Scammon Bay, Alaska

Recovery Strategy

DR-4672-AK

Summary of planned and proposed recovery projects contributing to a whole-of-community recovery in the area of western Alaska impacted by the remnants of Typhoon Merbok (DR-4672-AK).

Communities included: Chevak, Gambell, Golovin, Hooper Bay, Kipnuk, Koyuk, Nightmute, Nunam Iqua, Scammon Bay, St. Michael, Stebbins, Toksook Bay, Tuntutuliak.

October 2023

FEMA

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Introduction

On September 23, 2022, the President issued a major disaster declaration for damage caused to western Alaska by the remnants of Typhoon Merbok. In February a Federal Disaster Recovery Officer (FDRO) was requested by the Federal Coordinating Officer (FCO) to conduct an Initial Assessment for long term recovery, which was completed in March 2023. Based on the recommendation of the FDRO, the FCO activated three Recovery Support Functions (RSF): Community Assistance (CA) RSF, Natural & Cultural Resources (NCR) RSF, Infrastructure Systems (IS) RSF; and a U.S. Department of Agriculture – Rural Development Advisor (USDA-RD) to join the FEMA Interagency Recovery Coordination (IRC) function.

The RSFs and Advisor(s) explored the recovery issues identified in the Initial Assessment and identified additional issues through outreach with state, local government, and other recovery stakeholders in western Alaska, including during **15** site visits to impacted communities. As a result of this outreach, recovery needs were identified. The Recovery Needs Assessment (RNA) presented these unmet needs. Long-term recovery challenges for the impacted communities fell into eleven overarching categories:

Recovery Need Categories

1. Erosion
2. Emergency Management Limitations
3. Planning Support
4. Wastewater Infrastructure
5. Individual Housing Recovery
6. Solid Waste Disposal
8. Cemeteries
9. Drinking Water Systems
10. Maritime Infrastructure
11. Energy Infrastructure

This document summarizing the Recovery Strategy is the third iterative step in the larger planning and implementation process. The intent of this Recovery Strategy document is to guide the completion of recovery support by outlining outcomes and objectives; identified by our RSFs, supporting partners, and local jurisdictions; and by defining strategies and projects to reach the desired outcomes.

Document Structure

The **Executive Summary** summarizes progress toward recovery. **Section 1** reviews the recovery needs identified during the Recovery Needs Assessment process. **Section 2** provides a high-level overview of the supporting objectives, strategies, and projects for each outcome. **Section 3** summarizes the projects by strategy. **Section 4** summarizes the same projects, but by community. **Section 5** highlights the IRC role for each project. **Appendix A** provides details about each project and is organized by project status.

Executive Summary

The Recovery Strategy encompasses over **$198 million** of completed, planned, in-progress or conceptual projects involving at least 50[1] entities and encompassing work that will stretch through 2025 and beyond.

Topic	Estimated Project Cost $	
Water & Wastewater Infrastr...	147,011,974	74%
Transportation Infrastructure	27,531,661	14%
Energy Infrastructure	17,961,722	9%
Essential Community Facilities	7,388,800	4%
Debris Management & Rem...	4,679,934	2%
Hazard Mitigation & Resilie...	775,788	0%
Food Security & Nutrition	368,938	0%
Housing - Permanent	250,445	0%
Coastal Resilience	236,374	0%
Hazardous Materials	100,000	0%
Funerals, Burials, Cremations	60,000	0%
Total:	**198,411,524**	100%

Image 1: Sum of Potential Project Cost by Topic

Some recovery initiatives have already been completed, while many are in progress or planned. This document includes projects that were initiated before Typhoon Merbok to (1) show breadth of activity; planned, ongoing, and proposed; that will ultimately contribute to a **whole-of-community recovery** from Merbok; and (2) to provide visibility among the readers of this document on other agency initiatives they may not be aware of.

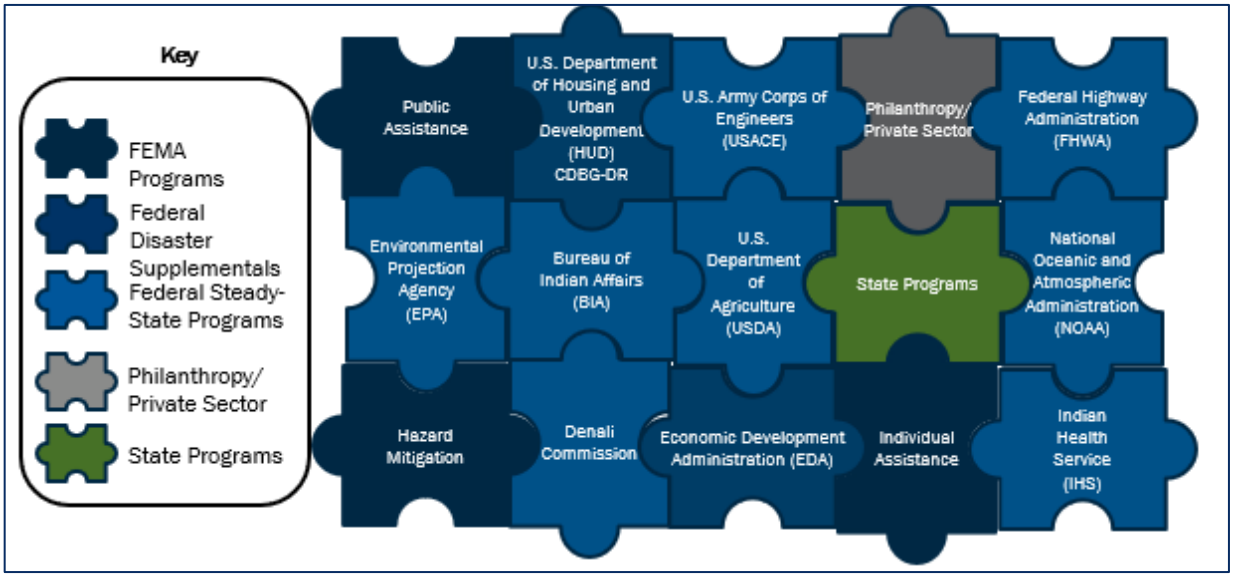

Image 2: Puzzle Pieces Diagram Showing Programs Involved in a Whole-of-Community Approach to Recovery

[1] Agencies involved were the Alaska Division of Community and Regional Affairs (DCRA); Alaska Department of Military and Veterans Affairs (AK DMVA), Alaska Department of Homeland Security & Emergency Management (AK DHS&EM); the Alaska Native Tribal Health Consortium (ANTHC); the Alaska Department of Environmental Conservation (ADEC); the U.S. Environmental Protection Agency (EPA); the Alaska Village Electric Cooperative (AVEC); Kawerak, Inc.; the U.S. Department of Health and Human Services Indian Health Service (IHS); the U.S. Department of Housing and Urban Development (HUD); the Denali Commission; the University of Alaska Fairbanks (UAF), the University of Alaska Anchorage (UAA), the USDA Natural Resources Conservation Service (USDA NRCS), USDA Rural Development (USDA RD); the U.S. Department of the Interior (DOI) Bureau of Indian Affairs (BIA), the U.S. Department of the Interior National Park Service (NPS); the U.S. Army Corps of Engineers (USACE), the Federal Emergency Management Agency (FEMA); USDA Rural Development; the Association of Village Council Presidents (AVCP); Zender Environmental; the Yukon River Inter-Tribal Watershed Council (YRITWC); and the municipal and Alaska Native Village governing entities of each community.

Implementation and Next Steps

While these projects address or partially address many of the needs discovered during the Recovery Needs Assessment process, many needs will require continued coordination to develop solutions. This document is a snapshot in time.

FEMA will establish a Long-Term Recovery Cell in Anchorage and, along with Other Federal Agency partners who make up the IRC, continue coordinating efforts among State, Local and Tribal partners, amplifying issues communities have, identifying resource opportunities for potential and existing projects, and maintaining an IRC point of contact with each community visited. Community Assistance staff will be a part of the Long-Term Recovery Cell to provide technical assistance to communities in managing the recovery process, while tracking the implementation of planned projects.

Recovery Strategy Structure

The Recovery Strategy has the following structure: **Outcome** -> **Objective** -> **Strategy**-> **Project**. Under each outcome are several supporting objectives. Each objective is supported by one or more strategies. The projects fall under one or more of these strategies.

State Priorities

The projects summarized in the following sections reflect the four State priorities:

- ✓ **Preservation of Alaskan Natural and Cultural Resources**
- ✓ **Infrastructure Systems Resiliency in Rural Communities**
- ✓ **Community Assistance**
- ✓ **Housing Solutions in Rural Communities**

Recovery Outcomes

Each of the recovery projects, strategies and objectives contribute to one of these outcomes jointly agreed upon by State and FEMA leadership.

Natural & Cultural Resources

Alaska's natural and cultural resources in the affected communities have been restored for the protection of people and the ecosystem.

Infrastructure Systems

Alaska infrastructure systems impacted by the flooding and severe weather have been restored and made resilient.

Community Assistance

Resilient recovery of Alaska's communities, through the execution of local recovery strategies in Bering Strait REAA, Kashunamiut REAA, Lower Kuskokwim REAA, Lower Yukon

1. Recovery Needs Status

Below is a review of Merbok recovery needs common among communities in western Alaska. Under each description is an indication of the overall status of recovery in that category and a list of needs that still need solutions. *More detailed descriptions of the needs reported in each community are available in the RNA Second Edition*. The needs were reported by community members during in-person IRC Site Visits. More information about the projects mentioned in this section is available in **Appendix A: Project Details**. The recovery status of each community is more complex than this chart indicates, it is for summary purposes only.

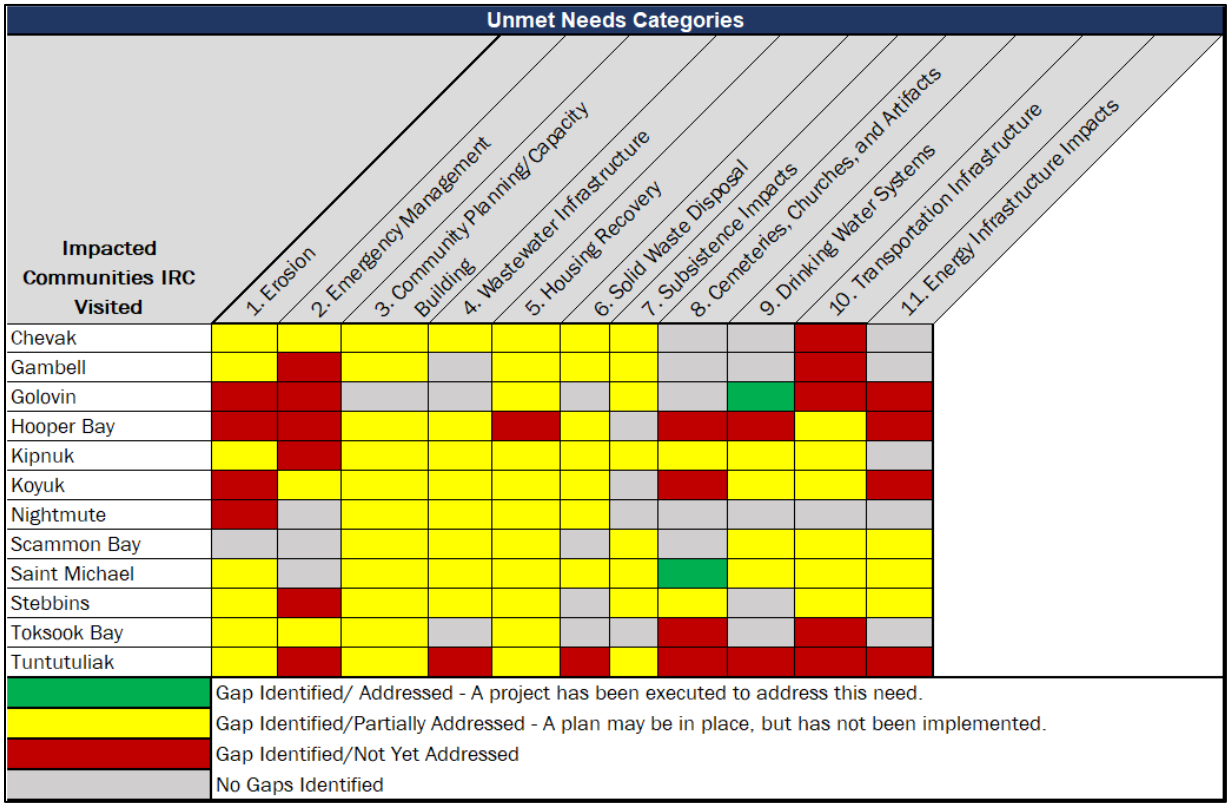

Image 3: Table Summarizing Gaps Addressed and Remaining by Community and Need Category

Anticipated Resources

One resource that will help address the unmet needs below is the **U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant (CDBG) program**. On March 15, 2023, the Office of Housing and Urban Development announced an allocation of $33.47 million in Community Development Block Grant-Disaster Recovery (CDBG-DR) funds and $5.02 million dollars in Community Development Block Grant-Mitigation (CDBG-MIT) funds specifically to help Alaskan communities recover from and tackle demands of unmet needs resulting from Typhoon Merbok. This funding helps to ensure equity and resilience in disaster recovery, as well as strengthening low- and moderate-income communities.

CBDG-DR and CBDG-MIT funding is provided to and managed by the State of Alaska Division of Community and Regional Affairs (DCRA) and will impact all categories of need detailed below. Once DCRA's needs assessment is complete, DCRA will develop and submit a Public Action Plan for HUD approval. At this time, DCRA will have identified and selected in progress and/or planned projects that have funding gaps and qualify for CDBG-DR/MIT funds.

1.1. Erosion

Coastal communities in remote western Alaska rely on erosion mitigation measures such as seawalls, berms, and gabion baskets to protect homes, businesses, and public infrastructure against erosion. Some flood risk management measures were damaged or destroyed during the storm. In other cases, the storm exacerbated existing erosion and created the necessity for new measures.

Status: IRC worked with nine (9) communities; Chevak, Hooper Bay, Kipnuk, Tuntutuliak, St. Michael, Nunam Iqua, Stebbins, Toksook Bay, and Scammon Bay; to submit applications to the USACE 165a Pilot Program. This program can fund 100 percent of the cost of projects that address flood, ecosystem, bank erosion, and/or navigational improvements for up to 20 economically disadvantaged communities nationwide. Two (2) awards are anticipated for Alaska.

Outstanding Erosion-Related Needs:

- Communities that do not receive USACE grant funding will need to seek alternative sources of funding for erosion measures.
- **Golovin** has decided not to move forward on the 165a project for a rock revetment and may need an alternative source of funding to protect the power plant area.

1.2. Emergency Management Limitations

Communities expressed a desire to be more prepared for the next storm by strengthening communications infrastructure, repairing shelters, building response teams, and informing themselves on the Stafford Act programs.

Status: IRC provided information on Individual Assistance (IA) programs to communities who asked for it. The Hazard Mitigation advisor helped at least four communities submit Notices of Intent to update hazard mitigation plans, the first step in unlocking Hazard Mitigation Grant Program funding that could address some remaining needs. Another avenue for these projects is to address Congress directly for funding.

Outstanding Emergency Management Needs: Gaps remain in scoping and funding shelter-related projects proposed by communities.

- **Gambell** - The community would like to build a new evacuation center on higher ground along the road to Savoonga. They would like a permanent structure, a steel building with concrete floors, that can withstand intensifying storms and is fully stocked with enough water, food, power, etc., to sustain 800-1,000 community members for at least 2 months.

- **Golovin** - The Village Public Safety Officer (VPSO) proposed the idea of a fully stocked emergency shelter facility, expressing concern that the community doesn't have a facility that can comfortably serve this purpose. The Tribal Office was used as a shelter facility after Typhoon Merbok, some residents had to camp outside.
- **Hooper Bay** - The community has never experienced floodwaters reaching this far into their village, nor has their community ever been bisected from flooding before. Community representatives want an emergency evacuation facility to provide residents of the "old town" a safe place to go if a similar flooding event were to occur. The community identified a building in "old town" that could potentially be used for an evacuation facility, but it would require funding to retrofit the building to meet proper structural and fortification standards.
- **Kipnuk –** The community currently uses the school as an evacuation site, but representatives indicated they could use a dedicated building for an evacuation center that also functions as a community center. Representatives shared they would like to connect new Elder Housing, the proposed community center, a new proposed temporary shelter for domestic violence victims, and a proposed Head Start Building to the existing Public Safety Facility.
- **Stebbins** - Current evacuation sites, i.e., the school and the IRA building, are insufficient to shelter residents. The community would like a new, larger evacuation center/multi-purpose building.
- **Tuntutuliak** – The community does not have firefighting equipment.

1.3. Community Planning/Capacity Building

The impacted communities generally have a low capacity to apply for grants, coordinate among federal agencies, and develop community plans. "Most small, rural Alaska communities do not have dedicated planning and public works departments to plan, design, and construct infrastructure projects, nor do they have sufficient staff for robust accounting, contracting, legal, and administrative departments. Often, a single administrator wears all of these hats, and staff turnover is high." - *Unmet Needs of Environmentally Threatened Alaska Native Villages: Assessment and Recommendations, Alaska Native Tribal Health Consortium (ANTHC) 2023.*

Status: IRC has begun regular technical assistance meetings with 12 communities and connected several with representatives of the Alaska Municipal League, who are providing technical assistance on the USACE 165a and other grant applications. IRC also hosted a two-day Recovery Management Training in September 2023.

Outstanding Community Planning or Capacity Building Needs:

- Some communities would benefit from paid recovery or planning coordinator positions.

1.4. Wastewater Infrastructure

Communities in western Alaska generally rely on lagoons and leach fields as wastewater management solutions. When the community floods, contaminants are released into the surrounding

environment. Repairing and hardening the wastewater infrastructure will make communities more resilient to future disasters.

Status: Nine (9) Indian Health Service (IHS) projects are planned in seven (7) communities; Chevak, Stebbins, Kipnuk, Koyuk, Nightmute, Scammon Bay, and Nunam Iqua; addressing or partially addressing the wastewater issues reported by these communities during the RNA process.

Outstanding Wastewater Infrastructure Needs:

- The IHS projects will in most cases take several years to implement. Short-term solutions may be necessary until resilient wastewater infrastructure is in place.

1.5. Housing Recovery

Storm surge damaged homes, displacing around 30 families. Families are still repairing their homes but are encountering shortfalls in materials and funding. Some homes are threatened by erosion and will need to be relocated.

Status: USDA NRCS approved two (2) Emergency Watershed Protection projects and is considering two (2) others that will relocate threatened structures and homes. Also, as a result of training and coordination by the IRC USDA Advisor, FEMA-IA, VALs and RuRAL CAP spread the word to at least ten (10) communities about the USDA Single Family Housing Rural Disaster Home Repair Grant Program, which offers up to $40,675 to homeowners to repair their homes from damages from Merbok. At least fifteen (15) successful applications are expected. During the IRC site visit to Tuntutuliak, RuRAL CAP and Mennonite Disaster Services visited impacted homeowners needing home repairs. USDA Rural Development granted a homeowner $81,350 through two USDA grant programs.

Outstanding Housing Recovery Needs:

- **Hooper Bay** - The Association of Village Council Presidents (AVCP) multi-family housing building (19 units) is not properly weatherized to meet arctic standards. This is a major concern for residents of the building each winter. Hooper Bay leadership have sought solutions to this problem but have not yet been able to get the building retrofitted.

1.6. Solid Waste Disposal

Some fencing surrounding landfills was damaged during the storm. Lighter waste has shifted due to wind and flooding. Additionally, direct storm impacts to landfill facilities reported by communities exacerbated larger planning issues surrounding solid waste. When a flood or storm occurs, landfills are overwhelmed. There is a lack of equipment and planning for storm debris and routine residential solid waste management. Permitting compliant landfills and planning debris disposal for future disasters will make these communities more resilient. Very few communities have a hazardous waste collection building or even a Conex to segregate and sort waste for backhaul to permitted facilities.

Status: Eighteen (18) IHS solid waste projects are planned in 13 communities; Chefornak, Chevak, Gambell, Hooper Bay, Kipnuk, Koyuk, Napakiak, Newtok, Nightmute, Stebbins, Shaktoolik, Scammon Bay, Toksook Bay; addressing or partially addressing the solid waste issues reported during the RNA process. Also, USDA Rural Development is providing grant funding to Nightmute for a planning project to address the feasibility of a new permitted landfill at a location that the community prefers.

Outstanding Solid Waste Disposal Needs:

- The IHS projects will in most cases take several years to implement. Short-term solutions may be necessary until resilient solid waste disposal infrastructure is in place.
- **Tuntutuliak** - Fencing around the landfill ("the dump") and sewage lagoon/lake has collapsed and no longer contains trash, leaving trash strewn about the tundra. There is also concern that there is hazardous contamination leaching from the landfill. The community has tried to block tributaries flowing from the landfill and the lagoon, but the material is not effective. In 2017 or 2018, Tuntutuliak applied for but did not receive an EPA Brownfields grant to address the landfill. They would need $2-3 million of gravel to cover current solid waste.

1.7. Subsistence Impacts/Food Security

Residents lost subsistence equipment and stored food. While the FEMA and State Individual Assistance programs were able to adjust policies to reimburse applicants for damaged or lost subsistence equipment, not all impacted residents applied, and gaps remain.

Status: IRC supported nine (9) communities in compiling and submitting application letters for BIA disaster supplemental funding, which will result in at least $65 thousand going to each Alaska Native Village for subsistence equipment and minor reconstruction.

Outstanding Subsistence/Food Security Needs:

- Gaps may still remain on an individual level, and new equipment will take time to ship.

1.8. Damaged Cemeteries, Churches, and Artifacts

Storm surge from Typhoon Merbok affected cemeteries, churches, and cultural artifacts. Communities are seeking assistance identifying alternative cemetery locations, fixing damage to crosses, reinterring remains, repairing churches, and addressing erosion threats to existing locations.

Status: The Alaska Department of Veterans and Military Affairs (AK DVMA) funded 2-3 staff members to work in St. Michael in September-October 2023 to move exposed remains and coffins to a safer location. IRC is working to identify philanthropic funding to help other communities repair crosses, graves, and churches.

Outstanding Cemetery and Church Needs:

- **Kipnuk** – The cemetery near the lake has an eroding fence and grave markers are knocked down, but these issues were not the community's top priority.
- **Koyuk –** Twenty-one wooden crosses were reported broken, but this was not identified as a community priority.
- **Nunam Iqua** – The community expressed a desire to relocate and eroding cemetery, but this does not appear to be a community priority.
- **Tuntutuliak –** A Moravian Church is still threatened, IRC is working with philanthropic partners on a solution.

1.9. Drinking Water Systems

Some communities in the impacted area rely on fill-and-draw systems where large batches of water are gathered from well or above-ground sources for use during the winter. Operators pump water during the summer months, filling storage tanks. The storm damaged these water distribution systems and exposed opportunities to improve resilience.

Status: Eighteen (18) IHS projects are planned in 11 communities; Koyuk, Kipnuk, Gambell, Golovin, Nightmute, Nunam Iqua, Scammon Bay, Shishmaref, Shaktoolik, St. Michael, and Stebbins; that will address or partially address drinking water related needs reported during the RNA process. IRC worked with USDA Rural Development partners to address immediate water concerns in Koyuk using the Emergency Water Assistance Grant Program (ECWAG).

Outstanding Drinking Water System Needs:

- The IHS projects will in most cases take several years to implement. Short-term solutions may be necessary until resilient water infrastructure is in place.
- **Hooper Bay** – Community representatives requested additional water treatment chemicals in the event that waterlines freeze again, and the water plant loses capacity.

1.10. Transportation Infrastructure

Coastal communities in rural western Alaska are not accessible by a highway system. Many of these communities receive supplies via airplane and sea vessels and use local roads and boardwalks to transport supplies. Over a hundred small fishing vessels are estimated to have sunk in the narrow waterways in western Alaska, forming new hazards to the navigation of barges. Well before Typhoon Merbok, a January 2009 USACE report concluded that all barge landings in coastal Alaska needed upgrades. Repairing and improving barge landings will improve communities' ability to recover after future disasters.

Status: St. Michael was able to find upfront funding to repair the damaged barge landing. IRC is working with Chevak, Kipnuk and Tuntutuliak to submit applications for the USACE 165a zero-cost-share erosion program to address eroding areas around their barge landings. Addressing erosion is a pre-requisite before barge landings can be rebuilt sustainably.

Outstanding Transportation Infrastructure Needs:

- **Chevak –** Severe erosion has impacted the riverbank, barge landing area, and village access road. The bluff overlooking the riverbank has been eroded back horizontally at least 50 feet. There is approximately 10 percent of the original sheet pile remaining that formed the pier; none of the fill forming the deck of the pier remains. Getting heavy equipment to the village via barge will be next to impossible until reconstruction of the barge landing and access ramp. The ramp was eroded to a depth of 20 feet, down to sea level, and is not serviceable even by an ATV. Items are offloaded and carried by hand up the bluff; then loaded onto ATVs for transport. Drainage pipes on the bluff are exposed, which continues to exacerbate erosion. Erosion to the area must be addressed before a new barge landing can be constructed.

1.11. Energy Infrastructure

Coastal communities in remote rural western Alaska rely on diesel-powered microgrids and renewable energy sources such as wind turbines. Energy infrastructure was damaged during the storm. Some communities need upgrades to their energy infrastructure to become more resilient to future risks.

Status: Eleven (11) projects managed by the Denali Commission, Alaska Energy Authority (AEA) and/or the Alaska Village Electric Cooperative (AVEC) are planned in six (6) communities; Chevak, Gambell, Nunam Iqua, Scammon Bay, Stebbins, and St. Michael; addressing or partially addressing the energy infrastructure needs reported during the RNA process. IRC is working with the Native Village of Scammon Bay and BIA to fund a short-term solution for insufficient fuel storage capacity.

Outstanding Energy Infrastructure Needs:

- Several communities need small (5kw) generators, and some need a medium size trailer-mounted generator (20kw) to provide backup power. This is a critical unmet need, because most village homes are heated with Toyo or Monitor oil stoves, and these stoves require electricity to ignite the burner and operate the fan. A power outage also means no home heat and associated freezing of the plumbing.
- **Tuntutuliak -** A fire damaged one of the wind turbines. In addition to fixing it, the community would like to install more.
- **Golovin –** The Chinik Eskimo Community in Golovin experienced considerable flooding, which resulted in the loss of 30 feet of beach and damage to their berm. The community reported a need to either move their powerplant out of the flood zone or elevate it.

2. Outcomes, Supporting Objectives and Strategies

The following section outlines the objectives and strategies associated with each outcome, organized by RSF. Two tables summarize the potential project costs by community and by strategy.

