







Navigating the New Arctic Program National Science Foundation 2415 Eisenhower Avenue, Alexandria, Virginia 22314

March 19, 2020

Waqaa, Aang—Greetings. As Tribes and Tribal Organizations that represent a large portion of Western Alaska and communities along the Bering Sea, we write to share our collective concerns with the National Science Foundation's Navigating the New Arctic program (NNA).

Kawerak Incorporated (Kawerak) is the Alaska Native non-profit Tribal consortium for the 20 federally recognized Tribes of the Bering Strait region. The Association of Village Council Presidents (AVCP) is the regional non-profit Tribal consortium for 56 Alaska Native villages in the Yukon-Kuskokwim Delta. The Bering Sea Elders Group (BSEG) is an association of Elder Representatives appointed by 38 Tribes in the Yukon-Kuskokwim and Bering Strait regions. The Aleut Community of St. Paul Island is the federally designated name used to identify the community of Unangan, also known as Aleuts, residing on St. Paul Island.

As Indigenous Peoples, we have lived in the Arctic for millennia. As stewards of our lands and waters we have developed inextricable connections that form the foundation of our own understandings of our environments, including marine, freshwater, terrestrial, atmospheric, and ice-related. Our knowledges have been passed down from generation to generation, and are continually updated, adapted, and reshaped as our individual and collective experiences and observations inform them. Furthermore, our view of the 'ecosystem' is holistic and recognizes different systems, and the connections between them, such as the physical, biological, chemical, social, and cultural systems. Human and non-human persons and connections of all kinds are known and respected. Importantly, our view includes humans as part of this highly interconnected system.

Harvesting healthy wild resources from our ancestral hunting grounds is a component of food security along with other inter-dependent social and cultural dimensions, including the right to apply indigenous knowledge systems, and play a central role in decisions that form marine policy in the region. These rights have sound legal authority: the longstanding doctrines of aboriginal hunting and fishing rights in federal waters have been established and reaffirmed in a case brought by Tribes in the northern Bering Sea region. In addition, Bering Sea Tribes have a unique legal relationship with the federal government, including federal agencies making decisions in the region, and this federal trust responsibility is the legal source for

 $^{\rm I}$ Village of Gambell v. Hodel (Gambell III), 869 F.2d 1273 (9th Cir. 1989).

modern tribal consultation.² Thus, we hold both intricate knowledge and sovereignty over our lands and waters and knowledges.

The Bering Sea has been experiencing some of the most dramatic and unpredictable impacts from climate change, resulting in ocean warming, loss of sea ice, phenology shifts, changes in abundances and distributions of species, erosion, increased human health risks, and myriad other impacts. Our communities have been sharing their concerns and knowledge about these numerous changes, which are as diverse as the communities in the Arctic, for many years now. For many decades we have asked to be active partners with agencies and academics that wish to come onto our lands and waters to conduct research, such as research that informs national security, ecosystem health, economic development, and societal well-being, and which promotes resilient and sustainable Arctic communities.

Unfortunately, there continues to be a disconnect between resource managers, policy-makers, academics, agencies, and our communities. There are many types of research questions important to our food security, human health and well-being, infrastructure, security, cultural heritage, and resilience in an Arctic that requires increasingly nimble adaptation of our communities. We continue to lack meaningful access and voice in the vast landscape that is the 'research process' to ensure that these questions are addressed in locally relevant and respectful ways.

We understand that the NNA program has recently funded many projects and is seeking to continue funding projects at the convergence of the natural, social, and built environment addressing challenges posed by a rapidly changing Arctic. We cannot overstate the need for true collaboration among Indigenous Peoples, Tribes, communities, government agencies, academia, and non-governmental organizations. However, as the first and enduring stewards of our homelands (lands, waters, ice) and 'resources' (fauna and flora), we have grave concerns about the impacts from the NNA process and funded projects to date.

The NNA has funded projects that claim, among other things, to be collaborative, to do knowledge coproduction, to include partnerships with Indigenous communities, and to address questions that will 'help' or 'assist' Arctic residents. Many of these projects (and many more which were not funded) do not and will not fulfill any of those claims.

The NNA Should Address Health Through Food Security and Impacts on Community Infrastructure

We understand and respect that it can be challenging to coordinate the activities of federal agencies and to maximize the efficiency of federal investments in supporting our nation's understanding of and response to rapid Arctic change. From our perspective on the ground attempting to develop and implement solutions, we recommend that the NNA program focus on projects that support the health of Arctic peoples and the sustainability of Arctic communities, specifically, the issues of food security and impacts on community infrastructure.

