



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10**

1200 Sixth Avenue, Suite 900  
Seattle, WA 98101-3140

OFFICE OF  
WATER AND  
WATERSHEDS

## **RECORD OF DECISION**

### **LIBERTY DRILLING AND PRODUCTION ISLAND**

#### **1. DECISION TO BE MADE**

This document serves as the U.S. Environmental Protection Agency's (EPA's) Record of Decision to issue an individual new source National Pollutant Discharge Elimination System (NPDES) permit for the Liberty Drilling and Production Island (LDPI), which, in accordance with Section 511(c)(1) of the Clean Water Act (CWA), is subject to the provisions of the National Environmental Policy Act (NEPA).

The Bureau of Ocean Energy Management (BOEM) prepared and released its *Final Environmental Impact Statement for the Liberty Development Project* (FEIS) on August 31, 2018 (83 FR 44670). BOEM issued its Record of Decision on October 26, 2018 (83 FR 54136). The FEIS and BOEM's Record of Decision are available on BOEM's website at: <https://www.boem.gov/hilcorp-liberty/>

In accordance with NEPA Section 102, the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR parts 1500-1508), and the EPA's NEPA regulations at 40 CFR Part 6, the EPA has conducted an independent review and evaluation of BOEM's FEIS for the Liberty Development Project. As a cooperating agency with responsibility for the issuance of a NPDES permit for the LDPI, which will be located on the Outer Continental Shelf (OCS) and will discharge to federal waters of the Beaufort Sea, the EPA provided subject matter expertise to BOEM during the environmental review process. Based on its independent review and evaluation, the EPA has determined the FEIS, including all supporting documentation, as incorporated by reference, adequately assesses and discloses the environmental impacts associated with the issuance of a NPDES permit for the project. Pursuant to 40 CFR 1506.3, the EPA adopted the FEIS for the Liberty Development Project on October 12, 2018 (83 FR 51680). The Adoption Notice is attached as Appendix A.

#### **2. BACKGROUND**

Hilcorp Alaska, LLC (Hilcorp) proposes to produce oil from the Liberty Prospect (OCS Lease Y-1650, OCS-Y-1586, and OCS-Y-1886) located in Foggy Island Bay in the Beaufort Sea, northeast of the Prudhoe Bay Unit and east of the Duck Island Unit.

Hilcorp determined that the Liberty Prospect contains approximately 120 million barrels of recoverable crude oil. Hilcorp proposes to construct a gravel island approximately 5 miles north of the Kadleroshilik River and 7.3 miles southeast of the existing Endicott Satellite Drilling Island

(SDI) in approximately 19 feet of water. Sixteen wells would be drilled. Production facilities on the LDPI would include producing wells designed to produce up to 65,000 barrels of crude oil and 120 million standard cubic feet of natural gas per day. Oil produced from the island would be piped through a pipe-in-pipe (PIP) subsea pipeline consisting of a 12-inch diameter inner pipe and a 16-inch diameter outer pipe. Subsea pipe would run 5.6 miles then transition to an elevated 1.5-mile long onshore pipeline to a tie in with the existing onshore Badami oil pipeline. This infrastructure would transport sales-quality oil (hydrocarbons) to the TransAlaska Pipeline System. The life of the proposed Liberty Development Project is anticipated to be approximately 15-20 years.

A complete description of the Proposed Action can be found in Chapter 2 of the FEIS.

The Liberty prospect has been subject to several proposed project designs and NEPA reviews since its discovery over 30 years ago. In 2014 Hilcorp acquired part ownership and full operatorship of the Liberty prospect from BP Exploration, Alaska. Hilcorp submitted a Development and Production Plan (DPP) to BOEM on September 18, 2015 (and revisions on March 15, 2017). On September 25, 2015, BOEM published in the Federal Register a Notice of Intent to Prepare an Environmental Impact Statement to analyze the environmental effects of Hilcorp's proposed Liberty Development Project. In early 2016 the EPA requested cooperating agency status on the EIS, and on April 1, 2016, the BOEM and EPA signed a Memorandum of Understanding defining the roles and responsibilities of each agency throughout the NEPA and EIS process.

### **3. PROPOSED FEDERAL ACTION**

BOEM's proposed action is to approve of Hilcorp's DPP and thereby authorize the Liberty Development Project. The FEIS for the Liberty Development Project analyzes the potential environmental effects of approving the Liberty DPP.

The EPA's proposed action is the issuance of an individual new source NPDES permit for the discharge of requested waste streams associated with operations on the LDPI. The EPA does not have jurisdictional authority to approve or authorize any other aspect of the Liberty Development Project. The NPDES permit effluent limitations and conditions conform with the Offshore Subcategory of the Oil and Gas Extraction Point Source Category [40 CFR Part 435, Subpart A].

