

# THE KACHEMAK BAY WATERSHED COLLABORATIVE



## Chugach Regional Resources Commission



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# Technical Proposal and Evaluation Criteria

## (1) Executive summary

Date: January 19, 2021

Applicant Name: Chugach Regional Resources Commission

City: Anchorage

County: N/A

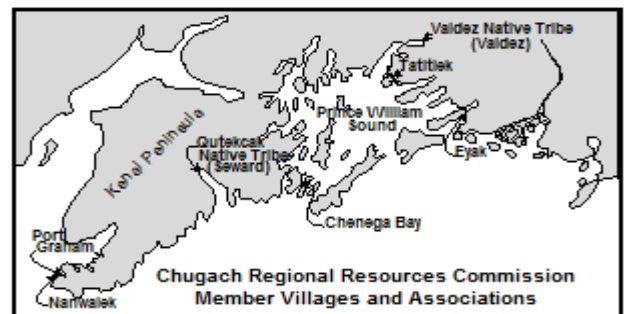
State: Alaska

Cities of: Homer, Kachemak Selo, Voznesenka, Razdolna, Seldovia, Nanwalek and Port Graham, Alaska

The Chugach Regional Resource Commission (CRRC) serves the greater Chugach region of Southcentral Alaska including Lower Cook Inlet, Resurrection Bay and Prince William Sound. Within Lower Cook Inlet are several member Tribes of CRRC and therefore, CRRC will establish the Kachemak Bay Watershed Collaborative (Collaborative or KBWC) to protect salmon streams located within the Kachemak Bay Watershed (Watershed). CRRC will engage a diverse group of stakeholders located within or having land ownership within the Watershed including Federally recognized Tribal entities, the U.S. Fish and Wildlife Service, the Alaska Departments of Natural Resources and Fish and Game, the municipalities of Homer, Kachemak Selo, Voznesenka and Razdolna Seldovia and the unincorporated native village communities of Nanwalek and Port Graham, and conservation organizations. The Athabascan and Sugpiaq communities located within the Watershed rely on a subsistence economy, as they have since time immemorial.

Many changes related to warming fresh and marine water temperatures impact the subsistence resources that the above communities rely upon.

These changes are happening at a rate thought impossible a decade ago. Land management activity within the watershed can exacerbate such impacts. Increasingly common drought conditions and spruce beetle outbreaks in the region threaten the health of the watershed and the plants and animals upon which rural communities rely on for subsistence. The Collaborative will work with Federal, state, tribal, local, research, conservation and other stakeholders to be more inclusive of tribal and other local communities and other stakeholders in monitoring, planning and decision-making that impacts the Watershed. Along with implementation of existing risk assessments and planning documents, preserving connectivity and non-climate stressor mitigation actions, this will ensure better protection and management of salmon habitat in the Watershed.



Map 1. CRRC Region

- State the length of time and estimated completion date for the proposed project (mm/yr).

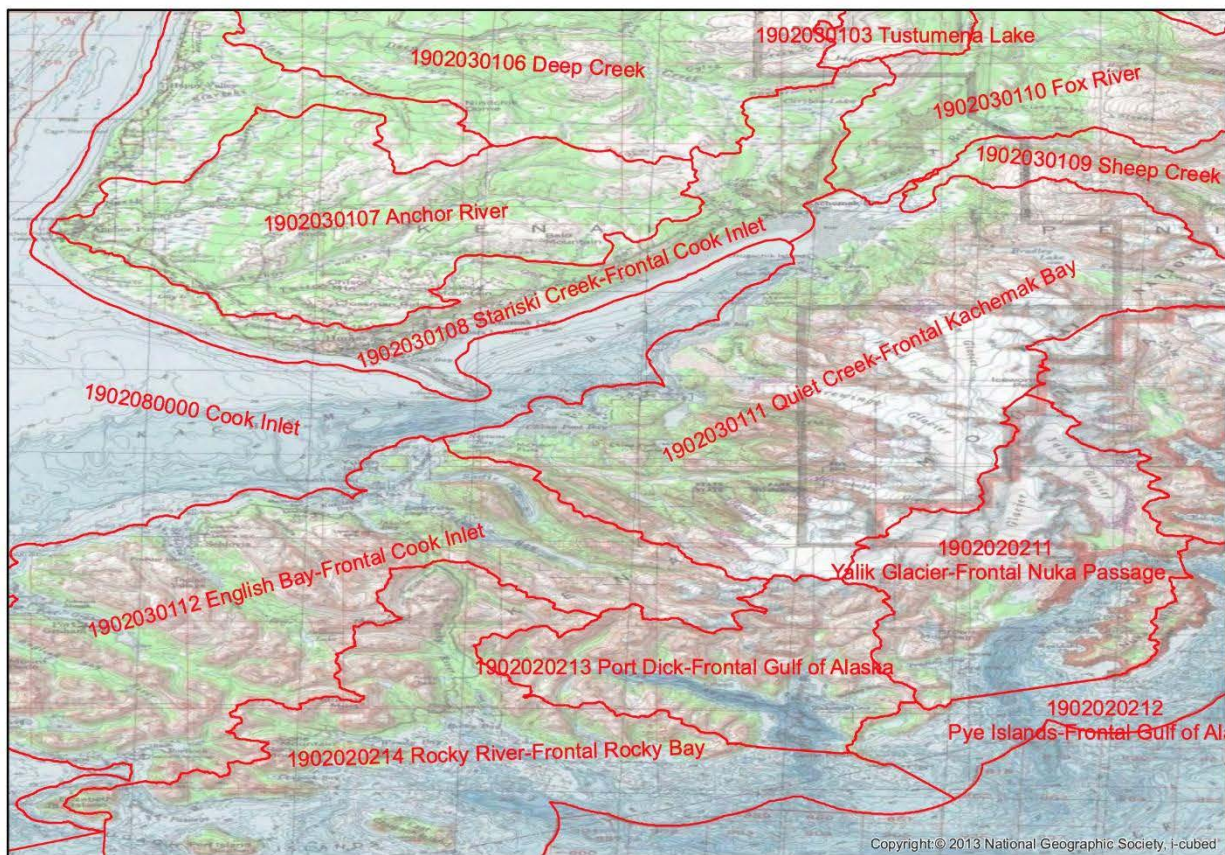
It is estimated that the two-year project will be completed in October of 2023.

- Whether or not the proposed planning efforts are focused on a Federal facility or will involve Federal land.

The planning effort will involve portions of the 150-million-acre Kenai National Wildlife Refuge.

## (2) Project location

The 4,926,794-acre Watershed is made up of five small watersheds located in Alaska’s Kenai Peninsula Borough, and encompasses the municipalities of Homer, Kachemak Selo, Voznesenka, Razdolna, Seldovia, and the unincorporated Alaska Native village communities of Nanwalek and Port Graham. The United States Geological Survey (USGS) Hydrologic Unit Codes (HUC) in which the group will work are: Cook Inlet, Stariski Creek-Frontal Cook Inlet, Fox River, Sheep Creek and Quiet Creek-Frontal Kachemak Bay Watershed HUC ID #s: 1902080000, 1902030108, 1902030110, 1902030109 and 1902030111 respectively.



Map 2. Kachemak Bay Watershed HUCs

### **(3) Technical project description**

- *Applicant Category*

CRRC is an Alaska Native Tribal consortium whose Dena'ina, Alutiiq and Sugpiaq villages and association members, located throughout south-central Alaska, have been the stewards of the Watershed for over 10,000 years. CRRC's mission is to promote Tribal sovereignty and the protection of subsistence lifestyles through the development and implementation of Tribal natural resource management programs to assure the conservation, sustainable economic development, and stewardship of the natural resources in the traditional use area of the Chugach Region.

We are seeking funding to build capacity for a new Watershed Group because there currently is no group focused specifically on this Watershed, though a diverse array of stakeholders including livestock grazers, tourist and recreation groups, industry, environmental organizations, recreation advocates, universities, land use, tribal, state and federal entities, municipalities and the general public utilize it. This Watershed group will also help fill a planning gap left by the elimination of Alaska's Coastal Zone Management program.

