MEMORANDUM FOR RECORD

SUBJECT: Department of the Army Combined Decision Document for Permit Application POA-1980-307-M5

This decision document constitutes the Environmental Assessment, 404(b)(1) Guidelines Evaluation, Public Interest Review, and Statement of Findings that informed the Corps decision on the permit application described below.

1.0 Application as described in public notice, dated February 6, 2015

1.1 Applicant:
ConocoPhillips Alaska, Inc
700 G St. ATO 1962
Anchorage, AK 99510-0360

1.2 Location and waterway: Ugnuravik River

1.2.1 Latitude: 70.313933° North Longitude: 149.629197° West

1.3 Existing conditions: The site currently consists of developed existing gravel mine to the north which consists of approximately 1.9 acres of the site. The rest of the 125 acre site consists of a large shallow lake in the center of the site which is approximately 60.8 acres and PEM wetlands which is approximately 62.2 acres, all of which is currently undisturbed.

1.3.1 Project History (if applicable): Mine Site C was originally permitted in 1980 under an Individual Permit (IP) for the placement of fill for the construction of two dikes, several artificial islands, and reclamation of previously mined land. The permit has been modified 4 times, and this IP will expand the original footprint of the mine 125 acres for continued gravel mining. Re-vegetation and rehabilitation has been required by the state DNR for reclamation throughout the history of the project, and the rehabilitation has been included in the original IP and subsequent permit modifications. The original IP had two special conditions; a minimum distance of 200 feet maintained between toe of overburden and Ugnuravik River, and vegetation shall be established on artificial islands. A permit modification in 1996 added the 1996 rehabilitation plan to the special conditions, and adding that if 20% goal for shallow habitat isn't reached, then alternatives would need to be created, and to identify when, where, and the minimum area that transplanting of aquatic plants would occur.

1.4 Project Description from Public Notice: Development of the new 125-acre mine cell will require dewatering the southern half of Pothole Lake (Lake M1204). The northern portion of Pothole Lake has already been developed by the existing mine site area. Extraction of gravel from Mine Site C is expected to continue for at least 20 years, and possibly longer, depending on future oil field development. To the extent feasible,
rehabilitation activities will occur during the operational life of the mine. For example, as overburden is removed, some of it will be placed along the northwest edge of the existing mine site to begin construction of a shallow wetland area. The remaining overburden will be stockpiled until it is needed for rehabilitation purposes. At mine closure, overburden material will be removed from a large stockpile at the nearby Kuparuk Industrial Center (KIC) pad and used in rehabilitation of the mine site.

Dewatering of Pothole Lake is expected to occur during the 2014–2015 winter season. An authorization to withdraw the ice/water has been issued by the Alaska Department of Natural Resources. The Alaska Department Fish & Game will not be requiring a Fish Habitat Permit for the Pothole Lake ice/water withdrawal.

This permit application is for proposed material extraction and mine site reclamation only. No discharges of fill material for specific construction fill projects will be considered or evaluated by USACE under this permit application. ConocoPhillips Alaska, Inc. (CPAI) has stated additional gravel fill material will be needed in future years for projects in the Kuparuk field for drill sites, staging, and storage pads. Routine maintenance of existing roads and pads will also require approximately 250,000 cubic yards of gravel each year.

CPAI proposes to minimize environmental impacts associated with opening new gravel mine projects by expanding Mine Site C. The North Slope Borough (NSB) has advised them development of a few large gravel mines is preferred to opening numerous small material sources. On this basis, no alternatives to the proposed project are currently being considered by the applicant.

The limited volume of gravel remaining in the existing Mine Site C footprint has been allocated for construction and/or maintenance at Sharktooth, 1H North East West Sak, KIC, and Kuparuk Construction Services (KCS) pads. Gravel is expected to be exhausted from the existing Mine Site C area in 2015. With additional field development, facilities in the KRU are anticipated to continue production for another 30-40 years.

A new material sales agreement will be negotiated with the State of Alaska for the purchase and removal of gravel from the 125-acre mine site expansion area.

1.5 Avoidance and minimization statement from applicant:

Avoidance: CPAI will avoid impacts to ‘high valued’ wetlands by maintaining at least a 200 foot buffer from the Ugnuravik River, and the shallow ponds to the south of the site. The North Slope primarily consists of wetlands and shallow ponds, therefore, there are no viable alternatives that will avoid impacts to waters of the US, including wetlands.

Minimization: The Mine Site C Expansion design was revised down from a surface area of 135 acres to 125 acres in order to minimize impacts to wetlands and maintain a buffer from the Ugnuravik River and a lake located immediately south of the expansion.
zone. Impacts will also be minimized due to rehabilitation to the current mine site and the proposed mine site. Best management practices will also be used to minimize impacts to waters of the United States and fish and wildlife.

1.6 Compensatory mitigation proposal from applicant: CPAI originally proposed to use in-lieu fees through the conservation fund for compensatory mitigation. However, in early 2015 the conservation fund stopped accepting applications for compensatory mitigation within the North Slope. CPAI proposed that permittee-responsible mitigation would be used if the USACE determines that avoidance and minimization isn't enough to mitigate unavoidable impacts to wetlands.

