



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Arctic Field Office
1150 University Avenue
Fairbanks, Alaska 99709-3844
<http://www.blm.gov/ak>



In reply refer to:
FF095731
2884.01 (AK012)

PLAN CONFORMANCE / NEPA COMPLIANCE RECORD

DOI-BLM-LLAKF012-2011-0039-CX

Arctic Field Office, Bureau of Land Management

Applicant:

Susan Childs
Alaska Venture Support Integrator manager
Shell Gulf of Mexico
3600 C Street, Suite 1000
Anchorage, Alaska 99503

Proposed Action Title/Type: Long Term Coastal Erosion Survey Within the NPR-A

Description of Proposed Action: The applicant, Susan Childs on behalf of Shell Gulf of Mexico Inc. (Shell), has requested authorization for field activity and access to conduct a long term coastal erosion survey within the National Petroleum Reserve-Alaska (NPR-A).

The purpose of the survey is to quantify where and how quickly changes are taking place via performance of a coastal erosion survey. To accurately determine rates of change to the coastline, inlets, spits, and beach-widths, it is helpful to establish a reference point. Shell intends to establish these reference points by driving stakes into the ground at various locations to serve as benchmarks from which to make consistent measurements of various topographic features. This would establish a means for Shell to monitor coastal change over future years. The 2011 program is screening-level phase of a multi-year effort. The timeframe for the proposed action is July 2011 through September 30, 2014.

Shell and its contractors would use up to two field crews of approximately 4 or 5 hydrologists, and other environmental scientists to conduct the coastal erosion survey. One helicopter or marine vessel would be used to access approximately 20-25 sites for the survey. The survey sites would be located within a core study area extending from the coastline to 10 km inland, as shown on Figure 1. Several reaches of beach, both north and south of Wainwright have been identified by inspecting maps. Some locations have not been identified at this time, but would be identified in the field by observing evidence of ongoing erosion on the barrier islands and major river inlets. It is not anticipated that the field crew would visit any site more than once or twice. The field crew and helicopter or marine vessels would be based out of Barrow or Wainwright. No field camps are proposed for this survey, as the field crews would depart and return to Barrow or Wainwright daily. No remote fuel caches are

proposed for this survey; fuel storage and fueling operations of aircraft would occur in Barrow or Wainwright at established aviation fuel storage facilities.

The following procedures would be followed at each coastal erosion survey site:

1. Identify important coastal features
2. Find a location (within approx 100m) near the feature of interest and at an elevation above assumed high water for placement of a stake.
3. Use a mallet to drive 2" x 2" stake into the ground to a depth of approx 24" (It is assumed stakes would be left in the ground for three years, then retrieved).
4. Record long/lat coordinates of the stake.
5. Attach a foil label to the stake with a benchmark number and date.
6. Record distance to topographic features from the stake.
7. Include additional description of the feature, the area, and any existing indication of ongoing morphological change.

Location

Coastal erosion surveys are proposed along the Chukchi Sea coast from Kukpowruk River (south of Point Lay) to Pt. Franklin (north of Wainwright), as shown in Figure 1. The coastal erosion survey would be limited to lands under the management of BLM, the State of Alaska, or Regional/Village Native corporations, if permission to access these lands is granted.

Duration

The coastal erosion survey is proposed to be conducted within the timeframe of the coastal and onshore environmental baseline studies program set to commence in mid July and continue through the first of August depending on weather conditions. The coastal erosion survey would be conducted under the conditions determined through consultations already held with representatives from the villages of Wainwright and Pt. Lay. Consultation with village representatives would also occur following the field work.

Aircraft

A helicopter (Bell 412 or equivalent) or a marine vessel would be used to transport the field crew to coastal erosion survey landing sites.

The objective of the work is to gather additional data to further develop an understanding of the baseline or existing conditions of the physical, biological, and social environment in areas where potential onshore infrastructure may be necessary in the future for development of oil and gas resources at Shell's prospects in the Chukchi Sea. For Shell, characterizing the baseline conditions is necessary to support impact assessment, development planning, and permitting. The 2011 program is the screening level phase of a multi-year effort.

