuskokwim Bay to Wide Bay

Appendix A. Waterbird and mammal observations by segment, southwest Alaska, 25–28 April 2015.

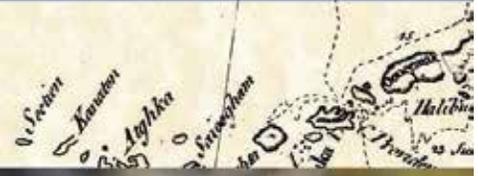
Species	Segments																																				
	12	13	14	15	16	17	18	19	20	22	23	24	25	26	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47			
American Wigeon																																					
Bald Eagle (Ad)																																					
Bald Eagle (Juv)																																					
Beluga																																					
Black Brant																																					
B-1 Kittiwake																																					
Black Oystercatcher																																					
Black Scoter																																					
Brown Bear																																					
Bufflehead																																					
Canada Goose																																					
Caribou																																					
Common Eider																																					
Common Loon																																					
Common Merganser																																					
Common Murre																																					
Common Raven																																					
Common Noddy																																					
Double-crested cormorant																																					
Emperor Goose																																					
Gadwall																																					
Goldeneye																																					
Greater Scaup																																					
Gray Whale																																					
Harlequin Duck																																					
Harbor Seal																																					
King Eider																																					
Large Gull																																					
Large Shorebird																																					
Long-tailed Duck																																					
Mallard																																					
Mew Gull																																					
Northem Pintail																																					
Parasitic Jaeger																																					
Pacific Loon																																					
Pelagic Cormorant																																					
Pigeon Guillemot																																					
Red-breasted Merganser																																					
Red-necked Grebe																																					
Red-throated Loon																																					
Sandhill Crane																																					
Sibine's Gull																																					
Sea Otter																																					
Small Shorebird																																					
Stellar's Eider																																					
Stellar's Sea Lion																																					
Surf Scoter																																					
Tundra Swan																																					
Walrus																																					
Greater white-fronted goose																																					
Wolf																																					
White-winged Scoter																																					

Appendix A. Waterbird and mammal observations by segment, southwest Alaska, 25–28 April 2015, continued.

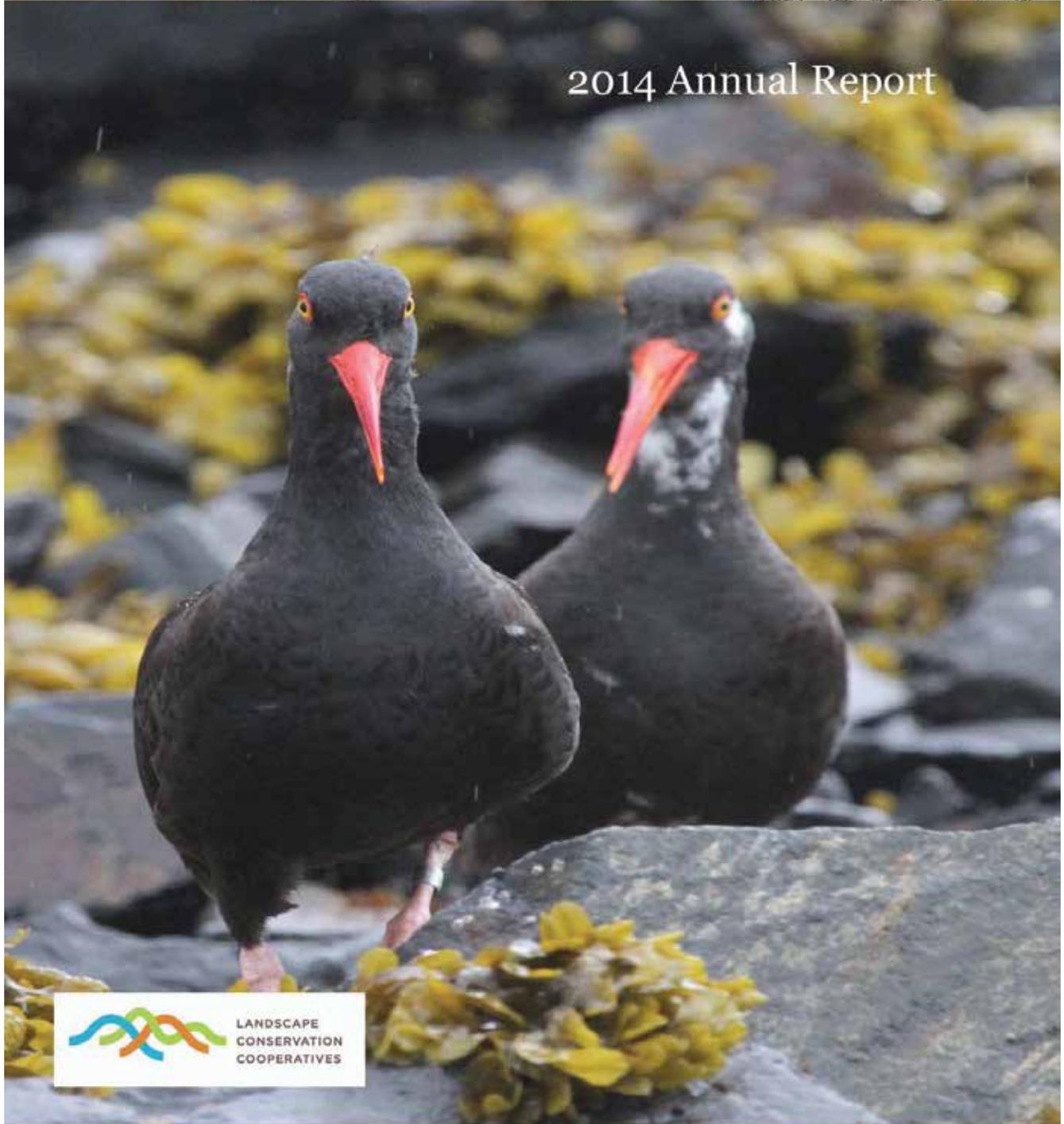
Species	Segments																																				
	99	100	101	102	103	104	105	106	107	112	113	114	115	116	117	118	119	125	126	127	128	129	130	131	132	133	134	135	136	137	551	552					
American Wigeon																																					
Bald Eagle (Ad)	2	2	1	1			2	2	2	1	1	1	2	2	1	8		3	2	5	2	3	6														
Bald Eagle (Juv)							3	3	1	1		1			3							2															
Belted Kingfisher																																					
Black Brant	65	25	15	8				50		4			50				1197		25	23						3	50		750		50						
Black Kittiwake							2																														
Black Oystercatcher							1						2									4	12			6	1	1									
Black Scoter							30	20	140	35			10	8	10	43	194	122	15	45	35									8	51	30					
Brown Bear																1																					
Bufflehead																																					
Canada Goose																																					
Caribou																																					
Common Eider																																				8	
Common Loon	2	1				2	1			4	2		1				1	1	1		2	6															
Common Merganser																																					
Common Murre										6			4	3	6																						
Common Raven																																					
Common Merganser																																					
Double-crested cormorant																																					
Emperor Goose																																					
Gadwall																																					
Goldeneye										14																											
Greater Scaup										40																											
Gray Whale																																					
Harlequin Duck	20	30	20				14	2	1	85	20		4																								
Hair Seal										10																											
King Eider																																					
Large Gull	17						3	3	3	5	113	274	12	4	22	8	9	5	1597	42	521	76	463	24	16	5	137	269	60	183	572	74	6883				
Large Shorebird																																					
Long-tailed Duck																																					
Mallard																																					
Mew Gull	366	1					3	2	2				4	7																							
Northern Pintail										57	110		10	17	1056	2	546	72	1052	8	236	44	21	46	5	212	208	5	16	5	320	400	200				
Parasitic Jaeger										80	1																										
Pacific Loon																																					
Pelagic Cormorant																																					
Pigeon Guillemot	11	2	4	29			3	1	1	12	2	1	29	7	4	2																					
Red-breasted Merganser																																					
Red-necked Grebe	2	10								16	251	9																									
Red-throated Loon																																					
Sandhill Crane																																					
Sibine's Gull																																					
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Steller's Scallop																																				20	
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Tundra Swan																																					
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Greater white-fronted goose																																					
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Introduction

The Aleutian and Bering Sea Islands Landscape Conservation Cooperative (ABSI; Figure 1) made great strides in 2014. During the past year, we finalized the development of a [Science and Operations Plan](#) that will guide our activities over the next two years. The plan provides greater focus than our five-year [Strategic Science Plan](#) that identified six landscape-scale stressors of concern in the ABSI region. In 2014 we funded two new projects that address invasive and introduced species, and contaminants and pollutants. In addition to directly funding projects ourselves, ABSI was successful at directing over \$300K of other money to address our high-priority resource categories and ecosystem services.

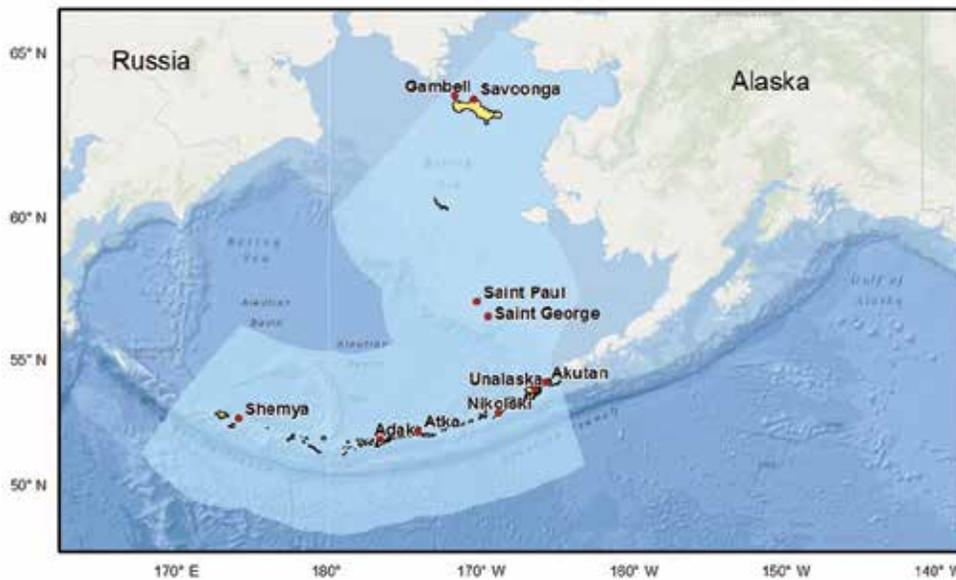


Figure 1. Geographic scope of the Aleutian and Bering Sea Islands Landscape Conservation Cooperative.

Governance

The ABSI Steering Committee met in person and/or by teleconference five times in 2014. In March 2014 the position of Steering Committee Chair passed from Joel Garlich-Miller (U.S. Fish and Wildlife Service) to Vice Chair Karen Pletnikoff (Aleutian Pribilof Islands Association). At that time, the committee also elected Carol Fairfield (Bureau of Ocean Energy Management) as their new Vice Chair.

The committee underwent substantial transformation this year. Our first two Chairs, Tony DeGange (U.S. Geological Survey) and Joel Garlich-Miller (U.S. Fish and Wildlife Service)

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stepped down from the committee and were replaced by Karen Oakley (USGS) and Robb Kaler (USFWS), respectively (Table 1). Other new members to the committee include Steven Davis and Shannon Fitzgerald (NOAA), Tom Rothe (Pacific Coast Joint Venture), and Durelle Smith (U.S. Geological Survey). In December the last remaining member of the original ABSI Steering Committee, Heather Renner, stepped aside and was replaced by Jeff Williams, Aleutian Unit Biologist for the Alaska Maritime National Wildlife Refuge. In addition to our existing partner organizations, the National Park Service has expressed an interest in joining the ABSI Steering Committee as well and is in the process of identifying a candidate to serve in that capacity.

Table 1. The 2014 members of the ABSI LCC Steering Committee. Names in *italic* font were members of the Steering Committee at the start of the year; names in **bold** font were members at the close of 2014.