CWA Section 301(a) provides that the discharge of pollutants to surface waters of the United States is prohibited except in accordance with a NPDES permit. Section 402 of the Clean Water Act establishes the NPDES permit program, which provides the EPA and authorized states the authority to control and limit the discharge of pollutants into waters of the United States. Due to the location of the proposed project within federal waters on the OCS, offshore of Alaska, the EPA is the NPDES permitting authority. On July 19, 2016, Hilcorp submitted to the EPA a NPDES permit application requesting authorization to discharge wastewater from the LDPI to federal waters of the Beaufort Sea. Hilcorp submitted a revised NPDES permit application to the EPA on December 2, 2016.

Discharges to surface waters of the United States from oil and gas extraction facilities are regulated under the Oil and Gas Extraction Point Source Category [40 CFR Part 435, Subparts A-D], which was promulgated on April 13, 1979. Effluent limitation guidelines and new source performance standards for the Offshore Subcategory of the Oil and Gas Extraction Point Source Category were amended in 1993, 1996, and 2001. Offshore oil and gas extraction projects constructed after

promulgation of these new source performance standards are considered new sources under 40 CFR 122.29. The EPA has determined the LDPI to be a new source since construction will commence after the promulgation of the new source performance standards. In accordance with Section 511(c)(1) of the CWA and the EPA's regulations for implementing the procedural provisions of NEPA at 40 CFR Part 6, issuance of NPDES permits for new sources are considered major federal actions subject to NEPA review.

## **4. ALTERNATIVES**

The FEIS analyzed the potential environmental effects of five alternatives. For a complete description of each alternative refer to Chapter 2 of the FEIS.

### Alternative 1 (Proposed Action)

Under this alternative, BOEM would approve the proposed DPP and authorize Hilcorp to proceed with the Liberty Project as described in Chapter 2.1 of the FEIS. The Liberty Project would be a self-contained offshore drilling and production facility located on an artificial gravel island (LDPI) in federal water of the Beaufort Sea. Under the Proposed Action, the EPA would have NPDES permitting authority and would issue an individual new source NPDES permit for the following requested waste streams:

- Sanitary and domestic wastewater (Outfalls 001A)
- Potable water treatment reject (Outfall 001B)
- Seawater Treatment Plant (Outfall 002)
- Construction dewatering (Outfall 003)
- Secondary containment dewatering (Outfall 004)

For a complete description of Alternative 1 (Proposed Action) refer to Chapter 2 of the FEIS. Refer to the NPDES Permit and Fact Sheet for a complete description of the terms, conditions, and statutory and regulatory basis of the NPDES permit.

### Alternative 2 (No Action)

Under this Alternative, the Proposed Action would not be approved and the actions described in the Liberty DPP would not take place. No oil and gas resources would be extracted from the OCS, and none of the impacts or benefits that would be attributable to the Proposed Action would be realized. Implementation of this alternative would not require any regulatory authorizations or permits from any agency. Alternative 2 is the environmentally preferable alternative. Alternative 2 was not selected as it does not meet the purpose and need of the Proposed Action and is therefore not considered a reasonable alternative.

### Alternative 3 (Alternate LDPI Locations)

During scoping, BOEM received public comments suggesting the LDPI be relocated in order to avoid or reduce impacts to Boulder Patch communities. Based upon this input, BOEM requested that Hilcorp identify possible alternate island locations that maintain the technical feasibility of the project and either:

1. Minimize impacts to the Boulder Patch from turbidity and sedimentation associated with construction activities, and/or;
2. Move the LDPI and other project components as far from the densest areas of known Boulder Patch habitat as practicable.

Based on these public comments and responses from Hilcorp, BOEM developed two reasonable sub-alternatives.

Alternative 3A would relocate the LDPI to a site about one mile (1.6 km) to the east, which would result in the island about one mile further away from the densest areas of the Boulder Patch. Under Alternative 3A, the EPA would have NPDES permitting authority and would issue an individual new source NPDES permit for requested waste streams.

Alternative 3B places the LDPI approximately 1.5 miles (2.4 km) closer to shore into State of Alaska waters. This location is 1.5 miles further away from the densest areas of the Boulder Patch. Under Alternative 3B, EPA would not have NPDES permitting authority and would not issue an NPDES permit. Discharges would occur in State waters and the Alaska Department of Environmental Conservation (ADEC) would be the permitting authority and the discharges would be subject to an Alaska Pollutant Discharge Elimination System (APDES) permit.

For a complete comparison of the components of Alternatives 3A and 3B with the Proposed Action, refer to Section 2.2 and Tables 2.2.4-1 through 2.2.4-5 of the FEIS.

#### Alternative 4 (Alternate Processing Locations)

During scoping, BOEM received public comments suggesting onshore processing may minimize impacts to marine resources and subsistence harvest practices compared with on-island processing and its associated equipment noise and vibration. As a result, two sub-alternatives were developed for processing locations.