Natural and Cultural Resources

- **NCR Outcome:** Alaska's natural and cultural resources in the affected communities have been restored or protected for the benefit of people and the ecosystem.
  - **Objective N1.** Address Contaminants Stemming from Landfills, Sewage Systems, and Other Sources
    - **Strategy N1.1** Provide Technical Assistance for Landfill, Sewer, and Other Contaminant Management
  - **Objective N2.** Salvage and/or Restore Cultural and Community Heritage Sites and Artifacts
    - **Strategy N2.1** Engage with Agencies and Partners to Address Damage to Cemeteries
    - **Strategy N2.2** Engage with Agencies and Partners to Address Damages to Churches
  - **Objective N3.** Help Alaska Native Communities Build Resilience in their Subsistence and Food Systems
    - **Strategy N3.1** Assist with the Replacement of Subsistence Gear, Equipment, and Structures
    - **Strategy N3.2** Assist with Efforts to Increase Food Security in Remote Alaska Communities

Infrastructure Systems

- **IS Outcome:** Alaska infrastructure systems impacted by the flooding and severe weather have been restored and made resilient.
  - **Objective I1.** Leverage Existing Infrastructure Authorities and Resources to Support a Sustainable Resilient Recovery Within Five Years
    - **Strategy I1.1** Implement Temporary Wastewater Solutions
    - **Strategy I1.2** Replace or Upgrade Wastewater Lagoons
    - **Strategy I1.3** Build or Rebuild Water Infrastructure
    - **Strategy I1.4** Repair/Replace Energy Infrastructure
    - **Strategy I1.5** Replace or Upgrade Barge Landings
    - **Strategy I1.6** Build or Rebuild Transportation Infrastructure
    - **Strategy I1.7** Procure Equipment
    - **Strategy I1.8** Develop/Repair Community Facilities

- **Objective I2.** Mitigate Climate Change Impacting Infrastructure
  - **Strategy I2.1** Implement Mitigation Measures for Housing
  - **Strategy I2.2** Mitigate Riverine and Coastal Erosion
  - **Strategy I2.3** Mitigate Permafrost Degradation

Community Assistance

- **CA Outcome:** Resilient recovery of Alaska's communities, through the execution of local recovery strategies in Bering Strait REAA, Kashunamiut REAA, Lower Kuskokwim REAA, Lower Yukon REAA, and Pribilof REAA.
  - **Objective C1**. Assist the State of Alaska to develop a Recovery Coordination Framework Inclusive of All Levels of Government
    - **Strategy C1.1** Facilitate Forums Where Stakeholders Share Needs and Resources
  - **Objective C2**. Assist the Affected Communities in Increasing their Capabilities through Training, Technical Assistance, Mutual Aid, and/or Grants by the End of 2023
    - **Strategy C2.1** Facilitate Capacity Building, Including Grant Writing and Administration
    - **Strategy C2.2** Provide Direct Recovery Management Technical Assistance to Communities
    - **Strategy C2.3** Provide Technical Assistance to Communities in Developing/Updating Plans
    - **Strategy C2.4** Assist Communities with Understanding State and Federal programs and Other Informational Needs

2.1. Number and Estimated Costs of Potential Projects by Community

Other Anticipated Resources and Projects

Outside of these amounts is also $33.47 million available under the **HUD CDBG-DR Program**. That funding has not yet been allocated to projects. CDBG-DR funding supplements other Federal recovery assistance programs administered by FEMA, the Small Business Administration (SBA), and USACE.[2] CDBG-DR funds may be used to match other federal resources and can also be used in combination with the Department of Health and Human Services (HHS) Social Services Block Grants (SSBGs).

The **FEMA Public Assistance (PA) Program** will reimburse communities for some of the damages associated with the projects in this strategy. PA projects were still being formulated during the writing of this report. IRC is tracking PA project development, but that information is not included here.

Outside of these amounts is also $44 million in **BIA Disaster Supplemental Funding.** The funding from the FY-2023 Omnibus Appropriation (P.L. 117-328) included an initial emergency funding allocation of $65,441 per tribe. The remainder of the $44 million has not yet been allocated.

Community	Est. Project Cost	Project Count
Chevak	$22,068,380	14
Gambell	$5,508,678	14
Golovin	$11,927,847	10
Hooper Bay	$13,715,798	14
Kipnuk	$78,657,102	13
Koyuk	$8,172,532	15
Nightmute	$1,154,453	10
Scammon Bay	$9,065,068	14
St. Michael	$9,878,375	11
Stebbins	$32,278,875	19
Toksook Bay	$1,167,060	9
Tuntutuliak	$417,356	13
Grand Total	**$194,011,524**	**156**
Totals do not include multi-community projects.		

Table 1: Number, Est. Costs of Potential Projects by Community

The **National Oceanic and Atmospheric Administration (NOAA)** also expects funding to be available through the Natural Coastal Resilience Fund to help Alaska Native Villages implement nature-based coastal resilience strategies, with the help of the Alaska Conservation Foundation.

[2] CDBG-DR funds cannot duplicate funding available from Federal, State or Local governments, private and non-profit organizations, insurance proceeds, or any other source of assistance. CDBG–DR funds are for necessary expenses for activities authorized under title I of the Housing and Community Development Act of 1974 (42 U.S.C. 5301) related to disaster relief, long-term recovery, restoration of infrastructure and housing, economic revitalization, and mitigation in the "most impacted and distressed" (MID) areas. Pursuant to the Appropriations Acts, HUD has identified MID areas based on the best available data for all eligible affected areas. For the purpose of Disaster #4672, these areas are Lower Yukon REAA, Bering Strait REAA, and Kashunamiut REAA. At least 80 percent of the CDBG-DR allocation must be used to address unmet disaster needs in the HUD-identified MID areas and must directly or indirectly tie back to disaster. Mitigation funds however does not require a connection to the qualifying major disaster and may be used to mitigate any hazard risk in any region of Alaska.

2.2. Number of Estimated Costs of Potential Projects by Strategy

Note: Certain projects support more than one strategy or more than one community.

Strategy	Sum of Est. Cost $	Project Count
C1.1 Facilitate Forums Where Stakeholders Share Needs and Resources		8
C2.1 Facilitate Capacity Building, Including Grant Writing and Administration		5
C2.2 Provide Direct Recovery Management Technical Assistance to Communities		14
C2.3 Provide Technical Assistance to Communities in Developing/Updating Plans	$210,000	13
C2.4 Assist Communities with Understanding State and Federal programs and Other Informational Needs		3
I1.1 Implement Temporary Wastewater Solutions		5
I1.2 Replace or Upgrade Wastewater Lagoons	$121,776,266	11
I1.3 Build or Rebuild Water Infrastructure	$113,281,598	17
I1.4 Repair/Replace Energy Infrastructure	$17,961,722	16
I1.5 Replace or Upgrade Barge Landings	$3,248,672	9
I1.6 Build or Rebuild Transportation Infrastructure	$24,020,716	14
I1.7 Procure Equipment		8
I1.8 Develop/Repair Community Facilities		5
I2.1 Implement Mitigation Measures for Housing	$250,445	9
I2.2 Mitigate Riverine and Coastal Erosion	$498,647	16
I2.3 Mitigate Permafrost Degradation	$329,414	3
N1.1 Provide Technical Assistance for Landfill, Sewer, and Other Contaminant Management	$4,779,934	22
N2.1 Engage with Agencies and Partners to Address Damage to Cemeteries	$60,000	6
N2.2 Engage with Agencies and Partners to Address Damages to Churches		1
N3.1 Assist with the Replacement of Subsistence Gear, Equipment, and Structures	$40,000	4
N3.2 Assist with Efforts to Increase Food Security in Remote Alaska Communities		3

3. Summary of Potential Projects by Strategy and Status

The chart below summarizes projects by strategy. **Project costs are estimates only and subject to change.** Some projects contribute to more than one strategy, these appear multiple times. The projects are ordered by project status, with the most complete projects listed first under each strategy. For more information on the IHS projects, visit *DSFC Construction Projects (arcgis.com).* Many of these are multi-year projects, which includes planning, permitting, design, funding, and construction. Projects are at different stages of working their way through this deliberative process. Project details are available in **Appendix A.**

Project Statuses
1 - Conceptual
2 - Planning/Design
3 - Pre-Implementation
4 - Construction/Implementation
5 - Completed

3.1. Natural and Cultural Resources

Type	Summary			Managing Entities
Strategy	N1.1 Provide Technical Assistance for Landfill, Sewer, and Other Contaminant Management			In progress
Project	Nightmute - Landfill Solid Waste Relocation (IHS)	IHS, ADEC, ANTHC	$ 207,960	Construction/Implementation
Project	NCR Working Group - Waste Contaminant Management (IRC)	NCR RSF		Construction/Implementation
Project	Chevak - Solid Waste Burn Units (IHS)	IHS, ADEC, Chevak Native Village	$ 146,715	Pre-implementation
Project	Chevak - Solid Waste Transportation (IHS)	IHS, ADEC, Chevak Native Village	$ 185,000	Pre-implementation
Project	Chevak - Old Landfill Cleanup Assessment (EPA Brownfields Program - Applied)	YRITWC, AVCP, Chevak Traditional Council	$ 100,000	Pre-implementation
Project	Gambell - Solid Waste Improvements (IHS)	IHS, ADEC, Native Village of Gambell	$ 498,243	Pre-implementation

Project	Gambell - New Landfill Planning Project (IHS)	IHS, ADEC, Native Village of Gambell	$ 404,150	Pre-implementation
Project	Hooper Bay - Solid Waste Summit Burn Unit (IHS)	IHS, ADEC, Village of Hooper Bay	$ 194,825	Pre-implementation
Project	Kipnuk - Solid Waste Improvements (IHS)	IHS, ADEC, Native Village of Kipnuk	$ 121,437	Pre-implementation
Project	Koyuk - Solid Waste Improvements (IHS)	IHS, ADEC, Native Village of Koyuk	$ 575,248	Pre-implementation
Project	Scammon Bay - Solid Waste Upgrades (IHS)	IHS, ADEC, Scammon Bay Traditional Council	$ 810,324	Pre-implementation
Project	Stebbins - Solid Waste Improvements (IHS)	IHS, ADEC, Stebbins Community Association	$ 569,977	Pre-implementation
Project	Toksook Bay - Landfill (IHS)	IHS, ADEC, City of Toksook Bay, Native Village of Toksook Bay	$ 566,055	Pre-implementation
Project	Chevak - Solid Waste/Landfill Improvements	ANTHC, City of Chevak		Planning/Design
Project	Nightmute - New Landfill Feasibility Study (USDA)	USDA, City and/or Native Villages in Nightmute, Zender Environmental	$ 200,000	Planning/Design
Project	Gambell – Landfill Fencing Repair			Conceptual
Project	Kipnuk - Honey Bucket Collection Facility			Conceptual

Project	Kipnuk - Oil Spill Clean Up			Conceptual
Project	Koyuk - Site Contamination Assessment (EPA Brownfields Program)	EPA, NCR RSF	$ 100,000	Conceptual
Project	Scammon Bay - Site Contamination Assessment (EPA Brownfields Program)	YRITWC, NVSB, EPA, AEA	$ 100,000	Conceptual
Project	Stebbins - Lake Contamination from Sewage	NCR RSF		Conceptual
Project	Tuntutuliak - Landfill and Solid Waste System Improvements and Decontamination			Conceptual
Strategy	**N2.1 Engage with Agencies and Partners to Address Damage to Cemeteries**			**In progress**
Project	St. Michael - Old Russian Cemetery Exposed Coffins and Remains Relocation (AK DMVA)	AK Department of Military and Veterans Affairs	$ 60,000	Construction/Implementation
Project	NCR Working Group - Cemetery Recovery	NCR RSF		Construction/Implementation
Project	Kipnuk - Cemetery Repairs	NCR RSF		Conceptual
Project	Stebbins - Cemeteries Repair	NCR RSF		Conceptual
Project	Toksook Bay - Cemetery Repair	NCR RSF		Conceptual
Project	Tuntutuliak - Repairs to Cemeteries	NCR RSF		Conceptual
Strategy	**N2.2 Engage with Agencies and Partners to Address Damages to Churches**			**In progress**
Project	Tuntutuliak - Moravian and Russian Orthodox Churches	NCR RSF		Conceptual
Strategy	**N3.1 Assist with the Replacement of Subsistence Gear, Equipment, and Structure**			**In progress**

Project	Chevak - Boat Clean Up and Subsistence Equipment Recovery	City of Chevak, Chevak Traditional Council, UAF	$ 40,000	Construction/Implementation
Project	NCR Working Group - Food Security and Subsistence (IRC)	NCR RSF		Construction/Implementation
Project	Gambell - Restore Lost Boat Racks	NCR RSF		Conceptual
Project	Stebbins - Restoration of Subsistence Equipment	NCR RSF		Conceptual
Strategy	**N3.2 Assist with Efforts to Increase Food Security in Remote Alaska Communities**			**In progress**
Project	NCR Working Group - Food Security and Subsistence (IRC)	NCR RSF		Construction/Implementation
Project	Golovin - Food Security	NCR RSF		Conceptual
Project	Stebbins - Food Security	NCR RSF		Conceptual

3.2. Infrastructure Systems

Type	Summary	Managing Entities	Est. Proj. Cost	Status
Strategy	**I1.1 Implement Temporary Wastewater Solutions**			**In progress**
Project	Chevak - Temporary Sandbag Repair Sewage Lagoon (ANTHC)	ANTHC		Construction/Implementation
Project	Hooper Bay - Temporary Sandbag Repair Sewage Lagoon (ANTHC)	ANTHC		Construction/Implementation
Project	IS Working Group - Water/Wastewater Recovery	IS RSF		Construction/Implementation
Project	Kipnuk - Community Facilities			Conceptual
Project	St. Michael - Sewage Vacuum Plant Building (PA)	IS RSF		Conceptual
Strategy	**I1.2 Replace or Upgrade Wastewater Lagoons**			**In progress**
Project	IS Working Group - Water/Wastewater Recovery	IS RSF		Construction/Implementation
Project	Kipnuk - Comprehensive Piped Service (IHS)	IHS, ANTHC	$ 78,505,665	Pre-implementation
Project	Koyuk - Water and Sewer Connection (IHS)	IHS, ANTHC	$ 1,434,932	Pre-implementation
Project	Nightmute - FTH Repair Planning Project (IHS)	IHS, ANTHC, Native Village of Nightmute	$ 591,493	Pre-implementation
Project	Nightmute - Lift Station Planning Project (IHS)	IHS, ANTHC, Native Village of Nightmute	$ 125,000	Pre-implementation
Project	Scammon Bay - Sewage Lagoon Expansion Planning (IHS)	IHS, ANTHC, Village Safe Water, Scammon Bay Traditional Council		Pre-implementation

Project	Stebbins - Sewer Lagoon and Force Main (IHS)	EPA, IHS, ANTHC	$ 10,510,501	Pre-implementation
Project	Stebbins - Honey Bucket Lagoon (IHS)	EPA, IHS, ANTHC	$ 1,719,875	Pre-implementation
Project	Stebbins - Washeteria Replacement (IHS)	IHS, ANTHC, Stebbins Community Association	$ 7,388,800	Pre-implementation
Project	Chevak - New Additional Sewage Lagoon for Secondary Treatment (EPA)	ANTHC, ADEC, EPA	$ 21,500,000	Planning/Design
Project	Nightmute - Sewage Lagoon Repairs and System Upgrades			Conceptual
Strategy	**I1.3 Build or Rebuild Water Infrastructure**			**In progress**
Project	Golovin - Raw Water Intake Rehabilitation (IHS)	IHS, ANTHC, Village of Golovin	$ 4,174,056	Completed
Project	Gambell - Horizontal Well Planning Project (IHS)	IHS, ANTHC	$ 239,000	Pre-implementation
Project	Gambell - Water Plant Planning Project (IHS)	IHS, ANTHC	$ 119,876	Pre-implementation
Project	Gambell - Water Storage Tank Insulation (IHS)	IHS, ANTHC, Native Village of Gambell	$ 2,629,373	Pre-implementation
Project	Gambell - Connect Two Homes to Water and Sewer Planning Project (IHS)	IHS, ANTHC, Native Village of Gambell	$ 86,036	Pre-implementation
Project	Kipnuk - Comprehensive Piped Service (IHS)	IHS, ANTHC	$ 78,505,665	Pre-implementation
Project	Koyuk - Water and Sewer Connection (IHS)	IHS, ANTHC	$ 1,434,932	Pre-implementation
Project	Koyuk - Water Source Improvement Planning Project (IHS)	IHS, ANTHC	$ 150,000	Pre-implementation

Project	Nightmute - FTH Repair Planning Project (IHS)	IHS, ANTHC, Native Village of Nightmute	$ 591,493	Pre-implementation
Project	Nightmute - Lift Station Planning Project (IHS)	IHS, ANTHC, Native Village of Nightmute	$ 125,000	Pre-implementation
Project	Scammon Bay - Water Distribution System Replacement (IHS)	IHS, ANTHC, Scammon Bay Traditional Council	$ 8,154,744	Pre-implementation
Project	Stebbins - Washeteria Replacement (IHS)	IHS, ANTHC, Stebbins Community Association	$ 7,388,800	Pre-implementation
Project	Koyuk - Emergency Community Water Assistance Grant (USDA ECWAG)	USDA RD, ANTHC	$ 394,680	Planning/Design
Project	St. Michael - Raw WST Replacement (IHS)	ANTHC	$ 9,287,943	Planning/Design
Project	Hooper Bay - Old Town Water/Sewer Connection (TBD)			Conceptual
Project	Hooper Bay - Backup Water + Treatment Chemicals			Conceptual
Strategy	**I1.4 Repair/Replace Energy Infrastructure**			**In progress**
Project	Chevak - Wind Turbine Repair (AVEC)	AVEC		Construction/Implementation
Project	Nightmute, Nunam Iqua, Tuntutuliak - Circuit Rider Program (Denali Commission)	Denali Commission, Alaska Energy Authority	$ 1,710,000	Construction/Implementation
Project	Gambell - Miscellaneous Small Maintenance and Improvements Projects (Denali Commission)	Denali Commission, AVEC	$ 1,532,000	Pre-implementation

Project	St. Michael - Fuel Tank Replacement/Farm Upgrade (TBD)	City of St. Michael		Pre-implementation
Project	Stebbins - Wind Project (Denali Commission)	Denali Commission, Alaska Village Electric Cooperative	$ 10,375,722	Pre-implementation
Project	Stebbins - St. Michael Grid Bridging System (Denali Commission)	Denali Commission, Alaska Village Electric Cooperative	$ 1,684,000	Pre-implementation
Project	Statewide - Bulk Fuel Facility Inventory and Assessment (Denali Commission)	Denali Commission, Alaska Energy Authority	$ 1,760,000	Pre-implementation
Project	Gambell, Koyuk, Toksook Bay - Powerhouse Controls Upgrades (Denali Commission)	Denali Commission, Alaska Village Electric Cooperative (AVEC)	$ 900,000	Pre-implementation
Project	Chevak - Community Generator			Conceptual
Project	Golovin - Power Plant: Reinforcement + Reliability Improvements			Conceptual
Project	Hooper Bay - Backup Generator and Electric System Enhancements			Conceptual
Project	Koyuk - Power Distribution Resilience			Conceptual
Project	Scammon Bay - New Fuel Tank Farm	IS RSF, AEA, BIA, FEMA PA		Conceptual
Project	Scammon Bay - Stopgap Winter Heating Oil	IS RSF, AEA		Conceptual
Project	Scammon Bay - Flooding Protection for Power Plant			Conceptual

Project	Tuntutuliak - Repairs/Upgrades to Wind Turbines			Conceptual
Strategy	**I1.5 Replace or Upgrade Barge Landings**			**In progress**
Project	Chevak - Re-site Barge Landing Area (TBD)	USACE Alaska District		Planning/Design
Project	Koyuk - Coastal Protection and Barge Landing Restoration (AK DOT&PF)	AK DOT&PF	$ 3,191,672	Planning/Design
Project	Kipnuk - Streambank Erosion (USACE 165a Pilot Program)	IS RSF		Conceptual
Project	Koyuk - Marine Header Relocation	ANTHC		Conceptual
Project	Scammon Bay - Expand Barge Landing			Conceptual
Project	St. Michael - Barge Landing Repair (PA)	IS RSF	$ 57,000	Conceptual
Project	Toksook Bay - Boat Harbor Expansion			Conceptual
Project	Tuntutuliak - Barge Landing (TBD)	IS RSF		Conceptual
Strategy	**I1.6 Build or Rebuild Transportation Infrastructure**			**In progress**
Project	Golovin - Storm Resilience and Infrastructure Rehabilitation (AK DOT&PF)	AK DOT&PF	$ 7,570,011	Planning/Design
Project	Hooper Bay - Resilience and Infrastructure Restoration (AK DOT&PF)	AK DOT&PF	$ 13,228,700	Planning/Design
Project	Koyuk - King Creek and Inglutaik Creek Road Reconstruction (AK DOT&PF)	AK DOT&PF	$ 2,326,000	Planning/Design
Project	St. Michael - Boardwalk Restoration (AK DOT&PF)	AK DOT&PF	$ 325,000	Planning/Design
Project	Stebbins - St. Michael Road Maintenance and Repair (Potential Resources FHWA TTIP/PA)	Kawerak		Planning/Design

Project	Gambell - Evacuation Route			Conceptual
Project	Kipnuk - Transportation Facilities Repairs - Boardwalks, Roads, Bridges and Barge Landing			Conceptual
Project	Koyuk - Airport Expansion			Conceptual
Project	Scammon Bay - Airport Relocation or Mitigation			Conceptual
Project	St. Michael - Repair/Replace Navigational Aids			Conceptual
Project	Stebbins - Evacuation Route			Conceptual
Project	Toksook Bay/Tununak - Tununak Boardwalk Repair (Denali Commission)	Denali Commission, Native Village of Tununak	$ 571,005	Conceptual
Project	Toksook Bay - Road Repairs	Nunakauyak Traditional Council		Conceptual
Project	Tuntutuliak - Boardwalk Repairs			Conceptual
Strategy	**I1.7 Procure Equipment**			**Proposed**
Project	Gambell - Heavy Equipment			Conceptual
Project	Koyuk - Heavy Equipment			Conceptual
Project	Nightmute - Heavy Equipment			Conceptual
Project	Scammon Bay - Heavy Equipment			Conceptual
Project	Stebbins - Emergency Communications Equipment			Conceptual
Project	Stebbins - Firefighting Equipment			Conceptual

Project	Stebbins - Warning Siren			Conceptual
Project	Tuntutuliak - Firefighting Equipment			Conceptual
Strategy	**I1.8 Develop/Repair Community Facilities**			**Proposed**
Project	Gambell - Evacuation Center			Conceptual
Project	Golovin - Emergency Shelter/Community Center			Conceptual
Project	Hooper Bay - Evacuation Center			Conceptual
Project	Stebbins - Evacuation Center			Conceptual
Project	Toksook Bay - Hazardous Waste Shed Roof			Conceptual
Strategy	**I2.1 Implement Mitigation Measures for Housing**			**In progress**
Project	Golovin - Chinik Eskimo Community ICDBG Imminent Threat Grant 23GC0205891 (HUD)			Completed
Project	Golovin - Subdivision Design Services Planning (Denali Commission)	Denali Commission, Kawerak Inc.	$ 183,780	Pre-implementation
Project	St. Michael - Movement of Houses (NRCS EWP)	USDA NRCS		Pre-implementation
Project	Chevak - Store and Home Relocation (NRCS EWP)	USDA NRCS, City of Chevak	$ 66,665	Planning/Design
Project	Golovin - Raising Homes in Floodplain			Conceptual
Project	Kipnuk - Housing, Home Repairs, Relocation and Elevations	CA RSF		Conceptual
Project	Koyuk - Home and Store Relocation			Conceptual
Project	Nightmute - Home Relocations			Conceptual

Project	Tuntutuliak - Mitigation Measures for Vulnerable Homes			Conceptual
Strategy	**I2.2 Mitigate Riverine and Coastal Erosion**			**In progress**
Project	Tuntutuliak - Near-Term Erosion Risk Assessment Project (BIA Tribal Climate Resilience Program)	ANTHC	$ 236,374	Pre-implementation
Project	Chevak - Erosion Mitigation (USACE 165a Pilot Program)	IS RSF		Planning/Design
Project	Kipnuk - Riverine Erosion Protection (USACE 165a Pilot Program)	IS RSF		Planning/Design
Project	Gambell - Coastal Erosion Protection (USACE Programs)	IS RSF		Conceptual
Project	Golovin - Coastal Erosion Protection (USACE Programs)	IS RSF, CETC		Conceptual
Project	Hooper Bay - NRCS Emergency Watershed Protection (EWP) Program Project	USDA NRCS	$ 262,273	Conceptual
Project	Hooper Bay - Erosion Protection (USACE 165a Pilot Program)			Conceptual
Project	Koyuk - Erosion Assessment (USACE Section 14)			Conceptual
Project	Nightmute - Erosion + Landslide Mitigation			Conceptual
Project	Nunam Iqua - Riverine Erosion Protection (USACE 165a Pilot Program)	AML		Conceptual
Project	Scammon Bay - Erosion Mitigation / Barrier Wall Enhancement			Conceptual

Project	St. Michael - Coastal Erosion Protection (USACE 165a Pilot Program)	IS RSF		Conceptual
Project	Stebbins - Coastal Erosion Protection (USACE Section 165a Program)	IS RSF		Conceptual
Project	Toksook Bay - Coastal Erosion Protection (USACE 165a Pilot Program)	IS RSF		Conceptual
Project	Tuntutuliak - Riverine Erosion Protection (USACE 165a Pilot Program)	IS RSF		Conceptual
Strategy	**I2.3 Mitigate Permafrost Degradation**			**In progress**
Project	St. Michael - Permafrost Risk Assessment (BIA Tribal Climate Resilience Program)	ANTHC, BIA	$ 148,432	Pre-implementation
Project	Tuntutuliak - Permafrost Degradation Assessment (BIA Tribal Climate Resilience Program)	ANTHC, BIA	$ 180,982	Pre-implementation
Project	Scammon Bay - Mitigate Flooding to Low Lying Homes and Mechanic Shop			Conceptual

3.3. Community Assistance

Type	Title	Managing Entities	Est. Cost $	Status
Strategy	C1.1 Facilitate Forums Where Stakeholders Share Needs and Resources			In progress
Project	Housing Recovery Task Force	AK DHS&EM		Completed
Project	BIA/DCRA/HUD Multi-Agency Needs Assessment Outreach Planning	FEMA IRC, HUD, DCRA, BIA		Completed
Project	IRC Integration and Synchronization Meetings (IRC)	FEMA IRC		Construction/Implementation
Project	IS Working Group - Water/Wastewater Recovery	IS RSF		Construction/Implementation
Project	NCR Working Group - Waste Contaminant Management (IRC)	NCR RSF		Construction/Implementation
Project	NCR Working Group - Food Security and Subsistence (IRC)	NCR RSF		Construction/Implementation
Project	IRC Participation in Public Forums	CA RSF		Construction/Implementation
Project	Regional Collaboration Workshops (Hub Communities)	CA RSF		Conceptual
Strategy	C2.1 Facilitate Capacity Building, Including Grant Writing and Administration			In progress
Project	Grant Writing Course Facilitation (University of Alaska)	IRC, UAA		Completed
Project	Recovery Management Training (IRC)	CA RSF		Completed

Project	Nonfederal Match Resource Guide Development (IRC)	CA RSF	Planning/Design
Project	Grant Writing, Administration, and Financial Management Guide Development (IRC)	CA RSF	Conceptual
Project	Staff Capacity Building Resource Guide Development (IRC)	CA RSF	Conceptual
Strategy	C2.2 Provide Direct Recovery Management Technical Assistance to Communities		In progress
Project	Chevak - Recovery Management Plan	CA RSF	Construction/Implementation
Project	Gambell - Recovery Management Plan	CA RSF	Construction/Implementation
Project	Golovin - Recovery Management Plan	CA RSF	Construction/Implementation
Project	Hooper Bay - Recovery Management Plan	CA RSF	Construction/Implementation
Project	Kipnuk - Recovery Management Plan	CA RSF	Construction/Implementation
Project	Koyuk - Recovery Management Plan	CA RSF	Construction/Implementation
Project	Nightmute - Recovery Management Plan	CA RSF	Construction/Implementation
Project	Scammon Bay - Recovery Management Plan	CA RSF	Construction/Implementation
Project	St. Michael - Recovery Management Plan	CA RSF	Construction/Implementation
Project	Stebbins - Recovery Management Plan	CA RSF	Construction/Implementation
Project	Toksook Bay - Recovery Management Plan	CA RSF	Construction/Implementation
Project	Tuntutuliak - Recovery Management Plan	CA RSF	Construction/Implementation
Project	Housing Resource Guide Development	CA RSF	Construction/Implementation

Project	Kipnuk - Housing, Home Repairs, Relocation and Elevations	CA RSF		Conceptual
Strategy	C2.3 Provide Technical Assistance to Communities in Developing/Updating Plans			In progress
Project	Gambell, Golovin, Koyuk, Village of St. Michael, Others - Multijurisdictional Hazard Mitigation Plan	AK DHS&EM, BIA, Kawerak, Fairweather Consulting	$ 30,000	Completed
Project	Hooper Bay - Hazard Mitigation Plan Update	FEMA Region 10	$ 30,000	Pre-implementation
Project	Chevak - Multijurisdictional Hazard Mitigation Plan	AK DHS&EM	$ 30,000	Conceptual
Project	Hooper Bay - Relocation Planning			Conceptual
Project	Native Village of Kipnuk - Hazard Mitigation Plan	AK DHS&EM	$ 30,000	Conceptual
Project	Koyuk - Update/exercise the Small Community Emergency Response Plan			Conceptual
Project	Nightmute - Multijurisdictional Hazard Mitigation Plan	AK DHS&EM	$ 30,000	Conceptual
Project	Scammon Bay - Multijurisdictional Hazard Mitigation Plan Update			Conceptual
Project	Stebbins - Multijurisdictional Hazard Mitigation Plan	AK DHS&EM	$ 30,000	Conceptual
Project	Toksook Bay, City of - Hazard Mitigation Plan	AK DHS&EM	$ 30,000	Conceptual
Project	Tuntutuliak - Plan Updating			Conceptual
Project	Planning 101 Training - Working Title	CA RSF		Conceptual
Project	All - Updated Floodplain Data (NOAA)	NOAA		Conceptual

Strategy	C2.4 Assist Communities with Understanding State and Federal programs and Other Informational Needs	Proposed
Project	Hooper Bay - Village Public Safety Officer	Conceptual
Project	Hooper Bay - Training for I.D./Social Security Card Renewal and/or Replacement	Conceptual
Project	Kipnuk - Provide Information on Social Service Programs	Conceptual

4. Potential Projects by Community Summary

The chart below summarizes projects by community. In the Status column, Conceptual projects may lack a funder, champion, or defined scope. **Project costs are estimates only and subject to change**. **Project details are available in Appendix A.** The information under each community is sorted by Project Status, with the most complete projects first.