We share this recommendation because these are the two greatest existential threats posed by Arctic change and we are intimately familiar with the requirements and limitations of funding sources. We need at least \$100 million annually to undertake proactive actions to address the unavoidable impacts of climate change on our communities. We applaud NSF for its efforts to support practical science that could address the existential threats faced by our people and encourage NSF to evaluate how NNA research projects help to address those threats and make changes to the program so that it is more effective in addressing them.

² See Colette Routel & Jeffrey K. Holth, *Toward Genuine Tribal Consultation in the 21st Century*, 46 U. MICHIGAN J. OF L. REFORM 417, 430-35 (2013).

Food Security

The change in Alaska's environmental conditions (e.g., ocean temperatures, precipitation, soil temperatures, etc.) are causing a series of disasters throughout the state. There is an ongoing, statewide ecosystem-scale disaster that is impacting the health of organisms at all levels of the food chain, both terrestrial and aquatic. This year, sea surface temperatures in the Northwest Arctic reached seven degrees Fahrenheit above normal, contributing to a series of mass mortality events: a dozen gray whales, hundreds of puffins, and approximately 10,000 other seabirds have washed up dead onshore. Thousands of salmon floated belly-up downstream, unable to spawn due to heat stress from river temperatures that exceeded the worst-case scenario modeled for the year 2069.³ In some areas of our state the average subsistence harvest is 80% of the diet or 370 pounds of wild food per person annually. Due to the critical importance of healthy fish and wildlife populations for subsistence food resources, these changes threaten Alaska Native people's all aspects of our food security, livelihoods, and cultures. NNA projects focusing on these issues would have significant broader impacts and fill a strategic gap unmet by other funding sources.

Community Infrastructure

Another disaster caused by climate change is the myriad direct environmental impacts on community infrastructure throughout Alaska. Community infrastructure is owned by or immediately benefits our Arctic people. This includes roads, trails, water and sewer systems, structures, and physical components of our communities. We rely on ice for transportation, for the structural integrity of our buildings, for the procurement of our food, for our livelihoods, and for our culture; sea ice and permafrost are forms of infrastructure. Similarly, fish drying racks and ice cellars, for example, are essential for our food security and therefore also considered critical components of community infrastructure.

Across the state, approximately 40 communities face imminent threats to infrastructure and public health from erosion, permafrost degradation, and flooding. In February 2019, unprecedented winter rain in Nunapitchuk flooded the home of Zechariah Chaliak, Jr. The first floor filled with several feet of water, displacing the family for several weeks and permanently damaging the home. On August 2, 2019, erosion from an unusual summer storm in the Bering Sea eliminated 350,000 cubic feet of Shaktoolik's storm surge berm, leaving all of the community's infrastructure highly vulnerable to fall storms. Sink holes from melting permafrost in Chefornak are crippling the community's transportation infrastructure. Elsewhere in Alaska, communities face impacts from extreme drought. Over 2.5 million acres of land burned last summer due to wildfires.⁴ At least six communities faced a shortage of drinking water and the State of Alaska Emergency Operations Center provided temporary water supplies.⁵ These are some of the devastating impacts of climate change that Alaska is currently experiencing with only one degree Celsius of global warming.

Climate-related damages to Alaska's infrastructure are estimated to cost \$5.5 billion between 2015 and 2099. That estimate did not include most infrastructure in rural Alaska; the actual cost is likely to be significantly higher than \$5.5 billion.⁶ In 2018, the University of Alaska's Institute for Social and Economic

_

³ Ryan Prior, *The water is so hot in Alaska it's killing large numbers of salmon*, CNN Aug. 17, 2019, https://www.cnn.com/2019/08/16/us/alaska-salmon-hot-water-trnd/index.html; Carolyn Gramling, *Thousands of birds perished in the Bering Sea. Arctic warming may be to blame*, SCIENCENEWS, May 31, 2019, https://www.sciencenews.org/article/puffins-birds-died-bering-sea-arctic-warming; NATIONAL PARKS SERVICE, SEABIRD DIE-OFFS, https://www.nps.gov/subjects/aknatureandscience/commonmurrewreck.htm.

