

C. Scope of Work and Schedule:

Task 1: 7/4/22-9/4/22

Retain Village Safe Water and/or the Alaska Native Tribal Health Consortium engineers to **review the original wastewater system designs and assess the capacity** and expected future capacity needed of the city's wastewater lagoon and collection system as it is currently being used. To be a delivered section in final feasibility report.

Task 2: 7/4/22-9/4/22

Retain Village Safe Water and/or the Alaska Native Tribal Health Consortium engineers to **assess the amount of sludge build-up** in the working lagoon and project length of useful service left. To be a delivered section in final feasibility report.

Task 3: 7/4/22-9/4/22

Retain Village Safe Water and/or the Alaska Native Tribal Health Consortium engineers to **assess the damaged lagoon and valves** and the procedures required to repair them. Using the ACOE baseline erosion assessment assess the actual and projected riverbank erosion and erosion repair or prevention measures need to protect the lagoons. To be a delivered section in final feasibility report.

Task 4: 7/4/22-9/4/22

Retain Village Safe Water and/or the Alaska Native Tribal Health Consortium engineers to **assess the FAA flight path regulations** and outline the options for the wastewater facility to meet them or find out if there is a process to receive a waiver. To be a delivered section in final feasibility report.

Task 5: 10/4/22-01/4/22

Retain Village Safe Water and/or the Alaska Native Tribal Health Consortium engineers to conduct the necessary research and field studies to establish a **25-year life of system options and cost benefit analysis report**. To be a delivered feasibility report to city manager on January 2024 and present the report to the Aniak community at the February 2024 City Council meeting. The feasibility study is intended to be used by the city as decision-making tool and planning document to secure funding for addition development (design and construction) of the selected alternatives. A separate design effort will be required to provide the detail necessary for permitting and construction of the selected improvements.

D. Organization, Capacity, and Delivery Method

The project will be contracted out. Prior to awarding a contract the City will verify that the contractors meet all Denali Commission eligibility requirements. ANTHC and the Village Safe Water Program have all necessary organizational capacity to perform or subcontract the

required studies for delivery in a timely manner. The City of Aniak administers numerous State and Federal programs that fund the municipal government, including Revenue Sharing PILT, RUBA wastewater system, DEC approved landfill, FEMA fire safety grants, and tribal library IMLS, PLA & OWL, and grant funding programs through CDBG, Alaska Energy Authority VEEP, and ARPA. The city finance officer and city manager are current on all required program management and procurement trainings, and the Aniak City procurement ordinances were updated in 2020 to reflect federal procurement requirements.

E. Partnerships and Leveraged Funds

It is possible that there may be additional project funding available in the future through ANTHC and/or VSW, but none is anticipated at the time of this grant submission.

F. Budget/Resources

Contractors Fees: Pending tentative cost estimates from ANTHC and VSW and using comparisons to other community feasibility studies involving similar issues, we estimate that the contract costs for the scope of work for the City of Aniak Wastewater Lagoon Relocation Feasibility Study requested will be:

Contractor costs: \$105,000.

indirect rate: \$1,050.

Totals costs: \$106,050

Although the feasibility study will be performed by contractors, the City of Aniak estimates that there will be sufficient city public works staff hours required to justify requesting the de-minimis indirect rate of 10 percent. There is no construction involved in this project and therefor no cost sharing is included.

