

CWA 401 Water Quality Certification - Modification

version 2.11

(Submission #: HQH-W4A3-AXPC4, version 1)

Digitally signed by:
dec.alaska.gov
Date: 2025.12.16 07:26:13 -09:00
Reason: Submission Data
Location: State of Alaska

Details

Site: Barrow Coastal Erosion Protection

Submission ID HQH-W4A3-AXPC4

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

Include entire Beach Revetment project rather than individual reaches

Modified Sections

Permit Information

Discharge Information

Permit Information

Federal Permit License Number
ER 22-01v2

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 If the contact is no longer active, please remove all roles for the assigned person and indicate the contact is In-Active, and add a new contact with the appropriate roles versus writing over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
[NO COUNTRY SPECIFIED]

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 300,000 CY sand excavated for the toe of the Barrow Beach 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

NONE PROVIDED
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

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 accepted 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 | 23,000.0 |
| B rock | 6,600.0 |
| Core rock | 2,300.0 |
| Gravel | 2,400.0 |
| Sand | 300,000.0 |

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

Chuchki 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 contaminated 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

No known contaminants. The placement of excavated sand on the beach may temporarily increase turbidity in the local area

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

NONE PROVIDED
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 Last Name
Mike 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.)

BarrowFONSIsigned.pdf - 12/15/2025 01:11 PM
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 - 12/15/2025 01:12 PM
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)

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 - 3) in the case of a sole proprietorship, by the proprietor; and*
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Signed
By Matthew Ferguson on 12/16/2025 at 7:24 AM