



Shell Exploration & Production

Ms. Nina Brudie
Alaska Department of Natural Resources
Division of Coastal and Ocean Management
550 West 7th Avenue, Suite 705
Anchorage, AK 99501

Shell
3601 C Street, Suite 1314
Anchorage, AK 99503
Tel. (907) 646-7112
Email susan.childs@shell.com
Internet <http://www.shell.com/>

19 May 2008

Re: Shell's Revised Alaska Coastal Management Program Coastal Project Questionnaire and Consistency Evaluation for Proposed 2008 Offshore Drilling Activities in the Beaufort Sea, Alaska

Dear Ms. Brudie:

At the request of the Alaska Department of Natural Resources, Shell has prepared a revised Alaska Coastal Management Program (ACMP) Coastal Project Questionnaire (CPQ) and Consistency Evaluation for Shell's proposed 2008 offshore drilling activities in the Beaufort Sea of Alaska. For the 2008 open water season, Shell has modified its drilling plan to use only one mobile offshore drilling unit, the *Kulluk*, to excavate and drill top hole sections for up to three exploratory wells. The attached revised CPQ and Consistency Evaluation addresses this change in Shell's proposed 2008 drilling program. The revised CPQ and Consistency Evaluation reflects only the proposed 2008 program changes with regard to consistency with the statewide ACMP standards.

If you have any questions regarding this submission, please contact me at (907) 770-3700 or at Susan.Childs@shell.com, or Greg Horner at (907) 250-0868 or at greg.horner@asrcenergy.com.

Sincerely,
Shell

A handwritten signature in cursive script that reads "Susan Childs".

Susan Childs
Regulatory Affairs Manager, Alaska Venture

Enclosure: Revised ACMP CPQ and Consistency Evaluation

cc: Jeffrey Walker, Field Operations Supervisor, Minerals Management Service, Alaska Region
Don Perrin, Office of Project Management and Permitting
Project File
Administrative Record

PR/BM/AH/KP/GS

15258-01.03-08-003/08-191

<h2 style="margin: 0;">Coastal Project Questionnaire and Certification Statement</h2>

The Coastal Project Questionnaire (CPQ) is a diagnostic tool that will identify the state and federal permit requirements for your project that are subject to a consistency review. You must answer all questions. If you answer "Yes" to any of the questions, please call that specific department for further instructions to avoid delay in processing your application. You can find an agency contact list online at <http://alaskacoast.state.ak.us/Contacts/PRCregcont.html>.

A complete project packet includes accurate maps and plan drawings at scales large enough to show details, copies of your state and federal permit applications, your answers to this questionnaire, and a complete consistency evaluation. DCOM will notify you within 21 days of receipt if the packet is incomplete and what information is still required.

For additional information or assistance, you may call or email the [Juneau Project Review](#) at (907) 465-2142, or the [Anchorage Project Review](#) at (907) 269-7478. This CPQ document contains numerous hyperlinks (underlined text that has a connection to an internet web page) and is best viewed on-line. Additional instructions are available at <http://www.alaskacoast.state.ak.us/Projects/pcpq.html>

■ APPLICANT INFORMATION

<p>1. Shell</p> <hr/> Name of Applicant 3601 C Street, Suite 1334 <hr/> Address Anchorage, Alaska 99503 <hr/> City/State/Zip 907-770-3700 <hr/> Daytime Phone 907-770-3636 Susan.Childs@shell.com <hr/> Fax Number E-mail Address	<p>2. AES-RTS</p> <hr/> Agent (or responsible party if other than applicant) 3900 C Street, Suite 601 <hr/> Address Anchorage, Alaska 99503 <hr/> City/State/Zip 907-339-5495 <hr/> Daytime Phone 907-339-5475 Amanda.Henry@asrcenergy.com <hr/> Fax Number E-mail Address
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■ PROJECT INFORMATION

1. This activity is a: new project modification or addition to an existing project
2. If this is a modification or an addition, do you currently have any State, federal or local approvals for this activity?

NOTE: Approval means any form of authorization. If "yes," please list below:

Approval Type	Approval #	Issuance Date	Expiration Date
MMS Exploration Plan	NA	February 15, 2007	
NMFS IHA	NA	Applied for - pending	
USACE NWP 8	POA-2007-1092	April 10, 2008	April 10, 2010
EPA Air Quality		Applied for - pending	
EPA NPDES GP	AKG-28-0002	July 10, 2007; amended April 4, 2008	June 26, 2011
USFWS LOA		Applied for - pending	

3. If this is a modification, was this original project reviewed for consistency with the Alaska Coastal Management Program?

Previous ACMP I.D. Number: AK2007-0106 OG (example: AK 0706-05AA or ID2004-0505JJ)

Previous Project Name: Shell Offshore Inc. Beaufort Sea OCS Open Water Exploration Drilling Plan 2007-2009 Previous Project Applicant: Same

State of Alaska, Department of Natural Resources, Division of Coastal & Ocean Management

■ PROJECT DESCRIPTION

Attach a complete and detailed narrative description of your new project or of your modification/addition including ALL associated facilities and changes to the current land or water use (if not already attached as part of an agency application). Clearly delineate the project boundaries and all property owners, including owners of adjacent land, on the site plan. The scale of the maps and plan drawings must be large enough to show pertinent details. Identify your proposed footprint or disturbed area. If this project is a modification to an approved project, identify existing facilities and proposed changes on the site plan.

Proposed starting date for project: September 2008 Proposed ending date for project: November 2008

■ PROJECT LOCATION and LAND OWNERSHIP

Yes No

4. Describe/identify the project location on a map (Including nearest community, the name of the nearest land feature or body of water, and other legal description such as a survey or lot number.).

Township _____ Range _____ Section _____ Meridian _____

Latitude/Longitude _____ / _____ (specify Decimal Degrees or Degrees, Minutes, Seconds)

USGS Quad Map _____

5. The project is located on: State land or water* Federal land Private land Municipal land
(Check all that apply) Mental Health Trust land University of Alaska land

Contact the applicable landowner(s) to obtain necessary authorization. State land ownership can be verified using [Alaska Mapper](#). *State land can be uplands, tidelands or submerged lands to 3 miles offshore.

6. Is the project within or associated with the Trans Alaska Pipeline corridor?

■ COASTAL DISTRICT

Yes No

7. Is the project located in a [coastal district](#)?

If yes, identify the applicable coastal district(s) [OCS Plan Review triggers ACMP and NSB Coastal Districts](#) and contact them to ensure your project conforms with district policies and zoning requirements. *Coastal districts are a municipality or borough, home rule or first class city, second class municipality with planning powers, or coastal resource service area. A coastal district is a participant in the State's consistency review process. Early interaction with the district can benefit you significantly; please contact the district representative listed on the contact list at <http://www.alaskacoast.state.ak.us/Contacts/PRCregcont.html>*

■ DEPARTMENT OF NATURAL RESOURCES (DNR) APPROVALS

DNR DIVISION OF MINING, LAND & WATER- LAND SECTION

Yes No

1. Is the proposed project on State-owned land or water or will you need to cross State-owned land for access? (NOTE: State land includes the land below the ordinary high water line of navigable streams, rivers and lakes, and in marine waters, below the mean high tide line seaward for three miles. State land does not include Alaska Mental Health Trust Land or University of Alaska Land.)

2. If you answered yes to the question above, indicate the person you contacted at the appropriate [Division of Mining, Land and Water](#) regional office for information.

a) Name/date of Contact: _____

b) Is an application required for the proposed activity?

c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: _____

State of Alaska, Department of Natural Resources, Division of Coastal & Ocean Management

DNR DIVISION OF MINING, LAND & WATER- MATERIALS SECTION

Yes No

3. Do you plan to dredge or otherwise excavate or remove materials such as rock, sand, gravel, peat, or overburden from any land regardless of ownership?

a) Location of excavation site if different than the project site: _____

Township _____ Range _____ Section _____ Meridian _____

4. At any one site (regardless of land ownership), do you plan any of the following?

Excavate five or more acres over a year's time

Excavate 50,000 cubic yards or more of materials (rock, sand, gravel, soil, peat, overburden, etc.) over a year's time

Have a cumulative, un-reclaimed, excavated area of five or more acres

5. Do you plan to place fill or excavated material on State-owned land?

a) Location of fill or material disposal site if different than the project site: _____

Township _____ Range _____ Section _____ Meridian _____

6. If you answered yes to any question above, indicate the person you contacted at the appropriate [Division of Mining, Land and Water](#) regional office for information.

a) Name/date of Contact: _____

b) Is an application required for the proposed activity?

c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: _____

DNR DIVISION OF MINING, LAND & WATER- MINING SECTION

Yes No

7. Do you plan to mine for locatable minerals such as silver, gold, or copper?

8. Do you plan to explore for or extract coal?

9. If you answered yes to any question above, indicate the person you contacted at the appropriate [Division of Mining, Land and Water](#) regional office for information.

a) Name/date of Contact: _____

b) Is an application required for the proposed activity?

c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: _____

DNR DIVISION OF MINING, LAND & WATER- WATER SECTION

Yes No

10. Will this project or development divert, impound, withdraw, or use any fresh water (regardless of land ownership)?

(NOTE: If you know of other water users who withdraw from the same source or any potential conflicts affecting this use of water, contact the Water Section. If you are obtaining water exclusively from either an existing Public Water Supply or from a rainwater catchment system, you are not required to contact the DNR Water Section regional office.)

a) Check all points-of-withdrawal or water sources that apply:

Public Water system (name): _____

Stream or Lake (name): _____

Well

Rain catchment system

Other: _____

b) Intended use(s) of water: _____

c) Amount (maximum daily, not average, in gallons per day): _____

d) Is the point of water withdrawal on property you own?

11. Do you plan to build or alter a dam (regardless of land ownership)?

12. If you answered yes to any question above, indicate the person you contacted at the appropriate [Division of Mining,](#)

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[Land and Water](#) regional office for information.

- a) Name/date of Contact: _____
- b) Is an application required for the proposed activity?
- c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: _____

DNR DIVISION OF FORESTRY

Yes No

- 13. Does your operation meet **both** of the following criteria on any land, regardless of ownership?
 - a) The project will commercially harvest timber on 10 or more acres, or commercially harvest timber that intersects, encompasses, or borders on surface waters, **and**
 - b) The project involves one or more of the following: site preparation, thinning, slash treatment, construction and maintenance of roads associated with a commercial timber harvest, or any other activity leading to or connected to a commercial timber harvest operation.....
- 14. If you answered yes to any question above, indicate the person you contacted at the appropriate [Division of Forestry](#) regional office for information.
 - a) Name/date of Contact: _____
 - b) Is an application required for the proposed activity?
 - c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: _____

DNR DIVISION OF OIL & GAS

Yes No

- 15. a) Will you be exploring for or producing oil and/or gas?
 - b) Will you conduct surface use activities on/within an oil and gas lease or unit?
 - If yes, please specify: Federal OCS Sale 195 Leases
 - 16. Do you plan to drill a geothermal well (regardless of land ownership)?
 - 17. If you answered yes to any question above, indicate the person you contacted at the appropriate [Division of Oil & Gas](#) office for information.
 - a) Name/date of Contact: _____
 - b) Is an application required for the proposed activity?
 - c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: Federal OCS Sale 195 Leases do not require State of Alaska Division of Oil and Gas approvals.
- Visit the [Division of Oil & Gas website](#) for application forms and additional information.

DNR OFFICE OF HISTORY & ARCHAEOLOGY

Yes No

- 18. Will you investigate, remove, or impact historical, archaeological or paleontological resources (anything over 50 years old) on State-owned land?
- 19. If you answered yes to the question above, indicate the person you contacted at the [State Historic Preservation Office](#) for information.
 - a) Name/date of Contact: _____

DNR DIVISION OF GEOLOGICAL & GEOPHYSICAL SURVEYS

Yes No

- 20. Is the proposed project located within a natural hazard area designated by a coastal district in the approved district plan?
- a) If "yes", describe the measures you will take in the siting, design, construction, and operation of the proposed activity to protect public safety, services, and the environment from potential damage caused by the designated natural hazard(s)* **See the attached coastal consistency evaluation section on Natural Hazards for more detailed information.*

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21. If "YES" and you have contacted someone, please indicate the person you contacted at the [Division of Geological and Geophysical Surveys](#) or the coastal district for information.

a) Name/date of Contact: _____

DNR DIVISION OF PARKS & OUTDOOR RECREATION

Yes No

22. Is the proposed project located in a unit of the Alaska State Park System including navigable waters, tidelands or submerged lands to three miles offshore?

23. If you answered yes to any question above, indicate the person you contacted at the appropriate [DNR Division of Parks & Recreation](#) office for information.

a) Name/date of Contact: _____

b) Is an application required for the proposed activity?

c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: _____

DNR OFFICE OF HABITAT MANAGEMENT & PERMITTING

Yes No

24. Will you work in, remove water or material from, or place anything in, a stream, river or lake? (*NOTE: This includes work or activities below the ordinary high water mark or on ice, in the active flood plain, on islands, in or on the face of the banks, or, for streams entering or flowing through tidelands, above the level of mean lower low tide. If the proposed project is located within a special flood hazard area, a municipal floodplain development permit may be required. Contact the affected city or borough planning department for additional information and a floodplain determination.*)

a) If yes, name of waterbody: _____

25. If you answered yes to any question above, indicate the person you contacted at the appropriate [Division of Habitat Management and Permitting](#) office for information.

a) Name/date of Contact: _____

b) Is an application required for the proposed activity?

c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: _____

DNR APPROVALS

List the Department of Natural Resources permits or authorizations required for your project below:

Types of project approvals or permits needed.