Name	Affiliation	Department
Steven Davis	NOAA	Alaska Regional Office
<i>Tony DeGange</i>	USGS	Alaska Science Center
Carol Fairfield	BOEM	Environmental Sciences Management
Shannon Fitzgerald	NOAA	Alaska Fisheries Science Center
<i>Lynn Fuller</i>	Pacific Coast Joint Venture	Alaska Region
<i>Joel Garlich-Miller</i>	USFWS	Marine Mammals Management
Stephen Gray^a	USGS	Alaska Climate Science Center
Robb Kaler	USFWS	Migratory Bird Management Office
<i>William Lekanoff</i>	Qawalangin Tribe of Unalaska	Tribal Council
<i>Patricia Livingston</i>	NOAA	Resource Ecology and Fisheries Management Division
Karen Oakley	USGS	Alaska Science Center
Karen Pletnikoff	Aleutian Pribilof Islands Association	Community Services
<i>Heather Renner</i>	USFWS	Alaska Maritime National Wildlife Refuge
Tom Rothe	Pacific Coast Joint Venture	Alaska Region
Durelle Smith^b	USGS	Office of the Regional Director for Alaska
<i>Lyman Thorsteinson</i>	USGS	Office of the Regional Director for Alaska
Doanh Thi Tran	Qawalangin Tribe of Unalaska	Environmental Coordinator
Jeff Williams	USFWS	Alaska Maritime National Wildlife Refuge

^a non-voting member

^b alternate member

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On February 26-27, 2014, the committee held its first multi-day meeting hosted at the office of the North Pacific Research Board in Anchorage, Alaska. The goal of the meeting was to begin development of a Science and Operations Plan that would provide a greater focus than our Strategic Science Plan for our activities in the coming 1-2 years. For some of our committee members located outside of Anchorage, this was the first time they had met their colleagues in person. Meeting [agendas and notes](#) are available on the ABSI web site.

In early November 2014, the five LCCs that occur in Alaska and Northwest Canada held their first-ever Joint Steering Committee meeting in Anchorage, Alaska (ABSI, Arctic, North Pacific, Northwest Boreal, and Western Alaska). Each LCC was represented by several members of their Steering Committees as well as their core staff members. The professionally-facilitated meeting focused on ways to increase coordination and collaboration among the five LCCs. Some recommendations from the meeting have already been acted on beginning with the formation of an Alaska LCC Collaboration Team. This group held their initial teleconference in January 2015 hosted a joint Alaska LCC session at the Alaska Forum on the Environment in February 2015.

Science and Operations Plan

ABSI began the year by unveiling our Strategic Science Plan that identifies our science focus for the coming five years. The plan is based on a synthesis of [over 50 existing research and management plans](#) relevant to the ABSI region. These plans range from single and multi-species plans to those proposing strategies for ecosystem-wide management. Collectively they represent a rich legacy of effort from countless resource managers and researchers working in the region over decades. Through an analysis of these plans we identified six landscape-level stressors facing the region:

- Climate Variability and Change;
- Marine Vessel Traffic;
- Invasive and Introduced Species;
- Ocean Acidification;
- Contaminants and Pollutants; and
- Commercial Fishing.

In February 2014, we began the development of our Science and Operations plan that identifies our science focus for the coming 1-2 years. Facilitated by Chris Beck of Agnew::Beck, the committee reviewed and adopted the use of Landscape Conservation Design (LCD) as a framework for our LCC operations. We also spent several hours framing our five conservation goals into an adaptive management process (Figure 2).

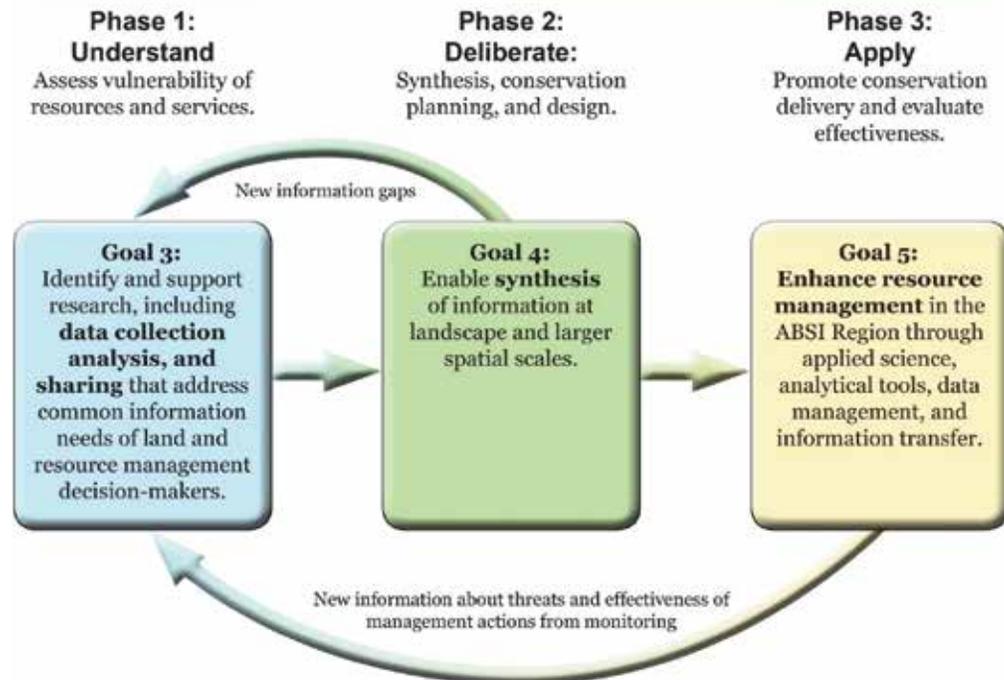
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ABSI Operational Schematic

All Phases: Inform and Collaborate

Goal 1: Promote communications to enhance understanding regarding the effects of climate change and other landscape-scale stressors in the ABSI region.

Goal 2: Support coordination and collaboration among partners to improve efficiencies in their common science and information activities.



Project Integration

The **Deliberate** and **Apply** phases may inform additional **Understanding** phases in other existing and/or new projects.

Figure 2. Conceptual model for ABSI's operational approach from our Science and Operations Plan.

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The five goals of ABSI (order does not imply priority) include:

- Goal 1: Promote communications to enhance understanding regarding effects of climate change and other landscape-scale stressors in the ABSI region.
- Goal 2: Support coordination and collaboration among partners to improve efficiencies in their common science and information activities.
- Goal 3: Identify and support research, including data collection, analysis, and sharing that address common information needs of land and resource management decision makers.
- Goal 4: Enable synthesis of information at landscape and larger spatial scales.
- Goal 5: Enhance resource management in the ABSI region through applied science, analytical tools, data management, and information transfer.

One of our primary tools to put our science focus into action is financial support for applied science projects. The approach we articulate with this Operational Plan allows us to look at projects in a series of three phases: *Understand*, *Deliberate*, and *Apply*. Our approach emphasizes the application of science to address resource management concerns, and includes feedback mechanisms that facilitate adaptation over time (Figure 2).

In this adaptive process, Goals 1 and 2, which focus on communication and collaboration, occur continuously throughout our operations. Goals 3-5 are realized in a sequential process that includes feedback loops. For example, during the *Deliberate* phase, we may identify new information gaps that will inform subsequent research questions addressed in a new project that initiates in the *Understand* phase. Similarly, when science products are *Applied* to enhance resource management, we may discover new information about threats and/or the effectiveness of management actions that may also spur a new *Understand* phase.

We finalized our FY2015-2016 Science and Operations Plan in December 2014 with the addition of a section on Science Communication, and a clear road map for ABSI over the current and next Fiscal Year. A key aspect of our operations is to remain agile and respond to collaboration and partnership opportunities as they arise, in order to achieve our mission.

Funded Science Projects

In Fiscal Year 2014, ABSI once again had limited funds available for applied science projects. Having initiated vulnerability assessments for both climate and marine vessel traffic stressors, we issued a Notice of Funding Availability (NOFA) targeted at vulnerability assessments for our remaining two priority stressors: (1) Invasive and Introduced Species; and (2) Contaminants and Pollutants. We timed the opening of our NOFA to coincide with the Alaska Marine Science Symposium (AMSS), an annual event held in Anchorage, Alaska, in January. The NOFA was open for 30 days. Staff identified one or more external reviewers for each proposal. Those reviews, along with reviews by staff and several Steering Committee members, were summarized

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into a recommendation to fund one project for each stressor. That recommendation was approved by consensus by the committee during a teleconference in March 2014.

In addition to funding these two new projects, the Steering Committee also elected to supplement the Aleutian and Bering Climate Vulnerability Assessment with additional funds to convene a workshop that would bring the five science teams together to integrate their findings and recommendations. Descriptions of the two new projects, as well as updates for ongoing projects from previous years are included below (Table 2).

Project FY2014-01: A Synthesis and Vulnerability Assessment of Terrestrial Invasive Species in the Aleutian and Bering Sea Islands

The ABSI region includes over 400 islands that represent an area of unique biodiversity and provide essential breeding habitat for over 40 million seabirds, representing more than 30 species. Historically, the Aleutian Islands had no native terrestrial mammals west of Umnak Island. Intentional and accidental introductions of non-native species have resulted in degradation of island ecosystems throughout the ABSI region. These island ecosystems are especially vulnerable to introductions of non-native species owing to their typically small size, high rates of endemism, and lack of adaptive behavioral responses to non-native species. Within the ABSI region, restoration of natural biological diversity by removing introduced species and preventing additional introductions is a primary objective of the Alaska Maritime National Wildlife Refuge (AMNWR). However, specific information on invasive animal species is disparate and currently does not allow for a comprehensive look at species distribution and potential impacts throughout this region.

A major challenge to the successful prevention and management of invasive species is establishing an effective mechanism for collating and sharing data between multiple partners. Having access to invasive species information can support and enhance this important invasive species management work. Our objective with this project is to provide managers, researchers, and communities with the most up-to-date information regarding invasive terrestrial animal species known from, or potentially threatening the ABSI region. Working with AMNWR biologists, the Principal Investigators will develop a centralized repository for invasive terrestrial animal species information, including a comprehensive invasive species list, geospatial data layers for known invasive species, and an invasive species ranking assessment for the ABSI region. These data products will be publicly available and will help quantify the current distribution of invasive species and identify areas vulnerable to invasion. Providing access to a coordinated storage system will facilitate the rapid retrieval and comprehensive analysis of invasive species data for the ABSI region that could be used in a variety of research and modeling activities.

This project is funded through a cooperative agreement with the University of Alaska Anchorage (UAA). The Principal Investigators are Tracey Gotthardt (UAA Alaska Natural Heritage Program) and Leah Kenney (UAA Alaska Natural Heritage Program).

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Project FY2014-02: A Database for the Distribution of Potentially Toxic Elements in the Aleutian Volcanic Arc Terrestrial Ecosystem

The occurrence of Potentially Toxic Elements (PTEs) in the Arctic and sub-Arctic is of major concern for the sensitive ecosystems and the humans and aquatic flora and fauna in this region. Specifically, the Aleutian volcanic arc within the ABSI region is of interest because it exists along the ocean and atmospheric pathways for the transport of these and other contaminants and pollutants that are derived from other locations, such as Asia. Assessing the distribution of potentially toxic elements (PTEs) in the Aleutian volcanic arc (within the ABSI LCC) is necessary in order to document the natural and anthropogenic sources of such elements that are utilized as micro-nutrients by aquatic wildlife, in some cases biomagnify, and that in general have negative impacts on the overall quality of ecosystems. The goal of this research project is to produce a database of all existing water quality and water geochemistry data and rock geochemistry data for PTEs of interest in the ABSI region, including arsenic, cadmium, chromium, lead, mercury, nickel, and selenium. The objective of this project is to compile all published PTE water quality data and water geochemistry data and rock geochemistry data for the Aleutian volcanic arc region in the ABSI region.

The Principal Investigators will conduct interviews with agencies and stakeholders to obtain all data sources and to ensure that we have feedback on the utilities of the database from potential users, build the database, and design ArcGIS layers for spatial analysis of the data. All entities interested in PTEs in the terrestrial aquatic and land systems will benefit from this “one-stop shop” database. For example, toxicity studies on fishes, birds, and marine mammals and any future work involving PTEs can use this database as a baseline for their work to help understand sources and pathways of these important contaminants. The expected project output and product is a database of all of the known data of water quality, water geochemistry and rock geochemistry for the PTEs of interest.

This project is also funded through a cooperative agreement with UAA. The principal Investigators are Dr. LeeAnn Munk (UAA Department of Geological Sciences) and Dr. Kenrick Mock (UAA Department of Computer Systems and Engineering).

FY2013-01 Downscaled Climate Models: The Aleutians and Bering Climate Vulnerability assessment (ABCVA)

In 2013, ABSI and Alaska Climate Science Center launched a partnership with the Alaska Ocean Observing System (AOOS) to assess climate impacts on key species and ecosystem services in the Aleutians and Bering Sea. This project brought together a team of 30 scientists and managers from agencies, tribal organizations, and universities. The team used results from two recent climate downscaling efforts projections from the [Bering Sea Project](#) by the University of Washington and NOAA’s Pacific Marine Ecology Lab, and the [Spatial Tools for Arctic Mapping and Planning](#) (STAMP) project by University of Alaska, Fairbanks to guide their assessment.

Our scientists worked together in five teams to assess potential climate change threats across a broad range of resources evaluating everything from archeological sites to zooplankton. The largest team combined sociologists and anthropologists to evaluate climate vulnerabilities

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associated with socioeconomic and cultural resources vital to the region's nine island communities. Other teams focused on seabirds; marine mammals; terrestrial vegetation; and species important to commercial fisheries of the region. Their combined efforts will help to identify collective future research priorities of ABSI, the Alaska Climate Science Center, and AOOS.