There are several ongoing or previous watershed planning activities, projects or efforts in relation to the Watershed that the Collaborative will build upon, including (*See*, pages 5-6 for additional discussion regarding building on existing planning):

- 1) The Kachemak Bay Fox-River Climate Risk Assessment analyzes current threats to salmon habitat within a portion of the Watershed, addresses salmon habitat connectivity and climate resiliency for the entire Watershed, and work with federal and state resources agencies to enter into cooperative agreements for management of salmon habitat on a watershed basis;
- 2) The Alaska Department of Fish and Game Fox River Flats Critical Habitat Area (FRFCHA) management plan which addresses regulatory management goals for the FRFCHA and includes managing the area to 1) maintain and enhance fish and wildlife populations and their habitat; 2) minimize the degradation and loss of habitat values due to fragmentation; and 3) recognize cumulative impacts when considering effects of small incremental developments and action affecting critical habitat resources.
- 3) The Kachemak Heritage Land Trust's (KHLT) Krishna Venta Conservation Management Plan which addresses working collaboratively with other state, federal, and local entities, KHLT purchases and negotiates conservation easements on private lands for the purposes of management and protection of fish and wildlife habitat of KHLT's 160 acres in the FRFCHA;
- 4) The Kenai Mountains To Sea Land Conservation Strategy to Sustain Our Way of Life on the Kenai Peninsula which calls for the creation of contiguous "green" corridors along 20 inter-jurisdictional anadromous streams, most of which originate on the Kenai Refuge. Such protection will increase the resiliency of these streams and the marine habitat into which they feed from the effects of a rapidly warming climate, while ensuring that large piscivores such as brown bears and wolves persist to transport marine derived nutrients onto the landscape;

- 5) The Department of Natural Resources' Kachemak Bay State Park and Kachemak Bay State Wilderness Park Management Plan which addresses management of the 371,000-acre Kachemak Bay State Park and Kachemak Bay State Wilderness Park (State Park);
- 6) The Cook Inlet Keeper State of the Inlet watershed restoration plan within the Watershed to capture threats, community specific concerns and ideas, which will help direct CIK's watershed-based organization plan future projects.

- *Eligibility of Applicant*

Applicant is a non-profit 501(c)(3) tribal consortium who will establish and coordinate the Collaborative. The CRRC Board of Directors is comprised of one Tribally elected representative from each of the communities. The Board of Directors meets quarterly unless special meetings are required and have constant, direct and indirect communication with each other and CRRC staff to address issues of concern in the Chugach region. These Board members were chosen for direct connection to representatives from each community specifically targeted because of their natural resource management inclination and will participate in the new Watershed Collaborative

- *Goals*

The goals of the Collaborative will be to research and share knowledge about the impacts of climate change and development on local salmon populations prioritize and implement restoration projects and work with stakeholders to build capacity for the protection of salmon streams located within the Watershed and identify water insecurities in Watershed communities and developing plans to secure local water supplies. By protecting salmon habitat in the Watershed, the Project will increase resiliency to climate change and subsistence resources throughout the Watershed. In addition, the project will improve the inclusiveness of the management process by including tribes and other smaller Kachemak Bay area communities from inception, which are often left out of management decisions even though they have substantial traditional and practical knowledge regarding climate related impacts to fish and wildlife resources within the Watershed.

- *Approach*

Task A - Watershed Group Development: Watershed group development activities include, but are not limited to:

- Hire a facilitator to assist with outreach to stakeholders.
- Conduct outreach activities in order to establish broad-based, diverse Collaborative stakeholder membership, including the creation of an outreach plan and information materials using CRRC's existing website and social media and networking. We will also conduct meetings to identify priority needs and potential projects with local stakeholders which, depending on the status of the COVID-19 situation, will be conducted virtually during the first year of the project and in person during the second.
- Develop a mission statement, vision statement, and goals for the watershed group.
- Gather information about issues and needs related to water quality and quantity within the watershed (e.g., through research, talking to government agencies and local

universities) through research of existing plans and literature and outreach to local stakeholder groups.

- Conduct pre-planning activities, including outlining a watershed restoration plan, researching and building on the existing plans related to the watershed, collecting baseline information, and identifying restoration needs for the watershed. Specifically, these activities will include continuing the process of enabling stakeholders to prioritize, make progress on goals and objectives applied in existing plans, and incorporate resilience and adaptation into a more detailed program level management plan.

The Collaborative’s preliminary planning activities will identify strategies for creating contiguous “green” corridors along twenty interjurisdictional anadromous streams, most of which originate on the Kenai Refuge, address current threats to salmon habitat, address salmon habitat connectivity and climate resiliency, and work with federal and state resources agencies to enter into cooperative agreements for management of salmon habitat on a watershed basis. To this end we will work with stakeholder members to implement existing watershed management plans and programs including: 1) The Kachemak Bay Fox-River Critical Habitat area Climate Risk Assessment; 2) The Kenai Mountains to Sea Land Conservation Strategy to Sustain Our Way of Life on the Kenai Peninsula; 3) The Alaska Department of Fish and Game Fox River Flats Critical Habitat Area management plan; 4) The Kachemak Heritage Land Trusts Krishna Venta Conservation Management Plan; 5) The Department of Natural Resources’ Kachemak Bay State Park and Kachemak Bay State Wilderness Park Management Plan; and 6) The Cook Inlet Keeper Community-based Watershed Tour: Planning for our next 25 years Project

#### **(4) Evaluation criteria**

##### ***E.1.1. Evaluation Criterion A— Watershed Group Diversity and Geographic Scope***

###### ***Sub-criterion No. A1. Watershed Group Diversity***

- *A description of the stakeholders within the watershed that affect or are affected by the quantity or quality of water within the watershed (“affected stakeholders”).*

These stakeholders include: Federally recognized tribal governments, tribal organizations, federal and state land management agencies, livestock grazing and extraction industry interests, municipalities, hydropower producers and conservation organizations.

- *For New Watershed Groups, a description of the affected stakeholders within the watershed that support the formation of watershed group.*

In order to address the alarming impacts of climate change within the Watershed, in 2019, preliminary meetings were held to determine the interest of setting up the Kachemak Bay Watershed Collaborative and identify potential issues. Over 20 stakeholders including federal, state and local resource agencies, research institutes, Native Tribes, livestock interests, individual citizens and conservation organizations supported the formation of the watershed group. In addition, the following stakeholders participated in the preliminary meetings to discuss potential management and climate adaptation and mitigation strategies for the Watershed. These stakeholders included representatives from area Tribes, non-profits, and government entities.

## **Tribal Entities**

### **Seldovia Village Tribe, Nanwalek IRA Council and Native Village of Port Graham**

For thousands of years, the Dena'ina, Alutiiq and Sugpiaq people have inhabited the Cook Inlet region located on the Southern tip of southcentral Alaska as “Tikahtnu.” These communities include the federally recognized tribal governments of Nanwalek IRA Council, Native Village of Port Graham, and the Seldovia Village Tribe whose traditional lands are within the Watershed. As a result, as stewards of the Watershed are the main dependent on its subsistence resources since time immemorial. All of the Tribes have a substantial interest in the impacts of climate change and land and water management actions impacting salmon rivers and streams within the Watershed.

In 2019, the Watershed experienced increased water temperatures and severe drought for the first time in recording history. As a result, one of the tributaries - Jakolof Creek, which contains a fall run of Coho and Pink Salmon, rain completing dry in late August of that year for the second time in 4 years causing a die-off of thousands of returning salmon. Similarly, during the summers of 2019 and 2020, the community water supply in the village of Nanwalek was impacted by drought in Southcentral Alaska requiring the village to have water flown in for sixty households. These Tribes are interested in working with the Collaborative to find ways to mitigate these and other impacts of climate change within the Watershed. (*See*, attached Tribal letters of support).



Fish Die-off Jakolof Creek – August 2019

## **Government entities**

### **Kenai National Wildlife Refuge (KNWR)**

As a working member of the Kenai Mountains to Sea (KM2S) partnership, the Kenai Refuge is directly involved in creating contiguous “green” corridors along 20 inter-jurisdictional anadromous streams, most of which originate on the Kenai National Wildlife Refuge (KNWR). Such protection will increase the resiliency of these streams and the marine habitat into which they feed from the effects of a rapidly warming climate, while ensuring that large piscivores such as brown bears and wolves persist to transport marine derived nutrients onto the landscape. The tools we apply for conservation of these corridors include parcel acquisition by land trusts and the refuge, voluntary compliance, perpetual easements, short-term agreements on private parcels as part of publicly-funded restoration projects, and land agreements/exchanges with tribal and local governments.

KNWR will participate as a stakeholder in the Collaborative in order to protect salmon streams located within the Watershed by assisting CRRC to engage a diverse group of stakeholders located within or having land ownership within the Watershed including Federally recognized Tribal entities and to leverage the existing statutory mandates that emphasizes watershed conservation and habitat protection. (*See*, attached KNWR letter of support).

### **Alaska Department of Natural Resources (ADNR)**

ADNR manages the 371,000-acre Kachemak Bay State Park and Kachemak Bay State Wilderness Park (State Park), conducts law enforcement within the Kachemak Bay and Fox River Critical Habitat Areas (CHAs) and issues and manages livestock grazing permits within the State Park and CHAs;

### **The Alaska Department of Fish and Game (ADF&G)**

As the statutorily designated manager of the Fox River Flats Critical Habitat Area (FRCHA), ADF&G is directly involved in the protection of the area’s fish and wildlife habitat and works collaboratively with other state, federal and local entities.