Date application submitted

Types of project approvals or permits needed.	Date application submitted

■ DEPARTMENT OF FISH AND GAME (DFG) APPROVALS

Yes No

1. Is your project located in a designated State Game Refuge, Critical Habitat Area or State Game Sanctuary?

2. Does your project include construction/operation of a salmon hatchery?

3. Does your project affect, or is it related to, a previously permitted salmon hatchery?

4. Does your project include construction of an aquatic farm?

5. If you answered yes to any questions above, indicate the person you contacted at the [Department of Fish and Game](#) for information.

a) Name/date of Contact: _____

b) Is an application required for the proposed activity?

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c) If “YES” then submit a signed copy of the completed application to the DCOM. If “No”, explain why an application isn’t required. Explanation: _____

DFG APPROVALS

List the Department of Fish and Game permits or authorizations required for your project below:

Types of project approvals or permits needed.	Date application submitted

■ DEPARTMENT OF ENVIRONMENTAL CONSERVATION (DEC) APPROVALS

DEC DIVISION OF WATER

- | | Yes | No |
|--|-------------------------------------|-------------------------------------|
| 1 a) Will a discharge of non-domestic wastewater to lands, waters, or the subsurface of the state occur? (<i>NOTE: Non-domestic wastewater includes wastewater from commercial or industrial facilities, excavation projects, wastewater from man-made containers or containment areas, or any other non-domestic wastewater disposal activities see 18 AAC 72.990 for definitions.</i>) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Will a discharge of domestic wastewater or septage to lands, waters or the subsurface of the state occur? (<i>see 18 AAC 72.990 for definitions.</i>) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Will the wastewater disposal activity require a mixing zone or zone of deposit to meet Water Quality Standards (WQS)? (Many disposal activities require a mixing zone to meet WQS, contact DEC if unsure.) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Will the project include a stormwater collection/discharge system? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Will the project include placing fill in wetlands? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Is the surrounding area inundated with water at any time of the year? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| g) Do you intend to construct, install, modify or use any part of a domestic or non-domestic wastewater treatment or disposal system? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Does your project qualify for a general permit for wastewater? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. If you answered yes to any questions above, indicate the person you contacted at the DEC-Division of Water for information. | | |
| a) Name/date of Contact: _____ | | |
| b) Is an application required for the proposed activity? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) If “YES” then submit a signed copy of the completed application to the DCOM. If “No”, explain why an application isn’t required. Explanation: <u>Shell has been issued EPA NPDES GP AKG-28-0002 for drilling in the Beaufort Sea.</u> | | |

DEC DIVISION OF ENVIRONMENTAL HEALTH

- | | Yes | No |
|--|-------------------------------------|-------------------------------------|
| 4 a) Will your project result in construction, modification, or operation of a facility for solid waste disposal? (<i>NOTE: Solid waste means drilling wastes, household garbage, refuse, sludge, construction or demolition wastes, industrial solid waste, asbestos, and other discarded, abandoned, or unwanted solid or semi-solid material, whether or not subject to decomposition, originating from any source. Disposal means placement of solid waste on land.</i>) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Will your project result in treatment of solid waste at the site? (<i>Examples of treatment methods include, but are not limited to: incineration, open burning, baling, and composting.</i>) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Will your project result in storage or transfer of solid waste at the site? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Will the project result in storage of more than 50 tons of materials for reuse, recycling, or resource recovery? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Will any sewage solids or biosolids be disposed of or land-applied to the site? (<i>NOTE: Sewage solids include wastes that have been removed from a wastewater treatment plant system, such as a septic tank lagoon dredge, or wastewater treatment sludge that contain no free liquids. Biosolids are the solid, semi- solid or liquid residues produced during the treatment of domestic septage in a treatment works which are land applied for beneficial use.</i>) .. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Will your project require application of oil, pesticides, and/or any other broadcast chemicals? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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6. Does your project qualify for a general permit for solid waste?
7. If you answered yes to any question above, indicate the person you contacted at the [DEC- Division of Environmental Health](#) for information.
- a) Name/date of Contact: _____
- b) Is an application required for the proposed activity?
- c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: Plan to use existng permitted facilities.

DEC DIVISION OF AIR QUALITY

- | | Yes | No |
|---|-------------------------------------|-------------------------------------|
| 8 a) Will you have an asphalt plant designed to process no less than <i>five tons per hour</i> of product? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Will you have a thermal remediation unit with a rated capacity of at least five tons per hours of untreated material? .. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Will you have a rock crusher with a rated capacity of at least five tons per hour? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Will you have one or more incinerators with a cumulative rated capacity of 1,000 pounds or more per hour? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Will you have a coal preparation plant? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Will you have a Port of Anchorage stationary source? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Will you have a facility with the potential to emit no less than 100 tons per year of any regulated air contaminant?..... | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| h) Will you have a facility with the potential to emit no less than 10 tons per year of any hazardous air contaminant or 25 tons per year of all hazardous air contaminants?..... | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| i) Will you be constructing a new stationary source with a potential to emit greater than: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> 15 tons per year (tpy) of PM-10 | | |
| <input type="checkbox"/> 40 tpy of nitrogen oxides | | |
| <input type="checkbox"/> 40 tpy of sulfur dioxide | | |
| <input type="checkbox"/> 0.6 tpy of lead; or | | |
| <input type="checkbox"/> 100 tpy of CO within 10 km of a nonattainment area | | |
| j) Will you be commencing construction, or (<i>if not already authorized under 18 AAC 50</i>) relocating a portable oil and gas operation? (<i>answer "yes" unless you will comply with an existing operating permit developed for the portable oil and gas operation at the permitted location; or you will operate as allowed under AS 46.14.275 without an operating permit</i>) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| | | |
| k) Will you be commencing construction or (<i>if not already authorized under 18 AAC 50</i>) relocating an emission unit with a rated capacity of 10 million Btu or more per hour in a sulfur dioxide special protection area established under 18 AAC 50.025? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| l) Will you be commencing a physical change to or a change in the method of construction of an existing stationary source with a potential to emit an air pollutant greater than an amount listed in g) that will cause for that pollutant an emission increase (calculated at your discretion) as either an increase in potential to emit that is greater than: | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> 10 tpy of PM-10 | | |
| <input type="checkbox"/> 10 tpy of sulfur dioxide | | |
| <input type="checkbox"/> 10 tpy of nitrogen oxides; or | | |
| <input type="checkbox"/> 100 tpy of CO within 10 km of a nonattainment area; or | | |
| actual emissions and a net emissions increase greater than: | | |
| <input type="checkbox"/> 10 tpy of PM-10 | | |
| <input type="checkbox"/> 10 tpy of sulfur dioxide | | |
| <input type="checkbox"/> 10 tpy of nitrogen oxides; or | | |
| <input type="checkbox"/> 100 tpy of CO within 10 km of a nonattainment area | | |
| m) Will you be commencing construction or making a major modification of a Prevention of Significant Deterioration stationary source under 18 AAC 50.306? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| | | |
| n) Will you be commencing construction or making a major modification of a nonattainment area major stationary source under 18 AAC 50.311? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| | | |
| o) Will you be commencing construction or reconstructing a major stationary source under 18 AAC 50.316, for hazardous air pollutants? Definition of Regulated Air Pollutants can be found at http://www.epa.gov/ttn/oarpg/t5/memoranda/rapdef.pdf | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

9. If you answered yes to any questions above, indicate the person you contacted at the [DEC- Division of Air Quality](#) for CPQ Revised 1/8/2008

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information.

a) Name/date of Contact: _____

- b) Is an application required for the proposed activity?
- c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: EPA jurisdiction for OCS project an OCS Minor Source Permit has been applied for and is in negotiation. _____

DEC DIVISION OF SPILL PREVENTION AND RESPONSE

Yes No

- 10 a) Will your project involve the operation of waterborne tank vessels or oil barges that carry crude or non crude oil as bulk cargo, or the transfer of oil or other petroleum products to or from such a vessel or a pipeline system?
- b) Will your project require or include onshore or offshore oil facilities with an effective aggregate storage capacity of greater than 5,000 barrels of crude oil or greater than 10,000 barrels of non-crude oil?
- c) Will you operate facilities on land or water for exploration or production of hydrocarbons?

11. If you answered yes to any questions above, indicate the person you contacted at the DEC-Division of Spill Prevention and Response office for information.

a) Name/date of Contact: _____

- b) Is a plan required for the proposed activity?
- c) If "YES" then submit a signed copy of the completed Oil Discharge Prevention & Contingency Plan to the DCOM. If "No", explain why an application isn't required. Explanation: _____

DEC APPROVALS

List the Department of Environmental Conservation permits or authorizations required for your project below:

Types of plan approvals or permits needed	Date application submitted
ACMP Review participant	

■ FEDERAL APPROVALS

U.S. ARMY CORPS OF ENGINEERS (USACE)

Yes No

1. Will you discharge dredged and/or fill material or perform dredging activities in waters of the U.S? Section 404 of the Clean Water Act requires that a Department of the Army permit be obtained for the placement or discharge of dredged and/or fill material into waters of the U.S., including wetlands (33 U.S.C. 1344). (*Your application to the USACE would also serve as application for DEC Water Quality Certification.*)
2. Will you place fill or structures or perform work in waters of the U.S? Section 10 of the Rivers and Harbors Act of 1899 requires that a Department of the Army permit be obtained for structures or work in or affecting navigable waters of the U.S. (33 U.S.C. 403) (*Waters of the U.S. include marine waters subject to the ebb and flow of the tide, rivers, streams, lakes tributaries, and wetlands. If you are not certain whether your proposed project is located within a wetland, contact the USACE Regulatory Division to request a wetlands determination. For additional information about the Regulatory Program, visit www.poa.usace.army.mil/reg*)
3. If you answered yes to the question above, indicate the person you contacted at the [US Army Corps of Engineers](http://www.usace.army.mil) for information.
- a) Name/date of Contact: Michiel Holley, March 26, 2008
- b) Is an application required for the proposed activity?
- c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: Permit has been secured - see Section 1 of this CPQ.

BUREAU OF LAND MANAGEMENT (BLM)

Yes No

4. Is the proposed project located on BLM land, or will you need to cross BLM land for access?
5. If you answered yes to the question above, indicate the person you contacted at the [Bureau of Land Management](http://www.blm.gov) for

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information.

a) Name/date of Contact: _____

b) Is an application required for the proposed activity?

c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: _____

U.S. COAST GUARD (USCG)

Yes No

6 a) Do you plan to construct a bridge or causeway over tidal (ocean) waters, or navigable rivers, streams or lakes?

b) Does your project involve building an access to an island?

c) Do you plan to site, construct, or operate a deepwater port?

7. If you answered yes to any question above, indicate the person you contacted at the appropriate [US Coast Guard](#) office for information.

a) Name/date of Contact: _____

b) Is an application required for the proposed activity?

c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: _____

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)

Yes No

8 a) Will the proposed project have a discharge to any waters?

b) Will you dispose of sewage sludge?

c) Will construction of your project expose 1 or more acres of soil? (*NOTE: This applies to the total amount of land disturbed, even if disturbance is distributed over more than one season, and also applies to areas that are part of a larger common plan of development or sale.*)

d) Is your project an industrial facility that will have stormwater discharge directly related to manufacturing, processing, or raw materials storage areas at an industrial plant? If you answered yes to c) or d), your project may require an NPDES Stormwater permit

9. If you answered yes to any question above, indicate the person you contacted at the [US Environmental Protection Agency](#) for information.

a) Name/date of Contact: _____

b) Is an application required for the proposed activity?

c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: EPA NPDES GP-AKG 28-0002 has been issued to Shell.

FEDERAL AVIATION ADMINISTRATION (FAA)

Yes No

10 a) Is your project located within five miles of any public airport?

b) Will you have a waste discharge that is likely to decay within 5,000 feet of any public airport?

11. If you answered yes to the question above, indicate the person you contacted at the [Federal Aviation Administration](#) for information.

a) Name/date of Contact: _____

FEDERAL ENERGY REGULATORY COMMISSION (FERC)

Yes No

12 a) Does the project include any of the following:

- 1) a non-federal hydroelectric project on any navigable body of water
- 2) locating a hydro project on federal land (including transmission lines)
- 3) using surplus water from any federal government dam for a hydro project

b) Does the project include construction and operation, or abandonment of interstate natural gas pipeline facilities under sections 7 (b) and (c) of the Natural Gas Act (NGA)?

