



**Plan of Cooperation
Proposed Ice Overflight Survey Program
Chukchi and Beaufort Seas, Alaska**

March 2015

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ACRONYMS & ABBREVIATIONS

4MP	Marine Mammal Monitoring and Mitigation Plan
AEWC	Alaska Eskimo Whaling Commission
BOEM	Bureau of Ocean Energy Management
CFR	Code of Federal Regulations
CLO	Community Liaison Officer
COCP	Critical Operations and Curtailment Plan
Com Centers	Communication and Call Centers
ft.	foot/feet
IHA	Incidental Harassment Authorization
km	kilometers
LOA	Letter of Authorization
m	meter/meters
mi	mile(s)
NMFS	National Marine Fisheries Service
NSB	North Slope Borough
POC	Plan of Cooperation
PSO	Protected Species Observers
SA	Subsistence Advisor
Shell	Shell Gulf of Mexico Inc. & Shell Offshore Inc.
USFWS	United States Fish and Wildlife Service

1.0 INTRODUCTION

Shell Gulf of Mexico, Inc. & Shell Offshore, Inc. (Shell) plans to conduct ice overflight surveys during the freeze-up and break-up seasons in 2015 and 2016 to gather additional data on ice conditions in select areas of the Chukchi and Beaufort Seas. The proposed study areas are shown in Figure 1. Ice overflight surveys characterize ice thickness, type, and movement during the fall, winter and spring seasons.

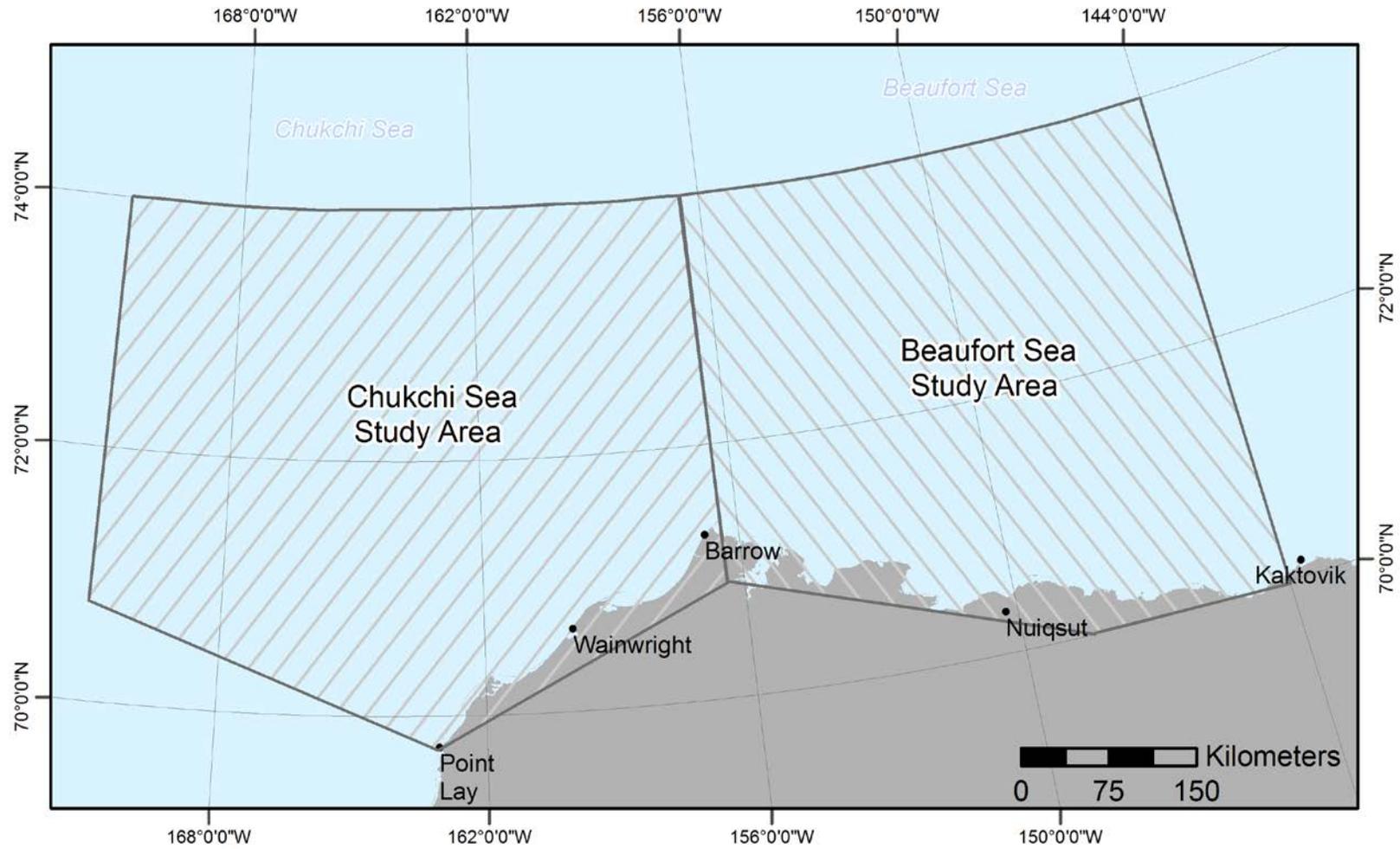
Ice and weather conditions will influence when and where the surveys can be conducted. For initial planning purposes, Shell proposes to conduct the ice overflight surveys between May 2015 and April 2016 using fixed wing and rotary aircraft. Approximately 15 surveys, totaling approximately 4,500 nautical miles will be flown in total during this period. Flight altitudes for fixed wing surveys will mostly occur at 500 ft. (152 m) and range from 100 to 2,000 ft. (30 to 610 m). For helicopter flights, the altitude will mostly be 200 ft. (61 m) with a range of 50 to 500 ft. (15 to 152 m). The helicopter will also land on ice if it is safe to do so and no marine mammals are known to be present within a 0.5 mi (0.8 km) radius of the landing locations. Identification and assessment of ice features are key objectives of the surveys; as a result, flight paths will avoid large leads and areas of open water.