The Collaborative will help advance ADF&G’s regulatory management goals for the FRCHA which include managing the area to 1) maintain and enhance fish and wildlife populations and their habitat; 2) minimize the degradation and loss of habitat values due to fragmentation; and 3) recognize cumulative impacts when considering effects of small incremental developments and action affecting critical habitat resources. As the primary manager for the Fox River Flats FRCHA, AF&G plans to participate in a management, advisory and regulatory role in the new Collaborative’s projects to protect salmon streams located within the Watershed. (*See*, attached ADF&G letter of support);

## **Non-profit organizations**

### **Cook Inletkeeper (CIK)**

This is a grassroots, non-regulatory watershed group with a local Board of Directors, who provide strategic guidance in our work to address water quality, quantity and habitat issues. CIK’s current membership includes 975 households (40% from 14 Kenai Peninsula communities) and more than 30 local businesses predominantly representing recreation and tourism. In addition. CIK’s staff engages in a variety of partnerships, which expand our



connections to a diverse group of stakeholders. For example, we are an active partner in the Kenai Peninsula Fish Habitat Partnership, which includes U.S. Forest Service, U.S. Fish and Wildlife Service, Alaska Department of Fish and Game, Kenai Peninsula Borough and Tribal partners. CIK's Science Director served for 10 years as a Steering Committee member and helped draft the Partnership's strategic plan.

The Collaborative work with CIK to implement its State of the Inlet watershed restoration plan within the Watershed to capture threats, community specific concerns and ideas, which will help direct CIK's watershed-based organization as the plan future projects as part of their "Community-based Watershed Tour: Planning for our next 25 years," project. (*See*, attached CIK letter of support)

### **The Kenai Heritage Land Trust (KHLT)**

Working collaboratively with other state, federal, and local entities, KHLT purchases and negotiates conservation easements on private lands for the purposes of management and protection of fish and wildlife habitat across the Kenai Peninsula. KHLT currently owns 160 acres in the Fox River Flats Critical Habitat Area (FRFCHA), titled Krishna Venta Conservation Area (KVCA), managed to preserve its rich wildlife habitat and ensure that any use associated with the property does not impair its conservation values.

KHLT will participate as a stakeholder in the Kachemak Bay Watershed Council (Council or KBWC) developed by CRRC, located in South Central Alaska, in order to protect salmon streams located within the Fox River, Sheep Creek and Quiet Creek-Frontal Kachemak Bay Watersheds (Watershed). To this end CRRCs' participation on the KBWC Collaborative will advance KHLT's management plan to ensure that motorized vehicle trails are consistent with the FRFCHA's mission to provide recreational access to the area while protecting habitat. (*See*, attached KHLT letter of support);

Other organizations that have supported the formation of the Collaborative or whom have participated in past meetings include: The National Oceanic and Atmospheric Administration, the Kachemak Bay Conservation Society (KBCS), the Fox River Cattlemen's Association, the Kachemak Bay Natural Resources Reserve and private citizens.

- *Targeting affected stakeholders*

Initially, we will engage the over 20 stakeholders including federal, state and local resource agencies, research institutes, Alaska Native Tribes, livestock grazing interests, individual citizens and conservation organizations that have supported the formation of the Collaborative and those who participated in the preliminary meetings.

Similarly, we will partner with the Kenai Mountains to Sea (KM2S) partnership developed by the Kachemak Heritage Land Trust, US Fish and Wildlife Service, Audubon, Kenai Watershed Forum, and Cook Inletkeeper—an organization focused on creating contiguous "green" corridors along twenty interjurisdictional anadromous streams, most of which originate on the Kenai Refuge.

In addition, CRRC will mobilize Alaska Tribal Communities who are impacted by the elimination of Alaska's Coastal Zone Management program. We will accomplish this by outreach to include new members and collaborate with different groups or partners (e.g., outreach or partnership activities, public meetings, newsletters, marketing materials, or recruitment of new members) inviting these organizations to participate in the collaborative expand our impact in the Kachemak Bay Watershed and leverage previous grassroots efforts by inviting participants in the original Coastal Zone Resource Area Board to join the Watershed Council's board of directors. We will also invite representatives of other tribal councils in the region to sit on the Watershed Council so that each tribe will have representation.

- *Describe the extent to which the planned membership of the watershed group will represent the full geographic scope of the area in which the group intends to work. If applicable, describe the extent to which the watershed group already represents the geographic scope of the area.*

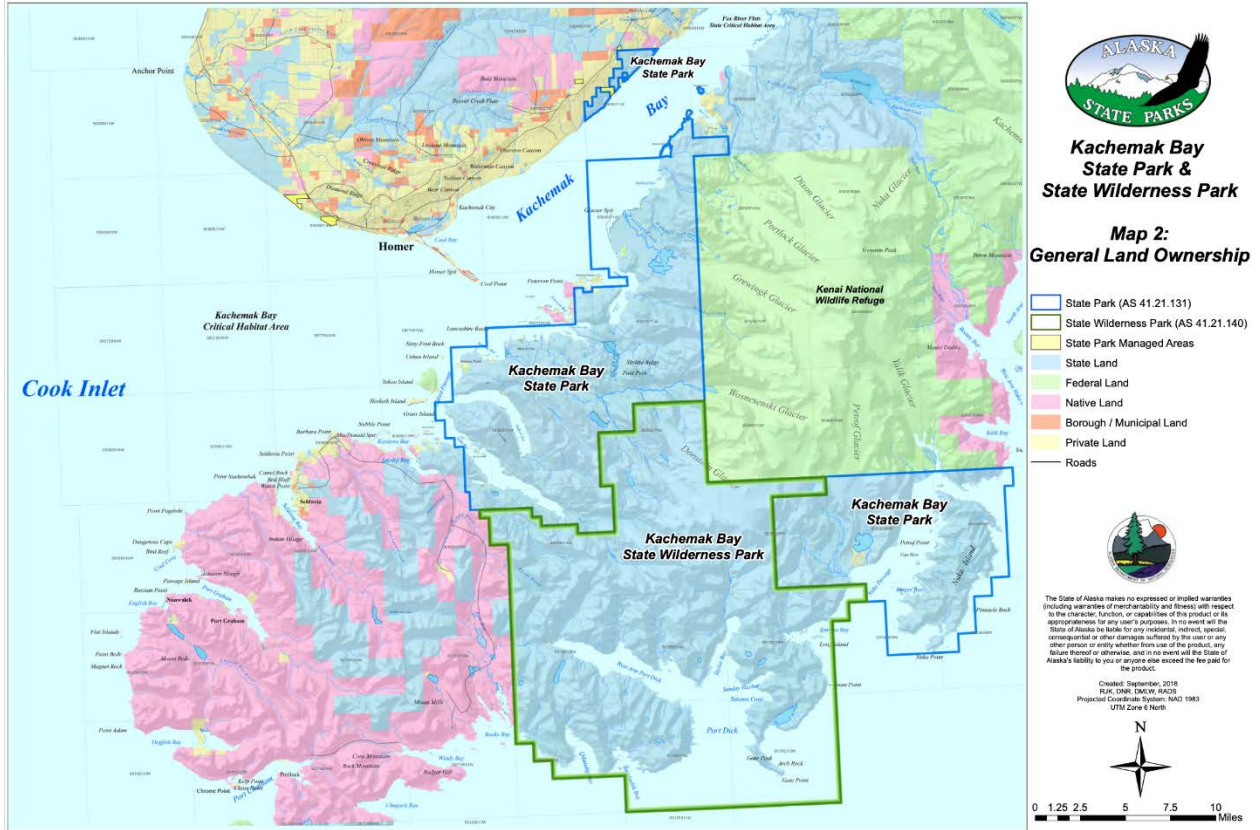
By engaging the over 20 stakeholders including federal, state and local resource agencies, research institutes, Native Tribes, livestock grazing interests, individual citizens and conservation organizations that have supported the formation of the Collaborative and those who participated in the preliminary meetings and including the Alaska Native Villages of Nanwalek and Port Graham, the watershed group will represent the full geographic scope of the area.