The island communities in this region are a key focus of this assessment. During one community forum in the region's largest town of Unalaska, our team heard about changes residents already see that they attribute to climate change. Changing weather conditions and warmer ocean waters threaten the viability of traditional harvest practices that island tribes have used for generations to survive in this remote region. Residents expressed concerns about climate change interacting with possible impacts from the complex and sophisticated fishing industry that is so vital to the region's economy—which also accounts for 50% of the total annual U.S. seafood harvest. We hope this session can be the first in a series of discussions about climate change in this region and our team is looking for opportunities to further engage with these nine island communities on this topic.

The final report from this project will be released in May of 2015 and will include collective future research priorities of ABSI, the Alaska Climate Science Center and AOOS as we aim to help communities and managers adapt to climate change. More information on this collaboration funded by the U.S. Fish and Wildlife Service, U.S. Geological Survey and NOAA is available [on the ABSI website](#).

FY2013-02 Commercial Shipping Vulnerability Analysis

This project involved an analysis of a three-year archive of Automated Identification System (AIS) vessel locations collected by satellite. The original data files required considerably more pre-processing than originally anticipated. For example, locating metadata about vessels using their MMSI numbers (Maritime Mobile Service Identity) took several months and unknown vessel types still exist in the data set of over 70 million vessel locations. Using a subsample of vessel locations we were able to identify several routes that transited north of the Aleutian archipelago using Unimak Pass in the east and one of three “passes” in the west. We also identified one primary route that occurs south of the Aleutians where traffic is more diffuse. This information was presented at a meeting of the Aleutian Islands Risk Assessment Advisory Panel in April 2014 (Figure 3).

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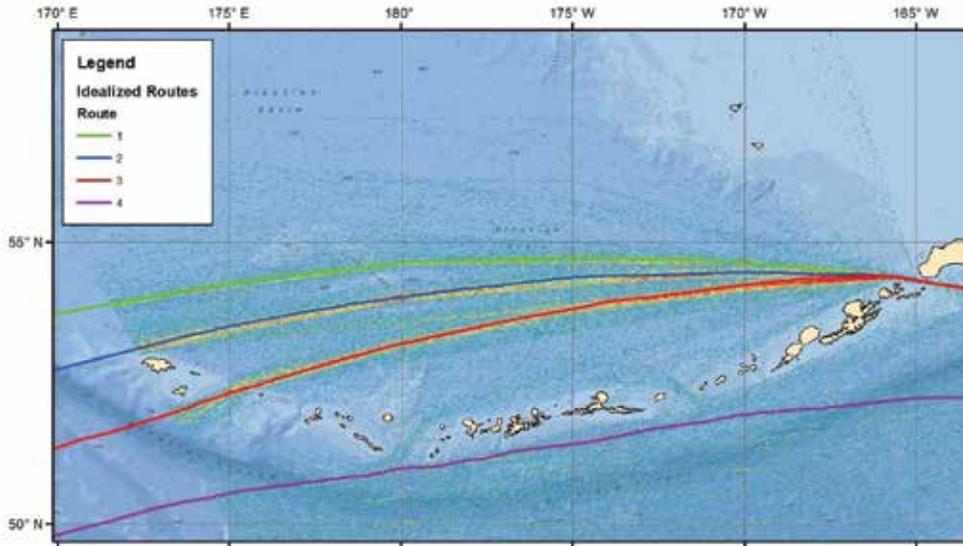


Figure 3. Major vessel routes transiting the Aleutian archipelago based on analysis of satellite AIS data.

We are currently working with the Wildlife Conservation Society to complete an analysis of vessel transits to identify the relative use of these routes by a number of parameters including: vessel type, seasonality, and directionality. Final data layers will be available to managers and stakeholders through one or more online data portals.

FY2013-04 Seabirds as Indicators of Climate Change FY13

This project was a continuation of project FY2013-02, and funded ship time for the second year of the USGS study exploring feasibility of using seabirds as indicators of forage fish assemblages. The field portion of this project occurred from August 11-22, 2013, aboard the *R/V Tiglax*. A final report for this project is available for download from the [ABSI LCC web site](#).

FY2013-05 Aleutian Islands Cultural Resources

The Aleutian archipelago is an area that is rich in cultural history. Information about cultural sites and artifacts exists in a variety of formats including peer-reviewed publications, agency reports, and other records. This project developed an annotated bibliography of more than 570 references about cultural resources that can help inform future management and research in Aleutian Islands.

FY2013-06 Analysis of Historic Seabird Diet Samples

Continuous, long-term monitoring of the food habits of marine birds is a key component in detecting responses to anticipated climate change of both the birds and the prey populations on which they depend. The Alaska Maritime National Wildlife Refuge (AMNWR) has been collecting seabird diet samples from the Pribilof and Aleutian Islands for more than 30 years.

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With support from previous LCC funding, AMNWR has developed protocols for zooplankton sample analysis, created a reference collection of seabird prey items, and helped develop and populate a publicly available data management system. Still needed are process and capacity for whole fish samples and digested fish samples (hard parts such as otoliths). This project dovetails with project FY2013-04 that used Seabirds as Indicators of Climate Change. This project formalized a [laboratory protocol and produced a manual](#) and reference collection of samples. These will be of use not only to seabird biologists and managers but also to others that have similar diet samples. The funding we provided was obligated as part of a cooperative agreement administered by the USFWS Alaska Maritime National Wildlife Refuge and used to complete prey identification of auklet species.

FY2013-08 Modeling Marine Bird Distribution in the ABSI Region

This project will expand abundance & distribution models for seabirds, currently underway in Aleutian Islands region (USFWS-funded project under Survey, Monitoring & Assessment program) to the greater ABSI region, and integrate 2013 seabird surveys into the analysis. In particular, this expanded effort would first focus on the North Bering Sea/Bering Strait/southern Chukchi region, which has greatest potential for increased vessel traffic and development. Using at-sea survey data, colony data, and environmental parameters, Tern Again Consulting (Dr. M. Renner) is developing seasonal species-specific models of seabird distribution in the Aleutian Islands region for use in a shipping risk assessment. The resulting models greatly expand the value of at-sea survey data and improve potential applications to a variety of risk analyses and predictive models. As with the Aleutian Islands Risk Assessment, all products would be accessible to managers, responders, and stakeholders on the AOOS web site.

One notable difference from the Aleutian Islands is the presence of seasonal sea ice in the Bering Strait region. This information was included in the model. Preliminary results were available for review in December 2015. Based on the outputs, the parameters will be adjusted and the model will be re-run in January 2016.

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Table 2. New and ongoing applied science projects for calendar year 2014.

Project ID	Title	ABSI Funds	Partner Funds	Collaborators
2014-01	A Synthesis and Vulnerability Assessment of Terrestrial Invasive Species in the Aleutian and Bering Sea Islands	\$49,972	\$14,332	University of Alaska Anchorage, Alaska Natural Heritage Program, USFWS Alaska Maritime NWR
2014-02	A Database for the Distribution of Potentially Toxic Elements in the Aleutian Volcanic Arc Terrestrial Ecosystem	\$49,758	\$10,041	University of Alaska Anchorage
2013-01	Aleutians and Bering Climate Vulnerability Assessment (ABCVA)	\$50,000 ^a	\$80,000	Alaska Climate Science Center, Alaska Ocean Observing System, University of Alaska Fairbanks, University of Washington, ACCAP
2013-02	Commercial Shipping Vulnerability Analysis	\$22,639	\$35,000	Wildlife Conservation Society, Audubon Alaska, Alaska Marine Conservation Council, Oceana, Marine Exchange of Alaska, Alaska Ocean Observing System, Aleutian Islands Risk Assessment
2013-05	Aleutian Islands Cultural Resources	\$9,523	\$10,000	University of Alaska Anchorage, USFWS Refuges
2013-06	Analysis of Historic Seabird Diet Samples	\$20,000	\$30,000	USFWS Alaska Maritime NWR, Kachemak Bay Research Reserve, USFWS MBM, Axiom Consulting, USGS Alaska Science Center, University of Alaska Fairbanks
2013-08	Modeling Marine Bird Distribution in the ABSI Region	\$20,000	\$210,000	USFWS Migratory Bird Management, USFWS Alaska Maritime NWR, Aleutian Islands Risk Assessment, BOEM, NOAA

^a Includes \$30K of funds from FY2013 and an additional \$20K in FY2014.

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Partner-funded Projects

In addition to funding projects directly, we also had considerable success in partnering with other organizations to help fund high priority projects in the ABSI region (Table 3). Based on early collaborations between ABSI and the Alaska Maritime National Wildlife Refuge to explore the development of an LCD, the USFWS, National Wildlife Refuges Inventory and Monitoring Program provided ~\$200K to initiate two studies. The first is a retrospective analysis of decades of seabird data collected by the Refuge to evaluate the potential use of seabird as surrogate species to detect large scale changes in environmental variables. The ABSI staff will play a central role in this project which began with a two-day workshop in Homer, Alaska, facilitated by Science Coordinator Aaron Poe in November 2014. A second project builds upon early work of ABSI and partners to evaluate where large vessels transiting through the Aleutian archipelago are most likely to run aground should they go adrift. The results of this analysis will allow us to identify what priority natural and cultural resources may be at risk, as well as inform decisions about oil spill response preparedness and capabilities. We will also be able to model how different route scenarios affect the overall risk of grounding and potential response time.

The Seabird Team from the ABCVA project identified a project that would help inform their vulnerability assessment, and the Integrated Ocean Observing System (IOOS) provided ~\$60K to conduct this analysis. Working with the Audubon Society's important bird areas (IBAs), this project will look at how the climate in these regions is projected to change over the next 40 years. The Seabird Team will then use those projected changes to identify which species are most vulnerable to climate change.

While our focus on marine vessel traffic has primarily been the Aleutian archipelago, we recognize that diminishing sea ice cover has resulted in increased levels of traffic through the Arctic Ocean, most of which passes through the Bering Strait region. Working with funds provided by the National Park Service, we will help oversee the development of an agent-based travel simulation network for the entire ABSI region. Based in part on existing shipping routes, the travel simulation network will allow us to assess the impacts of different levels of shipping traffic, establishment of recommended routes, and development of a new deep-water port in the Arctic.

Finally, ABSI will be working with researchers on two projects to improve manager and stakeholder understanding of the risks posed by invasive and introduced species to the island habitats of our region. The USGS funded two projects that pair collaborators from their agency with those from the USFWS. One project is focused on understanding the risk of "rat spills" from vessels and the second synthesizes data and information on the impacts of introduced ungulates on the terrestrial ecosystems of subarctic/arctic islands. These projects launched in late 2014 and will greatly inform future LCD efforts by ABSI in the region.

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Table 3. Partner-funded applied science projects for calendar year 2014.

Title	Partner Funds	Funding Source	Collaborators
An Inventory of Coastal Wildlife Resources Most at Risk from Marine Vessel Incidents and Oil Spills	\$100,000	U.S. Fish and Wildlife Service, Inventory and Monitoring Program	Wildlife Conservation Society, Alaska Maritime National Wildlife Refuge
Evaluating Seabirds as surrogates for Environmental Change	\$100,000	U.S. Fish and Wildlife Service, Inventory and Monitoring Program	Alaska Maritime National Wildlife Refuge, University of Idaho, NOAA Fisheries
Assessing Seabird Vulnerability to Climate Change in the Bering Sea	\$60,000	Alaska Ocean Observing System (AOOS)	AOOS, Axiom Consulting, Audubon Alaska, U.S. Fish and Wildlife Service
Community Integrated Coastal Incident Preparedness	\$122,000	National Park Service	National Park Service, Alaska Region, Wildlife Conservation Society, University of Arizona, Geodimensions LCC
A Geographic Risk Analysis of Rat Spills in the Aleutian and Bering Sea Islands	\$90,000	U.S. Geological Survey	USGS Kilauea Field Station, U.S. Fish and Wildlife Service, Office of Migratory Birds, Tern Again Consulting LLC
Introduced Ungulates on Islands within the Alaska Maritime National Wildlife Refuge: A Synthesis of Ecological Impacts and Data Gaps	\$43,000	U.S. Geological Survey	USGS Western Ecological Research Center, Alaska Maritime National Wildlife Refuge

Working Groups

In 2013, ABSI established a Contaminants and Pollutants Working Group focused on the Bering Sea and Aleutian Region. Chaired by the ABSI Science Coordinator, this group includes 20 representatives from several Federal and State agencies as well as members of the academic community and analysts from Alaska Native organizations. The Working Group met twice in 2014 and continues to advise the ABSI Steering Committee on prescient issues related to pollutants and contaminants. Members of this group are working with ABSI staff to support the development of the contaminants database project led by LeeAnn Munk and Kenrick Mock of UAA. They are helping to identify sample sets from across the region to be included in the database from key species of seabirds, marine mammals and fish and providing feedback on database structure and function. They will also help guide future efforts planned to assess

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information gaps and will serve as a means to foster collaborative efforts to understand vulnerabilities of ABSI's priority resources from contaminants and pollutants.