⁴ Jasmine Aguilera, *Siberian Wildfires and Heatwaves in Alaska: How the Arctic Is Nearing a Point of No Return*, Aug. 2, 2019, https://time.com/5641751/arctic-wildfires-heatwaves-alaska-climate-change/.

⁵ Scott Nelson, Daily Situation Report, State of Alaska Emergency Operations Center (Sep. 9, 2019.).

⁶ MELVIN ET AL., CLIMATE CHANGE DAMAGES TO ALASKA PUBLIC INFRASTRUCTURE AND THE ECONOMICS OF PROACTIVE ADAPTATION, PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES (2016).

Research estimated that it will cost \$50 million to \$100 million per year for Alaska communities to protect and move in response to environmental threats.⁷

It is important that NNA focus on community infrastructure because other funding programs have not adequately addressed this area. According to Vladimir Romanvsky, a leading permafrost researcher at the University of Alaska Fairbanks, the vast majority of NSF permafrost funding has gone to research on Alaska's North Slope. The map in Figure 1, below, shows the best available science on the relative level of threat from permafrost thaw to community infrastructure. Group 1 represents the communities with the greatest threat. Group 2 represents the communities with the next level of threat. Note the spatial distribution of communities and the proportion that exists outside the North Slope—the area where NSF has concentrated its permafrost funding.

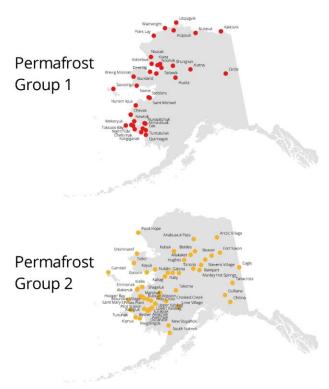


Figure 1. NSF has concentrated its permafrost research funding on Alaska's North Slope yet the majority of communities with the greatest threat to infrastructure from permafrost degradation lie outside this area.⁸

Historically, other NSF Arctic funding has excluded research in areas of Alaska that should be considered the Arctic, such as the Yukon-Kuskokwim Delta. Futhermore, other resources are generally available to support large-scale public infrastructure (e.g., State of Alaska roads and the trans-Alaska pipeline); for example, research on permafrost and privately-owned oil and gas infrastructure in Prudhoe Bay, Alaska can be funded by the corporations who own, maintain, and are responsible for that infrastructure. We thus suggest that NNA should focus on communities that are facing the greatest threat; to maximize societal

 $^{^7}$ M. Berman & J. Schmidt, Economic Effects of Climate Change in Alaska, Institute for Social and Economic Research, University of Alaska Anchorage (2018).

⁸ Denali Commission, Statewide Threat Assessment: Identification of Threats from Erosion, Flooding, and Thawing Permafrost in Remote Alaska Communities, 5-14 (Nov. 2019), available at https://www.denali.gov/wp-content/uploads/2019/11/Statewide-Threat-Assessment-Final-Report-November-2019-1-2.pdf.

benefit, we recommend that NSF focus the NNA program on community infrastructure and allocate resources to the areas with the greatest need, such as practical science in the communities highlighted above.

Changes Should Be Made to the Request for Proposals (RFP) Process

Our organizations experienced firsthand the negative and burdensome impacts from the NNA request for proposals (RFP) during the first and second rounds of funding. While there are many and varying impacts, we have summarized below some of the impacts that we would like to discuss in more detail:

- Many researchers approached our organizations very close to the RFP deadlines to discuss 'partnering' (or collaborating, or co-producing, etc.) with them on a proposal. There typically has not been adequate time for our organizations to consider a request or to do any kind of internal review and discussion of the proposed research. Many researchers 'cold-called' our organizations with only a few weeks or less before the RFP deadlines.
- All of the researchers who contacted our organizations to 'partner' (or collaborate, or co-produce) reached out with almost or fully-developed research proposals. They had already determined the research topic, the research questions, methods, project leaders and staff, timelines, budgets, etc. This model of 'partnering' fundamentally undermines the process of co-production that our organization's support. Often the researchers/proposals that claimed 'co-production' only wanted a letter of support or endorsement (which is not co-productive research) or, once we expressed concern about the lack of time to contribute in an equitable way, the request would change from 'partner with us' to 'well, can we just get a letter of support then?' There were no opportunities to provide significant or meaningful input to these proposals.
- While we were approached by many researchers during the first round of NNA, there were, of
 course, many researchers who did not approach us at all. We were completely unaware of many of
 the proposals that were subsequently funded, despite their supposed benefits to our regions and
 communities.
- Due to a lack of communication with our organizations and communities, some of the projects funded during the first-round overlap with policy and regulatory issues and research projects that our organizations are currently working on with the communities we represent. For example, projects addressing relocation and food security. This duplication of efforts is disappointing and inefficient.

