CWA 401 Water Quality Certification - Modification

version 2.11

(Submission #: HQC-DGVD-K7NK8, version 1)

Details

Site: Barrow Coastal Erosion Protection

Submission ID HQC-DGVD-K7NK8

Form Input

Form Instructions

Form Instructions

Instructions for filling out the 401 Water Quality Certification Request - Modification Form are located on the Alaska DEC website at the link below.
401 Prefiling Meeting Request Form Instructions

Agents: For Delegation of Authority to act on behalf of the applicant in processing the application, use the following form, have signed, and upload with application.

- Delegation of Authority - 401 Application

Modification Reason

Permit Number
ER-22-01

Are you modifying any of the following things for this permit?
NONE PROVIDED

Modification Description or Section Changes

- If you have a quick description that explains your modification you can add it below.
- Please check any section boxes below if you've made any additional changes in those sections as well.

If changing contact details for anyone associated with the permit or application, please add a note in the Modification Description box below.

Modification Description
The original permit did not include the Browersville Reach of the Barrow Beach Revetment project.

Modified Sections
Permit Information
Contact Information

Instructions for filling out the 401 Certification Form are located on the Alaska DEC website at the link below.
401 Certification Form Instructions

Permit Information

Federal Permit License Number
ER 22-01

Contact Information (1 of 1)

Required Contacts

The following **Contact Roles are *REQUIRED***. Please select the appropriate role(s) for each contact and complete the contact details. Multiple role(s) may be assigned to each unique individual.

- **Applicant** (Responsible Party)
- **Billing Contact**

Edit the contact roles and details as needed. If the contact is no longer active, please remove all roles for the assigned person and indicate the contact is In-Active, and add a new contact with the appropriate roles versus writing over the previous one.

Contact Role(s)
Applicant
Billing Contact

Is this contact In-Active?
No

Contact

Prefix
NONE PROVIDED

First Name	Last Name
Matt	Ferguson

Title
Biologist

Organization Name
U.S. Army Corps of Engineers

Phone Type	Number	Extension
Business	907-753-2711	

Email
matthew.w.ferguson@usace.army.mil

Mailing Address

P.O. Box 6898
JBER, AK 99506
USA

Project / Facility Site Info

Identify the applicable federal license or permit

A copy of the federal permit or license application is required to be submitted with the request for the water quality certification. (18 AAC 15.130, 18 AAC 15.180)

Federal Agency
Army Corps of Engineers (USACE)

Permit License Number (ex. USACE: POA-XXXX-XXXX; FERC: FERC-xxxx-xxxx; EPA: AK#######)
ER 22-01

Project Name or Title
Barrow Coastal Erosion Protection

Primary Receiving Waterbody Name
Chukchi Sea

Estimated Project Dates (+/- 30 days)

Project Estimated Start Date	Project Estimated End/Completion Date
07/01/2025	07/31/2034

Approximate date(s) when any Discharge(s) may commence (+/- 30 days)

Description	Discharge Estimated Start Date	Discharge Estimated End Date
Armor rock	07/01/2025	07/31/2034
B rock	07/01/2025	07/31/2034
Core rock	07/01/2025	07/31/2034
Gravel	07/01/2025	07/31/2034
Sand	07/01/2025	07/31/2034

Project Description (Nature of Activity, include all features)
To address the risk of coastal erosion, the Corps will construct a rock revetment structure at the Bluff, Barrow, and Browersville reaches, a protective berm at the Lagoon reach, and would subsequently raise the elevation of Stevenson Street at the South and Middle Salt and NARL reaches. The Corps identified the resources under threat of coastal erosion or flooding along a contiguous five-mile section of the Barrow coastal shoreline and developed various methodologies of shoreline protection for these areas. Within this five-mile section, the Corps has designated six individual reaches for specific shoreline protection measures, from southwest to northeast they are designated the Bluff, Barrow, Lagoon, Browerville, South and Middle Salt, and Naval Arctic Research Lab (NARL) reaches. Approximately 23,200 CY of fill will be placed in the intertidal and subtidal zones of the northern Barrow reach. The material is comprised of 11,900 CY armor rock, 6,600 CY B rock, 2,300 CY Core Rock, and 2,400 CY Gravel into 1.5 acres of the Chukchi Sea. Up to 50,000 CY sand excavated for the toe of the Browersville Reach Revetment would be sidecast onto the beach seaward of the toe.