ABSI participated in several standing working groups in 2014. The [Aleutian Islands Risk Assessment](#) (AIRA) was established following the December 2004 grounding of the *M/V Selendang Ayu* on Unalaska Island in the Aleutian archipelago. Our preliminary analysis of vessel routes transiting the Aleutian archipelago was presented at a meeting of the AIRA Advisory Panel in April 2014, and helped inform recommendations for vessel routes that have been incorporated into Alternate Planning Criteria for this area. These results have also informed recommended vessel routes submitted to the International Maritime Organization for consideration.

The ABSI staff also participated in the Aleutian Islands Cultural Resources Working Group. Chaired by [Diane Hanson](#), Associate Professor of Archaeology at the University of Alaska Anchorage, this working group meets periodically to share information about ongoing work in the Aleutian archipelago. Membership of the group includes staff from USFWS, Bureau of Indian Affairs, the Aleutian/Pribilof Islands Association, and the University of Alaska system. Dr. Hanson is also the Principal Investigator on project *FY2013-05 Aleutian Islands Cultural Resources*.

Science and Planning Support

In addition to funding the projects listed previously, the ABSI staff continued to support a number of science efforts in 2014. We provided geospatial data support for two complex interagency projects in the ABSI region. The first was a series of site visits to Formerly Used Defense Sites (FUDS) in the Aleutian Islands. Field teams used mobile GIS tablets to collect information about sensitive natural and cultural resource sites and provided these data layers to the U.S. Army Corps of Engineers prior to the commencement of remediation efforts. The second project was a joint USFWS-USGS research cruise to the northern Bering Sea and Chukchi Sea to collect skin biopsies of Pacific walrus. These field teams also used mobile GIS tablets to map the location where they collected more than 1,900 biopsy samples (see cover image).

Geospatial data are limited for the ABSI region, as is the expertise to work with these products. After two years of attempts, satellite imagery of St. Matthew and Hall islands were acquired and provide to the Alaska Maritime National Wildlife Refuge and their collaborators to support a number of projects including landcover analysis and an assessment of erosion that may be impacting cliff-nesting seabirds..

Lastly, we continued to provided secure, cloud-based data storage to the North Pacific Seabird Diet Database project. This workspace, hosted as a sub-site of absilcc.org, allowed USFWS Biologists and contractors to collaborate on data QA/QC from a variety of locations across the U.S. and Alaska.

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Outreach and Communication

ABSI began the year with a poster presentation at the 2014 [Alaska Marine Science Symposium](#) (AMSS) in Anchorage, Alaska. The Symposium, hosted by the North Pacific Research Board (NPRB) is an annual event that brings together nearly 1,000 resource managers, researchers, and students together to present information about marine science in Alaska. We held two workshops associated with our Aleutian and Bering Climate Vulnerability Assessment project. The AMSS has quickly become a key meeting for ABSI to interact with researchers and managers of natural and cultural resources. Our staff participated on the AMSS Organizing Committee to help with planning and logistics for the January 2015 Symposium. Our involvement included assisting with development of plenary session programs, reviewing abstracts, web site development, social media management, and serving as judges for student awards.

Core staff conducted in-person outreach at a variety of forums throughout the year, including the [Alaska Forum on the Environment](#), an annual event that brings resource managers from across the State to Anchorage for a week-long meeting that offers a broad range of plenary sessions with nationally recognized keynote speakers. Results of several ABSI-supported projects were presented at other forums, including the National Workshop on Large Landscape Conservation in Washington, DC, in October 2014, and the Climate, Conservation, and Community in Alaska and Northwest Canada Conference in Anchorage, Alaska, in November 2014.

For the second year in a row, ABSI staff participated as judges in the “[Tsunami Bowl](#)” – the Alaska regional competition for the [National Ocean Sciences Bowl](#). Other judges included staff from NOAA, the University of Alaska system, Alaska Pacific University, and the Alaska SeaLife Center. This two-day event gave staff a unique opportunity to present information to a variety of marine scientists, educators, and resource managers, including an opening-day presentation about ABSI at the Alaska SeaLife Center. The team that won the Alaska regional competition, Juneau-Douglas High School, once again placed third in the National competition held in May 2014 in Seattle, Washington.

Staff from ABSI presented information about our marine vessel traffic project at the annual shareholders meeting for the Aleut Corporation in October 2014. This Alaska Native organization is the umbrella corporation for 14 Aleut villages in the Aleutian region and their meetings are key outreach opportunities for ABSI to share our research priorities with community members. The presentation also provided an opportunity for staff to hear concerns related to emerging environmental issues in the region as well as hear about future community development interests.

Throughout 2014, ABSI used our web site (<http://absilcc.org>) and Twitter account to share information of interest to the resource management and research community. During the past year, our web site had 1,991 unique visitors, and increase of 11% over 2013. Though these visitors were from 60 different countries around the globe, the majority of our web traffic originated within the U.S. and Canada. During the year we posted 80 new announcements that

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generated e-mail messages to our mailing list that has grown to 213 members. We also began curating [three Flipboard magazines](#) in 2014 posting 345 articles with over 1,900 viewers and 102 subscribers. Over the course of the year, our Klout score, a social media analytic that measures online social influence, has been as high as 42.

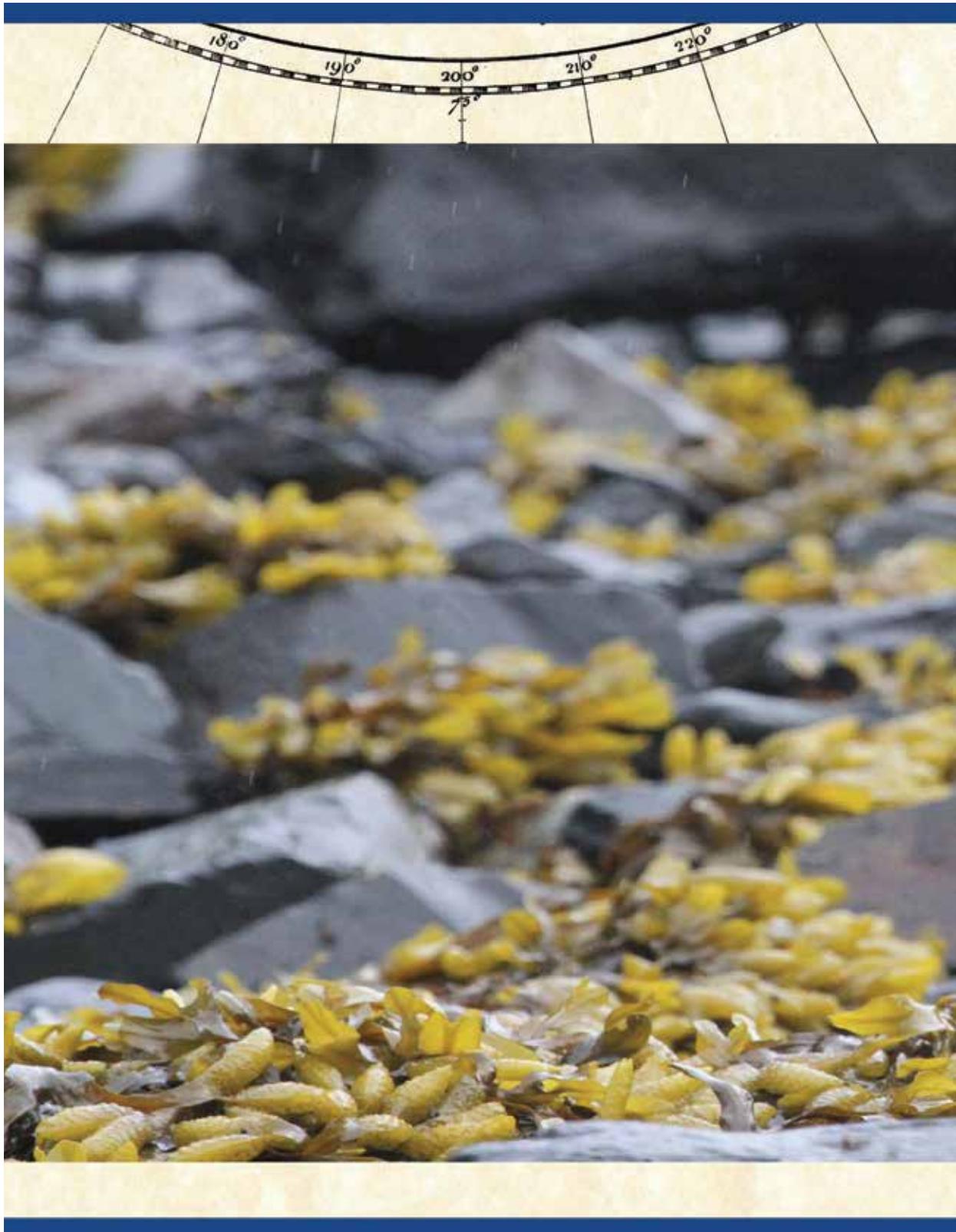
In addition to hosting information about ABSI, we have maintained a “[partner sub-site](#)” for the Alaska Maritime National Wildlife Refuge biological science team. This sub-site includes a [document library of reports](#) in PDF format, as well as access to the current version of the *R/V Tiglax* ship schedule for the 2015 field season. The content management system of the site (Sharepoint Foundation) allows the site to be updated from any computer with internet access, and additional partner sub-sites can easily be created to meet future needs. We see this as service that ABSI can easily provide to help promote integrated science in the region.

Future Plans

ABSI will begin 2015 by presenting results from two projects during the Bering Sea and Aleutian Islands session of the Alaska Marine Science Symposium in Anchorage, Alaska. We will also be co-hosting a workshop on the Conservation Application of the vessel traffic Automatic Identification System with the Wildlife Conservation Society. Information about our marine vessel traffic project will be presented in February at the Alaska Forum on the Environment in Anchorage, Alaska. Results from the ABCVA for seabirds will be presented at the Pacific Seabird Group annual meeting in February in San Jose, California.

During our December 18, 2014, teleconference, the Steering Committee elected to issue a Notice of Funding Availability (NOFA) to solicit proposals to address high priority research questions from the ABCVA project. We will open the NOFA on February 4, 2015, and will announce it at the Alaska Marine Science Symposium in January. During our teleconference, the committee also elected to expand our existing contaminants project with UAA to include tissue data, and also conduct a Mercury synthesis for the ABSI region.

The Steering Committee will hold a two-day meeting in early May 2015 to deliberate over the integration of our four vulnerability assessment projects. The outcome of that meeting will help inform our activities in FY2016.



**Alaska Department of Fish and Game Report to the Kodiak-
Aleutian Islands Region Subsistence Advisory Council: Update
through August 15, 2015 on the Buskin River Sockeye Salmon
Fishery and Stock Assessment Project**

**By
Tyler Polum**

August 2015

Alaska Department of Fish and Game

Division of Sport Fish



PROGRESS REPORT

INTRODUCTION

The Buskin River drainage, located on Kodiak Island approximately 2 miles southwest from the city of Kodiak, traditionally supports the single largest subsistence salmon fishery within the Kodiak/Aleutian Islands Region. The fishery occurs in nearshore marine waters adjacent to the river mouth and targets several species of salmon, although sockeye salmon typically comprise about 75% of the total subsistence harvest (Table 2). Between 2010 and 2014, federally qualified subsistence users harvested an average of 4,060 Buskin River sockeye salmon, which accounted for 32% of the total sockeye salmon harvest reported for communities on Kodiak Island (Table 1). In addition, about half of all Kodiak area subsistence users reporting activity during this period harvested salmon from the Buskin River fishery (Table 3). During 2008 and 2009, low sockeye escapement on the Buskin and closure of the subsistence fishery prompted subsistence users to fish elsewhere, however, participation and harvests have increased significantly since then, corresponding with rebounding sockeye returns to the Buskin Drainage. Historically, 40-50% of the sockeye harvest in the Kodiak area has come from the Buskin fishery and half of all permit holders in the region report fishing Buskin.

Table 1.- Kodiak Area reported federal subsistence harvest of sockeye salmon by location, 2010-2014^a.

Location	2010	2011	2012	2013	2014	2010-2014 avg.
Buskin River	1,476	4,674	2,606	6,083	5,459	4,060
Old Harbor/Sitkalidak	501	391	455	621	160	426
Alitak Bay	767	643	987	1,013	940	870
Karluk Village	127	276	150	417	393	273
Larsen Bay/Uyak Bay	705	737	616	863	2,484	1,081
Uganik Bay	1,077	1,123	1,051	752	1,007	1,002
Afognak Bay	2,146	1,978	1,711	2,012	3,001	2,170
Remainder Afognak Island	1,502	2,186	2,906	2,949	1,968	2,302
Total	8,301	12,008	10,482	14,710	15,412	12,183

^a Source: ADF&G Division of Commercial Fisheries, Kodiak.