1.7 Project Changes Subsequent to Public Notice: CPAI proposed to use in-lieu fees as a means of compensatory mitigation in the Public Notice, however, after the release of the Public Notice the Conservation Fund (the only in-lieu fee provider that has service on the North Slope) stopped accepting payments for mitigation on the North Slope. The alternative CPAI proposed in the Public Notice if there was no in-lieu fee available was to use permittee-responsible compensatory mitigation. However, the state of Alaska is the land owner of Mine Site C, and the state was not interested in creating a protection instrument which is required for compensatory mitigation. There were no other permittee-responsible mitigation options within the North Slope that CPAI also held the land rights to, and therefore, permittee-responsible mitigation was not practicable.

Since the Public Notice CPAI has proposed an avoidance and minimization plan. The minimization plan would incorporate the same components of the permittee-responsible mitigation without the use of a protection instrument. The proposed avoidance and minimization mitigation plan is attached.

1.8 Purpose and need

1.8.1 Project purpose and need as described by applicant: The gravel within the existing mine site is expected to be depleted as early as 2015. At least 793,000 cubic yards, which represents essentially all the remaining material, has been committed to current projects. These include the Drill Site 2S (formerly Shark Tooth) development project (220,000 cubic yards), Drill Site 1H in the Northeast West Sak (NEWS) development area (100,000 cubic yards), the Kuparuk Industrial Center (KIC) pad expansion (385,000 cubic yards), the Kuparuk Construction Services (KCS) pad expansion (80,000 cubic yards), and access roads for the Kuparuk Landing Area (KLA) runway lights (8,770 cubic yards).

To accommodate any additional projects in the Kuparuk field, more gravel will be needed in the near future for construction of any new development projects (e.g., drill sites), as well as staging and storage pads. In addition, routine maintenance of existing
roads and pads requires approximately 250,000 cubic yards of gravel each year. An additional source of material is needed to meet these requirements. CPAI prefers to minimize the environmental impacts associated with new projects by expanding Mine Site C rather than developing one or more new gravel mines. The North Slope Borough (NSB) has advised that development of a few large gravel mines is preferred rather than opening numerous small material sources. On this basis, no alternatives to the proposed project are currently being considered.

CPAI is the holder of an existing material sales agreement with the State of Alaska (ADL 419337) for the purchase of the fill material from the existing footprint of Mine Site C. A new material sales agreement will be negotiated with the State of Alaska for the purchase and removal of gravel from the expansion zone.

1.8.2 Basic project purpose: The basic project purpose is for the extraction of gravel.

1.8.3 Water dependency determination: The proposed project is not water dependent.

1.8.4 Overall project purpose: The overall project purpose is to extract gravel for the development of oil and gas project in the North Slope, Alaska, and to rehabilitate the existing Mine Site C.

2.0 Authority

2.1 Section 404 of the Clean Water Act (33 U.S.C. Section 1344).

2.2 Does the project also require authorization under Section 14 of the Rivers and Harbors Act (33 U.S.C. 408)? No

2.3 Jurisdictional determination information: The project site would be located within 123.1 acres of waters of the US. See associated Jurisdictional Determination.

3.0 Scope of Analysis
The scope identified in sections 3.1 – 3.3 to ensure compliance with NEPA, ESA and NHPA Section 106 is based on the final proposed project.

3.1 National Environmental Policy Act (NEPA):
Scope determination for NEPA review is found at 33 CFR 325, Appendix B, Paragraph 7.b. The following factors are considered in determining whether sufficient federal “control and responsibility” exists:
(1) Whether or not the regulated activity comprises "merely a link" in a corridor type project.
- The regulated activity does not comprise "merely a link" in a corridor type project.
(2) Whether there are aspects of the upland facility in the immediate vicinity of the regulated activity which affect the location and configuration of the regulated activity.
- There are no uplands in the vicinity of the regulated activity besides access roads.
(3) The extent to which the entire project will be within the Corps jurisdiction.
- The entire project will be within the Corps jurisdiction.
(4) The extent of cumulative federal control and responsibility.
- The entire project will be within the Corps' federal control and responsibility.

3.1.2 Determination of scope. Based on an examination of NEPA (33 CFR Part 325, Appendix B) and applicable program guidance (e.g. Council on Environmental Quality's (CEQ) Considering Cumulative Effects Under National Environmental Policy Act and the Standard Operating Procedures for the U.S. Army Corps of Engineers Regulatory Program, July 2009), we have determined that the appropriate scope for this project is: Over the entire property.

Explanation: The entire area of the proposed action are under Department of the Army regulatory jurisdiction, and therefore under Department of the Army federal control and responsibility.

3.2 National Historic Preservation Act (NHPA) "Permit Area":
The NHPA scope is defined as "permit area". The permit area for an undertaking is defined in 33 CFR 325, Appendix C. The following three (3) tests must all be satisfied for an activity undertaken outside of waters of the United States to be included within the "permit area".

3.2.1 Tests (check all that apply):

☑ a. The activity outside of waters of the United States would not occur but for the authorization of the work or structures within waters of the United States.

☑ b. The activity outside waters of the United States is integrally related to the proposed work or structures within waters of the United States (or, conversely, the proposed work or structures within waters of the United States must be essential to the completeness of the overall project or program).
The activity outside waters of the United States is directly associated (first order impact) with the proposed work or structures within waters of the United States.

3.2.2 Scope Determination: Activities outside waters of the United States are included because all of the above tests apply to this project.