Shell and its contractors would conduct studies on stream hydrology and hydraulics, habitat assessment, wildlife, and cultural resources. Up to two field crews of approximately 4 or 5 personnel that include biologists, hydrologists, cultural resources specialists, and other environmental scientists would conduct the studies. One helicopter would be used to access approximately 30-40 sites. The majority of these sites would be located within a core study area extending from the coastline to 10

km inland, the same study area as in 2010. In addition, up to 10 stations would be located further inland – within the area delineated as the “100 km inland coastline buffer” shown in Figure 1. It is not anticipated that the field crew would visit any site more than once or twice. The field crew and helicopter would be based out of Barrow or Wainwright. No field camps are proposed for this project, as the field crews would depart and return to Barrow or Wainwright daily. No remote fuel caches are proposed for this project; fuel storage and fueling operations of aircraft would occur in Barrow or Wainwright at established aviation fuel storage facilities. Digital photography and video would be collected throughout the field program. The following is a description of the environmental studies that would be conducted as part of the *2011 Chukchi Sea Coastal and Onshore Environmental Baseline Studies* Program.

Hydrology and Hydraulics

A reconnaissance-level stream data collection effort would be conducted in order to confirm or adjust current information for certain streams. Hydrologists would use manual measuring tools and GPS instrumentation to collect information on stream width/depth ratios, stream slope/cross sections, and to document stream bank stability. Bathymetry measurements would be collected along certain lakes and streams using a surveying rod placed into the waterbody or by using a weighted line.

Habitat Assessment

To assess habitat value, rapid map-verification plots would be sampled at just over 300 ft intervals (100-m) along transects. Transects would be located to sample variation within ecologically distinct physiographic districts and would be selected to maximize evaluation of a range of environmental gradients. Plots would be sampled, as needed, for example, in Barrier Island, sand/mudflat, and arctic salt marsh habitats. Habitat evaluations would include all the special-status species and wildlife of subsistence importance.

Wildlife and Fisheries

Field efforts would focus specifically on evaluating special areas important to critical life history phases for marine and coastal birds near Wainwright. The coastal vessel M/V Tukpuk, or similar vessel, may be used to transport bird biologists to areas just off the coastline and/or barrier islands to gather information needed to develop scientifically-defensible bird surveys in future years. Observations of birds would be conducted along standard survey transects on board the vessel. The survey methodology would be the same as utilized recently for other bird surveys in the nearshore Chukci Sea by AKMAP researchers.

Cultural Resources

Reconnaissance-level field methods for cultural resources would be conducted using a combination of helicopter flights and on-the-ground inspection. Aerial review would be used to identify landforms and geographical settings that are known to hold a high probability of containing cultural resources. On-the-ground inspection is done to document the nature of the site and to delimit its boundaries. Site locations would be recorded by GPS.

Location

Ground studies are proposed along the Chukchi Sea coast from Kukpowruk River (south of Point Lay) to Pt. Franklin (north of Wainwright). As shown in Figure 1, the “100 km inland coastline buffer” extends from the barrier islands to approximately 100 km inland. Studies would be limited to

lands under the management of BLM, the State of Alaska, or Regional/Village Native corporations, if permission to access these lands is granted.

Duration

This program is proposed to be conducted between July 16 and 28, 2011, depending on weather conditions. All activities would be conducted under the conditions determined through consultation with representatives from the villages of Wainwright and Pt. Lay. This consultation is anticipated to occur prior to the start of field work as well as during field work. Consultation with village representatives would also occur following the field work.

Aircraft

A helicopter (Bell 412 or Equivalent) would used to transport the field crew to study landing sites.