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- c) Does the project include construction and operation of natural gas or liquefied natural gas importation or exportation facilities under section 3 of the NGA?
- d) Does the project include construction for physical interconnection of electric transmission facilities under section 202 (b) of the FPA?
13. If you answered yes to any question above, indicate the person you contacted at the appropriate [Federal Energy Regulatory Commission](#) office for information.
- a) Name/date of Contact: _____
- b) Is an application required for the proposed activity?
- c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: _____

U.S. FOREST SERVICE (USFS)

- 14 a) Does the proposed project involve construction on USFS land? **Yes No**
- b) Does the proposed project involve the crossing of USFS land with a water line?
- c) The current list of Forest Service permits that require ACMP consistency review are online at http://alaskacoast.state.ak.us/Clawhome/handbook/pdf/11_AAC_110.pdf in Article 4, 11 AAC 110.400, pages 28-30. Does your proposed project include any of Forest Service authorizations found on pages 28-30 of the ACMP Handbook?
15. If you answered yes to any question above, indicate the person you contacted at [United States Forest Service](#) for information.
- a) Name/date of Contact: _____
- b) Is an application required for the proposed activity?
- c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: _____

U.S. FISH AND WILDLIFE SERVICE (USFWS)

- 16 a) Is your proposed project on land managed by the USFWS? **Yes No**
- b) Does your project require a Right of Way from the USFWS under 50 C.F.R. 29 and 50 C.F.R 36?
17. If you answered yes to any question above, indicate the person you contacted at the US Fish and Wildlife Service for information.
- a) Name/date of Contact: _____
- b) Is an application required for the proposed activity?
- c) If "YES" then submit a signed copy of the completed application to the DCOM. If "No", explain why an application isn't required. Explanation: _____

OTHER FEDERAL AGENCY APPROVALS

- 18 a) Other Federal agencies with authorizations reviewable under the Alaska Coastal Management Program are posted online at http://alaskacoast.state.ak.us/Clawhome/handbook/pdf/11_AAC_110.pdf in Article 4, 11 AAC 110.400, pages 28-30. Does your proposed project include any of the Federal agency authorizations found on pages 28-30 of the ACMP Handbook? **Yes No**
- b) If yes, which federal authorizations?
19. Have you applied for any other federal permits or authorizations?

Agency	Approval Type	Date Submitted
NMFS	MMPA IHA	October 22, 2007
USFWS	MMPA LOA	November 20, 2007
EPA	Air Quality Construction Permit	February 20, 2008

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Note: The Coastal Project Questionnaire (CPQ) identifies state and federal permits subject to a consistency review. You may need additional permits from other agencies or the affected city and borough government to proceed with your activity. Attach the documentation requested under the Project Description.

ACMP Consistency Evaluation & Certification Statement

Pursuant to [11 AAC 112.215 \(a\)\(1\)\(c\)](#), the applicant shall submit an evaluation of how the proposed project is consistent with the statewide standards at 11 AAC 112.200 - 11 AAC 112.990 and with the applicable district enforceable policies, sufficient to support the consistency certification. Evaluate your project against each section of the state standards and applicable district enforceable policies using the template below or by submitting a narrative description in letter or report form. District enforceable policies are available on the ACMP website at <http://www.alaskacoast.state.ak.us>. Definitions of key terms can be found at: [11 AAC 110.990](#), [11 AAC 112.990](#) and [11 AAC 114.990](#).

If you need more space for an adequate explanation of any of the applicable standards, please attach additional pages to the end of this document. Be sure to include references to the specific sections and subsections that you are evaluating.

STATEWIDE STANDARDS

11 AAC 112.200. Coastal Development

Standard:

- (a) In planning for and approving development in or adjacent to coastal waters, districts and state agencies shall manage coastal land and water uses in such a manner that those uses that are economically or physically dependent on a coastal location are given higher priority when compared to uses that do not economically or physically require a coastal location.
- (b) Districts and state agencies shall give, in the following order, priority to
 - (1) water-dependent uses and activities;
 - (2) water-related uses and activities; and
 - (3) uses and activities that are neither water-dependent nor water-related for which there is no practicable inland alternative to meet the public need for the use or activity.
- (c) The placement of structures and the discharge of dredged or fill material into coastal water must, at a minimum, comply with the standards contained in [33 CFR Parts 320 - 323](#), revised as of July 1, 2003.

Evaluation:

- (a) How is your project economically or physically dependent on a coastal location? Why are you proposing to place the project at the selected location? Please see the attached Consistency Evaluation.

- (b) Evaluation of development priority.
 - (1) How is the proposed project water-dependent? Explain.
 - (2) How is the proposed project water-related? Explain.
 - (3) If the proposed project is neither water-dependent nor water-related, please explain why there is not a practicable inland alternative that meets the public need for the use or activity. Explain. Please see the attached Consistency Evaluation.

- (c) *DCOM defers to the United States Corps of Engineers (USACE) to interpret compliance with the referenced standards.* If you plan to discharge or fill waters of the US, have you applied to the Corps of Engineers for the appropriate authorization?

- (c) Please see the attached Consistency Evaluation.

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11 AAC 112.210. Natural hazard areas.

Standard:

(a) In addition to those identified in [11 AAC 112.990](#), the department, or a district in a district plan, may designate other natural processes or adverse conditions that present a threat to life or property in the coastal area as natural hazards. Such designations must provide the scientific basis for designating the natural process or adverse condition as a natural hazard in the coastal area, along with supporting scientific evidence for the designation.

(b) Areas likely to be affected by the occurrence of a natural hazard may be designated as natural hazard areas by a state agency or, under 11 AAC 114.250(b), by a district.

(c) Development in a natural hazard area may not be found consistent unless the applicant has taken appropriate measures in the siting, design, construction, and operation of the proposed activity to protect public safety, services, and the environment from potential damage caused by known natural hazards.

(d) For purposes of (c) of this section, "appropriate measures in the siting, design, construction, and operation of the proposed activity" means those measures that, in the judgment of the coordinating agency, in consultation with the department's division of geological and geophysical surveys, the Department of Community and Economic Development as state coordinating agency for the National Flood Insurance Program under 44 C.F.R. 60.25, and other local and state agencies with expertise,

(1) satisfy relevant codes and safety standards; or

(2) in the absence of such codes and standards;

(A) the project plans are approved by an engineer who is registered in the state and has engineering experience concerning the specific natural hazard; or

(B) the level of risk presented by the design of the project is low and appropriately addressed by the project plans.

Evaluation:

(a) Describe the natural hazards designated in the district plan as they affect this site.

(b) Describe how the proposed project is designed to accommodate the designated hazards. How will you use site design and operate the proposed activity to protect public safety, services and the environment from potential damaged caused by known natural hazards? Please see the attached Consistency Evaluation.

(d)(1) Describe the measures you will take to meet relevant codes and safety standards in the siting, design, construction and operation of the proposed activity.

(d)(2)(A) If your project is located in an area without codes and safety standards, how is your project engineered for the specific natural hazard? Give the name of the appropriately qualified registered engineer who will approve the plans for protecting public safety, services, and the environment from damage caused by hazards OR

(d)(2)(B) If the level of risk presented by the design of the project is low, how do the project plans and project design address the potential natural hazard? Please see the attached Consistency Evaluation

11 AAC 112.220. Coastal access.

Standard:

Districts and state agencies shall ensure that projects maintain and, where appropriate, increase public access to, from, and along coastal water.

Evaluation:

Please explain how the proposed project will maintain and, where appropriate, increase public access to, from and along coastal water. Please see the attached Consistency Evaluation.

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11 AAC 112.230. Energy facilities.

Standard:

(a) The siting and approval of [major energy facilities](#) by districts and state agencies must be based, to the [extent practicable](#), on the following standards:

- (1) site facilities so as to minimize adverse environmental and social effects while satisfying industrial requirements;
- (2) site facilities so as to be compatible with existing and subsequent adjacent uses and projected community needs;
- (3) consolidate facilities;
- (4) consider the concurrent use of facilities for public or economic reasons;
- (5) cooperate with landowners, developers, and federal agencies in the development of facilities;
- (6) select sites with sufficient acreage to allow for reasonable expansion of facilities;
- (7) site facilities where existing infrastructure, including roads, docks, and airstrips, is capable of satisfying industrial requirements;
- (8) select harbors and shipping routes with least exposure to reefs, shoals, drift ice, and other obstructions;
- (9) encourage the use of vessel traffic control and collision avoidance systems;
- (10) select sites where development will require minimal site clearing, dredging, and construction;
- (11) site facilities so as to minimize the probability, along shipping routes, of spills or other forms of contamination that would affect fishing grounds, spawning grounds, and other biologically productive or vulnerable habitats, including marine mammal rookeries and hauling out grounds and waterfowl nesting areas;
- (12) site facilities so that design and construction of those facilities and support infrastructures in coastal areas will allow for the free passage and movement of fish and wildlife with due consideration for historic migratory patterns;
- (13) site facilities so that areas of particular scenic, recreational, environmental, or cultural value, identified in district plans, will be protected;
- (14) site facilities in areas of least biological productivity, diversity, and vulnerability and where effluents and spills can be controlled or contained;
- (15) site facilities where winds and air currents disperse airborne emissions that cannot be captured before escape into the atmosphere;
- (16) site facilities so that associated vessel operations or activities will not result in overcrowded harbors or interfere with fishing operations and equipment.

(b) The uses authorized by the issuance of state and federal leases, easements, contracts, rights-of-way, or permits for mineral and petroleum resource extraction are [uses of state concern](#).

Evaluation:

(a) If this standard applies to your project, please describe in detail how the proposed project is designed to meet each applicable section of this standard:

- (1) Please see the attached Consistency Evaluation. _____

- (2) Please see the attached Consistency Evaluation. _____

- (3) Please see the attached Consistency Evaluation. _____

- (4) Please see the attached Consistency Evaluation. _____

- (5) Please see the attached Consistency Evaluation. _____

- (6) Please see the attached Consistency Evaluation. _____

- (7) Please see the attached Consistency Evaluation. _____

- (8) Please see the attached Consistency Evaluation. _____

- (9) Please see the attached Consistency Evaluation. _____

- (10) Please see the attached Consistency Evaluation. _____

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(11) Please see the attached Consistency Evaluation.

(12) Please see the attached Consistency Evaluation.

(13) Please see the attached Consistency Evaluation.

(14) Please see the attached Consistency Evaluation.

(15) Please see the attached Consistency Evaluation.

(16) Please see the attached Consistency Evaluation.

(b) List the authorizations for state and federal leases, easements, contracts, rights-of-way, water rights, or permits for mineral and petroleum resource extraction you have applied for or received. Please see the attached Consistency Evaluation.

11 AAC 112.240. Utility routes and facilities.

Standard:

- (a) Utility routes and facilities must be sited inland from beaches and shorelines unless
 - (1) the route or facility is water-dependent or water related; or
 - (2) no practicable inland alternative exists to meet the public need for the route or facility.
- (b) Utility routes and facilities along the coast must avoid, minimize, or mitigate
 - (1) alterations in surface and ground water drainage patterns;
 - (2) disruption in known or reasonably foreseeable wildlife transit;
 - (3) blockage of existing or traditional access.

Evaluation:

(a) If the proposed utility route or facility is sited adjacent to beaches or shorelines, explain how the route or facility is water dependent water related or why no practical inland alternative exists.

Please see the attached Consistency Evaluation.

(b) If the proposed utility route or facility is sited along the coast, explain how you will avoid, minimize or mitigate:

(1) alterations in surface and ground water drainage patterns; Please see the attached Consistency Evaluation.

(2) disruption in known or reasonably foreseeable wildlife transit; Please see the attached Consistency Evaluation.

(3) blockage of existing or traditional access.
Please see the attached Consistency Evaluation.

11 AAC 112.250. Timber harvest and processing.

Standard:

AS 41.17 (Forest Resources and Practices Act) and the regulations adopted under that chapter with respect to the harvest

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and processing of timber are incorporated into the program and constitute the components of the program with respect to those purposes.

Evaluation:

Does your activity involve harvesting or processing of timber? Yes _____ No X

If yes, please explain how your proposed project meets the standards of the State Forest Resources and Practices Act.

11 AAC 112.260. Sand and gravel extraction.

Standard:

Sand and gravel may be extracted from coastal waters, intertidal areas, barrier islands, and spits if there is no practicable alternative to coastal extraction that will meet the public need for the sand or gravel.

Evaluation:

If your proposed project includes extracting sand or gravel from coastal waters, intertidal areas, barrier islands or spits, please explain why there is no practicable alternative to coastal extraction that meets the public need for sand or gravel.

Please see the attached Consistency Evaluation.

11 AAC 112.270. Subsistence.

Standard:

(a) A project within a subsistence use area designated by the department or under 11 AAC 114.250(g) must avoid or minimize impacts to subsistence uses of coastal resources.

(b) For a project within a subsistence use area designated under 11 AAC 114.250(g), the applicant shall submit an analysis or evaluation of reasonably foreseeable adverse impacts of the project on subsistence use as part of

(1) a consistency review packet submitted under 11 AAC 110.215; and

(2) a consistency evaluation under 15 C.F.R. 930.39, 15 C.F.R. 930.58, or 15 C.F.R. 930.76.

(c) Repealed 10/29//2004, Register 172.

(d) Except in nonsubsistence areas identified under AS 16.05.258, the department may, after consultation with the appropriate district, federally recognized Indian tribes, Native corporations, and other appropriate persons or groups, designate areas in which a subsistence use is an important use of coastal resources as demonstrated by local usage.

(e) For purposes of this section, "federally recognized Indian tribe," "local usage", and "Native corporation" have the meanings given in 11 AAC 114.990.

Evaluation:

(a) Is your proposed project located within a subsistence use area designated by a coastal district?

Yes _____ No X

If yes, please describe how the proposed project is designed to "avoid or minimize impacts to subsistence uses of coastal resources:"

Please see the attached Consistency Evaluation.

(b) If your project is located in a subsistence use area designated by the coastal district, provide an analysis or evaluation of its reasonably foreseeable adverse impacts to the subsistence uses.

Please see the attached Consistency Evaluation.

(c) No response required.

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(d) If your project is not located in a designated subsistence use area, please describe any subsistence uses of coastal resources within the project area. Please be advised that subsistence use areas may be designated by the department during a review. Please see the attached Consistency Evaluation.

(e) No response required.

11 AAC 112.280. Transportation routes and facilities.

Standard:

Transportation routes and facilities must avoid, minimize, or mitigate

- (1) alterations in surface and ground water drainage patterns;
- (2) disruption in known or reasonably foreseeable wildlife transit; and
- (3) blockage of existing or traditional access.