Project Purpose (Describe the reason(s) for discharge)
The purpose of the action is to reduce coastal erosion and the risk of flood damages in the vicinity of Barrow, Alaska

Is any portion of the work already complete?
No

Description of current activity site conditions
Barrow experiences frequent and severe coastal storms, resulting in flooding and erosion that threaten public health and safety, the economy of the community, over $1 billion of critical infrastructure, access to subsistence areas, and cultural and historical resources. Reducing the risk of this threat to life-sustaining infrastructure is crucial to the preservation of the community. Barrow is in an arctic environment with approximately 300 days a year below freezing. The NSB currently engages in construction of temporary beach berms by bulldozing up beach material into a berm supplemented with borrow materials from upland areas. These ongoing activities and associated costs would be replaced by this permanent project.

Relevant Site Data, Photographs that Represent Current Site Conditions, or other Relevant Documentation
AppendixBEnvironmentalAssessment.pdf - 05/07/2025 11:02 AM
BarrowAlaskaCoastFinalFeasibilityReportsigned.pdf - 05/07/2025 11:02 AM
Comment
NONE PROVIDED

Is this a linear project? (i.e., utility line, road, etc.)
No

Project Address
3220 Brower St
Utqiagvik, AK 99723

Visit the link below to help with conversion between DMS and Latitude/Longitude
DSM - Lat/Long converter

Project Location
71.29978425957893,-156.77027454376045

Visit the following link if you need to convert the lat/long to get the **PLSS information**

Converter for Section, Township, and Range

PLSS Location (Public Land Survey System)

State Tax Parcel ID	Borough/Municipality	Meridian	Section	Township	Range
NONE PROVIDED	North Slope Borough	Umiat	6	22 N	18 W

Directions to Site
NONE PROVIDED

Federal Agency Contact (1 of 1)

Have you been working with anyone in the Federal Agency?
No

Dredge Material to be Discharged

Is dredging involved?
No

Tier Analysis

A tier analysis is comprised of a layered approach to determine the need for testing the dredge material to aid in generating physical, chemical, toxicity and bioaccumulation information, but not more information than is necessary to make factual determinations.
The tier analysis is a series of tiers (I – IV) or levels of intensity (and cost) of investigation. It is necessary to proceed through the tiers only until information is sufficient to make factual determinations, no further testing is required.

- **Tier I - Site Evaluation and History**. The initial tier (Tier I) uses readily available, existing information (including all previous testing). For certain dredge materials with readily apparent potential for environmental impact (or lack thereof), information collected in Tier I may be sufficient for making factual determinations.
- **Tier II - Chemical Testing** is concerned solely with sediment and water chemistry.
- **Tier III - Biological Testing (bioassay and/or bioaccumulation testing)** is concerned with well-defined, nationally accepte toxicity and bioaccumulation testing procedures.
- **Tier IV - Special Studies** allows for case-specific laboratory and field testing, and is intended to for use in unusual circumstances.

For more information regarding a Tier analysis, see below references

- **EPA Inland Testing Manual**
- **USACE Seattle District Civil Works DMMP User Manual**

Fill Material to be Discharged

Will Fill Material be Discharged?
Yes

For fill material, identify the material source
Nome

Types of material being discharged and the amount of each type (cubic yards)

Type	Cubic Yards
Armor rock	23,000
B rock	6,600
Core rock	2,300
Gravel	2,400
Sand	50,000

Surface area in (acres or linear feet) of wetlands or other waters filled

Surface Area	Units
1.5	Acres

Discharge Location Information (1 of 1)

Identify the location and nature of any potential discharge that may result from the proposed project and the location of receiving waters

Discharge Location ID (001, 002, 003, - increment by one)
002

NOTE: if you have a receiving water that is Wetlands, just enter the generic term "Wetlands". Do not enter "Wetlands of Tanana River", for example.

Please select 'Other' if your waterbody is not in the list below.
You can start typing the name of the waterbody to filter the list.