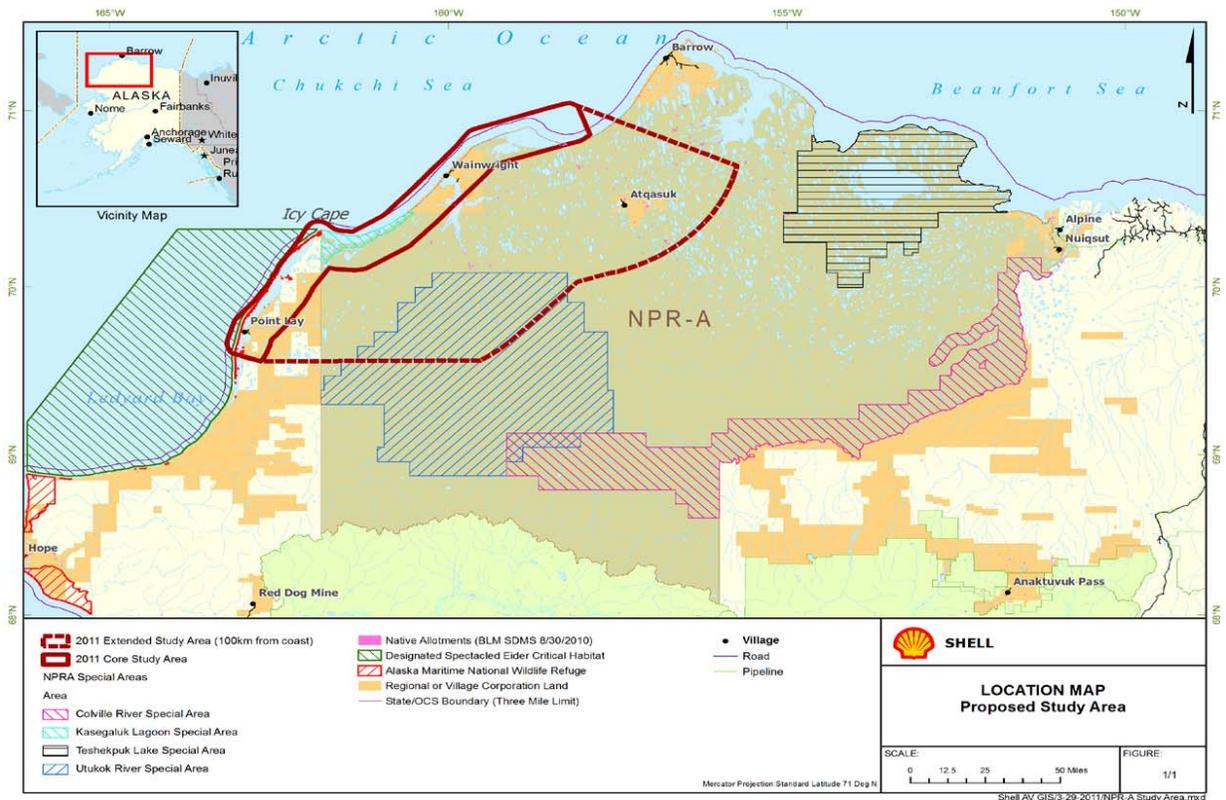


Figure 1: Applicant Submitted Map

Legal Description (All Umiat Meridian):

Chukchi Onshore Environment Baseline Proposed Study Area Lands proposed for use	
--	--

Township	Range	Section	
18 North	28 West	25,26,33-36	Excluding Private Land
18 North	27 West	13,21-24,27-31	
18 North	26 West	16-20,27,28,34	
18 North	23 West	35,36	
18 North	22 West	1,11-16,20-36	
18 North	21 West	1-36	
18 North	20 West	1-36	
18 North	19 West	1-36	
17 North	30 West		No BLM managed lands
17 North	29 West	11-16,19-36.	Excluding Private Land
17 North	28 West	2-11,13-24,30,31	Excluding Private Land
17 North	27 West	19-21,25-30,33-36	
17 North	26 West	25,30-36	
17 North	25 West	7-9,13-16,21,23-36	Excluding Private Land
17 North	24 West	13-16,19-36	Excluding Private Land
17 North	23 West	1-4,7-36	
17 North	22 West	1-36	
17 North	21 West	1-36	
17 North	20 West	1-36	Excluding Private Land
17 North	19 West	1-36	
17 North	18 West	1-36	
17 North	17 West	1-36	Excluding Private Land
16 North	31 West		No BLM managed lands
16 North	30 West		No BLM managed land
16 North	29 West	8-36	1-7 Not BLM
16 North	28 West	1-36	
16 North	27 West	1-36	
16 North	26 West	1-36	
16 North	25 West	1-36	
16 North	24 West	1-36	Excluding Private Land
16 North	23 West	1-36	Excluding Private Land
16 North	22 West	1-36	
16 North	21 West	1-36	
16 North	20 West	1-36	
16 North	19 West	1-36	Excluding Private Land
16 North	18 West	1-36	Excluding Private Land
16 North	17 West	1-36	
16 North	16 West	1-36	
16 North	15 West	1-36	Excluding Private Land
15 North	32 West		No BLM managed land
15 North	31 West		No BLM managed land (Shell not using the Wainwright DEW Line Site)
15 North	30 West		No BLM managed land
15 North	29 West	1-36	
15 North	28 West	1-36	
15 North	27 West	1-36	