3.2.3 NH PSA Scope Summary and Description: The NH PSA scope will be all ground disturbing activities within the entire 125 acres of mine site C expansion.

3.3 Endangered Species Act (ESA) "Action Area":
The ESA scope is defined as “action area”. The action area means all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action; and, is an undertaking as defined in 50 CFR 402.02, Definitions.

3.3.1 Determined Scope: The entire site, which includes the 176 acres of the existing mine site, and the 125 proposed acres for the mine site expansion.

4.0 Public Involvement (Public Notice required by 33 CFR 325.3):

4.1 Public Notice Information:
Application Received: 1 August 2014
Application Complete: 5 February 2015
Date Public Notice Issued: 6 February 2015
End Date for Public Notice Comment Period: 9 March 2015
Additional Information: N/A

4.2 Public Meeting(s): No
Discussion/Explanation: NA

4.3 Public Notice Comments:

a. Comments Received From: U.S. Environmental Protection Agency (EPA)
   Date Received: 9 March 2015
   Comment/Issue: EPA suggested that the permit be issued for only 5 years which would allow for mining and rehabilitation of small cells within the site. EPA suggested to use a phasing plan including a map showing cells to be mined and the planned sequence of mining, the size of each cell, the timing for each cell, rehabilitation plan for each cell, berms buffers or other best management practices intended to prevent thermokarsting, erosion, and draining of adjacent wetlands. They also recommended to use live sod removal techniques. There was also a recommendation to change the proposed mitigation ratios to 3:1 for PEM1/SS1E, PEM1F, PEM1H, R2EME, PEM1T, and PUBH wetlands, a 2.25:1 ratio for PEM1/SS1B, PSS1C, L1UBH, and R2UBH wetlands, and a 1.5:1 ratio for PUSR wetlands. Furthermore, EPA suggested that
indirect impacts be determined as 300 feet from gravel infrastructure and the compensation of 10% of the ratios for direct impacts.

b. Comments Received From: U.S. Fish and Wildlife Service (USFWS)
   Date Received: 9 March 2015
   Comment/Issue: To avoid disturbance to nesting birds, filling of wetlands, major excavation, and high-noise activities shall only occur between August 1 and May 31. No fill or construction materials be stockpiled in wetlands outside the project boundary. Change the proposed mitigation ratios to 3:1 for PEM1/SS1E, PEM1F, PEM1H, R2EME, PEM1T, and PUBH wetlands, a 2.25:1 ratio for PEM1/SS1B, PSS1C, L1UBH, and R2UBH wetlands, and a 1.5:1 ratio for PUSR wetlands.

c. Comments Received From: Alaska Department of Fish and Game (ADF&G)
   Date Received: 9 February 2015
   Comment/Issue: Need for creek elevation data and KOC water elevation data. Need for connection point to the creek. That the Kuparuk Airport is within 1/2 mile of the site, which could cause safety hazards for aircraft if waterfowl habitat is created. A 5:1 slope be used for the formation of a pond instead of 3:1 to allow for slumping.

4.4 Corps acknowledgment of comments:
EPA: The Corp concurs with the proposed life of the mine site proposed by the applicant. The Corp has determined that the mitigation ratios proposed by the applicant would appropriately mitigate for temporary losses of aquatic resources. The Corp concurs with the EPA that a final mitigation plan is needed that identifies the proposed phases, size of each cell, timing, rehabilitation, and include maps and diagrams that contains proposed berms and buffers.

USFWS: The Corp concurs with the FWS on the timing window, and the applicant has agreed to this condition. The Corp concurs that no fill or construction materials should be stockpiled in wetlands outside the project boundary, and the applicant has agreed to this condition. The Corp concurs with the proposed life of the mine site proposed by the applicant.

ADF&G: Creek and KOC elevation data has been provided by the applicant. The applicant has proposed to have the connection point to the creek at the existing mine site, because it is closer to the creek than the expansion. The applicant has agreed to not fill the rehabilitated mine site with water until the Kuparuk Airport is out of commission. The Corp concurs with the applicant's proposed 3:1 ratio for the formation of a pond because of the limited amount of overburden material, and the Corp would rather have the 10:1 ratio for the nesting islands for bird habitat.

4.5 Issues Identified by the Corps: The issue identified by the Corps are the need for a final mitigation plan. The final mitigation plan was received August 12, 2015.
4.6 Comments/Issues Forwarded to Applicant: Yes
Date Comments Forwarded: 9 February 2015

4.7 Applicant provided response to comments: Yes
Summary of response: CPAl argues that developing mining operations in small cells would be more environmentally damaging due to 1) substantially more ground surface area dedicated to side slopes of multiple cells rather than a single large excavated cell; 2) the substantial area required to provide horizontal separation berms between adjacent cells to prevent hydrologic communication between cells and personnel safety; 3) adjacent separation berms may inhibit mine excavation depth requiring additional surface area to produce an equivalent amount of gravel material; and 4) more material must remain in place to provide equipment access ramps to each cell floor. Furthermore, CPAl argues that rehabilitation in cells would be a safety hazard to air travel due to the close proximity of Mine Site C to the Kuparuk airstrip, and the waterfowl habitat that would be created by the rehabilitation plan. CPAl proposes to start creating waterfowl habitat once the Kuparuk airstrip is no longer in use. CPAl also disagrees with the mitigation ratios proposed by the FWS and EPA. CPAl argues that the mitigation ratios proposed by FWS and EPA were ratios used for a project conducted in an area that has not been disturbed, and that Mine Site C has been disturbed, and that for similar projects the Corp of Engineers has used the mitigation ratios proposed by CPAl.
See attached comment and response document for complete comments.

