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United States Department of the Interior



U.S. FISH AND WILDLIFE SERVICE
1011 East Tudor Road
Anchorage, Alaska 99503-6199

IN REPLY REFER TO

AFES/MMM

NOV 10 2014

Ms. Suzan Simonds
Permits and Regulatory Manager
SAExploration, Inc.
8240 Sandlewood Place, Suite 101
Anchorage, Alaska 99507

Dear Ms. Simonds:

We received your completed application, dated April 15, 2014, for an Incidental Take Authorization (IHA) for the non-lethal, incidental take, by Level B harassment, of small numbers of northern sea otters (*Enhydra lutris kenyoni*) from the southcentral Alaska stock incidental to oil and gas exploration activities in Cook Inlet, Alaska. The proposed activities will occur during the SAExploration, Inc. (SAE) 2015 3D seismic program in the lower Cook Inlet, Alaska

In response, enclosed is IHA-14-02 granting SAE authority to take small numbers of sea otters by Level B harassment incidental to the activities identified in your request. This IHA is issued in accordance with section 101(a)(5)(D) of the Marine Mammal Protection Act, as amended, and described in the US Fish & Wildlife Service (Service) publication listed at 79 FR 51584, dated August 29, 2014. This authorization is valid from November 1, 2014 through October 31, 2015. If you wish to continue this authorization October 31, 2015, submit an application for renewal to the Service Marine Mammals Management (MMM) office no later than July 3, 2015.

If changes develop in your project, such as the scope, timing, or location of activities, the Service MMM must be notified prior to the planned operation. This will allow us to evaluate the activity and, if appropriate, amend the IHA. Should you have any further questions contact our Incidental Take Coordinator, Mr. Craig Perham, at (907) 786-3810.

Sincerely,

Regional Director

Enclosure

cc: Ms. Sue Banet, Bureau of Ocean Energy Management
U.S. Fish and Wildlife Service, Anchorage Fish and Wildlife Field Office
U.S. Fish and Wildlife Service, Office of Law Enforcement



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1011 East Tudor Road
Anchorage, Alaska 99503-6199



INCIDENTAL HARASSMENT AUTHORIZATION (IHA-14-02)

ISSUED: November 1, 2014
EXPIRES: October 31, 2015

SAExploration, Inc. (SAE), is hereby authorized under section 101(a)(5)(D) of the Marine Mammal Protection Act (16 U.S.C. 1371 (a)(5)(D)) to take by Level B harassment small numbers of northern sea otters (*Enhydra lutris kenyoni*), from the southcentral Alaska stock, incidental to oil and gas exploration activities in Cook Inlet, Alaska. This Authorization is valid only for those activities associated with SAE's proposed activities as described in *Application for the Incidental Harassment Authorization for the Taking of Sea Otters in Conjunction with the SAE Proposed 3D Seismic Survey in Cook Inlet, Alaska, 2014* (October, 2013) and 79 FR 51584. SAExploration is required to follow all mitigation, monitoring, and reporting measures specified in 79 FR 51584 and stipulated in this Authorization. Failure to do so may result in the modification, suspension, or revocation of this Authorization.

This authorization is subject upon the following conditions:

- (1) Intentional take is prohibited.
- (2) The taking by Level A harassment, serious injury, or death is prohibited.
- (3) The taking of any sea otter in a manner prohibited under this authorization must be reported within 24 hours of the taking to the U.S. Fish and Wildlife Service (Service), Incidental Take Coordinator in Anchorage, Alaska (907-786-3810).
- (4) SAExploration's *Marine Mammal Monitoring and Mitigation Plan. SAE Cook Inlet 3D Seismic Survey Operations - 2014* in *Appendix B: Application for the Incidental Harassment Authorization for the Taking of Sea Otters in Conjunction with the SAE Proposed 3D Seismic Survey in Cook Inlet, Alaska, 2014* (October, 2013) is approved, all provisions are incorporated by reference unless superseded by stipulations in this Authorization.
- (5) Operations Manager must be fully aware, understand, and capable of implementing the conditions of this Authorization.
- (6) A copy of this Authorization must be in the possession of all vessel and aircraft operators engaging in activities operating under the authority of this Authorization.

