

This template is intended to be adapted by communities and technical assistance providers to create a simple plan that documents past actions to address climate and environmental threats and current priorities and unfunded projects. This template provides guidance on the structure and content of a plan. We recommend reviewing other finalized plans for example language, photos, etc. The 2022 Alakanuk Infrastructure Protection Plan is available here:

https://www.commerce.alaska.gov/web/Portals/4/pub/EVCs/Alakanuk/Alakanuk_Near-Term_IPP.pdf

[Community Name] Near-Term Infrastructure Protection Plan Template

[Insert photo to represent the community chosen by community representative]

Community Point of Contact: [POC Name, email, phone number]

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Executive Summary

Insert a 1-2 paragraph summary of current environmental threats, progress thus far in addressing threats, and priority actions identified in this plan.

Introduction

Purpose

Describe the purpose of this plan, the time period for the plan, and how it will help the community to address climate and environmental threats. Include information on how this plan will be the foundation for longer term planning in the future.

Need

Describe the level of threat and need to develop infrastructure protection plan. What is the total threat to community infrastructure and what is the expected timeline to impact? Include community ranking in the Statewide Threat Assessment.

Community Vision

If desired by the community, include any past vision statements that the community has drafted about addressing environmental threats.

Planning Team

Include the name, title, and affiliation of all people involved in the drafting of the plan.

Planning Process

Describe the planning process including participants, when and how the Tribal and City councils were involved, and when and how the plan was approved and adopted by community entities.

Intended Audience

Describe the intended audience of the plan, which likely includes state and federal agencies and community members. Consider inviting all agencies and organizations to contact the community regarding potential support for objectives in the plan.

Existing Conditions

Geographic Location

Include geographic location and a detailed description of the environment surrounding the community. Include multiple images including: aerial image to show community and layout of infrastructure, overview image to show the location of the community within the larger region or watershed, and a statewide image to identify the location of the community.

- Suggested sources: Geography from DCRA's Community Database Online at <https://dcra-cdo-dcced.opendata.arcgis.com/>; ShoreZone Imagery from <https://alaskafisheries.noaa.gov/mapping/sz/>, also National Marine Fisheries service Community Profiles for North Pacific Fisheries – Alaska at <https://apps-afsc.fisheries.noaa.gov/Publications/AFSC-TM/NOAA-TM-AFSC-259/NOAA-TM-AFSC-259-COMPLETE.pdf>.

History and Culture

Include history of settlement and development in the community using online resources and conversations with community members.

- Suggested sources: Community history and culture from DCRA Community Database Online at <https://dcra-cdo-dcced.opendata.arcgis.com/>.

Community Infrastructure

Summarize the community infrastructure. Include the number of homes, the type of water/sewer system, and other critical community infrastructure.

- Suggested sources: Community Profile Map at <https://dcced.maps.arcgis.com/apps/webappviewer/index.html?id=18fdb060875740fdad22099ca779d637> (Sheet 2 provides a Building Key with the location of critical community infrastructure); Local Hazard Mitigation Plan: the Risk Assessment Chapter contains a section on Existing Critical Infrastructure, at DCRA Community Plans Library at <https://www.commerce.alaska.gov/dcra/admin/PlanMgmt?menuLibraryTypeID=2>

Capacity, capability, and collaboration

Describe local capabilities (local expertise, local resources, equipment, revenues, etc.), capacity, and how community entities have worked together in the past. Include information on local knowledge and capacity outside of traditional staff roles. For example, is there someone in the community who is knowledgeable or has experience moving homes, repairing, foundations, etc.? Describe any established local planning groups or tri-organizations that meet regularly.

Threats to Infrastructure

Summary of Threats

Summarize the threat to infrastructure from erosion, flooding, and permafrost in about one paragraph. Consider including the following information in this section:

- Include community rankings in the statewide threat assessment and include specific group numbers and what they mean Source: <https://securereservercdn.net/198.71.233.52/02e.11d.myftpupload.com/wp-content/uploads/2019/11/Statewide-Threat-Assessment-Final-Report-20-November-2019.pdf>
- Include estimate from BIA cost estimating effort on expected mitigation cost. Information is saved in a spreadsheet, saved here: Z:\Funders\Denali Commission_DC\Grant Center for Environmentally Threatened Communities_Sept 2016\Administration\Spreadsheets. Contact the Center for Environmentally Threatened Communities at ANTHC if you would like access.
- Local hazard mitigation plan if there is one. Source: DCRA Community Plans Library at <https://www.commerce.alaska.gov/dcra/admin/PlanMgmt?menuLibraryTypeID=2>
- Describe how climate change has been incorporated in the understanding of threats, the development of strategies and solutions, etc.

- Consider describing that this is not a holistic climate change adaptation plan and does not include community and family-level adaptation actions to future environmental change, including food security and culture.
- Include SNAP charts (8.5 scenario graphics), accessible [here](#). Describe projected changes in temperature and precipitation for the community.