4.8 Corps Purview – The following comments are not discussed further in this document as they are outside the Corps purview: NA

4.9 Additional information (optional): The project was put on hold due to a lack of a mitigation plan on May 13, 2015 and reopened on July 16, 2015 with the proposed mitigation plan of minimization of impacts to the existing mine site and the expanded mine site. CPAl will minimize impacts for the mine site by rehabilitating the land. The rehabilitation would not restore the site to its pre-mining conditions, but would create a diversity of fish and wildlife habitat including, shallow littoral areas, deep-water habitat, islands within the shallow littoral areas, and palustrine emergent wetlands. CPAl has a set a goal of having 20 percent of the rehabilitation area being littoral zones. CPAl has proposed alternative methods for creating littoral zones if the overburden from the mining operations doesn't provide enough material to satisfy the 20 percent littoral zones goal.

4.10 Public Hearing Request – (33 CFR 327) Requests for a public hearing shall be granted unless the district engineer determines that the issues raised within the request(s) for a public hearing are insubstantial or there is otherwise no valid interest to be served by the hearing. The district engineer will make such a determination in writing, and communicate his reasons to all requesting parties.
Alternatives Analysis – (40 CFR 230.10, HQ Regulatory SOP July 2009, RGL 93-2, RGL 84-09) If the project is sited in a special aquatic site (such as a wetland), and if the project does not need to be in or near the special aquatic site to fulfill its basic purpose (i.e., the project is not "water-dependent"), it is presumed that there are practicable alternatives that do not involve special aquatic sites. To overcome this presumption, the applicant must clearly demonstrate to the Corps that practicable alternatives are not available. If the presumption is not overcome, the Corps must deny the permit application. If the project is not sited in a special aquatic site and/or is water-dependent, the applicant is not required to overcome the presumption that upland alternatives are available. However, the Corps must still address whether there are any upland alternatives (or alternatives with less impact), and if any are identified, the applicant must clearly demonstrate that they are not feasible. If such a demonstration cannot be made, the Corps must deny the permit application. The Corps performed an evaluation of alternatives, as described below:

Overall Project Purpose (as independently defined by Corps): The overall project purpose is the same as the Corps determined overall project purpose (reference Section 1.8.4).

No Action Alternative (No action is defined as permit denial or alternative without impacts to waters of the United States): The no action alternative would result in denial of the DA permit application. There are no practicable alternatives that would not impact Waters of the United States. If the permit were to be denied the waters of the US would not be impacted at this site. However, this alternative would not allow for gravel extraction. Gravel extraction is necessary for oil and gas production activity within the North Slope, including routine maintenance of roads and gravel pads, which is a human safety concern.

Off-site locations and configurations: Based on our analysis, no practicable off-site locations and configurations were identified that would have less environmental impacts than the proposed location and configuration.

On-site configurations: The on-site configuration is limited by the Ugnuravik River to the west, a shallow lake to the south, and development to the east. The applicant has avoided the Ugnuravik River to the west and the shallow lake to the south, which with appropriate buffers has avoided impacts to anadromous fish habitat. Therefore, the proposed configuration has the least impact on the environment. Also, the Corp has determined that a few large material sources are environmentally preferred to opening numerous small material sources.
5.5 Practicable Alternatives carried forward: There are no other practicable alternatives that would have less impact on the environment.


6.1 Technical Evaluation Factors. (Subparts C-F)

In making our findings on compliance with the Section 404(b)(1) guidelines, we have considered the potential impacts of the project on the physical, chemical and biological characteristics of the aquatic ecosystem. These characteristics are listed in Subparts C-F of the guidelines, 40 CFR Part 230.20 - 230.54. The characteristics include substrate, suspended particulates/turbidity, water, current patterns and water circulation, normal water fluctuations, salinity gradients, threatened and endangered species, fish, crustaceans, mollusks, and other aquatic organisms in the food web, other wildlife, sanctuaries and refuges, wetlands, mud flats, vegetated shallows, riffle and pool complexes, municipal and private water supplies, recreational and commercial fisheries, water-related recreation, aesthetics, parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar preserves.

6.2 Evaluation and testing (Subpart G)

6.2.1 General evaluation of dredged or fill material.
The discharge site is adjacent to the extraction site and subject to the same sources of contaminants, and the materials at the two sites are substantially similar.

This evaluation indicates that the proposed discharge material meets the testing exclusion criteria for the reason cited below.

Exclusion: The dredged and/or fill material will be extracted and discharged at the same location. The site location is an undisturbed area with no known sources of potential contamination, therefore the Corp has determined that it is not likely that contaminants are in the dredged and/or fill material.