Alternative 4A would move oil and gas processing facilities from the LDPI to the Endicott Satellite Drilling Island facility, an existing oil and gas processing island located near the LDPI.

Alternative 4B would move oil and gas processing from the LDPI to a new onshore facility.

Under Alternative 4, certain discharges would be transported to the Endicott Satellite Drilling Island (Alternative 4A) or a new onshore production facility (Alternative 4B), both of which are located in, or would discharge to state waters. The EPA's permitting requirements under Alternative 4 would include providing NPDES permit coverage for the following waste streams discharged from the LDPI into federal waters:

- Sanitary and domestic wastewater (Outfalls 001A)
- Potable water treatment reject (Outfall 001B)
- Construction dewatering (Outfall 003)
- Secondary containment dewatering (Outfall 004)

All other waste streams would be discharged to state waters and would require APDES coverage from ADEC.

For a complete comparison of the components of Alternatives 4A and 4B with the Proposed Action, refer to Section 2.2 and Tables 2.2.7-1 through 2.2.7-5 of the FEIS.

### Alternative 5 (Alternate Gravel Sources)

During scoping, BOEM received public comments suggesting the EIS analyze an alternate location for the proposed West Kadleroshilik River Mine Site #1 to minimize impacts to migratory birds, wetlands, fish used for subsistence purposes, and other resources. BOEM conducted a thorough review of existing technical and survey information and identified three reasonable alternate locations. The EPA would have NPDES permitting authority and would issue an individual new source NPDES permit for requested waste streams under any Alternative 5 sub-alternative.

## **5. ENVIRONMENTAL FACTORS CONSIDERED**

Based upon comments received during scoping, the FEIS considers a wide-range of environmental factors. Several major environmental resource categories and numerous subcategories were considered in the FEIS, including:

- Accidental Oil Spills
- Physical Environment
  - Oil and Gas Geology
  - Water Quality
  - Air Quality
  - Climate Change
- Biological Environment
  - Lower Trophics
  - Fish
  - Birds
  - Marine Mammals
  - Terrestrial Mammals
  - Vegetation, Wetlands, and Substrate
- Sociocultural Systems
  - Economy
  - Subsistence Activities and Harvest
  - Community Health
  - Environmental Justice
  - Archaeological Resources

For a thorough and detailed description of the environmental factors considered, refer to Chapters 3 and 4 of the FEIS.

## **6. ENVIRONMENTAL IMPACTS**

The EPA has completed an independent review and evaluation of BOEM's FEIS in accordance with CEQ (40 CFR 1506.3(c)) and EPA NEPA regulations (40 CFR Part 6). The following summarizes the analysis in the FEIS and presents the results of the EPA's independent review and evaluation regarding the potential environmental impacts associated with the EPA's Proposed Action.

Operational wastes and discharges are discussed in detail in Chapter 2.1.9 of the FEIS and in the EPA's Ocean Discharge Criteria Evaluation (ODCE; US EPA, 2018). Permitted wastewater discharges include: sanitary and domestic wastewater (001A); potable water treatment reject wastewater (001B); seawater treatment plant wastewater (002); construction dewatering wastewater (003); and secondary containment dewatering wastewater (004). Under CWA Section 402, the EPA regulates point-source discharges of pollutants to waters of the U.S. through the NPDES program. Waste streams generated and discharged from offshore oil- and gas-related activities are considered point sources. The NPDES permit for the LDPI includes effluent limits, prohibitions, monitoring requirements, and best management practice plans, and notification requirements.

Section 403(c) of the CWA requires NPDES permits to comply with EPA's Ocean Discharge Criteria (40 CFR Part 125, Subpart M) for discharges into the territorial seas, the contiguous zones, and the oceans, including the OCS. The purpose of the ODCE is to assess the discharges authorized under the NPDES permit and evaluate the potential for unreasonable degradation of the marine environment based on the consideration of ten specific criteria. The ten criteria, found at 40 CFR Part 125.122, are as follows:

1. The quantities, composition and potential for bioaccumulation or persistence of the pollutants to be discharged;
2. The potential transport of such pollutants by biological, physical or chemical processes;
3. The composition and vulnerability of the biological communities which may be exposed to such pollutants, including the presence of unique species or communities of species, the presence of species identified as endangered or threatened pursuant to the Endangered Species Act, or the presence of those species critical to the structure or function of the ecosystem, such as those important for the food chain;
4. The importance of the receiving water area to the surrounding biological community, including the presence of spawning sites, nursery/forage areas, migratory pathways, or areas necessary for other functions or critical stages in the life cycle of an organism;
5. The existence of special aquatic sites including, but not limited to marine sanctuaries and refuges, parks, national and historic monuments, national seashores, wilderness areas and coral reefs;
6. The potential impacts on human health through direct and indirect pathways.
7. Existing or potential recreational and commercial fishing, including finfishing and shellfishing;
8. Any applicable requirements of an approved Coastal Zone Management plan;
9. Such other factors relating to the effects of the discharge as may be appropriate;
10. Marine water quality criteria developed pursuant to section 304(a)(1).