Our experiences also brought about additional concerns that we have about the NNA RFP process. We summarize these here and again would like to follow up in more detail. These include:

- Many research questions were largely driven by western approaches. Many research proposals were from entities and researchers residing outside of the Arctic who do not have meaningful connections in the Arctic communities and regions in which they seek to conduct western scientific research. This leads to funded NNA projects that do not have a significant broader impact.
- We have unparalleled first-hand experience living in and with and knowing the Arctic environment. As such, we have many of our own research questions that are practical and address our biological, ecological, social, and economic interests and concerns from the perspective of our own worldviews and cosmologies. We have concerns about outside academics defining food security, well-being, resilience, prosperity, and adaption for us, without our explicit knowledge and active participation in the process. The potential outcomes of such research are dangerous and may

perpetuate erroneous and damaging conclusions that become the dominant narratives about our communities and Indigenous Peoples in the Arctic in general.

- There has been very little to no effort by various sectors of the 'funding' and 'research' communities to build or support the capacity of Indigenous Peoples, communities, and organizations to meaningfully engage with researchers and research organizations in the development of research proposals, participation in research activities, or enforcing accountability on the research community.
- We have observed a disconcerting trend in grant proposals from natural scientists who propose to use social science methods and investigate social science questions, without the participation of trained and experienced social scientists, and without the meaningful and equitable involvement of Indigenous Peoples. NSF would never fund an anthropologist to study the effect of reduced sea ice on walrus breeding patterns, for example. But non-social scientists are more and more regularly funded to research questions they are not qualified to investigate and without the proper teams to do the work (i.e., Indigenous Peoples and other disciplinary experts as co-principlal investigators).
- We are concerned about community outreach and engagement conducted (or not) by the research and funding communities. This includes outreach and engagement during the RFP preparation process, during the proposal preparation period, during the conduct of research activities, and in communicating and applying the results of research activities.
- We are concerned with how the peer review process will proceed. During the review of the proposals, it is important to ensure equitable participation by Indigenous Peoples and Indigenous scholars. It is also important to have appropriate disciplinary experts reviewing proposals. Ensuring that Indigenous Peoples, Indigenous scholars, and appropriate scientific experts (and, we note, these groups are not mutually exclusive), is crucial for appropriate and effective peer review. Specifically, scientists who 'study' or work with Indigenous communities are definitively *not* a substitute for Indigenous Peoples' participation in the review process.
- NNA proposal review criteria should include an evaluation of the following (which are not currently review criteria):
 - If a proposed project was not developed co-productively, and does not plan to use co-productive methods, why not? Researchers should have to explain why a proposed project is best conducted in a non-collaborative, non-co-productive way.
 - o If a project claims to be co-productive or collaborative, when were project partners approached? What inputs have project partners made to the proposal?

The NNA Could Have Broader Impacts With Increased Input from Indigenous Communities and Organizations

We are concerned about the lack of broader impacts from the NNA program to date. We request that NNA staff review past awards and current proposals to evaluate how they address communities' needs and priorities, with a focus on threats to food security, knowledge sovereignty, and community infrastructure.

Rather than enabling the research community to define where NNA invests its resources, we encourage NNA staff to develop a revision to the RFP and RFP-specific criteria to guide the evaluation of proposals. In the section below, we offer a few potential criteria, and would be happy to work with you on refining these and developing other criteria:

- Does the project aim to address the existential threats of food security or impacts on community infrastructure?
- Does the project allocate resources to the geographic areas of greatest need?
- Does the project address a top community need or priority?
- Does the project align with priorities identified in existing community, regional, state, and federal plans and reports?
- Does the project have letters of support from entities at the local, regional, and state levels?
- Did the applicant provide conclusive evidence that funding from other organizations is not available to address this?
- Does the project's implementation methodology address the root cause of the problem and produce information that will lead to solutions?