6.2.2 Chemical, biological, and physical evaluation and testing
Not required.

6.3 Factual Determinations (Subpart B, section 230.11)

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<th>Physical Substrate:</th>
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<td>Reference Existing Conditions, Paragraph 1.3</td>
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| Water circulation, fluctuation, and salinity: |
Addressed in the Water Quality Certification

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<tr>
<th>Suspended particulate/turbidity:</th>
<th>Addressed by turbidity controls in Water Quality Certification</th>
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<tbody>
<tr>
<td>Contaminant availability:</td>
<td>General Condition requires clean fill</td>
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Aquatic ecosystem and organism:
A total of 18 wildlife habitat types were delineated in the Mine Site C Expansion Project Area. Nearly half of the total area was occupied by the 2 dominant types; Moist Sedge-Shrub Meadow (18.9%) and Moist Tussock Tundra (25.1%) (Table 3-2, Figure 3-1). The only other habitat types comprising more than 5% of the project area were Old Basin Wetland Complex (8.7%), Patterned Wet Meadow (8.2%) and Human Modified (7.2%). Shallow Open Water and Deep Open Water habitats occupied 7.7% and 8.7% of the project area, respectively.

ADFG conducted a seine net survey of fish in the shallow lake, which is referred to as M1204 in the rehabilitation plan. The survey didn’t catch any fish, however, 2 ninespine stickleback were visually spotted during the survey.

Proposed disposal site:
Reference the public interest review, Section 7

Cumulative effects on the aquatic ecosystem.
Reference Section 8.

Secondary effects on the aquatic ecosystem:
Reference Section 8.

6.4 Restrictions on Discharges (Subpart B, section 230.10)

| There is no practicable alternative that is less damaging to the aquatic ecosystem, unless that alternative has other significant adverse environmental consequences. | True |
The applicant has overcome the presumption that a practicable, less environmentally damaging alternative site, outside special aquatic sites, exists. If the project is water dependent, OR is not in a special aquatic site, enter only NA.

| The discharge will not violate state water quality standards. | True |
| The discharge will not violate Clean Water Act Section 307 toxic effluent standards or bans. | True |
| The discharge will not jeopardize the continued existence of endangered or threatened species or their critical habitat. | True |
| The discharge will not violate standards set by the Department of Commerce to protect marine sanctuaries. | True |
| The discharge will not cause or contribute to significant degradation of waters of the US through adverse impacts to human health or welfare, through pollution of municipal water supplies, fish, shellfish, wildlife and special aquatic sites. | True |
| The discharge will not cause or contribute to significant degradation of waters of the US through adverse impacts to life stages of aquatic life and other wildlife. | True |
| The discharge will not cause or contribute to significant degradation of waters of the US through adverse impacts to diversity, productivity and stability of the aquatic ecosystem, such as the loss of fish or wildlife habitat, or loss of the capacity of wetland to assimilate nutrients, purify water or reduce wave energy. | True |
| The discharge will not cause or contribute to significant degradation of waters of the US through adverse impacts to recreational, aesthetic and economic values. | True |
| All appropriate and practicable steps (40 CFR 23.70-77) will be taken to minimize the potential adverse impacts of the discharge on the aquatic ecosystem. | True |

### 6.5 Compliance with the 404(b)(1) Guidelines (Reference Section 12 of this document):

### 7.0 General Public Interest Review – (33 CFR 320.4 and RGL 84-09) All public interest factors have been reviewed and summarized in the table below. Both cumulative and secondary impacts on the public interest have been considered.

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<td>Not Applicable</td>
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7.1 Discussion of the public interest factor(s) relevant to the decision:

| Wetlands | The entire site currently consists of wetlands and a shallow lake (M1204). If the current rehabilitation plan is used the proposed work would create a large deepwater lake, some littoral habitat with small islands islands, and some wetlands. The function of the site would change, however, the large deepwater lake could be used for fish overwintering habitat, and the littoral habitat could create refuge for migratory bird species. Deepwater habitat and small islands within lakes are scarce within the North Slope, so functional gains could be a net positive with the proper rehabilitation. |
| Fish and Wildlife | With incorporation of the rehabilitation plan fish and wildlife habitat function could increase. |
7.2 The relative extent of the public and private need for the proposed structure or work:
Gravel extraction will support the production of oil and gas. Therefore, it has substantial
public and private need. The public is in need of domestic fuel sources and receive
employment from oil and gas companies. Private industry makes a lot of money from oil
and gas production.

7.3 Are there unresolved conflicts as to resource use? No
If so, are there reasonable and practicable alternative locations and/or methods to
accomplish the objectives of the proposed action? NA

7.4 The extent and permanence of the beneficial and/or detrimental effects, which the
proposed work is likely to have on the public and private use to which the area is suited:
The proposed work is within the relatively uninhabited North Slope, and there are no
public use areas within the vicinity of the proposed project. Private use will be benefited
by the extraction of gravel for the continued maintenance and construction within the
North Slope oil fields. The benefits of the gravel extraction from the proposed activity
would last for approximately 20 years, or until the gravel mine is exhausted.

8.0 **Cumulative and Secondary Impacts** – (40 CFR 230.11(g) and 40 CFR 1508.7, RGL
84-9) Cumulative impacts result from the incremental environmental impact of an action
when added to all other past, present, and reasonably foreseeable future actions. They
can result from individually minor but collectively significant actions taking place over a
period of time. A cumulative effects assessment should consider both direct and
indirect, or secondary, impacts. Indirect impacts result from actions that occur later in
time or are farther removed in distance from the original action, but still reasonably
foreseeable.