***Sub-criterion No. A2. Geographic Scope Under this sub-criterion, higher priority will be given to proposed or Existing Watershed Groups representing the full geographic extent of the watershed.***

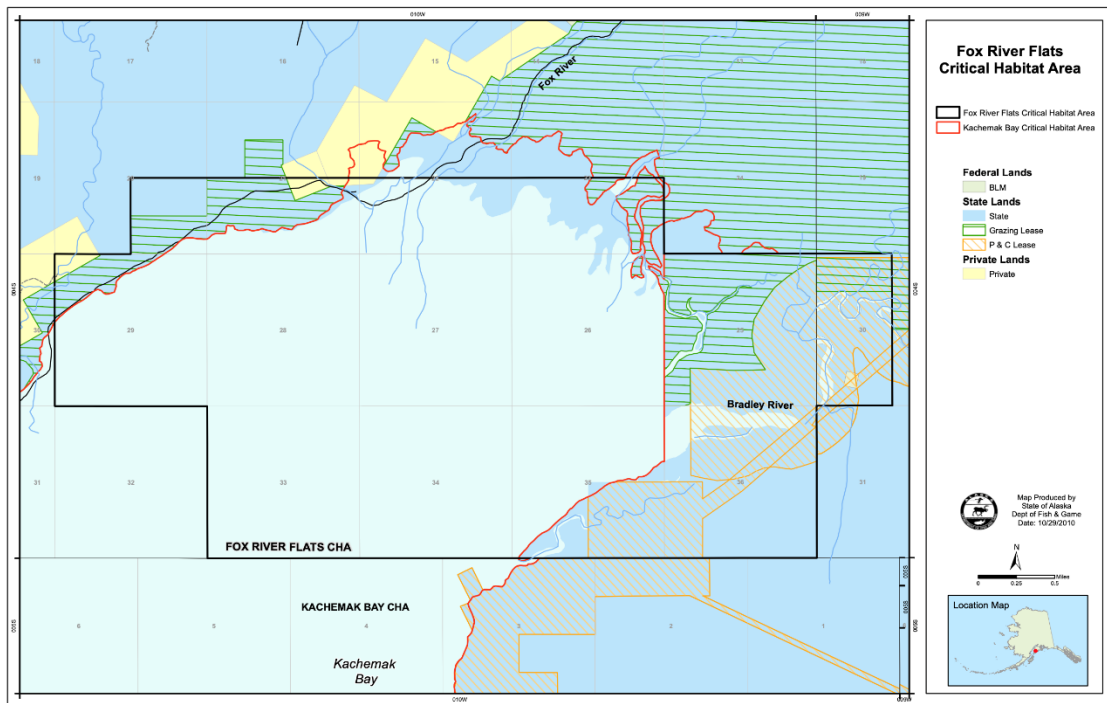


Map 3. Geographic Boundaries of the area in which the watershed group will work

In addition to municipalities and Native villages, the Watershed includes the 150 million acres of Kenai National Wildlife Refuge managed by the U.S. Fish and Wildlife Service and the 371,000-acre Kachemak Bay State Park and Kachemak Bay State Wilderness Park managed by the Alaska Department of Natural Resources. These lands feature the Fox River Critical Habitat Area which is a critical component and management area in the Watershed.



Map 4. Kenai National Wildlife & State Parks Lands



Map. 5 Fox River Flats Critical Habitat Area

- *Describe the efforts that you will undertake to ensure that the watershed group will target stakeholders that represent the full geographic scope of the area in which the watershed group will work.*

Because tribal communities have been historically excluded from participation in groups or collaboratives addressing water resource management and protection, currently, there is no group that represents the full geographic scope within the Watershed. Although there are three federally recognized Alaska Native tribal entities within geographic scope of the Watershed, having substantial traditional knowledge and expertise of water and subsistence resources stewardship and resilience practices, these entities are generally not included in research, planning or management in relation to such resources. As coordinator of the Collaborative, CRRC will apply its substantial resources, relationships with the tribal and federal agencies and understanding of the federal trust duty to resolve the split between tribal and other research and management entities within the Watershed. In addition, with the participation of CRRC, the Native Villages of Port Graham and Nanwalek, and the Seldovia Village Tribe, the New Water Group will be the first entity that includes stakeholders that represent the full geographic scope of the area in which the Watershed group will work. The result will not only be a Watershed group that represents all the stakeholders within the watershed but will include tribal entities who possess the traditional knowledge, retain sovereign authority, knowledge, resources and experience to address critical watershed needs or issues.

In addition, CRRC will engage in outreach to include new members and collaborate with different groups or partners (e.g., outreach or partnership activities, public meetings, newsletters, marketing materials, or recruitment of new members). Specifically, a major federal KM2S stakeholder – the Kenai National Wildlife Refuge (KNWR), is already in support of the Collaborative and we will work with the KNWR to reach out to additional KM2S partner stakeholders to join the Collaborative. CRRC will send letters via e-mail to these stakeholders inviting them to participate in the collaborative to expand our impact in the NBSR and leverage previous grassroots efforts by inviting participants in the KM2S partnership and other stakeholders to join the Collaborative.

Finally, CRRC will reach out to additional stakeholders by working with CIK to obtain the goals of its “Community-based Watershed Tour: Planning for our next 25 years.” Specifically, we will work with CIK to implement its State of the Inlet watershed restoration plan within the Watershed to capture threats, community specific concerns and ideas, which will help CIK and the Collaborative plan for future projects.

### ***E.1.2. Evaluation Criterion B — Addressing Critical Watershed Needs***

#### ***Sub-criterion No. B1. Critical Watershed Needs or Issues***

##### **a. Climate Change**

A primary threat to the Watershed is warming freshwater habitat. In the summer of 2019, for example, some areas of Southcentral Alaska had less than 2 inches of rain between June 1 and September, which qualified the region for an “Extreme Drought” for much of the summer.

Alaska Native village communities located in the Seward Peninsula region rely on healthy watersheds, fish, and wildlife for their subsistence needs. At the same time, the region's rising temperatures and low snowpack are wreaking havoc on the delivery of water when it is most needed.

Alaska's water year typically starts in the fall when it's time to start recording snowpack accumulation. However, the state's snowpack—which has been reduced by 50 percent in the southern regions compared to a decade ago—currently develops about a week later in the fall and melts almost two weeks earlier in the spring. Because the village communities on the south side of Kachemak Bay rely almost entirely on rivers and streams for their drinking water supply, both Port Graham and Nanawallick were severely impacted by the 2019 drought when satellite images showed that the snowpack in the Kenai Mountain Range had disappeared. A review of the weather records from Weather Underground revealed that the total precipitation from June 1 to August 20, 2019 was only 1.01 inches, far below the average of over six inches for the months of June through August.

These conditions affected the community water supply in the village of Nanwalek requiring the village to have water flown in for sixty households. The village's reservoir was shrinking rapidly so that the city had to shut the water off at 9:00 p.m. each night and turn it on again at 9:00 a.m. every morning. As the water shortage situation continued to deteriorate, a member of the Nanwalek Tribal Council, Brian Hetrick, searched for an alternate water source on Google Earth. He located one on nearby St. John Mountain. Then the city dug a trench from the new water source to the city's water supply so the water would stream into the dam. After a month without it, rain finally came to Nanwalek in August 2020.

Similarly, unusually hot and dry weather in the summer of 2019 resulted in Jakolof Creek, which flows through the traditional territory of the Seldovia Village Tribe, running completely dry starting in mid-July from the mouth of the bay all the way up to the switchbacks and, at the time of our visit to the area, was still receding. Portions of nearby Kingfisher Creek were also dry.

Increasing stream temperatures also pose a major risk to rural and Tribal communities in the watershed. Salmon are an incredibly important resource in the region, providing food and jobs for local residents and playing a vital ecological role as well. In early July 2019, for the first time ever, stream temperatures in salmon spawning areas of the Kenai Peninsula exceeded eighty degrees. Similarly, other rivers on the Kenai Peninsula set temperature records in July of 2019. For spawning adult salmon or growing juveniles, temperatures above eighty degrees can be lethal, primarily due to the loss of oxygen in the water. Additionally, the warm water makes fish lethargic and therefore more susceptible to predation.

Some small bears, eagles, and other birds were feeding on these fish that were stranded in pools but there were still many fish that were not getting used. Michael Ophiem who is the Director of the Seldovia Village Tribe's Environmental Program said "We will certainly see the damage done in the upcoming years. This run of fish has been used for a resource for those who live in the area for many years. Some people who don't have access to boats to get to other fishing sites are more heavily reliant on this run than others."

This was the second time in 4 years that Jakolof Creek has dried up resulting in a mass die-off of all of the fish in the system at the time. Because streams within the Kachemak Bay Watershed are primarily fed by snow melt, they are extremely sensitive to winters with little snow followed by hot dry summers. Limited snowpack combined with drought conditions like what occurred in Kachemak Bay that summer can result in no water being available at critical times for fish and wildlife or too much water during winter months that can cause flooding or scouring of stream beds.