Table 2.- Buskin River drainage reported subsistence salmon harvest by species, 2010-2014^a.

Year	Permits	Reported Subsistence Harvest									
		Chinook		Sockeye		Coho		Pink		Chum	
		No. Fish	% of Total	No. Fish	% of Total	No. Fish	% of Total	No. Fish	% of Total	No. Fish	% of Total
2010	164	16	1%	1,476	63%	679	29%	146	6%	38	2%
2011	255	11	<1%	4,674	92%	287	6%	67	1%	15	0%
2012	280	1	<1%	2,606	69%	978	26%	154	4%	12	<1%
2013	308	8	<1%	6,083	89%	611	9%	117	2%	39	<1%
2014	330	29	<1%	5,459	76%	1,537	21%	121	2%	11	<1%
Average	267	13	0	4,060	1	818	0	121	0	23	0

^a Source: ADF&G Division of Commercial Fisheries, Kodiak.

Table 3.- Federal subsistence harvest locations in the Kodiak Area by number of permits fished, 2010-2014^a.

Location	2010	2011	2012	2013	2014	2010-2014
						avg.
Buskin River	164	255	224	308	330	256
Old Harbor/Sitkalidak	25	21	29	30	23	26
Alitak Bay	29	31	34	28	27	30
Karluk Village	6	6	4	10	6	6
Larsen Bay/Uyak Bay	31	31	26	27	46	32
Uganik Bay	45	40	40	35	33	39
Afognak Bay	90	81	70	85	89	83
Remainder Afognak Island	52	49	61	61	58	56
Number issued	442	514	488	584	612	528

^a Source: ADF&G Division of Commercial Fisheries, Kodiak.

In 2000, in order to ensure sustained sockeye salmon production over time, a stock assessment study was initiated by Alaska Department Fish and Game (ADF&G) on the Buskin River. It was funded by the Office of Subsistence Management with the goal to establish a Biological Escapement Goal (BEG) for the sockeye salmon run on the Buskin. The BEG is based on a population model which incorporates annual escapement and harvest figures with the age composition of annual returns to estimate the total production of each year class (known as a brood table). Samples of male to female ratios, average length and age classes are collected each year over the course of the run from the escapement and the subsistence harvest. Because development of the brood table requires age composition data collected over at least 3 generations, annual data collection for completion of the study is necessary over a 12-15 year period. The current escapement goal range is set at 5,000 - 8,000 sockeye salmon and is used for management of the subsistence, sport and commercial fisheries to ensure a sustained yield from the population. An annual sockeye salmon escapement objective for Catherine and Louise lakes (reported as Lake Louise) has not yet been established.

Sockeye salmon escapements are annually enumerated through in-season counts of adult fish migrating into the drainage. A salmon counting weir located on Buskin River has been operated by ADF&G for this purpose since 1985. In 2002, a second weir was installed on a major tributary stream flowing into the Buskin River from Catherine and Louise lakes.

2015 PROJECT RESULTS

Escapement

The 2015 count at the Buskin River through 15 August was 8,465 sockeye. This is less than the recent 5-year average of 12,102 (Figure 1). The Buskin River weir, located at the outflow of Buskin Lake, was operational on 19 May and continues to operate at the time of this writing. Timing of the 2015 run was later than historic run timing, with 25% of the run counted by 10 June, 50% by 2 July, and 75% by 16 July (Figure 2). Typically, the Buskin River sockeye run is virtually over by the end of July, but this year more than 50% of the escapement was counted in the month of July.

The Lake Louise tributary weir was located approximately one-eighth mile upstream of the Buskin River confluence, below the Chiniak Highway. The weir was installed on 2 June and continues to operate at the time of this writing. The Lake Louise weir count to date is 172 sockeye salmon; typically the Lake Louise return peaks in mid-August (Figure 3).

Timing of the 2015 Lake Louise run is similar to other years in that the majority of the escapement coincided with high water or rain events. Counts remain low to date as little rain has fallen since early July. It is expected that the majority of the escapement will be counted during periods of high water as in the past.

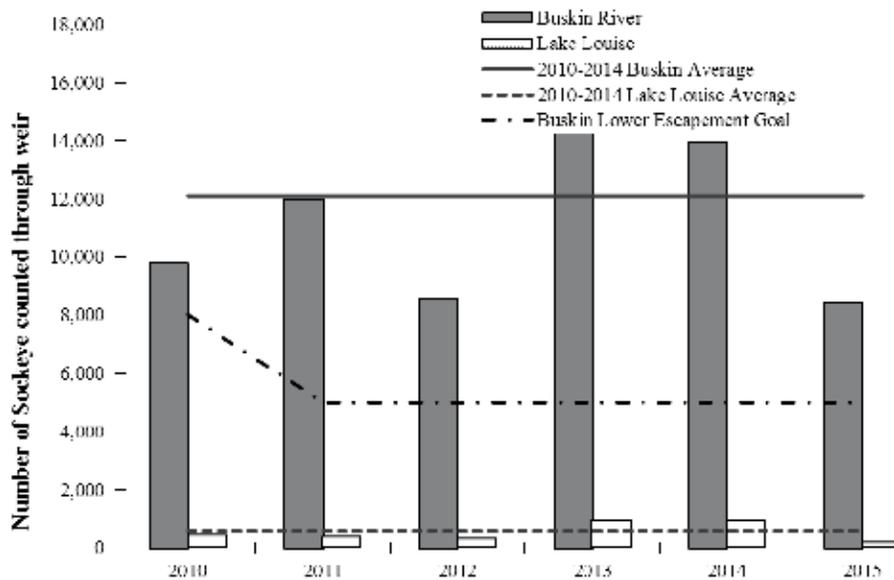


Figure 1.- Buskin River and Lake Louise sockeye salmon escapement, 2010-2015.

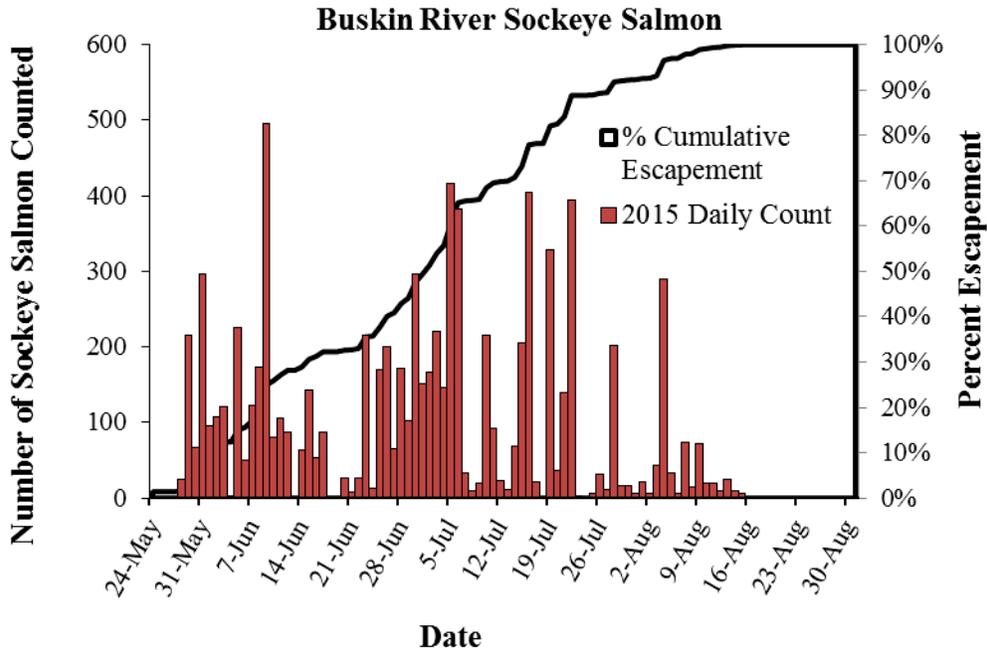


Figure 2.- 2015 daily sockeye salmon weir counts into Buskin Lake through 15 August.

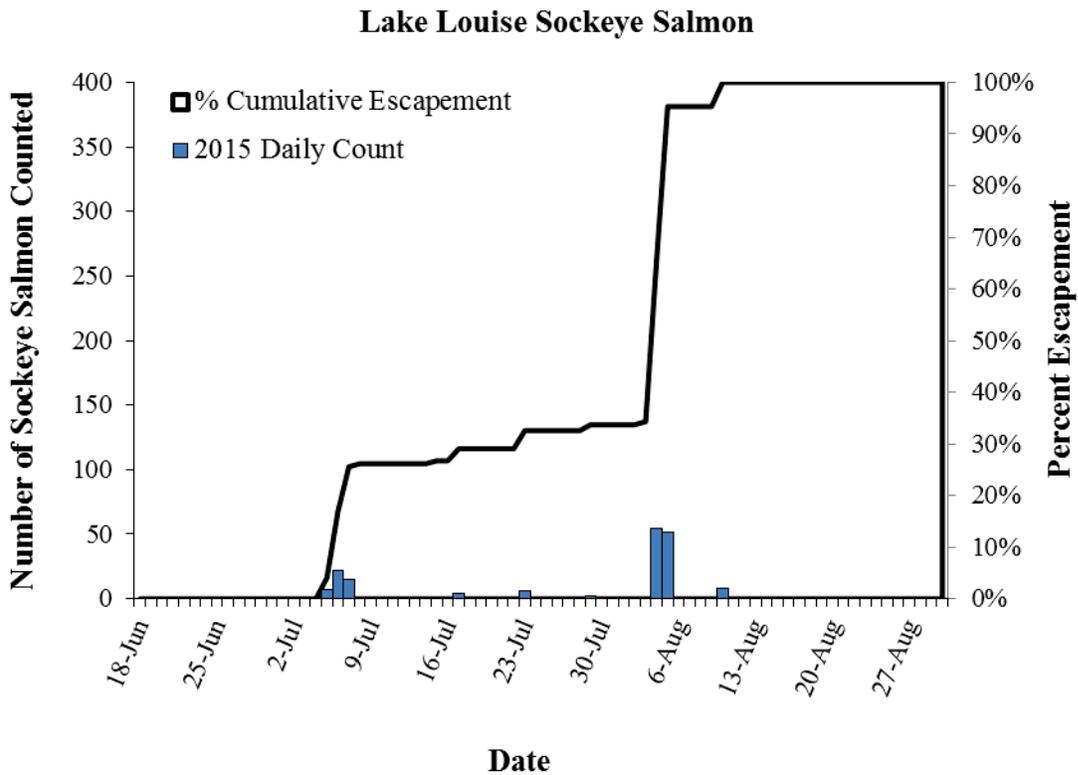


Figure 3.- 2015 daily sockeye salmon weir counts into Lake Louise through 15 August.

An emergency order was issued in 2015 liberalizing the Buskin River sport fishery. On 12 June, the bag limit for Buskin River sockeye was increased to 5 per day for the remainder of the season when the escapement was predicted to exceed the upper escapement goal of 8,000 fish. No emergency orders were issued for the subsistence fishery in 2015.

Stock Assessment

In 2015, at the Buskin Lake weir, 367 sockeye salmon captured from the escapement were sampled for age, sex and length between 31 May and 28 July; between 26 May and 11 July, a total of 272 sockeye salmon were sampled from the subsistence harvest; and at the Lake Louise weir, 30 sockeye salmon have been sampled to date.

Typically, age samples from the escapement and subsistence harvest indicate that during most years the Buskin Lake run component is primarily comprised of age 1.3 and 2.3 fish. Age classes in the subsistence fishery are generally similar but there are typically fewer age 1.2 fish sampled in the subsistence fishery than at Buskin Lake as these younger fish are generally smaller and the size selectivity of gillnets lends to catching larger, older fish. Age, sex and length samples from the 2015 escapement and subsistence harvest will be analyzed after weir operations cease.

Sample age and length data collected from the Lake Louise escapement typically are different than those from Buskin Lake and the subsistence fishery, containing a substantially larger proportion of age 1.2 fish as well as comprising smaller fish, generally. Age, sex and length samples from the 2015 escapement will be analyzed after weir operations cease.