Evaluation:

If your proposed project includes transportation routes or facilities, describe how it avoids, minimizes, or mitigates

- (1) alterations in surface and ground water drainage patterns; Please see the attached Consistency Evaluation.
-

- (2) disruption in known or reasonably foreseeable wildlife transit; and Please see the attached Consistency Evaluation.
-

- (3) blockage of existing or traditional access. Please see the attached Consistency Evaluation.
-

11 AAC 112.300. Habitats.

Standard:

(a) Habitats in the coastal area that are subject to the program are

- (1) offshore areas;
- (2) estuaries;
- (3) wetlands;
- (4) tideflats;
- (5) rocky islands and sea cliffs;
- (6) barrier islands and lagoons;
- (7) exposed high-energy coasts;
- (8) rivers, streams, and lakes and the active floodplains and riparian management areas of those rivers, streams, and lakes; and
- (9) important habitat.

(b) The following standards apply to the management of the habitats identified in (a) of this section:

- (1) offshore areas must be managed to avoid, minimize, or mitigate significant adverse impacts to competing uses such as commercial, recreational, or subsistence fishing, to the extent that those uses are determined to be in competition with the proposed use;
- (2) estuaries must be managed to avoid, minimize, or mitigate significant adverse impacts to
 - (A) adequate water flow and natural water circulation patterns; and
 - (B) competing uses such as commercial, recreational, or subsistence fishing, to the extent that those uses are determined to be in competition with the proposed use;
- (3) wetlands must be managed to avoid, minimize, or mitigate significant adverse impacts to water flow and natural drainage patterns;
- (4) tideflats must be managed to avoid, minimize, or mitigate significant adverse impacts to

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- (A) water flow and natural drainage patterns; and
- (B) competing uses such as commercial, recreational, or subsistence uses, to the extent that those uses are determined to be in competition with the proposed use;
- (5) rocky islands and sea cliffs must be managed to
 - (A) avoid, minimize, or mitigate significant adverse impacts to habitat used by coastal species; and
 - (B) avoid the introduction of competing or destructive species and predators;
- (6) barrier islands and lagoons must be managed to avoid, minimize, or mitigate significant adverse impacts (A) to flows of sediments and water;
 - (B) from the alteration or redirection of wave energy or marine currents that would lead to the filling in of lagoons or the erosion of barrier islands; and
 - (C) from activities that would decrease the use of barrier islands by coastal species, including polar bears and nesting birds;
- (7) exposed high-energy coasts must be managed to avoid, minimize, or mitigate significant adverse impacts
 - (A) to the mix and transport of sediments; and
 - (B) from redirection of transport processes and wave energy;
- (8) rivers, streams, and lakes must be managed to avoid, minimize, or mitigate significant adverse impacts to
 - (A) natural water flow;
 - (B) active floodplains; and
 - (C) natural vegetation within riparian management areas; and
- (9) important habitat
 - (A) designated under 11 AAC 114.250(h) must be managed for the special productivity of the habitat in accordance with district enforceable policies adopted under 11 AAC 114.270(g); or
 - (B) identified under (c)(1)(B) or
 - (C) of this section must be managed to avoid, minimize, or mitigate significant adverse impacts to the special productivity of the habitat.
- (c) For purposes of this section,
 - (1) "important habitat" means habitats listed in (a)(1) – (8) of this section and other habitats in the coastal area that are
 - (A) designated under 11 AAC 114.250(h);
 - (B) identified by the department as a habitat
 - (i) the use of which has a direct and significant impact on coastal water; and
 - (ii) that is shown by written scientific evidence to be biologically and significantly productive; or
 - (C) identified as state game refuges, state game sanctuaries, state range areas, or fish and game critical habitat areas under AS 16.20;
 - (2) "riparian management area" means the area along or around a waterbody within the following distances, measured from the outermost extent of the ordinary high water mark of the waterbody:
 - (A) for the braided portions of a river or stream, 500 feet on either side of the waterbody;
 - (B) for split channel portions of a river or stream, 200 feet on either side of the waterbody;
 - (C) for single channel portions of a river or stream, 100 feet on either side of the waterbody;
 - (D) for a lake, 100 feet of the waterbody.

Evaluation:

- (a) List the habitats from (a) above that are within your proposed project area or that could be affected by your proposed project.

Please see the attached Consistency Evaluation.

- (b) Describe how the proposed project avoids, minimizes, or mitigates impacts to each of the identified habitat(s) in section (a) above. Please see the attached Consistency Evaluation.
-

- (c) No response required.

11 AAC 112.310. Air, land and water quality

Standard:

Notwithstanding any other provision of this chapter, the statutes and regulations of the Department of Environmental

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Conservation with respect to the protection of air, land, and water quality identified in AS 46.40.040(b) are incorporated into the program and, as administered by that department, constitute the exclusive components of the program with respect to those purposes.

Evaluation: No response required.

11 AAC 112.320. Historic, prehistoric, and archeological resources.

Standard:

(a) The department will designate areas of the coastal zone that are important to the study, understanding, or illustration of national, state, or local history or prehistory, including natural processes.

(b) A project within an area designated under (a) of this section shall comply with the applicable requirements of AS 41.35.010 – 41.35.240 and 11 AAC 16.010 – 11 AAC 16.900.

Evaluation:

(a) Have you contacted the State Historic Preservation Office (SHPO) to see if your project is in a designated area of the coastal zone that is important to the study, understanding, or illustration of national, state, or local history or prehistory, including natural processes?

Please see the attached Consistency Evaluation.

(b) If your project is within an area designated under (a) of this section, how will you comply with the applicable requirements in the statutes and regulations listed in (b)?

Please see the attached Consistency Evaluation.

Affected Coastal District Enforceable Policies

Evaluate each applicable district enforceable policy using a format similar to the one you completed above for the State Standards. District enforceable policies are available at <http://alaskacoast.state.ak.us/>. If you need more space for an adequate explanation of any of the applicable district enforceable policies, please attach additional pages to the end of this document.

Applicable District Plan(s) Please see the attached Consistency Evaluation.

Enforceable Policy: _____

Evaluation:

Enforceable Policy: _____

Evaluation:

Enforceable Policy: _____

Evaluation:

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Certification Statement

The information contained herein is true and complete to the best of my knowledge. I certify that the proposed activity complies with, and will be conducted in a manner consistent with, the Alaska Coastal Management Program.



Signature of Applicant or Agent

Date

Note: Federal agencies conducting an activity that will affect the coastal zone are required to submit a federal consistency determination, per 15 CFR 930, Subpart C, rather than this certification statement. ACMP has developed a guide to assist federal agencies with this requirement. Contact ACMP to obtain a copy.

This certification statement will not be complete until all required State and federal authorization requests have been submitted to the appropriate agencies.

ACRONYM LIST

AAC	Alaska Administrative Code
ACMP	Alaska Coastal Management Program
ACS	Alaska Communications Systems
ADEC	Alaska Department of Environmental Conservation
AES	ASRC Energy Services
AEWC	Alaska Eskimo Whaling Commission
APD	Application for Permit to Drill
AS	Alaska Statute
BLM	U.S. Department of the Interior, Bureau of Land Management
Com	Communication
EA	Environmental Assessment
EP	Exploration Plan
EPA	U.S. Environmental Protection Agency
ft	foot/feet
GPS	Global Positioning System
IHA	Incidental Harassment Authorization
km	kilometer(s)
LGL	LGL Alaska Research Associates, Inc.
LOA	Letter of Authorization
m	meter(s)
mi	mile(s)
MLC	mudline cellar
MMMMP	Marine Mammal Monitoring and Mitigation Plan
MMO	Marine Mammal Observer
MMS	U.S. Department of the Interior, Minerals Management Service
MODU	mobile offshore drilling unit
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
NSB	North Slope Borough
NSBCMP	North Slope Borough Coastal Management Program
OCS	Outer Continental Shelf
ODPCP	Oil Discharge Prevention and Contingency Plan
OPMP	Alaska Department of Natural Resources, Office of Project Management and Permitting
OSR	oil spill response
POC	Plan of Cooperation
SHPO	State Historic Preservation Office
USCG	U.S. Coast Guard
USFWS	U.S. Fish and Wildlife Service
VHF	very high frequency

Shell Offshore Inc. (Shell) has evaluated its proposed 2008 Beaufort Sea Outer Continental Shelf (OCS) Drilling Program for consistency with the Alaska Coastal Management Program (ACMP) Standards for Development (“statewide standards”) and the North Slope Borough Coastal Management Program (NSBCMP) enforceable policies. On May 15, 2007, Shell submitted to the Alaska Department of Natural Resources, Office of Project Management and Permitting (OPMP) a Revised Consistency Evaluation. On July 27, 2007, the OPMP issued a concurrence with Shell’s consistency certification for the proposed project.

Shell’s May 15, 2007, Revised Consistency Evaluation was prepared using information previously provided to the State of Alaska and the North Slope Borough (NSB) in the context of the project evaluation and consistency certification required by 15 Code of Federal Regulations 930.58(a)(3) and (4) and Section 307(c)(1) of the Coastal Zone Management Act.

Shell was unable to complete its proposed exploration drilling program in 2007. Shell is now proposing to utilize one drilling unit (the mobile offshore drilling unit [MODU] the *Kulluk*) during the 2008 open water season to drill top hole sections only for priority exploration targets on its U.S. Department of the Interior, Minerals Management Service (MMS) OCS leases in the Beaufort Sea. These top hole sections will be drilled at three exploratory well locations identified in Shell’s 2007 Beaufort Sea OCS Lease Exploration Plan (EP) and evaluated in Shell’s May 15, 2007, Revised Consistency Evaluation. Drilling of a top hole section typically includes excavation and completion of the mudline cellar (MLC) and drilling and setting of one or two deeper well sections. The MLC and the next one or two deeper well sections collectively extend to approximately 305 meters (m) (1,000 feet [ft]) below the seafloor and are referred to collectively as the “top hole section,” which is thousands of feet above any prospective liquid hydrocarbon-bearing strata. There is no measurable risk of encountering liquid hydrocarbons during the drilling of these top holes.

SCOPE OF REVIEW

The scope of review includes top hole well drilling in the Beaufort Sea OCS during the summer 2008 exploration drilling season. All proposed activities are planned for oil and gas leases managed by the MMS.

Shell proposes to drill multiple wells in the Beaufort OCS using the MODU *Kulluk* only. Shell will drill top hole sections only at up to three exploratory well locations during the 2008 summer exploration drilling season at the Sivulliq Prospect. Shell provided a list of its prospects for drilling in 2007, 2008, and 2009 in its May 15, 2007, Revised Consistency Evaluation. The MMS utilized this information in reviewing Shell’s EP and in issuing an Environmental Assessment (EA) and a Finding of No Significant Impact in response to Shell’s submittal of the EP in February 2007 (MMS 2007). For the proposed 2008 open water exploration season, Shell is not proposing new or additional exploratory well locations. Shell is proposing to limit the total depth of the wells to top holes only, which will extend approximately 305 m (1,000 ft) below the seafloor and will terminate well above any geologic formations that may potentially be hydrocarbon bearing. The 2007 EP, EA, and Oil Discharge Prevention and Contingency Plan (ODPCP) were provided to the OPMP during the 2007 consistency review of this project (ACMP Review AK 2007-0106 OG).

The *Kulluk* is an ice-class MODU designed, engineered, and constructed to operate safely in the Beaufort Sea. Two ice management/anchor handling vessels will assist operations to further protect workers and equipment operations from natural ice hazards. Table 1 in this evaluation contains a comprehensive list of all marine vessels to be used during the 2008 summer exploration season.

Shallow hazards and site clearance surveys were completed in 2007 to support the proposed 2008 exploration well locations. These marine surveys used multibeam sonar, single-beam sonar, side scan sonar, and Global Positioning System [GPS] equipment to collect seabed and subseabed data, including bathymetry mapping, ice scours, potential biological resources, and underwater obstructions information. This information will be supplemented with additional shallow hazards and site clearance surveys and geotechnical borehole surveys to be completed in 2008. Oil spill response (OSR) training activities will occur simultaneously with the 2008 drilling program, and approvals will be secured prior to drilling operations on Shell's OCS leases.

The area of operations proposed for the 2007–2009 exploration drilling programs, marine surveys, and geotechnical surveys is within the bounds of the OCS lease blocks, as defined at the top of page 1 of the 2007 EP; the areas immediately surrounding the lease blocks; and the area between the lease blocks and the shoreline. The project location figure (Attachment A of Shell's May 15, 2007, Revised Consistency Evaluation) illustrates the area in which Shell intended to operate during 2007–2009. The 2008 proposed top hole drilling will occur on those same lease blocks.

Fixed-wing flights within the area of operations will transport Marine Mammal Observers (MMOs). These flights will begin prior to drilling operations and will continue during the summer top hole drilling season. The timing and duration of these flights are described further in the Marine Mammal Monitoring and Mitigation Plan (MMMMP). The flights will be on a north-south grid pattern with 12 flight lines spaced 8 kilometers (km) (5 miles [mi]) apart. These flights will cover an area 40 km (24 mi) east to 40 km (24 mi) west of the drilling operations and will extend 60 km to 80 km (36 mi to 50 mi) offshore.