The aircraft to be used for the surveys are not currently under contract to Shell or a contractor to Shell. The aircraft supporting these overflight surveys will operate out of Barrow and Deadhorse.

Bureau of Ocean Energy Management (BOEM) Chukchi Sea Lease Sale 193 Stipulation No. 5 and Beaufort Sea Lease Sale 202 Stipulation No. 5, require that all exploration operations be conducted in a manner that prevents unreasonable conflicts between oil and gas exploration activities and subsistence resources and activities. The stipulations also requires adherence to United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) regulations, which require an operator to implement a Plan of Cooperation (POC) to mitigate the potential for conflicts between the proposed activity and traditional subsistence activities (50 Code of Federal Regulations [CFR] §18.124(c)(4) and 50 CFR §216.104(a)(12)). This POC describes meetings scheduled specifically to inform the stakeholders of the overflight surveys and obtain their input.

This POC identifies the measures that Shell has developed and will present for consultation with North Slope communities and subsistence user groups and will implement during its planned overflight surveys to minimize any adverse effects on the availability of marine mammals for subsistence uses. In addition, the POC details Shell's planned communications and consultations with local communities concerning its overflight surveys, potential conflicts with subsistence resources and hunting activities, and means of resolving any such conflicts (50 CFR §18.128(d) and 50 CFR §216.104(a)(12)(i), (ii), (iv)). Shell will document its contact with North Slope communities, as well as the substance of its communications with subsistence stakeholder groups. Tables summarizing Shell's communications, and responses thereto, will be included in Attachment A. This POC will be supplemented, as appropriate, to reflect future engagements with local subsistence users and any additional or revised mitigation measures that are adopted as a result of those engagements.

Figure 1. Location Map for Freeze Up and Break Up Surveys



2.0 POC LEASE STIPULATION AND REGULATORY REQUIREMENTS

Stipulation No. 5 of BOEM Chukchi Sea Lease Sale 193 and Beaufort Sea Lease Sale 202 require that all exploration operations be conducted in a manner that prevents unreasonable conflicts between oil and gas activities and subsistence resources and subsistence hunting activities of the residents of the North Slope. Specifically, each Stipulation No. 5 requires the operator to consult directly with potentially affected North Slope subsistence communities, the North Slope Borough (NSB), and the Alaska Eskimo Whaling Commission (AEWC).

Consultation is needed “to discuss potential conflicts with the siting, timing, and methods of proposed operations and safeguards or mitigating measures which could be implemented by the operator to prevent unreasonable conflicts.” Stipulation No. 5 also requires the operator to document its contacts and the substance of its communications with subsistence stakeholder groups during the operator’s consultation process.