(7) SAExploration is required to cooperate with the Service and any other Federal, state or local agency monitoring the impacts of the activity on northern sea otters.

(8) SAExploration is required to notify the Service at least 48 hours prior to the onset of activities.

(9) At the discretion of the Service, the SAE will allow the Service to place one or more observers at the site of the activity or onboard drillships, drill rigs, support vessels, aircraft, or vehicles to monitor the impacts of the activity on sea otters.

(10) Mitigation Measures.

a. *Operating conditions for operational and support vessels.*

- i. Operational and support vessels must be staffed with trained and qualified observers to alert crew of the presence of sea otters and initiate adaptive mitigation responses.
- ii. Vessel operators must take every precaution to avoid harassment to sea otters when a vessel is operating near these animals.
- iii. Vessels must reduce speed and maintain a distance of 100 m (328 ft) from all sea otters when practicable.
- iv. Vessels may not be operated in such a way as to separate members of a group of sea otters from other members of the group.
- v. When weather conditions require, such as when visibility drops, vessels should adjust speed accordingly to avoid the likelihood of injury to sea otters.
- vi. All vessels must avoid areas of active or anticipated subsistence hunting for sea otters as determined through community consultations.
- vii. We may require a monitor on the site of the activity or onboard vessels, aircraft, or vehicles to monitor the impacts of an activity on sea otters.

b. *Operating conditions for aircraft.*

- i. Operators of support aircraft must, at all times, conduct their activities at the maximum distance possible from sea otters.
- ii. Fixed-wing aircraft must operate at an altitude no lower than 91 m (300 ft) in the vicinity of sea otters.
- iii. Rotary winged aircraft (helicopters) must operate at an altitude no lower than 305 m (1,000 ft) in the vicinity of sea otters.
- iv. When weather conditions do not safely allow the required minimum altitudes stipulated above, such as during severe storms or when cloud cover is low, aircraft may be operated at lower altitudes.
- v. When aircraft are operated at altitudes below the required minimum altitudes, the operator must avoid known sea otter locations and should take precautions to avoid flying directly over these areas.

- vi. Aircraft routes must be planned to minimize any potential conflict with active or anticipated sea otter subsistence hunting activity as determined through community consultations.
- c. *Offshore seismic surveys.*

Any offshore activity expected to include the production of pulsed underwater sounds with sound source levels ≥ 160 dB re 1 mPa will be required to establish and monitor acoustically verified monitoring zones and implement adaptive mitigation measures as follows:

 - i. Monitoring zones. Trained and qualified observers will establish and monitor an acoustically verified disturbance zone surrounding sound sources where the received level of underwater sound pressure will be from ≥ 180 dB re 1 mPa to 190 dB re 1 mPa (the “180 dB disturbance zone”), and an acoustically verified exclusion zone surrounding sound sources where the received level of underwater sound pressure will be ≥ 190 dB re 1 mPa (the “190 dB exclusion zone”). Monitoring zones will be verified with a sound source verification at the location of the activity before the activity begins.
 - ii. Ramp-up procedures. For all activities producing pulsed underwater sounds levels ≥ 160 dB re 1 mPa, including testing or mitigation airguns, the following ramp-up procedures will be used to allow marine mammals to depart the disturbance zone before seismic surveying begins.
 - A. The disturbance zone and adjacent waters will be visually monitored for sea otters for at least 30 minutes before initiating ramp-up procedures. If no sea otters are detected, ramp-up procedures may be initiated. Ramp-up procedures may be initiated at night or when it is not possible to visually monitor the disturbance zone for marine mammals.
 - B. Ramp-up procedures will be initiated by gradually increasing sound energy levels, such as firing a single small airgun. The preferred airgun to begin with should be the smallest airgun, in terms of energy output (dB) and volume (cubic inches).
 - C. Ramp-up will continue by gradually increasing sound energy over a period of at least 20 minutes, but no longer than 40 minutes, until the desired operating level of sound is obtained.
 - iii. Power down/Shutdown. If one or more sea otters are observed within the 180 dB disturbance zone, the sound sources will be immediately powered down or shut down. If the power down procedure cannot reduce the received underwater sound pressure level to 160 dB re 1 mPa or less, the sound sources will immediately be shut down.
 - iv. Emergency shutdown. If one or more sea otters are sighted within 190 dB exclusion zone, sound sources will immediately be shut down. If observations are made or credible reports are received that one or more sea otters are within the vicinity of the project and are indicating acute distress, such as any injury possibly due to seismic noise, all sound sources will