Project Statuses
1 - Conceptual
2 - Planning/Design
3 - Pre-Implementation
4 - Construction/Implementation
5 - Completed

Summary	Managing Entities	Est. Proj. Cost	Status
Chevak			
Chevak - Boat Clean Up and Subsistence Equipment Recovery	City of Chevak, Chevak Traditional Council, UAF	$ 40,000	Construction/Implementation
Chevak - Temporary Sandbag Repair Sewage Lagoon (ANTHC)	ANTHC		Construction/Implementation
Chevak - Recovery Management Plan	CA RSF		Construction/Implementation
Chevak - Wind Turbine Repair (AVEC)	AVEC		Construction/Implementation
Chevak - Solid Waste Transportation (IHS)	IHS, ADEC, Chevak Native Village	$ 185,000	Pre-implementation
Chevak - Solid Waste Burn Units (IHS)	IHS, ADEC, Chevak Native Village	$ 146,715	Pre-implementation
Chevak - Old Landfill Cleanup Assessment (EPA Brownfields Program - Applied)	YRITWC, AVCP, Chevak Traditional Council	$ 100,000	Pre-implementation
Chevak - Solid Waste/Landfill Improvements	ANTHC, City of Chevak		Planning/Design
Chevak - New Additional Sewage Lagoon for Secondary Treatment (EPA)	ANTHC, ADEC, EPA	$ 21,500,000	Planning/Design
Chevak - Re-site Barge Landing Area (TBD)	USACE Alaska District		Planning/Design
Chevak - Store and Home Relocation (NRCS EWP)	USDA NRCS, City of Chevak	$ 66,665	Planning/Design
Chevak - Erosion Mitigation (USACE 165a Pilot Program)	IS RSF		Planning/Design
Chevak - Community Generator			Conceptual
Chevak - Multijurisdictional Hazard Mitigation Plan	AK DHS&EM	$ 30,000	Conceptual
Gambell			

Summary	Managing Entities	Est. Proj. Cost	Status
Gambell - Recovery Management Plan	CA RSF		Construction/Implementation
Gambell - Miscellaneous Small Maintenance and Improvements Projects (Denali Commission)	Denali Commission, AVEC	$ 1,532,000	Pre-implementation
Gambell - Water Plant Planning Project (IHS)	IHS, ANTHC	$ 119,876	Pre-implementation
Gambell - Solid Waste Improvements (IHS)	IHS, ADEC, Native Village of Gambell	$ 498,243	Pre-implementation
Gambell - Connect Two Homes to Water and Sewer Planning Project (IHS)	IHS, ANTHC, Native Village of Gambell	$ 86,036	Pre-implementation
Gambell - New Landfill Planning Project (IHS)	IHS, ADEC, Native Village of Gambell	$ 404,150	Pre-implementation
Gambell - Horizontal Well Planning Project (IHS)	IHS, ANTHC	$ 239,000	Pre-implementation
Gambell - Water Storage Tank Insulation (IHS)	IHS, ANTHC, Native Village of Gambell	$ 2,629,373	Pre-implementation
Gambell - Evacuation Center			Conceptual
Gambell - Repair landfill fencing and exposure to high winds			Conceptual
Gambell - Heavy Equipment			Conceptual
Gambell - Evacuation Route			Conceptual
Gambell - Coastal Erosion Protection (USACE Programs)	IS RSF		Conceptual
Gambell - Restore Lost Boat Racks	NCR RSF		Conceptual
Golovin			
Golovin - Raw Water Intake Rehabilitation (IHS)	IHS, ANTHC, Village of Golovin	$ 4,174,056	Closed
Golovin - Chinik Eskimo Community ICDBG Imminent Threat Grant 23GC0205891 (HUD)			Closed
Golovin - Recovery Management Plan	CA RSF		Construction/Implementation
Golovin - Subdivision Design Services Planning (Denali Commission)	Denali Commission, Kawerak Inc.	$ 183,780	Pre-implementation
Golovin - Storm Resilience and Infrastructure Rehabilitation (AK DOT&PF)	AK DOT&PF	$ 7,570,011	Planning/Design
Golovin - Power Plant: Reinforcement + Reliability Improvements			Conceptual
Golovin - Emergency Shelter/Community Center			Conceptual

Summary	Managing Entities	Est. Proj. Cost	Status
Golovin - Raising Homes in Floodplain			Conceptual
Golovin - Coastal Erosion Protection (USACE Programs)	IS RSF, CETC		Conceptual
Golovin - Food Security	NCR RSF		Conceptual
Hooper Bay			
Hooper Bay - Temporary Sandbag Repair Sewage Lagoon (ANTHC)	ANTHC		Construction/Implementation
Hooper Bay - Recovery Management Plan	CA RSF		Construction/Implementation
Hooper Bay - Solid Waste Summit Burn Unit (IHS)	IHS, ADEC, Village of Hooper Bay	$ 194,825	Pre-implementation
Hooper Bay - Hazard Mitigation Plan Update	FEMA Region 10	$ 30,000	Pre-implementation
Hooper Bay - Resilience and Infrastructure Restoration (AK DOT&PF)	AK DOT&PF	$ 13,228,700	Planning/Design
Hooper Bay - Old Town Water/Sewer Connection (TBD)			Conceptual
Hooper Bay - NRCS Emergency Watershed Protection (EWP) Program Project	USDA NRCS	$ 262,273	Conceptual
Hooper Bay - Backup Generator and Electric System Enhancements			Conceptual
Hooper Bay - Erosion Protection (USACE 165a Pilot Program)			Conceptual
Hooper Bay - Evacuation Center			Conceptual
Hooper Bay - Relocation Planning			Conceptual
Hooper Bay - Training for I.D./Social Security Card Renewal and/or Replacement			Conceptual
Hooper Bay - Backup Water + Treatment Chemicals			Conceptual
Hooper Bay - Village Public Safety Officer			Conceptual
Kipnuk			
Kipnuk - Recovery Management Plan	CA RSF		Construction/Implementation
Kipnuk - Comprehensive Piped Service (IHS)	IHS, ANTHC	$ 78,505,665	Pre-implementation
Kipnuk - Solid Waste Improvements (IHS)	IHS, ADEC, Native Village of Kipnuk	$ 121,437	Pre-implementation

Summary	Managing Entities	Est. Proj. Cost	Status
Kipnuk - Riverine Erosion Protection (USACE 165a Pilot Program)	IS RSF		Planning/Design
Native Village of Kipnuk - Hazard Mitigation Plan	AK DHS&EM	$ 30,000	Conceptual
Kipnuk - Streambank Erosion (USACE 165a Pilot Program)	IS RSF		Conceptual
Kipnuk - Honey Bucket Collection Facility			Conceptual
Kipnuk - Cemetery Repairs	NCR RSF		Conceptual
Kipnuk - Community Facilities			Conceptual
Kipnuk - Transportation Facilities Repairs - Boardwalks, Roads, Bridges and Barge Landing			Conceptual
Kipnuk - Provide Information on Social Service Programs			Conceptual
Kipnuk - Oil Spill Clean Up			Conceptual
Kipnuk - Housing, Home Repairs, Relocation and Elevations	CA RSF		Conceptual
Koyuk			
Koyuk - Recovery Management Plan	CA RSF		Construction/Implementation
Koyuk - Water and Sewer Connection (IHS)	IHS, ANTHC	$ 1,434,932	Pre-implementation
Koyuk - Water Source Improvement Planning Project (IHS)	IHS, ANTHC	$ 150,000	Pre-implementation
Koyuk - Solid Waste Improvements (IHS)	IHS, ADEC, Native Village of Koyuk	$ 575,248	Pre-implementation
Koyuk - Emergency Community Water Assistance Grant (USDA ECWAG)	USDA RD, ANTHC	$ 394,680	Planning/Design
Koyuk - King Creek and Inglutaik Creek Road Reconstruction (AK DOT&PF)	AK DOT&PF	$ 2,326,000	Planning/Design
Koyuk - Coastal Protection and Barge Landing Restoration (AK DOT&PF)	AK DOT&PF	$ 3,191,672	Planning/Design
Koyuk - Heavy Equipment			Conceptual
Koyuk - Marine Header Relocation	ANTHC		Conceptual
Koyuk - Erosion Assessment (USACE Section 14)			Conceptual

Summary	Managing Entities	Est. Proj. Cost	Status
Koyuk - Airport Expansion			Conceptual
Koyuk - Update/exercise the Small Community Emergency Response Plan			Conceptual
Koyuk - Site Contamination Assessment (EPA Brownfields Program)	EPA, NCR RSF	$ 100,000	Conceptual
Koyuk - Home and Store Relocation			Conceptual
Koyuk - Power Distribution Resilience			Conceptual
Nightmute			
Nightmute - Landfill Solid Waste Relocation (IHS)	IHS, ADEC, ANTHC	$ 207,960	Construction/Implementation
Nightmute - Recovery Management Plan	CA RSF		Construction/Implementation
Nightmute - Lift Station Planning Project (IHS)	IHS, ANTHC, Native Village of Nightmute	$ 125,000	Pre-implementation
Nightmute - FTH Repair Planning Project (IHS)	IHS, ANTHC, Native Village of Nightmute	$ 591,493	Pre-implementation
Nightmute - New Landfill Feasibility Study (USDA)	USDA, City and/or Native Villages in Nightmute, Zender Environmental	$ 200,000	Planning/Design
Nightmute - Home Relocations			Conceptual
Nightmute - Sewage Lagoon Repairs and System Upgrades			Conceptual
Nightmute - Procure Heavy Equipment			Conceptual
Nightmute - Multijurisdictional Hazard Mitigation Plan	AK DHS&EM	$ 30,000	Conceptual
Nightmute - Erosion + Landslide Mitigation			Conceptual
Nunam Iqua			
Nunam Iqua - Riverine Erosion Protection (USACE 165a Pilot Program)	AML		Conceptual
Scammon Bay			
Scammon Bay - Recovery Management Plan	CA RSF		Construction/Implementation
Scammon Bay - Water Distribution System Replacement (IHS)	IHS, ANTHC, Scammon Bay Traditional Council	$ 8,154,744	Pre-implementation

Summary	Managing Entities	Est. Proj. Cost	Status
Scammon Bay - Sewage Lagoon Expansion Planning (IHS)	IHS, ANTHC, Village Safe Water, Scammon Bay Traditional Council		Pre-implementation
Scammon Bay - Solid Waste Upgrades (IHS)	IHS, ADEC, Scammon Bay Traditional Council	$ 810,324	Pre-implementation
Scammon Bay - Stopgap Winter Heating Oil	IS RSF, AEA		Conceptual
Scammon Bay - Erosion Mitigation / Barrier Wall Enhancement			Conceptual
Scammon Bay - Heavy Equipment			Conceptual
Scammon Bay - Site Contamination Assessment (EPA Brownfields Program)	YRITWC, NVSB, EPA, AEA	$ 100,000	Conceptual
Scammon Bay - Flooding Protection for Power Plant			Conceptual
Scammon Bay - Multijurisdictional Hazard Mitigation Plan Update			Conceptual
Scammon Bay - Airport Relocation or Mitigation			Conceptual
Scammon Bay - New Fuel Tank Farm	IS RSF, AEA, BIA, FEMA PA		Conceptual
Scammon Bay - Expand Barge Landing			Conceptual
Scammon Bay - Mitigate Flooding to Low Lying Homes and Mechanic Shop			Conceptual
St. Michael			
St. Michael - Old Russian Cemetery Exposed Coffins and Remains Relocation (AK DMVA)	AK Department of Military and Veterans Affairs	$ 60,000	Construction/Implementation
St. Michael - Recovery Management Plan	CA RSF		Construction/Implementation
St. Michael - Permafrost Risk Assessment (BIA Tribal Climate Resilience Program)	ANTHC, BIA	$ 148,432	Pre-implementation
St. Michael - Movement of Houses (NRCS EWP)	USDA NRCS		Pre-implementation
St. Michael - Fuel Tank Replacement/Farm Upgrade (TBD)	City of St. Michael		Pre-implementation
St. Michael - Raw WST Replacement (IHS)	ANTHC	$ 9,287,943	Planning/Design
St. Michael - Boardwalk Restoration (AK DOT&PF)	AK DOT&PF	$ 325,000	Planning/Design
St. Michael - Barge Landing Repair (PA)	IS RSF	$ 57,000	Conceptual

Summary	Managing Entities	Est. Proj. Cost	Status
St. Michael - Sewage Vacuum Plant Building (PA)	IS RSF		Conceptual
St. Michael - Coastal Erosion Protection (USACE 165a Pilot Program)	IS RSF		Conceptual
St. Michael - Repair/Replace Navigational Aids			Conceptual
Stebbins			
Stebbins - Recovery Management Plan	CA RSF		Construction/Implementation
Stebbins - Washeteria Replacement (IHS)	IHS, ANTHC, Stebbins Community Association	$ 7,388,800	Pre-implementation
Stebbins - Solid Waste Improvements (IHS)	IHS, ADEC, Stebbins Community Association	$ 569,977	Pre-implementation
Stebbins - Honey Bucket Lagoon (IHS)	EPA, IHS, ANTHC	$ 1,719,875	Pre-implementation
Stebbins - Wind Project (Denali Commission)	Denali Commission, AVEC	$ 10,375,722	Pre-implementation
Stebbins - Sewer Lagoon and Force Main (IHS)	EPA, IHS, ANTHC	$ 10,510,501	Pre-implementation
Stebbins - St. Michael Grid Bridging System (Denali Commission)	Denali Commission, AVEC	$ 1,684,000	Pre-implementation
Stebbins - St. Michael Road Maintenance and Repair (Potential Resources FHWA TTIP/PA)	Kawerak		Planning/Design
Stebbins - Firefighting Equipment			Conceptual
Stebbins - Food Security	NCR RSF		Conceptual
Stebbins - Evacuation Center			Conceptual
Stebbins - Evacuation Route			Conceptual
Stebbins - Emergency Communications Equipment			Conceptual
Stebbins - Warning Siren			Conceptual
Stebbins - Cemeteries Repair	NCR RSF		Conceptual
Stebbins - Multijurisdictional Hazard Mitigation Plan	AK DHS&EM	$ 30,000	Conceptual
Stebbins - Lake Contamination from Sewage	NCR RSF		Conceptual
Stebbins - Coastal Erosion Protection (USACE Section 165a Program)	IS RSF		Conceptual
Stebbins - Restoration of Subsistence Equipment	NCR RSF		Conceptual
Toksook Bay			

Summary	Managing Entities	Est. Proj. Cost	Status
Toksook Bay - Recovery Management Plan	CA RSF		Construction/Implementation
Toksook Bay - Landfill (IHS)	IHS, ADEC, City of Toksook Bay, Native Village of Toksook Bay	$ 566,055	Pre-implementation
Toksook Bay - Boat Harbor Expansion			Conceptual
Toksook Bay, City of - Hazard Mitigation Plan	AK DHS&EM	$ 30,000	Conceptual
Toksook Bay - Cemetery Repair	NCR RSF		Conceptual
Toksook Bay/Tununak - Tununak Boardwalk Repair (Denali Commission)	Denali Commission, Native Village of Tununak	$ 571,005	Conceptual
Toksook Bay - Coastal Erosion Protection (USACE 165a Pilot Program)	IS RSF		Conceptual
Toksook Bay - Road Repairs	Nunakauyak Traditional Council		Conceptual
Toksook Bay - Hazardous Waste Shed Roof			Conceptual
Tuntutuliak			
Tuntutuliak - Recovery Management Plan	CA RSF		Construction/Implementation
Tuntutuliak - Permafrost Degradation Assessment (BIA Tribal Climate Resilience Program)	ANTHC, BIA	$ 180,982	Pre-implementation
Tuntutuliak - Near-Term Erosion Risk Assessment Project (BIA Tribal Climate Resilience Program)	ANTHC	$ 236,374	Pre-implementation
Tuntutuliak - Mitigation Measures for Vulnerable Homes			Conceptual
Tuntutuliak - Moravian and Russian Orthodox Churches	NCR RSF		Conceptual
Tuntutuliak - Boardwalk Repairs			Conceptual
Tuntutuliak - Landfill and Solid Waste System Improvements and Decontamination			Conceptual
Tuntutuliak - Repairs/Upgrades to Wind Turbines			Conceptual
Tuntutuliak - Plan Updating			Conceptual
Tuntutuliak - Firefighting Equipment			Conceptual
Tuntutuliak - Riverine Erosion Protection (USACE 165a Pilot Program)	IS RSF		Conceptual
Tuntutuliak - Barge Landing (TBD)	IS RSF		Conceptual
Tuntutuliak - Repairs to Cemeteries	NCR RSF		Conceptual

5. IRC Role Summary

For readers who are unfamiliar with the role of IRC in recovery operations, this section shows the IRC Role for each project.

5.1. IRC Role: Project/Solution Development

Chevak - Re-site Barge Landing Area (TBD)
Chevak - Community Generator
Chevak - Multijurisdictional Hazard Mitigation Plan
Gambell - Evacuation Center
Gambell – Landfill Fence Repair
Gambell - Heavy Equipment
Gambell - Evacuation Route
Gambell - Restore Lost Boat Racks
Golovin - Power Plant: Reinforcement + Reliability Improvements
Golovin - Emergency Shelter/Community Center
Golovin - Raising Homes in Floodplain
Golovin - Food Security
Hooper Bay - Old Town Water/Sewer Connection (TBD)
Hooper Bay - Backup Generator and Electric System Enhancements
Hooper Bay - Erosion Protection (USACE 165a Pilot Program)
Hooper Bay - Backup Water + Treatment Chemicals
Kipnuk - Honey Bucket Collection Facility
Kipnuk - Cemetery Repairs
Kipnuk - Community Facilities
Kipnuk - Transportation Facilities Repairs - Boardwalks, Roads, Bridges and Barge Landing
Koyuk - Heavy Equipment
Koyuk - Airport Expansion
Nightmute - Sewage Lagoon Repairs and System Upgrades
Nightmute - Erosion + Landslide Mitigation
Scammon Bay - Stopgap Winter Heating Oil
Scammon Bay - Flooding Protection for Power Plant
Scammon Bay - New Fuel Tank Farm
Scammon Bay - Expand Barge Landing
Scammon Bay - Mitigate Flooding to Low Lying Homes and Mechanic Shop
St. Michael - Old Russian Cemetery Exposed Coffins and Remains Relocation (AK DMVA)
St. Michael - Repair/Replace Navigational Aids
Stebbins - Firefighting Equipment
Stebbins - Food Security
Stebbins - Evacuation Center
Stebbins - Evacuation Route
Stebbins - Emergency Communications Equipment
Stebbins - Warning Siren
Stebbins - Cemeteries Repair
Toksook Bay - Boat Harbor Expansion
Tuntutuliak - Mitigation Measures for Vulnerable Homes
Tuntutuliak - Moravian and Russian Orthodox Churches
Tuntutuliak - Boardwalk Repairs
Tuntutuliak - Repairs/Upgrades to Wind Turbines
Tuntutuliak - Plan Updating
Tuntutuliak - Firefighting Equipment
Tuntutuliak - Repairs to Cemeteries

5.2. IRC Role: Connecting Partners/Resources

Chevak - Boat Clean Up and Subsistence Equipment Recovery
Gambell - Coastal Erosion Protection (USACE Programs)
Golovin - Coastal Erosion Protection (USACE Programs)
Hooper Bay - Evacuation Center
Hooper Bay - Relocation Planning
Hooper Bay - Training for I.D./Social Security Card Renewal and/or Replacement
Hooper Bay - Village Public Safety Officer
Native Village of Kipnuk - Hazard Mitigation Plan
Kipnuk - Provide Information on Social Service Programs
Kipnuk - Oil Spill Clean Up
Kipnuk - Housing, Home Repairs, Relocation and Elevations
Koyuk - Emergency Community Water Assistance Grant (USDA ECWAG)
Koyuk - Update/exercise the Small Community Emergency Response Plan
Koyuk - Home and Store Relocation
Nightmute - Home Relocations
Nightmute - Procure Heavy Equipment
Nightmute - Multijurisdictional Hazard Mitigation Plan
Scammon Bay - Erosion Mitigation / Barrier Wall Enhancement
Scammon Bay - Heavy Equipment
Scammon Bay - Site Contamination Assessment (EPA Brownfields Program)
Scammon Bay - Multijurisdictional Hazard Mitigation Plan Update
Scammon Bay - Airport Relocation or Mitigation
Stebbins - St. Michael Road Maintenance and Repair (Potential Resources FHWA TTIP/PA)
Stebbins - Multijurisdictional Hazard Mitigation Plan
Stebbins - Lake Contamination from Sewage
Stebbins - Restoration of Subsistence Equipment
Toksook Bay - Cemetery Repair
Toksook Bay - Road Repairs
Tuntutuliak - Landfill and Solid Waste System Improvements and Decontamination
Tuntutuliak - Barge Landing (TBD)

5.3. IRC Role: Facilitating Community Involvement

Chevak - Old Landfill Cleanup Assessment (EPA Brownfields Program - Applied)
St. Michael - Movement of Houses (NRCS EWP)
Toksook Bay, City of - Hazard Mitigation Plan.

5.4. IRC Role: Providing Technical Assistance

Chevak - Recovery Management Plan
Chevak - Erosion Mitigation (USACE 165a Pilot Program)
Gambell - Recovery Management Plan
Golovin - Recovery Management Plan
Hooper Bay - Recovery Management Plan
Kipnuk - Recovery Management Plan
Kipnuk - Streambank Erosion (USACE 165a Pilot Program)
Kipnuk - Riverine Erosion Protection (USACE 165a Pilot Program)
Koyuk - Erosion Assessment (USACE Section 14)
Koyuk - Recovery Management Plan
Koyuk - Power Distribution Resilience
Nightmute - Recovery Management Plan
Nunam Iqua - Riverine Erosion Protection (USACE 165a Pilot Program)
Scammon Bay - Recovery Management Plan
St. Michael - Coastal Erosion Protection (USACE 165a Pilot Program)
St. Michael - Recovery Management Plan
Stebbins - Recovery Management Plan
Stebbins - Coastal Erosion Protection (USACE Section 165a Program)
Toksook Bay - Recovery Management Plan
Toksook Bay - Coastal Erosion Protection (USACE 165a Pilot Program)
Tuntutuliak - Recovery Management Plan
Tuntutuliak - Riverine Erosion Protection (USACE 165a Pilot Program)

5.5. IRC Role: Posting/Tracking for Awareness

Chevak - Solid Waste/Landfill Improvements
Chevak - Temporary Sandbag Repair Sewage Lagoon (ANTHC)
Chevak - New Additional Sewage Lagoon for Secondary Treatment (EPA)
Chevak - Wind Turbine Repair (AVEC)
Chevak - Store and Home Relocation (NRCS EWP)
Chevak - Solid Waste Transportation (IHS)
Chevak - Solid Waste Burn Units (IHS)
Gambell - Miscellaneous Small Maintenance and Improvements Projects (Denali Commission)
Gambell - Water Plant Planning Project (IHS)
Gambell - Solid Waste Improvements (IHS)
Gambell - Connect Two Homes to Water and Sewer Planning Project (IHS)
Gambell - New Landfill Planning Project (IHS)
Gambell - Horizontal Well Planning Project (IHS)

Gambell - Water Storage Tank Insulation (IHS)
Golovin - Subdivision Design Services Planning (Denali Commission)
Golovin - Raw Water Intake Rehabilitation (IHS)
Golovin - Chinik Eskimo Community ICDBG Imminent Threat Grant 23GC0205891 (HUD)
Hooper Bay - Temporary Sandbag Repair Sewage Lagoon (ANTHC)
Hooper Bay - Solid Waste Summit Burn Unit (IHS)
Hooper Bay - Hazard Mitigation Plan Update
Hooper Bay - NRCS Emergency Watershed Protection (EWP) Program Project
Hooper Bay - Resilience and Infrastructure Restoration (AK DOT&PF)
Kipnuk - Comprehensive Piped Service (IHS)
Kipnuk - Solid Waste Improvements (IHS)
Koyuk - Water and Sewer Connection (IHS)
Koyuk - Water Source Improvement Planning Project (IHS)
Koyuk - Solid Waste Improvements (IHS)
Koyuk - King Creek and Inglutaik Creek Road Reconstruction (AK DOT&PF)
Koyuk - Coastal Protection and Barge Landing Restoration (AK DOT&PF)
Koyuk - Site Contamination Assessment (EPA Brownfields Program)
Nightmute - New Landfill Feasibility Study (USDA)
Nightmute - Lift Station Planning Project (IHS)
Nightmute - FTH Repair Planning Project (IHS)
Nightmute - Landfill Solid Waste Relocation (IHS)
Scammon Bay - Water Distribution System Replacement (IHS)
Scammon Bay - Sewage Lagoon Expansion Planning (IHS)
Scammon Bay - Solid Waste Upgrades (IHS)
St. Michael - Barge Landing Repair (PA)
St. Michael - Raw WST Replacement (IHS)
St. Michael - Permafrost Risk Assessment (BIA Tribal Climate Resilience Program)
St. Michael - Sewage Vacuum Plant Building (PA)
St. Michael - Boardwalk Restoration (AK DOT&PF)
Stebbins - Washeteria Replacement (IHS)
Stebbins - Solid Waste Improvements (IHS)
Stebbins - Honey Bucket Lagoon (IHS)
Stebbins - Wind Project (Denali Commission)
Stebbins - Sewer Lagoon and Force Main (IHS)
Stebbins - St. Michael Grid Bridging System (Denali Commission)
Toksook Bay - Landfill (IHS)
Toksook Bay/Tununak - Tununak Boardwalk Repair (Denali Commission)
Toksook Bay - Hazardous Waste Shed Roof
Tuntutuliak - Permafrost Degradation Assessment (BIA Tribal Climate Resilience Program)
Tuntutuliak - Near-Term Erosion Risk Assessment Project (BIA Tribal Climate Resilience Program

Appendix A: Project Details

The Managing Entities, POC, Cost, Purpose and Need, and Scope of each project are provided below. The project key, e.g., **DR-4672-552**, is a hyperlink to the project in the IRC tracking system MAX-TRAX. Moving forward, progress for each project will be tracked in this system. For access, please reach out to Sarah.Reynolds@fema.dhs.gov.