Helicopter operation for crew changes and small-scale resupply activities associated with the top hole drilling program will maintain a minimum of 460 m (1,500 ft) elevation, as safety permits. Intermittent lower-altitude flights may occur. When transiting between OCS operations and Deadhorse, Alaska, the helicopters will fly directly south from the operations area to a flight corridor approximately 19 km (12 mi) inland and then will fly directly west until reaching a point south of Deadhorse before turning north to land in Deadhorse (see Attachment A of Shell's May 15, 2007, Revised Consistency Evaluation).

To address natural hazards, such as ice movement and weather conditions, Shell prepared an Ice Management Plan, which is within the purview of the MMS to review and approve. A summary of these plans are included as Attachment B in Shell's May 15, 2007, Revised Consistency Evaluation. These documents are the guiding documents to ensure safe operation by Shell and its contractors in the ice, weather, and sea conditions found in the Beaufort Sea.

ACMP COASTAL MANAGEMENT CONSISTENCY ANALYSIS

11 AAC 112.200 Coastal development.

(a) In planning for and approving development in or adjacent to coastal waters, districts and state agencies shall manage coastal land and water uses in such a manner that those uses that are economically or physically dependent on a coastal location are given higher priority when compared to uses that do not economically or physically require a coastal location.

(b) Districts and state agencies shall give, in the following order, priority to

(1) water-dependent uses and activities;

(2) water-related uses and activities; and

(3) uses and activities that are neither water-dependent nor water-related for which there is no practicable inland alternative to meet the public need for the use or activity.

(c) The placement of structures and the discharge of dredged or fill material into coastal water must, at a minimum, comply with the standards contained in 33 C.F.R. Parts 320 - 323, revised as of July 1, 2003.

(a) The exploration program does not require permanent shoreline or offshore facilities. Project activities subject to federal regulations include the drilling and testing program, air emissions, National Pollutant Discharge Elimination System (NPDES) discharges, and potential interactions with protected and endangered species.

(b)(1) The offshore drilling program is a water-dependent use and activity.

(c) Shell has applied for coverage from the U.S. Army Corps of Engineers, under the Nationwide Permit program, to place the drilling unit in Alaska coastal waters.

11 AAC 112.210 Natural hazard areas.

(a) In addition to those identified in 11 AAC 112.990, the department, or a district in a district plan, may designate other natural processes or adverse conditions that present a threat to life or property in the coastal area as natural hazards. Such designations must provide the scientific basis for designating the natural process or adverse condition as a natural hazard in the coastal area, along with supporting scientific evidence for the designation.

(b) Areas likely to be affected by the occurrence of a natural hazard may be designated as natural hazard areas by a state agency or, under 11 AAC 114.250(b), by a district (c) Development in a natural hazard area may not be found consistent unless the applicant has taken appropriate measures in the siting, design, construction, and operation of the proposed activity to protect public safety, services, and the environment from potential damage caused by known natural hazards.

(d) For purposes of (c) of this section, "appropriate measures in the siting, design, construction, and operation of the proposed activity" means those measures that, in the judgment of the coordinating agency, in consultation with the department's division of geological and geophysical surveys, the Department of Community and Economic Development as state coordinating agency for the National Flood Insurance Program under 44 C.F.R. 60.25, and other local and state agencies with expertise,

(1) satisfy relevant codes and safety standards; or

(2) in the absence of such codes and standards;

(A) the project plans are approved by an engineer who is registered in the state and has engineering experience concerning the specific natural hazard; or

(B) the level of risk presented by the design of the project is low and appropriately addressed by the project plans.

(a) and (b) The project area is not currently designated as a natural hazard area by the state. However, Shell recognizes that the top hole drilling program is located in an area that is characterized by active sea ice movement, ice scouring, and sea storm surges.

(c) and (d) Though not in a designated natural hazard area, the presence of active sea ice, ice scouring, and sea storm surges can create hazardous conditions. The MODU *Kulluk* will be ice-class certified by the international class certifying authority, DetNorske Veritas, prior to the start of operations. The *Kulluk* will be inspected by the U.S. Coast Guard (USCG) prior to leaving McKinley Bay, Northwest Territory, Canada, and may be inspected again once it reaches U.S. waters offshore from Alaska. The *Kulluk* will have continuous ice management support from two ice management/anchor handling vessels: the *Kapitan Dranitsyn* and the *Vladimir Ignatiuk*. These ice management vessels will also support the other vessels participating in the Shell top hole drilling program, as needed. Attachment C of Shell's May 15, 2007, Revised Consistency Evaluation contains detailed descriptions of the *Kulluk* and the ice management vessels, while Table 1 in this document lists the vessels to be used in the Beaufort Sea during 2008 and the approximate proposed duration each vessel will be operating in the Beaufort Sea.

Ice management plans approved by the MMS define how Shell will institute ice management during operations. (See Attachment B of Shell's May 15, 2007, Revised Consistency Evaluation.) This plan determines when and how drilling operations may need to be stopped or be deferred if and when adverse conditions occur. These conditions may include adverse ice, sea, or weather conditions; excessive separation from between the *Kulluk* and oil spill containment and recovery equipment; or ice management support equipment being off-line. The MMS has the option of having observers onboard the *Kulluk* during operations. These observers will have the authority to cease or defer operations if they determine conditions are too hazardous to continue.

Actions in Response to Spills

In 2008, Shell will complete top holes only within the first 305 m (1,000 ft) below the seafloor, which is well above any potentially hydrocarbon-bearing zones. Shell will submit an amendment to the approved 2007 ODPCP. Shell is currently proposing to conduct OSR training in the Beaufort Sea during the open water season; this training will include use of the OSR vessel *Endeavor* and Alaska Clean Seas day boats. Because no hydrocarbon-bearing zones will be intersected during the installation of top holes, the event of an oil spill or blowout is extremely low and does not warrant the necessity of full OSR capability. Actions in response to a spill resulting from fuel transfers or vessel accidents and effects to coastal resources resulting from such a spill are addressed in the Shell Beaufort Sea ODPCP, which was provided to the OPMP as part of Shell's May 15, 2007, Revised Consistency Evaluation package. Shell will be submitting a minor amendment to The 2007 ODPCP reflecting the changes for the proposed 2008 drilling program.

Natural Hazards

All Applications for Permit to Drill (APDs) will be prepared by registered Professional Engineers, who will make sure that well design and drilling plans for the offshore exploration wells meet the appropriate regulatory requirements and relevant codes and safety standards.

The following measures summarize how Shell will respond to ice, sea conditions, and weather, as well as permafrost and earthquake hazards.

Measures Taken to Address Ice Hazards

Sea-ice movement and ice scouring have the potential to create a hazard to drilling operations by striking the drilling vessel and by causing the operational limitations (maximum riser angle) to be exceeded by pushing one side of the vessel up or down. Shell has developed ice alert procedures to be put into effect when hazardous ice conditions exist that have the potential to impact drilling operations (see Attachment B of Shell's May 15, 2007, Revised Consistency Evaluation).

The following measures will be taken to identify and mitigate hazards associated with sea ice:

- Drilling activities will be confined to the summer top hole drilling season, as defined in the Ice Management Plan and described in Attachment B of Shell's May 15, 2007, Revised Consistency Evaluation.
- The MODU *Kulluk* has been designed and constructed for Arctic waters.
- The *Kulluk* has been classed as an Arctic Class IV by the Canadian Coast Guard and as an Ice Class 1AA by the American Bureau of Shipping.
- The *Kulluk* has a 12-point mooring system with underwater fairleads to prevent ice from fouling anchor wires.

- The mooring system has a Remote Anchor Release, which enables release of anchors if conventional retrieval methods do not work.
- Two ice management/anchor handling vessels will be used to manage sea ice that may pose a hazard to the *Kulluk* by following the approved ice management procedures.
- Specialist personnel, including Ice Pilots, Ice Observers, and Ice Advisors, will be onboard the support vessels and the *Kulluk*.
- An Ice Information Center will be established in Anchorage to receive, process, and disseminate weather and ice information to drilling and support vessels. The center will employ experts who will collect and integrate information from a number of sources and provide a forecast of conditions.
- Aerial reconnaissance flights will commence upon consultation with the Shell Drilling Foreman to obtain additional information about ice floes.
- If there are unsafe ice conditions, as determined in the Shell Ice Management Plan and detailed in Attachment B of Shell's May 15, 2007, Revised Consistency Evaluation, critical operations will be curtailed until the conditions improve.

Measures Taken to Address Weather Hazards

Sea storms and other severe weather conditions can cause vessel motions beyond operational limits or create unsafe working conditions for personnel. Additionally, sea spray or freezing rain can adhere to a vessel's superstructure and impact the vertical center of gravity, possibly destabilizing the vessel. The following measures will be taken to identify and mitigate weather hazards:

- Weather forecasts by experts will be integrated from a number of sources at the Ice Information Center in Anchorage. Weather and ice information will be disseminated to drilling and support vessels from the Ice Information Center.
- Although no drilling through hydrocarbon-bearing zones will occur, other critical operations will be curtailed if weather conditions exceed operational limitations, in accordance with operational plans and best management practices.
- Unsafe ice accumulation on a vessel's superstructure due to sea spray and high winds may destabilize the vessel. If this occurs, critical operations will be curtailed until conditions improve so that operations may continue safely within operational plans and limitations.

Measures Taken to Address Permafrost Hazards

Permafrost, or ice-bonded soils, may be encountered when drilling. It is not anticipated that permafrost/ice-bonded soils would result in any significant changes in the top hole drilling. Permafrost/ice-bonded soils surrounding a borehole may experience minimal localized effects while drilling takes place. After the cessation of drilling, it is anticipated that the soils surrounding the borehole would revert to their previous configuration. The APD includes steps to mitigate potential problems that may arise from permafrost/ice-bonded soils.

Measures Taken to Address Earthquake Hazards

Historically, the North Slope of Alaska has been seismically quiet. The U.S. Geological Survey (http://earthquake.usgs.gov/research/hazmaps/products_data/Alaska/aks/aks_doc.html) reports that the majority of earthquakes in Alaska occur in three areas: the Aleutian Islands into Southcentral Alaska, central Alaska, and offshore from the panhandle of southeast Alaska. Earthquakes occur where tectonic plates move relative to one another. The North Slope area sits within a tectonic plate, well away from plate margins. The University of Alaska Fairbanks maintains a Web site

(<http://seagrant.uaf.edu/features/earthquake/facts2.html>) that describes and diagrams how the earthquake risk is high in the southern half of Alaska, but other parts of the state, including the North Slope, experience a lower risk, again documenting the relationship with geological setting. In addition, the Alaska Earthquake Information Center (http://www.aeic.alaska.edu/maps/northern_seismicity_map.html) maps the low occurrence of earthquakes on the North Slope.

If an earthquake were to occur, it is not anticipated that it would have a significant effect on drilling activities. Because an earthquake cannot be anticipated, however, critical operations could not be curtailed prior to the initial shock. Depending on the magnitude and location of the earthquake, and the potential for significant aftershocks, further exploration activities might be curtailed until the situation could be evaluated and risk from further aftershocks could be considered minimal.

11 AAC 112.220. Coastal access.

Districts and state agencies shall ensure that projects maintain and, where appropriate, increase public access to, from, and along coastal water.

Onshore public access will be maintained. There is little activity planned for onshore areas that have been historically and traditionally used by the public. The onshore support activities are limited to existing industrial areas (e.g., West Dock) and commercial airports, with existing restricted public access. Public access is maintained through state and OCS waters, with the exception of the drill sites during drilling operations.

11 AAC 112.230. Energy facilities.

(a) The siting and approval of major energy facilities by districts and state agencies must be based, to the extent practicable, on the following standards:

- (1) site facilities so as to minimize adverse environmental and social effects while satisfying industrial requirements;*
- (2) site facilities so as to be compatible with existing and subsequent adjacent uses and projected community needs;*
- (3) consolidate facilities;*
- (4) consider the concurrent use of facilities for public or economic reasons;*
- (5) cooperate with landowners, developers, and federal agencies in the development of facilities;*
- (6) select sites with sufficient acreage to allow for reasonable expansion of facilities;*
- (7) site facilities where existing infrastructure, including roads, docks, and airstrips, is capable of satisfying industrial requirements;*
- (8) select harbors and shipping routes with least exposure to reefs, shoals, drift ice, and other obstructions;*
- (9) encourage the use of vessel traffic control and collision avoidance systems;*
- (10) select sites where development will require minimal site clearing, dredging, and construction;*
- (11) site facilities so as to minimize the probability, along shipping routes, of spills or other forms of contamination that would affect fishing grounds, spawning grounds, and other biologically productive or vulnerable habitats, including marine mammal rookeries and hauling out grounds and waterfowl nesting areas;*
- (12) site facilities so that design and construction of those facilities and support infrastructures in coastal areas will allow for the free passage and movement of fish and wildlife with due consideration for historic migratory patterns;*
- (13) site facilities so that areas of particular scenic, recreational, environmental, or cultural value, identified in district plans, will be protected;*
- (14) site facilities in areas of least biological productivity, diversity, and vulnerability and where effluents and spills can be controlled or contained;*

(15) site facilities where winds and air currents disperse airborne emissions that cannot be captured before escape into the atmosphere;

(16) site facilities so that associated vessel operations or activities will not result in overcrowded harbors or interfere with fishing operations and equipment.

(b) The uses authorized by the issuance of state and federal leases, easements, contracts, rights-of-way, or permits for mineral and petroleum resource extraction are uses of state concern.