immediately be shut down and the Service contacted. Sound sources will not be restarted until review and approval by the Service.

(11) Monitoring Requirements.

- a. Trained and qualified onsite observers will carry out monitoring programs for sea otters necessary for initiating adaptive mitigation responses.
- b. Trained and qualified observers will be placed on board all operational and support vessels to alert crew of the presence of sea otters to initiate adaptive mitigation responses and to carry out specified monitoring activities identified in the marine mammal monitoring and mitigation plan necessary to evaluate the impact of authorized activities on sea otters and the subsistence use of sea otters.

(12) Reporting Requirements.

- a. *Weekly Observation Report.*
SAE must report, on a weekly basis, observations of sea otters during project activities. Information within the observation report must include, but is not limited to:
 - i. Date, time, and location of each sighting.
 - ii. Number, sex, and age (if determinable).
 - iii. Observer name, company name, vessel name, or aircraft number, authorization number, and contact information.
 - iv. Weather, visibility, and sea conditions at the time of observation.
 - v. Estimated distance from the animal or group when initially sighted, at closest approach, and end of the encounter.
 - vi. Industry activity at time of sighting and throughout the encounter. If it's a seismic survey or sound source activity note the estimated ensonification zone where animals are observed.
 - vii. Detailed description of the encounter including behavior of animals at initial sighting, any sea otter behavioral responses to project activities (e.g., diving, swimming, splashing, etc.), any change in behavior during the observation period, and distance from activity associated with those behavioral changes.
 - viii. Duration of the encounter.
 - ix. Mitigation actions taken.
- b. *Notification of Incident Report.*
SAE must report to the Service within 24 hours:
 - i. Any lethal take or injury of a sea otter due to project activities.
 - ii. Observations of sea otters within the prescribed 180 dB disturbance zone or the 190 dB exclusion zone.
- c. *After-Action Monitoring Report.*
The results of monitoring efforts identified in the marine mammal monitoring and mitigation plan must be submitted to the Service for review within 90 days of the

expiration date of the IHA. The report must include, but is not limited to, the following information:

- i. A summary of monitoring effort including; observer hours logged and areas/distances observed for each rig, vessel, and aircraft.
- ii. Analysis of factors affecting the visibility and detectability of sea during monitoring.
- iii. Summary and analysis of sea otter observations in relation to project activity (e.g., seismic source firing, powered down, or shut-down) including: when, where, how many, distribution, abundance, behavior, movement, initial sighting distance, and closest point of approach.
- iv. Estimate of take based on the number of animals observed and their behavior in relation to project activities.
- v. Raw data in electronic format (i.e., Excel spreadsheet) as specified by the Service.

Activities related to the monitoring described in this authorization do not require a separate scientific research permit issued under section 104 of the Marine Mammal Protection Act.

Should you have any questions please contact the Service Incidental Take Coordinator in Anchorage Alaska (907-786-3800).



Regional Director

FINDING OF NO SIGNIFICANT IMPACT

PROCEDURAL REGULATIONS GOVERNING THE INCIDENTAL TAKING OF MARINE MAMMALS BY HARASSMENT

The Fish and Wildlife Service (Service) proposes to issue an Incidental Harassment Authorization (IHA) under Section 101(a)(5)(D) of the Marine Mammal Protection Act (MMPA)(16 U.S.C. § 1361 *et seq.*) that would authorize SAExploration, Inc. (SAE) the nonlethal, incidental, unintentional take (Level B take as defined in the MMPA) of small numbers of northern sea otters (*Enhydra lutris kenyoni*) during a three dimensional (3D) seismic survey program in support of oil and gas industry (Industry) exploration in Cook Inlet, Alaska. The proposed start date for the seismic survey is approximately March 1, 2015; the proposed IHA will be valid for one year from the date of issue.