15 North	26 West	1-36	Excluding Private Land
15 North	25 West	1-36	Excluding Private Land
15 North	24 West	1-36	Excluding Private Land
15 North	23 West	1-36.	Excluding Private Land
15 North	22 West	1-36	Excluding Private Land
15 North	21 West	1-36	Excluding Private Land
15 North	20 West	1-36	Excluding Private Land
15 North	19 West	1-36	
15 North	18 West	1-36	
15 North	17 West	1-36	
15 North	16 West	1-36	
15 North	15 West	1-36	Excluding Private Land
14 North	33 West		No BLM managed land
14 North	32 West		No BLM managed land
14 North	31 West		No BLM managed land
14 North	30 West		No BLM managed land
14 North	29 West	1-36	Excluding Private Land
14 North	28 West	1-36	Excluding Private Land
14 North	27 West	1-36	
14 North	26 West	1-36	
14 North	25 West	1-36	
14 North	24 West	1-36	
14 North	23 West	1-36	
14 North	22 West	1-36	Excluding Private Land
14 North	21 West	1-36	Excluding Private Land
14 North	20 West	1-36	Excluding Private Land
14 North	19 West	1-36	Excluding Private Land & Village Selection
14 North	18 West	1-36	
14 North	17 West	1-36	
14 North	16 West	1-36	
14 North	15 West	1-36	
13 North	34 West		No BLM managed land
13 North	33 West		No BLM managed land
13 North	32 West		No BLM managed land
13 North	31 West		No BLM managed land
13 North	30 West		No BLM managed land
13 North	29 West	1-36	Excluding Private Land
13 North	28 West	1-36	
13 North	27 West	1-36	
13 North	26 West	1-36	
13 North	25 West	1-36	
13 North	24 West	1-36	
13 North	23 West	1-36	
13 North	22 West		No BLM managed land
13 North	21 West		No BLM managed land
13 North	20 West	1-36	Excluding Private Land

13 North	19 West	1-36	Excluding Private Land & Village Selection
13 North	18 West	1-36	
13 North	17 West	1-36	
13 North	16 West	1-36	
12 North	36 West	25,35,36	
12 North	35 West	1,11-16,20-36	Excluding Private Land
12 North	34 West	1-36	Excluding Private Land
12 North	33 West	1-36	
12 North	32 West	3-10,13,15-36	
12 North	31 West	1-36	
12 North	30 West	1-36	
12 North	29 West	1-36	
12 North	28 West	1-36	
12 North	27 West	1-36	
12 North	26 West	1-36	
12 North	25 West	1-36	
12 North	24 West	1-36	
12 North	23 West	1-36	
12 North	22 West	1-36	
12 North	21 West	1-36	
12 North	20 West	1-36	Excluding Private Land
12 North	19 West	1-36	Excluding Private Land
12 North	18 West	1-36	
12 North	17 West	1-36	
11 North	40 West		No BLM managed land
11 North	39 West	1-36	Excluding Private Land
11 North	38 West	16-18,21-24	
11 North	37 West	12-15,19-22,24-26,33-36	Excluding Private Land
11 North	36 West	1-5,7-17,19-36	Excluding Private Land
11 North	35 West	1-36	
11 North	34 West	1-36	
11 North	33 West	1-36	Excluding Private Land
11 North	32 West	1-36	Excluding Private Land
11 North	31 West	1-36	Excluding Private Land
11 North	30 West	1-36	
11 North	29 West	1-36	
11 North	28 West	1-36	
11 North	27 West	1-36	
11 North	26 West	1-36	
11 North	25 West	1-36	
11 North	24 West	1-36	
11 North	23 West	1-36	
11 North	22 West	1-36	
11 North	21 West	1-36	Excluding Private Land
11 North	20 West	1-36	Excluding Private Land
11 North	19 West	1-36	Excluding Private Land