Unreasonable degradation of the marine environment is defined at 40 CFR 125.121(e):

*(1) significant adverse changes in ecosystem diversity, productivity, and stability of the biological community within the area of discharge and surrounding biological communities; (2) threat to human health through direct exposure to pollutants or through consumption of exposed aquatic organisms; (3) loss of aesthetic, recreational, scientific, or economic values, which is unreasonable in relation to the benefit derived from the discharge.*

The EPA's ODCE analysis for the LDPI concluded that the discharges would not cause unreasonable degradation of the marine environment (US EPA, 2018).

Chapter 4 of the FEIS also analyzes the environmental impacts associated with the permitted waste streams under the Proposed Action and alternatives. Impacts to water quality from permitted discharges related to the Proposed Action are expected to be **negligible to minor**. This conclusion takes into consideration the terms and conditions of the NPDES permit and the analysis and determinations within the ODCE, which concluded that there would be no unreasonable degradation of the marine environment because of NPDES permitted discharges. As such, assuming compliance with applicable regulations, the impacts from the authorized wastewater discharges from the LDPI would not have significant water quality impacts and would require no additional mitigation beyond the terms and conditions specified in the NPDES permit.

Impacts to other resources of the physical environment, biological environment, and sociocultural systems as a result of permitted discharges are expected to be **negligible**.

## 7. MITIGATION

To ensure protection of water quality and human health, the following impact minimization and mitigation measures have been incorporated in HAK's NPDES permit as terms and conditions:

- Develop and implement a Best Management Practices Plan to prevent or minimize the generation and the potential for the release of pollutants from the facility to surface waters.
- Maintain a Chemical Additives Inventory that ensures appropriate use of chemicals in the wastewater treatment systems and submit a report with the December Discharge Monitoring Report.
- Conduct Whole Effluent Toxicity testing on wastewater discharges from the potable water treatment system and the seawater treatment plant during periods when chemicals are used and when these waste streams are discharged to surface waters.
- No discharge of floating solids, garbage, debris, sludge, deposits, foam, scum, or other residues of any kind.
- No discharge of surfactants and dispersants.
- No discharge of oil and grease.
- No discharge any waste stream (including spills and other unintentional or non-routine discharges of pollutants), that are not part of the normal operation of the facility as disclosed in the permit application.
- Comply with the most stringent effluent limitations for a discharge if that discharge is commingled with other authorized waste streams. If any individual discharge is not authorized, then a commingled discharge is not authorized.
- Use phosphate-free and minimally toxic soaps and detergents for any purpose if domestic wastewater will be discharged to surface waters.

All practical means to avoid or minimize environmental harm resulting from permitted discharges will be adopted by HAK. Effluent and receiving water monitoring requirements have been included in the permit to ensure permitted discharges meet the terms and conditions of the permit and protect the receiving water from unreasonable degradation. For a complete discussion of impact



**APPENDIX A – EPA’S ADOPTION NOTICE**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10

1200 Sixth Avenue, Suite 155  
Seattle, WA 98101-3123

OFFICE OF  
WATER AND  
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*Sent via electronic mail*

OCT 2 2018

Matt Nowakowski  
U.S. Environmental Protection Agency  
Office of Federal Activities  
EIS Filing Section  
WJCS Building, Room 7220  
1200 Pennsylvania Avenue, NW  
Washington, D.C. 20004

Re: Adoption of the Bureau of Ocean Energy Management Final Environmental Impact Statement for the Hilcorp Liberty Development Project (CEQ No. 20180193)

Dear Mr. Nowakowski:

The U.S. Environmental Protection Agency has adopted the Bureau of Ocean and Energy Management (BOEM) Liberty Development Project Final Environmental Impact Statement (EIS). BOEM filed their Final EIS with the EPA on August 22, 2018, (82 FR 13338). The EPA was a cooperating agency on the project and recirculation of the document is not necessary under Section 1506.3(c) of the CEQ NEPA Regulations.

If you have any questions, please contact Erin Seyfried, the EPA Region 10 Liberty Development Project Manager, at [seyfried.erin@epa.gov](mailto:seyfried.erin@epa.gov) or (206) 553-1448, or Jamey Stoddard, the EPA Region 10 NEPA Compliance Coordinator, at [stoddard.jamey@epa.gov](mailto:stoddard.jamey@epa.gov) or 206-553-6110.

Sincerely,

A handwritten signature in blue ink, appearing to read "Daniel D. Opalski".

Daniel D. Opalski  
Director