Erosion

Describe the erosion threat using any available data and maps accessible [here](#) and photos. This section includes a description of the erosion hazard, past efforts to mitigate erosion, and threatened infrastructure. See below for suggested sub-headers and examples.

Erosion Hazard

This section could include the following information:

- Describe the river/ocean in detail, the mechanism for erosion, and the erosion rate
- Include results from community-based monitoring
- Include Historical Shoreline Change Map
 - If not available, use other sources or community knowledge to estimate the erosion rate
- If the community has completed a Hazard Mitigation Plan, include a description of past erosion events. Source: DCRA Community Plans Library at <https://www.commerce.alaska.gov/dcra/admin/PlanMgmt?menuLibraryTypeID=2>
- If other erosion risk assessment methods have been completed (e.g. modeling) include the results [here](#)
- Include description of threatened infrastructure and include the following information:
 - Summarize the threat (number of structures, dollar value, timeline, etc.)
 - Include the DGGs map of the erosion exposure forecast. If not available, use erosion rate and/or community knowledge to create map of threatened infrastructure
 - Photos of threatened infrastructure

Past Efforts to Mitigate Erosion

Describe past efforts to mitigate threats from erosion. Include past damage to infrastructure due to erosion and information from studies, plans, projects, and relevant lessons learned. Include photos of past actions and events.

Flooding

Include brief description of overall flood threat and whether there has been any state or federally declared disasters. This section should include a summary of past flood events in the community, past efforts to mitigate flooding, and currently threatened infrastructure. Describe the flood threat using any available data and maps accessible [here](#) and photos. See below for suggested sub-headers and examples.

History of Flood Events

This section could include the following information:

- If the community has completed a Hazard Mitigation Plan, include a description of past flood events and/or disaster declarations in the community. Source: DCRA Community Plans Library at <https://www.commerce.alaska.gov/dcra/admin/PlanMgmt?menuLibraryTypeID=2>
- Include Historical Flood Map and/or results of additional modeling. Provide a brief description of what the map means and what infrastructure was determined to be vulnerable to flooding.

Past Efforts to Mitigate Flooding

Describe any past efforts to mitigate flooding or relocate/elevate homes to protect from flooding. Include past damage, studies, plans, projects, relevant lessons learned, etc. Include photos of past actions and events.

Permafrost Degradation

Describe the impact of permafrost degradation on community infrastructure and any efforts that have been undertaken to mitigate the threat. Describe threatened infrastructure. See below for suggested sub-headers and examples.

History of Permafrost Degradation

If the community has completed a Hazard Mitigation Plan, include a description of past permafrost degradation/ground failure events in the community. Source: DCRA Community Plans Library at <https://www.commerce.alaska.gov/dcra/admin/PlanMgmt?menuLibraryTypeID=2>

Current Conditions

This section should describe the permafrost conditions in the community using all available information. Include the information found in the [Statewide Threat Assessment Permafrost Report](#). If a permafrost assessment has been completed, include a summary of the results here.

Threatened Infrastructure

Identify what buildings and other infrastructure are impacted, severity of impact (e.g. differential settlement, danger of collapsing, etc.) and their location within the community. Consider including a map of threatened infrastructure if relevant.

Recommended Actions to Address Permafrost

Include any recommended mitigation actions from the permafrost assessment. If a permafrost assessment has not been completed, include recommendations from the Denali Commission Statewide Threat Assessment for site-specific data collection and analysis.

Past Actions to Mitigate Erosion, Flooding, and Permafrost Degradation

Funding

Include a summary of past applications and funding received to address environmental threats. Consider using this sample text: **Since [add date], we have submitted [x] funding applications to address environmental threats. We have received [\$x]. The table below summarizes awarded projects:**

Awarded Funding to Address Environmental Threats Since [ADD DATE]
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Funder	Status	Project Purpose	Cost	Project Manager

Near-Term Infrastructure Protection Strategy

Provide a 3-4 sentence summary of the infrastructure protection strategy, the major objectives, and the expected cost and timeline. Sample objectives are included below that can be adapted based on specific community needs.

Example: Our infrastructure protection strategy has four major components: address imminent threats, build community capacity, complete site-specific risk assessments, and develop and implement long-term solutions to address risk, and implement long-term solutions. Each of these objectives includes specific projects that need to be funded and implemented. Below, we summarize the major objectives and priority projects to advance those objectives.

Objective 1: Address Immediate Threats as Soon as Possible

Objective 2: Build Community Capacity to Address Environmental Threats

Objective 3: Complete Site-Specific Risk Assessments

Objective 4: Develop and Implement Long-Term Solutions to Address Risk

Objective 1: Address Immediate Threats as Soon as Possible

Describe imminent threats faced by the community, what classifies needs as imminent threats, next steps to address those threats, and what engineering information/assessments exist.