According to Peter Westley, Assistant Professor of Fisheries Conservation and Fisheries Ecology at the University of Alaska Fairbanks, the state's fish die-off is "directly in line with the predictions of what scientists [...] have been warning is likely to occur, and we need to prepare ourselves and not be surprised when it happens again in the future, because it will." One problem, according to Sue Mauger, Science Director at Cook Inlet Keeper, is that conditions are "50 years ahead of where we thought they would be." Mauger is also one of the lead authors of a study published in the journal of *Global Change Biology* providing evidence that the decline of Chinook salmon populations throughout Alaska at least in part, may be due to increased temperature and other impacts of climate changes to freshwater habitat. According to the study, understanding how climate change is affecting freshwater ecosystems "has major implications for fisheries management and habitat conservation."

In regards to Chinook Salmon the study focused specifically on the effects of climate change on precipitation, streamflow, and temperature to habitat found in inland rivers and streams of Southcentral Alaska. The study concludes that climate change impacts on freshwater habitat could explain the continued decline of Chinook salmon throughout the state. "The cumulative effects of adverse conditions in freshwater, including high spawning abundance, heavy fall rains, and hot, dry summers may have contributed to the recent population declines across the region." The study urged additional site specific monitoring of critical salmon rivers and streams in Alaska take place in order to identify "conservation efforts for maintaining resilient salmon runs in a warming world."

## **b. Fragmented Watershed Management**

Other threats to the Kachemak Bay Watershed include fragmented management by oversight agencies. In 2017, for example, the Alaska Departments of Fish and Game and Natural Resources proposed updates to the Kachemak Bay Fox River Areas Critical Habitat Area and Kachemak Bay State Parks and Kachemak Bay State Wilderness management plans which provide an opportunity to make badly needed improvements to the Plans. In order to understand the extent of human impacts on and to properly manage the entire Kachemak Bay ecosystem, it requires both a broad view and attention to detail. This includes a consideration of different perspectives from the top of a mountain for a look at the streams and marine ecosystem below, to getting down into the inlets and coves in order to observe sea stars clinging to the knobby dark rocks.

However, because regulatory jurisdiction of the various Kachemak Bay planning areas is limited mostly to tidal and submerged lands, it is questionable whether ADF&G and DNR regulatory actions can achieve these the primary purposes outlined in Kachemak Bay planning documents. This is because natural systems, fish and wildlife, and human activities impacting them generally do not adhere to jurisdictional boundaries.

In order, therefore, to fully achieve the goals of protecting fish and wildlife habitat and public use of the Planning Areas in order to protect fish and wildlife habitat and public use of the Planning Areas, it's time to consider holistic management of the entire Kachemak Bay and Fox River Flats watersheds rather than just focusing on the agency jurisdictional limits. The current approach, for example, leaves out the interconnections between above ground and below ground waters, flood reduction, groundwater recharge and other systems that are beneficial to both the freshwater and marine environment.

Therefore, when evaluating ecological impacts, rather than limit one's view to within prescribed jurisdictional boundaries, it makes more sense to look at the interconnectedness of all waters within a watershed, including wetlands and streams, seeps, and springs. Whether a stream originates from glacial or non glacial sources, for example, has real implications for salmon because the source determines its vulnerability, and therefore salmon's vulnerability to land use activities.

## **c. Livestock Grazing**

While not to the level in some of the more arid regions of the Western U.S., livestock grazing is also starting to have impacts in the Fox River Flats Critical Habitat area including inhibiting regrowth of spruce and other overstory vegetation. This is of particular concern in the Kachemak Bay area where, as a result of climate change, aphids combined with the return of the Spruce Bark beetle have begun once again to devastate Sitka Spruce trees in the area and any additional non-climate stressors will only cause this situation to accelerate. Never-the-less, government rangeland specialists who have been working in the Critical Habitat Area maintain the loss of spruce trees is a matter of perspective and that things like grasslands taking over forested areas lands is just part of the trend of ecosystems succession with vegetation trending towards a climax community.



However, the loss of important foraging vegetation can impact local wildlife that depend on it for food and ground cover. More heavily grazed areas in the FRFCHA, has caused a shift from taller bunch grasses such as Western Wheatgrass, used more by wildlife including providing winter forage for moose and cover for birds to shorter, more grazing tolerant grasses that are less useful to wildlife.

Livestock grazing can also indirectly affect fish and wildlife species through destruction of riparian areas that such species depend on for food and habitat. Cows generally like to focus on riparian areas because they have more succulent desirable forage and, especially in warmer regions, the shade and water provide a place to cool off. However, the removal of shady riparian vegetation by livestock removes important habitat for birds and other species and causes streams to heat up – a particularly harmful situation with warming temperatures that can be lethal to salmon and other species.

In more extreme situations, removal of riparian vegetation which serves as a means of stabilizing stream banks causes erosion and further loss of vegetation and widening and shallowing of the stream. This can even lead to loss of wetlands or pools when undercutting streams come into contact with groundwater that is hydrologically connected to the wetland area thereby draining it. Similarly, when livestock trail through streams on regular bases, this can cause increased sedimentation of the water which can smother salmon spawning habitat.

#### **d. Off Road Vehicles**

The real culprit in the loss of valuable forage species and habitat within the Watershed is illegal off-road vehicle use. Federal officials for example, conclude that it is only impacts from 4-wheelers that are affecting vegetation and that recovery can still take place, although slowly if these areas continue to be grazed.

Just outside the West boundary of the Fox River Critical Habitat Area for example, the road forks and one clearly rarely used branch went North through what is known as the “Bluff Trail.” This trail was created in order to encourage horseback riding and the even more popular ORV use to stay out of the nearby sensitive Critical Habitat Area and within the more stable forested area along the bluff. After 4-wheeler traffic damaged the trail to such an extent that horses could no longer safely use the trail, however, the trail rides stopped and then, even the ORVs stopped using the trail in favor of the infinitely more popular “Illegal Trail” that cuts through sensitive habitat.

Following this trail that runs directly through the Critical Habitat Area, it would not be accurate to call this trail a highway, it was more like two runways running next to each other for several mile up to the border of the restricted area with all the vegetation completely eliminated and hundreds of tracks. Mixed in with ORV runways are numerous horse, cattle and moose tracks and sign. And this route is not the only one - there are multiple similar routes running in every direction that contribute to erosion and destruction of the watershed.

### **e. Watershed Planning and Management Inclusiveness**

Finally, while climate change is already having alarming impacts within the Kachemak Bay Watershed, there is a noticeable lack of inclusion of tribal entities and members of the public in planning and management efforts to address such concerns. A collaborative agency Planning Committee, for example, that reviewed the Kachemak Bay Fox River Flats Critical Habitat Area plan update was commissioned to draft amendments to the Critical Habitat Area plan. This Committee was made up of federal and state agencies, the Kachemak Bay National Research Reserve, and the Homer Soil and Water Conservation District. It met monthly for over a year to discuss everything from mooring buoys and docks to off-road vehicles and grazing use to fish and wildlife protection. Other stakeholders, members of the public, and tribal organizations were noticeably absent from the table during the meetings because although they were invited to participate, they were only allowed to sit in the back of the room and were not allowed to speak until the last few minutes of the meetings when they could ask questions.

In part as a result of this non-inclusiveness of tribes and the general public in land and water management planning regarding the Watershed, these entities are often left out of management decision even though, in the case of the local tribal villages who have been the stewards of the Watershed sense time immemorial, they have substantial traditional and experiential knowledge regarding climate change resilience and mitigation, especially regarding impacts to fish and wildlife resources in the Watershed. After the fall rains of 2019 and Jakolof Creek filled up again, for example, when asked if the Creek experiences a couple more years of this drought, could it be in trouble, Michael Opheim's response was: "I don't know. We had a good Coho run come in last year in 2018 but we had such a huge die off this year that what we saw good may be negated. This year we had a low to regular return I think." Michael went on to say that one of the main concerns is the need for Seldovia Village Tribe to be more involved in ADF&G goals regarding the number of salmon that the agency lets go past the weir. The tribe "could be helping this run be somewhat sustainable if" it were more involved in state decision making regarding run management. The collaborative could enable this happening by creating a watershed group focused on sustainable management of the Watershed in which both ADF&G and SVT is sitting at the same table.

#### ***Sub-criterion No. B2. Developing Strategies to Address Critical Watershed Needs or Issues***

*Task A - Water Group Development: Describe the stakeholder outreach and partnership building that will be conducted and explain how it will contribute to the management of the critical watershed issues and needs?*

- *If the watershed group will build on previous partnership building efforts, describe these efforts and how the watershed group will expand upon them through this grant.*

The watershed group will build on preliminary meetings held in 2019 to determine the interest of setting up the Kachemak Bay Watershed Collaborative and identify potential issues. Over 20 stakeholders including federal, state and local resource agencies, research institutes, Native Tribes, livestock interests, individual citizens and conservation organizations participated in

those meetings to support the formation of the watershed group. (*See, response to Sub-criterion No. A1. Watershed Group Diversity*).