The preferred alternative is to issue the proposed IHA to SAE. The IHA will include specific monitoring, mitigation, and reporting measures (as described in the SAE Environmental Assessment and our *Federal Register* notice. Further, the proposed IHA would not allow the intentional taking of sea otters nor any take that could result in potential injury to sea otters (Level A as defined in the MMPA).

The alternatives presented in this document are the result of agency input. Their impacts are analyzed in accordance with the National Environmental Policy Act (NEPA)(42 USC § 4321 *et seq.*). The environmental assessment evaluated two alternatives: The preferred alternative described above, and a no action alternative. The Service also reviewed alternatives not considered feasible or practicable.

The no action alternative would result in no IHA being issued. Under this alternative, SAE's seismic survey could still occur as the authority to authorize such activities lies with a different agency. Any takes of sea otters that might occur incidental to SAE's activities would be subject to the take prohibitions found in the MMPA. SAExploration, Inc. would be liable for penalties proscribed by the MMPA should take occur.

Alternatives that the Service considered, but determined were not feasible, included: (1) initiating an Incidental Take Regulations (ITR) program; and (2) issue an IHA with no mitigation, monitoring, or reporting requirements.

Issuing an IHA entails individual authorization for each specified activity in a specific geographic area for no more than one year. In this case the IHA was evaluated in conjunction with two other IHAs for Industry exploration activities in Cook Inlet, AK. However, IHA process has limitations in that authorizations are issued on a project-by-project basis, and consequently they generally do not provide the comprehensive evaluation necessary to understand all potential impacts from various Industry activities in the Cook Inlet that may affect sea otters over a longer period of time. While an ITR program is possible given adequate time, the Service must receive a request for such regulations, which we have not in this case. The

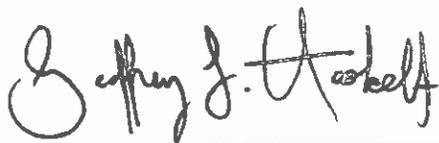
Service believes that an IHA is appropriate for SAE's seismic survey project. However, if other seismic surveys or other Industry activities are to continue beyond the timeframe of the proposed IHA, the Service will encourage project proponents to request ITRs for the Cook Inlet region.

The Service analyzed the proposed action, i.e., issuance of an IHA, in accordance with the criteria of NEPA and made an initial determination that it does not constitute a major Federal action significantly affecting the quality of the human environment. Potential impacts of issuing the IHA on the species and the environment were analyzed in the Environmental Assessment. The Service found that the total expected takings of sea otters during SAE's seismic survey will have a negligible impact on the southcentral Alaska stock, and will not have an unmitigable adverse impact on the availability of the southcentral Alaska stock for subsistence use by Alaska Native people. The Service based this finding on an analysis of SAE's proposed seismic survey, the best scientific information available regarding potential impacts to sea otters, as well as data from the Service's Marine Mammals Management Marking Tagging and Reporting Program. This proposed IHA will provide the Service with a means of interacting with SAE to insure that impacts to sea otters are minimal and documented.

Based on a review and evaluation of the information contained in the supporting references below, I have concluded that approval and issuance of an IHA for small numbers of sea otters during the specified activities at the specified geographical area would not significantly affect the quality of the human environment, and that the preparation of an Environmental Impact Statement on this action is not required by section 102(?) of the NEPA or its implementing regulations.

Supporting References

1. U.S. Fish and Wildlife Service - Environmental Assessment, Issuance of an Incidental Harassment Authorization to SAE Alaska Corporation for the Take of Marine Mammals Incidental to a 3D Seismic Survey in Cook Inlet, Alaska. July 2014.
2. U.S. Fish and Wildlife Service - Determination of Effects in the Proposed IHA.



Regional Director, Region 7
U.S. Fish and Wildlife Service

Date: NOV 10 2014