One example of an inefficient awarded NNA project is the research related to wintertime air quality in Fairbanks, Alaska, "Sustainably Navigating Arctic Pollution Through Engaging Communities" (award 1927838). Although we strongly support NNA's intention of addressing a human health problem for an Arctic community, this project did not have a strong connection to changing environmental conditions. The air quality problem is caused by inversions. There is no long-term trend of change in inversion frequency. Further, this project could have been funded by traditional health research programs such as the National Institutes of Health and Environmental Protection Agency. Consequently, the \$446,821 of NNA funding could have addressed a portion of the hundreds of millions of dollars of unfunded need directly related to changing Arctic environmental conditions.

The Fairbanks air quality project demonstrate that both the NNA program design and its reviewers would benefit from increased input from Indigenous communities and organizations on how to effectively steer federal funding toward projects that will result in societal benefit for Arctic peoples.

Other funders have held technical workshops where Alaska-based subject matter experts provide guidance on effective program design. For example, the National Fish and Wildlife Foundation's National Coastal Resilience Fund came here in 2019 to seek Alaskans' advice on how to prioritize their grantmaking in the state. We encourage NNA to hold a similar event and can be available to participate.

Suggestions for Equitably Incorporating a Co-Production of Knowledge Approach

We appreciate the recognition in the NNA RFPs of the need for research in a rapidly changing Arctic to take a co-production of knowledge (CPK) approach. However, there was no meaningful effort at CPK as far as we have seen for these proposals. Given the rapid pace of changes, the importance of ensuring equitable inclusion of both Indigenous Peoples' knowledge and science in addressing research questions, and concerns about our changing environment, cannot be overstated. Some of our organizations have taken a meaningful look at what a CPK approach means to scientific research; we have attached a resolution passed by the Bering Sea Elders Group in the fall of 2019 that recommends a CPK approach and the necessary components that should be included, for your review. Furthermore, Kawerak, Inc. has been

⁹ RICK THOMAN, METEOROLOGY OF FAIRBANKS WINTER: MAKING SENSE OF THAT CRAZY INVERSION, NATIONAL WEATHER SERVICE ALASKA REGION (2016), http://fnsb.us/transportation/AQConf2016/Thoman_Meteorology%20of%20 Fairbanks%20Winter%20Making%20Sense%20of%20That%20Crazy%20Inversion.pdf.

instrumental in advancing a co-production of knowledge approach in both scientific and policy realms, ¹⁰ and other Indigenous organizations have supported and adopted Kawerak's approach to CPK.

Below, we detail the components of CPK as they relate to the NNA that we would like to discuss further:

- First and foremost, CPK, as supported by Indigenous organizations submitting this letter, includes Indigenous Peoples' and knowledge holders. We recommend that questions are generated with the meaningful engagement of these groups prior to the development of an NNA funding announcement. In other words, let the priorities of the Arctic guide the NNA program.
- There is a discussion of equity in world views by project partners that recognizes the process of NNA is driven by western science and proposals are reviewed by western scientists. This approach does not offer equitable representation of Indigenous perspectives. Equitable representation of Indigenous perspectives is needed during all steps of the process, including the proposal review process. Western scientific researchers in general, and those living and working outside of the Arctic, need a better understanding of CPK and training in working with knowledge holders, diverse peoples, and remote Arctic communities.
- We recommend mandatory training on CPK for all western researchers that is presented and facilitated by Arctic Indigenous organization representatives. This training ideally would include a history of Arctic Peoples, the history of colonialism, decolonization training, the history of research in the Arctic, and cultural awareness and sensitivity training.
- Capacity for communities/knowledge holders. Additional resources are needed for community members and Indigenous Knowledge holders to effectively engage in the NNA process. This includes providing adequate monetary and educational resources. For example, monetary compensation for Indigenous Knowledge experts equivalent to Primary Investigators and PhD equivalent researchers. Another need is to expand the capacity for regional non-profit and non-governmental organizations to effectively work with communities on research issues. This could be achieved by funding a position within a regional organization that is focused on coordination.

Specific Recommendations for Moving Forward

In summary, below we provide some additional specific recommendations for improving the NNA program. We have previously provided many of these and other recommendations to NNA staff, but we hope that compiling them in this format will assist NSF in addressing them.