(a)(1) Shell has worked with federal, state, and local authorities to ensure that Shell's operations are sited and operated in a manner that minimizes adverse environmental and social effects. The *Kulluk* will operate under federal approvals designed to ensure compliance with environmental laws and regulations, employing state-of-the-art drilling techniques that minimize and mitigate adverse environmental effects. Shell submitted an application on October 16, 2007, for an Incidental Harassment Authorization (IHA) for the Nonlethal Taking of Whales and Seals, pursuant to Section 101(a)(5)(D) of the Marine Mammal Protection Act, to the National Marine Fisheries Service (NMFS) for Shell's 2008 summer top hole drilling program. The notice of request for an IHA has not yet been published in the Federal Register by the NMFS for public comment. The MMMMP was prepared and included with the request for the IHA. The MMMMP was revised following meetings between Shell and the affected subsistence communities.

In accordance with its petition for the IHA, Shell has met and continues to meet with affected communities in an effort to coordinate project activities prior to conducting the activities and will remain in contact with affected communities through a variety of means to resolve conflicts and to notify the communities of any changes in operations. Shell is working with subsistence users through Plan of Cooperation (POC) meetings to learn how project activities may affect subsistence activities and how Shell can, with the assistance of subsistence users, develop mitigation measures. These POC meetings enhance communications between Shell and subsistence users and lead to the development of relationships that result in better designed mitigation measures for activities that may impact subsistence resources.

Through its ongoing efforts to coordinate its exploration activities to avoid conflicts with the subsistence users of the area, Shell has adopted operating limitations effective at the commencement of the fall bowhead whale subsistence hunt in the Beaufort Sea that specify the steps vessels and aircraft will take upon receiving notification of a reported conflict from the Communication (Com) and Call Centers. The steps include requirements for the rerouting of vessels and aircraft, changes in location of vessels, and reduction in vessel speed. Steps for negotiations with the affected North Slope whaling communities' whaling captain associations to address the reported effects are also included.

Shell attended community meetings in affected Beaufort Sea communities with the Alaska Eskimo Whaling Commission (AEWC) in February 2008. During these meetings, industry participants, including Shell, reported on their 2007 programs and presented activities proposed for the 2008 summer top hole drilling season. Shell, working in cooperation with the AEWC, began consultation and coordination to avoid unnecessary conflicts during 2008 industry operations. Outreach, consultation, and development of POCs with affected subsistence whaling communities are a requirement for gaining MMS, USFWS, and NMFS approvals. The POC meetings provide opportunity for Shell to demonstrate compliance with the U.S. Fish and Wildlife Service (USFWS) Letter of Authorization (LOA) and the NMFS IHA. The USFWS LOA addresses impacts to polar bears and Pacific walrus. The NMFS IHA addresses impacts to whales and seals.

Other Mitigation

- Other nonoperational mitigation, as required, to assist whalers as agreed among Shell, the AEW, and the affected whaling captains.
- A pilot program to share whale monitoring data via the Internet for purposes of impact assessment 24 hours after data collection.
- If not completed, the cessation of the geotechnical program during the Kaktovik and Nuiqsut (Cross Island) fall bowhead whale subsistence harvests. The geotechnical vessel shall be relocated out of Camden Bay during this time.
- Communications system between industry operator's vessels and the whaling hunting crews. This includes the 24-hour operation of the Com Center in Kaktovik and the Deadhorse Call Center (staffed with Inupiat operators), and installation of radio equipment in the whalers' boats, as well as providing communication between industry and seal hunters or other subsistence users.
- Conflict resolution procedures.
- All vessel and aircraft routes planned to minimize impact on subsistence hunts.
- A "Good Neighbor Policy" that establishes a procedure for the distribution of financial support to communities to address the impact of a spill on the subsistence lifestyle of the residents of those communities.
- Provisions for rendering emergency assistance to subsistence hunting crews.

Shell has invited representatives from the Alaska Beluga Whale Committee, Alaska Nanuq Commission, Alaska Ice Seal Committee, and Eskimo Walrus Commission to meet on June 3, 2008, to hear an overview of Shell's proposed 2008 top hole drilling activities. The intent of this meeting is to avoid conflicts and ensure that mitigation measures documented in Shell's POC with subsistence communities also address the concerns of subsistence users, beyond just the concerns of the bowhead whaling captains.

Vessels and Equipment Information

Seasonal entries by the Shell vessels (Table 1) will occur in the Beaufort and Chukchi Seas. The vessels will be mobilized over a large geographic area. The approximate proposed duration dates provided in the table for these vessels bracket the proposed time period in which these vessels may be present in Alaska's coastal waters on behalf of Shell. The presence of the oil and gas industry offshore during the summer exploration drilling season potentially provides additional resources for mariners in need, including additional search and rescue capabilities, both aviation and vessel based, beyond the current resources of the NSB. Additional information about the program vessels is included in Attachment C of Shell's May 15, 2007, Revised Consistency Evaluation and in Table 1.

TABLE 1
2008 Shell Vessel List

Vessel	Type	Program	Area	Approximate Proposed Duration
<i>Kulluk</i>	MODU	Drilling	Sivulliq	mid-September to end of October
<i>Kapitan Dranitsyn</i>	Ice Management	Drilling	Sivulliq	mid-September to end of October
<i>Vladimir Ignatiuk</i>	Ice Management	Drilling	Sivulliq	mid-September to end of October
<i>Jim Kilabuk</i>	Supply Vessel	Drilling	Sivulliq	mid-September to end of October
<i>Gilavar</i>	Seismic Data Collection	3D Seismic	Beaufort Sea	mid-September to end of October
<i>Gulf Provider</i>	Seismic Support	3D Seismic	Beaufort Sea	mid-September to end of October

TABLE 1
2008 Shell Vessel List

Vessel	Type	Program	Area	Approximate Proposed Duration
<i>Theresa Marie</i>	Seismic Support	3D Seismic	Beaufort Sea	mid-September to end of October
<i>Torsvik</i>	Seismic Support	3D Seismic	Beaufort Sea	mid-September to end of October
<i>Maxime</i>	Seismic Support	3D Seismic	Beaufort Sea	mid-September to end of October
<i>Norseman II</i>	Marine Mammal Monitoring	3D Seismic	Beaufort Sea	mid-July to end of October
<i>Henry Christoffersen</i>	Data Collector	Marine Surveys	Sivulliq to Pt. Thomson	early July to end of October
<i>Annika Marie</i>	Data Collector	Marine Surveys	Sivulliq	late July to early August (5 days)
<i>Alpha Helix</i>	Marine Survey Support	Marine Surveys	Sivulliq to Pt. Thomson	07/01 to 10/31
<i>TBD</i>	Geotechnical Coring	Geotech Survey	Sivulliq to Pt. Thomson	07/01 to 08/28
<i>Arctic Endeavor</i>	General Support	Drilling	Sivulliq	mid-September to end of October
<i>Point Barrow Tug</i>	General Support	3D Seismic and Drilling	Beaufort Sea	mid-September to end of October
<i>West Dock Shuttle</i>	General Support	3D Seismic and Drilling	Beaufort Sea	mid-September to end of October

Note:

3D three-dimensional

Barrow-Based Communication and Call Center Systems

Establishment and operation of Com and Call Centers in Barrow and in five other Beaufort Sea and Chukchi Sea communities will provide systems for avoiding and minimizing potential conflicts, as well as providing emergency communications and response. The Com and Call Centers allow for the tracking of industry and other marine vessels. Information obtained through the tracking process will then be shared with industry operators so that they may avoid areas where industrial activities may interfere with subsistence activities.

The Com and Call Center network of phone and radio systems, communication towers, phone lines, and repeaters provide significantly greater coverage across the Arctic, allowing increased communication between whalers and their families. Whalers are supported by this network of village Com and Call Centers staffed by Inupiat Communicators. Open communications took place through a system of Call Centers during 2006 operations with positive results. In 2007, the Com and Call Centers were established and staffed in Barrow, Point Hope, Point Lay, Wainwright, Deadhorse, and Kaktovik. This same system will be established with communications enhancements for the 2008 season. The very high frequency (VHF) Com and Call Centers serve as points of contact for all marine vessels, including seismic, marine survey, support vessels, and barges in the Beaufort and Chukchi Seas. In addition, non-industry vessels were requested to communicate with the Com and Call Centers.

Marine Mammal Monitoring and Mitigation Program

The MMMMP developed for operations in the Beaufort Sea includes the following provisions:

MMOs – MMOs are required in support of all operations in both the Beaufort and Chukchi Seas. Four MMOs will be required for seismic operations; three or four MMOs for the support vessels; two additional MMOs for the service vessels; four MMOs for the drilling operations; and one to two MMOs for all support vessels that perform transit or intermittent activities.

The shipboard MMO Program is designed to provide real-time observations of marine mammals from individual vessels to document their exposure to industrial activities. MMOs and Inupiat Communicators will be present on the vessels to monitor for the presence of marine mammals, maintain a marine mammal-free operation zone, monitor and record avoidance or exposure behaviors, and communicate with Com and Call Centers and local subsistence hunters. The MMOs use the Com and Call Centers to report select observations that may affect subsistence whaling activities. The MMOs will scan the seas for marine mammals, log data to assess the impacts of Shell's operations on the marine mammals, and call for the shutdown of operations if marine mammals approach the operations.

The experience and abilities of NSB residents in sighting and identifying marine mammals have contributed significantly to the success of previous monitoring and mitigation programs. Inupiat Communicators and MMOs were required by stipulation in the 2007 NMFS IHA issued to Shell, and it is anticipated that similar stipulations will be a part of the IHA to be issued to Shell in 2008.

The MMMMP submitted to the NMFS describes in more detail the additional marine monitoring programs proposed to be employed by Shell for the 2008 top hole only exploration drilling program, including the following:

Manned Aerial Program – Aerial surveys to collect information in the Beaufort Sea regarding distribution and abundance of bowhead whales and other marine mammals.

Acoustic Recorders – A combination of recorder technology, such as pop-up or Directional Autonomous Seafloor Acoustic Recorder buoys, to monitor wide area distribution of marine mammals in relation to Shell's proposed activities.

Sound Modeling – Of vessels utilized for seismic and drilling activities.

Sound Source Verification – Field measurement sound propagation profiles of all vessels utilized by Shell in the Beaufort Sea.

(2) The summer top hole drilling program on OCS oil and gas leases designated for resource exploration and development. Projected community needs include subsistence conflict avoidance, employment, and social investment opportunities. Shell has designed its program to be compatible with these community needs by actively consulting and coordinating with subsistence users, implementing the POC, continuing to hold meetings to develop agreements with other community whaling captain associations, providing contractor local hire provisions, and identifying appropriate opportunities for social investment.

(3) Facility consolidation includes the synergies of open water exploration operations associated with project access, Com and Call Centers, resupply activities, ice management, vessel fueling operations, spill prevention and response equipment, and crew change-outs. These support operations will be conducted so that air traffic and vessel traffic will be limited within the project area.

(4) Concurrent use of facilities is described in (3) above.

(5) The exploration program is temporary and seasonal. Operations will be conducted in consultation and coordination with land owners and developers, under federal agency approvals.

(6) The project area is not constrained for future expansion.

(7) The exploration program is temporary and seasonal, located on OCS leases with no permanent industrial infrastructure. Existing facilities such as the Deadhorse Airport, West Dock, the oilfield road system, and potential staging areas proximal to these facilities would provide operational and logistic support.

(8) No harbor access is planned for this exploration program; however, Shell has prepared a 2008 Operations, Beaufort and Chukchi Seas Harboring Plan. The exploration program targets resource assessment located in OCS waters north of the barrier islands and generally outside traditional shipping lanes in the Beaufort Sea. Shallow hazard site clearance survey approvals from the MMS will ensure that drilling operations are conducted in areas cleared of seafloor obstructions. Drift ice will be actively managed by the ice management vessels and ice management/anchor handling vessels in accordance with Shell's Ice Management Plan.

(9) Vessel traffic will be coordinated through the use of industry-established Com and Call Centers and through normal USCG and industry vessel communication protocols. Collision avoidance systems include the use of shipboard GPS tracking and radar systems.

The communications equipment maintained on the *Kulluk* include intercom systems, page and alarm systems, and communication and navigation equipment. The primary means of communication between the Shell Deadhorse facility and the *Kulluk* is a satellite voice and data network. Standard marine VHF radio will be used to communicate with support vessels within a 48 km to 51 km (30 mi to 50 mi) radius of the vessels, pending topography and weather. The Alaska Communications Systems (ACS) radio communication network or satellite phones will be used to communicate with vessels outside this radius.

The support vessels will be equipped with radio subscriber units tuned to assigned frequencies on the ACS communication network. All vessels will also have standard marine radio systems.

(10) This is a top hole drilling program of a temporary and seasonal nature, not a development program. Subseabed excavations for MLCs at drilling locations will be designed to protect wellhead casings and blowout preventers from potential ice scour events. The vessels use the placement and maintenance of vessel anchoring systems that will be removed upon completion of each well. Permanent facilities in the area will be limited to the surface casing and drill pipe remaining after well abandonment.

(11) Top hole drilling will be conducted with appropriate spill prevention and response strategies and equipment available to protect marine resources. Proposed drilling for the 2008 open water season will include the installation of top holes only. The approximate depth of the exploration wells will be 305 m (1,000 ft) below the seafloor, which is well above any hydrocarbon-bearing geologic units. For this reason, OSR vessels and implementation of the full ODPCP are not needed.

(12) This temporary and seasonal exploration program may have minimal impact on fish and wildlife migration patterns. Exploration activities will occur during the summer exploration drilling season. Marine mammals, fish, and seabirds are the fish and wildlife resources present in the area during the time these operations take place. The effects will be short term and insignificant and will likely result in the localized displacement of fish and wildlife. However, disturbances are not likely to result in long-term effects to fish, marine mammals, and seabirds that may be foraging or staging in the area (MMS 2003). A

thorough analysis of potential impacts to fish and wildlife can be found in Shell's May 15, 2007, Revised Consistency Evaluation.