1. Completed Projects

1.1. DR4672-526 - Golovin - Raw Water Intake Rehabilitation (IHS)

Strategy Number: I1.3

Managing Entity: IHS, ANTHC, Village of Golovin
Project Coordination POC: Christopher Fehrman, IHS Division of Sanitation Facilities Construction, Christopher.Fehrman@ihs.gov

Cost: $4,174,056

Purpose and Need: "Water Deficiency: Water intake facility is 20 years old and in poor condition. Building foundation has settled about 6 inches on one side, and the building is visibly leaning towards the creek. Some of the building foundation structural members are beginning to crack. The raw water transmission line has reportedly split and/or cracked due to freezing multiple times since it was constructed, and regularly requires repair each year before it can be used for summer water fill activities. The access road for the raw water transmission line has settled considerably in several areas and is need of repair and/or re-grading. These repairs are necessary to ensure that the intake site remains accessible to the fuel truck and/or other vehicles used to bring in materials for maintaining the intake..."

Scope: Water Proposal: This project will install a new intake system in a straight section of the creek to reduce sedimentation and minimize impact on stream flow. The intake will be located within a perforated and gravel packed culvert connected to a 12" casing containing a submersible VFD pump. A new generator building will be constructed away further away from the creek bank and will include a fenced-off double-walled fuel tank and new generator. A new transmission line will also be constructed on the west side of the road."

1.2. DR4672-702 - Golovin - Chinik Eskimo Community ICDBG Imminent Threat Grant 23GC0205891 (HUD)

Strategy Number: I2.1

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: Golovin residents were displaced after their homes were damaged by Typhoon Merbok.

Scope: The award of $900,000 to the Chinik Eskimo Community will be used for three energy efficient, temporary, small 2-bedroom emergency homes for the displaced homeowners whose homes were destroyed by Typhoon Merbok on September 20, 2022. Their Community-Based

Development Organization (CBDO), the Bering Straits Regional Housing Authority, completed the construction as of 10/26/2023.

1.3. DR4672-503 - Housing Recovery Task Force

Strategy Number: C1.1

Managing Entity: AK DHS&EM
Project Coordination POC: Mike Macans, AK DHS&EM, mike.macans@alaska.gov

Cost: TBD.

Purpose and Need: Representatives from State and FEMA IA, the United Methodist Committee on Relief (UMCOR), the Alaska Voluntary Agencies Active on Disasters (AK VOAD), FEMA Operations, the U.S. Department of Housing and Urban Development, and the U.S. Department of Agriculture met regularly between the months of February and May 2023 to better understand impacts to housing in Western Alaska, listen for unmet needs, and follow the VOAD housing repair/replacement effort planned for Summer 2023.

Participants worked together to put in place information sharing agreements among FEMA, the State and voluntary agency partners, so that applicant information could be shared, and other federal agency resources directed to those who may be eligible for them.

This effort was sunset on 05/23/2023, after UMCOR missions to Hooper Bay and Stebbins took place.

Scope: Better understand impacts to housing in Western Alaska, listen for unmet needs, and follow the VOAD housing repair/replacement effort planned for Summer 2023.

1.4. DR4672-230 - Recovery Management Training (IRC)

Strategy Number: C2.1

Managing Entity: CA RSF
Project Coordination POC: Meredith Salas, CA-RSF Manager, Meredith.Salas@FEMA.DHS.GOV

Cost: TBD.

Purpose and Need: Per the ANTHC 2023 Unmet Needs Report, "Most small, rural Alaska communities do not have dedicated planning and public works departments to plan, design, and construct infrastructure projects, nor do they have sufficient staff for robust accounting, contracting, legal, and administrative departments. Often, a single administrator wears all of these hats, and staff turnover is high." After attending this training, the Local Government Specialists, Native Non-Profit staff, and others will have additional tools and knowledge to support their designated communities in recovering from the impacts of Typhoon Merbok.

Scope: The Community Assistance RSF coordinated the delivery of a three-part Recovery Management Training for local governments, in partnership with the Emergency Management Institute, for Alaska Department of Community and Regional Affairs (DCRA) Local Government Specialists (LGS), Native Non-Profits, DHS-EM, and others as identified. The training covered FEMA Programs, procurement, financial management, CDBG-DR,

planning and resilience. The training occurred over 2 days, 9/25-26/2023, from 8am-12pm virtually, via Zoom.

1.5. DR4672-140 - BIA/DCRA/HUD Multi-Agency Needs Assessment Outreach Planning

Strategy Number: C1.1

Managing Entity: FEMA IRC, HUD, DCRA, BIA
Project Coordination POC: Beth Otto, CA-RSF Field Coordinator, elizabeth.otto@fema.dhs.gov

Cost: TBD.

Purpose and Need: FEMA IRC, the Bureau of Indian Affairs (BIA) and the Alaska Department of Community and Regional Affairs (DCRA) are undergoing similar needs assessments involving the communities impacted by Typhoon Merbok. FEMA IRC is conducting the Recovery Needs Assessment. BIA is conducting an assessment in advance of disbursing new BIA funds, and DCRA is assessing impacts for HUD CDBG-DR funding. IRC will connect with representatives of these agencies to share information, reduce duplication of effort, and collaborate where a survey or other outreach could suit multiple needs.

Scope: Coordinate efforts among partner agencies that are assessing needs related to Typhoon Merbok recovery. This project will be complete when the assessments are complete, and milestone sub-tasks will show incremental steps toward this end. Once the needs assessments are complete, partners will collaborate on solutions, which will be tracked as Projects as needed.

1.6. DR4672-110 - Grant Writing Course Facilitation (University of Alaska)

Strategy Number: C2.1

Managing Entity: IRC, UAA
Project Coordination POC: Professor Andrew Harnish, ajharnish@alaska.edu; IRC Academic Advisor David Leiva

Cost: TBD.

Purpose and Need: Capacity to apply for grants in the impacted communities is very low. Community members may wear many hats, having rolls on the Tribal Council and the municipal government. Kawerak and the Association of Village Council Presidents, the non-profit arms of Bering Straits and Calista Native Regional Corporations, assist communities with applying for and managing grants, but resources are limited.

Scope: Dr. Andrew Harnish taught a Spring and Summer grant writing course with the University of Alaska Anchorage (UAA). The course covered how to locate and evaluate funding opportunities, build relationships with collaborators and community partners, and draft and revise grant proposals. He invited members of the communities impacted by Typhoon Merbok to make a “pitch” to the class about their community’s unmet recovery needs, which could benefit from grant writing assistance. The two sessions resulted in total of 12 grant applications, including to the Economic Development Administration for a rural economic development project and to FEMA for a tsunami shelter in northwest Alaska.

1.7. DR4672-335 - Gambell, Golovin, Koyuk, Village of St. Michael, Others - Multijurisdictional Hazard Mitigation Plans

Strategy Number: C2.3

Managing Entity: AK DHS&EM, BIA, Kawerak, Fairweather Consulting

Project Coordination POC: Garrett Brooks, State of Hazard Mitigation Officer, garrett.brooks@alaska.gov; John Andrews, State HMP Lead, john.andrews@alaska.gov

Cost: $30,000

Purpose and Need: Multiple Hazard Mitigation Plans in the impacted region have expired, these communities need one to unlock hazard mitigation resources such as the BRIC and 404 programs.

Scope: Brevig Mission, Diomede, Elim, Gambell, Golovin, Koyuk, St. Michael, Teller, Unalakleet, and White Mountain were pursuing a Multijurisdictional Hazard Mitigation Plan (MJHMP). This group was funded by the BIA through Kawerak. St. Michael and Teller were Tribal only, the other 8 were MJHMPs. Fairweather Consulting helped the communities develop the plans. DHS&EM reviewed the plans.

2. In Progress Projects

2.1. DR4672-356 - Chevak - Boat Clean Up and Subsistence Equipment Recovery

Managing Entity: City of Chevak, Chevak Traditional Council, UAF
Project Coordination POC: Reggie Tuluk, Climate Change Specialist, Tribal Council; Richard Tuluk, City of Chevak

Cost: $40,000

Purpose and Need: One hundred boats, motors, and sheds were washed out into the tundra and are not accessible.

Scope: Chevak representatives shared that the community has secured $40,000 funding from an Alaska Foundation for a 6-week project to clean up boats near the barge landing. Workers were retrieving boats as of 8/3/2023. The University of Alaska Fairbanks has provided drone imagery to the community to help identify the remaining boats in the tundra and is planning an October 2023 visit. On 9/29/2023, the Tribal Administrator confirmed that during the winter it will be possible to better assess the situation.

2.2. DR4672-286 - Chevak - Temporary Sandbag Repair Sewage Lagoon (ANTHC)

Strategy Number: I1.1

Managing Entity: ANTHC
Project Coordination POC: Chris Cox, ANTHC

Cost: TBD.

Purpose and Need: The berm surrounding the lagoon in Chevak is breached. The lagoon is near subsistence areas including berry picking, egg collection, blackfish and migratory birds. These areas are at risk for contamination from the seepage.

Scope: The Alaska Native Tribal Health Consortium (ANTHC) Alaska Rural Utilities Collaborative (ARUC) has incrementally provided 3000 sandbags to Chevak to temporarily address the leaking sewage lagoon. Residents have been hired to fill and place the sandbags and ARUC provided instructions to keep the work going. This is a temporary measure before more permanent work on the sewage lagoon can begin.

2.3. DR4672-252 - Chevak - Recovery Management Plan

Strategy Number: C2.2

Managing Entity: CA RSF
Project Coordination POC: Beth Otto, CA-RSF Field Coordinator, elizabeth.otto@fema.dhs.gov

Cost: TBD.

Purpose and Need: The impacted communities generally have a low capacity to apply for grants, coordinate among federal agencies, and develop community plans.

Scope: The CA RSF will hold regular technical assistance meetings with community representatives to monitor the status of projects and coordinate access to additional resources as necessary.

2.4. DR4672-336 - Chevak - Wind Turbine Repair (AVEC)

Strategy Number: I1.4

Purpose and Need: Chevak has four wind turbines, only one of which was operational during the 05/24/2023 IRC RNA site visit to Chevak. The Chevak Traditional Council reported that the Alaska Village Electric Cooperative (AVEC) is responsible for fixing them and plans to, but not able to at this time, as there is no crane in the village to aid in repairs. The Denali Commission funded the

Managing Entity: AVEC
Project Coordination POC: Ana Sattler, AVEC, asattler@avec.org

Cost: TBD.

installation of the wind turbines and a training program for their operation in 2009-2011. The wind turbines are very important to the community, they help bring down energy costs for residents.

Scope: IRC will monitor the repair of the damaged wind turbines.

2.5. DR4672-623 - Gambell - Recovery Management Plan

Strategy Number: C2.2

Managing Entity: CA RSF
Project Coordination POC: Ada Prieto, CA-RSF Group Supervisor, ada.prieto@fema.dhs.gov

Cost: TBD.

Purpose and Need: The impacted communities generally have a low capacity to apply for grants, coordinate among federal agencies, and develop community plans.

Scope: The CA RSF will hold regular technical assistance meetings with community representatives to monitor the status of projects and coordinate access to additional resources as necessary.

2.6. DR4672-619 - Golovin - Recovery Management Plan

Strategy Number: C2.2

Managing Entity: CA RSF
Project Coordination POC: Meredith Salas, CA-RSF Manager, meredith.salas@fema.dhs.gov

Cost: TBD.

Purpose and Need: The impacted communities generally have a low capacity to apply for grants, coordinate among federal agencies, and develop community plans.

Scope: The CA RSF will hold regular technical assistance meetings with community representatives to monitor the status of projects and coordinate access to additional resources as necessary.

2.7. DR4672-615 - Hooper Bay - Temporary Sandbag Repair Sewage Lagoon (ANTHC)

Strategy Number: I1.1

Managing Entity: ANTHC
Project Coordination POC: Chris Cox, ANTHC

Cost: TBD.

Purpose and Need: Hooper Bay has experienced a breach in its sewage lagoon, in part connected to impacts from Typhoon Merbok. Raw sewage is running out onto the tundra, creating a public health problem for the community. Since Typhoon Merbok and the cold front last January, most of the community is back to honey buckets – which is overwhelming the sewage lagoon that was not intended to meet the current population capacity demands. The sewage lagoon was originally intended to service the school and the teacher housing apartments but is now servicing 127 homes and businesses in addition. The berm around the lagoon is failing, due to permafrost degradation, overfilling, and excessive rain.

Scope: The Native Village of Paimiute donated 2000 sandbags and City of Hooper Bay brought in day laborers to install them. This work was done in early June; however, the breach continues and looks to be the same rate outflowing as effluent is inflowing. FEMA and SEOC have been notified of this issue.

2.8. DR4672-620 - Hooper Bay - Recovery Management Plan

Strategy Number: C2.2

Managing Entity: CA RSF
Project Coordination POC: Meredith Salas, CA-RSF Manager, meredith.salas@fema.dhs.gov

Cost: TBD.

Purpose and Need: The impacted communities generally have a low capacity to apply for grants, coordinate among federal agencies, and develop community plans.

Scope: The CA RSF will hold regular technical assistance meetings with community representatives to monitor the status of projects and coordinate access to additional resources as necessary.

2.9. DR4672-344 - Kipnuk - Recovery Management Plan

Strategy Number: C2.2

Managing Entity: CA RSF
Project Coordination POC: Beth Otto, CA-RSF Field Coordinator, elizabeth.otto@fema.dhs.gov

Cost: TBD.

Purpose and Need: The impacted communities generally have a low capacity to apply for grants, coordinate among federal agencies, and develop community plans.

Scope: The CA RSF will hold regular technical assistance meetings with community representatives to monitor the status of projects and coordinate access to additional resources as necessary.

2.10. DR4672-617 - Koyuk - Recovery Management Plan

Strategy Number: C2.2

Managing Entity: CA RSF
Project Coordination POC: Beth Otto, CA-RSF Field Coordinator, elizabeth.otto@fema.dhs.gov

Cost: TBD.

Purpose and Need: The impacted communities generally have a low capacity to apply for grants, coordinate among federal agencies, and develop community plans.

Scope: The CA RSF will hold regular technical assistance meetings with community representatives to monitor the status of projects and coordinate access to additional resources as necessary.

2.11. DR4672-434 - Nightmute - Landfill Solid Waste Relocation (IHS)

Strategy Number: N1.1

Managing Entity: IHS, ADEC, ANTHC
Project Coordination POC: Fran Mann, U.S. Department of the Interior, frances.mann@boem.gov

Cost: $207,960

Purpose and Need: Waste in the unpermitted "Summer" landfill is polluting the adjacent river. Nightmute's tundra pond landfill loses three feet a year to erosion by the Toksook river. Regulator documented leachate pouring into the river, which residents believe contaminates the food supply.

Scope: Representatives of the city and of the two Native Villages in Nightmute are slowly moving waste from the unpermitted "Summer" landfill to the "Winter" landfill using gig workers until a permanent landfill can be planned and constructed. The community has funding for four workers to lay out mats to create a path from the river to the winter dumpsite. Nightmute also received an ANTHC grant to install 600 ft. of white tundra mats; it is unclear when this will

occur or if funding has been received for this purpose. These will speed the transportation of waste from the "Summer" landfill to the "Winter" landfill. The installation and hiring of workers was planned for Summer 2023, but due to delays, it will likely be completed next year.

2.12. DR4672-618 - Nightmute - Recovery Management Plan

Strategy Number: C2.2

Managing Entity: CA RSF
Project Coordination POC: Meredith Salas, CA-RSF Manager, meredith.salas@fema.dhs.gov

Cost: TBD.

Purpose and Need: The impacted communities generally have a low capacity to apply for grants, coordinate among federal agencies, and develop community plans.

Scope: The CA RSF will hold regular technical assistance meetings with community representatives to monitor the status of projects and coordinate access to additional resources as necessary.

2.13. DR4672-621 - Scammon Bay - Recovery Management Plan

Strategy Number: C2.2

Managing Entity: CA RSF
Project Coordination POC: Ada Prieto, CA-RSF Group Supervisor, ada.prieto@fema.dhs.gov

Cost: TBD.

Purpose and Need: The impacted communities generally have a low capacity to apply for grants, coordinate among federal agencies, and develop community plans.

Scope: The CA RSF will hold regular technical assistance meetings with community representatives to monitor the status of projects and coordinate access to additional resources as necessary.

2.14. DR4672-408 - St. Michael - Old Russian Cemetery Exposed Coffins and Remains Relocation (AK DMVA)

Strategy Number: N2.1

Managing Entity: AK Department of Military and Veterans Affairs
Project Coordination POC: Tom Wolforth, tom.wolforth@alaska.gov

Cost: $60,000

Purpose and Need: The community experienced erosion from the storm resulting in coffins from 50 graves from the Old Russian Cemetery dropping 50 to 60 ft to the beach. Remains were being housed in the City Morgue. Tom Wolforth of the AK Dept. of Military and Veterans Affairs spent 9 days assisting the community in retrieving remains and reported in June 2023 that the community was able to rebury the remains over the winter. However, since that time more remains have been exposed and will continue to be exposed as the erosion continues.

Scope: A representative of the Alaska Department of Veterans and Military Affairs is going to do physical work of gathering the exposed or at-risk remains. He is providing regular briefs to the City and Tribe during the process.

Funding for this effort came from Alaska DHS& EM. The State will try to recoup their costs from FEMA at a later date using FEMA Public Assistance Category B: Emergency Protective Measures, given the risks to health of the work.

The community also expressed interest in relocating the unexposed remains in the eroding cemetery to a new location, also owned by the Russian Diocese. This idea is still under discussion.

2.15. DR4672-255 - St. Michael - Recovery Management Plan

Strategy Number: C2.2

Managing Entity: CA RSF
Project Coordination POC: Beth Otto, CA-RSF Field Coordinator, elizabeth.otto@fema.dhs.gov

Cost: TBD.

Purpose and Need: The impacted communities generally have a low capacity to apply for grants, coordinate among federal agencies, and develop community plans.

Scope: The CA RSF will hold technical assistance meetings bi-weekly with community representatives to monitor the status of projects and coordinate access to additional resources as necessary.

2.16. DR4672-254 - Stebbins - Recovery Management Plan

Strategy Number: C2.2

Managing Entity: CA RSF
Project Coordination POC: Beth Otto, CA-RSF Field Coordinator, elizabeth.otto@fema.dhs.gov

Cost: TBD.

Purpose and Need: The impacted communities generally have a low capacity to apply for grants, coordinate among federal agencies, and develop community plans.

Scope: The CA RSF will hold regular technical assistance meetings with community representatives to monitor the status of projects and coordinate access to additional resources as necessary.

2.17. DR4672-253 - Toksook Bay - Recovery Management Plan

Strategy Number: C2.2

Managing Entity: CA RSF
Project Coordination POC: Ada Prieto, CA-RSF Group Supervisor, ada.prieto@fema.dhs.gov

Cost: TBD.

Purpose and Need: The impacted communities generally have a low capacity to apply for grants, coordinate among federal agencies, and develop community plans.

Scope: The CA RSF will hold regular technical assistance meetings with community representatives to monitor the status of projects and coordinate access to additional resources as necessary.

2.18. DR4672-622 - Tuntutuliak - Recovery Management Plan

Strategy Number: C2.2

Managing Entity: CA RSF
Project Coordination POC: Ada Prieto, CA-RSF Group Supervisor, ada.prieto@fema.dhs.gov

Cost: TBD.

Purpose and Need: The impacted communities generally have a low capacity to apply for grants, coordinate among federal agencies, and develop community plans.

Scope: The CA RSF will hold regular technical assistance meetings with community representatives to monitor the status of projects and coordinate access to additional resources as necessary.

2.19. DR4672-113 - IRC Participation in Public Forums

Strategy Number: C1.1

Managing Entity: CA RSF
Project Coordination POC: Beth Otto, CA-RSF Field Coordinator, elizabeth.otto@fema.dhs.gov

Cost: TBD.

Purpose and Need: Travelling to the remote affected communities requires a lot of resources. Communications are with impacted communities are sometimes hindered by unreliable internet.

Scope: In the absence of immediate in-person outreach to communities in the remote impacted area, IRC can identify existing coordination and communication mechanisms like forums and conferences to present its services to community-level participants. IRC may up a table at the forum, give a presentation, facilitate a Q/A session on Typhoon Merbok, etc. These forums include the Alaska Forum on the Environment; the Alaska Infrastructure Development Symposium; the Rights, Resilience, and Community-Led Adaptation Workshop; the Alaska Forum on the Environment Tribal Conference on Environmental Management; the 33rd Annual BIA Providers Conference; and the Alaska Federation of Natives Conference.

2.20. DR4672-284 - Housing Resource Guide Development

Strategy Number: C2.2

Managing Entity: CA RSF
Project Coordination POC: Beth Otto, CA-RSF Field Coordinator, elizabeth.otto@fema.dhs.gov

Cost: TBD.

Purpose and Need: Homes damaged during the storm still need to be repaired. Some are threatened and need to be moved.

Scope: IRC will share information on the following resources during site visits and one-on-one technical assistance sessions:

* *USDA Rural Disaster Home Repair Grant Program* - Through this program, eligible homeowners may apply to receive grants of up to $40,675 directly from USDA to repair their homes.
* *USDA NRCS Emergency Watershed Protection Program* - Offers vital recovery options for local communities to help reduce hazards to life and property caused by floodwaters, droughts, wildfires, earthquakes, windstorms, and other natural disasters. Project funds address erosion related watershed activities. Can pay for the relocation of homes.
* *BIA Emergency Aid to Tribal Government* - Covers destroyed or damaged homes, damaged property boundary markers, replacement of subsistence food and food harvesting equipment, solid waste collection and removal, and minor

construction associated with infrastructure and homes.
* *Bureau of Indian Affairs (BIA) Housing Improvement Program (HIP)* - A home repair, renovation, replacement and new housing grant program administered by the Bureau of Indian Affairs (BIA) and federally-recognized Indian Tribes for American Indians and Alaska Native (AI/AN) individuals and families who have no immediate resource for standard housing.
* *Alaska Legal Services Corp -* This non-profit organization received $4.7 million in funding to create what's being described as a "disaster relief hub," which will support the victims of 12 natural disasters in American Indian and Alaska Native communities in Alaska and other Western states. Victims of extreme weather events often require legal aid as they file for insurance benefits, navigate landlord relationships and seek to replace personal documents. This resource may also be useful for individuals seeking to appeal IA decision.

2.21. DR4672-251 - IRC Integration and Synchronization Meetings (IRC)

Strategy Number: C1.1

Managing Entity: FEMA IRC
Project Coordination POC: John Harrison, Federal Disaster Recovery Officer, john.harrison2@fema.dhs.gov

Cost: TBD.

Purpose and Need: No coordination structure exited specifically for recovery from Merbok, where State and Federal partners can share information with each other to promote unity of effort.

Scope: Weekly Integration and Synchronization Meeting that allows the Recovery Support Functions (RSF), IRC Advisors, plus Federal and State recovery partners to collaborate and share information on long-term recovery and synchronize efforts.

2.22. DR4672-232 - IS Working Group - Water/Wastewater Recovery

Strategy Number: I1.2

Strategy Number: I1.1

Strategy Number: C1.1

Managing Entity: IS RSF
Project Coordination POC: Clare Jaeger, IS-RSF Field Coordinator, clare.l.jaeger@usace.army.mil

Cost: TBD.

Purpose and Need: Working group participants will identify resources and collaborate on integrated solutions to address water and wastewater impacts from Typhoon Merbok.

Scope: The IS RSF Field Coordinator has established a working group on water/wastewater recovery made of up of representatives from USACE, USDA, the State of Alaska, and others.

2.23. DR4672-139 - NCR Working Group - Cemetery Recovery

Strategy Number: N2.1

Managing Entity: NCR RSF
Project Coordination POC: Fran Mann, U.S. Department of the Interior, frances.mann@boem.gov

Cost: TBD.

Purpose and Need: Working group participants will identify resources and collaborate on integrated solutions to address cemetery impacts from Typhoon Merbok.

Scope: The NCR RSF Field Coordinator established an NCR working group and held meetings to discuss cemetery recovery. Meeting attendees included representatives from the NPS, State Historic Preservation Office, FEMA Environmental and Historic Preservation (EHP), BIA, HHS, USDA, AVCP, Kawerak, and others.

2.24. DR4672-561 - Nightmute, Nunam Iqua, Tuntutuliak - Circuit Rider Program (Denali Commission)

Strategy Number: I1.4

Managing Entity: Denali Commission, Alaska Energy Authority
Project Coordination POC: Janet Davis, Denali Commission, jdavis@denali.gov

Cost: $1,710,000

Purpose and Need: Not available.

Scope: Provide circuit rider technical assistance to eligible utilities to improve the efficiency, safety, and reliability of their power systems and to help reduce the risk and severity of emergency conditions for a 2-year period. Communities Include: Nightmute, Nunam Iqua, Tuntutuliak.

2.25. DR4672-433 - NCR Working Group - Waste Contaminant Management (IRC)

Strategy Number: N1.1

Strategy Number: C1.1

Managing Entity: NCR RSF
Project Coordination POC: Fran Mann, U.S. Department of the Interior, frances.mann@boem.gov

Cost: TBD.

Purpose and Need: The FEMA Interagency Recovery Coordination (IRC) Team has encountered pollution and contamination stemming from landfills and sewage lagoons in all the communities that have been visited thus far. It appears that many of these facilities were not highly functioning before Merbok, and existing problems were made worse.

Scope: The Work Group objectives are to (1) Share the information that FEMA has gathered from community visits regarding unmet needs at landfill and sewage lagoons; (2) Gain knowledge and a historical perspective from participant organizations; (3) Brainstorm solutions to address these issues and work towards building community resiliency in the event of future disasters; and (4) Identify resources (programs and funding) to which communities can turn for assistance.

2.26. DR4672-510 - NCR Working Group - Food Security and Subsistence (IRC)

Strategy Number: C1.1

Strategy Number: N3.1

Purpose and Need: Representatives from FEMA VAL, YK Delta Wildlife Refuge, NOAA, RuRAL CAP, BIA, Alaska Fishery Science Center, Intertribal Agriculture Council, Alaska Food Policy Council, Food Security, and other organizations have

Strategy Number: N3.2

Managing Entity: NCR RSF
Project Coordination POC: Fran Mann, U.S. Department of the Interior, frances.mann@boem.gov

Cost: TBD.

met, and currently continue to meet. So far there have been 2 meetings through August and September. So far, the meetings have identified potential solutions and sources of funding that some communities have used and may be applied to other communities.

Scope: Better understand impacts to food security and subsistence in Western Alaska, listen for unmet needs, and follow any active or planned recovery efforts.

3. Planned Projects

3.1. DR4672-317 - Chevak - Solid Waste/Landfill Improvements

Strategy Number: N1.1

Managing Entity: ANTHC, City of Chevak
Project Coordination POC: Ryan Beckett, ANTHC, rgbeckett@anthc.org

Cost: TBD.

Purpose and Need: Chevak has at least two landfills. The old one, which is covered over and no longer in use, is located next to the eroding bluff. Waste is falling into the river. The new landfill is much further away from town. The waste there is separated (electronics, batteries, household trash, etc.), and it is open-air with a fenced perimeter. It is vulnerable to wind, and waste is spread out across a very large area. A hazardous waste shed or Conex is needed.

Scope: ANTHC shared two projects that will ultimately address to Chevak's solid waste/landfill issues. ANTHC will be providing solid waste burn units to the community, so that residents may burn light waste that would otherwise be vulnerable to wind in the landfill. Additionally, work for a solid waste planning project is estimated to begin in late 2024.

3.2. DR4672-259 - Chevak - New Additional Sewage Lagoon for Secondary Treatment (EPA)

Strategy Number: I1.2

Managing Entity: ANTHC, ADEC, EPA
Project Coordination POC: Ryan Beckett, ANTHC

Cost: $21,500,000

Purpose and Need: During the 5/24 IRC Site Visit to Chevak, community representatives indicated that the sewage lagoon berm is breached. Currently, the breach does not threaten Chevak's drinking water. However, the mayor shared with the CA RSF that the lagoon is leaking out into a nearby slough, where subsistence fishing is conducted. Chevak did not apply for the FEMA Public Assistance program; it is not clear that the impacts to the lagoon were caused by Typhoon Merbok. Deficiencies in the lagoon were reported in the Sanitary Deficiency System back in 2013. The city owns the lagoon.