Previous awards have missed the stated goal of benefiting Arctic communities. To support practical science that directly benefits communities on the frontlines of the Arctic's rapidly changing environment NNA should:

 Create a Tribal set-aside with 25% of total NNA funding allocated for projects led by Tribes and Alaska Native Organizations.

https://agu.confex.com/agu/fm19/meetingapp.cgi/Session/83654.

¹⁰ See R. Daniel, C. Behe, & J. Raymond-Yakoubian, Understanding the Arctic Through a Co-Production of Knowledge, Arctic Futures 2050, (2019), available at https://www.searcharcticscience.org/arctic-2050/conference-2019/posters; R. Daniel, J. Raymond-Yakoubian, M. Drukenmiller, & L. Divine, Voices from the Front Lines of a Changing Bering Sea, American Geophysical Union Annual Meeting, (2019), available at

- Allocate supplemental scoring points to projects that are led by communities and Native-led
 organizations (measured by the community or Native-led organization being a principal
 investigator) and advance community-driven solutions (measured by a letter from the Tribal
 President dated no more than sixty days prior to grant submission).
- Incorporate Alaska Native Organizations in both the grant program design and the review process.
- Focus the NNA program on problems and research questions that support the health of Arctic peoples, specifically through food security and impacts on community infrastructure.
- Encourage projects led by individuals without PhDs. We suggest this because many of the Arctic's most valuable knowledge holders and thinkers have not pursued a western science education. Furthermore, many academic scientists do not have the experience or skills to conduct projects with implementation methodologies that deliver broader benefits to the Arctic. For example, privately owned Alaska-based consultants, such as engineering firms, can be highly qualified to support Indigenous communities in addressing environmental threats. A project that pairs a Native-led organization with communities and a private consultant could be of great benefit.
- Projects that aim to address erosion, permafrost degradation, and flooding impacts to infrastructure in Alaska should serve communities either identified in the top two categories of "combined threat" in the Denali Commission Statewide Threat Assessment or receive written support from the manager of the State of Alaska Coastal Hazards Program that states the proposed project is a high priority of statewide significance. The aim here is to steer NNA funding toward the areas of greatest need.
- Projects that aim to address food security threats should receive written support from their regional Tribal consortium and regional Tribal Health Organization. The aim here is to provide NSF with increased confidence that the project's implementation methodology will address the root cause and lead to significant societal benefit.
- Require that projects that aim to address impacts to infrastructure focus on collecting site-specific data and developing site-specific risk assessments that enable communities to developed informed solutions. Examples of the types of data collection and analysis needs can be found in the appendices of the Denali Comission's Statewide Threat Assessment.
- Increase the maximum total budget for planning proposals and increase the proportion of Track 2 grants awarded.
- Simplify the application process. Our people are very busy responding to the Arctic's rapid changes. Applying to NNA can take 150 to 200 hours. The current application process disadvantages Tribes who are interested in leading and partnering on proposals.
- NNA proposal review criteria should include an evaluation of the following, which are not currently review criteria:
 - o If a proposed project was not developed co-productively, and does not plan to use co-productive methods, why not? Researchers should have to explain why a proposed project is best conducted in a non-collaborative, non-co-productive way.

- o If a project claims to be co-productive or collaborative, when were project partners approached? What inputs have project partners made to the proposal?
- Provide open and transparent metrics that detail how NSF assess and monitor impacts to communities (negative and positive). We do not know of any standardized metrics that NSF has identified to track impacts to communities.
- NNA's encouragement of partnerships with regional or international collaboration is incongruent with the need for site-specific practical science. We recommend removing this language from the RFP and scoring criteria because it reduces the societal benefit of projects.

Our organizations and communities are extremely concerned about environmental and other changes happening in the Arctic, as well as the research that is being funded and conducted on these topics. Our desire, and our request to you, is to work with us to create a collaborative, effective, and widely beneficial NSF funding mechanism. We look forward to your response and to working with you to collectively grow our knowledge and understanding of the Arctic, and to achieve that end in a respectful and equitable way. To reach us, please contact our designated point person, Dr. Julie Raymond-Yakoubian, Kawerak Social Science Program Director, at (907) 443-4273 or juliery@kawerak.org.

Sincerely,

Melanie Bahnke

m. Bahnke

President

Kawerak, Inc.

Vivian Korthuis

Chief Executive Officer

Association of Village Council Presidents

Amos Philemonoff

President

Aleut Community of St. Paul Island

Mellisa Johnson

Executive Director
Bering Sea Elders Group