



US Army Corps  
of Engineers  
Alaska District

# Public Notice of Application for Permit

Regulatory Division (1145)  
CEPOA-RD  
Post Office Box 6898  
JBER, Alaska 99506-0898

**PUBLIC NOTICE DATE:** March 01, 2017

**EXPIRATION DATE:** April 01, 2017

**REFERENCE NUMBER:** POA-2016-00441

**WATERWAY:** Beaufort Sea

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Interested parties are hereby notified that a request for Department of the Army Permit POA-2016-441, has been received. The modification includes a requests to place fill materials into waters of the United States (US), as described below and shown on the enclosed project figures/drawings.

Comments on the described work, with the reference number (POA-2016-441), need to reach the US Army Corps of Engineers, Alaska District (USACE) office no later than the expiration date of this Public Notice to become part of the record and be considered in the decision. Please contact Mr. Steve Moore by e-mail message at [stephen.a.moore2@usace.army.mil](mailto:stephen.a.moore2@usace.army.mil), direct telephone line at 907-753-5713, toll free from within Alaska at 800-478-2712, or by fax at 907-753-5567 if you have questions or need further information concerning this public notice.

**APPLICANT:** BP Exploration (Alaska) Inc. (BPXA), P.O. Box 196612, Anchorage, AK 99519-6612. The applicant's contact person is Pauline Ruddy, Land Use Permitting and Compliance Advisor, e-mail address [Pauline.Ruddy@bp.com](mailto:Pauline.Ruddy@bp.com), direct telephone line 907-564-5328, and fax number 907-561-5111.

**PROJECT NAME:** West Dock Causeway (WDC) Erosion Control and Maintenance

**LOCATION:** The project is located at the existing West Dock Causeway, Latitude 70.38702, Longitude - 148.51575, Umiat Meridian, T12N, R14E, S11,14, and 23, in the Prudhoe Bay unit west of Deadhorse, Alaska.

**PURPOSE:** The applicant's stated purpose is to perform erosion control activities and necessary maintenance on the existing WDC in order to maintain the facility in a safe and operable condition as originally authorized under USACE permits.

**PROPOSED WORK:**

- Replenishing the beaches on the South, Middle and North Legs of WDC within the original footprint of WDC;
- Retrieving and replacing damaged gravel bags and installing new ones, as needed, within the original permitted footprint of WDC, along with repairing and replacing the filter fabric beneath the gravel bags as necessary;
- Installing a new gravel bag revetment to protect the south flank of Dockhead 2, based on future monitoring. This activity will impact 0.1 or fewer new acres of Waters of the US;
- Extending the revetment on the south side of DH3 to the Crowley facilities if warranted by erosion (within the previously permitted footprint in POA-1974-221 dated August 7, 2012);
- Placing fill (either dredged material or pit run gravel) on the seafloor adjacent to DH2 to fill scour holes (previously permitted in POA-1974-221-M15). During any given repair, this activity will impact no more than 0.75 acres of Waters of the US within the 3 acre permitted zone.
- Repairing and possibly relocating the six groins on the North Leg, including replacing damaged gravel bags and concrete elements, resetting existing concrete elements that have subsided or been displaced, and, if the ability to trap sediment can be improved, relocating any of the groins composed of concrete elements to alternate locations on the North Leg. This activity will not impact any additional area of Waters of the US.
- Replacing the anode system at the STP approximately every 5 years (permitted in NN19790293/Z-1974-0221).

The project is not expected to generate significant quantities of waste materials. Any waste that results from the erosion control activities will be disposed of in an approved manner at existing permitted facilities.

The foregoing scope of work does not constitute a substantive change from what has been undertaken in the past and what was previously authorized by the USACE under POA-1974-221-AA (and subsequent modifications and amendments). Additional information regarding specific activities is provided in the sections that follow.

### Beach Replenishment & Gravel Bag Repair/Replacement

Due to the age of the structures and the potential for additional storms to occur during the longer open-water seasons that now prevail in the Alaskan Beaufort Sea, BPXA has increased the estimates of the gravel and gravel bags that may be needed to maintain the causeway, groins, and revetments relative to those contained in Permit No. POA- 1974-0221-AA (September 30, 2007). Specifically, South Leg and DH2 were combined and the additional 1,000 CY permitted at DH2 is now contained in the typical and maximum gravel quantities permitted for South Leg, which have stayed the same as in the 2007 permit because the south leg experiences the least severe erosional forces on the WDC. The quantities at Middle Leg have also remained the same as permitted in the 2007 permit. The typical quantities at North Leg have doubled from 7,500 CY to 15,000 CY, which is largely a reflection of the longer open water seasons and greater chance for erosion. The maximum quantities for the east side of North Leg have increased from 15,000 CY to 20,000 CY; the maximum quantities on the west side of the North Leg have increased more substantially from 10,000 CY to 25,000 CY mainly due to an erosional area developing on the west side of North Leg. The maximum quantity of gravel to be placed on the STP Pad has been decreased from 5,000 CY to 3,000 CY, since the entire side slope of STP has been armored and will not require additional gravel unless the revetment is severely damaged by an extreme wave or ice event.