The watershed group will expand upon the original efforts to identify stakeholders through additional outreach strategies outlined in criterion No. A2. Geographic Scope (pp. 6-9).

- *Will the group establish relationships with conservation organizations advocating for balanced stewardship and use of public lands, or advocating for increased access to the Department lands for hunting, fishing, and other recreation? Yes. If so, how?*

(*See, responses numbers 5 & 6, p. 7, to Sub-criterion No. A1. Watershed Group Diversity.*)

We will work with the Kachemak Heritage Land Trust (KHLT) which will participate as a stakeholder in the Kachemak Bay Watershed Collaborative in order to protect salmon streams located within the Fox River, Sheep Creek and Quiet Creek-Frontal Kachemak Bay Watersheds (Watershed). To this end CRRCs' participation on the KBWC Collaborative will advance KHLT's management plan to ensure that motorized vehicle trails are consistent with the FRFCHA's mission to provide recreational access to the area while protecting habitat. (See attached letter of support)

We will also work with the Kenai Watershed Forum which was founded in 1997 to work with partners through in order to advance conservation strategies within identified watersheds throughout the Kenai Peninsula. As part of its mission, KWF manages the KM2S collaborative, which recognizes twenty anadromous stream corridors throughout the Peninsula which includes the Fox River and Sheep Creek Watersheds.

Finally, we will also work with Cook Inlet Keeper which confirms the necessity for a watershed group to unify stakeholders in protecting these vital resources in our region and commit to participating in the Kachemak Bay Watershed Council. To this end, as a member of the new Collaborative CIK will implement its State of the Inlet watershed restoration plan to capture threats, community specific concerns and ideas, which will help direct our watershed-based organization as we plan future projects as part of CIK's "Community-based Watershed Tour: Planning for our next 25 years," project. (See attached letter of support).

**E.1.3. Evaluation Criterion C— Implementation and Results**

Project Schedule	2021		2022												2023											
	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T		
Hire facilitator/coordinator	x																									
Conduct Stakeholder Outreach		x	x	x	x	x	x	x	x	x																
Gather Information		x	x	x	x	x	x	x	x	x	x															
Develop mission and vision statements and goals for Kachemak Bay Watershed group													x	x	x	x										
Conduct Kachemak Bay Watershed Pre-Planning Activities																	x	x	x	x	x	x	x	x	x	

**Major Tasks**

1) Hire Consultant for stakeholder outreach with expertise in tribal and water law and with connections to various groups within Watershed to conduct outreach, meetings etc.;  
*Milestone:* Coordinator for stakeholder outreach is hired and all paperwork is completed.

Start date: November 1, 2021  
 End date: November 30, 2021

**Cost: \$1,608** based on 40 hours of time (\$30.67/hour + 31.09% Fringe) for the CRRC Climate Change Coordinator to secure Consultant contract.

2) Conduct stakeholder outreach to Federal, State and local resource agencies, research institutes, Native Tribes, livestock grazing interests, individual citizens and conservation organizations to ensure collaborative engagement during Year 1.

*Milestone:* Create an outreach plan and information materials using CRRC’s existing website and social media network.

*Milestone:* Conduct virtual meetings with all potential stakeholders.

Start date: Dec 1, 2021  
 End date: August 31, 2022

**Cost: \$19,620** based on 100 hours for CRRC Climate Change Coordinator (\$30.67/hour + 31.09% Fringe) and 100 hours for the Coordinator (\$150/hour) and honorariums (\$600).

3) Gather information to identify issues and needs related to water quality and quantity

within the watershed and among stakeholders.

*Milestone:* Compile information gathered from online research, data shared by government agencies and local universities, tribal traditional knowledge, and meeting notes taken during contacts with potential stakeholders.

*Milestone:* Compile information regarding relevant Federal, State, local or Regional Planning Efforts.

Start date: December 1, 2021

End date: October 31, 2022

**Cost: \$21,363** based on 157 hours for CRRC Climate Change Coordinator (\$30.67/hour + 31.09% Fringe) and 100 hours for the Coordinator (\$150/hour) and \$50 in printing costs.

4) Develop and adopt mission and vision statements and goals for the Kachemak Bay Watershed Collaborative.

*Milestone:* Mission statement, visions statement and goals are vetted and adopted.

Start date: November 1, 2022

End date: February 28, 2023

**Cost: \$11,521** based on 100 hours for CRRC Climate Change Coordinator (\$30.67/hour + 31.09% Fringe) and 50 hours for the Coordinator (\$150/hour).

5) Conduct Pre-Planning Activities – facilitate meetings with all stakeholders to share data gathered, identify data gaps, and discuss future Kachemak Bay Watershed Collaborative planning strategies, including conduct pre-planning activities, including outlining a watershed restoration plan, researching existing plans related to the watershed, collecting baseline information, and identifying restoration needs for the watershed. Start date: March 1, 2023  
End date: October 31, 2023

**Cost: \$32,899** based on 200 hours for CRRC Climate Change Coordinator (\$30.67/hour + 31.09% Fringe) and 150 hours for the Coordinator (\$150/hour), travel to engage with stakeholders (\$1,608) (Note: contractor pays their own travel) and honorariums (\$600), and printing costs (\$150).

#### ***Sub-criterion No. C2—Building on Relevant Federal, State, or Regional Planning Efforts***

The KBWC will complement or meet the goals of applicable Federal, state or regional water plans using the following strategies: 1) Drought and temperature forecasting; 2) Models for predicting instream flows and water temperature; 3) Collection of instream flow, temperature and DO data; and 4) Mapping of critical fish habitat and potentially locatable minerals on lands that have been opened for mining. These protocols will assist Program Managers in prioritizing the mitigation of fish-die offs in the Watershed through identification of the locations where they are likely to occur and in mitigating land use activities that can exacerbate such die-offs.

We will apply the Marine Protection Area Rapid Vulnerability Assessment Toolkit (MPARVAT) which unpacks the concept of habitat vulnerability to extreme weather conditions and helps marine environment managers plan for resiliency. The tool also complements the standardized ecological scorecards and condition reports that examine the cumulative effect of a

number of non-extreme weather related stressors determining a resource's condition. Further in developing the NBWOCMP, CRRC and its partners will apply weather science and analyses, existing water quantity/quality data and TEK, water flow and temperature data and applied scientific information contained in the Kachemak Bay Resiliency Adaptation Plan, the Resiliency Risk Assessment Updates of the Native Villages of Teller and Golovin's Hazard Mitigation Plans, and other planning efforts. Relevant plans include:

- 1) In 2019, the Collaborative initiated the Kachemak Bay Fox River Watershed Climate Risk Assessment (Risk Assessment), which was never completed due to a lack of funding;
- 2) AF&G's Fox River Flats CHA management plan, (<https://www.adfg.alaska.gov/index.cfm?adfg=foxriverflats.main>);
- 3) KHLT Krishna Venta Conservation Management Plan
- 4) KENAI MOUNTAINS TO SEA A Land Conservation Strategy to Sustain Our Way of Life on the Kenai Peninsula; [Kenai Mountains to Sea Strategic Plan 19feb2015.pdf](#)
- 5) AF&G's Kachemak Bay & Fox River Flats Critical Habitat Areas Management Plan;
- 6) Department of Natural Resources' Kachemak Bay State Park and Kachemak Bay State Wilderness Park Management Plan (Plan).

***E.1.4. Evaluation Criterion D— Department of the Interior and Bureau of Reclamation Priorities (10 points)***

Once established, the subsistence resource and non-climate stressor mitigation goals and objectives of the Collaborative will pursue the following DOR and BOR priorities:

- 1. Creating a conservation stewardship legacy second only to Teddy Roosevelt**
  - a. Utilize science to identify best practices to manage land and water resources and adapt to changes in the environment;
  - b. Examine land use planning processes and land use designations that govern public use and access;
  - c. Foster relationships with conservation organizations advocating for balanced stewardship and use of public lands;
  - d. Identify and implement initiatives to expand access to DOI lands for hunting and fishing;
- 2. Restoring trust with local communities**
  - a. Be a better neighbor with those closest to our resources by improving dialogue and relationships with persons and entities bordering our lands;

b. Expand the lines of communication with Governors, state natural resource offices, Fish and Wildlife offices, water authorities, county commissioners, Tribes, and local communities.

**3. Striking a regulatory balance**

Ensure that Endangered Species Act (ESA) decisions are based on strong science and thorough analysis.

**4. Bureau of Reclamation Priorities**

Increase Water Supplies, Storage, and Reliability under WIIN and other Authorities to Benefit Farms, Families, Businesses, and Fish and Wildlife.