The requirements of each Stipulation No. 5 parallel requirements for receipt of a USFWS Letter of Authorization (LOA) and a NMFS Incidental Harassment Authorization (IHA). The LOA and IHA provide authorization for the nonlethal harassment of species protected by the Marine Mammal Protection Act. Both the USFWS and NMFS require an applicant to implement a POC to mitigate the potential for conflicts between the proposed activity and traditional subsistence activities (50 CFR §18.124(c)(4) and 50 CFR §216.104(a)(12)). The POC must identify the measures that will be taken to minimize any adverse effects on the availability of marine mammals for subsistence uses. In addition, both USFWS and NMFS require an applicant to communicate and consult with local subsistence communities concerning the proposed activity, potential conflicts with subsistence activities, and means of resolving any such conflicts (50 CFR §18.128(d) and 50 CFR §216.104(a)(12)(i), (ii), (iv)).

3.0 MEASURES IN PLACE

The following mitigation measures, plans and programs, are integral to this POC and were developed during consultation with potentially affected subsistence groups, communities, and the NSB. These measures, plans, and programs will be implemented by Shell during its ice overflight surveys in the Chukchi and Beaufort Seas to monitor and mitigate potential impacts to subsistence users and resources. These measures are documented in the following sections:

- Mitigation Measures;
- Marine Mammal Monitoring and Mitigation Program (4MP); and
- Interaction and Avoidance Plan for Polar Bear and Pacific Walrus.

3.1 Ice Overflight Surveys and Equipment Recovery and Maintenance Activity Mitigation Measures

The mitigation measures Shell has adopted and will implement during its ice overflight surveys are listed and discussed below. These mitigation measures reflect Shell's experience conducting exploration activities in Alaska since 2006 and its ongoing consultations with local subsistence communities to better understand their concerns and develop appropriate and effective mitigation measures to address those concerns. Shell's planned mitigation measures have been presented to community leaders and subsistence user groups starting in 2009 and have evolved since in response to comments and concerns expressed during the consultation process. Some mitigation measures appear under more than one sub-heading below, since they are pertinent to more than one "category" of mitigation measures.

3.1.1 Subsistence Mitigation Measures

Shell will implement the following mitigation measures to ensure coordination of its activities with local subsistence users to minimize further the risk of impacting marine mammals and interfering with the subsistence hunt.

Shell has developed a Communication Plan (Attachment B) and will coordinate activities with local subsistence users as well as Village Whaling Associations in order to minimize the risk of interfering with subsistence hunting activities, and keep current as to the timing and status of the bowhead whale migration, as well as the timing and status of other subsistence hunts. The Communication Plan includes procedures for coordination with Subsistence Advisors (SAs), or Community Liaison Officers (CLOs), and facilitation via Communication and Call Centers (Com Centers) should they be operating, to be located in coastal villages along the Chukchi Sea and Beaufort Sea during Shell's proposed activities. Shell will utilize SA in the coastal villages to enable communications between Shell operations and local subsistence users, thereby notifying the subsistence community of any transit route changes and avoiding conflicts with subsistence activities. Village CLOs may assume the SA responsibilities, if an SA is unavailable. For overflight surveys that occur while Communication and Call Centers (Com Centers) are in operation, typically July through October, communication of program operations may also be facilitated via Com Centers.

Shell will employ local SAs from Chukchi Sea and Beaufort Sea villages to provide consultation and guidance regarding the whale migration and subsistence hunt. The SAs will use local knowledge (Traditional Knowledge) to gather data on subsistence lifestyle within the community and provide advice on ways to minimize and mitigate potential negative impacts to subsistence resources. Responsibilities include reporting any subsistence concerns or conflicts; coordinating with subsistence users; reporting subsistence-related comments, concerns, and information; and advising how to avoid subsistence conflicts. SAs must be from a native village located on the North Slope, speak and understand Inupiaq and must have knowledge of subsistence practices for the area. Each SA will be based out of their home

village and will be given a SA handbook. The SA handbook will give an overview of the program, program objectives, discusses recruitment, hiring, and certification, and details the SA's responsibilities. The handbook will include several forms that the SA will be using along with a Traditional Knowledge Questionnaire and subsistence use maps. The handbook will provide the SA with the information needed to identify situation they are to be alert for, their responsibilities and their authorities.