Receiving Waterbody / Wetlands Name
Chukchi Sea

Discharge Location
71.29383585989139,-156.7901014327985

Other Pollutant Sources

Contaminated Site Information

Determine if your project is **within 1,500 feet** of a known Alaska DEC Contaminated Site. See the *Alaska DEC Contaminated Web Map* below. This will help you to identify if any potential pollutants/parameters of concern may be present on your project site., see DEC's website:

- Contaminated Sites Web Map
- Contaminated Sites Database Search website

Is the project within 1,500 feet of a known contaminated site?
Yes

Contaminated Sites

Hazard ID#	Contaminated Site Name	Contaminant Type	Latitude	Longitude	In soil or groundwater?	CS Staff Contact
26956	NOAA NWS Former Barrow Facility	POL	71.2894	-156.7887	Soil	Kelly Walker
26365	ASRC Barrow Sewage Pump Station 4	POL	71.2923	-156.7905	Soil	Jamie McKellar
1392	Barrow UIC Block 19	POL	71.2927	-156.7857	Soil	Nick Waldo
26555	NSB Barrow Public Works Shop II	POL	71.3032	-156.7578	Soil	Laura Jacobs
566	NARL - Naval Arctic Research Lab	POL	71.3249	-156.6791	Both	Kathleen Iler-Galau
28020	NARL - Building 554	*NONE PROVIDED*	71.3251	-156.6749	*NONE PROVIDED*	Kathleen Iler-Galau
27901	ANCSA - NARL Powerhouse	POL	71.3276	-156.6707	Soil	Lizzy Buckingham
27990	Former NARL - Building 140	POL	71.3285	-156.6715	Soil	Kathleen Iler-Galau
26855	NARL - Sitewide PFAS	PFAS	71.3343	-156.6526	Both	Kathleen Iler-Galau
557	NARL - Airstrip Fuel Spill	POL	71.3348	-156.6465	Both	Kathleen Iler-Galau
25761	Point Barrow POW-M Dewline Site Air Terminal Area (SS003)	POL	71.3341	-156.6431	Both	Kelly Walker
558	NARL - Bulk Fuel Tank Farm	POL	71.3421	-156.6096	Both	Kathleen Iler-Galau
3238	Barrow Elson Former Nike Facility NARL	POL	71.3438	-156.5951	Soil	Kathleen Iler-Galau

Describe the identified contaminated site(s) or groundwater plume within 1,500 feet
Several fuel spills along the 5 mile-long reach of the entire project, including some very large spill (700k gallons at 566). Most spills appear confined to soil, but some (including 566) have been detected in groundwater.

The NARL sitewide PFAS site includes soil, groundwater, and surface water drinking sources.

Parameters of Concern that may be present in discharge

Parameter(s) of Concern

Identify the parameters of concern that may be present in your discharge from the dredge and/or fill material.

Note, **TURBIDITY** and **SEDIMENT** are routine parameters associated with dredge and/or fill activities.

Consider if other parameters may be present from past activities in the area such as contamianted site data, impaired waters or other relevant water quality data, or other parameters of concern identified during the application process.

Parameter(s)
Sediment

If known, describe respective concentrations, persistence, and potential impacts to the receiving water and data on parameters that may alter the effects of the discharge to the receiving water
The new rock and gravel fill would be delivered from Nome and are not believed to be carriers of contaminants. The sand would be sidecast material discharged adjacent to the extraction site and is exempt from testing requirements due to adjacency, energy exposure, grain size, and distance from sources of contamination.

Impaired Waters

An ***impaired waterbody*** are those listed as a **Category 4 [304(b)] or Category 5 [303(d)]** in the current EPA approved *Alaska's Integrated Water Quality Monitoring and Assessment Report.*

For the most recently *Approved Integrated Water Quality Monitoring And Assessment Report (Integrated Report)*, see DEC's website:

- **Integrated Water Quality Monitoring And Assessment Report** https://dec.alaska.gov/water/water-quality/integrated-report

Does a discharge of any parameter identified above occur to an impaired waterbody?
No

If determined necessary and requested by the Department, submit sufficient and credible baseline water quality information for the receiving water which meets the requirements of 18 AAC 70.016(a)(6)(A-C).

Avoidance & Minimization BMPs and Mitigation Measures

Describe how impacts are being avoided and minimized on the project site. Include best management practices (BMPs) for sediment and erosion controls that will be implemented to minimize environmental impacts, and any methods and means proposed to monitor the discharge and the equipment or measures planned to treat, control, or manage the discharge.

Include a description of any methods and means proposed to monitor the discharge and the equipment or measures planned to treat, control, or manage the discharge
Fuel storage and handling activities for equipment must be sited and conducted so there is no petroleum contamination of the ground, subsurface, or surface waterbodies.