Scope: During the first IS-RSF Working Group meeting, ADEC indicated future construction is planned and funded for "new" sewage lagoon. The project will take 5 years to complete. The Preliminary Engineering Report (PER) for the project was completed in March 2022. The report contained alternatives and cost estimates. The community chose the alternative of a new lagoon at a cost of $21.5 million. EPA is providing 3/4 of the cost, the remaining cost is covered by the Capital Improvement Program (CIP) program with the State of Alaska.

The selected alternative is to utilize the existing lagoon as a primary treatment cell for a new two-cell facultative lagoon. Rehabilitation of the existing lagoon includes addition of a geomembrane lining system, reconstruction of containment berms, removal and permanent disposal of sludge, and controlling/redirecting surface drainages around the lagoon. Existing sludge will be removed from the lagoon and dredged down to an acceptable level allowing placement of liner material and creating adequate

sludge storage capacity for the 20-year project planning period. Both the primary and secondary cells will include a geomembrane lining system.

A separate but related ANTHC project for the design of a backup sewer generator is complete and construction is out to bid as of 8/1/2023.

3.3. DR4672-325 - Chevak - Re-site Barge Landing Area (TBD)

Strategy Number: I1.5

Managing Entity: USACE Alaska District
Project Coordination POC: Clare Jaeger, IS-RSF Field Coordinator, clare.l.jaeger@usace.army.mil

Cost: TBD.

Purpose and Need: Severe erosion has impacted the riverbank, barge landing area, and village access road. The bluff overlooking the riverbank has been eroded back horizontally at least 50 feet. The barge landing area has been all but destroyed. There is approximately 10 percent of the original sheet pile remaining that formed the pier; none of the fill forming the deck of the pier remains. Getting heavy equipment to the village via barge will be next to impossible until reconstruction of the barge landing and access ramp. The ramp was eroded to a depth of 20 feet, down to sea level, and is not serviceable even by an ATV. Getting items up the bluff from the current offload area is extremely difficult. Items are offloaded and carried by hand up the bluff; then loaded onto ATVs for transport. Drainage pipes on the bluff are exposed, which continues to exacerbate erosion.

Scope: The Chevak barge landing will need to be re-sited. This project must be coordinated with DR4672-179, which captures the effort to apply for the USACE Section 14 and 165a Pilot Program to address erosion in the barge landing area.

3.4. DR4672-470 - Chevak - Store and Home Relocation (NRCS EWP)

Strategy Number: I2.1

Managing Entity: USDA NRCS, City of Chevak
Project Coordination POC: Brett Nelson, USDA, brett.nelson@usda.gov

Cost: $66,665

Purpose and Need: The only store in Chevak and an adjacent home are threatened by the erosion to the barge landing area.

Scope: The City of Chevak is working with USDA Natural Resources Conservation Service (NRCS) to relocate the city store and one adjacent home using the Emergency Watershed Protection (EWP) program.

3.5. DR4672-179 - Chevak - Erosion Mitigation (USACE 165a Pilot Program)

Strategy Number: I2.2

Managing Entity: IS RSF
Project Coordination POC: Clare

Purpose and Need: Severe erosion has impacted the riverbank, barge landing area, and village access road. The bluff overlooking the riverbank has been eroded back horizontally at least 50 feet. The barge landing area has been all but destroyed. There is approximately 10 percent of the original sheet pile remaining that formed the pier; none of the fill forming the deck of the pier remains. Getting heavy equipment to the village via barge will be

Jaeger, IS-RSF Field Coordinator, clare.l.jaeger@usace.army.mil

Cost: TBD.

next to impossible until reconstruction of the barge landing and access ramp. The ramp was eroded to a depth of 20 feet, down to sea level, and is not serviceable even by an ATV. Getting items up the bluff from the current offload area is extremely difficult. Items are offloaded and carried by hand up the bluff; then loaded onto ATVs for transport. Drainage pipes on the bluff are exposed, which continues to exacerbate erosion. There is a report that documents this issue.

Scope: The IS-RSF Field Coordinator is working with Chevak to help them submit an application to the 165a USACE pilot program and/or other USACE programs that could study and address the erosion. Before any permanent measures can be constructed, the old landfill, which is in the area and is eroding into the river, must be addressed. The community is pursuing EPA Brownfields Program support to clean up the landfill. That effort is being tracked as a separate project.

3.6. DR4672-437 - Chevak - Solid Waste Transportation (IHS)

Strategy Number: N1.1

Managing Entity: IHS, ADEC, Chevak Native Village
Project Coordination POC: Christopher Fehrman, IHS Division of Sanitation Facilities Construction, Christopher.Fehrman@ihs.gov

Cost: $185,000

Purpose and Need: "Solid Waste Deficiency: The landfill in Chevak is currently operated via self-haul. This creates problems with operating and maintaining the landfill due to unregulated community access. Additionally, without a protected, warm area to store landfill maintenance equipment, the community only infrequently maintains the landfill and covers waste, leaving it susceptible to being spread by animals and creating leachate."

Scope: "Solid Waste Proposal: Build an electrified, heated equipment storage and transfer station building adjacent to the landfill. Provide bins for community members to dump waste and control access to landfill."

3.7. DR4672-436 - Chevak - Solid Waste Burn Units (IHS)

Strategy Number: N1.1

Managing Entity: IHS, ADEC, Chevak Native Village
Project Coordination POC: Christopher Fehrman, IHS Division of Sanitation Facilities Construction, Christopher.Fehrman@ihs.gov

Cost: $146,715

Purpose and Need: "Solid Waste Deficiency: Open burning of waste on the ground causing threat to both public health and the environment. Open burning can produce black smoke, which is harmful to public health, creates uncontrolled burning of all waste types, and can easily spread to the surrounding areas. Waste only partially burned contributing to windblown litter. Burning waste on the ground is a regulatory violation."

Scope: "Solid Waste Proposal: Provide two enclosed skid mounted burn units. Two units are required due to large population. Units will: increase public health by eliminating black smoke; extend the life of the landfill by reducing waste volume; reduce the need for costly cover material; and reduce windblown litter from partially burned waste on the ground."

3.8. DR4672-442 - Chevak - Old Landfill Cleanup Assessment (EPA Brownfields Program - Applied)

Strategy Number: N1.1

Managing Entity: YRITWC, AVCP, Chevak Traditional Council
Project Coordination POC: Fran Mann, U.S. Department of the Interior, frances.mann@boem.gov

Cost: $100,000

Purpose and Need: Chevak has at least two landfills. The old one, which is covered over and no longer in use, is located next to the eroding bluff. Waste is falling into the river. The new landfill is much further away from town. The waste there is separated (electronics, batteries, household trash, etc.), and it is open air with a fenced perimeter. It is vulnerable to wind, and waste is spread out across a very large area. A hazardous waste shed or Conex is needed.

Scope: The Yukon River Inter-Tribal Watershed Council and AVCP are supporting an EPA Targeted Brownfields Assessment (TBA) application for the old, eroding dumpsite. EPA's TBA program helps states, tribes, and municipalities minimize the uncertainties of contamination often associated with brownfield sites. This program supplements other efforts under the Brownfields Program to promote the cleanup and redevelopment of brownfield sites. TBAs are conducted by an EPA contractor on behalf of an eligible entity. Services include site assessments, cleanup options and cost estimates, and community outreach. BIA Disaster Supplemental letter submitted included a request for money for equipment to manage the landfill. This clean-up needs to be accomplished before erosion protection measures can be implemented.

3.9. DR4672-560 - Gambell - Miscellaneous Small Maintenance and Improvements Projects (Denali Commission)

Strategy Number: I1.4

Managing Entity: Denali Commission, AVEC
Project Coordination POC: Janet Davis, Denali Commission, jdavis@denali.gov

Cost: $1,532,000

Purpose and Need: Not available.

Scope: Minor maintenance and improvement (M&I) projects at existing bulk fuel tank farms.

3.10. DR4672-522 - Gambell - Water Plant Planning Project (IHS)

Strategy Number: I1.3

Managing Entity: IHS, ANTHC
Project Coordination POC: Christopher Fehrman, IHS Division of Sanitation Facilities Construction, Christopher.Fehrman@ihs.gov

Purpose and Need: "Water Deficiency: Gambell's water plant pumps and boilers, which have been repaired and rebuilt many times, are obsolete. Many valves are inoperable. The corrosive marine environment has attacked the fuel tank and piping, which need replacement before they fail. Although Gambell has relatively new treatment equipment, replacement of other equipment has not kept pace: distribution pumps, boilers, and components

Cost: $119,876

that control the water distribution system are in poor repair, and no longer correctable through maintenance."

Scope: "Water Proposal: Replace three boilers, three pressure pumps, and the water distribution circulating pumps. In addition, replace headers, valves, expansion tanks, meters, controls, and all associated piping. Replace fuel tank, fuel piping, and fuel pump."

3.11. DR4672-512 - Gambell - Solid Waste Improvements (IHS)

Strategy Number: N1.1

Managing Entity: IHS, ADEC, Native Village of Gambell
Project Coordination POC: Christopher Fehrman, IHS Division of Sanitation Facilities Construction, Christopher.Fehrman@ihs.gov

Cost: $498,243

Purpose and Need: "Solid Waste Deficiency: No entrance sign as required by regulations. No signs within landfill causing improper disposal and various wastes to be combined and not segregated as is required.
Open burning of waste on the ground throughout the site causing threat to both public health and the environment. Open burning produces black smoke, which is harmful to public health, creates uncontrolled burning of all waste types, and spreads to the surrounding areas. Waste only partially burned contributing to windblown litter. Burning waste on the ground is illegal.
No heavy equipment available to manage site causing uncovered waste to be spread over a large area of the site which is a public health hazard to the public using the site.
No means to dispose of used oil from the community. Used oil is spilled/dumped throughout the site. Disposal of used oil in unlined landfill causes both public health and environmental threat. Site is near the shore of Norton Sound where the community practices subsistence. Shipping oil out of community is not financially feasible."

Scope: "Solid Waste Proposal: Provide loader, #10 size burn unit, used oil burner and required signs."

3.12. DR4672-524 - Gambell - Connect Two Homes to Water and Sewer Planning Project (IHS)

Strategy Number: I1.3

Managing Entity: IHS, ANTHC, Native Village of Gambell
Project Coordination POC: Christopher Fehrman, IHS Division of Sanitation Facilities Construction, Christopher.Fehrman@ihs.gov

Cost: $86,036

Purpose and Need: "Two homes adjacent to the main grid do not have plumbing fixtures or a service line."

Scope: "Plumbing and service lines."

3.13. DR4672-513 - Gambell - New Landfill Planning Project (IHS)

Strategy Number: N1.1

Managing Entity: IHS, ADEC, Native Village of Gambell

Project Coordination POC: Christopher Fehrman, IHS Division of Sanitation Facilities Construction, Christopher.Fehrman@ihs.gov

Cost: $404,150

Purpose and Need: "Solid Waste Deficiency: Unpermitted illegal dumpsite located on gravel beach of the Bering Sea. Storm surges reported by community to reach the waste in the site. Surges move both the waste & gravel around the site & in the ocean. Honey bucket (raw sewage) waste disposed in this open waste site causing human health hazard. It is less than 5000 feet from the runway, less than 1000 feet from homes, & open burning on the ground. Site is not operated to prevent bird hazard & open burning are both violations of ADEC regs."

Scope: "Solid Waste Proposal: Close this unpermitted site and construct a new landfill. 2003 Feasibility study suggests new site near the south end of Troutman Lake. Site approximately 2.5 miles south of community. Located outside drinking water protection area for community drinking water source. Located more than 5,000 feet from the runway. ADEC concurs with this preliminary location in the study."

3.14. DR4672-521 - Gambell - Horizontal Well Planning Project (IHS)

Strategy Number: I1.3

Managing Entity: IHS, ANTHC

Project Coordination POC: Christopher Fehrman, IHS Division of Sanitation Facilities Construction, Christopher.Fehrman@ihs.gov

Cost: $239,000

Purpose and Need: "Water Deficiency: Gambell currently has only 1 well in a shallow aquifer with limited recharge. Ground water studies recommended that the well be restricted to 14 to 16 gpm (20,000 to 23,000 gallon per day) to avoid over pumping the aquifer and drawing salt water from below the freshwater aquifer. At 14 to 16 gpm the system cannot consistently supply 35 gallons per person per day and remain within the recommended aquifer pumping rates, although community has large water tanks that assist with the supply problem. Since there is only 1 well, the community is vulnerable and the Deficiency Level is 2, health impact C."

Scope: "Water Proposal: Provide horizontal well and 800-foot transmission line to provide adequate fresh water supply for 681 people. Provide a well house and heat add system. This project will require archaeological review and monitoring."

3.15. DR4672-523 - Gambell - Water Storage Tank Insulation (IHS)

Strategy Number: I1.3

Managing Entity: IHS, ANTHC, Native Village of Gambell

Project Coordination POC: Christopher Fehrman, IHS Division of Sanitation Facilities Construction, Christopher.Fehrman@ihs.gov

Purpose and Need: "Water Deficiency: The 1.3-million-gallon water storage tank has wind-damaged roofing insulation. Because of the risk of freezing, the tank could not be put in service in 2019 or 2020, limiting the quantity of available water, and eliminating redundancy."

Scope: "Water Proposal: Replace damaged insulation with new WST insulation package."

Cost: $2,629,373

3.16. DR4672-554 - Golovin - Subdivision Design Services Planning (Denali Commission)

Strategy Number: I2.1

Managing Entity: Denali Commission, Kawerak Inc.
Project Coordination POC: Janet Davis, Denali Commission, jdavis@denali.gov

Cost: $183,780

Purpose and Need: Not available.

Scope: Design a new subdivision for the relocation of threatened homes.

3.17. DR4672-703 - Golovin - Storm Resilience and Infrastructure Rehabilitation (AK DOT&PF)

Strategy Number: I1.6

Managing Entity: AK DOT&PF
Project Coordination POC: Adison Spafford, AK DOT, adison.spafford@alaska.gov

Cost: $7,570,011

Purpose and Need: Typhoon Merbok caused extensive damage to streets, homes, and utilities in the village, depositing debris and sand throughout the area and damaging the drainage system.

Scope: To address the damage, the project will rebuild the 2,600-foot damaged berm road on the south side of the community, replace the storm drain system, improve road surfaces, repair driveway culverts, and enhance the rebuilt berm road with rock to provide better protection against future storms. Phase 2: $757,001. Phase 4: $7,570,011.

3.18. DR4672-527 - Hooper Bay - Solid Waste Summit Burn Unit (IHS)

Strategy Number: N1.1

Managing Entity: IHS, ADEC, Village of Hooper Bay
Project Coordination POC: Christopher Fehrman, IHS Division of Sanitation Facilities Construction, Christopher.Fehrman@ihs.gov

Cost: $194,825

Purpose and Need: "Solid Waste Deficiency: Homemade burn unit not designed or able to burn waste effectively. Unable to empty and undersized for the population. Waste spread throughout site and exposed to elements creating leachate seeps around the site, which is a regulatory violation 18 AAC 60.225(d): prevent, contain, or control visible leachate seeps. See ADEC photos of orange staining (leachate seeps) of the site in 2019.
No means to dispose of used oil from the community. Disposal of used oil in unlined landfill causes both public health and environmental threat. Shipping out of community is not financially feasible. Honey bucket waste mixed with municipal waste and spread throughout the site causing significant public health hazard."

Scope: "Solid Waste Proposal: Heavy equipment and an appropriate burn unit are needed to manage site to prevent leachate production. EPA (19ER37) and IHS (AN17N6K) both funded a new 2-cell 22 acre lagoon that will procure the necessary heavy equipment to construct the lagoon and access way. The equipment purchased for the lagoon construction will be transferred to the city for O&M use on their solid waste disposal site.

Provide #10 size burn cage to reduce volume of waste exposed to water causing leachate seepage outside of site. Cage model recommended over enclosed unit as community population exceeds capacity of even 2 enclosed units. Unit will extend the life of the landfill by reducing waste volume, reduce the need for costly cover material, and reduce windblown litter from partially burned waste on the ground.
Provide used oil burner to safely dispose of used oil. Unit to be installed in existing heavy equipment shop that serves the community. This unit has the added benefit of increasing the lifespan of equipment used to maintain water, sewer and landfill infrastructure by storing it in heated building and reducing heating fuel costs to the community."

3.19. DR4672-482 - Hooper Bay - Hazard Mitigation Plan Update

Strategy Number: C2.3

Managing Entity: FEMA Region 10
Project Coordination POC: John Weber, FEMA, john.weber@fema.dhs.gov

Cost: $30,000

Purpose and Need: Update the community hazard mitigation plan (and making it multijurisdictional) will enable the community to better prepare for future disasters and to unlock program funding under FEMA Hazard Mitigation grant programs.

Scope: Hooper Bay is receiving Direct Technical Assistance from FEMA's Hazard Mitigation BRIC program. They have been working with John Weber, from FEMA Region 10, who is assisting them with their Hazard Mitigation update.

3.20. DR4672-704 - Hooper Bay - Resilience and Infrastructure Restoration (AK DOT&PF)

Strategy Number: I1.6

Managing Entity: AK DOT&PF
Project Coordination POC: Adison Spafford, AK DOT, adison.spafford@alaska.gov

Cost: $13,228,700

Purpose and Need: Typhoon Merbok caused extensive damage to roads, embankments, and infrastructure due to flooding and erosion. The proposed repairs aim to enhance resiliency and safeguard homes, utilities, and infrastructure.

Scope: The suggested repairs include raising the road grade, resurfacing roadways, installing riprap and culverts, reconstructing embankments, and repairing damaged bridges and culverts. These repairs will improve resiliency and protect homes, utilities, and infrastructure by creating revetments or levees to minimize future erosion and flood damages. Phase 2: $1,322,870. Phase 4: $13,228,700.

3.21. DR4672-520 - Kipnuk - Comprehensive Piped Service (IHS)

Strategy Number: I1.3

Strategy Number: I1.2

Managing Entity: IHS, ANTHC
Project Coordination POC:

Purpose and Need: "Water Deficiency: The community has no piped water distribution system. This lack of service meets the definition of deficiency level 5 (25 pts), General and Miscellaneous Water Information table within the SDS Guidelines. Health Impact of 24pts provision of piped water service to previously unserved homes. Sewer Deficiency: The community has no

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Cost: $78,505,665

piped wastewater distribution system. This lack of service meets the definition of deficiency level 5 (25 pts), General and Miscellaneous Wastewater Information table within the SDS Guidelines. Health Impact of 25pts provision of piped wastewater service to previously unserved homes."

Scope: "Water Proposal: Construct above-grade circulating water distribution system and supporting infrastructure to provide a circulating piped water system for the community.

Sewer Proposal: Construct above-grade low pressure wastewater collection system and supporting infrastructure to provide a piped low pressure wastewater system for the community."

3.22. DR4672-514 - Kipnuk - Solid Waste Improvements (IHS)

Strategy Number: N1.1

Managing Entity: IHS, ADEC, Native Village of Kipnuk
Project Coordination POC: Christopher Fehrman, IHS Division of Sanitation Facilities Construction, Christopher.Fehrman@ihs.gov

Cost: $121,437

Purpose and Need: "Solid Waste Deficiency: Community purchased a skid steer to manage the landfill in 2020 but have no storage area for it leaving it vulnerable to the elements and vandalism.
Community collection program consists of collection trailers/bins strategically placed around the community. Collection program reduces the number of residents self-hauling waste to the landfill and dumping indiscriminately. The amount of trash collection bins is insufficient for the volume of waste in the community leading to waste overflow the bins and increased labor costs for more frequent collection."

Scope: "Solid Waste Proposal: Provide a 20' CONEX to store the new skid steer in. This will protect it from the elements and vandalism and prolong the life of the equipment to manage the landfill, which in turn protects public health. Provide 6 trash collection trailers to supplement existing ones in the community. These will reduce public health threat of overflowing waste and reduce labor costs from frequent collection and manual cleanup of waste."

3.23. DR4672-488 - Kipnuk - Riverine Erosion Protection (USACE 165a Pilot Program)

Strategy Number: I2.2

Managing Entity: IS RSF
Project Coordination POC: Clare Jaeger, IS-RSF Field Coordinator, clare.l.jaeger@usace.army.mil

Cost: TBD.

Purpose and Need: Riverbank erosion along 2,000 feet of shoreline was greatly accelerated by Merbok. This has now undermined the community dock and barge landing, which could fail next storm. Numerous containers and supplies are stored nearby, and containers have fallen into the river before. Erosion rates are 10 to 20 feet a year. The community is losing infrastructure, including fuel tanks, to the river. Prior to Merbok, erosion uncovered graves that the community did not know were there. They attempted to install riprap/rocks to mitigate against further erosion, but the rocks were taken away with the ice in the spring.

Scope: Kipnuk is completing a USACE 165a application. IRC and AML are providing technical assistance on this application. This project is the erosion protection revetment.

3.24. DR4672-504 - Koyuk - Emergency Community Water Assistance Grant (USDA ECWAG)

Strategy Number: I1.3

Managing Entity: USDA RD, ANTHC
Project Coordination POC: Robert Chambers, robert.chambers@usda.gov; Derrick Hancey, ANTHC, DHancey@anthc.org

Cost: $394,680

Purpose and Need: During the 09/10/2023 RNA Site Visit to Koyuk, the community stated that water and sewer systems suffered great damage during the Merbok storm surge, and that repair of these utilities is the highest priority for the community. Many of the home connections for water and sewer have had extreme settlement resulting in leakage or failure. The community pumps 70,000 gallons of water per day, but only uses 6,000 per day. The community is losing 75 percent of the water it pumps due to leaks.

Scope: This project includes a line item for water main leak detection and repair, which will include materials for repairing the leaks and reinsulating the mains. The cost estimate includes an on-site superintendent to oversee all construction activities, local labor, engineering guidance and support, equipment rental, material purchase and logistics, and administrative support.

3.25. DR4672-518 - Koyuk - Water and Sewer Connection (IHS)

Strategy Number: I1.3

Strategy Number: I1.2

Managing Entity: IHS, ANTHC
Project Coordination POC: Christopher Fehrman, IHS Division of Sanitation Facilities Construction, Christopher.Fehrman@ihs.gov

Cost: $1,434,932

Purpose and Need: "Water Deficiency: 6 previously served homes have water service lines that have failed and are currently self-hauling water.
Sewer Deficiency: 6 previously served homes have sewer service lines that have failed and are currently self-hauling honey bucket waste."

Scope: "Water Proposal: To provide a functioning water service, this project will provide new water service lines for the 6 homes. In addition, incidental bathroom piping and fixtures will be required to support the new service connection."

"Sewer Proposal: To provide a functioning sewer service, this project will provide new sewer service lines for the 6 homes. In addition, incidental bathroom piping and fixtures will be required to support the new service connection."

3.26. DR4672-519 - Koyuk - Water Source Improvement Planning Project (IHS)

Strategy Number: I1.3

Managing Entity: IHS, ANTHC
Project Coordination POC: Christopher Fehrman, IHS Division

Purpose and Need: "Water Deficiency: During the spring and summer months, the well houses are difficult to access due to wet ground and the lack of a developed trail or road. Current summer access is performed by foot because all-terrain vehicles (ATV) tend to damage the existing ground and become stuck. The raw water transmission main is an above ground

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Cost: $150,000

arctic pipe that runs from the two wells to the WTP. It is supported by treated timber mudsills located approximately 8-foot on-center. Some supports have been blocked up over two feet due to differential settlement from freeze/thaw cycles and unstable soil conditions which exist under the timber mudsill supports."

Scope: "Water Proposal: Construct a gravel access trail to provide reliable year-round access to the water source buildings. Replace the raised section of the raw water transmission line pipe with proper cribbing. The project offers upgrades to increase operational efficiencies."

3.27. DR4672-515 - Koyuk - Solid Waste Improvements (IHS)

Strategy Number: N1.1

Managing Entity: IHS, ADEC, Native Village of Koyuk
Project Coordination POC: Christopher Fehrman, IHS Division of Sanitation Facilities Construction, Christopher.Fehrman@ihs.gov

Cost: $575,248

Purpose and Need: "Solid Waste Deficiency: There's no fencing around the site creating open access to the public and wildlife, causing a threat to public health and the environment, and is contributing to windblown litter outside the site. There are no entrance signs as required by regulations and no signs within the landfill, causing improper disposal and various wastes to be combined and not segregated as necessary.
There's open burning of waste on the ground causing a threat to both public health and the environment. Also, the Waste is only partially burned, contributing to windblown litter. Burning waste on the ground is illegal. There is also no means to dispose of used oil from the community. Disposal of used oil in an unlined landfill causes both public health and environmental threat. Shipping the oil out of the community is not financially feasible. No heavy equipment due to continuous breakdowns and was broken-down as of ADEC 2019 inspection. Over 30 years old and past end-of-life."

Scope: "Solid Waste Proposal: Provide fencing for the site to prohibit open access. Provide signs to meet regulatory requirements and reduce operational costs from unsegregated wastes. Provide two enclosed; trailer mounted burn units to dispose of waste safely. Two units are needed due to population size. Units will: increase public health by eliminating black smoke, extend the life of the landfill by reducing waste volume; reduce the need for costly cover material; and reduce windblown litter from partially burned waste on the ground. Provide used oil burner to dispose of used oil safely. Unit to be installed in an existing heavy equipment shop that serves the community. This unit has the added benefit of increasing the lifespan of equipment used to maintain water, sewer, and landfill infrastructure by storing it in a heated building and reducing heating fuel costs to the community. Provide skid steer and dozer to manage landfill."

3.28. DR4672-705 - Koyuk - King Creek and Inglutaik Creek Road Reconstruction (AK DOT&PF)

Strategy Number: I1.6

Managing Entity: AK DOT&PF
Project Coordination POC: Adison Spafford, AK DOT, adison.spafford@alaska.gov

Cost: $2,326,000

Purpose and Need: Typhoon Merbok caused extensive damage to roads, embankments, and infrastructure due to flooding and erosion.

Scope: This project will repair and reconstruct damaged roads and utilities in the aftermath of Typhoon Merbok. The project will focus on King Creek Road, Inglutaik Creek Road, Willow Avenue, and First Street, severely impacted by flooding, erosion, and drainage issues. The scope of work includes reconstructing the damaged road sections, replacing damaged storm drain systems and culverts, restoring eroded surfaces and embankments. Phase 2: $232,600, Phase 4: $2,326,000.

3.29. DR4672-706 - Koyuk - Coastal Protection and Barge Landing Restoration (AK DOT&PF)

Strategy Number: I1.5

Managing Entity: AK DOT&PF
Project Coordination POC: Adison Spafford, AK DOT, adison.spafford@alaska.gov

Cost: $3,191,672

Purpose and Need: Typhoon Merbok caused extensive coastline and barge landings.

Scope: This project will repair and reconstruct damaged embankment and barge landing in the aftermath of Typhoon Merbok. The project will focus on repairing the 12,500 square feet of seawall and road erosion and replacing any missing riprap shore protection. The scope of work includes removing and replacing damaged storm drain systems and culverts, grading and resurfacing affected areas. Additionally, the project will involve the reconstruction of the eroded barge landing area to return it to its pre-disaster condition. Phase 2: $319,167. Phase 4: $3,191,672.

3.30. DR4672-595 - Nightmute - New Landfill Feasibility Study (USDA)

Strategy Number: N1.1

Managing Entity: USDA, City and/or Native Villages in Nightmute, Zender Environmental
Project Coordination POC: Frances Mann, NCR-RSF Field Coordinator, frances.mann@boem.gov

Cost: $200,000

Purpose and Need: The City of Nightmute is experiencing issues identifying a sustainable location for its landfill. The current locations in use are across of the river from the village - the summer dumpsite (along the banks of river) and the winter dumpsite (which is further inland from the riverbank dump site). Neither location, the "summer" or the "winter" dumpsites are permitted. Both are un-fenced. Waste from the "summer" landfill is falling into the river.

Since residents have to take trash across the river to the dumpsite, garbage can accumulate outside of their homes if they do not have access to a boat – which is creating a public health concern for the community.