(13) The top hole drilling program will be conducted in a manner that protects these resources. The POC includes mitigation measures to which Shell has committed to avoid conflicts with subsistence hunting in the Beaufort Sea.

(14) The exploration program will be conducted in a manner that controls effluents under NPDES General Permit AKG-28-0000 discharge criteria. Shell will not be drilling into any hydrocarbon-bearing zones in 2008, avoiding the potential for major spills. Shell's 2008 spill prevention strategies are designed to avoid and minimize the release of hydrocarbons and other contaminants during fuel transfers or in the event of vessel releases. In the event of a release, response equipment will be available and deployed to control the release and foster product recovery and proper disposal in accordance with the approved ODPCP. The ODPCP was provided to the OPMP concurrently with Shell's May 15, 2007, Revised Consistency Evaluation.

(15) Offshore winds and air currents in the project area are sufficient to disperse airborne emissions that cannot be captured. The exploration program will be conducted in compliance with the pending U.S. Environmental Protection Agency (EPA) air quality permit for OCS drilling operation emissions.

(16) The proposed program will not result in the overcrowding of harbors. Drilling operations will not interfere with fishing operations and equipment.

(b) The proposed top hole drilling program located on OCS leases; proper federal and state approvals will be secured prior to operations.

11 AAC 112.240. Utility routes and facilities.

(a) Utility routes and facilities must be sited inland from beaches and shorelines unless

(1) the route or facility is water-dependent or water related; or

(2) no practicable inland alternative exists to meet the public need for the route or facility.

(b) Utility routes and facilities along the coast must avoid, minimize, or mitigate

(1) alterations in surface and ground water drainage patterns;

(2) disruption in known or reasonably foreseeable wildlife transit;

(3) blockage of existing or traditional access.

The Shell summer top hole drilling program will not be constructing any utility routes or facilities; therefore, this standard is not applicable.

11 AAC 112.250. Timber harvest and processing.

AS 41.17 (Forest Resources and Practices Act) and the regulations adopted under that chapter with respect to the harvest and processing of timber are incorporated into the program and constitute the components of the program with respect to those purposes.

Timber harvest and processing is not within the scope of Shell's summer top hole drilling program; therefore, this standard is not applicable.

11 AAC 112.260. Sand and gravel extraction.

Sand and gravel may be extracted from coastal waters, intertidal areas, barrier islands, and spits if there is no practicable alternative to coastal extraction that will meet the public need for the sand or gravel.

Sand and gravel will not be used for the top hole drilling program or the marine or geotechnical survey programs. Subseabed excavation limited to the installation of MLCs designed to protect well casings and blowout preventers at each top hole drilling site.

11 AAC 112.270. Subsistence.

(a) *A project within a subsistence use area designated by the department or under 11 AAC 114.250(g) must avoid or minimize impacts to subsistence uses of coastal resources.*

(b) *For a project within subsistence use area designated under 11 AAC 114.250(g), the applicant shall submit an analysis or evaluation of reasonably foreseeable adverse impacts of the project on subsistence use as part of*

(1) a consistency review packet submitted under 11 AAC 110.215; and

(2) a consistency evaluation under 15 C.F.R. 930.39, 15 C.F.R. 930.58, or 15 C.F.R. 930.76.

(c) Repealed 10/29//2004, Register 172.

(d) Except in nonsubsistence areas identified under AS 16.05.258, the department may, after consultation with the appropriate district, federally recognized Indian tribes, Native corporations, and other appropriate persons or groups, designate areas in which a subsistence use is an important use of coastal resources as demonstrated by local usage.

(e) For purposes of this section, “federally recognized Indian tribe,” “local usage”, and “Native corporation” have the meanings given in 11 AAC 114.990.

Under the ACMP, all coastal districts must revise their local plans to conform to the statewide standards. The existing NSBCMP, dated May 1988, remained in effect as a whole until March 1, 2007. At that point, any existing NSBCMP enforceable policies that duplicated, restated, or incorporated by reference a federal or state standard or regulation or subject currently addressed by the Alaska Department of Environmental Conservation (ADEC) were repealed. In October 2007, the proposed revised NSBCMP enforceable policies were approved, with recommended amendments to several policies. However, the Final Plan Amendment is not yet implemented, and currently the NSB and ACMP are in mediation over the Final Plan Amendment (OPMP 2007). For this reason, only the State of Alaska ACMP standards are available for consistency evaluation. Shell’s May 15, 2007, Revised Consistency Evaluation was written to reflect a Subsistence Use Area designation and formally designated offshore areas surrounding Kaktovik and Nuiqsut for subsistence bowhead whale hunting granted by the OPMP for that ACMP review. The following consistency evaluation does not take into account this Subsistence Use Area for reasons stated.

(a) The proposed program area is not located within any currently designated Subsistence Use Areas. The POC and the MMMMP are designed to avoid, minimize, and mitigate potential adverse impacts to marine mammal subsistence resources. The POC will be reviewed by the appropriate federal and state agencies. Upon approval, the provisions of the POC will be presented to the affected subsistence communities of Barrow, Kaktovik, Nuiqsut, Point Hope, Point Lay, and Wainwright, and any interested organizations in a series of meetings to be held in May and June 2008 for the 2008 top hole drilling operations. Attachment F of Shell’s May 15, 2007, Revised Consistency Evaluation consists of a chronological list of POC meetings that Shell attended in order to gain knowledge of concerns related to possible impacts to subsistence uses and resources by industrial activities in the Beaufort Sea. The IHA application MMMMP and the *Alaska North Slope Chukchi and Beaufort Seas Polar Bear, Grizzly Bear, and Pacific Walrus Avoidance, Encounter, and Interaction Plan* include evaluations of reasonably foreseeable adverse impacts to marine subsistence resources and also include provisions to avoid, minimize, and mitigate potential impacts. Shell has conducted consultations with the whaling captains from Barrow, Nuiqsut, Kaktovik, and the AEWEC.

To mitigate potential impacts, monitoring will provide information on the numbers of marine mammals potentially affected by drilling and allow real-time mitigation to prevent impacts to marine mammals.

These goals will be accomplished by conducting vessel-based, aerial, and acoustic monitoring programs to characterize the sounds produced by the drilling activities and to document the potential reactions of marine mammals in the area to those sounds and activities. Acoustic modeling will be used to predict the sound levels produced by the drilling equipment in the Beaufort Sea. Acoustic measurements will also be made to establish safety radii for the real-time mitigation around the drilling activities. Aerial monitoring and reconnaissance of marine mammals and the recording of ambient sound levels, vocalizations of marine mammals, and received levels of seismic operations, should they be detectable through the use of bottom-founded acoustic recorders along the Beaufort Sea coast, will be used to interpret the reactions of marine mammals exposed to the activities. The mitigation measures employed in this adaptive mitigation strategy are further described below.

Mitigation Measures for Noise Disturbance to Concentrated Species

The goal of the MMMMP is to minimize disturbance to marine mammals and subsistence hunting (LGL Alaska Research Associates, Inc. [LGL] 2007). MMOs will be present on vessels to observe, monitor, and record animal numbers, distances from, and reactions to the drilling program and support activities. Data gathered by the MMOs will be used to initiate mitigation measures during operations, if necessary, and to provide baseline data that may be used to adjust Shell's current and future activities in order to reduce or limit potential adverse effects on marine mammals and subsistence activities (LGL 2007).

Measures related to future activities may include revising current or developing new operational and mitigation plans.

Mitigation Measures for Conflict with Industry and Whale Hunters

To incorporate information collected through the 2007 POC meetings with the communities on the North Slope, Shell is updating the current POC, with Addendum 3, to reflect upcoming POC and co-management group meetings. Upon completion, the provisions of the POC will be presented to the affected subsistence communities of Barrow, Kaktovik, Nuiqsut, Point Hope, Point Lay, and Wainwright, and any interested organizations. The POC outlines Shell's approach to mitigate potential impacts to the Cross Island hunt.

Other Mitigation

- Other nonoperational mitigation, as required, to assist whalers as agreed among Shell, the AEWC, and the affected whaling captains.
- A pilot program to share whale monitoring data via the Internet for purposes of impact assessment 24 hours after data collection.
- If not completed, the cessation of the geotechnical program during the Kaktovik and Nuiqsut (Cross Island) fall bowhead whale subsistence harvests. The geotechnical vessel shall be relocated out of Camden Bay during this time.
- Communications system between industry operator's vessels and the whaling hunting crews. This includes the 24-hour operation of the Com Center in Kaktovik and the Call Center in Deadhorse (staffed with Inupiat operators), and installation of radio equipment in the whalers' boats, as well as providing communication between industry and seal hunters or other subsistence users.
- Conflict resolution procedures.
- All vessel and aircraft routes planned to minimize impact on subsistence hunts.

- A “Good Neighbor Policy” that establishes a procedure for the distribution of financial support to communities to address the impact of a spill on the subsistence lifestyle of the residents of those communities.
- Provisions for rendering emergency assistance to subsistence hunting crews.

Shell has invited representatives from the Alaska Beluga Whale Committee, Alaska Nanuq Commission, Alaska Ice Seal Committee, and Eskimo Walrus Commission to meet on June 3, 2008, to hear an overview of Shell’s proposed 2008 summer top hole drilling activities. The intent of this meeting is to avoid conflicts and ensure that mitigation measures in Shell’s POC with subsistence communities also address the concerns of subsistence users, beyond just the concerns of the bowhead whaling captains.

Mitigation Measures for Conflict with Subsistence Resources or Their Ecosystems

Shell will maintain aircraft buffer zones in order to minimize impacts. As outlined in the Information to Lessees, Oil and Gas Lease Sale 195, Beaufort Sea, March 30, 2005 (MMS 2005b), to avoid disturbance to most birds and mammals within a project area, Shell project aircraft must maintain a minimum 0.6 km (1 mi) horizontal and 460 m (1,500 ft) vertical buffer zone (safe operating conditions) around wildlife concentration areas.

Further, as in 2007, Com and Call Centers during the 2008 operations will be responsible for the following activities:

- Allow for the tracking of marine vessels.
- Maintain itineraries of aircraft and marine vessels.
- Provide information that is shared with subsistence hunters and industry to avoid conflicts between industry activities and subsistence activities.
- Provide information to industry vessel and aircraft operators regarding impacts to subsistence resources so that appropriate actions may be implemented (ASRC Energy Services [AES] 2006).

MMOs will be responsible for the following activities:

- Monitor for the presence of marine mammals.
- Assist Shell with maintaining safety zones around vessels that are free of marine mammals.
- Monitor and record avoidance or exposure behaviors by marine mammals.
- Relay observations to the Com and Call Centers.
- Call for vessel avoidance measures if necessary.
- Call for operational shutdown, if feasible, to avoid impacts to subsistence activities (LGL 2007).

(b) Reasonably foreseeable adverse impacts potentially include migratory deflection of bowhead whales that may result in increased effort, risk, and expense associated with additional travel to conduct the subsistence hunt; effects upon subsistence resources from an oil spill event that may include oiled birds, fish, and marine mammals, as well as impacts to food resources of those animals; and increased potential of collisions between vessels and marine mammals and birds.

Offshore drilling activities during the summer exploration drilling season may cause some level of disturbance to subsistence species, such as bowhead whales. Disturbances could cause some animals to avoid areas traditionally used for subsistence hunting or to become wary and, thus, difficult to harvest. Although marine mammals could be affected by drilling noise, the level of effect is likely variable. Noise associated with drilling activities and marine mammal reactions to noise vary considerably with ongoing operations, location, and environmental factors. Nonetheless, great concern has been noted by North

Slope residents about the effects of drilling noise on the success of subsistence hunts (MMS 2003). The bowhead whale is of primary importance because it provides for a cultural basis for sharing and community cooperation and is the foundation of the sociocultural system (MMS 2003). Impacts on Inupiat bowhead whalers may occur if whales are deflected seaward (farther from shore) in the traditional hunting areas north of Point Thomson in Camden Bay. Some bowheads in the vicinity of drilling operations would be expected to respond to noise by changing their speed and direction, thus avoiding close encounters with these noise sources. Bowhead whales exposed to drilling operations could experience temporary, nonlethal effects, and some avoidance behavior could persist up to 12 hours (MMS 2003).

Whaling crews from Cross Island may have to travel greater distances to intercept westward-migrating whales, thereby increasing risk for whaling crews and/or limiting chances of successfully striking and landing bowheads. However, the level of effects due to noise is not expected to result in a reduced number of whales landed. Table 2 provides historical records of bowhead whale subsistence harvest data near Cross Island contemporaneous with Beaufort Sea summer exploration drilling. Barrow has an opportunity during the spring to hunt bowheads without offshore activity. It is also potentially the least affected community with regard to the fall hunt, given the distance from the proposed 2008 drilling activities. During the fall bowhead season, subsistence hunters in Barrow will still likely harvest whales. The drilling area is likely not in prime hunting areas that are easily reached by subsistence hunters. The general location of the 2008 drilling activities would be approximately 26 km (16 mi) offshore, 72 km (45 mi) east of Cross Island (a known subsistence use area for Nuiqsut residents), and 95 km (59 mi) northwest of Kaktovik. Westward-migrating bowhead whales will have already passed Kaktovik before encountering the 120 decibel ensonified area (Hall et al. 1994) and, therefore, should be available to Kaktovik whalers. At the Hammerhead site in 1986, which was located within a few miles of the area where the proposed 2008 top hole drilling activities will take place, bowhead whales were deflected both seaward and shoreward (LGL 1987). In 1986, Nuiqsut whalers landed one bowhead whale, a harvest number equal to that of the previous seven years (1979 to 1985). Accordingly, the potential impact to subsistence hunting is anticipated to be minor.

