



## Federal Subsistence Board

1011 East Tudor Road, MS 121  
Anchorage, Alaska 99503 - 6199



FISH and WILDLIFE SERVICE  
BUREAU of LAND MANAGEMENT  
NATIONAL PARK SERVICE  
BUREAU of INDIAN AFFAIRS

FOREST SERVICE

OSM 20070.KW

AUG 06 2020

Louis Green, Chair  
Seward Peninsula Subsistence  
Regional Advisory Council  
c/o Office of Subsistence Management  
1101 East Tudor Road, MS 121  
Anchorage, Alaska 99503-6199

Dear Chairman Green:

This letter responds to the Seward Peninsula Subsistence Regional Advisory Council's (Council) fiscal year 2019 Annual Report. The Secretaries of the Interior and Agriculture have delegated to the Federal Subsistence Board (Board) the responsibility to respond to these reports. The Board appreciates your effort in developing the Annual Report. Annual Reports allow the Board to become aware of the issues outside of the regulatory process that affect subsistence users in your region. We value this opportunity to review the issues concerning your region.

### **1. Climate Induced Impacts to Subsistence Resources**

*The Council continues to be concerned about the effects of climate change on the Seward Peninsula. The large fish and bird die-offs of last summer, continued permafrost loss, and extreme algae growth are all threatening subsistence resources. Water temperatures both at sea and inland have spiked considerably, with negative impacts to fish and marine mammals, including mortality and parasite infestation. Algae growths over the past two years have been extraordinary, with areas so overgrown that sighting water from the air or identifying sandbars for landing aircraft is proving increasingly difficult. The algae in the water is dust-like, producing cloudy water, and the algae on the banks is like grass. The Seward Peninsula Region has also seen extreme weather systems that are jamming ice, creating erosion and producing high winds. All of these events negatively influence subsistence by threatening the life cycles of fish and wildlife and posing hunter safety and access challenges. Although this past winter was closer to normal conditions, the previous two years created extremely difficult conditions for subsistence users. Overall, climate-induced changes have worsened over the past two decades. Recommendations: The Council has asked for baseline data for water temperatures to either 1) continue in areas or 2) be initiated in others, so that current and future changes can be*

*quantified. While climate change is an extremely broad issue, it is important that Federal, State, and Tribal organizations/corporations work together to ensure that data are consistently collected, changes are accurately recorded, and mitigation occur wherever possible to ensure food security.*

**Response:**

The Board recognizes that temperature plays an important role in controlling the metabolic processes of fish, in addition to transforming their habitat and effecting their food sources. Changing climate can result in water temperature fluctuations beyond the behavioral and physiological tolerance of aquatic organisms, including fish, which could have a deleterious effect on their productivity and availability to subsistence users (Davis J. C., G. A. Davis, 2020. *Stream Water Temperatures Associated with Federal Subsistence Fisheries in Alaska. Winter 2008-2018 Summary*. The Aquatic Restoration and Research Institute. Talkeetna, Alaska. See enclosure). Currently, the availability of reliable water temperature data for stream habitats is very limited on the Seward Peninsula. The Fisheries Resource Monitoring Program has funded daily water temperature data collection at the Unalakleet River Weir since 2011. The Board intends to support this data collection into the future. If your Council wishes to see additional baseline data collection related to other Federal subsistence fisheries, the Board recommends working with the staff at the Office of Subsistence Management (OSM) to develop a Priority Information Need reflecting the Council's interest. Councils will discuss and formulate Priority Information Needs recommendations during their Fall 2020 meetings. OSM will be seeking proposals for research and monitoring projects in early 2021. Priority Information Needs will guide researchers in developing project proposals.

**2. Food Contaminants**

*The Council engaged in lengthy discussions regarding contaminants in local food, largely originating in the ocean, though some members also refer to military activities on land as the source. Council members from Unalakleet and Stebbins are concerned with impacts to fish and marine mammals from the nuclear accident in Japan and radiation from Russian military activities. Council members say there has been an increase in cancers in local residents and that these contaminants may be the source. Radiation can be stored in kelp and other ocean plants. When the ocean warms up, these toxins can be released and affect fish, herring eggs, and other resources that locals depend on for subsistence. Permafrost melt may also be releasing toxins that have otherwise been buried for decades or longer. These toxins could be ingested by humans through terrestrial foods such as berries or moose. One Council member stated that toxins such as polychlorinated biphenyls (PCBs) were found close to shore near Unalakleet when researchers were testing water quality.*