Back in the 2010s, a landfill was permitted for a location that the community did not want. The USDA is funding the feasibility of a new location proposed that the community prefers.

Scope: USDA has funded a feasibility study for identifying a new upland landfill location that the community prefers.

3.31. DR4672-539 - Nightmute - Lift Station Planning Project (IHS)

Strategy Number: I1.3

Strategy Number: I1.2

Managing Entity: IHS, ANTHC, Native Village of Nightmute
Project Coordination POC: Christopher Fehrman, IHS Division of Sanitation Facilities Construction, Christopher.Fehrman@ihs.gov

Cost: $125,000

Purpose and Need: "Sewer Deficiency: The community lacks a method to convey honey bucket waste to the larger, existing lagoon. Additionally, the WTP discharges to an undersized pond because of the lack of a lift station and force main."

Scope: "Sewer Proposal: Construct a lift station with a honey bucket dump station. Construct a force main from the lift station to the lagoon. Connect the WTP to the lift station for waste disposal."

3.32. DR4672-538 - Nightmute - FTH Repair Planning Project (IHS)

Strategy Number: I1.3

Strategy Number: I1.2

Managing Entity: IHS, ANTHC, Native Village of Nightmute
Project Coordination POC: Christopher Fehrman, IHS Division of Sanitation Facilities Construction, Christopher.Fehrman@ihs.gov

Cost: $591,493

Purpose and Need: "Water Deficiency: Homes have no water service due to broken FTH systems. Sewer Deficiency: Homes has no sewer service due to broken FTH systems."

Scope: "Sewer Proposal: Replace the FTH systems."

3.33. DR4672-534 - Scammon Bay - Water Distribution System Replacement (IHS)

Strategy Number: I1.3

Managing Entity: IHS, ANTHC, Scammon Bay Traditional Council
Project Coordination POC: Christopher Fehrman, IHS Division of Sanitation Facilities Construction, Christopher.Fehrman@ihs.gov

Cost: $8,154,744

Purpose and Need: "Water Deficiency: There are deteriorated water mains and service lines that are not correctable by routine maintenance and require replacement. The existing water distribution system in the community of Scammon Bay is composed of approximately 40-year-old PVC arctic pipe with copper service lines. At this age, the pipe is prone to cracking and separation, which causes the community to produce on average almost twice as much water per capita as would be expected for this sized community (see PER section 2.3.8 for more details). The average production rate for the community is 110 gal/capita/day, while the expected rate should be closer to 65 gal/capita/day. On average, homes in Scammon Bay experience more than 10 days/year without running water. During winter,

the leaks and water wastage require at least a 66 gpm production rate at the water plant to keep the system pressurized. Because water is being produced at such high flow rates, to meet the required contact time, the chlorine residual would have to be over 1.1mg/l, which is high unpalatable and in experience with other Native villages not generally accepted to be this high."

Scope: "Water Proposal: The proposed facility is to replace all mains (approx. 2300 LF) and services (approx. 46) on the West Loop. The water mains would be replaced with 4"x12" HDPE arctic pipe. The water services would be replaced with 1" HDPE supply and return piping inside a 4"x12" HDPE arctic pipe. The service line to home connections would include circulation pumps, shutoff valves, water meters, and flexible connections.

In addition, all residences (if necessary) on the East Loop (approx. 53 services) and the School Loop (approx. 12 services) would be upgraded to have circulation pumps, shutoff valves, water meters, and flexible connections, if they do not already have them. One note: this is a slight deviation from the PER, which says all buildings would be upgraded (if necessary), due to the limitations of IHS Regular funding, the proposed scope and estimate is being modified to only include eligible residences (E-1 and H-1), not all buildings."

3.34. DR4672-540 - Scammon Bay - Sewage Lagoon Expansion Planning (IHS)

Strategy Number: I1.2

Managing Entity: IHS, ANTHC, Village Safe Water, Scammon Bay Traditional Council
Project Coordination POC: Christopher Fehrman, IHS Division of Sanitation Facilities Construction, Christopher.Fehrman@ihs.gov

Cost: TBD.

Purpose and Need: "Sewer Deficiency: The existing Scammon Bay sewage lagoon has exceeded its design capacity and needs to be expanded in order to meet the community's sewer treatment needs. All sewage from residential and commercial buildings flows to the lagoon. As a result, raw sewage is regularly discharged into the environment. The sewage lagoon is located within close proximity to the Bering Sea."

Scope: "Sewer Proposal: The proposed lagoon will be expanded to accommodate the current lagoon loading and stop uncontrolled discharge to nearby bodies of water."

3.35. DR4672-529 - Scammon Bay - Solid Waste Upgrades (IHS)

Strategy Number: N1.1

Managing Entity: IHS, ADEC, Scammon Bay Traditional Council
Project Coordination POC: Christopher Fehrman, IHS Division

Purpose and Need: "Solid Waste Deficiency: Several regulatory deficiencies within the existing landfill: (1) No method to safely dispose of honey bucket waste (human waste in garbage bags due to lack of water/sewer in the home). Mixed with other garbage causing immediate threat to public health. (2) Lack of complete fencing or entrance gate. The remainder of the site is fenced. It is creating open access to the public and wildlife, causing public health and environmental threat, and is contributing to windblown litter of

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Cost: $810,324

waste outside the site even with the remainder of it fenced. (3) No entrance sign as required by regulations. No signs within landfill causing improper disposal and various wastes to be combined and not segregated as is required. (4) No means to dispose of used oil from the community. Disposal of used oil in unlined landfill causes both public health and environmental threat. Shipping out of community is not financially feasible."

Scope: "Solid Waste Proposal: Construct/implement the following upgrades to the existing landfill: (1) Construct a honey bucket disposal cell within the landfill boundaries to protect the public and workers from exposed human waste. Site has undeveloped areas without buried waste to allow this construction. (2) Provide fencing and gate for entrance to prohibit open access. (3) Provide signs to meet regulatory requirements and reduce operational costs from unsegregated wastes. (4) Provide used oil burner to safely dispose of used oil. Unit to be installed in existing heavy equipment shop that serves the community. This unit has the added benefit of increasing the lifespan of equipment used to maintain water, sewer and landfill infrastructure by storing it in heated building and reducing heating fuel costs to the community."

3.36. DR4672-258 - St. Michael - Raw WST Replacement (IHS)

Strategy Number: I1.3

Managing Entity: ANTHC
Project Coordination POC: Christopher Fehrman, IHS Division of Sanitation Facilities Construction, Christopher.Fehrman@ihs.gov

Cost: $9,287,943

Purpose and Need: "Water Deficiency: The existing 1,200,000-gallon raw water storage tank has been in operation for approximately 36 years and is in dire condition. The tank panels and bolts are severely corroded, as evidenced by the pitting and tuberculation inside the tank. The tank foundation has experienced differential settlement resulting in distortion of the tank panels, as evidenced by leaks in the tank floor. The tank insulation has no protective sealant and, as a result, has been subject to degradation from U.V. light and weather, likely reducing the thermal value by up to 50% and increasing tank heat demands during winter months."

Scope: "Water Proposal: This project will replace the existing tank with a new 900,000-gallon water storage tank."

3.37. DR4672-509 - St. Michael - Permafrost Risk Assessment (BIA Tribal Climate Resilience Program)

Strategy Number: I2.3

Managing Entity: ANTHC, BIA
Project Coordination POC: Rosalie Debenham, Bureau of Indian Affairs, rosalie.debenham@bia.gov

Cost: $148,432

Purpose and Need: The Native Village of Saint Michael, Alaska is among one of the most vulnerable to climate change impacts in the entire United States. Increasingly severe natural hazards threaten critical community infrastructure and jeopardize the health, safety, and prosperity of our community. Specifically, permafrost degradation impacts residential homes, two cemeteries, the school, the Tribal office building, and others in the near-term and nearly every building in the community in the long-term.

Scope: This project will engage science and engineering consultants to complete a permafrost vulnerability assessment to forecast what infrastructure will be impacted, when, and support us in developing solutions to mitigate the threats. This project was funded through the BIA Tribal Climate Resilience Program and is to be implemented by ANTHC.

3.38. DR4672-308 - St. Michael - Movement of Houses (NRCS EWP)

Strategy Number: I2.1

Managing Entity: USDA NRCS
Project Coordination POC: Brett Nelson, USDA, Brett.Nelson@usda.gov

Cost: TBD.

Purpose and Need: A total of 29 homes in St. Michael are at risk of being destroyed due to coastal erosion. There are 5 of them that are in immediate danger of collapsing into the sea.

Scope: USDA-NRCS Emergency Watershed Protection (EWP) Program can be used to relocate the five critically endangered homes, provided they are sturdy enough to withstand the move. IRC will follow NRCS outreach to St. Michael on this issue, ready to identify supporting resources if necessary.

Determine options for relocating remaining homes.

3.39. DR4672-707 - St. Michael - Boardwalk Restoration (AK DOT&PF)

Strategy Number: I1.6

Managing Entity: AK DOT&PF
Project Coordination POC: Adison Spafford, AK DOT, adison.spafford@alaska.gov

Cost: $325,000

Purpose and Need: Typhoon Merbok caused erosion to the St. Michael coastline.

Scope: The project aims to address significant erosion along the Saint Michael coastline due to Typhoon Merbok, which threatens the stability of approximately 22 structures. The work includes removing scattered debris, reconstructing embankment under the boardwalk in several places, restoring missing embankment material, and regrading surfaces of roadways. The project also involves replacing missing embankment or constructing a replacement supporting structure to address the erosion under the boardwalk along Dock Street. The objective of the project is to restore the affected coastal infrastructure and support the safety and stability of the Saint Michael community. Phase 2: $32,500. Phase 4: $325,000.

3.40. DR4672-313 - St. Michael - Fuel Tank Replacement/Farm Upgrade (TBD)

Strategy Number: I1.4

Managing Entity: City of St. Michael
Project Coordination POC: Virginia Washington, St. Michael City Administrator

Purpose and Need: 5,000-gallon tanks were condemned, and fuel tanks were displaced near the beach. The community needs four 10,000-gallon diesel tanks and a 7,000 square foot diked foundation and pad for environmentally compliant fuel storage. A tank was purchased but not shipped. The fence surrounding the tanks was also damaged, which increases the risk of damage during future storm events.

Cost: TBD.

Scope: Acquire and install four 10,000-gallon diesel tanks and a 7,000 square foot diked foundation and pad for environmentally compliant fuel storage.

3.41. DR4672-525 - Stebbins - Washeteria Replacement (IHS)

Strategy Number: I1.2

Strategy Number: I1.3

Managing Entity: IHS, ANTHC, Stebbins Community Association
Project Coordination POC: Christopher Fehrman, IHS Division of Sanitation Facilities Construction, Christopher.Fehrman@ihs.gov

Cost: $7,388,800

Purpose and Need: "Personal and domestic hygiene is critical to public health and wellbeing. Aside from the local health clinic and school, the existing washeteria is the residents of Stebbins only access restroom, shower, laundry facilities, and potable water supply. According to the Cold Regions Utilities Monograph (ASCE, Third Edition), under the Central Facilities (12.0) section, a community Stebbins' size (greater than 500 residents) should have 8 washers, 6 dryers, and 4 shower units each for men and women.

The washeteria is in poor condition with severe mold and decay problems. For the most part, interior finishes and fixtures are damaged and inoperable, including toilets, showers, sink fixtures, washing machines, windows, doors, and countertops. During a 2018 site visit, four of the six toilets were broken and five washing machines were non-functional. Water has leaked into the plumbing chase and the floor has been damaged by water intrusion. The floor is failing throughout a large portion of the facility and is sagging/soft..."

Scope: "Water Proposal: The scope of this project is to provide a new modular washeteria. The new washeteria will include a minimum of eight washing machines, six dryers, one ADA toilet and shower, three standard toilets, and three showers. The laundry area will also include a large utility sink and a drinking fountain. The facility will also include a watering point and attendants office..."

3.42. DR4672-516 - Stebbins - Solid Waste Improvements (IHS)

Strategy Number: N1.1

Managing Entity: IHS, ADEC, Stebbins Community Association
Project Coordination POC: Christopher Fehrman, IHS Division of Sanitation Facilities Construction, Christopher.Fehrman@ihs.gov

Cost: $569,977

Purpose and Need: "Solid Waste Deficiency: Open burning of waste on the ground causing threat to both public health and the environment. Open burning produces black smoke, which is harmful to public health, creates uncontrolled burning of all waste types, and can easily spread to the surrounding areas. Waste only partially burned contributing to windblown litter. Burning waste on the ground is illegal. Wildfire caused by escaped fire from open burning in 2017 and 2018. Peat was still smoking from 6 acre 2018 fire during 2018 ADEC inspection in late summer.
No fencing around site creating open access to the public and wildlife, causing public health and environmental threat, and is contributing to windblown litter of waste outside the site. No entrance sign as required by regulations. No signs within landfill causing improper disposal and various wastes to be combined and not segregated as is required.
There is no trash collection program in the community leading all residents

to self-haul their waste 1.5 miles to the landfill. In order to save fuel and make fewer trips, residents allow waste to build up causing a public health threat."

Scope: "Solid Waste Proposal: Provide two skid-mounted, enclosed burn units. Burn cage is not recommended due to high winds in community. Unit will: increase public health by eliminating black smoke and open burning; prohibit new wildfires; extend the life of the landfill by reducing waste volume; reduce the need for costly cover material; and reduce windblown litter from partially burned waste on the ground.
Provide fencing and gate for site to prohibit open access. Provide signs to meet regulatory requirements and reduce operational costs from unsegregated wastes.
Provide a 3/4 ton truck with a hitch and 15 portable trash cages for a community-wide collection program."

3.43. DR4672-511 - Stebbins - Honey Bucket Lagoon (IHS)

Strategy Number: I1.2

Managing Entity: EPA, IHS, ANTHC
Project Coordination POC: Christopher Fehrman, IHS Division of Sanitation Facilities Construction, Christopher.Fehrman@ihs.gov

Cost: $1,719,875

Purpose and Need: "Sewer Deficiency: The existing honey bucket disposal site, which serves the entire community, is at capacity and has begun to form a large mound and overflows on to the tundra and adjacent road...Vehicles and wildlife then track this sewage across the area, including back into the town. Additionally, the current honey bucket dump does not have a perimeter fence, allowing residents and wildlife free access. The existing collection bins are damaged from removing frozen waste and are in need of replacement while the trailer is in disrepair and is missing components. Honey bucket waste to often spilled throughout town and along the road during transport, resulting in a health hazard for residents. Vehicles, pedestrians and both domestic and wild animals track this spilled sewage through the community."

Scope: "Sewer Proposal: This project will close the existing failed honey bucket lagoon and construct a new two-cell honey bucket disposal site. The project will also replace the existing honey bucket collection bins and haul trailer. The new honey bucket disposal site will be adjacent to the existing honey bucket lagoon."

3.44. DR4672-395 - Stebbins - St. Michael Road Maintenance and Repair (Potential Resources FHWA TTIP/PA)

Strategy Number: I1.6

Managing Entity: Kawerak
Project Coordination POC: Sean

Purpose and Need: The "BIA road" is the only way out of town, and it flooded during the storm, smashing culverts. In addition to creating an alternate evacuation route, the community wants to raise the BIA road, resurface it, and install new culverts to allow water passage below it. The road is under

McKnight, Kawerak Transportation Director, smcknight@kawerak.org

IRA's jurisdiction and Kawerak is contracted through BIA to address transportation matters in Stebbins.

Cost: TBD.

Scope: IRC will track repairs/upgrades to the "BIA Road" and help coordinate where necessary. Kawerak has a project programmed through its Tribal Transportation Improvement Program (TTIP) for work on this road. It appears part of the road runs through tribal land, while part may be under city jurisdiction. Both the City and the Tribe may work together to make the project happen if the TTIP project is not enough. The city can reach out to Alaska DOT&PF. The Federal Highway Administration may also have a role. As of 8/18/2023, there is also an entry for "BIA Road in the PA Damage Inventory.

3.45. DR4672-546 - Stebbins - Wind Project (Denali Commission)

Strategy Number: I1.4

Managing Entity: Denali Commission, Alaska Village Electric Cooperative
Project Coordination POC: Janet Davis, Denali Commission, jdavis@denali.gov; Katie Conway, Denali Commission, kconway@denali.gov

Cost: $10,375,722

Purpose and Need: Not Available.

Scope: Construction of 900kW wind turbine and connection to the existing electrical distribution system in Stebbins, Alaska.

3.46. DR4672-257 - Stebbins - Sewer Lagoon and Force Main (IHS)

Strategy Number: I1.2

Managing Entity: EPA, IHS, ANTHC
Project Coordination POC: Dennis Wagner, EPA, dennis.wagner@epa.gov

Cost: $10,510,501

Purpose and Need: "Sewer Deficiency: Stebbins currently has no community piped sewer system. The community utilizes honey buckets for disposal of waste. The existing honey bucket and self-haul water and wastewater systems in Stebbins present a public health hazard. New sanitary systems are needed to improve the health and safety conditions in the community. Access to in-home running water and sewer is something that most American households take for granted. The health and economic benefits it provides have allowed cities to flourish. Stebbins residents do not have adequate supply of safe, potable water in their homes. The installation of a piped water and sewer system and household plumbing would improve the health of the community, reduce the absentee rate at the school, and create a more positive living environment."

Scope: The Indian Health Service (IHS) has invested $94 million to install a piped water and sewer system in the community of Stebbins. Stebbins in a "First Service" community, meaning that it has not had community-wide

piped water and sewer before. Only some buildings are connected. IHS prioritizes funding to First Service communities.

"Sewer Proposal: This project will construct a sewer lagoon and force main. This sewer project would be the first phase to constructing the sewer system. A new two-cell 10-acre facultative lagoon would be constructed approximately 500 feet south of the Stebbins airport. The cells would be lined with a heavy-duty geomembrane and the berms would be constructed on a 2-to 3-foot-thick gravel pad overlain on the tundra. The tops of the berms would be 2 to 3 feet higher than the 100-year flood elevation and the berms would be protected from erosion. The lagoon would be designed for continuous discharge to one of the sloughs just east of the lagoon which drains to Norton Sound.
This project would also require construction of a 2,000 linear feet (LF) access road and a 1,200-foot extension of an existing force main. A portion of the force main was constructed in 2002 but was never put into service."

3.47. DR4672-547 - Stebbins - St. Michael Grid Bridging System (Denali Commission)

Strategy Number: I1.4

Managing Entity: Denali Commission, Alaska Village Electric Cooperative
Project Coordination POC: Janet Davis, Denali Commission, jdavis@denali.gov; Katie Conway, Denali Commission, kconway@denali.gov

Cost: $1,684,000

Purpose and Need: Not available.

Scope: Install a grid bridging system into the Stebbins power plant.

3.48. DR4672-517 - Toksook Bay - Landfill (IHS)

Strategy Number: N1.1

Managing Entity: IHS, ADEC, City of Toksook Bay, Native Village of Toksook Bay
Project Coordination POC: Christopher Fehrman, IHS Division of Sanitation Facilities Construction, Christopher.Fehrman@ihs.gov

Purpose and Need: "Solid Waste Deficiency: Limited fencing around site falling down and remainder of site unfenced creating open access to the public and wildlife, causing public health and environmental threat, and is contributing to windblown litter of waste outside the site. No entrance sign as required by regulations. No signs within landfill causing improper disposal and various wastes to be combined and not segregated as is required.
No dedicated heavy equipment available to manage site. Small machinery occasionally available to rent, but it is inadequate to manage waste.
Burn unit broken beyond repair leading to larger volume of waste at the site.
Used oil collected and transported via 4-wheeler trail as no existing roads to

Cost: $566,055

neighboring community to be disposed in their used oil burner. High potential for used oil to be spilled into the environment."

Scope: "Solid Waste Proposal: Fence entire site to prohibit open access. Provide signs to meet regulatory requirements and reduce operational costs from unsegregated wastes.
Provide dozer to manage waste in the site to reduce waste exposed to water and the public.
Provide #10 Summit burn cage to safely dispose of waste. Unit will: increase public health by eliminating black smoke; extend the life of the landfill by reducing waste volume; reduce the need for costly cover material; and reduce windblown litter from partially burned waste on the ground.
Provide used oil burner to safely dispose of used oil in the community. Unit to be installed in existing heavy equipment shop that serves the community. This unit has the added benefit of increasing the lifespan of equipment used to maintain water, sewer and landfill infrastructure by storing it in heated building and reducing heating fuel costs to the community."

3.49. DR4672-486 - Tuntutuliak - Permafrost Degradation Assessment (BIA Tribal Climate Resilience Program)

Strategy Number: I2.3

Managing Entity: ANTHC, BIA
Project Coordination POC: Rosalie Debenham, Bureau of Indian Affairs, rosalie.debenham@bia.gov

Cost: $180,982

Purpose and Need: The community has been experiencing changes since the early 2000s, but Typhoon Merbok greatly exacerbated existing concerns. The ground has sunk from 3-8 feet throughout the community and is wet where it used to be dry. They feel that climate change has created underground rivers beneath the tundra which contributes to sink holes and land failures. This impacts the structural integrity of all buildings in the community, except for the newly built school. It is very likely the land subsidence and sinkholes increased because of the Merbok storm surge flooding and saltwater intrusion. The salt water ponded in low areas further thawing the permafrost.

Scope: The Native Village of Tuntutuliak is funded through the BIA Tribal Climate Resilience Program for a permafrost assessment. The assessment will predict the future impacts of permafrost melt in the community and recommend solutions. This project will involve a desktop study of existing geological and geotechnical information, Elder interviews, community meetings, a site visit by the engineering contractor, a structural engineering assessment of threatened infrastructure, a field investigation into subsurface conditions, and the creation of a permafrost vulnerability assessment report complete with "fundable projects" for the chosen top three solutions. ANTHC will implement this study.

3.50. DR4672-508 - Tuntutuliak - Near-Term Erosion Risk Assessment Project (BIA Tribal Climate Resilience Program)

Strategy Number: I2.2

Managing Entity: ANTHC

Cost: $236,374

Purpose and Need: Erosion is threatening the northside of the river from the airport to the barge landing, including near the pump station. As a result of Merbok the northside of the river experienced 1-3 meters of erosion affecting access to the barge landing. There is also an old wastewater pump station that is dangerously close to the edge of the river. There are no erosion control measures in the upper village.

Scope: The Native Village of Tuntutuliak is interested in a near-term erosion risk assessment. The project will hire an engineering contractor to develop a near-term riverine erosion risk assessment to predict future impacts in the community and recommend solutions. This project will engage science and engineering consultants to complete a long-term erosion and flood assessment to forecast what infrastructure will be impacted and when the impact will occur, as well as support in developing solutions to mitigate the threats. This project will form the foundation of the community's long-term adaptation plan, which will guide efforts to protect the safety, security, and sustainability of the community. This project is funded through the BIA Tribal Climate Resilience Program, to be implemented by ANTHC.

3.51. DR4672-294 - Nonfederal Match Resource Guide Development (IRC)

Strategy Number: C2.1

Managing Entity: CA RSF
Project Coordination POC: Beth Otto, CA-RSF Field Coordinator, elizabeth.otto@fema.dhs.gov

Cost: TBD.

Purpose and Need: TBD.

Scope: Initial suggestions include CDBG-DR, DHS&EM and Denali Commission funding. Create a product summarizing the details and limitations of different sources of federal match. May also involve convening partners to identify the best source of match for community projects.

3.52. DR4672-559 - Statewide - Bulk Fuel Facility Inventory and Assessment (Denali Commission)

Strategy Number: I1.4

Managing Entity: Denali Commission, Alaska Energy Authority
Project Coordination POC: Janet Davis, Denali Commission, jdavis@denali.gov

Cost: $1,760,000

Purpose and Need: Not available.

Scope: AEA will inventory and assess the bulk fuel facilities in eligible communities statewide. The information gathered will be used in training of bulk fuel facility operators.

3.53. DR4672-562 - Gambell, Koyuk, Toksook Bay - Powerhouse Controls Upgrades (Denali Commission)

Strategy Number: I1.4

Managing Entity: Denali Commission, Alaska Village Electric Cooperative (AVEC)
Project Coordination POC: Janet Davis, Denali Commission, jdavis@denali.gov

Cost: $900,000

Purpose and Need: Not available.

Scope: AVEC will swap existing ECGP2 powerhouse engine controllers, which have become obsolete, with ComAp controllers in nine communities, enabling powerhouse engines to fully integrate with automated switchgear and allowing for the integration of renewables in each of these islanded microgrids. Communities: Brevig Mission, Elim, Gambell, Kaltag Koyuk, Lower Kalskag, Savoonga, Selawik, Toksook Bay.

4. Conceptual Projects

4.1. DR4672-641 - Chevak - Community Generator

Strategy Number: I1.4

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: The Council reported that power was out for 2-3 days, resulting in the spoilage of frozen food. The Alaska Village Electric Cooperative services the grid.

Scope: Identify funding opportunities for a community generator

4.2. DR4672-329 - Chevak - Multijurisdictional Hazard Mitigation Plan

Strategy Number: C2.3

Managing Entity: AK DHS&EM
Project Coordination POC: Garrett Brooks, State of Hazard Mitigation Officer, garrett.brooks@alaska.gov; John Andrews, State HMP Lead, john.andrews@alaska.gov

Cost: $30,000

Purpose and Need: The City of Chevak's Hazard Mitigation plan has expired. The community needs one to unlock hazard mitigation resources such as the BRIC and 404 programs. The City is familiar with the plan update process and able to complete the work without pursuing funding. IRC, Alaska Area Office Hazard Mitigation and the Alaska Federation of Natives navigator have all offered support.

Scope: Representatives of Chevak indicated that they would like to create a Multijurisdictional Hazard Mitigation that includes the City and the Chevak Traditional Council. IRC will provide technical assistance to Chevak to facilitate the process.

4.3. DR4672-643 - Gambell - Evacuation Center

Strategy Number: I1.8

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: The current evacuation center is the school. But the school is in a vulnerable location on low ground adjacent to the coastline, where it is one of the first places to flood. During Typhoon Merbok the Army provided emergency tent shelters that eventually blew away and they had to shelter in trucks. The community would like to build a new evacuation center on higher ground along a proposed road to Savoonga. They would like a permanent structure, a steel building with concrete floors, that can withstand intensifying storms and is fully stocked with enough water, food, power, medical supplies, stoves, tents, etc. to sustain 800-1,000 community members for at least 2 months.

Scope: Plan/design a new evacuation center and identify resources to construct.

4.4. DR4672-650 - Gambell – Landfill Fencing Repair

Strategy Number: N1.1

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: The fencing of the landfill closest to the water was damaged, causing debris to blow out of the landfill. The landfill is also close to the shoreline and gets flooded.

Scope: Identify resources to repair landfill fencing

4.5. DR4672-649 - Gambell - Heavy Equipment

Strategy Number: I1.7

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: The community has done a lot of mitigation work themselves but need more heavy equipment and materials to complete the job more effectively and efficiently. A road to Savoonga project has already been thoroughly planned, but equipment and funding is needed to execute it. Equipment needed is an off-road rock truck and backhoe. They have had their quarry tested by the state and stated that it can be used to build a road on the island for reduced costs associated with building the road. They have 1 operational loader, and stated it took 45 minutes one way to distribute a scoop full of gravel. Once dumped it took about 90 minutes to return w/another scoop of gravel. They specifically requested a ROCK truck, which is a specialize heavy duty dump truck. There are multiple pieces of large equipment that have failed or have worn out tires sitting in the community.

Scope: Identify funding/financing opportunities, including transportation to the island for: off-road rock truck, loader, backhoe.

4.6. DR4672-648 - Gambell - Evacuation Route

Strategy Number: I1.6

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: Storm waves can cover the airport runway and flood the only evacuation route. The lake near the runway can exacerbate the size of waves and flooding, and if another storm causes it to become inoperable there will be no other evacuation route, cutting the community off from the rest of the island, and trapping and isolating them. The village currently sits in a flood plain. The road currently has numerous large potholes that would affect the community's ability to safely evacuate. An evacuation route is already planned but support is needed to implement.

Scope: Develop an evacuation route the connects Gambell and Savoonga to higher ground.