8.1 Geographic scope: The geographic scope for this project is the HUC 10 “Ugnuravik
River” USGS # 1906040115. The watershed is approximately 677,469.26 acres. This
HUC was chosen because the applicants proposed mitigation is permittee-responsible
mitigation for the restoration of the existing Mine Site C, and therefore, HUC 10 would
be more appropriate than a HUC 8 because the HUC 10 is more refined and is within
the arctic coastal plain eco-region, whereas the HUC 8 is within the arctic coastal plain
and arctic foothills eco-regions. Also, the indirect effects aren’t anticipated to fall into the
HUC 8, but the indirect effects could fall into other 12 digit HIC’s. Therefore, the HUC 10
is the most refined HUC, would be within only one eco-region, and would encompass
possible indirect effects.

8.2 Temporal scope: 20 years.

Explain the selected timeframe: The anticipated lifetime of the mine is 20 years.
However, the pace of the mine sites development will depend on CPAI’s future
gravel needs.
8.3 Historical conditions of the area subject to this analysis: This area has been an active oil and gas site for more than 30 years, and the existing mine site was originally permitted in 1979. There is no other development within the HUC 10 “Ugnuravik River” watershed besides oil and gas production related development. The nearest native village is the village of Nuiqsut, which is more than 32 miles to the west of the site. The Beaufort Sea is approximately 13 miles to the north of the site. True uplands aren’t found until the foothills of the Brooks Range, which is approximately 100 miles to the south and 90 miles to the east of the site.

8.4 Major changes to the area and description of current condition:
In the last five years 3,713 acres of wetlands have been impacted within the Ugnuravik River watershed. Of the 3,713 acres impacted 3.71 acres have been impacted permanently. All of the permanent impacts have resulted from existing gravel pad expansions and the construction of new roads. Since 1979, 708.8 acres of wetlands have been impacted, with 708.5 of those acres being impacted permanently.

The current condition of the Ugnuravik River watershed is that approximately 1% of the watershed is developed land, 85.33% is wetlands, and 13.67% is rivers and other deep water habitat.

8.5 Anticipated cumulative and secondary/indirect impacts (environmental consequences) of the proposed action: Very little development is conducted on the North Slope. The Kuparuk River watershed is one of the most heavily developed watersheds in the region, however, even the Kuparuk River watershed has approximately 0.27% developed land. The Ugnuravik River watershed is within the Kuparuk River watershed and has approximately 1% developed land. The proposed expansion of Mine Site C will increase the developed land. For example, the existing Mine Site C gravel is currently allocated to Drill Site 2S (formerly Shark Tooth) development project (220,000 cubic yards), Drill Site 1H in the Northeast West Sak (NEWS) development area (100,000 cubic yards), the Kuparuk Industrial Center (KIC) pad expansion (385,000 cubic yards), the Kuparuk Construction Services (KCS) pad expansion (80,000 cubic yards), and access roads for the Kuparuk Landing Area (KLA) runway lights (8,770 cubic yards). However, this development is anticipated to be minimal, and is anticipated to increase the total developed land in the Ugnuravik River watershed by less than 0.5%.

8.6 Reasonably foreseeable future actions: The existing Mine Site C gravel is currently allocated to Drill Site 2S (formerly Shark Tooth) development project (220,000 cubic yards), Drill Site 1H in the Northeast West Sak (NEWS) development area (100,000 cubic yards), the Kuparuk Industrial Center (KIC) pad expansion (385,000 cubic yards), the Kuparuk Construction Services (KCS) pad expansion (80,000 cubic yards), and access roads for the Kuparuk Landing Area (KLA) runway lights (8,770 cubic yards).

8.7 Effect of the proposed mitigation, including avoidance and minimization, on reducing the project’s contribution to cumulative effects in the region: Rehabilitation of the existing
mine site and proposed expansion to the mine site will aid in minimizing cumulative effects from mining activities (see section 1.5).

8.8 Conclusions: This project is relatively large at 125 acres, and will impact a relatively large amount of wetlands. Because this project is for gravel extraction, it will also directly impact future maintenance and development within the area. However, the North Slope region is dominated by wetlands and developed land is approximately 1% of the surface area within the Ugkurak River watershed. Because the land is dominated by wetlands and there is minimal development, the cumulative and secondary impacts are believed to be minimal. The mining activities will temporarily impact aquatic resources within the project site; however, with the implementation of the rehabilitation plan there will be no net loss of aquatic resources. The rehabilitation would not restore the mine site to its pre-mining condition, but CPAI and the Corp of Engineers believes that the loss of functions from the pre-mining conditions will be offset by functional gains such as the creation of overwinter fish habitat, shallow littoral habitat for fish and wildlife, and the creation of islands for migratory bird nesting. The North Slope of Alaska is also dominated by the pre-mining conditions of shallow ponds and palustrine emergent wetlands, but is limited by deep water habitat and islands for migratory bird nesting. Therefore, the post rehabilitation could increase the functions of the aquatic resources within the project area.


9.1 Avoidance: In evaluating a project area containing waters of the United States, consideration must be given to avoiding impacts on these sites. Avoidance measures for this project are described in sections 1.5 and 5.

9.2 Minimization: If waters of the United States cannot be avoided, impacts must be minimized. Minimization measures for this project are described in sections 1.5 and 5.