**Project Budget**

Planning for CRRC Kachemak Bay Watershed Collaborative									
YEAR 1					Year 2				
BUDGET ITEM DESCRIPTION	COMPUTATION		Quantity Type	TOTAL YEAR 1	COMPUTATION		Quantity Type	TOTAL YEAR 2	PROJECT TOTAL
	\$/Unit	Quantity			\$/Unit	Quantity			
CRRC Climate Change Coordinator	\$ 30.67	350	hours		\$ 30.67	360	hours		
(FICA (6.2%), FICA MED (1.45%), ESC (1.00%), Workers Compensation (01%), 403(b) pension (5.00%), health, dental and life insurance (15.77%))	31.09%		%		31.09%		%		
Anchorage to Homer				\$ 298	3	RT Flight			
Anchorage to Soldotna				\$ 218	1	RT Flight			
Meet w/Port Graham Tribal Council				\$ 180	1	RT Flight			
Meet w/Nanwalek Tribal Council				\$ 180	1	RT Flight			
Meet w/Seldovia Tribal Council				\$ 136	1	RT Flight			
<b>Subtotal Travel</b>									
None									
Printing costs, postage	\$ 150	1	purchase	\$ 200	1	purchase			
Consultant for stakeholder outreach	\$ 150	200	hours	\$ 150	200	hour			
Watershed Honorariums	\$ 75	2	4	\$ 75	2	4			
Type of rate	Percent	14.92							

**Budget Narrative**

Chugach Regional Resources Commission requests \$99,985 in WaterSMART funds to establish the Kachemak Bay Watershed Collaborative.

Salaries and Wages: \$21,776

Project Manager – Erin Shew, CRRC Climate Change Coordinator \$30.67/hour x 710 hours = \$21,776

Fringe Benefits: Erin Shew, CRRC Climate Change Coordinator fringe benefits are 31.09% = \$6,770

Includes FICA (6.2%), FICA MED (1.45%), ESC (1%), workers Compensation (.1%), 403 (b), pension (5%); and health, dental and life insurance (15.77%), for a calculated rate of 31.09% of salaries and wages for full-time employees.

Travel: \$1,608

Covers CRRC Climate Change Coordinator travel for one RT flight from Anchorage to Soldotna (\$218 RT on Ravn Air), and three RT flights from Anchorage to Homer (\$298 x 3) for one-time visits to the villages of Port Graham (\$180 RT Smokey Bay Air), Nanwalek, (\$180 Smokey Bay Air), Seldovia (\$136 Smokey Bay Air), and Razdolna (by car at no cost). Visits with Port Graham and Nanwalek can occur on the same day and, as such, would only entail one RT flight from Anchorage to Homer. Consultant will cover their own travel expenses.

Supplies & Materials: \$350

Covers the cost of xerox copies and postage needed in the gathering and sharing of information pertaining to the traditional, local and scientific knowledge about the cultural, recreational, and economic importance of, and the ecological health, stressors effecting the Kachemak Bay Watershed.

Equipment costs: None

Contractual: \$60,000

Covers the cost of a consultant for 400 hours at \$150 an hour with expertise in tribal and water law and with connections to various groups within Watershed to conduct research, outreach, and meetings as well as consensus-building for Kachemak Bay Watershed Collaborative mission and vision statements and goals.

Other expenses: \$1,200

Honorariums (\$75 each for a total of 16) to be presented to individuals (two from each of four villages) who engage in virtual stakeholder meetings in Year One and in-person meetings in Year Two.

Indirect Rate: \$8,281

CRRC has a federally negotiated indirect rate for 2021 of 14.92% for all salaries and wages including fringe benefits and excluding contractor costs over \$25,000 and honorariums.



## **Environmental and Cultural Resource Considerations**

- *Will the proposed project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)?* No. Please briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the project area. N/A. Please also explain the impacts of such work on the surrounding environment and any steps that could be taken to minimize the impacts. N/A.
- *Are you aware of any species listed or proposed to be listed as a Federal threatened or endangered species, or designated critical habitat in the project area?* No. If so, would they be affected by any activities associated with the proposed project? N/A.
- *Are there wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as “Waters of the United States”?* Yes. If so, please describe and estimate any impacts the proposed project may have. N/A.
- *When was the water delivery system constructed?* N/A.
- *Will the proposed project result in any modification of or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes)?* No. If so, state when those features were constructed and describe the nature and timing of any extensive alterations or modifications to those features completed previously. N/A.
- *Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places?* No.
- *Are there any known archeological sites in the proposed project area?* No.
- *Will the proposed project have a disproportionately high and adverse effect on low income or minority populations?* No.
- *Will the proposed project limit access to, and ceremonial use of, Indian sacred sites or result in other impacts on tribal lands?* No.
- *Will the proposed project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?* No.

**Required Permits or Approvals:** N/A



# United States Department of the Interior

KENAI NATIONAL WILDLIFE REFUGE  
P.O. Box 2139  
Soldotna, Alaska 99669-2139  
(907) 262-7021



IN REPLY REFER TO:  
21002ajl

January 15, 2021

Ms. Robin Graber, Program Analyst  
Bureau of Reclamation, Water Resources and Planning Office  
E-mail: [aomorgan@usbr.gov](mailto:aomorgan@usbr.gov)

**Subject: BOR WaterSMART Cooperative Watershed Management Program Phase I Grant Application**

Dear Ms. Graber,

I am writing on behalf of Kenai National Wildlife Refuge (KNWR) in support of the Chugach Regional Resource Commission's (CRRC) proposal to the Bureau of Reclamation's WATERSmart Cooperative Watershed Management Program.

As a working member of the Kenai Mountains to Sea partnership, the KNWR is directly involved in creating contiguous "green" corridors along 20 inter-jurisdictional anadromous streams, most of which originate on the KNWR. Such protection will increase the resiliency of these streams and the marine habitat into which they feed from the effects of a rapidly warming climate, while ensuring that brown bears and wolves persist to transport marine derived nutrients onto the landscape. The tools we apply for conservation of these corridors include parcel acquisition by land trusts and the refuge, voluntary compliance, perpetual easements, short-term agreements on private parcels as part of publicly-funded restoration projects, and land agreements/exchanges with tribal and local governments.

KNWR will participate as a stakeholder in the Kachemak Bay Watershed Council developed by the CRRC, located in South Central Alaska, in order to protect salmon streams located within the Fox River, Sheep Creek and Quiet Creek-Frontal Kachemak Bay Watersheds (Watershed). To this end we will assist CRRC to engage a diverse group of stakeholders located within or having land ownership within the Watershed including Federally recognized Tribal entities and to leverage the existing statutory mandates that emphasizes watershed conservation and habitat protection for the Fox River Flats Critical Habitat Area, Alaska Department of Natural Resources, KNWR and the Kachemak Bay Critical Habitat Area, each of which are located within or are adjacent to the Fox River watershed.

We thank the CRRC for their work on this proposal and look forward to working with them on this project.

Sincerely,

  
for Andy Loranger  
Refuge Manager



January 13, 2021

Ms. Robin Graber, Program Analyst  
Bureau of Reclamation, Water Resources and Planning Office  
E-mail: aomorgan@usbr.gov

**Subject: BOR WaterSMART Cooperative Watershed Management Program Phase I Grant Application**

Dear Ms. Graber,

I am writing on behalf of Kachemak Heritage Land Trust (KHLT) in support of the Chugach Regional Resource Commission's proposal to the Bureau of Reclamation's WATERSmart Cooperative Watershed Management Program.

Working collaboratively with other state, federal, and local entities, KHLT purchases and negotiates conservation easements on private lands for the purposes of management and protection of fish and wildlife habitat across the Kenai Peninsula. KHLT currently owns 160 acres in the Fox River Flats Critical Habitat Area (FRFCHA), known as Krishna Venta Conservation Area (KVCA), managed to preserve its rich wildlife habitat and ensure that any use associated with the property does not impair its conservation values.

KWF will participate as a stakeholder in the Kachemak Bay Watershed Council (Council or KBWC) developed by the Chugach Regional Resource Commission (CRRC), located in Southcentral Alaska, to protect salmon streams located within the Fox River, Sheep Creek and Quiet Creek-Frontal Kachemak Bay Watersheds (Watershed). To this end CRRC's participation on the KBWC Collaborative will advance KHLT's management plan to ensure that motorized vehicle trails are consistent with the FRFCHA's mission to provide recreational access to the area while protecting habitat.

We thank the CRRC for work on this proposal and look forward to working with them on this project.

Sincerely,

A handwritten signature in black ink, appearing to read "Marie McCarty".

Marie McCarty  
Executive Director



January 18, 2021

Ms. Robin Graber, Program Analyst  
Bureau of Reclamation, Water Resources and Planning Office  
E-mail: [aomorgan@usbr.gov](mailto:aomorgan@usbr.gov)

Subject: BOR WaterSMART Cooperative Watershed Management Program Phase I Grant Application

Dear Review Committee:

I am writing on behalf of Cook Inletkeeper to support the Chugach Regional Resource Commission's proposal to the Bureau of Reclamation's WaterSMART Cooperative Watershed Management Program.