3.1.2 Marine Mammal Mitigation Measures

Marine mammal mitigation measures will utilize a Protected Species Observer (PSO) to ensure that the overflight surveys do not disturb marine mammal resources and avoid unreasonable interference with the subsistence hunt of those resources. A PSO will be stationed on the ice overflight surveys to monitor for marine mammals. For complete PSO protocol refer to the 4MP.

In addition to the use of PSOs, Shell will implement the following measures to avoid disturbances to marine mammals that potentially could rise to the level of incidental take, and ensure coordination of its activities with local subsistence users to minimize further the risk of impacting marine mammals and interfering with the subsistence hunt.

- A 4MP protocol.
- The aircraft will maintain a 1 mi (1.6 km) radius when flying over areas where seals appear to be concentrated in groups of ≥ 5 individuals.
- The aircraft will not land on ice within 0.5 mi (0.8 km) of hauled out pinnipeds
- The aircraft will avoid flying over polynyas and along adjacent ice margins as much as possible to minimize potential disturbance to cetaceans.
- Aircraft shall not operate below 1,500 ft. (457 m) in areas of active whaling; such areas to be identified through communications with the Com Centers and SAs.
- Helicopters will not operate at an altitude lower than 3,000 ft. (914 m) within 1 mi (1.6 km) of walrus groups observed on land, and fixed-wing aircraft will not operate lower than 1,500 ft. (457 m) within 1 mi (1.6 km) of walrus groups observed on land.
- Aircraft will not operate within 0.5 mi (0.8 km) of walrus or polar bears when observed on water or ice, or within 0.5 mi (0.8 km) of polar bears. Due to their importance as polar bear summer resting habitat, flight paths for aircraft will be offset from the coastlines of Chukchi and Beaufort Sea barrier islands by at least 0.5 mile (0.8 km) and 1,500 ft. (457 m) above ground level.

All transit will be coordinated and collaborated with Com Centers, SAs, or CLOs as practicable.

3.2 Marine Mammal Monitoring and Mitigation Program

Under 50 CFR 218.108, NMFS requires any holder of an IHA in Arctic waters to complete monitoring and reporting requirements established in the IHA and published regulations. Additionally, the USFWS requires all applicants for LOAs to conduct monitoring under 50 CFR 18.128, and BOEM requires an industry bowhead whale monitoring program under Stipulation 4 of both the Chukchi Sea Lease Sale 193 and the Beaufort Sea Lease Sale 202. To meet these requirements, a 4MP was developed for the ice overflight surveys. The 4MP is designed to avoid, minimize, and mitigate potential adverse impacts to marine mammal subsistence resources that may result from offshore activities. The 4MP for Shell's overflight surveys will be provided to NMFS along with the surveys IHA application, to the USFWS along with an LOA application, and to BOEM.

The 4MP provides that PSOs will support the overflight surveys. PSOs will be present on the overflight survey to monitor for the presence of marine mammals, assist maintenance of marine mammal mitigation

radii, monitor and record avoidance or exposure behaviors, and communicate with the Com Centers, SAs, or CLOs and with local subsistence hunters by marine radio. The experience and abilities of the NSB residents in sighting and identifying marine mammals during Shell's exploration programs contributed significantly to the success of Shell's previous monitoring and mitigation program.

3.3 Interaction and Avoidance Plan for Polar Bear and Pacific Walrus

Shell has prepared an interaction and avoidance plan for polar bear and Pacific walrus to meet the requirements of 50 CFR 18.128 for holders of LOAs issued by the USFWS. The plan outlines procedures for mitigating potential impacts to polar bear and Pacific walrus, as well as monitoring program requirements. Measures in the plan which cover all Shell activities are summarized here.

- New polar bear dens, identified by industry, local residents, and regulatory agencies are reported annually and will be incorporated into project plans to ensure both bear and worker safety. Bear dens discovered during operations will be reported to the designated USFWS representatives;
- Trash will be collected and separated so that all food-associated waste is placed in an appropriate bear-resistant dumpster;
- Hazardous wastes, if generated, would be transported off-site for disposal at an approved facility;
- Employees will be prohibited from directly feeding animals or deliberately leaving food for polar bears and other animals;
- If a polar bear is observed, all on-site personnel will be alerted so that work activities can be altered or stopped to avoid interactions. Personnel will contact the designated USFWS representative whenever a polar bear is sighted. Depending on the distance between the polar bear and the activities this may mean retreating to the safety of vehicles, emergency shelter, temporary buildings, or other safe haven;
- Aircraft will maintain altitudes as according to the mitigation measures;
- Polar bear monitoring, reporting, and survey activities will be conducted in accordance with those outlined in 78 FR 35364.