Offshore drilling took place in Camden Bay in 1985, 1986, 1989, 1991, and 1993 (Hall et al. 1994). Harvest data from near Cross Island, the primary location of bowhead whale subsistence hunts for Nuiqsut crews, is presented in Table 2.

TABLE 2
Bowhead Harvest Near Cross Island by Nuiqsut Whalers and Corresponding Drilling Activity in Camden Bay

Year*	Bowhead Whales Landed*	Struck and Lost*	Notes**
1982	1	0	No offshore drilling in Camden Bay
1983	0	0	No offshore drilling in Camden Bay
1984	0	0	No offshore drilling in Camden Bay
1985	0	0	Drilling in Camden Bay at Hammerhead I
1986	1	0	Drilling in Camden Bay at Hammerhead II and Corona
1987	1	0	No offshore drilling in Camden Bay
1988	0	0	No offshore drilling in Camden Bay
1989	2	2	Drilling in Demarcation Bay Drilling in Camden Bay at Stinson #1
1990	0	1	No offshore drilling in Camden Bay
1991	1	2	Drilling in Camden Bay at Galahad
1992	2	1	Drilling in Camden Bay at Kuvlum #1
1993	3	0	Drilling in Camden Bay at Kuvlum #2 and #3, and Wild Weasel

* Data from MMS 2005a

** Data from Hall et al. 1994

These data do not demonstrate a clear pattern of whaling success or failure relative to offshore drilling in Camden Bay. Proposed 2008 drilling activities would occur in the same general area as the Kuvlum No. 1, 2, and 3 projects in 1992 and 1993 when two and three bowhead whales were harvested, respectively. In fact, the *Kulluk* was used for drilling in 1993 and is the same MODU proposed for the 2008 drilling season.

Through POC meetings, Shell has consulted with and will continue to work with subsistence users to determine subsistence use areas and learn how project activities may affect subsistence. These meetings enhance communications between Shell and subsistence users and to develop relationships that lead to better project activity practices that benefit both Shell and the local communities that rely upon subsistence resources. Shell has committed to the POC as a means of being responsive to concerns about reasonably foreseeable impacts to the subsistence bowhead whale hunt.

The predictions about ecological effects of an oil spill are highly variable. Factors that increase variability include the specific character of the oil, the prevailing conditions at the time of the spill, the specific location of the spill, and the ecological character of the area impacted by the spill. These factors may greatly influence both the degree and duration of ecological perturbation that occurs. The Arctic offshore environment is a highly productive environment that exists in a physical environment that is subject to significant variation. Many populations at the base of the food chain have the capacity to grow rapidly during a single season, providing the capacity within the system for rapid replacement and recovery of potentially impacted ecological productivity. Other subsistence species, such as seals and birds, have the potential to be significantly impacted by oil spills and do not have great capacity to increase population levels, if reduced. As such, while portions of the subsistence resources have the potential to be impacted, other significant resources would likely not be impacted, or impacts would be minor and the species would recover quickly.

11 AAC 112.280. Transportation routes and facilities.

Transportation routes and facilities must avoid, minimize, or mitigate

- (1) alterations in surface and ground water drainage patterns;*
- (2) disruption in known or reasonably foreseeable wildlife transit; and*
- (3) blockage of existing or traditional access.*

- (1) The offshore top hole drilling program will not alter surface and groundwater drainage patterns.
- (2) The program will not disrupt terrestrial wildlife transit. Marine operations will avoid, minimize, and mitigate wildlife transit through the use of an MMO Program designed to guide vessel transit through the project area while avoiding or minimizing disruptions and deflections of marine mammals.
- (3) Helicopter flights necessary for crew change and resupply will be coordinated through the Com and Call Centers to ensure that flight paths avoid subsistence activity areas. Altitude and path proximity to subsistence resources are also restricted. Project aircraft must maintain a minimum 0.6 km (1 mi) horizontal and 460 m (1,500 ft) vertical buffer zone around wildlife concentration areas.
- (4) Existing or traditional access will not be blocked.

11 AAC 112.300. Habitats.

(a) Habitats in the coastal area that are subject to the program are

- (1) offshore areas;*
- (2) estuaries;*
- (3) wetlands;*
- (4) tidflats;*

- (5) *rocky islands and sea cliffs;*
- (6) *barrier islands and lagoons;*
- (7) *exposed high-energy coasts;*
- (8) *rivers, streams, and lakes and the active floodplains and riparian management areas of those rivers, streams, and lakes; and*
- (9) *important habitat.*
- (b) *The following standards apply to the management of the habitats identified in (a) of this section:*
- (1) *offshore areas must be managed to avoid, minimize, or mitigate significant adverse impacts to competing uses such as commercial, recreational, or subsistence fishing, to the extent that those uses are determined to be in competition with the proposed use;*
- (2) *estuaries must be managed to avoid, minimize, or mitigate significant adverse impacts to*
 (A) *adequate water flow and natural water circulation patterns; and*
 (B) *competing uses such as commercial, recreational, or subsistence fishing, to the extent that those uses are determined to be in competition with the proposed use;*
- (3) *wetlands must be managed to avoid, minimize, or mitigate significant adverse impacts to water flow and natural drainage patterns;*
- (4) *tideflats must be managed to avoid, minimize, or mitigate significant adverse impacts to*
 (A) *water flow and natural drainage patterns; and*
 (B) *competing uses such as commercial, recreational, or subsistence uses, to the extent that those uses are determined to be in competition with the proposed use;*
- (5) *rocky islands and sea cliffs must be managed to*
 (A) *avoid, minimize, or mitigate significant adverse impacts to habitat used by coastal species; and*
 (B) *avoid the introduction of competing or destructive species and predators;*
- (6) *barrier islands and lagoons must be managed to avoid, minimize, or mitigate significant adverse impacts*
 (A) *to flows of sediments and water;*
 (B) *from the alteration or redirection of wave energy or marine currents that would lead to the filling in of lagoons or the erosion of barrier islands; and*
 (C) *from activities that would decrease the use of barrier islands by coastal species, including polar bears and nesting birds;*
- (7) *exposed high-energy coasts must be managed to avoid, minimize, or mitigate significant adverse impacts*
 (A) *to the mix and transport of sediments; and*
 (B) *from redirection of transport processes and wave energy;*
- (8) *rivers, streams, and lakes must be managed to avoid, minimize, or mitigate significant adverse impacts to*
 (A) *natural water flow;*
 (B) *active floodplains; and*
 (C) *natural vegetation within riparian management areas; and*
- (9) *important habitat*
 (A) *designated under 11 AAC 114.250(h) must be managed for the special productivity of the habitat in accordance with district enforceable policies adopted under 11 AAC 114.270(g); or*
 (B) *identified under (c)(1)(B) or (C) of this section must be managed to avoid, minimize, or mitigate significant adverse impacts to the special productivity of the habitat.*
- (c) *For purposes of this section,*
- (1) *“important habitat” means habitats listed in (a)(1) – (8) of this section and other habitats in the coastal area that are*
 (A) *designated under 11 AAC 114.250(h);*
 (B) *identified by the department as a habitat*

- (i) *the use of which has a direct and significant impact on coastal water; and*
(ii) *that is shown by written scientific evidence to be biologically and significantly productive; or*
(C) *identified as state game refuges, state game sanctuaries, state range areas, or fish and game critical habitat areas under AS 16.20;*
(2) *“riparian management area” means the area along or around a waterbody within the following distances, measured from the outermost extent of the ordinary high water mark of the waterbody:*
(A) *for the braided portions of a river or stream, 500 feet on either side of the waterbody;*
(B) *for split channel portions of a river or stream, 200 feet on either side of the waterbody;*
(C) *for single channel portions of a river or stream, 100 feet on either side of the waterbody;*
(D) *for a lake, 100 feet of the waterbody.*

(a)(1) The Helmericks family operates a commercial fishery in the Colville River Delta during fall and winter (Galloway et al. 1983, 1989). Fishing typically starts in early October and continues through the end of November. Targeted fish include arctic cisco, least cisco, and humpback whitefish (U.S. Department of the Interior, Bureau of Land Management [BLM] 2004).

Alaska Clean Seas and the North Slope Sensitive Areas Work Group have identified what they classify as sensitive areas along the Beaufort Sea shoreline. These areas are defined for protection of resources from potential oil spills. Under this statewide standard, there are no defined sensitive areas within Shell's proposed area of activity.

(a)(2) through (a)(8) These habitats are not applicable to the top hole drilling program.

(a)(9) Offshore settings are important habitat for marine waterfowl, flora, and fauna. Shell's operations are planned to be safe and in compliance with applicable laws and regulations and to avoid and minimize adverse impacts to the environment and marine habitats.

(b)(1) The top hole drilling program is planned for offshore OCS oil and gas lease areas. Commercial, recreational, and subsistence fishing are generally limited to nearshore coastal waters and inland streams and rivers. Therefore, Shell does not expect its operations to be in competition with any fishery and especially does not anticipate any significant adverse effects to the resource. Drilling activities within the Shell leases are not anticipated to disturb or displace commercial, recreational, or subsistence fishing. In the event of an oil spill, the effects may be large enough to disrupt commercial, recreational, and subsistence fishing. However, the likelihood of a large spill affecting a fish resource is considered extremely low because only top hole drilling will occur in 2008, which will avoid intersection with deeper hydrocarbon-bearing zones. The ODPCP submitted to the OPMP under separate cover provides a full description of the measures Shell intends to implement to both prevent spills or releases during fuel transfers or vessel incidents, as well as contain and clean up any spill that may occur. These measures are designed to avoid, minimize, and mitigate significant adverse effects resulting from a potential spill.

While a worst case oil spill would have the potential to produce biological significance of both spatial and temporal scale, the low probability that such a release would occur during a top hole drilling operation greatly reduces the anticipated significance of this potential impact.

Site-specific surveys have not been conducted to determine the presence of chemosynthetic communities within the lease block areas. These communities can form near hydrothermal vents or hydrocarbon seeps in the seafloor at a wide range of depths. Seeps can be warm or cold and typically involve methane or hydrogen sulfide gas emissions that feed the chemosynthetic communities. A field study to evaluate the presence of such communities within the entire lease block areas would not be practicable or feasible. It

is possible, however, that they could be detected incidental to other survey efforts, and information regarding the chemosynthetic communities evaluated.

11 AAC 112.310. Air, land, and water quality.

Notwithstanding any other provision of this chapter, the statutes and regulations of the Department of Environmental Conservation with respect to the protection of air, land, and water quality identified in AS 46.40.040(b) are incorporated into the program and, as administered by that department, constitute the exclusive components of the program with respect to those purposes.

Air emissions will be in compliance with EPA Air Quality Permit Part 55, OCS Rules reviewed for consistency with ADEC regulations prior to permit issuance. To estimate potential air emissions, assumptions regarding operating hours and fuel consumption were developed in consultation with the EPA and applied to air quality modeling exercises. Anticipated operating hours were based on previous drilling experience, including experience drilling in the Beaufort and Chukchi Seas, and the practicalities of drilling. Shell used conservative estimates and will limit emissions by placing a cap on nitrogen oxide emissions (by limiting drilling activities). This is tracked by fuel gauging or engine load monitoring. Fuel content for the *Kulluk* will be limited to 0.05 percent sulfur, and fuel content for the remaining associated vessels will be limited to 0.19 percent sulfur. The percentage will be monitored by fuel content sampling.

Wastewater discharges will meet the criteria of NPDES General Permit AKG-28-0000, previously found to be consistent with the Alaska Water Quality Standards and the ACMP. In accordance with Section 401 of the federal Clean Water Act and provisions of the Alaska Water Quality Standards, the ADEC issued the Final Certificate of Reasonable Assurance for NPDES AKG-28-0000, Oil and Gas Exploration Facilities on the Outer Continental Shelf and Contiguous Waters, on February 27, 2006. Pursuant to Alaska Statute (AS) 46.03.110(e), this certification and the issued NPDES permit constitute the state's permit required under AS 46.03.100 for discharges to state waters contiguous to the Beaufort Sea, Chukchi Sea, and Hope and Norton planning basins. The 401 Certificate of Reasonable Assurance is included as Attachment N in Shell's May 15, 2007, Revised Consistency Evaluation. In accordance with 11 Alaska Administrative Code (AAC) 110.700(a), the scope of this ACMP review excludes the wastewater discharges authorized by NPDES AKG-28-0000.

11 AAC 112.320. Historic, prehistoric, and archeological resources.

(a) The department will designate areas of the coastal zone that are important to the study, understanding, or illustration of national, state, or local history or prehistory, including natural processes.

(b) A project within an area designated under (a) of this section shall comply with the applicable requirements of AS 41.35.010 – 41.35.240 and 11 AAC 16.010 – 11 AAC 16.900.

The proposed top hole drilling program located offshore on OCS leases is not anticipated to yield historic, prehistoric, or archaeological resources. Neither the State Historic Preservation Office (SHPO) nor MMS has documented sites within the project area that will be affected by drilling or other seabed disturbing operations. If the shallow hazards and site clearance surveys data gathered during operations suggest potential resources lie below the seabed, further evaluation would be initiated in consultation with the MMS and SHPO.

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