G. Distressed and/Or Disadvantaged Communities

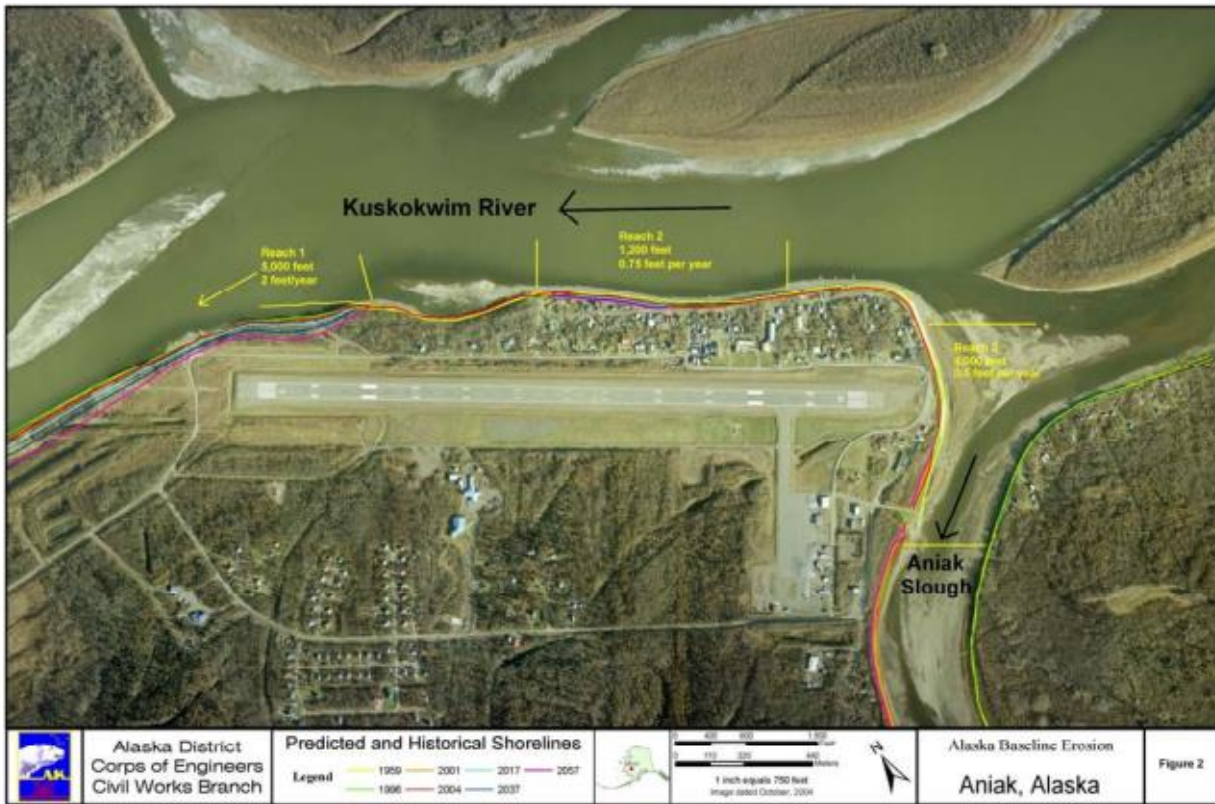
The City of Aniak is not a distressed community as defined in the Commission's 2021 Distressed Communities Report. The City of Aniak is a disadvantaged community using the Federal Council on Environmental Justice guidelines-based upon the EPA's calculation of a 99% energy burden; based upon the low median income ; based upon the lack of higher education enrollments; based upon the linguistic isolation statistics; and based upon the unemployment rates.

H. Environmentally Threatened Communities

The City of Aniak Is identified in the Commission's 2019 Statewide Threat Assessment as a Group 2. This is consistent with the ACOE ranking of Aniak as 46 of 115 on their combined threat risk map and consistent with the ACOE Alaska Baseline Erosion Assessments 2009 Aniak Community Erosion Assessment projections that the riverbank 300 feet from the sewer lagoon is eroding at a rate of 2 feet per year.

J. Appendix

#1



Summary

Over the 50-year period of analysis, it is estimated that Aniak will experience approximately \$10.5 million in damages due to erosion with a net present value of \$5.0 million and an average annual value of \$259,300. These values do not consider flood damages which will likely occur as the levee system around Aniak is compromised. Table 1 summarizes expected damages by category.