Construction equipment shall not be operated below the ordinary high-water mark if equipment is leaking fuel, oil, hydraulic fluid, or any other hazardous material. Equipment shall be inspected and recorded in a log daily for leaks. If leaks are found, the equipment shall not be used and pulled from service until the leak is repaired.

Avoidance Measures
Fill material (including dredge material) must be clean soil, sand, gravel or rock, free from petroleum products and toxic contaminants in toxic amounts.

Minimization Measures
All work areas, material access routes, and surrounding wetlands involved in the construction project shall be clearly delineated and marked in such a way that equipment operators do not operate outside of the marked areas.

Mitigation Measures
No mitigation is proposed.

Social / Economic Importance

Social or Economic Importance

(18 AAC 70.016(c)(5): Provide information that demonstrates the accommodation of important social or economic development. The applicant shall complete either a social OR economic importance analysis (or both) for each affected community in the area where the receiving water for the proposed discharge is located.

Social Importance Analysis
Infrastructure improvements
Public health or safety improvements
Community services provided
Cultural amenities

Economic Importance Analysis
Employment, job availability, and salary impacts
Commercial activities

Describe Social and/or Economic Importance of the project
Barrow is the political and economic hub of the North Slope Borough (NSB), providing important services to the communities in Northern Alaska.The Recommended Plan, Alternative H, would reduce the risk of storm damages to approximately 5 miles of coastline by using a combination of rock revetment at the bluff area, berm, and raising and revetting Stevenson Street. The coastline would be altered to some degree with the Recommended Plan. Sacrificial berms would no longer be necessary to reduce flooding and erosion risk to infrastructure and the community. There would be boat ramps and access points along the revetments to allow for boating and beach access for subsistence, recreational, and social activities.

Description of Social or Economic Importance, if needed
AppendixCBarrowEconAppendix11052019.pdf - 05/07/2025 11:54 AM
Comment
NONE PROVIDED

List of Other Permits or Certificates

*Would include but is not restricted to zoning, building, and flood plain permits.

Include a list of all other federal, interstate, tribal, state, territorial, or local agency authorizations required for the proposed project, including all approvals or denials already received.

Agency	Type of Approval*	Identification Number	Date Applied	Date Approved	Date Denied
NONE PROVIDED	*NONE PROVIDED*	*NONE PROVIDED*	*NONE PROVIDED*	*NONE PROVIDED*	*NONE PROVIDED*

Other Agency or Local Contacts (1 of 1)

Contact Role
OTHER_REG_CNTCT

Other Agency and or Local Contacts

First Name Mike
Last Name Rouse
Title
Supervisory biologist
Organization Name
USACE Civil Works

Phone Type	Number	Extension
Business	907 753-2743	

Email
michael.b.rouse@usace.army.mil

Attachments

Copy of Federal Application (USACE, EPA, or FERC, etc.)

ER-22-01 cert.pdf - 05/07/2025 11:59 AM

Comment

NONE PROVIDED

Figures and/or Drawings/Plan Sets. To include a map or diagram of the proposed activity site, including the proposed activity boundaries in relation to local streets, roads, and highways.

Barrow 404(b)(1) Analysis.pdf - 05/07/2025 11:59 AM

Comment

NONE PROVIDED

Document Attachments

NONE PROVIDED

Comment

NONE PROVIDED

Delegation of Authority for Submission of Application

NONE PROVIDED

Comment

NONE PROVIDED

As per 18 AAC 15.030 signing of applications, all permit or approval applications must be signed as follows:
1) in the case of corporations, by a principal executive officer of at least the level of vice president or his duly authorized representative, if the representative is responsible for the overall management of the project or operation;
2) in the case of a partnership, by a general partner;
3) in the case of a sole proprietorship, by the proprietor; and
4) in the case of a municipal, state, federal or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.
The project proponent hereby certifies that all information contained herein is true, accurate, and complete to the best of my knowledge and belief. The project proponent hereby requests that the certifying authority review and take action on this CWA 401 certification request within the applicable reasonable period of time.

Agreements and Signature(s)

As per 18 AAC 15.030 signing of applications, all permit or approval applications must be signed as follows:
1) in the case of corporations, by a principal executive officer of at least the level of vice president or his duly authorized representative, if the representative is responsible for the overall management of the project or operation;
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Signed By matthew.w.ferguson@usace.army.mil matthew.w.ferguson@usace.army.mil on 05/07/2025 at 11:59 AM