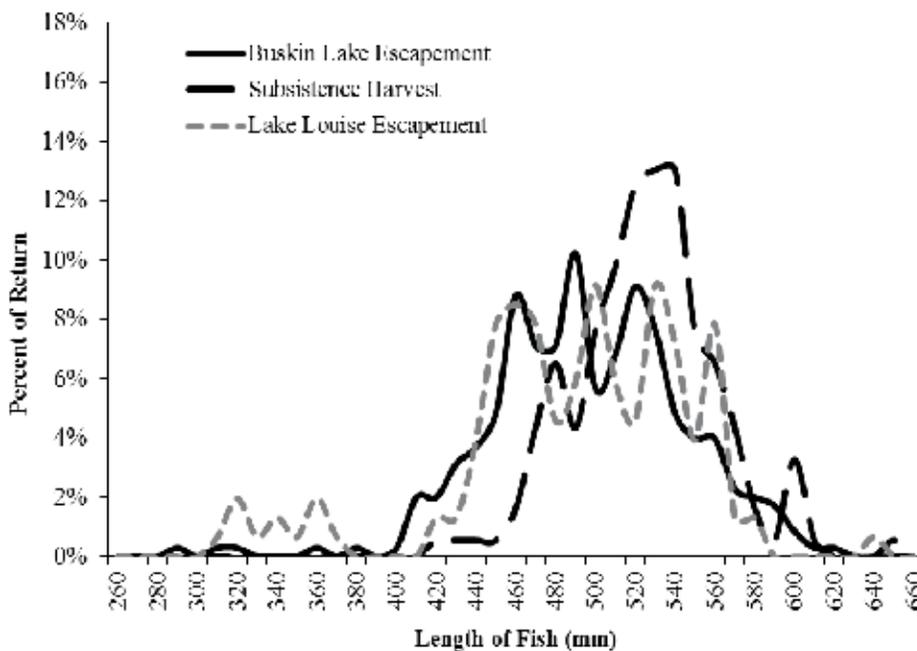


Figure 4.- Length frequency distribution of sockeye salmon from the Buskin Lake and Lake Louise escapements and the Buskin River drainage subsistence harvest, 2014.

Reconstruction of the Buskin Lake portion of the sockeye salmon run by its various harvest components indicate that historically the total return has remained relatively stable at around 19,000 fish, however between 2000 and 2004, the estimated total increased substantially to an average of 33,500. The recent five-year average (2010-2015) is below the historical average at about 12,000 fish (Figure 5). During the last five years subsistence harvests have averaged 23% of the total run and, by number of fish harvested, constituted the most important user of the Buskin River sockeye salmon resource. Subsistence and commercial fish harvests for 2015 and sport harvest estimates for 2014 and 2015 are unavailable at this time, however, and the 2015 total return should be considered a minimum estimate.

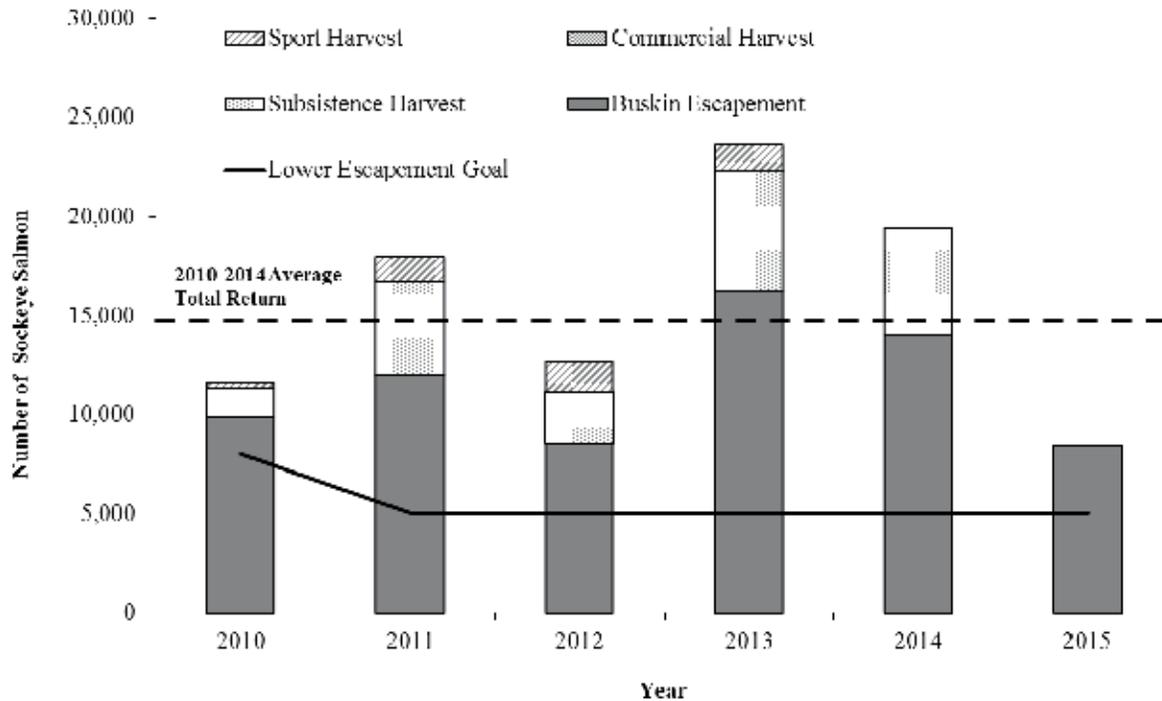


Figure 5.- Composition of total sockeye salmon return to the Buskin River, 2010-2015.

Note: 2014-15 Sport harvests unavailable and 2015 commercial and subsistence harvest unavailable.

GENETIC TESTING

In 2008, ADF&G’s genetics laboratory conducted analyses of Buskin and Lake Louise sockeye salmon escapement samples collected in 2005. Genetic differences in the populations were distinct enough to conclude that the two runs could be identified through genetic testing alone. Between 31 May and 30 June, 2015, a total of 334 sockeye salmon were sampled from Buskin subsistence harvest in order to genetically apportion Buskin and Lake Louise harvest components for more precise run reconstruction. These samples will be pooled with those collected in 2016-17 for analysis in 2017.

Analysis of previous genetic samples, from 2010-2013, was conducted during the spring of 2014. Harvest of Lake Louise bound sockeye ranged from 0.1% to 6.5% of the total subsistence harvest while sockeye from systems other than the Buskin drainage made up from 10.9% to 24.7% of the harvest (Figure 6). In 2013, there were enough samples to apportion them between ‘early’ and ‘late’ harvested fish. This found that the proportion of Lake Louise fish in the

harvest increased from 0.1% to 6.4% over the course of the season. It was expected that a low percentage of the harvest was comprised of Lake Louise fish due to later run-timing and smaller size, however, it was not expected that other Kodiak sockeye salmon stocks could make up nearly a quarter of the harvest in some years.

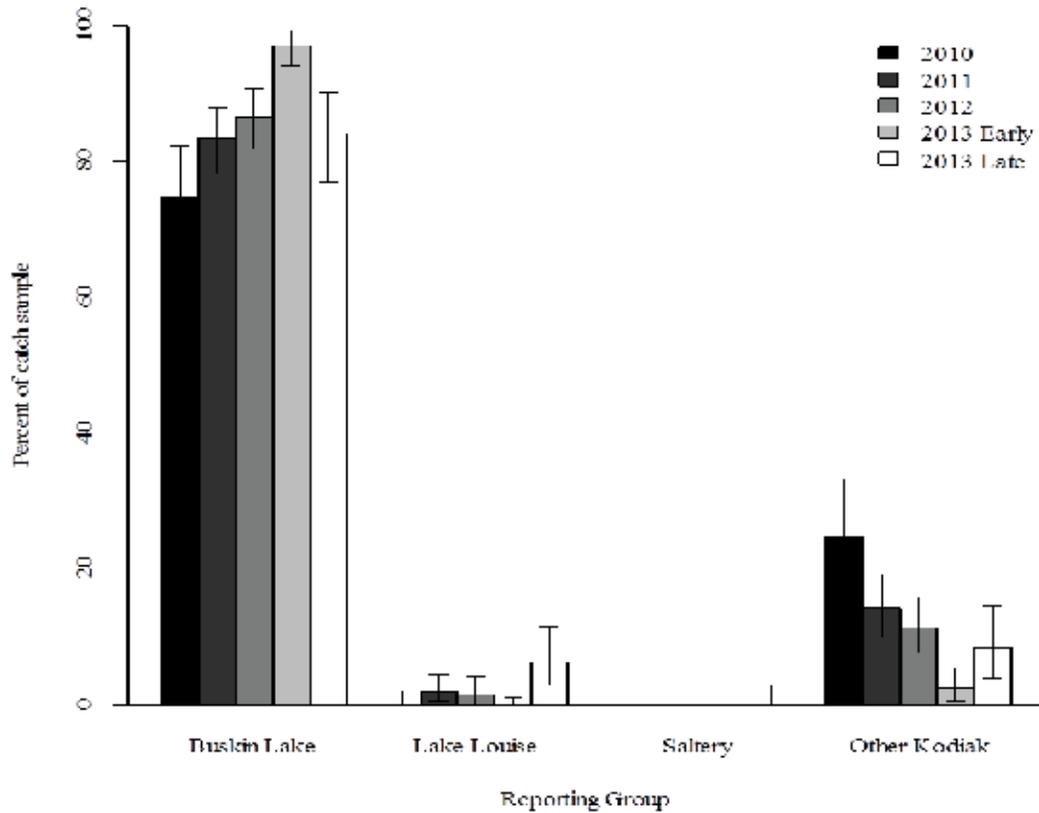


Figure 6.- Composition of sockeye salmon harvested in the Buskin subsistence fishery 2009-2013.

SUBSISTENCE USER INTERVIEWS

In response to a priority information need recently identified by the Kodiak/Aleutians Region Subsistence Advisory Council (RAC), verbal interviews taken on the fishing grounds with Buskin River subsistence users have been conducted annually since 2007 to determine residency of subsistence users and patterns of historic fishing effort. Interviews were conducted in 2015, where technicians opportunistically contacted subsistence users on the fishing grounds in front of the Buskin River, and at the boat harbors in the City of Kodiak, while sampling the harvest for age, sex and length information. The 2015 survey sample was collected over the duration of the subsistence fishery, providing residency and effort data not currently available from subsistence permit returns. A total of 16 subsistence users were interviewed beginning 6 June (Table 4).

Table 4.- Results from verbal interviews conducted with Buskin River subsistence users between 6 and 30 June, 2015.

User Statistics:			
Total Users Interviewed:	16		
Interview dates:	June 6 - June 30		
User Demographics			
	Kodiak	Alaska	Unknown
Residency	15	1	0
	Buskin	Pasagshak	Unknown
Location of Traditional Subsistence Use	14	1	0
	Yes	No	
Have Occasionally Fished Other Areas	12	4	

*Other areas occasionally fished: Pasagshak, Litnik, Port Lions, Saltery, Alitak, Barab

CAPACITY BUILDING

Since 2001 ADF&G and the Kodiak National Wildlife Refuge have maintained a cooperative agreement to use the Buskin River weir as a platform for the Kodiak Summer Salmon Camp Program, which provides school-aged children a medium for activities and science-based learning. In June of 2015, 36 elementary school students visited the Buskin Lake weir on two different occasions to learn about salmon anatomy, life histories and how the weir functions.

Since 2003, the Buskin River project has also been a vehicle for fisheries-based education and development of career interest for young subsistence users through establishment of a high school intern program. During this internship, students gain knowledge of the principles involved in fisheries management and research while obtaining field experience in fisheries data collection methods and techniques. The intern program annually employs two top qualified students who work on the Buskin project under supervision of ADF&G staff between June 1 and July 31. The high school intern program has been an outstanding success, to the extent that at least five former interns are currently employed with ADF&G as seasonal Fish and Wildlife Technicians or Fisheries Biologists, and 17 of 23 former interns have returned to work for the Department at some point.

CONCLUSION

With exception of the 2008 and 2009 returns, Buskin River sockeye abundance has remained relatively stable and has allowed for continued, sustained harvest by subsistence users and anglers alike. In 2015, the escapement exceeded the upper end of the Biological Escapement Goal with uninterrupted opportunity for harvest by subsistence and sport users.

Annual implementation of the Buskin River sockeye salmon weir project, made possible with funding from the Fisheries Research Monitoring Program, has been essential for in-season

management that is necessary to sustain the health of the Buskin River sockeye salmon stock while providing maximum harvest opportunity for subsistence users. Continuation of this project will allow for additional analysis of run productivity to aid in the ongoing assessment of sockeye salmon returns to the Buskin River. It will also aid in refining the BEG concurrent with triennial Board of Fisheries meetings, as in the 2011 cycle when the goal was changed as a direct result of this project.

Office of Subsistence Management Fall 2015 Regional Advisory Council Report

Staffing Update

Robbin La Vine joined the Office of Subsistence Management (OSM) in October 2014. She is an anthropologist with extensive experience conducting subsistence research and building collaborative partnerships with Alaska Tribal, State, and Federal entities since 2002. Before joining OSM, she worked as a researcher for the Togiak National Wildlife Refuge, served as Social Scientist for the Bristol Bay Native Association Partners Program in Dillingham, and was a Subsistence Resource Specialist for the Alaska Department of Fish and Game, Division of Subsistence. Robbin is delighted to serve rural Alaskans while strengthening partnerships to ensure the continuation of the subsistence way of life.

Amee Howard joined OSM as the new Subsistence Policy Coordinator in July 2015. Prior to OSM, she worked as an Environmental Protection Specialist for the Pacific West Region of the National Park Service in Boulder City, Nevada. Previously, she worked for the Alaska Department of Fish and Game, Division of Commercial Fisheries, as a Fish and Game Program Technician in Sitka. Ameen also spent time working as the Coastal Monitoring Coordinator for the Sitka Tribe of Alaska. She earned her Bachelors of Science in Natural Sciences, with minors in Environmental Studies and Geology, from the University of Alaska, Anchorage. Ameen possesses a well-rounded background gained from previous work experience and is a valuable addition to the OSM team.