Gravel bags are typically not replaced annually, so the maximum gravel bag quantities have increased from a total of 1,325 gravel bags to 3,600 gravel bags at all facilities to accommodate repairs that remedy damage accumulated over multiple years. DH3 was added as a new facility in the table for a maximum of 200 gravel bags. As has occurred since 2004, all repair bags will be constructed of high-strength woven polyester that is negatively buoyant. BPXA will maintain an inventory of these bags to support emergency repairs.

All of the revetments constructed or repaired since 2005 contain "sacrificial bags" that overlie the primary armor bags at the waterline. These bags are intended to absorb ice and wave impacts, thereby protecting the primary armor against damage. When they become ruptured, they must be replaced to maintain their protective capacity. The frequency of replacement varies with the severity of the conditions to which they are exposed, but can be as often as every two to three years. To minimize the risk of damaged sacrificial bags entering the water column, the bags are tied together in a "daisy chain" at the time of installation.

As shown in Table 1, BPXA requests USACE approval to place a typical quantity of 25,000 cubic yards (cy) and a maximum quantity of 88,000 cy of gravel per year, and as shown in Table 2, to place a typical quantity of 200 gravel bags and a maximum quantity of 3,600 gravel bags per year within the permitted footprint of the WDC (both above and below the waterline) for the next 10 years. The intent of the gravel is to maintain the protective capacity of the sacrificial beaches, thereby protecting the roadway, dock heads, and other facilities from encroachment by the Beaufort Sea. The intent of the gravel bags is to maintain the protective capacity of the existing revetments and groins. No gravel or bags will be placed outside the existing (original) permitted footprint of the WDC.

<b>Table 1. West Dock Causeway Projected Annual Maintenance Estimated Gravel Quantities by Location</b>				
Facility	Side	Feature	Gravel (cy)	
			Typical	Maximum
South Leg & DH2	East	Sacrificial Beach	5,000	10,000
	West	Sacrificial Beach	0	10,000
Middle Leg	East	Sacrificial Beach	5,000	10,000
	West	Sacrificial Beach	0	10,000
North Leg	East	Sacrificial Beach	15,000	20,000
	West	Sacrificial Beach	0	25,000
STP Pad	All	Revetments	0	3,000
		<b>Total</b>	<b>25,000</b>	<b>88,000</b>
Note: It is highly unlikely that the maximum quantity will be required at all of the foregoing facilities in any given year.				

<b>Table 2. West Dock Causeway Projected Annual Maintenance Estimated Gravel Bag Quantities for Revetments and Groins</b>				
Facility	Side	Feature	4-cy Gravel Bags	
			Typical	Maximum
South Leg	West	Gravel Bag Revetment	0	400
DH2	-	Gravel Bag Revetment	0	500
Middle Leg	E & W	650-ft Breach Revetments	0	800
DH3	-	Gravel Bag Revetment	0	200
North Leg	East	Groin Nos. 5 and 6	0	500
STP Pad	E, N, W	Gravel Bag Revetments	200	1,200
		<b>Total Bags</b>	<b>200</b>	<b>3,600</b>
Notes: (1) It is highly unlikely that the maximum quantity will be required at all of the foregoing facilities in any given year.				
(2) Each bag requires 4 cy of gravel fill (maximum 14,400 cy/yr)				

## Beach Replenishment Material Sources and Use

It is anticipated that the gravel for beach replenishment will be derived from a combination of: 1) recycled dredge spoils obtained from DH2, DH3, and/or adjacent to the STP seawater intake; 2) recycled beach replenishment material that accumulates above ordinary high water (OHW) against the north side of the PM-2 Pad; and 3) permitted gravel sources. The recycled beach replenishment material is particularly advantageous, in that the fines already have been removed by prior exposure to waves. As a result, the material produces minimal turbidity when reintroduced into the water column.