9.3 Compensatory mitigation

9.3.1 Is compensatory mitigation required? No
No practicable compensatory mitigation opportunities were identified that would commensurately offset the unavoidable losses of aquatic resources associated with this project. CPAI has proposed an adequate avoidance and minimization plan that will limit the temporal impacts on waters of the United States, including wetlands, and over time could increase the function of the aquatic resources at the mine site.

9.3.2 Are the impacts to the jurisdictional aquatic resources in the service area of an approved mitigation bank? No
9.3.3 Does the mitigation bank have the appropriate number and resource type or credits available? Not Applicable.

9.3.4 Are the impacts to the jurisdictional aquatic resources in the service area of an approved in-lieu fee program? Yes

9.3.5 Does the in-lieu fee program have the appropriate number and resource type or credits available? No

10.0 Other Laws, Policies, and Effects

10.1 Endangered Species Act (ESA):

10.1.1 Name of Species considered: 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).

10.1.2 Effects Determination:

☐ No Effect

For these species:

☑ May affect, not likely to adversely affect

For these species: All species considered.

☐ May affect, likely to adversely affect

For these species:

☐ Jeopardize the continued existence of listed species or species proposed for such designation or adversely modify designated critical habitat

For these species:

10.1.3 Basis for determination: Spectacled eider take cannot exceed 5 over the period of 30 years, the proposed mine site expansion doesn't exceed 125 acres, the site plans aren't modified in a way to affect listed species, no new species or critical habitat are designated that may be affected by the action area.

10.1.4 Consultation: Formal

10.1.5 Consultation response(s): April 15, 2015

10.1.6 Additional information (optional): NA
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10.1.7 Compliance with ESA: Yes

10.2 Magnuson-Stevens Act – Essential Fish Habitat (EFH):

10.2.1 Name of Species considered: N/A

10.2.2 Effects Determination:

☑ No Effect
   For these species:

☐ May adversely affect
   For these species

10.2.3 Basis for determination: The proposed expansion is more than 300 feet from the Ugnuravik River. No essential fish habitat is anticipated to be impacted by the proposed activity.

10.2.4 Consultation: NA

10.2.5 Consultation response: NA

10.2.6 Additional information (optional): NA

10.2.7 Compliance with Magnuson-Stevens Act: NA

10.3 National Historic Preservation Act – Section 106:

10.3.1 Known sites present: No

10.3.2 Survey required/conducted: No

10.3.3 Effects determination: No Historic Properties Affected

☐ No potential to cause effect
   For these historic properties eligible or listed in the National Register of Historic Places:

☑ No effect
   For these historic properties eligible or listed in the National Register of Historic Places:

☐ No adverse effect
   For these historic properties eligible or listed in the National Register of Historic Places:

☐ Adverse effect
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For these historic properties eligible or listed in the National Register of Historic Places:

10.3.4 Rationale for effects determination: No properties within the site.

10.3.5 Memorandum of Agreement required: No

10.3.6 Date consultation complete (if necessary): February 3, 2014

10.3.7 Additional information (optional): NA

10.3.8 Compliance with National Historic Preservation Act: Yes

10.4 Corps Wetland Policy: Based on the public interest review (Section 7 of this document), the beneficial effects of the project outweigh the detrimental impacts of the project.

10.5 Water Quality Certification under Section 401 of the Clean Water Act:

10.5.1 An individual water quality certification was issued.

10.5.2 Date of Water Quality Certification decision: May 14, 2015

10.5.3 Additional information (optional): NA


10.7 Effects on Federal Projects (33 CFR 320.4(g)(4)): This project is not located in the vicinity of an authorized federal project.

10.8 Effects on the limits of the territorial seas (33 CFR 320.4(f)): This proposed project does not include any structure or work affecting coastal waters.

10.9 Safety of impoundment structures (33 CFR 320.4(k)): This proposed project does not include any impoundment structures.

10.10 Activities in Marine Sanctuaries (33 CFR 320.4(i)): This proposed project is not located in a marine sanctuary as established by the Secretary of Commerce under authority of Section 302 of the Marine Protection, Research and Sanctuaries Act of 1972.
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10.11 Other Authorizations:
This project needed authorization through ADFG for the draining the shallow lake within the site. The project also needs a resource sale and temporary water use permit from ADNR for sub-surface rights.

10.12 Significant issues of Overriding National Importance (33 CFR 320.4(j)(2)):
NA

10.13 Discussion (if necessary): NA

11.0 Final Project Description and Special Conditions

11.1 Final Project Description: The final project description is the same as the applicant’s proposed project description which is indicated in Section 1.4 of this document.

11.2 Special Conditions:
Fish and Wildlife:

1. To minimize impacts to ESA listed species, stipulations are incorporated by attached copy of the ESA section 7 consultation letter and Biological Opinion (B.O.) for this project to ensure the project complies with the Endangered Species Act of 1973. If you cannot/will not be able to comply with the terms and conditions or incorporate the minimization measures described in the B.O., then you must notify the Corps and we will re-initiate Section 7 Consultation with the USFWS.
Rationale: This condition is required to reduce the likelihood of the impacts prohibited by the Endangered Species Act [40 CFR PART 230.30].