4.7. DR4672-489 - Gambell - Coastal Erosion Protection (USACE Programs)

Strategy Number: I2.2

Purpose and Need: The coastline is losing land and has already lost 500 feet. Typhoon Merbok made erosion worse. A seawall is needed to help mitigate

Managing Entity: IS RSF
Project Coordination POC: Clare Jaeger, IS-RSF Field Coordinator, clare.l.jaeger@usace.army.mil

Cost: TBD.

erosion. Storms are getting worse and worse. The community has made a seawall with some boulders, but they sink in the gravel. The airport, school, homes and other buildings are vulnerable.

Scope: The Native Village of Gambell decided not to move forward with a USACE 165a Pilot Program application; however, other USACE programs may address the issue. IRC is continuing to help Gambell identify resources to address the erosion issues. Additionally, Gambell is seeking an ADOT storm surge protection for the runway.

4.8. DR4672-447 - Gambell - Restore Lost Boat Racks

Strategy Number: N3.1

Managing Entity: NCR RSF
Project Coordination POC: Fran Mann, U.S. Department of the Interior, frances.mann@boem.gov

Cost: TBD.

Purpose and Need: Twenty-five (25) boat racks were destroyed in Typhoon Merbok. 2x6' boards are needed to rebuild them.

Scope:

4.9. DR4672-644 - Golovin - Power Plant: Reinforcement + Reliability Improvements

Strategy Number: I1.4

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: Golovin's power plant is located in the lower part of town that is vulnerable to flooding (the power plant was partially submerged following Merbok). Golovin lost power for 2.5 days in the wake of Typhoon Merbok. Other storms can cause power shortages as well, which disrupts food preservation, heating for homes that use oil, and other critical community functions.

Scope: Determine opportunities and resources to protect the existing power plant and work toward relocation as a long-term solution

4.10. DR4672-645 - Golovin - Emergency Shelter/Community Center

Strategy Number: I1.8

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: Golovin's VPSO proposed the idea of a fully stocked shelter facility, expressing that the community doesn't have a facility that can comfortably serve this purpose. The tribal office is inadequate as an emergency shelter.
The shelter would also be located uphill and could also act a community center – perhaps even share space with the community clinic (Golovin's clinic is currently located in lower town). It didn't flood from Typhoon Merbok because it is elevated, but there was water surrounding the building).

Scope: Identify resources to plan, design and construct an evacuation center equipped with food and supplies

4.11. DR4672-647 - Golovin - Raising Homes in Floodplain

Strategy Number: I2.1

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: Three homes were removed from their foundations and 16 homes were flooded. Some homes in the lower part of town are in the floodplain and need to be elevated. Approximately four homes cannot be elevated due to issues with their foundations. The city proposed a possible berm around the homes that cannot be elevated, protecting them from water and ice. Additionally, individual damaged homes need repairs and home improvements. Some residents mentioned non-functioning windows and other issues with their homes that need repairing. (RNA)

Scope: Assess options for homes in the floodplain to determine best approach: elevate, protect, or relocate.

4.12. DR4672-613 - Golovin - Coastal Erosion Protection (USACE Programs)

Strategy Number: I2.2

Managing Entity: IS RSF, CETC
Project Coordination POC: Clare Jaeger, IS-RSF Field Coordinator, clare.l.jaeger@usace.army.mil

Cost: TBD.

Purpose and Need: Typhoon Merbok flooded the lower part of Golovin, intensifying coastal erosion and depositing piles of sand into homes along the shorefront. Front street (sandy road) is a planned project to elevate but will likely wash out with future storm. Vegetation along the coast was destroyed from Merbok and is no longer protecting shoreline from erosion. Protecting and mitigating against erosion from both water and sheet ice is one of the community's top priorities.

Scope: Golovin representatives decided not to move forward with the USACE 165a Pilot Program application; however, there are other USACE programs that may address the erosion issues. IRC will work with the community to identify appropriate resources.

4.13. DR4672-646 - Golovin - Food Security

Strategy Number: N3.2

Managing Entity: NCR RSF
Project Coordination POC: Fran Mann, U.S. Department of the Interior, frances.mann@boem.gov

Cost: TBD.

Purpose and Need: Food-security-related infrastructure was damaged by Merbok.

Scope: Project may include scoping a centralized food storage and processing facility; addressing damaged and destroyed subsistence camps; and/or repairing community gardens.

4.14. DR4672-483 - Hooper Bay - Old Town Water/Sewer Connection (TBD)

Strategy Number: I1.3

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: Water lines froze during the January 2023 cold snap, impacting the community's water plant. They ran out of treated water and had to create new treated water, nearly running out of the treatment chemicals. They inquired about receiving a backup supply in time for this upcoming winter.

Homes in the Old Town do not currently have water or sewer, but the community is aiming to install water and sewage systems into approximately 70 homes, however, a timeline has not yet been identified for this project. Challenges to consider, there isn't a nearby water source and the sewage lagoon is already exceeding its capacity.

Scope: Explore how to connect the approximately 70 homes in Old Town to water and sewer. Connection of these homes may be contingent upon larger relocation discussions.

4.15. DR4672-481 - Hooper Bay - NRCS Emergency Watershed Protection (EWP) Program Project

Strategy Number: I2.2

Managing Entity: USDA NRCS
Project Coordination POC: Brett Nelson, brett.nelson@usda.gov

Cost: $262,273

Purpose and Need: The boardwalks and ATV trails are impeding local wildlife activity. This project will improve transportation options while protecting critical infrastructure for subsistence activities.

Scope: A USDA Emergency Watershed Protection program project is underway in Hooper Bay to repair and elevate a boardwalk and ATV trail.

4.16. DR4672-652 - Hooper Bay - Backup Generator and Electric System Enhancements

Strategy Number: I1.4

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: Hooper Bay is a subsistence economy that relies on hunting, fishing, and gathering, so food security is a communitywide concern and priority. Food was lost when stores closed from power outages, so the community is focused on improving their power generation infrastructure. Most of their energy is diesel-generated; the community is exploring the idea of backup generators connected to the grid. They are interested in replacing the existing turbines with larger turbines and potentially establishing an electric village co-op. The Alaska Village Electric Cooperative (AVEC) owns the electricity infrastructure now. (RNA)

Scope: Identify resources to assist the community in their efforts to procure 10 community generators. Assess the electric system, including management of the utility.

4.17. DR4672-653 - Hooper Bay - Erosion Protection (USACE 165a Pilot Program)

Strategy Number: I2.2

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: Typhoon Merbok was the worst storm Hooper Bay has experienced in recent history and there is a strong sense of urgency to fortify their community against future storms.
Erosion is a major concern due to high winds and tides. Hooper Bay has seen significant ground failure/permafrost degradation throughout their community. They mentioned a DOT project to raise the roads by four feet (they are currently below sea level).
Purportedly, there used to be 12-14 rows of dunes along the beach just a few generations ago, but they have since eroded away, leaving just one dune.
The end of the airport runway was submerged. Residents attempted to prevent it from flooding using cinder blocks, but it didn't seem to help. They are interested in seeing how far the bedrock goes down the shoreline.

Scope: Note: We did submit a 165a for Hooper Bay - also need to keep this as a project to continue pursuing

4.18. DR4672-654 - Hooper Bay - Evacuation Center

Strategy Number: I1.8

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: The land surrounding the village of Hooper Bay is below sea level, so flooding from Typhoon Merbok transformed the village into an island, severed down the middle. Residents (including many elders) living in the "old town" were cut off from amenities located in the "new town."
Since the community has never experienced floodwaters reaching this far into their village, nor has their community ever been bisected from flooding before, they quickly recognized that an emergency evacuation facility is needed to provide residents of the "old town" a safe place to go if a similar flooding event were to occur.
They have identified a building in "old town" that could potentially be used for an evacuation facility, but it would require funding to retrofit the building to meet proper structural and fortification standards.
The newer part of town has a school and churches where residents can seek shelter and support, but residents in the older part of town were left with nowhere to go following Typhoon Merbok.

Scope: Determine opportunities to develop an evacuation center.

4.19. DR4672-655 - Hooper Bay - Relocation Planning

Strategy Number: C2.3

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Purpose and Need: Community has talked about relocation as a long-term solution and fortification as a short-term solution, but it's not something they have reached communitywide consensus on. They understand how long relocation has taken other communities (i.e., Newtok) and believe they should begin the process sooner rather than later, but it's a difficult and complex

Cost: TBD.

topic to broach. They would like to see a feasibility study to help inform this important decision.

Scope: Conduct a feasibility study to help inform this important decision of managed retreat/relocation options.

4.20. DR4672-656 - Hooper Bay - Training for I.D./Social Security Card Renewal and/or Replacement

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: Lack of proper identification documents, particularly social security cards, prevents applicants from home improvement project grants and funding. The community feels they would benefit from trainings on renewal and lost card replacement procedures.

Scope: Connect community to social security services for information and training.

4.21. DR4672-659 - Hooper Bay - Backup Water + Treatment Chemicals

Strategy Number: I1.3

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: Water lines froze during the January 2023 cold snap, impacting the community's water plant. They ran out of treated water and had to create new treated water, nearly running out of the treatment chemicals. They inquired about receiving a backup supply in time for this upcoming winter.

Scope: Determine opportunities for securing water treatment chemicals before winter. Connect with the Division of Community and Regional Affairs RUBA program.

4.22. DR4672-660 - Hooper Bay - Village Public Safety Officer

Strategy Number: C2.4

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: They requested the need for additional VPSO (Village Police Safety Officers) and law enforcement assistance due to increases in crime within the community.

Scope: Connect to agencies/resources to determine options for increasing Village Public Safety Officer program

4.23. DR4672-330 - Native Village of Kipnuk - Hazard Mitigation Plan

Strategy Number: C2.3

Managing Entity: AK DHS&EM
Project Coordination POC: Garrett Brooks, State of Hazard Mitigation Officer, garrett.brooks@alaska.gov;

Purpose and Need: The City of Kipnuk's Hazard Mitigation Plan has expired; the community needs one to unlock hazard mitigation resources such as the BRIC and 404 programs.

John Andrews, State HMP Lead, john.andrews@alaska.gov

Cost: $30,000

Scope: Representatives of Kipnuk indicated that they would like to update their Hazard Mitigation Plan. IRC will provide technical assistance to facilitate the process.

4.24. DR4672-360 - Kipnuk - Streambank Erosion (USACE 165a Pilot Program)

Strategy Number: I1.5

Managing Entity: IS RSF
Project Coordination POC: Clare Jaeger, IS-RSF Field Coordinator, clare.l.jaeger@usace.army.mil

Cost: TBD.

Purpose and Need: Merbok exacerbated erosion to the dock.

Scope: Kipnuk is completing a USACE 165a application. IRC and AML are providing technical assistance on this application. This project is for the barge landing and possible fuel header.

4.25. DR4672-661 - Kipnuk - Honey Bucket Collection Facility

Strategy Number: N1.1

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: Stormwater inundated much of the community, causing widespread environmental impacts. Honey bucket collection containers are located around the village and every spring they tip over. Representatives indicated they would like a central collection facility.

Scope: Determine opportunities to create a central facility for honey bucket collection.

4.26. DR4672-664 - Kipnuk - Cemetery Repairs

Strategy Number: N2.1

Managing Entity: NCR RSF
Project Coordination POC: Fran Mann, U.S. Department of the Interior, frances.mann@boem.gov

Cost: TBD.

Purpose and Need: The cemetery near the lake has an eroding fence and grave markers were knocked down. Funding for repairs has not been identified.

Scope: Identify funding for cemetery fence and grave markers.

4.27. DR4672-633 - Kipnuk - Community Facilities

Strategy Number: I1.1

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Purpose and Need: The police/fire/search and rescue building needs repairs and expansion, including storage. Additionally, the community currently uses the school as an evacuation site, but representatives indicated they could use a dedicated building for an evacuation center that also functions as a community center. Representatives shared they would like to connect new Elder Housing, the proposed community center, a new proposed temporary

Cost: TBD.

shelter for domestic violence victims, and a proposed Head Start Building to the existing public safety facility. (RNA)

Scope: Identify funding and connect partners for building new community facilities.

4.28. DR4672-632 - Kipnuk - Transportation Facilities Repairs - Boardwalks, Roads, Bridges and Barge Landing

Strategy Number: I1.6

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: Transportation facilities including boardwalks, roads, bridges, and the barge landing were damaged from Merbok storm surge and associated rains. Many boardwalks are now sinking and are covered with water. Some boardwalks have come apart, with just loose boards laying on the ground. Gravel is needed for placement under boardwalks. The boardwalks are designed to float.

Scope: Identify funding to repair transportation infrastructure and make it more resilient.

4.29. DR4672-663 - Kipnuk - Provide Information on Social Service Programs

Strategy Number: C2.4

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: Community members were unsure of how to navigate the social services systems, such as disability assistance, and need additional information.

Scope: Provide information on social service programs.

4.30. DR4672-662 - Kipnuk - Oil Spill Clean Up

Strategy Number: N1.1

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: Fuel tanks and containers are also located around the community and small spills are common. Need a better way to clean up after an oil spill.

Scope: Provide guidance and resources on who to contact to clean up small oil spills from tanks located around the community.

4.31. DR4672-631 - Kipnuk - Housing, Home Repairs, Relocation and Elevations

Strategy Number: C2.2

Strategy Number: I2.1

Purpose and Need: Extensive damages related to Typhoon Merbok. Erosion and permafrost degradation are threatening many homes, creating and need to move from the erosion zone and elevate.

Managing Entity: CA RSF

Cost: TBD.

Scope: Community representatives shared that they would like a comprehensive housing assessment/plan to document the needs for each home, including repairs from Typhoon Merbok, the relocation of 20-30 homes (including suitable sites for relocation), and elevation. Representatives believed this information would improve the communication between the village and agencies.

4.32. DR4672-639 - Koyuk - Heavy Equipment

Strategy Number: I1.7

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: The Tribe recently received some new equipment with ARPA funding. Remaining equipment needs include:
A D9 Dozer, Excavator, Ford 150

Scope: Identify funding and financing opportunities for:
A D9 Dozer, an Excavator, and a Ford 150

4.33. DR4672-607 - Koyuk - Marine Header Relocation

Strategy Number: I1.5

Managing Entity: ANTHC
Project Coordination POC: Clare Jaeger, IS-RSF Field Coordinator, clare.l.jaeger@usace.army.mil

Cost: TBD.

Purpose and Need: The community's only marine fuel header is located down by the beach and floods frequently. The community needs a reliable way of refueling boats.

Scope: ANTHC may have a plan to relocate the marine fuel header - verify.

4.34. DR4672-634 - Koyuk - Erosion Assessment (USACE Section 14)

Strategy Number: I2.2

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: A long seawall or rock revetment is needed. The whole area in front of the school is subject to flooding. During Merbok storm waters and debris came all the way to the school fence. Debris would have been in the playground if not for the fence.

Scope: An assessment of the erosion zone is needed to determine the best option for mitigation.

4.35. DR4672-640 - Koyuk - Airport Expansion

Strategy Number: I1.6

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Purpose and Need: The community feels the airport needs erosion protection and expansion. The community would like to see Koyuk become a hub city with more direct flights.

Cost: TBD.

Scope: Determine opportunities for airport expansion and erosion protection measures.

4.36. DR4672-637 - Koyuk - Update/exercise the Small Community Emergency Response Plan

Strategy Number: C2.3

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: The community shared a need to review, update and exercise the Small Community Emergency Response Plan.

Scope: Help the community review, update and exercise the Small Community Emergency Response Plan.

4.37. DR4672-608 - Koyuk - Site Contamination Assessment (EPA Brownfields Program)

Strategy Number: N1.1

Managing Entity: EPA, NCR RSF
Project Coordination POC: Fran Mann, U.S. Department of the Interior, frances.mann@boem.gov

Cost: $100,000

Purpose and Need: The community reported that there is an abandoned AVEC powerplant located next to the school. Old tanks are also located in this area. The location is susceptible to flooding. These hazards need to be removed.

Scope: EPA's Targeted Brownfields Assessment (TBA) program helps states, tribes, and municipalities minimize the uncertainties of contamination often associated with brownfield sites. This program supplements other efforts under the Brownfields Program to promote the cleanup and redevelopment of brownfield sites. TBAs are conducted by an EPA contractor on behalf of an eligible entity. Services include site assessments, cleanup options and cost estimates, and community outreach. This is the first step remediating the contaminated area near the school.

4.38. DR4672-636 - Koyuk - Home and Store Relocation

Strategy Number: I2.1

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: Four or five homes and the store are imminently threatened by erosion and flooding. They were severely damaged during Merbok. Another seven are in danger and will need to be relocated as well. Homes also need to be winterized and mitigated against future hazards. Some homes have fuel and gas tanks outside of the homes. ADEC may have a program for this.
In another area of town, homes need to be evaluated for potential landslide threat.

Scope: The store and some houses are located in the erosion zone and frequently flooded. Need to identify opportunities for relocation and assess other homes for resilience measures, including some in a potential landslide zone.

4.39. DR4672-635 - Koyuk - Power Distribution Resilience

Strategy Number: I1.4

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: Some of the poles are located in low-lying areas and subject to damage. During Merbok, some homes were without power for one to two months. The community needs a generator.

Scope: Assess power grid adequacy post Merbok. Pursue a backup community generator.

4.40. DR4672-667 - Nightmute - Home Relocations

Strategy Number: I2.1

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: There are homes located near the river that are falling into the water, due to extensive erosion along the riverbank. These homes are still being lived in despite water entering the homes during high tide.

Currently, there is no plan to relocate the homes. A new housing site was proposed on higher ground in the past, but somehow a misunderstanding or error of some kind led to the new housing site being located on lower ground. ANTHC produced the most recently updated housing plan in 2011, but unfortunately, all of that is now outdated.

The community expressed that there isn't any room for them to grow or relocate due to allotments and boundaries that they feel are preventing them from expanding to safer areas. They have higher ground, but the winds are very strong.

Scope: Create a plan and identify resources to relocate threatened homes.

4.41. DR4672-668 - Nightmute - Sewage Lagoon Repairs and System Upgrades

Strategy Number: I1.2

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: Typhoon Merbok flooded the landfill and sewage lagoon, spreading trash upriver. The sewage lagoon has since been plugged by sandbags, but they still experience high waters during Spring and Fall flooding, which exacerbates erosion and permafrost degradation.
Most homes are using a honey bucket system. The sewage lagoon connects the river via a small channel/breach. There are a significant number of bags containing human waste and other trash items that have ended up in the sewage lagoon.

Scope: Identify more permanent and resilient sewage systems solutions.

4.42. DR4672-666 - Nightmute - Procure Heavy Equipment

Strategy Number: I1.7

Purpose and Need: Heavy equipment is needed to clean up debris around the lagoon. They have a skid steer and a loader, but a mini excavator (with rubber

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

tracks) would help them with their ongoing landfill cleanup project.

Due to lack of personnel to operate the equipment and assist with the community cleanup, they inquired about training and certification requirements for heavy equipment operators.

Scope: Determine funding/financing opportunities for a mini excavator with rubber tracks.

4.43. DR4672-479 - Nightmute - Multijurisdictional Hazard Mitigation Plan

Strategy Number: C2.3

Managing Entity: AK DHS&EM
Project Coordination POC: Garrett Brooks, State of Hazard Mitigation Officer, garrett.brooks@alaska.gov; John Andrews, State HMP Lead, john.andrews@alaska.gov

Cost: $30,000

Purpose and Need: The Hazard Mitigation plan for Nightmute expired on 12/8/2023. Nightmute is ineligible for funding from the Hazard Mitigation Grant Program to analyze and address erosion-related issues until they have an active plan.

Scope: The City of Nightmute, Negtemiut Traditional Council (NTC), and Umkumiut Traditional Council (UTC) are interested in renewing their hazard mitigation plan, which expired on 12/8/2020. IRC HM Advisor helped the community submit a letter of interest to the State Hazard Mitigation Office. The SHMO will be the main point of contact for the community moving forward.

4.44. DR4672-665 - Nightmute - Erosion + Landslide Mitigation

Strategy Number: I2.2

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: The community explained that the hillside, specifically the area behind the church, is susceptible to sliding. Huge boulders are exposed, and they have seen smaller slides take place.
Instability along this hillside presents a real threat to the community and there is considerable concern that a large-scale slide could occur.

Scope: Assessment and implementation of mitigation measures.

4.45. DR4672-614 - Nunam Iqua - Riverine Erosion Protection (USACE 165a Pilot Program)

Strategy Number: I2.2

Managing Entity: AML
Project Coordination POC: Clare Jaeger, IS-RSF Field Coordinator, clare.l.jaeger@usace.army.mil

Cost: TBD.

Purpose and Need: Merbok and two subsequent storms have exacerbated erosion to the dock.

Scope: Nunam Iqua is completing a USACE 165a application. AML is providing technical assistance on this application.

4.46. DR4672-601 - Scammon Bay - Stopgap Winter Heating Oil

Strategy Number: I1.4

Managing Entity: IS RSF, AEA
Project Coordination POC: Rebecca Garrett, AEA, rgarrett@akenergyauthority.org

Cost: TBD.

Purpose and Need: Scammon Bay has four decommissioned fuel tanks. The community does not have adequate fuel storage capacity to make it through the winter.

Scope: The community requested alternate interim fuel storage such as three 10,000-gallon fuel bladders, which could be installed within a temporary dike adjacent to the existing heating oil tank farm. The best solution is still being evaluated.

4.47. DR4672-671 - Scammon Bay - Erosion Mitigation / Barrier Wall Enhancement

Strategy Number: I2.2

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: Due to storm water inundation caused by Typhoon Merbok the community lost about a foot of roadway surface along the road west of the Tribal tank farm. The road had served as a barrier wall until the storm intensity increased causing the gravel to erode. As severe weather becomes increasingly common the barrier wall/road will continue to erode. Storms historically occurred in October and November. Now they continue to occur later in the year. Storms that occur in November and December are pushing mass quantities of sheet ice (in addition to water) into the community. This sheet ice destroys everything in its path and can cause significant damage to community infrastructure.

There was a flood similar to Merbok three years ago, after which ADOT enacted measures to restore the road to its previous state, but more mitigation measures are needed to prevent further erosion. The community is anxious to self-perform this mitigation work. They are requesting funding to purchase new heavy equipment and be self-reliant with the road and barge landing project repairs. They also have their own granite rock quarry from which material could be sourced. An assessment of the existing access road for adequacy in transport is needed along with a conceptual design for the development of a barge landing facility for loading and transport of quarry materials to nearby communities.

Scope: Identify funding and resources to address erosion. Supported with development of USACE 165a letter, which was not submitted on time. Project letter can be resubmitted through regular USACE programs.

4.48. DR4672-672 - Scammon Bay - Heavy Equipment

Strategy Number: I1.7

Purpose and Need: The community needs equipment to self-perform recovery projects.

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Scope: Identify funding/financing options for: dump truck, a rock truck, a bulldozer, a large excavator and a 966 front-end loader.

4.49. DR4672-701 - Scammon Bay - Site Contamination Assessment (EPA Brownfields Program)

Strategy Number: N1.1

Managing Entity: YRITWC, NVSB, EPA, AEA
Project Coordination POC: Ben Brandeberry, Yukon River Intertribal Watershed Council, bbrandeberry@yritwc.org, 907-258-3337

Cost: $100,000

Purpose and Need: An old tank farm site is likely contaminated.

Scope: The Yukon River Intertribal Watershed Council (YRIWC) has agreed to help the Native Village of Scammon Bay (NVSB) with applying for the EPA Brownfields Program. The EPA's Targeted Brownfields Assessment (TBA) program helps states, tribes, and municipalities minimize the uncertainties of contamination often associated with brownfield sites. This program supplements other efforts under the Brownfields Program to promote the cleanup and redevelopment of brownfield sites. TBAs are conducted by an EPA contractor on behalf of an eligible entity. Services include site assessments, cleanup options and cost estimates, and community outreach.

Phase 1 - Reviewing records; interviewing owner and past workers; a site visit, etc., to determine if the area has known or potential contamination. Because ADEC has a file of spills at the site, it seems like this can be done quickly and then move to Phase 2.

Phase 2 - Assuming Phase 1 indicates the site is likely contaminated, then phase 2 begins the identification of the contaminants, sampling and testing soil and water, and determining what substances are there and their concentrations.

4.50. DR4672-669 - Scammon Bay - Flooding Protection for Power Plant

Strategy Number: I1.4

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: Typhoon Merbok is the first time the community saw water reach into the area of the power plant and associated tank farm, which could have caused loss of power throughout the community. Scammon Bay needs a revetment to reduce or eliminate storm surge flooding.

Scope: Identify opportunities for flooding protection. Community expressed interest in revetment.

4.51. DR4672-674 - Scammon Bay - Multijurisdictional Hazard Mitigation Plan Update

Strategy Number: C2.3

Purpose and Need: The community's Hazard Mitigation Plan has expired, but they would like to renew it using a multijurisdictional approach.

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Scope: IRC HM Advisor helped the community submit a letter of interest to the State Hazard Mitigation Office. The SHMO will be the main point of contact for the community moving forward.

4.52. DR4672-670 - Scammon Bay - Airport Relocation or Mitigation

Strategy Number: I1.6

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: Approximately one third of the airport flooded during Typhoon Merbok and standing water remained on the gravel surface. The airport's western flight path approach crosses directly over the barge landing. When a barge is tethered at the landing, sometimes for days to offload fuel, it causes issues operating the airport, especially if there are strong crosswinds.

This situation with the barge landing and the airport collocated increases the likelihood that if storm driven erosion occurs, the community will be cut off from their only two methods of transportation. The increasing likelihood of erosion could impact movement of supplies across both the airport and the barge landing. In the event of a major storm, community members move their boats out of the water, off the beach and onto the access roads for protection and this causes even more congestion.

The airport is frequently affected by extreme crosswinds that affect flights and movement of people and supplies, which could endanger community members in the face of stronger and stronger storms. Already many flights bypass Scammon Bay without landing due to crosswinds and fog. A long-term solution is to relocate the airport and amend the 1990 agreement with DOT and other agencies. No alternate location has been identified at this time.

Scope: Conceptual project being developed by DOT. Will monitor and support as needed.

4.53. DR4672-603 - Scammon Bay - New Fuel Tank Farm

Strategy Number: I1.4

Managing Entity: IS RSF, AEA, BIA, FEMA PA
Project Coordination POC: Rebecca Garrett, AEA, rgarrett@akenergyauthority.org

Cost: TBD.

Purpose and Need: Scammon Bay has four decommissioned fuel tanks. The community does not have adequate fuel storage capacity to make it through the winter.

Scope: A project to replace the tank farm was approved by the Alaska Energy Authority (AEA). The project Phase I has a 95% design and is scheduled to begin construction on the pad for the new site in 2024 and to procure and install the new tanks in 2025. The project is fully funded for the foundation and dike phase, and mostly funded for the tank purchase and installation.

Phase II, the new fuel header has not been designed or funded yet. The

proposed alignment for the fuel header is at the barge landing and then the pipeline would skirt along parallel to the airport on the upland side. - Scammon Bay Trip Report

FEMA PA may be able to conduct an Alternate Project to replace the fuel headers.

BIA is providing two fuel tanks and fuel as a temporary measure to ensure that fuel is available this winter.

4.54. DR4672-673 - Scammon Bay - Expand Barge Landing

Strategy Number: I1.5

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: The barge landing needs to be expanded because it has eroded away and also subsided more than 12 inches due to permafrost failure. Both the barge landing area and the access road, lost about a foot of surface material during Typhoon Merbok. Scammon Bay is a subsistence-based community with at least 50 heavy aluminum boats. The community has to get creative on where to store all of the boats when a storm is predicted. Each boat must be loaded onto a trailer and hauled away from the shore, sometimes all the way into the housing area. The conex vans from the barges are typically stored at the barge landing area and some of these are also pushed and floated by the storm surge waves. After the effects of erosion, there is not adequate space to store the conex vans and the boats.

Scope: Identify funding/partner opportunities to expand barge landing.