3.4 Affected Subsistence Community Meetings

Affected subsistence communities that have or will be consulted regarding Shell's overflight survey activity include Barrow, Kaktovik, Wainwright, and Point Lay. Additionally, Shell may meet with the NSB Assembly and the Alaska Eskimo Whaling Commission (AEWC). POC meetings were held in Barrow on 3 November 2014, in Point Lay on 6 November 2014, and in Wainwright on 13 January 2015. The remaining POC engagement for the community of Kaktovik has been tentatively scheduled for April 2015.

3.5 Community Meeting Summaries

Appendix A lists the dates and locations of community engagements as well as the comments and Shell's responses resulting from those meetings. The dates and documentation of scheduled future consultations will be incorporated into Appendix A via addenda once they have occurred. Comment analysis tables for these meetings summarize feedback from the communities on Shell's planned overflight survey activities. These comments analysis tables include, corresponding mitigation measures pertinent to the comments.

3.6 Project Information and Presentation Materials

To present consistent and concise information regarding the planned overflight surveys, Shell prepared presentation materials summarizing the proposed activities for 2015/2016. The presentation included a high level overview of the overflight program.

3.7 Meeting Process

Prior to Shell's public meetings, meeting notices and flyers will be sent to each of the communities. Announcements of Shell meetings will also be transmitted by VHF radio to all the communities.

Community meetings are designed to allow the public to voice their concerns and speak one-on-one with project experts. Comment cards with a Shell return address will be left with the communities and a toll free phone number and e-mail address will be provided in case questions arose after the meeting. Food will be provided and door prizes will be awarded to create a friendly environment and encourage attendance. Every effort will be made to ensure the maximum amount of feedback is received and that all questions are addressed and answered to the fullest extent possible.

After each meeting, comment cards will be gathered and compiled in a comment analysis table. A separate comment analysis table will be completed for each POC meeting during which comments are recorded and responses provided. These tables will be included in Attachment A via addenda.

4.0 CONCLUSION

As discussed in Section 3, and detailed in the documents attached here, stakeholders will be provided information relevant to the project and will be invited to offer input on potential environmental, social, and health impacts, as well as and proposed mitigation and conflict avoidance measures. Shell is seeking alignment with stakeholders and, where appropriate and feasible, will incorporate the recommendations of stakeholders into project planning.

As required by applicable lease sale stipulations, as well as anticipated IHA and LOA stipulations, Shell will continue to meet with the affected subsistence communities and users to resolve any conflicts and to notify the communities of any changes in its planned operations. This POC may be supplemented, as appropriate, to reflect additional engagements with local subsistence users and any additional or revised mitigation measures that are adopted as a result of those engagements. Shell respectfully submits that this POC meets its obligations under Stipulation No. 5, as well as the POC requirements established by applicable USFWS and NMFS regulations (50 CFR 216.104, 50 CFR 18.124 and 128).

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Attachment A
**Communication and Consultation with North Slope Subsistence Stakeholders:
Community Meeting Comments, and Responses**

Issues	Comments	Shell Response	Mitigation Measures
Aviation noise	How often will Shell’s airplanes and helicopters fly in and around Wainwright?	<p>Four helicopters will be stationed in Barrow and will be going back and forth to the Burger Site (for Drilling Program). We don’t believe there will be a lot of flights out of Wainwright. If we do, then we use our subsistence advisors to ensure that subsistence activity isn’t affected.</p> <p>We may have search and rescue flights flying earlier in the year throughout the area though.</p>	E

Notes:

*Mitigation Measures are only assigned to applicable comments.

"Not applicable" (N/A) is used to designate comments that do not require mitigation measures as a course of action. See [Mitigation Measures Index](#) definitions according to assigned letter.