Efforts are currently underway to hire the following positions: Council Coordinator, Anthropologist, Anthropologist (Pathways), Fisheries Biometrician, Fisheries Biologist (2), Fisheries (Pathways) Grants Management Specialist, IT Specialist, and Administrative Assistant.

The North Pacific Fishery Management Council adopts measures to reduce Chinook Salmon bycatch in the Bering Sea Pollock fishery

At its April 2015 meeting in Anchorage, the North Pacific Fishery Management Council (NPFMC) took action to reduce bycatch of both Chinook and Chum Salmon in the Bering Sea commercial Pollock fishery. Recognizing the precarious state of Western Alaska's Chinook Salmon stocks, the NPFMC took a combination of actions which lower the caps in times of low abundance, combine Chinook and Chum Salmon bycatch management, place additional requirements on industry incentive plans and reapportion the Pollock catch between seasons. Taken together, these actions are anticipated to reduce bycatch of both Chinook and Chum Salmon, and ensure that additional measures, including lower caps, are in place in years of low Chinook Salmon abundance.

Much of the attention from stakeholders from both Western Alaska and the Pollock fishery focused on the option of lowering the Chinook Salmon bycatch hard cap and the performance standard, currently 60,000 and 47,591 fish, respectively. Western Alaskan stakeholders asked for a 60% reduction in both the hard cap and performance standard during testimony at the meeting and in several hundred letters and resolutions submitted prior to the meeting. The

Pollock industry advocated that no reductions be enacted. The State of Alaska led the effort to provide protections for Western Alaska Salmon stocks. Newly-appointed Alaska Department of Fish and Game Commissioner Sam Cotten introduced a motion calling for a 35% reduction in the performance standard and a 33% reduction in the hard cap. Commissioner Cotten's motion was amended by the Bill Tweit, NPFMC representative from Washington State, to a 25% reduction in the hard cap and a 30% reduction in the performance standard. This lesser reduction was passed by the NPFMC unanimously (10-0).

The results of the NPFMC action are as follows: In years of low Chinook Salmon abundance (defined as years in which the cumulative total Chinook Salmon runs of the Kuskokwim, Upper Yukon and Unalakleet Rivers is at or below 250,000 fish), the hard cap will be 45,000 and the performance standard will be 33,318 Chinook Salmon. The Pollock fishery manages to the performance standard, so the reduction in this number is important. The Council also made it very clear that they expect bycatch to remain well below the caps, and would take additional action if warranted. It should be noted that, in recent years, bycatch has averaged around 15,000 Chinook Salmon.

In addition to the reductions in the cap levels, the NPFMC's action contains several other, important measures. The other pieces of the motion apply in all years – not just when Salmon abundance is low. Alternative 2 combines Chinook and Chum Salmon bycatch management programs, ensuring a coordinated approach. It also requires information sharing with Western Alaska groups. Alternative 3 adds five new requirements for the industry Incentive Plan Agreements (IPA) to meet, including requiring Salmon excluders, restrictions on bycatch rates in October (a time of historically high bycatch) and significant penalties (no fishing) for boats with repeatedly bad bycatch performance. The options the Council selected under Alternative 4 provide the Pollock fishery with the flexibility to catch more of its harvest in the late A season, potentially shifting harvest effort away from the high bycatch times later in the year.

In summary, the NPFMC's action puts in place measures to further reduce bycatch in all times of abundance, and to ensure that in periods of low Chinook Salmon abundance the Pollock fishery would be limited to a lower level of bycatch.

Bridging the Gap between Native Communities, Conservation, and Natural Resource Management: Grant Update

The U.S. Fish and Wildlife Service and the Alaska Native Science and Engineering Program (ANSEP) were awarded a National Fish and Wildlife Foundation grant to help re-establish a lost connection between Federal resource managers and rural communities in the Yukon-Kuskokwim and Doyon Regions. Members of these communities rely on subsistence resources within six National Wildlife Refuges for both cultural and nutritional needs. Continued resource declines in both the Yukon and Kuskokwim River drainages have led to immense hardships for local residents as well as numerous challenges for resource managers to provide sufficient subsistence harvest opportunities, while ensuring adequate conservation efforts.

Funds from this grant are used to increase outreach opportunities and foster collaborative solutions by expanding the Refuge Information Technician (RIT) Program. Outreach and education contribute significantly to the overall success of resource management. Language barriers and cultural obstacles often stand in the way of achieving effective communication. The RIT program employs Alaska Native residents to serve as liaisons between the Yukon Delta National Wildlife Refuge and local communities. The RITs' regional experience, traditional ecological knowledge, Yup'ik language skills, and cultural sensitivity enhance their role as intermediaries. Expanding the capabilities of the RIT program will significantly increase and improve important connections between the Yukon Delta National Wildlife Refuge and local communities. These relationships are fundamental for local residents to become more involved in the management and conservation of the resources on which they depend.

Funds from this grant are also supporting ANSEP students participating in biological internships within the Yukon-Kuskokwim and Doyon Regions. ANSEP strives to increase the number of Alaska Natives employed in the fields of science, technology, engineering and mathematics (STEM) by increasing the number of individuals on a career path to leadership in STEM fields. The U.S. Fish and Wildlife Service is partnering with ANSEP to provide meaningful summer internships that expose students to careers in resources management. These internships provide an opportunity for students to experience resource monitoring and management while developing knowledge and skills allowing them to succeed in professional resource management positions.

Changes to Appointment Process

The Office of Subsistence Management has submitted requests to the Secretary of the Interior to make the following changes to the appointment process: shift from 3-year to 4-year appointment terms, allow for appointment of alternates, and provide for a 120-day carryover term for incumbents in the event that appointment letters are not timely issued. Dan Ashe, Director, U.S. Fish and Wildlife Service, has provided his support of these changes. As of the writing of this report, OSM is waiting to hear back from the Secretary's office to initiate the direct final rule making that would be necessary to change the appointment terms to 4 years. The new Senior Advisor for Alaska Affairs, Michael Johnson, will be assisting in moving this through the Secretary's office. OSM is moving ahead with plans to implement all changes for the current appointment cycle.

In order to switch from 3-year to 4-year appointment terms, as well as switch from having one-third of Council seats up for appointment each year to one-fourth of the seats being up for appointment, appointment terms will be staggered in order to complete the transition by the 2019 appointment cycle. This means that some Council members, even incumbents, may receive 2, 3 or 4-year appointments in the next few years. By 2019, however, all Council appointments will be for 4-year terms. If you have any questions, contact Carl Johnson, Council Coordination Division Chief, at (907) 786-3676 or carl_johnson@fws.gov.

All-Council Meeting
Anchorage, Alaska – Location TBD
March 7-11, 2016

Meeting Committee: RAC Chairs, Council Coordinators, Orville Lind (Native Liaison), Deborah Coble (Subsistence Outreach Specialist)

Joint Session

Monday, March 7, 2015

Invocation

Keynote Speaker:

Joint Agenda Items: Common issues from annual reports (i.e., bycatch, budget, other agency actions that impact subsistence, food security, climate change)

Concurrent Sessions

One full day for each of the Councils to address their regional issues

Tuesday – three Councils

Wednesday – three Councils

Thursday – three Councils

Friday – one Council

Training

Sessions repeat throughout the week to allow all Council members opportunity to attend.

- Title VIII of ANILCA
- Robert's Rules of Order
- Federal Indian Law (with ANCSA implications)
- Cross-Cultural communication
- C&T versus 804
- Regulatory Process (State and Federal)

Reports and Panels

- Western Arctic Caribou Herd
- Yukon River salmon
- Kuskokwim River salmon
- Public Processes for Fish & Wildlife Management (RAC, SRC, AC, AMBCC)
- Holistic management – discussion and explanation of how agencies manage resources (BLM, USFWS, NPS, USFS)
- Tribal Consultation
- Different Federal Subsistence Programs (Migratory Birds, Marine Mammals, Halibut)
- Understanding Dual Management

Important to note: this one meeting will encompass the entire meeting cycle for winter 2016

JOINT FEDERAL SUBSISTENCE REGIONAL ADVISORY COUNCILS

Venue TBD
Anchorage, Alaska
March 7, 2016
8:30 a.m.

TELECONFERENCE: call the toll free number: 1-866-[number], then when prompted enter the passcode: [number]

PUBLIC COMMENTS: Public comments are welcome for each agenda item and for regional concerns not included on the agenda. The Council appreciates hearing your concerns and knowledge. Please fill out a comment form to be recognized by the Council chair. Time limits may be set to provide opportunity for all to testify and keep the meeting on schedule.

PLEASE NOTE: These are estimated times and the agenda is subject to change. Contact staff for the current schedule. Evening sessions are at the call of the chair.

AGENDA

*Asterisk identifies action item.

- 1. **Invocation**
- 2. **Keynote Address**
- 3. **Roll Call and Establish Quorum** *(Council Coordination Division Chief)*.....
- 4. **Call to Order** *(Chair)*
- 5. **Welcome and Introductions** *(Chair)*
- 6. **Review and Adopt Agenda*** *(Chair)*
- 7. **Regional Reports**
- 8. **Business** *(Chair)*
 - a. Climate Change
 - b. Food Security
 - c. Federal Subsistence Budget.....
 - d. Revisions to FRMP
 - e. Hunter Education.....
 - f. Youth Engagement.....
- 9. **Agency Reports**

- a. **NPFMC** – Pollock Bycatch Update.....
- b. Status on Magnuson-Stevens Act Renewal.....
- c. Fisheries Management Overview
- d. **OSM** – Processes

Closing Comments

10. Adjourn (Chair)

To teleconference into the meeting, call the toll free number: 1-866-[number], then when prompted enter the passcode: [number]

Reasonable Accommodations

The Federal Subsistence Board is committed to providing access to this meeting for all participants. Please direct all requests for sign language interpreting services, closed captioning, or other accommodation needs to [name], 907-786-XXXX, [email], or 800-877-8339 (TTY), by close of business on [date].



All-Council Meeting Schedule

	Monday 3/7	Tuesday 3/8	Wednesday 3/9	Thursday 3/10	Friday 3/11
Main Room	<u>All day</u> Joint Session of the Councils	<u>Morning</u> Training: Title VIII of ANILCA <u>Afternoon</u> Training: Cross-cultural communication	<u>Morning</u> Training: Regulatory Process <u>Afternoon:</u> Training: Federal Indian Law	<u>Morning</u> Report: Yukon River Salmon <u>Afternoon</u> Panel: Tribal Consultation	<u>Morning</u> Training: Robert's Rules of Order <u>Afternoon</u> Panel: Understanding Dual Management
Small Room 1		<u>All day</u> RAC 1 – Concurrent Session YKDRAC	<u>All day</u> RAC 4 – Concurrent Session EIRAC	<u>All day</u> RAC 7 – Concurrent Session SERAC	<u>All day</u> RAC 10 – Concurrent Session KARAC
Small Room 2		<u>All day</u> RAC 2 – Concurrent Session WIRAC	<u>All day</u> RAC 5 – Concurrent Session SCRAC	<u>All day</u> RAC 8 – Concurrent Session BBRAC	<u>Morning</u> <u>Afternoon</u> Panel: Tribal Consultation
Small Room 3		<u>All day</u> RAC 3 – Concurrent Session SPRAC	<u>All day</u> RAC 6 – Concurrent Session NWARAC	<u>All day</u> RAC 9 – Concurrent Session NSRAC	<u>All day</u> SERAC Day 2 (if needed)
Small Room 4		<u>Morning</u> Training: Robert's Rules of Order <u>Afternoon</u> Panel: Public Processes for Fish & Wildlife Management	<u>Morning</u> Training: C&T versus Section 804 <u>Afternoon</u> Training: Cross-Cultural Communication	<u>Morning</u> Panel: Understanding Dual Management <u>Afternoon</u> Training: C&T versus Section 804	<u>Morning</u> Training: C&T versus Section 804 <u>Afternoon</u> Panel: Public Processes for Fish & Wildlife Management
Small Room 5		<u>Morning</u> <u>Afternoon</u> Panel: Holistic management	<u>Morning</u> Training: Title VIII of ANILCA <u>Afternoon</u> Panel: Public Processes for Fish & Wildlife Management	<u>Morning</u> Training: Cross-Cultural Communication <u>Afternoon</u> Panel: Holistic management	<u>Morning</u> Report: WACH <u>Afternoon</u> Training: Title VIII of ANILCA
Small Room 6		<u>Morning</u> Training: Regulatory Process <u>Afternoon</u> Panel: Different Federal Subsistence Programs	<u>Morning</u> Training: Robert's Rules of Order <u>Afternoon</u> Panel: Different Federal Subsistence Programs	<u>Morning</u> Training: Federal Indian Law <u>Afternoon</u> Report: Kuskokwim Salmon	<u>Morning</u> Training: Regulatory Process <u>Afternoon</u>