*Recommendation: The Council is requesting that researchers collect data on toxins in the environment in the Seward Peninsula Region and alert locals of any dangerous chemicals found in their food sources.*

**Response:**

The Board appreciates that you have brought your concerns about possible contaminants in subsistence resources to our attention. The Board itself does not sponsor contaminants-related research directly, but many of our Federal partners do. Studies of contaminants in wild foods have been undertaken in Alaska but are not under the authority of a single agency or office. Your Council may wish to request that OSM contacts local staff at the National Park Service, U.S. Fish and Wildlife Service, Bureau of Land Management, National Oceanic and Atmospheric Administration, State agencies, university researchers, and non-governmental organizations for results from projects that have tested subsistence resources for contaminants in the Bering Strait Region. The Council could ask that information be made available at future meetings in the form of presentations and published reports.

**3. Norton Sound Red King Crab Fishery**

*At its winter 2020 meeting, the Council heard from Charlie Lean, Chair of the Norton Sound Fish and Game Advisory Committee and ADF&G staff regarding the plummeting Red King Crab population in Norton Sound. Many subsistence crab harvesters reported a complete absence of Red King Crab this season, and were unable to meet their subsistence needs.*

*Although ADF&G expected a lower catch this season, they were alarmed when only 80 thousand of the 150 thousand quota were met. Commercial crab fishermen and researchers are observing very few large male crabs. The number of fertilized eggs on female crabs was nearly half of the expected norm. Biologists believe this will negatively impact recruitment and is likely caused by the absence of large male crabs.*

*The Council was encouraged to hear that the Red King Crab fishery was closed by the Alaska Board of Fisheries, effective at the end of April 2020 and through the remainder of the year. Overall, the Red King Crab population, however, is not expected to recover until 2023. Subsistence hunters are frustrated with having to compete with commercial crab fisheries and believe the Red King Crab commercial season should be completely shut down until the population recovers, subsistence needs are met, and a sustainable commercial fishery is in place. The Council implores Federal and State agencies to manage for the long term. Some Council members suggest that the Red King Crab fishery be Federally-managed to ensure subsistence needs are met. Norton Sound residents have fished for crab for thousands of years in this region and are greatly disturbed by this threat to a traditional subsistence resource.*

**Recommendation:**

*The Council has no recommendations to the Board on this topic. The purpose of including the Council's concerns in the Annual Report is to alert the Board that the Council intends to send a letter to the North Pacific Fishery Management Council regarding Red King Crab populations in Norton Sound and the inability of local subsistence users in the region to meet their subsistence needs from this critical resource in the 2019/2020 season.*

**Response:**

The Board appreciates being kept informed about the subsistence concerns regarding renewable resources in the Seward Peninsula Region. The Board would appreciate reviewing any response the North Pacific Fisheries Management Council provides to address your concerns.

In closing, I want to thank you and your Council for your continued involvement and diligence in matters regarding the Federal Subsistence Management Program. I speak for the entire Board in expressing our appreciation for your efforts and am confident that the subsistence users of the Seward Peninsula Region are well represented through your work.

Sincerely,



Anthony Christianson  
Chair

Enclosure

cc: Seward Peninsula Subsistence Regional Advisory Council  
Federal Subsistence Board  
Susan Detwiler, Assistant Regional Director, Office of Subsistence Management  
Thomas Doolittle, Deputy Assistant Regional Director, Office of Subsistence Management  
Lisa Maas, Acting Subsistence Policy Coordinator, Office of Subsistence Management  
Tom Kron, Acting Council Coordination Division Supervisor,  
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Acting Wildlife Division Supervisor, Office of Subsistence Management  
Greg Risdahl, Fisheries Division Supervisor, Office of Subsistence Management  
Acting Anthropology Division Supervisor, Office of Subsistence Management  
George Pappas, State Subsistence Liaison, Office of Subsistence Management  
Karen Deatherage, Council Coordinator, Office of Subsistence Management  
Katerina Wessels, Council Coordinator, Office of Subsistence Management  
Interagency Staff Committee  
Benjamin Mulligan, Deputy Commissioner, Alaska Department of Fish and Game  
Mark Burch, Special Project Coordinator, Alaska Department of Fish and Game  
Administrative Record