Cook Inletkeeper is a community-based, nonprofit organization formed in 1995 that combines advocacy, education and science toward its mission to protect Alaska's Cook Inlet watershed and the life it sustains. Inletkeeper's current WaterSMART project: *Community-based Watershed Tour: Planning for our next 25 years* will wrap up with a 'State of the Inlet' watershed restoration plan. The Kachemak Bay Watershed Council - driven by a tribal consortium - will be a valuable stakeholder group to move implementation projects forward. Inletkeeper will gladly share its 'State of the Inlet' report of community-specific concerns to help guide the new watershed council.

Cook Inletkeeper supports the Chugach Regional Resource Commission's proposal for WaterSMART funding and Tribal engagement to address water concerns in our region. Inletkeeper looks forward to participating in the Kachemak Bay Watershed Council and local discussions to ensure clean water and healthy habitat for the people and salmon of Kachemak Bay.

Sincerely,

A handwritten signature in black ink that reads "Sue Mauger". The signature is written in a cursive style with a large, looped initial "S".

Sue Mauger  
Science & Executive Director



**NANWALEK IRA COUNCIL**

100 Nikita Street P.O. Box 8028 Nanwalek Alaska 99603 Phone (907) 281-2274 Fax (907) 281-2252

**Subject: BOR WaterSMART Cooperative Watershed Management Program Phase I Grant Application**

Dear WaterSMART CWMP Grant Review Committee,

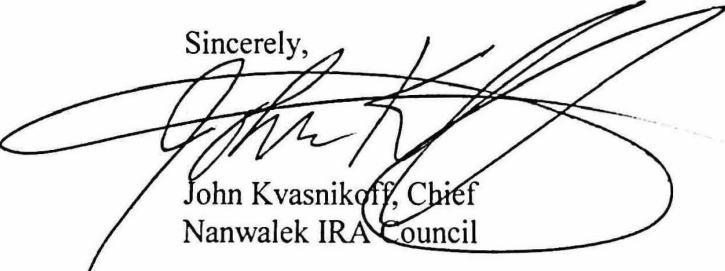
I am writing on behalf of the Nanwalek IRA Council in support of the Chugach Regional Resource Commission's proposal to the Bureau of Reclamation's WATERSmart Cooperative Watershed Management Program.

The Chugach Regional Resource Commission (CRRC), located in South Central Alaska, will establish the Kachemak Bay Watershed Collaborative (Collaborative or KBWC) to protect salmon streams located within the Fox River, Sheep Creek and Quiet Creek-Frontal Kachemak Bay Watersheds (Watershed). CRRC will engage a diverse group of stakeholders located within or having a land ownership within the Watershed including Federally recognized Tribal entities, the U.S. Fish and Wildlife Service, the Alaska Departments of Natural Resources and Fish and Game, Village and regional Native corporations, the Cities of Homer, Kachemak Selo, Voznesenka, Razdolna Seldovia, Nanwalek and Port Graham, and conservation organizations.

The Athabascan and Sugpiaq communities located within the Watershed rely on a subsistence economy, as they have since time immemorial. Climate change is impacting the subsistence resources that such communities rely upon due to warming fresh and marine water temperatures at a rate no one thought possible a decade ago, and there is an urgent need for a broader range of stakeholder inclusion in planning for sustainable management of the watershed going forward. As a federally recognized tribal entity, we are committed to ensuring that subsistence resources are sustainably managed and protected for our communities. We confirm the necessity for a watershed collaborative to unify stakeholders in protecting these vital resources in our region and commit to participating in the new collaborative. In the event this proposal is funded, we acknowledge our role to include working with other federal, state, tribal, local, research, conservation and other stakeholders to protect salmon habitat in the Watershed through implementation of existing risk assessments and planning documents and other non-climate stressor mitigation actions.

We thank the CRRC for their work on this proposal and look forward to working with them on this project.

Sincerely,



John Kvasnikoff, Chief  
Nanwalek IRA Council

# Native Village of Port Graham

## PORT GRAHAM VILLAGE COUNCIL

63795 GRAHAM ROAD, UNIT 1  
P.O. BOX 5510 • PORT GRAHAM • ALASKA 99603-5510  
907-284-2227 FAX 907-284-2222

Subject: BOR WaterSMART Cooperative Watershed Management Program Phase I  
Grant Application

Dear WaterSMART CWMP Grant Review Committee,

I am writing on behalf of the Native Village of Port Graham in support of the Chugach Regional Resource Commission's proposal to the Bureau of Reclamation's WATERSmart Cooperative Watershed Management Program.

The Chugach Regional Resource Commission (CRRC), located in South Central Alaska, will establish the Kachemak Bay Watershed Collaborative (Collaborative or KBWC) to protect salmon streams located within the Fox River, Sheep Creek and Quiet Creek-Frontal Kachemak Bay Watersheds (Watershed). CRRC will engage a diverse group of stakeholders located within or having a land ownership within the Watershed including Federally recognized Tribal entities, the U.S. Fish and Wildlife Service, the Alaska Departments of Natural Resources and Fish and Game, Village and regional Native corporations, the Cities of Homer, Kachemak Selo, Voznesenka, Razdolna Seldovia, Nanwalek and Port Graham, and conservation organizations.

The Athabascan and Sugpiaq communities located within the Watershed rely on a subsistence economy, as they have since time immemorial. Climate change is impacting the subsistence resources that such communities rely upon due to warming fresh and marine water temperatures at a rate no one thought possible a decade ago, and there is an urgent need for a broader range of stakeholder inclusion in planning for sustainable management of the watershed going forward. As a federally recognized tribal entity, we are committed to ensuring that subsistence resources are sustainably managed and protected for our communities. We confirm the necessity for a watershed collaborative to unify stakeholders in protecting these vital resources in our region and commit to participating in the new collaborative. In the event this proposal is funded, we acknowledge our role to include working with other federal, state, tribal, local, research, conservation and other stakeholders to protect salmon habitat in the

# Native Village of Port Graham

## PORT GRAHAM VILLAGE COUNCIL

63795 GRAHAM ROAD, UNIT 1

P.O. BOX 5510 • PORT GRAHAM • ALASKA 99603-5510

907-284-2227 FAX 907-284-2222

Watershed through implementation of existing risk assessments and planning documents and other non-climate stressor mitigation actions.

We thank the CRRC for their work on this proposal and look forward to working with them on this project.

Sincerely,

A handwritten signature in cursive script that reads "Patrick Norman".

Patrick Norman

Chief of the Native Village of Port Graham



# SELDOVIA VILLAGE TRIBE

Tradition Integrated with Technology

## Subject: BOR WaterSMART Cooperative Watershed Management Program Phase I Grant Application

Dear WaterSMART CWMP Grant Review Committee,

I am writing on behalf of Seldovia Village Tribe in support of the Chugach Regional Resource Commission's proposal to the Bureau of Reclamation's WATERSmart Cooperative Watershed Management Program.

The Chugach Regional Resource Commission (CRRC), located in South Central Alaska, will establish the Kachemak Bay Watershed Collaborative (Collaborative or KBWC) to protect salmon streams located within the Fox River, Sheep Creek and Quiet Creek-Frontal Kachemak Bay Watersheds (Watershed). CRRC will engage a diverse group of stakeholders located within or having a land ownership within the Watershed including Federally recognized Tribal entities, the U.S. Fish and Wildlife Service, the Alaska Departments of Natural Resources and Fish and Game, Village and regional Native corporations, the Cities of Homer, Kachemak Selo, Voznesenka, Razdolna, Seldovia, Nanwalek, Port Graham, and conservation organizations.

The Athabascan and Sugpiaq communities located within the Watershed rely on a subsistence economy, as they have since time immemorial. Climate change is impacting the subsistence resources that such communities rely upon due to warming fresh and marine water temperatures at a rate no one thought possible a decade ago, and there is an urgent need for a broader range of stakeholder inclusion in planning for sustainable management of the watershed going forward. As a federally recognized tribal entity, we are committed to ensuring that subsistence resources are sustainably managed and protected for our communities. We confirm the necessity for a watershed collaborative to unify stakeholders in protecting these vital resources in our region and commit to participating in the new collaborative. In the event this proposal is funded, we acknowledge our role to include working with other federal, state, tribal, local, research, conservation and other stakeholders to protect salmon habitat in the Watershed through implementation of existing risk assessments and planning documents and other non-climate stressor mitigation actions.

We thank the CRRC for their work on this proposal and look forward to working with them on this project.

Sincerely,

SELDOVIA VILLAGE TRIBE

*Crystal Collier*

Crystal Collier  
President/CEO