Proposed Mitigation Measures

- A-Communication Plan for avoiding conflicts with subsistence users.
- B-Collaboration and Communication with Whaling Associations
- C-Plan of Cooperation (will work to obtain a CAA)
- D-Will honor Camden Bay blackout dates for Nuiqsut and Kaktovik whaling.
- E-Subsistence Advisors based in Chukchi Sea Villages and Kotzebue
- F-Protected Species Observers
- G-Robust Marine Mammal Monitoring Protocol
- H-OSR support vessels on standby 24/7 near drilling location
- I-Real time Ice and Weather Forecasting
- J-Crew change by helicopter and collaboration on routes to and from shorebase
- K-zero discharge in Camden Bay of the Beaufort Sea: drilling fluids and cuttings after the 26-in casing; gray and treated black waters; bilge and ballast waters
- L-enhanced blowout prevention and mitigation measures (i.e., second set of blind shear rams, redundant ROV hot stab panel, prefabricated subsea collection and containment system, and relief well plan with designated relief well drilling unit).

Issues	Comments	Shell Response	Mitigation Measures
Operations	Why is Atqasuk an alternate airfield for helicopters rather than Wainwright or Pt. Lay?	Because Wainwright and Pt. Lay are coastal villages subject to fog and Atqasuk is inland with less chance of fog.	J
Aircraft operations	Is aircraft usage weather permitting?	Everything is weather permitting.	I

Notes:

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"Not applicable" (N/A) is used to designate comments that do not require mitigation measures as a course of action. See [Mitigation Measures Index](#) definitions according to assigned letter.

Proposed Mitigation Measures

- A-Communication Plan for avoiding conflicts with subsistence users.
- B-Collaboration and Communication with Whaling Associations
- C-Plan of Cooperation (will work to obtain a CAA)
- D-Will honor Camden blackout dates for Nuiqsut and Kaktovik whaling.
- E-Subsistence Advisors based in Chukchi and Beaufort Sea Villages and Kotzebue
- F-Protected Species Observers
- G-Robust Marine Mammal Monitoring Protocol
- H-OSR Fleet on standby 24/7 near drilling location
- I-Real time Ice and Weather Forecasting
- J-Crew change by helicopter and collaboration on routes to and from shore base
- K-In Camden Bay, Beaufort Sea: zero discharge of: drilling fluids and cuttings after the 26-in casing; gray and treated black waters; bilge and ballast waters
- L-enhanced blowout prevention and mitigation measures (i.e., second set of blind shear rams, redundant ROV hot stab panel, prefabricated subsea collection and containment system, and relief well plan with designated standby relief well drilling unit).

Issues	Comments	Shell Response	Mitigation Measures
Communication	Can local communities get a copy of the presentation?	Yes.	N/A
Community impact	If 2015 does permit Shell to operate, and given what has happened in the past as far as impact on Barrow’s community, hopes Shell works with other industry operators to ensure there is minimal impact as far as air transportation, produce, housing, etc.	Shell realized several improvements from 2012, specifically that we were renting apartments and we know this is a larger impact because it can increase rents, etc. We recognize these potential impacts and in 2015 we will be in the new man camps and old Top of the World.	N/A
Communication	Where is Shell’s communication center going to be located?	It will likely be on the rescue base in Barrow and also in Wainwright, Pt. Lay and Pt. Hope.	A, B, C
Subsistence	Audience member expressed concern about wildlife in Pt. Lay. There are a lot of walrus that get stuck onshore and have nowhere to go.	All of the offshore near Pt. Lay is critical habitat for spectacled eiders, so Shell cannot have any assets there.	G
Communication	A community member expressed gratitude for Shell hosting meetings twice a year, mentioned is appreciative. Shell was thanked for doing so.	Thanked the community member for his comment.	C

Notes:

*Mitigation Measures are only assigned to applicable comments.

"Not applicable" (N/A) is used to designate comments that do not require mitigation measures as a course of action. See [Mitigation Measures Index](#) definitions according to assigned letter.

Proposed Mitigation Measures

A-Communication Plan for avoiding conflicts with subsistence users.

B-Collaboration and Communication with Whaling Associations

C-Plan of Cooperation (will work to obtain a CAA)

D-Will honor Camden blackout dates for Nuiqsut and Kaktovik whaling.

E-Subsistence Advisors based in Chukchi and Beaufort Sea Villages and Kotzebue

F-Protected Species Observers

G-Robust Marine Mammal Monitoring Protocol

H-OSR Fleet on standby 24/7 near drilling location

I-Real time Ice and Weather Forecasting

J-Crew change by helicopter and collaboration on routes to and from shore base

K-in Camden Bay, Beaufort Sea: zero discharge of: drilling fluids and cuttings after the 26-in casing; gray and treated black waters; bilge and ballast waters

L-enhanced blowout prevention and mitigation measures (i.e., second set of blind shear rams, redundant ROV hot stab panel, prefabricated subsea collection and containment system, and relief well plan with designated standby relief well drilling unit).