TRAINING	PANELS	REPORTS (ONCE EACH)
<p>Title VIII of ANILCA (x3)</p> <p><i>Provide an overview of Title VIII and key provisions that govern Federal subsistence management.</i></p>	<p>Public Process for Fish & Wildlife Management (AC, RAC, SRC, AMBCC) (x3)</p> <p><i>Panel consisting of one member of an AC, RAC, SRC and AMBCC to explain how each of their processes work and how public can participate.</i></p>	<p>Western Arctic Caribou Herd</p> <p><i>Report from State and Federal managers on status of herd and current management objectives and approaches.</i></p>
<p>Cross-Cultural Communication (x3)</p> <p><i>Training to help State and Federal staff improve communication with Alaska Natives.</i></p>	<p>Holistic Management (x2)</p> <p><i>Conceptual panel to discuss how fish and wildlife among various agencies can be managed in a more holistic way.</i></p>	<p>Yukon Salmon</p> <p><i>Report from State and Federal managers on status of salmon stocks and current management objectives and approaches.</i></p>
<p>Robert's Rules of Order (x3)</p> <p><i>Training to benefit RAC members in the conduct of their meetings under Robert's Rules.</i></p>	<p>Tribal Consultation (x2)</p> <p><i>Panel consisting of Native Liaisons from R7 and OSM and Tribal leaders to discuss current consultation process and how it should work. Emphasis on what consultation means from Tribal perspective.</i></p>	<p>Kuskokwim Salmon</p> <p><i>Report from State and Federal managers on status of salmon stocks and current management objectives and approaches.</i></p>
<p>Regulatory Process (x3)</p> <p><i>Explain the regulatory process under both State and Federal systems and provide information on how to submit proposals.</i></p>	<p>Different Federal Subsistence Programs (Halibut, Marine Mammals, Mig Birds, OSM) (x2)</p> <p><i>Panel consisting of representatives from the various Federal programs that regulate certain subsistence activities to discuss their jurisdiction, legal authority, and approach to management.</i></p>	
<p>Federal Indian Law (x2)</p> <p><i>Basic principles of Federal Indian law including how it is affected by the Alaska Native Claims Settlement Act and related case law in State and Federal courts.</i></p>	<p>Understanding Dual Management (x2)</p> <p><i>State and Federal managers explain their jurisdictional role in managing fish and wildlife resources, how the two sometimes work together and sometimes separately.</i></p>	
<p>C&T versus Section 804 (x3)</p> <p><i>Provide instruction on how C&T determinations and Section 804 determinations are made, how applied, where they differ.</i></p>		

Winter 2016 Regional Advisory Council Meeting Calendar

March 2016 current as of 3/24/2015

Meeting dates and locations are subject to change.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<i>Feb. 7</i>	<i>Feb. 8</i> <i>Window Opens</i>	<i>Feb. 9</i>	<i>Feb. 10</i>	<i>Feb. 11</i>	<i>Feb. 12</i>	<i>Feb. 13</i>
<i>Feb. 14</i>	PRESIDENT'S DAY HOLIDAY	<i>Feb. 16</i>	<i>Feb. 17</i>	<i>Feb. 18</i>	<i>Feb. 19</i>	<i>Feb. 20</i>
<i>Feb. 21</i>	<i>Feb. 22</i>	<i>Feb. 23</i>	<i>Feb. 24</i>	<i>Feb. 25</i>	<i>Feb. 26</i>	<i>Feb. 27</i>
<i>Feb. 28</i>	<i>Feb. 29</i>	<i>Mar. 1</i>	<i>Mar. 2</i>	<i>Mar. 3</i>	<i>Mar. 4</i>	<i>Mar. 5</i>
<i>Mar. 6</i>	<i>Mar. 7</i>	<i>Mar. 8</i>	<i>Mar. 9</i>	<i>Mar. 10</i>	<i>Mar. 11</i>	<i>Mar. 12</i>
	All Council Meeting - Anchorage					
<i>Mar. 13</i>	<i>Mar. 14</i>	<i>Mar. 15</i>	<i>Mar. 16</i>	<i>Mar. 17</i>	<i>Mar. 18</i> <i>Window Closes</i>	<i>Mar. 20</i>

Fall 2016 Regional Advisory Council Meeting Calendar

August–November 2016

Meeting dates and locations are subject to change.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<i>Aug. 21</i>	<i>Aug. 22</i> WINDOW OPENS	<i>Aug. 23</i>	<i>Aug. 24</i>	<i>Aug. 25</i>	<i>Aug. 26</i>	<i>Aug. 27</i>
<i>Aug. 28</i>	<i>Aug. 29</i>	<i>Aug. 30</i>	<i>Aug. 31</i>	<i>Sept. 1</i>	<i>Sept. 2</i>	<i>Sept. 3</i>
<i>Sept. 4</i>	<i>Sept. 5</i> HOLIDAY	<i>Sept. 6</i>	<i>Sept. 7</i>	<i>Sept. 8</i>	<i>Sept. 9</i>	<i>Sept. 10</i>
<i>Sept. 11</i>	<i>Sept. 12</i>	<i>Sept. 13</i>	<i>Sept. 14</i>	<i>Sept. 15</i>	<i>Sept. 16</i>	<i>Sept. 17</i>
<i>Sept. 18</i>	<i>Sept. 19</i>	<i>Sept. 20</i>	<i>Sept. 21</i>	<i>Sept. 22</i>	<i>Sept. 23</i>	<i>Sept. 24</i>
<i>Sept. 25</i>	<i>Sept. 26</i>	<i>Sept. 27</i>	<i>Sept. 28</i>	<i>Sept. 29</i>	<i>Sept. 30</i>	<i>Oct. 1</i>
<i>Oct. 2</i>	<i>Oct. 3</i>	<i>Oct. 4</i>	<i>Oct. 5</i>	<i>Oct. 6</i>	<i>Oct. 7</i>	<i>Oct. 8</i>
<i>Oct. 9</i>	<i>Oct. 10</i>	<i>Oct. 11</i>	<i>Oct. 12</i>	<i>Oct. 13</i>	<i>Oct. 14</i>	<i>Oct. 15</i>
<i>Oct. 16</i>	<i>Oct. 17</i>	<i>Oct. 18</i>	<i>Oct. 19</i>	<i>Oct. 20</i>	<i>Oct. 21</i>	<i>Oct. 22</i>
<i>Oct. 23</i>	<i>Oct. 24</i>	<i>Oct. 25</i>	<i>Oct. 26</i>	<i>Oct. 27</i>	<i>Oct. 28</i>	<i>Oct. 29</i>
<i>Oct. 30</i>	<i>Oct. 31</i>	<i>Nov. 1</i>	<i>Nov. 2</i>	<i>Nov. 3</i>	<i>Nov. 4</i> WINDOW CLOSES	<i>Nov. 5</i>

**Department of the Interior
U. S. Fish and Wildlife Service**

Kodiak/Aleutians Subsistence Regional Advisory Council

Charter

- 1. Committee's Official Designation.** The Council's official designation is the Kodiak/Aleutians Subsistence Regional Advisory (Council).
- 2. Authority.** The Council is reestablished by virtue of the authority set out in the Alaska National Interest Lands Conservation Act (16 U.S.C. 3115 (1988)) Title VIII, and under the authority of the Secretary of the Interior, in furtherance of 16 U.S.C. 410hh-2. The Council is established in accordance with the provisions of the Federal Advisory Committee Act (FACA), as amended, 5 U.S.C. Appendix 2.
- 3. Objectives and Scope of Activities.** The objective of the Council is to provide a forum for the residents of the Region with personal knowledge of local conditions and resource requirements to have a meaningful role in the subsistence management of fish and wildlife on Federal lands and waters in the Region.
- 4. Description of Duties.** The Council possesses the authority to perform the following duties:
 - a. Recommend the initiation of, review, and evaluate proposals for regulations, policies, management plans, and other matters relating to subsistence uses of fish and wildlife on public lands within the Region.
 - b. Provide a forum for the expression of opinions and recommendations by persons interested in any matter related to the subsistence uses of fish and wildlife on public lands within the Region.
 - c. Encourage local and regional participation in the decisionmaking process affecting the taking of fish and wildlife on the public lands within the Region for subsistence uses.
 - d. Prepare an annual report to the Secretary containing the following:
 - (1) An identification of current and anticipated subsistence uses of fish and wildlife populations within the Region.
 - (2) An evaluation of current and anticipated subsistence needs for fish and wildlife populations within the Region.
 - (3) A recommended strategy for the management of fish and wildlife populations within the Region to accommodate such subsistence uses and needs.

- (4) Recommendations concerning policies, standards, guidelines, and regulations to implement the strategy.
 - e. Make recommendations on determinations of customary and traditional use of subsistence resources.
 - f. Make recommendations on determinations of rural status.
 - g. Provide recommendations on the establishment and membership of Federal local advisory committees.
5. **Agency or Official to Whom the Council Reports.** The Council reports to the Federal Subsistence Board Chair, who is appointed by the Secretary of the Interior with the concurrence of the Secretary of Agriculture.
6. **Support.** The U.S. Fish and Wildlife Service will provide administrative support for the activities of the Council through the Office of Subsistence Management.
7. **Estimated Annual Operating Costs and Staff Years.** The annual operating costs associated with supporting the Council's functions are estimated to be \$150,000, including all direct and indirect expenses and 1.0 staff years.
8. **Designated Federal Officer.** The DFO is the Subsistence Council Coordinator for the Region or such other Federal employee as may be designated by the Assistant Regional Director – Subsistence, Region 7, U.S. Fish and Wildlife Service. The DFO is a full-time Federal employee appointed in accordance with Agency procedures. The DFO will:
 - Approve or call all of the advisory committee's and subcommittees' meetings,
 - Prepare and approve all meeting agendas,
 - Attend all committee and subcommittee meetings,
 - Adjourn any meeting when the DFO determines adjournment to be in the public interest, and
 - Chair meetings when directed to do so by the official to whom the advisory committee reports.
9. **Estimated Number and Frequency of Meetings.** The Council will meet 1-2 times per year, and at such times as designated by the Federal Subsistence Board Chair or the DFO.
10. **Duration.** Continuing.
11. **Termination.** The Council will terminate 2 years from the date the Charter is filed, unless, prior to that date, it is renewed in accordance with the provisions of Section 14 of the FACA. The Council will not meet or take any action without a valid current charter.

- 12. Membership and Designation.** The Council's membership is composed of representative members as follows:

Ten members who are knowledgeable and experienced in matters relating to subsistence uses of fish and wildlife and who are residents of the Region represented by the Council. To ensure that each Council represents a diversity of interests, the Federal Subsistence Board in their nomination recommendations to the Secretary will strive to ensure that seven of the members (70 percent) represent subsistence interests within the Region and three of the members (30 percent) represent commercial and sport interests within the Region. The portion of membership representing commercial and sport interests must include, where possible, at least one representative from the sport community and one representative from the commercial community.

The Secretary of the Interior will appoint members based on the recommendations from the Federal Subsistence Board and with the concurrence of the Secretary of Agriculture.

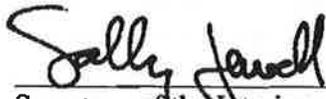
Members will be appointed for 3-year terms. A vacancy on the Council will be filled in the same manner in which the original appointment was made. Members serve at the discretion of the Secretary.

Council members will elect a Chair, a Vice-Chair, and a Secretary for a 1-year term.

Members of the Council will serve without compensation. However, while away from their homes or regular places of business, Council and subcommittee members engaged in Council, or subcommittee business, approved by the DFO, may be allowed travel expenses, including per diem in lieu of subsistence, in the same manner as persons employed intermittently in Government service under Section 5703 of Title 5 of the United States Code.

- 13. Ethics Responsibilities of Members.** No Council or subcommittee member will participate in any specific party matter in which the member has a direct financial interest in a lease, license, permit, contract, claim, agreement, or related litigation with the Department.
- 14. Subcommittees.** Subject to the DFO's approval, subcommittees may be formed for the purpose of compiling information and conducting research. However, such subcommittees must act only under the direction of the DFO and must report their recommendations to the full Council for consideration. Subcommittees must not provide advice or work products directly to the Agency. The Council Chair, with the approval of the DFO, will appoint subcommittee members. Subcommittees will meet as necessary to accomplish their assignments, subject to the approval of the DFO and the availability of resources.

15. **Recordkeeping.** Records of the Council, and formally and informally established subcommittees or other subgroups of the Council, shall be handled in accordance with General Records Schedule 26, Item 2, and other approved Agency records disposition schedule. These records shall be available for public inspection and copying, subject to the Freedom of Information Act, 5 U.S.C. 552.


Secretary of the Interior

NOV 25 2013

Date Signed

DEC 03 2013

Date Filed



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