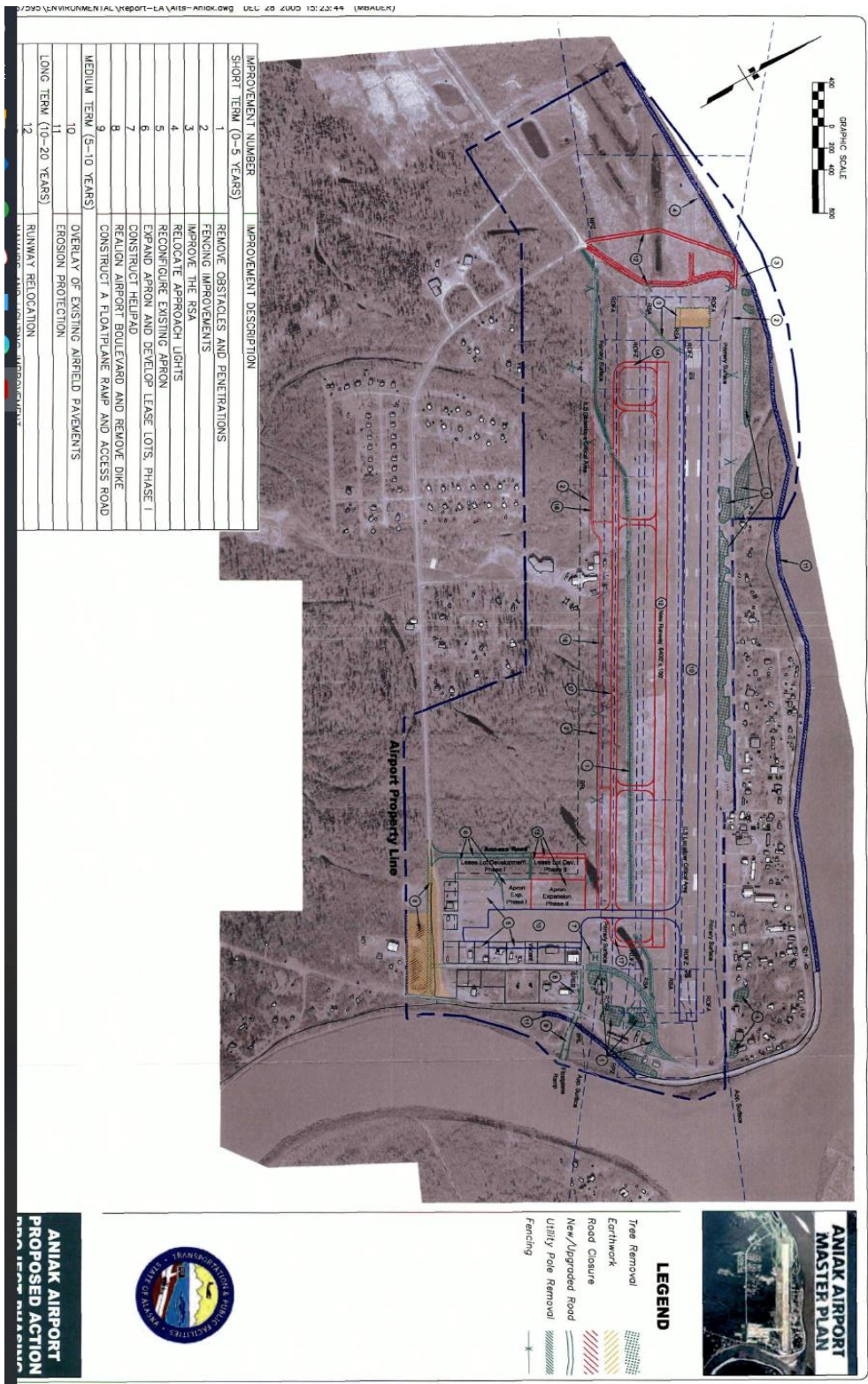
Table 1: Summary of Expected Damages by Damage Category.

Damage Category	Quantity	Time Span (Years)			Total Damages	Net Present Value	Annual Average Value
		0-10	11-30	31-50			
Land	26.81	\$ 58,000	\$ 105,000	\$ 105,000	\$ 268,000	\$ 107,000	\$ 5,500
Residential structures	4	1,000	253,000	1,000	255,000	146,000	7,500
Infrastructure ¹	--	1,613,000	225,000	610,000	2,448,000	1,772,000	91,500
Future maintenance	--	1,619,000	2,944,000	2,944,000	7,507,000	2,998,000	154,800
Total damages		\$3,291,000	\$3,527,000	\$3,660,000	\$10,478,000	\$5,023,000	\$259,300

¹ It is assumed that the State of Alaska will protect the FAA approach light as its loss could be damaging to Aniak and the surrounding communities.



#2 Aniak Sewer Lagoon



#4 DOT/PF Aniak Airport Property

Avoiding Maladaptations to Flooding and Erosion: A Case Study of Alaska Native Villages

E. Ristroph

Parent Category: Basic Needs

Category: Environment/Climate Change

Published: 19 August 2019

Hits: 1466

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Abstract

Excerpted From: E. Barrett Ristroph, *Avoiding Maladaptations to Flooding and Erosion: A Case Study of Alaska Native Villages*, 24 *Ocean and Coastal Law Journal* 110 (June 2019)(107 Footnotes) (Full Document)

D.U.Quark

Volume 4
Issue 1 *Fall 2019*

Article 10

12-23-2019

Environmental Justice Disparities in Alaska Native Communities

Elizabeth Kovacs

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Recommended Citation

Kovacs, E. (2019). Environmental Justice Disparities in Alaska Native Communities. *D.U.Quark*, 4 (1). Retrieved from <https://dsc.duq.edu/duquark/vol4/iss1/10>

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#5 Subject Matter Citations