Erosion Controls:

2. To prevent sedimentation into adjacent Waters of the U.S. outside of the authorized footprint the Permittee shall install silt curtain barriers with weighted skirts that extend to within 1 foot from the bottom around all in-water work areas to include work that is adjacent to surface waters. The turbidity barriers shall remain in place, monitored for effectiveness and maintained until the authorized work has been completed and all suspended and erodible materials have been stabilized. Turbidity barriers shall be removed upon stabilization of the work area.
Rationale: This condition is required to prevent sedimentation outside the permitted area [40 CFR PART 230.21 and 230.72].

3. The Permittee shall install erosion control measures along the perimeter of all work areas to prevent the displacement of fill material outside the authorized work area as detailed on Drawing 5 of 9 on the attached plans. The erosion control measures shall remain in place and be maintained until all authorized work is completed and the work areas are stabilized. Immediately after completion of the final grading of the land surface, all slopes, land surfaces, and filled areas shall be stabilized according to the attached plans.
Rationale: This condition is required to prevent sedimentation outside the permitted area [40 CFR PART 230.21 and 230.72].
4. No fill or construction materials shall be stockpiled on wetlands outside of the authorized project footprint.  
Rationale: This condition is required to prevent the placement of fill or anything that may have the effect of fill outside the permitted area; thereby, minimizing the impacts to wetlands [40 CFR PART 230.70].

5. Project boundaries shall be clearly identified in the field (e.g., staking, flagging, silt fencing, etc.) prior to site clearing and construction to ensure avoidance of impacts to waters of the U.S., including wetlands, beyond the project footprint. In no case may disturbance extend beyond the identified fill footprint  
Rationale: This condition is required to prevent sedimentation outside the permitted area [40 CFR PART 230.21 and 230.72].

Reclamation/Restoration:

6. Restoration of the existing mine site and the proposed expanded mine site shall be performed in accordance with the attached project Mine Site C Expansion Wetland Mitigation Plan Dated September 2015 and Mine Site C Rehabilitation Plan REV 1 Dated December 2014 by ConocoPhillips Alaska, Inc.  
Rationale: This condition is required to fulfill the avoidance and minimization of impacts to wetlands [40 CFR PART 230.70 through 230.77].

Monitoring:

7. Monitoring reports shall be submitted by ConocoPhillips Alaska, Inc. after the completion of the rehabilitation for the existing mine site, and after the completion of the rehabilitation for each subsequent phase until site restoration is complete and satisfactory to the Corps of Engineers. The reports should include pictures of the area taken between June and August of each year where either expansion or restoration has taken place and a brief narrative on visual observations of the area. These reports should be addressed to:

North Section  
CEPOA-RD  
PO Box 6898  
JBER, AK 99506-0898  
Rationale: This condition is necessary to minimize impacts to wetlands, ESA species, and essential fish habitat [33 CFR 320.4(c) and 320.4(r), 40 CFR 230.70 through 230.77].

12.0 Findings and Determinations

12.1 Section 176(c) of the Clean Air Act General Conformity Rule Review: The proposed permit action has been analyzed for conformity applicability pursuant to regulations implementing Section 176(c) of the Clean Air Act. It has been determined that the activities proposed under this permit would not exceed de minimis levels of direct or indirect emissions of a criteria pollutant or its precursors and are exempted by 40 CFR Part 93.153. Any later indirect emissions are generally not within the Corps’ continuing
program responsibility and generally cannot be practicably controlled by the Corps. For these reasons, a conformity determination is not required for this permit action.

12.2 Relevant Presidential Executive Orders:

12.2.1 EO 13175, Consultation with Indian Tribes, Alaska Natives, and Native Hawaiians: This action has no substantial effect on one or more Indian tribes, Alaska or Hawaiian natives.

12.2.2 EO 11988, Floodplain Management: Alternatives to location within the floodplain, minimization and compensatory mitigation of the effects were considered above.

12.2.3 EO 12898, Environmental Justice: The Corps has determined that this proposed project would not use methods or practices that discriminate on the basis of race, color or national origin nor would it have a disproportionate effect on minority or low-income communities.

12.2.4 EO 13112, Invasive Species: There are no invasive species issues involved in this proposed project.

12.2.5 EO 13212 and EO 13302, Energy Supply and Availability: The project was not one that will increase the production, transmission, or conservation of energy, or strengthen pipeline safety.

12.2.6 EO 13547, Stewardship of the Ocean, Our Coasts, and the Great Lakes: The project would not adversely affect America’s stewardship of the ocean, coasts, or Great Lakes.

12.3 Finding regarding the need for an Environmental Impact Statement: Having reviewed the information provided by the applicant and all interested parties and an assessment of the environmental impacts, we find that this permit action will not have a significant impact on the quality of the human environment. Therefore, an Environmental Impact Statement will not be required.

12.4 Compliance with the Section 404(b)(1) Guidelines: Having completed the evaluation in Section 6, the undersigned have determined that the proposed discharge complies with the Guidelines, with the inclusion of the appropriate and practicable conditions to minimize pollution or adverse effects to the affected ecosystem.

Reason for noncompliance: N/A

12.4.1 The proposed action is the Least Environmentally Damaging Practicable Alternative (LEDPA).
Public Interest Determination: We find that issuance of a Department of the Army Permit is not contrary to the public interest.

Prepared By:  
Jeremy Grauf, Regulatory Specialist  
Date: 22 October 2015

Reviewed By:  
Ryan Winz, North Section Chief  
Date: 22 October 2015