Salty, fine-grained dredge spoils consisting of clay, sand and silt are not ideal for beach replenishment. In consequence, they are placed above OHW in areas where they can drain without producing significant turbidity. This approach eliminates the possibility of introducing salt into the onshore tundra environment while providing additional bulk to the causeway side slopes. During extreme storm events, when the above-water side slopes are subject to erosion, the incremental turbidity contributed by the fine-grain sediments is inconsequential relative to the background level generated by wave-induced agitation of the sea bottom.

In accordance with POA-1979-291-OO dated March 1, 2008 for dredging at WDC, prior to any dredging occurring at the WDC, BPXA will sample potential dredge material and test for contaminants and grain size. The number of samples shall be not less than three samples from each of the four areas (DH3 approach, DH3/2 passage, DH2 approach, and STP intake) at which dredging will be conducted. The samples will be tested for Benzene, Ethylbenzene, Toluene, Xylene (BETX), Gasoline Range Organics (GRO), Diesel Range Organics (DRO), Residual Range Organics (RRO), Total Organic Carbon (TOC), and Total Metals (As, Cd, Cu, Pb, Hg, Ni, Ag, Zn). Fine-grained sediments, those having more than 50% passing the No. 200 sieve (United Soil Classification System), will be screed by barge or hydraulic excavator bucket, rather than be dredged. If, however, dredging is determined to be necessary, the fine sediment will be dredged then stockpiled along the causeway road between DH3 and the staging area. The stockpile may drain for up to a couple of weeks until maintenance crews can then place it on the approved area(s) for dredge material placement within the original footprint (as shown in Figures 3 through 7 of this application)

No dredge material sampling results from 2003 through 2016 resulted in any samples above the most stringent of ADEC Method Two Migration to Groundwater Cleanup Levels (ADEC Table B1) or "Dredge Material Evaluation Framework, Lower Columbia River Management Area, November 1998, US Army Corp of Engineers" levels, except Arsenic which is thought to occur within background levels.

## New Revetment on South Flank of DH2

BPXA wishes to include the option of completely replacing rather than attempting to repair the gravel bag revetment on the south flank of DH2 (see Figure 4 of this application). Although the structure continues to assist in stabilizing the side slope of the dock, its protective capacity is compromised by the lack of a stable toe, blade damage from snow removal at the top of the slope, and outflanking by erosion at its southwest edge. Rather than repairing this flawed structure, BPXA wishes to wait until it no longer serves its intended purpose, and then to replace it with a properly- engineered gravel bag revetment that includes a substantial toe and stretches approximately twice as far to the southwest. The new toe would extend approximately 20 feet farther offshore than the existing revetment, producing an incremental encroachment into the Waters of the US of approximately 0.1 acres. Prior to installing the new revetment, fill would be placed in the erosional indentation that has occurred adjacent to the work surface (see Figure 4). A generalized cross-section of the replacement revetment is provided as Figure 10.

## Extending Revetment on South Flank of DH3

A new gravel bag revetment on the south flank of DH3 was constructed in stages between 2012 and 2014. The installation of the DH3 revetment was permitted under POA-1974-221 dated August 7, 2012. However, the construction of the revetment was not completed prior to the expiration of the authorization. BPXA requests to complete the construction of the revetment as originally permitted, extending south to the Crowley Marine Terminal. Accordingly, BPXA also requests coverage for maintenance of the existing revetment and this new structure in the form of replacing damaged gravel bags.

## Placement of Fill for Scour Holes at DH2

Scour holes are created off Dock head 2 by prop wash from tugs working in this area, particularly those that remain stationary while pushing barges against the dock to facilitate cargo unloading. A representative example is provided in Figures 8 and 9, which display a prominent scour hole that was documented by detailed bathymetric data obtained in 2014.

Filling the scour holes is necessary to create a level sea bottom that will support a barge when grounding becomes necessary to unload a large module or other heavy load. If the sea bottom is uneven, thereby causing portions of the barge to be unsupported, the barge is susceptible to structural failure that can preclude safe unloading of the cargo. For this reason, the area fronting the dock typically is screeded in advance of grounding the barge in an attempt to remove any peaks or valleys that would cause the barge to lose support. In the case of deep scour holes, however, screeding is inadequate, and fill must be added to ensure that the barge is properly supported by the sea bottom. The post-fill target elevation is that of the surrounding sea bottom, which tends to vary from -6.0 to -8.0 ft, MLLW Datum.