11 North	18 West	1-36	
11 North	17 West	1-36	
10 North	41 West		No BLM managed land
10 North	40 West		No BLM managed land
10 North	39 West	1-36	Excluding Private Land
10 North	38 West	1-36	Excluding Private Land
10 North	37 West	1-36	Excluding Private Land
10 North	36 West	1-36	Excluding Private Land
10 North	35 West	1-36	
10 North	34 West	1-36	
10 North	33 West	1-36	Excluding Private Land
10 North	32 West	1-36	Excluding Private Land
10 North	31 West	1-36	Excluding Private Land
10 North	30 West	1-36	
10 North	29 West	1-36	
10 North	28 West	1-36	
10 North	27 West	1-36	
10 North	26 West	1-36	
10 North	25 West	1-36	
10 North	24 West	1-36	
10 North	23 West	1-36	
10 North	22 West	1-36	
10 North	21 West	1-36	Excluding Private Land
10 North	20 West	1-36	Excluding Private Land
10 North	19 West	1-36	Excluding Private Land
10 North	18 West	1-36	Excluding Private Land
9 North	42 West		No BLM managed land
9 North	41 West		No BLM managed land
9 North	40 West		No BLM managed land
9 North	39 West	1-36	Excluding Private Land
9 North	38 West	1-36	
9 North	37 West	1-36	
9 North	36 West	1-36	Excluding Private Land
9 North	35 West	1-36	
9 North	34 West	1-36	
9 North	33 West	1-36	
9 North	32 West	1-36	
9 North	31 West	1-36	Excluding Private Land
9 North	30 West	1-36	Excluding Private Land
9 North	29 West	1-36	Excluding Private Land
9 North	28 West	1-36	
9 North	27 West	1-36	
9 North	26 West	1-36	
9 North	25 West	1-36	
9 North	24 West	1-36	
9 North	23 West	1-36	
9 North	22 West	1-36	

9 North	21 West	1-36	
9 North	20 West	1-36	Excluding Private Land
8 North	43 West		No BLM managed land
8 North	42 West		No BLM managed land
8 North	41 West		No BLM managed land
8 North	40 West	1-36	Excluding Private Land
8 North	39 West	1-36	Excluding Private Land
8 North	38 West	1-36	
8 North	37 West	1-36	
8 North	36 West	1-36	
8 North	35 West	1-36	
8 North	34 West	1-36	
8 North	33 West	1-36	
8 North	32 West	1-36	
8 North	31 West	1-36	Excluding Private Land
8 North	30 West	1-36	
8 North	29 West	1-36	
8 North	28 West	1-36	
8 North	27 West	1-36	
8 North	26 West	1-36	
8 North	25 West	1-36	
8 North	24 West	1-36	
8 North	23 West	1-36	
7 North	44 West		No BLM managed land
7 North	43 West		No BLM managed land
7 North	42 West		No BLM managed land
7 North	41 West		No BLM managed land
7 North	40 West	1-36	Excluding Private Land
7 North	39 West	1-36	
7 North	38 West	1-36	
7 North	37 West	1-36	
7 North	36 West	1-36	
7 North	35 West	1-36	
7 North	34 West	1-36	
7 North	33 West	1-36	
7 North	32 West	1-36	
7 North	31 West	1-36	
7 North	30 West	1-36	
7 North	29 West	1-36	
7 North	28 West	1-36	
7 North	27 West	1-36	
7 North	26 West	1-36	
7 North	25 West	1-36	
6 North	44 West		No BLM managed land
6 North	43 West		No BLM managed land
6 North	42 West		No BLM managed land
6 North	41 West		No BLM managed land