4.55. DR4672-675 - Scammon Bay - Mitigate Flooding to Low Lying Homes and Mechanic Shop

Strategy Number: I2.3

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: Homes in low-lying areas were damaged, including those closest to the tank farm. Five to six may need to be moved to alternate locations due to subsidence and their vulnerable location. These endangered homes may require other significant mitigation measures, but alternate sites have not been considered at this stage. The homes are still livable.

The Corporation-owned mechanic shop is in the same low-lying location as the tank farm and vulnerable homes. All this area becomes an island during storms and needs mitigation measures.

Scope: Determine options for mitigating flooding of low-lying homes.

4.56. DR4672-357 - St. Michael - Barge Landing Repair (PA)

Strategy Number: I1.5

Managing Entity: IS RSF
Project Coordination POC: Clare

Purpose and Need: The dock was destroyed by the storm and St. Michael no longer has access to the water and the primary source for delivery of supplies. Tidal surge dislodged an old barge that was being used as a dock, pushing it

Jaeger, IS-RSF Field Coordinator, clare.l.jaeger@usace.army.mil

Cost: $57,000

up against the bank and fuel tanks. The staging area was washed away. Residents depend on the dock for transferring items that cannot be flown in. The dock needs to be rebuilt as soon as possible to facilitate other recovery actions.

Scope: The applicant will utilize contract and (or) force account for exterior repairs to City of St Michael - Barge Marina to restore this facility back to its pre-disaster design, function and capacity (in-kind) within the existing footprint. PA is still working with the applicant to obtain the necessary documentation reimburse for these damages as of 9/26/2023. There is a separate PA project to address reimbursement for the damage to the road leading to the barge landing.

4.57. DR4672-342 - St. Michael - Sewage Vacuum Plant Building (PA)

Strategy Number: I1.1

Managing Entity: IS RSF
Project Coordination POC: Clare Jaeger, clare.l.jaeger@usace.army.mil

Cost: TBD.

Purpose and Need: Erosion has compromised the vacuum plant building, and the building floor is rotting through. The vacuum pump is ready to fall through the floor.

Scope: The City of St. Michael is an applicant for the FEMA Public Assistance Program, which can reimburse for damages to return the vacuum plant to pre-storm conditions. This is a temporary solution only. A project to build a second vacuum plant is in the Sanitary Deficiency System (SDS).

4.58. DR4672-487 - St. Michael - Coastal Erosion Protection (USACE 165a Pilot Program)

Strategy Number: I2.2

Managing Entity: IS RSF
Project Coordination POC: Clare Jaeger, IS-RSF Field Coordinator, clare.l.jaeger@usace.army.mil

Cost: TBD.

Purpose and Need: Significant shoreline erosion is affecting 29 homes (five critically), public infrastructure, and cemeteries. Old private garbage/dump sites are being exposed. This is a health and environmental hazard. The community wants to conduct a full analysis on erosion causes and potential solutions.

Scope: The Native Village of St. Michael is completing a USACE 165a application. IRC is providing technical assistance on this application.

4.59. DR4672-676 - St. Michael - Repair/Replace Navigational Aids

Strategy Number: I1.6

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: The community had navigational aids in the form of tripods along the shore from the Little Island to the mouth of the canal, and then from the mouth of the canal to Kotlik, so people could get from St. Michael to Kotlik. In St. Michael Harbor, buoys washed away in the storm. The buoys need to be replaced and tripods installed.

Scope: Identify partners and resources to install more permanent navigational aids

4.60. DR4672-681 - Stebbins - Firefighting Equipment

Strategy Number: I1.7

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: The community does not have fire equipment or crew. During the November 2022 fire that destroyed the only store in town, the community did not have the resources to respond.

Scope: Identify resources for firefighting equipment.

4.61. DR4672-678 - Stebbins - Food Security

Strategy Number: N3.2

Managing Entity: NCR RSF
Project Coordination POC: Fran Mann, U.S. Department of the Interior, frances.mann@boem.gov

Cost: TBD.

Purpose and Need: A fire last fall affected the only store. Prices at the Alaska Commercial Company store in St. Michael increased due to inflation. Access to food will still be an issue this winter because the store is at 1/3 capacity and a lot of subsistence equipment has not been replaced. People are not able to access fish camps because boats were destroyed. There used to be 50-60 fish racks on the beach and now there are only three.

Scope: Identify resources to increase community food security.

4.62. DR4672-679 - Stebbins - Evacuation Center

Strategy Number: I1.8

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: Current evacuation sites, i.e., the school and the IRA building, are insufficient to shelter residents. The community would like a new, larger evacuation center/multi-purpose building. The corporation is going to take the lead and is beginning the first phase, including where to locate the new building. The need is documented in the Economic Development Plan. The building would include space for community programs as well as sheltering, and space for emergency supplies to be stored.

Scope: Identify resources to determine a new evacuation center site and construct it.

4.63. DR4672-677 - Stebbins - Evacuation Route

Strategy Number: I1.6

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: The only evacuation route was inundated four feet for a length of about 100 feet, impeding evacuations from the end of town. The community needs an alternate route, as well as improvements to the current road (see road maintenance and repair). Some design concepts are in place, all on corporation land.

Scope: Identify funding/partner resources to develop an evacuation route.

4.64. DR4672-680 - Stebbins - Emergency Communications Equipment

Strategy Number: I1.7

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: During Merbok communications went down briefly, and it took 23 minutes to contact Kotlik. Representatives expressed a desire for new/updated emergency communications equipment, such as handheld devices, VHF or Ham radio, and satellite phones. No backup power option for emergency communications is in place.

Scope: Identify resources for emergency communications equipment.

4.65. DR4672-684 - Stebbins - Warning Siren

Strategy Number: I1.7

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: The IRA has a warning siren but does not have funding to install it.

Scope: The siren has been procured. Identify funding to install.

4.66. DR4672-685 - Stebbins - Cemeteries Repair

Strategy Number: N2.1

Managing Entity: NCR RSF
Project Coordination POC: Fran Mann, U.S. Department of the Interior, frances.mann@boem.gov

Cost: TBD.

Purpose and Need: Sod homes and a historic cemetery were damaged by flood waters. The new cemetery was also damaged with knocked down and missing grave markers. Community members had to remove logs and other debris. The quickly eroding cemetery is not PA eligible.

Scope: Identify resources to repair grave markers and mitigating erosion.

4.67. DR4672-345 - Stebbins - Multijurisdictional Hazard Mitigation Plan

Strategy Number: C2.3

Managing Entity: AK DHS&EM
Project Coordination POC: Garrett Brooks, State of Hazard Mitigation Officer, garrett.brooks@alaska.gov; John Andrews, State HMP Lead, john.andrews@alaska.gov

Cost: $30,000

Purpose and Need: The Stebbins Hazard Mitigation Plan is expired and needs revision.

Scope: Stebbins is interested in a multijurisdictional (Tribe and City) plan and have been referred to information to both FEMA HMP Alaska Lead and DHS&EM.

4.68. DR4672-683 - Stebbins - Lake Contamination from Sewage

Strategy Number: N1.1

Managing Entity: NCR RSF
Project Coordination POC: Fran Mann, U.S. Department of the Interior, frances.mann@boem.gov

Cost: TBD.

Purpose and Need: Waste from roadside honey bucket collection containers contaminated an adjacent lake during the storm. The lake needs to be pumped, and the disposal containers need to be placed above the high-water line. This contamination is included in the Public Assistance damage inventory.

Storm surge flooded the transfer pumps and septic tank. The inundation carried sand and silt from the Bering Sea, depositing it in the septic system and pump pit. The material was pumped into the leech field, resulting in the leech field no longer meeting its designed service requirements.

Scope: Identifying resources to assist with decontamination.

4.69. DR4672-582 - Stebbins - Coastal Erosion Protection (USACE Section 165a Program)

Strategy Number: I2.2

Managing Entity: IS RSF
Project Coordination POC: Clare Jaeger, IS-RSF Field Coordinator, clare.l.jaeger@usace.army.mil

Cost: TBD.

Purpose and Need: The community needs a robust seawall. The airport runway is being raised and resurfaced by an Alaska Department of Transportation project, scheduled to begin in 2024 or 2025. The airport project will construct approximately 40 percent of the needed seawall. A plan is needed for the other 60 percent. During Merbok, the storm driven sea level was as much as 24 feet above normal. The community officials are requesting a seawall to break the energy of storm surge events to reduce the height and erosion damage. The Stebbins officials stated that there is a local rock source that can be used as a quarry.

Scope: Assist Stebbins in submitting an application to USACE for the Section 165a Pilot Program.

4.70. DR4672-448 - Stebbins - Restoration of Subsistence Equipment

Strategy Number: N3.1

Managing Entity: NCR RSF
Project Coordination POC: Fran Mann, U.S. Department of the Interior, frances.mann@boem.gov

Cost: TBD.

Purpose and Need: The November 2022 fire affected the only store. Prices at the Alaska Commercial Company store in St. Michael increased due to inflation. Community representatives shared that the time after the fire was extremely difficult, residents were cold and hungry.
The community pooled people and funds and worked to purchase food and supplies. Access to food will still be an issue this winter because the store is at one-third capacity and a lot of subsistence equipment has not been replaced. Residents are not able to access fish camps because boats were destroyed. There used to be 50-60 fish racks on the beach and now there are only three.

Scope: Scope under development.

4.71. DR4672-692 - Toksook Bay - Boat Harbor Expansion

Strategy Number: I1.5

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: The river used to be used as a boat harbor but now it is too small, and boats are overcrowded. The community previously received a grant to work on the boat harbor. The river has changed course, which is also impacting the space in the harbor. Storm pushed all the sediment into the small boat harbor, so now is field not a harbor.

The new area they have proposed is near the barge landing. Nightmute has big boulders set aside, which could be used as part of sea wall.

Scope: Identify resources for expanding the boat harbor in conjunction with repairs to the boat harbor. Applied for USACE 165a.

4.72. DR4672-334 - Toksook Bay, City of - Hazard Mitigation Plan

Strategy Number: C2.3

Managing Entity: AK DHS&EM
Project Coordination POC: Garrett Brooks, State of Hazard Mitigation Officer, garrett.brooks@alaska.gov; John Andrews, State HMP Lead, john.andrews@alaska.gov

Cost: $30,000

Purpose and Need: The City of Toksook Bay 2014 Hazard Mitigation Plan is due to be updated. The tribal government expressed interest in developing a separate plan from the city. The city is also interested in updating their HMP.

Scope: During the 06/24/2023 IRC RNA visit to Toksook Bay, representatives of Toksook Bay indicated that they would like to update their Hazard Mitigation Plan. IRC is helping the community evaluate different sources of funding for the update.

4.73. DR4672-409 - Toksook Bay - Cemetery Repair

Strategy Number: N2.1

Managing Entity: NCR RSF
Project Coordination POC: Frances Mann, frances.mann@boem.gov

Cost: TBD.

Purpose and Need: Numerous grave crosses were knocked over or broken in the old and new cemeteries during the storm. Fencing also appeared knocked down in the new cemetery. The old cemetery is located near the beach, where erosion was made worse by the storm. The old cemetery is not in imminent danger but will need to be moved eventually. Some remains were affected.

Scope: IRC will provide coordinate technical assistance to Toksook Bay leadership in repairing damaged cemeteries, and in planning for cemetery relocation if the community desires.

4.74. DR4672-564 - Toksook Bay/Tununak - Tununak Boardwalk Repair (Denali Commission)

Strategy Number: I1.6

Managing Entity: Denali Commission, Native Village of

Purpose and Need: Not available.

Scope: Repair and Maintenance of boardwalk and ATV Trail in Tununak, Alaska that connects Tununak to Toksook Bay, Alaska.

Tununak
Project Coordination POC: Janet Davis, Denali Commission, jdavis@denali.gov

Cost: $571,005

4.75. DR4672-581 - Toksook Bay - Coastal Erosion Protection (USACE 165a Pilot Program)

Strategy Number: I2.2

Managing Entity: IS RSF
Project Coordination POC: Clare Jaeger, IS-RSF Field Coordinator, clare.l.jaeger@usace.army.mil

Cost: TBD.

Purpose and Need: The failing seawall is a gabion basket (homemade cable stuffed with rock) built in the 1980s. It may have helped mitigate impacts, but wide sections of it were destroyed during the storm. The remaining gabion basket seawall is very low. It has shifted and settled to a height of approximately six feet. This offers limited protection from erosion because the cliff is 20 feet high and composed of fine-grained soils with a layer of tundra on top. There was significant erosion to the coastline, particularly where the seawall was destroyed. This has left several downtown homes exposed and in dangerous proximity to the erosion line, with one home cantilevered over the cliff. The fish camps on the east side of the bluff lost 1-2 feet of land due to erosion. The drying racks and equipment will need to be moved further inland.

Scope: Community representatives are pursuing the USACE 165a Pilot Program.

4.76. DR4672-691 - Toksook Bay - Road Repairs

Strategy Number: I1.6

Managing Entity: Nunakauyak Traditional Council

Cost: TBD.

Purpose and Need: Gravel for roads was brought in 10 years ago but following the storm roads are worn down to the mat. It will cost $200 a ton to bring in new gravel, so a new roadway will cost around $2 million to repair.

The Tribal Transportation Program road was maintained with new gravel before Typhoon Merbok, but now has eroded. The Nunakauyak Traditional Council (NTC) contractor is applying for a transportation grant – $100,000 for maintenance and new gravel. The NTC wants to put in big rocks with smaller rocks on top.

In 2019/20, the airport was redone in response to an earlier storm surge (the village experiences storms annually). They used rock from the quarry (bought from the Village Corporation) and Bryce crushed rock. They also moved some big, crushed rocks at the end of the roadway. In Toksook Bay, the village corporation owns both surface and sub-surface rights. They have their own rock, but all that's left is bad gravel since the good gravel has already been used. The corporation has sent someone to explore a new site for pit gravel.

Scope: Identify resources to ship in gravel, so that the community can make repairs to the roads.

4.77. DR4672-690 - Toksook Bay - Hazardous Waste Shed Roof

Strategy Number: I1.8

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: During a visit to the landfill site, it was observed that the hazardous waste storage shed is missing a large portion of the roof, and that the remaining roof is composed of saturated plywood.

Scope: IGAP Coordinator shared that the community received a Rasmussen Foundation grant to repair the roof. The community mis-estimated the cost of the tin roofing, so representatives will be asking Rasmussen for an $50,000 amendment to cover the additional cost.

4.78. DR4672-694 - Tuntutuliak - Mitigation Measures for Vulnerable Homes

Strategy Number: I2.1

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: There are at least 7 homes that were heavily impacted by Typhoon Merbok, with about 20-25 more impacted, older homes in low-lying storm surge areas and 20-25 new homes in middle – uptown areas, on piers and lacking proper bracing. Foundations have shifted and homes could potentially fall over in high winds, flooding or seismic activity. The land is thawing which is causing ponding in low areas. Resources are needed to fix the foundations or move homes to higher ground. Some homes have collapsed foundations and are too damaged to be relocated. Most homes are unlevel due to soil failure. Several homes have been undercut due to the extreme erosion caused by Merbok. The collapsed foundations have resulted in daily tidal saltwater inundation into several homes. Additionally, there are more minor damages, such as leaks, which have had temporary fixes. Machinery, heavy equipment, and tools are need for relocations and repairs. It they could get the necessary equipment, they stated that they have the skilled people available to use it. Black mold is also developing in many homes. RuralCap is working with Mennonite Disaster Services to provide some support for home repairs, but more is needed. Additional funding may be available through USDA RD's Rural Disaster Home Repair Grant program. In addition to moving old homes, new homes are needed. USDA NRCS had an Emergency Watershed Protection project in place to move some threatened structures, but the project has since expired with no work completed. USDA NRCS is still working with community leadership to complete the preliminary investigation and feasibility report, which was the first phase of the EPW funded project.

Scope: Identify options and opportunities for homes made structurally vulnerable due to permafrost degradation and erosion.

4.79. DR4672-696 - Tuntutuliak - Moravian and Russian Orthodox Churches

Strategy Number: N2.2

Managing Entity: NCR RSF
Project Coordination POC: Fran Mann, U.S. Department of the Interior, frances.mann@boem.gov

Cost: TBD.

Purpose and Need: Churches were built on dry tundra (higher grounds) but flooding and high winds from Typhoon Merbok caused the structures to sink. The foundations are on continuous pilings to try to stabilize, but they are still sinking. The Moravian church steeple was knocked over by Merbok. It is tipping over but there's not enough funding to demolish it and in general the churches have limited funding for repairs. The Orthodox church and parsonage are also sinking and surrounded by standing water. The cupola fell over and broke.

Samaritan's Purse may be able to help with repairs.

Scope: Identify resources to address damages to Moravian and Russian Orthodox churches.

4.80. DR4672-698 - Tuntutuliak - Boardwalk Repairs

Strategy Number: I1.6

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: The boardwalks were built in the 1990's, with some renovations taking place since. They are sinking, breaking, and thus deteriorating in many areas. Some of the original boardwalk has been dismantled and reinstalled on higher ground. Many boardwalks in the Lower Village were destroyed by the storm or are covered in water due to erosion, permafrost failure and subsidence. Tuntutuliak will be receiving 500,000 lbs. of materials from BIA to help replace the boardwalks but it won't be enough. In the mid-80's, there was a pilot project to build 12 ft. wide boardwalks, but it was a rushed timeline and unstable design. In the 2000's, they proposed to rebuild the boardwalks and pursued BIA funding to do so. The access road to the wind turbines was severely damaged limiting equipment access to service and maintain the turbines.

Scope: Identify resources for repairs to damaged boardwalks.

4.81. DR4672-693 - Tuntutuliak - Landfill and Solid Waste System Improvements and Decontamination

Strategy Number: N1.1

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: Fencing around the landfill ("the dump") and sewage lagoon/lake has collapsed and no longer contains trash, leaving trash strewn about the tundra. There is no space between the landfill and sewage lagoon. The sewage lagoon is experiencing leakage and drinking water sources are contaminated, which is a serious community health concern. The sewage lagoon drains into a small creek and from there directly into the river. Consequently, untreated sewage is entering nearby waterbodies. In the past they melted ice for drinking water, but now they cannot because the ice is contaminated with sewage. Community members are constantly sick throughout the year. Although contaminant testing has not been done, there's an IGAP program in the works to help with testing leachate from the landfill

and the adjacent wastewater lagoon. The majority of the 125 homes in the community use a honey bucket system. The active wastewater lagoon is not a properly designed facility, but actually a small lake outside of town. They would like a properly designed and constructed wastewater treatment system. There is an older abandoned wastewater lagoon in the middle of town, which was flooded out during the Merbok storm. In 2017 or 2018 Tuntutuliak applied for but did not receive an EPA Brownfields grant to address the landfill. They would need $2-3million of gravel to cover current solid waste. There is also concern that there is hazardous contamination leaching from the landfill. They've been trying to block off tributaries that flow through the "lake-lagoon" and continue to drain through other natural ponds eventually entering the river, but the material used to block the drainage was not working and/or evident.

Scope: Identify resources to repair, upgrade and maintain the landfill and sewage lagoon, and address associated waste contamination issues.

4.82. DR4672-700 - Tuntutuliak - Repairs/Upgrades to Wind Turbines

Strategy Number: I1.4

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: There was a fire in one of the wind turbines which damaged it. In addition to fixing it, they would like to install more. The community directly owns the power company and does not work through any intermediaries. They have frequent power outages. They also applied to USDA for a solar battery project to store electricity, but status of that project is unknown.

Scope: Identify resources for repairs/upgrades to wind turbines.

4.83. DR4672-699 - Tuntutuliak - Plan Updating

Strategy Number: C2.3

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: Tuntutuliak has done a lot of strategic planning to address issues in their community. They were in the process of developing a plan with the support of a university student (including elements of land use planning, economic development, community development, etc.) and formulated a draft in 2010's, however, it was never completed or adopted. There is a lot of interest amongst community leadership in developing a new plan, but consistent staffing is a challenge. The community has many qualified people, but many of those have moved away in search of better wages/benefits. Lack of personnel to manage projects, equipment to implement and/or match to fund projects has affected funding and implementation.

Scope: Assist the community in understanding the purposes and benefits associated with different types of plans and support development of plans as needed.

4.84. DR4672-682 - Tuntutuliak - Firefighting Equipment

Strategy Number: I1.7

Managing Entity: Not Identified
Project Coordination POC: Not Identified

Cost: TBD.

Purpose and Need: There was a dump fire on the tundra that was blowing towards the village. Employees from the school and village had to form a bucket brigade to put it out. The community used to have fire equipment, such as water pumps and chemicals, which helped a lot, but they no longer have that equipment.

On another occasion a home caught fire, but they were unable to safe the structure because there was no equipment. They felt luck that it didn't spread to other structures.

Scope: Identify resources for firefighting equipment.

4.85. DR4672-484 - Tuntutuliak - Riverine Erosion Protection (USACE 165a Pilot Program)

Strategy Number: I2.2

Managing Entity: IS RSF
Project Coordination POC: Clare Jaeger, IS-RSF Field Coordinator

Cost: TBD.

Purpose and Need: Erosion is threatening the northside of the river from the airport to the barge landing, including near the pump station. As a result of Merbok the north side of the river experienced 1-3 meters of erosion affecting access to the barge landing. There is also an old wastewater pump station that is dangerously close to the edge of the river. There are no erosion control measures in the upper village.

Scope: The Native Village of Tuntutuliak is completing a USACE 165a application. IRC and AML are providing technical assistance on this application.

4.86. DR4672-697 - Tuntutuliak - Repairs to Cemeteries

Strategy Number: N2.1

Managing Entity: NCR RSF
Project Coordination POC: Fran Mann, U.S. Department of the Interior, frances.mann@boem.gov

Cost: TBD.

Purpose and Need: Two cemeteries have significant ground failure creating ground level fluctuations of up to 8'. The community would like to keep the graves where they are but put more soil throughout the cemeteries to bring them up to grade. Repairs to crosses and grave markers are needed, but lumber, including treated lumber, is not very accessible. Visual markers indicate that there are at least a small number of veterans buried in both cemeteries.

Scope: Identify resources to repair damages to cemeteries.

4.87. DR4672-688 - All - Updated Floodplain Data (NOAA)

Strategy Number: C2.3

Managing Entity: NOAA

Cost: TBD.

Purpose and Need: The floodplain data is outdated and needs to be updated for the Alaska Ocean Observatory System. Having updated information is beneficial for communities trying to access funding.

Scope: NOAA is using disaster supplemental funding to collect elevation data for impacted areas. These data will be made available to the public via the Digital Coast Data Access Viewer. The NOAA Office for Coastal Management can provide training on how to use the tool. To receive newsletters and invites to quarterly meetings sign up for Alaska Geospatial Council Coastal & Ocean working group.

4.88. DR4672-629 - Planning 101 Training - Working Title

Strategy Number: C2.3

Managing Entity: CA RSF
Project Coordination POC: Beth Otto, CA-RSF Field Coordinator, elizabeth.otto@fema.dhs.gov

Cost: TBD.

Purpose and Need: Communities have limited capacity for planning.

Scope: Develop a Planning 101 training and technical assistance in partnership with state and nongovernmental organizations.

4.89. DR4672-599 - Regional Collaboration Workshops (Hub Communities)

Strategy Number: C1.1

Managing Entity: CA RSF
Project Coordination POC: Beth Otto, CA-RSF Field Coordinator, elizabeth.otto@fema.dhs.gov

Cost: TBD.

Purpose and Need: TBD.

Scope: Half-day workshop in each of the hubs, as basis for on-going coordination.

4.90. DR4672-600 - Grant Writing, Administration, and Financial Management Guide Development (IRC)

Strategy Number: C2.1

Managing Entity: CA RSF
Project Coordination POC: Beth Otto, CA-RSF Field Coordinator, elizabeth.otto@fema.dhs.gov

Cost: TBD.

Purpose and Need: TBD.

Scope: IRC will publicize and connect impacted community representatives to grant writing and financial management resources including: the Alaska Municipal League, the Alaska Federation of Natives, and the ANTHC Center for Environmentally Threatened Communities.

4.91. DR4672-570 - Staff Capacity Building Resource Guide Development (IRC)

Strategy Number: C2.1
Managing Entity: CA RSF
Project Coordination POC: Beth Otto,

Purpose and Need: TBD.

Scope: IRC will publicize and connect impacted community representatives to staff capacity building resources including Serve Alaska, the BIA Tribal

CA-RSF Field Coordinator, elizabeth.otto@fema.dhs.gov

Climate Resilience Program, the EPA Indian General Environmental Assistance Program (IGAP), and academic partners.

Cost: TBD.

Appendix B: Declaration Background

DR-4672-AK Alaska Severe Storm, Flooding, and Landslides[3]

On September 23, 2022, the President issued a major disaster declaration under the authority of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. 5121 et seq. (the "Stafford Act"), as follows:

"I have determined that the damage in certain areas of the State of Alaska resulting from an Alaska Severe Storm, Flooding and Landslides during the period of September 15 to September 20, 2022. In order to provide Federal assistance, you are hereby authorized to allocate from funds available for these purposes such amounts as you find necessary for Federal disaster assistance and administrative expenses. You are authorized to provide Public Assistance in the designated areas and Hazard Mitigation throughout the State. The following areas of the State of Alaska have been designated as adversely affected by this major disaster: Bering Strait Regional Educational Attendance Area (REAA), Kashunamiut REAA, Lower Kuskokwim REAA, and Lower Yukon REAA for emergency protective measures (Category B) under the Public Assistance program. All areas within the State of Alaska are eligible for assistance under the Hazard Mitigation Grant Program."

On September 23, 2022, **Amendment #01** was issued to extend the deadline for filing applications for physical damages as a result of this disaster to 12/06/2022.

On November 21, 2022, **Amendment #02** was issued announcing the addition of debris removal (Category A) and permanent work (Categories C-G) for Bering Strait REAA, Kashunamiut REAA, Lower Kuskokwim REAA, and Lower Yukon REAA and Public Assistance (Categories A-G) for Pribilof Islands REAA. The deadline for Public Assistance RPAs was extended until 12/23/2022.

[3] This information was taken from the Integrated Strategic Plan for DR-4672-AK. More background information is available in the DR-4672-AK Initial Assessment, Appendix F.

Appendix C: Glossary

Alaska Department of Environmental Conservation (ADEC)
Alaska Division of Community and Regional Affairs (DCRA)
Alaska Division of Homeland Security & Emergency Management (DHS&EM)
Alaska Municipal League (AML)
Alaska Native Interest Lands Conservation Act (ANILCA)
Alaska Native Tribal Health Consortium (ANTHC)
Alaska Office of History and Archaeology (OHA)
Alaska Village Electric Cooperative (AVEC)
American Rescue Plan Act (ARPA)
Association of Village Council Presidents (AVCP)
Building Resilient Infrastructure and Communities (BRIC)
Community Assistance (CA – RSF)
Economic Development Administration (EDA)
Environmental Protection Agency (EPA)
Federal Coordinating Officer (FCO)
Federal Disaster Recovery Officer (FDRO)
Federal Emergency Management Agency (FEMA)
Federal Highway Administration (FHWA)
Hazard Mitigation Program (HMP)
Indian Environment General Assistance Program (IGAP)
Indian Health Service (IHS)
Individual Assistance (IA)
Infrastructure Systems RSF (IS - RSF)
Interagency Recovery Coordination (IRC)
Local Government Specialist (LGS)
MAX-TRAX: FEMA Program utilized by the IRC to record and manage inputs to ensure visibility across the operation on status and progress.
National Disaster Recovery Framework (NDRF)
National Park Service (NPS)
Native Village of Scammon Bay (NVSB)
Natural Resources Conservation Service (NRCS)
Public Assistance (PA)
Recovery Needs Assessment (RNA)
Recovery Support Function (RSF)
State, Local, Tribal, Territorial (SLTT)
Supplemental Nutrition Assistance Program (SNAP)
Temporary Assistance to Need Families (TANF)
U.S. Department of Housing and Urban Development (HUD)
U.S. Department of the Interior (DOI)
United States Army Corps of Engineers (USACE)
United States Department of Agriculture Rural Development (USDA-RD)
Village Public Safety Officer (VPSO)
Voluntary Agencies Active on Disasters (VOAD)