Attachment B
Chukchi Sea Communication Plan

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Communication Plan
Proposed Ice Overflight Survey Program
Chukchi and Beaufort Seas, Alaska

March 2015

The following Communication Plan will be used during the ice overflight surveys to coordinate activities with local subsistence users, including the Alaska Eskimo Whaling Commission (AEWC), the North Slope Borough, and local communities. The ice overflight surveys will take place in the Chukchi and Beaufort Seas between May 2015 and April 2016.

The Communications Plan will be implemented in two phases. Phase I describes the guidelines already in place to ensure proper communication during the overflight surveys. Phase II describes what to do in the event Shell Gulf of Mexico Inc. and Shell Offshore Inc. (Shell) activities potentially affect subsistence activities and how to keep subsistence user groups informed of Shell activities. Phase I and II are designed to minimize the potential for interference of Shell activities with subsistence activities and resources and to keep operators up-to-date regarding the timing and status of the beluga and bowhead whale migrations in the Chukchi and Beaufort Seas as well as the timing and status of other subsistence hunts.

Overflight surveys will be performed in compliance with all applicable permits and authorizations, including the Plan of Cooperation, Letter of Authorization per U.S. Fish & Wildlife Service, Incidental Harassment Authorization per National Marine Fisheries Service and Lease Stipulation #5 from both the Chukchi Sea lease sale 193 and the Beaufort Sea lease sale 202 per the Bureau of Ocean Energy Management.

PHASE I

- Shell will utilize Subsistence Advisors (SA) in the coastal villages to enable communications between Shell operations and local subsistence users, thereby notifying the subsistence community of any transit route changes and avoiding conflicts with subsistence activities. Village Community Liaison Officers (CLOs) may assume the SA responsibilities, if an SA is unavailable. For overflight surveys that occur while Communication and Call Centers (Com Centers) are in operation, typically July through October, communication of program operations may also be facilitated via Com Centers.
- A Protected Species Observer (PSO) will be onboard the overflight surveys with responsibilities to; monitor for the presence of marine mammals, monitor and record avoidance or exposure behaviors, and communicate with the, SA's, CLO's and/or Com Centers, and local subsistence hunters by radio as needed.
- If a conflict arises with offshore activities, the PSO will immediately notify the helicopter pilot and contact the appropriate SA, CLO, or Com Center who will then contact Shell's simultaneous operations emergency response team. If avoidance is not possible, the next phase will include communication between a Shell representative and a representative from the impacted subsistence hunter group(s) to resolve the issue and plan an alternative course of action by either industry or the subsistence groups.
- Shell will employ local SAs from the Chukchi and Beaufort Seas villages that may be potentially impacted by Shell's overflight survey activities. The SAs will provide consultation and guidance regarding whale migration and subsistence activities. There will be one SA per village. The SA will use local knowledge (Traditional Knowledge) to gather data on subsistence lifestyle within the community and provide advice on ways to minimize and mitigate potential negative impacts to subsistence resources during the overflight surveys. Responsibilities will include reporting any subsistence concerns or conflicts, coordinating with subsistence users, reporting subsistence related comments, concerns, and information, and advising on how to avoid subsistence conflicts.

- Flight altitudes for fixed wing surveys will mostly be at or above 500 ft. (152 m) and range from 100 to 2,000 ft. (30 to 610 m). For helicopter flights, the altitude will mostly be at or above 200 ft. (61 m) with a range of 50 to 500 ft. (15 to 152 m). The helicopter will also land on ice if it is safe to do so and no marine mammals are known to be present within a 0.5 mi (0.8 km) radius of the landing locations. Identification and assessment of ice features are key objectives of the surveys; as a result, flight paths will avoid large leads and areas of open water. If flights need to deviate from their routine planned routes due to an emergency, weather or other unavoidable reasons, the new flight information will be shared as outlined by Shell's Health, Safety, Security, and Environment (HSSE) requirements with SAs, or CLOs and Com Centers if operating, so area subsistence users can be notified.

PHASE II

All guidelines in Phase I will be adhered to in addition to the following:

- If potential conflicts are identified between Shell activities and subsistence activities; the Communication Plan will be used to resolve the issue and plan an alternative course of action.
- Shell will continue with engagements and regular communications with the AEWC, NSB and local communities during the overflight surveys.