The 150' x 400' erosion control fill zone originally permitted in POA-1974-221-AA (Figure 4) corresponds to the southeastern portion of the region where tugs and barges operate at Dock head 2. However, as illustrated in Figure 4, vessels can dock and scour holes can form to the northwest of this region. In consequence, BPXA is proposing to increase the width of the area in which filling may occur, from the current value of 150 ft to 300 ft. Although this change will double the area in which fill may be placed (from approximately 1.5 to 3 acres), the area actually requiring fill at any given time will be considerably less than 3 acres. BPXA estimates that the filling of scour holes in a particular year will never encompass more than 25% of the total area in which this activity is permitted, or 0.75 acres. Therefore, the impact is less than the originally permitted 1.5 acres. BPXA states that the holes tend to form during each open-water season and that past experience has indicated that heavily-laden barges requiring leveling of the sea bottom typically arrive at intervals of several years.

Depending on the quantity of fill needed and the availability of dredge spoils from the dock face, either gravel from a permitted source (Put 23) or dredge spoils authorized under POA 1979-291-OO will be used to fill the scour holes. Such filling may utilize dredged material but will not be used for the sole purpose of disposing of dredged material, and will be undertaken only in those open-water seasons when heavily-laden barges are scheduled to arrive at Dock head 2.

#### Replacement, Repair and Relocation of Groins

Groin-related maintenance activities in the permit should include the replacement of damaged gravel bags, the replacement or repositioning of concrete units that have become worn or displaced, the repositioning of entire groins if their effectiveness can be increased, and the addition of gravel or dredge spoils as sacrificial material in conjunction with the foregoing repairs. With the exception of leveling the sea bottom in advance of replacing or repositioning concrete units, no disturbance of the sea bottom is anticipated in connection with the groin maintenance activities.

**ADDITIONAL INFORMATION:** Dredging activities from which dredge materials utilized in the maintenance of WDC are authorized through January 31, 2018 via DOA permit POA-1979-291-OO. The applicant expects to submit a request to extend that permit in the future. Impacts related to and associated with maintenance dredging activities will be evaluated at that time.

**APPLICANT PROPOSED MITIGATION:** The applicant has provided the following mitigation statement regarding efforts to avoid, minimize, and compensate for impacts to waters of the United States from activities involving discharges of dredged or fill material:

Avoidance - BPXA has reviewed options to avoid discharging gravel and gravel bags onto the West Dock Causeway. The causeway experiences erosion due to normal Beaufort Sea currents, storms, and ice movement. If gravel placement and erosion control isn't continued, the West Dock Causeway may erode to the point that it will no longer be operable.

**Minimization** – The increasing age of the bag revetments may increase the rate of degradation requiring a slightly higher rate of required gravel replenishment and gravel bag replacements in the next ten years. In addition, the ice pack has receded offshore which has increased swell heights resulting in higher erosion rates on exposed gravel beaches and increased degradation rate on bag revetments. These issues justify the slight increase in gravel and gravel bag quantities over the 2007-2017 permit. The proposed fill has been designed to use the absolute minimum amount of fill by placing gravel only within the existing permitted footprint. Therefore, this is the minimum impact while still meeting the need to repair and prevent erosion. Dredge spoils will be the primary fill material.

**Compensatory Mitigation** - BPXA has avoided and minimized, to the extent practicable, impacts to waters of the US at West Dock Causeway. No other alternative is available to meet the stated purpose for the project. Additionally, this work has been previously permitted and ongoing since BPXA retained operatorship in 2000. No new or increased impacts to the environment from these activities are anticipated. Therefore BPXA proposes that no compensatory mitigation be required for this project.

**WATER QUALITY CERTIFICATION**: A permit for the described work will not be issued until a certification or waiver of certification, as required under Section 401 of the Clean Water Act (Public Law 95-217), has been received from the Alaska Department of Environmental Conservation.

**CULTURAL RESOURCES**: The latest published version of the Alaska Heritage Resources Survey (AHRs) has been consulted for the presence or absence of historic properties, including those listed in or eligible for inclusion in the National Register of Historic Places. There are no listed or eligible properties in the vicinity of the worksite. Consultation of the AHRs constitutes the extent of cultural resource investigations by the District Commander at this time, and he is otherwise unaware of the presence of such resources. This application is being coordinated via this public notice with the State Historic Preservation Office (SHPO). Any comments SHPO may have concerning presently unknown archeological or historic data that may be lost or destroyed by work under the requested permit will be considered in our final assessment of the described work.