Example:

Address Immediate Threats as Soon as Possible				
Project	Status	Cost	Responsible Party	Next Steps
Develop a structure relocation plan that can be implemented locally to relocate the ten most threatened homes to a safe location within the community	Intend to Apply	TBD		Apply to funding to complete project
Relocate ten residential structures and to available sites within the community and	Intend to Apply	Approximately \$1,000,000		After structure relocation plan is complete; apply to funding to complete project

hookup homes to utilities.				
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Total Estimated Cost: \$

Objective 2: Build Community Capacity to Address Environmental Threats

Describe the current community capacity to address environmental threats. If there is a need to increase capacity, explain why.

Example:

Build Community Capacity to Address Environmental Threats				
Project	Status	Cost	Responsible Party	Next Steps
Fund a part-time Resilience Coordinator to coordinate all projects related to environmental threats	Intend to Apply	\$60,000 annually		Apply to the BIA Tribal Climate Resilience program for funding
Complete a competitive solicitation process to select an Indefinite Delivery Indefinite Quantity (IDIQ) contractor to act as a community partner to plan and implement mitigation solutions	Planned	Technical assistance will be provided at no-cost by ANTHC		Request technical assistance from ANTHC to complete competitive solicitation process

Total Estimated Cost: \$

Objective 3: Complete Site-Specific Risk Assessments

Include information on the importance of risk assessments and how they will enable the community to make decisions regarding mitigation strategies. Describe the status of future risk assessment projects.

Example:

Complete Site-Specific Risk Assessments				
Project	Status	Cost	Responsible Party	Next Steps
Update the Tribal Hazard Mitigation Plan ¹ to become	Future Project	TBD		Apply to the BIA Tribal Resilience program for

¹ Or coordinate with City to develop a Multi-Jurisdictional Hazard Mitigation Plan (this is preferred)

eligible for FEMA grants				funding
Complete a community-wide permafrost risk assessment to forecast impacts and develop solutions	Future Project	\$150,000		Apply to the BIA Tribal Resilience program for funding
Complete a near-term erosion assessment to develop solutions to imminent threats from erosion and flooding	Future Project	\$225,000		Apply to the BIA Tribal Resilience program for funding

Total Estimated Cost: \$

Objective 4: Develop and Implement Long-Term Solutions

Describe how data collection and risk assessments will enable the community to make planning decisions to protect community infrastructure in the long-term. Not all long-term mitigation projects will be identified at the time of drafting this plan. Consider including information about potential long-term mitigation solutions.

Example:

Develop and Implement Long-Term Solutions to Address Risk				
Project	Status	Cost	Responsible Party	Next Steps
Assess the technical feasibility, and benefits and costs of solutions (protection-in-place, managed retreat, or relocation)	Future Project	N/A		
Make decision to protect-in-place, retreat, or relocate (or combine approaches)	Future Project	N/A		
Organize first inter-agency meeting with relevant agencies to discuss the community's decision and needed resources	Future Project	N/A		
Identify and prioritize actions, resources and a timeline	Future Project	N/A		
Develop strategic actions and sequencing	Future Project	N/A		

of tasks				
Complete Long-Term Infrastructure Protection Plan, including draft review and final phases	Future Project	N/A		
Organize a second inter-agency meeting with relevant agencies to discuss the community's Long-Term Infrastructure Protection Plan and funding needed to implement it.	Future Project	N/A		
Secure funding for strategic actions and implement them	Future Project	N/A		

Roles and Responsibilities of Key Partners

List key partners and their roles and responsibilities related to planning and implementing the infrastructure protection strategy. This should include community entities and external supporting organizations.

Appendix

Include relevant plans, risk assessment products, and resolutions adopting the plan.

1. Project Charter
2. Tribal and City Resolutions
3. Community Photos

Infrastructure Protection Project Charter Template

Insert Community Name, Alaska

Overview

[Insert infrastructure protection strategy from plan]

Objective

This charter was created to outline the roles and responsibilities of partners working towards mitigation environmental threats to infrastructure in our community. Due to the complexity of implementing our infrastructure protection strategy, effective collaboration between all project partners is critical for success. This project charter authorizes the project partners listed below to coordinate and communicate with agencies and organizations on our community’s behalf with the goal of implementing our infrastructure protection strategy. No decisions or changes to the infrastructure protection strategy or projects will be made without the approval of our community representatives.

Project Partners, Roles, and Responsibilities

[Insert roles/responsibilities from plan]

Certification

We certify that the Infrastructure Protection Project Charter was approved and passed by the following parties.

[Insert Tribal President/First Chief Name and Title]

[Insert Date]

[Insert Mayor Name and Title]

[Insert Date]

[Insert Village Corporation Name and Title]

[Insert Date]