6 North	40 West	1-36	Excluding Private Land
6 North	39 West	1-36	
6 North	38 West	1-36	
6 North	37 West	1-36	
6 North	36 West	1-36	
6 North	35 West	1-36	
6 North	34 West	1-36	
6 North	33 West	1-36	
6 North	32 West	1-36	
6 North	31 West	1-36	
6 North	30 West	1-36	
6 North	29 West	1-36	
6 North	28 West	1-36	
6 North	27 West	1-36	
6 North	26 West	1-36	
5 North	45 West		No BLM managed land
5 North	44 West		No BLM managed land
5 North	43 West		No BLM managed land
5 North	42 West		No BLM managed land
5 North	41 West		No BLM managed land
5 North	40 West	1-36	Excluding Private Land
5 North	39 West	1-36	
5 North	38 West	1-36	
5 North	37 West	1-36	
5 North	36 West	1-36	
5 North	35 West	1-36	
5 North	34 West	1-36	
5 North	33 West	1-36	
5 North	32 West	1-36	
5 North	31 West	1-36	
5 North	30 West	1-36	
5 North	29 West	1-36	
5 North	28 West	1-36	
5 North	27 West	1-36	
4 North	46 West		No BLM managed land
4 North	45 West		No BLM managed land
4 North	44 West		No BLM managed land
4 North	43 West		No BLM managed land
4 North	42 West		No BLM managed land
4 North	41 West	1-36	Excluding Private Land
4 North	40 West	1-36	
4 North	39 West	1-36	
4 North	38 West	1-36	
4 North	37 West	1-36	
4 North	36 West	1-36	
4 North	35 West	1-36	
4 North	34 West	1-36	

4 North	33 West	1-36	
4 North	32 West	1-36	
4 North	31 West	1-36	
4 North	30 West	1-36	
4 North	29 West	1-36	
3 North	46 West		No BLM managed land
3 North	45 West		No BLM managed land
3 North	44 West		No BLM managed land
3 North	43 West		No BLM managed land
3 North	42 West		No BLM managed land
3 North	41 West	1-36	Excluding Private Land
3 North	40 West	1-36	
3 North	39 West	1-36	
3 North	38 West	1-36	
3 North	37 West	1-36	
3 North	36 West	1-36	Excluding Private Land
3 North	35 West	1-36	
3 North	34 West	1-36	Excluding Private Land
3 North	33 West	1-36	
3 North	32 West	1-36	
3 North	31 West	1-36	
3 North	30 West	1-36	

Part I: Plan Conformance Review

The proposed action is subject to the following planning documents: Kobuk-Seward Peninsula Proposed Resource Management Plan and Final Environmental Impact Statement (RMP/EIS) 2007, Northwest National Petroleum Reserve-Alaska (IAP/EIS) 2004, and NPR-A Oil and Gas Leasing EIS (1983). The proposed action is not inconsistent with the purposes of the Naval Petroleum Reserves Production Act of 1976. The applicant would be provided with stipulations entitled “FF095731 Shell Baseline Studies Permit Stipulations 2011” and “Kobuk-Seward Peninsula Required Operating Procedures (Outside of NPR-A).”

Date July 11, 2011

/s/Donna L. Wixon
Natural Resource Specialist, Arctic Field Office

Part II: NEPA Review and Decision

Categorical Exclusion Review

This proposed action meets the criteria for a Categorical Exclusion in accordance with 516 DM 11.9, D.10,

This proposed action qualifies as a Categorical Exclusion 1.6 under 43 CFR 46.210 and 46.215

“Nondestructive data collection, inventory (including field, aerial, and satellite surveying and mapping), study, research, and monitoring activities.”

The proposed action has been reviewed to determine if any of the exceptions described in 43 CFR 46.210 and 46.215, apply.

The proposed action would not meet any of the extraordinary circumstances listed below.

Extraordinary Circumstances	Yes	No
2.1 Have significant impacts on public health or safety.		X
2.2 Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas.		
2.3 Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources [NEPA Section 102(2)(E)].		X
2.4 Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks.		X
2.5 Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects.		X
2.6 Have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects.		X
2.7 Have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places as determined by either the bureau or office.		X
2.8 Have significant impacts on species listed, or proposed to be listed, on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species.		X
2.9 Violate a Federal law, or a State, local, or tribal law or requirement imposed for the protection of the environment.		X
2.10 Have a disproportionately high and adverse effect on low income or minority populations (Executive Order 12898).		X
2.11 Limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (Executive Order 13007).		X
2.12 Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112).		X

/s/Donna L. Wixon
Natural Resource Specialist, Arctic Field Office

Date July 11, 2011