**ENDANGERED SPECIES**: The project area is within the known or historic range of the spectacled eider (*Somateria fischeri*), Steller's eider (*Polysticta stelleri*), and polar bear (*Ursus maritimus*). We have preliminarily determined the proposed modification may affect, but is not likely to adversely affect, the above species, including designated or proposed critical habitat, under the ESA of 1973 (87 Stat. 844). Any comments they may have concerning endangered or threatened wildlife or plants or their critical habitat will be considered in our final assessment of the described work.



**ESSENTIAL FISH HABITAT:** The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996, requires all Federal agencies to consult with the National Marine Fisheries Service (NMFS) on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). We are currently gathering information regarding and have yet to make a determination of effect. Should we find that the described activity may affect the species listed above, we will follow the appropriate course of action under Section 305(b)(2) of the Magnuson-Stevens Act. Any comments the National Marine Fisheries Service may have concerning essential fish habitat will be considered in our final assessment of the described work.

**TRIBAL CONSULTATION:** The Alaska District fully supports tribal self-governance and government-to-government relations between Federally recognized Tribes and the Federal government. Tribes with protected rights or resources that could be significantly affected by a proposed Federal action (e.g., a permit decision) have the right to consult with the Alaska District on a government-to-government basis. Views of each Tribe regarding protected rights and resources will be accorded due consideration in this process. This Public Notice serves as notification to the Tribes within the area potentially affected by the proposed work and invites their participation in the Federal decision-making process regarding the protected Tribal right or resource. Consultation may be initiated by the affected Tribe upon written request to the District Commander during the public comment period.

**PUBLIC HEARING:** Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, reasons for holding a public hearing.

**EVALUATION:** The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity and its intended use on the public interest. Evaluation of the probable impacts, which the proposed activity may have on the public interest, requires a careful weighing of all the factors that become relevant in each particular case. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. The outcome of the general balancing process would determine whether to authorize a proposal, and if so, the conditions under which it will be allowed to occur. The decision should reflect the national concern for both protection and utilization of important resources. All factors, which may be relevant to the proposal, must be considered including the cumulative effects thereof. Among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare

of the people. For activities involving 404 discharges, a permit will be denied if the discharge that would be authorized by such permit would not comply with the Environmental Protection Agency's 404(b)(1) guidelines. Subject to the preceding sentence and any other applicable guidelines or criteria (see Sections 320.2 and 320.3), a permit will be granted unless the District Commander determines that it would be contrary to the public interest.

The USACE is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be fully considered by the USACE to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments received will be used in the preparation of our decision document for the proposed action. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

**AUTHORITY:** This permit modification will be issued or denied under the following authorities:

1. Discharge dredged or fill material into waters of the United States – Section 404 Clean Water Act (33 U.S.C. 1344). Therefore, our public interest review will consider the guidelines set forth under Section 404(b) of the Clean Water Act (40 CFR 230).
2. Perform work in or affecting navigable waters of the United States – Section 10 Rivers and Harbors Act 1899 (33 U.S.C. 403).

District Commander  
U.S. Army, Corps of Engineers

# STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION DIVISION OF WATER

**401 Certification Program**

**Non-Point Source Water Pollution Control Program**

DEPARTMENT OF ENVIRONMENTAL CONSERVATION WQM/401 CERTIFICATION

555 CORDOVA STREET

ANCHORAGE, ALASKA 99501-2617

PHONE: (907) 269-7564/FAX: (907) 334-2415

## **NOTICE OF APPLICATION FOR STATE WATER QUALITY CERTIFICATION**

Any applicant for a federal license or permit to conduct an activity that might result in a discharge into navigable waters, in accordance with Section 401 of the Clean Water Act of 1977 (PL95-217), also must apply for and obtain certification from the Alaska Department of Environmental Conservation that the discharge will comply with the Clean Water Act, the Alaska Water Quality Standards, and other applicable State laws. By agreement between the U.S. Army Corps of Engineers and the Department of Environmental Conservation, application for a Department of the Army permit to discharge dredged or fill material into navigable waters under Section 404 of the Clean Water Act also may serve as application for State Water Quality Certification.

Notice is hereby given that the application for a Department of the Army Permit described in the Corps of Engineers' Public Notice Number **POA-2016-441, Beaufort Sea** serves as application for State Water Quality Certification from the Department of Environmental Conservation.

After reviewing the application, the Department may certify there is reasonable assurance the activity, and any discharge that might result, will comply with the Clean Water Act, the Alaska Water Quality Standards, and other applicable State laws. The Department also may deny or waive certification.

Any person desiring to comment on the project, with respect to Water Quality Certification, may submit written comments to the address above by the expiration date of the Corps of Engineer's Public Notice.