

## Mitigation Measures and Lessee Advisories

AS 38.05.035(e) and the ADNR delegation of authority provide the DO&G director with the authority to impose conditions or limitations, in addition to those imposed by statute, to ensure that a resource disposal is in the state's best interests. Consequently, to mitigate the potential adverse social and environmental effects of specific permit/lease-related activities, DO&G has developed mitigation measures and will condition plans of operation, exploration, or development and other permits based on these mitigation measures.

Before conducting exploration, development, or production activities, lessees must first obtain the director's approval of a detailed plan of operations. A plan of operations must identify the sites for planned activities and the specific measures, sequence, and schedule of operations, design criteria, transportation activities, construction methods, and operational standards to be employed to comply with the restrictions listed below. It must also address any potential geophysical hazards that may exist at the site.

These measures were developed after considering terms imposed in earlier geothermal disposals, competitive oil and gas lease sales, and comments and information submitted by the public, local governments, environmental organizations, and other federal, state, and local agencies. Additional measures will likely be imposed when lessees submit a proposed plan of operations.

Lessees must comply with all applicable local, state, and federal codes, statutes and regulations, as amended; all current or future ADNR area plans and recreation rivers plans; and Alaska Department of Fish and Game (ADF&G) game refuge plans, critical habitat area plans, and sanctuary area plans within which a permit/lease area is located.

The director may grant exceptions to these mitigation measures. Exceptions will only be granted upon a showing by the lessee that compliance with the mitigation measure is not feasible and prudent or that the lessee will undertake an equal or better alternative to satisfy the intent of the mitigation measure. Requests and justifications for exceptions must be included in the plan of operations. The decision whether to grant an exception will be made during the public review of the plan of operations.

Abbreviations mean: Alaska Department of Environmental Conservation (ADEC), Alaska Department of Fish and Game (ADF&G), Alaska Department of Labor and Workforce Development (ADLWD), Alaska Department of Natural Resources (ADNR) ADNR commissioner (commissioner), Division of Forestry (DOF), Division of Mining, Land and Water (DMLW), Division of Oil and Gas (DO&G), Kenai Peninsula Borough (KPB), National Marine Fisheries Service (NMFS), National Pollutant Discharge Elimination System (NPDES), Office of Habitat Management and Permitting (OHMP)<sup>1</sup>, State Historic Preservation Officer (SHPO), U.S. Army Corps of Engineers (USCOE), U.S. Bureau of Land Management (BLM), U.S. Environmental Protection Agency (EPA), and U.S. Fish and Wildlife Service (USFWS).

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<sup>1</sup> The Office of Habitat Management and Permitting (OHMP) of the Alaska Department of Natural Resources will become the Division of Habitat, a part of the Alaska Department of Fish and Game (ADF&G), effective July 1, 2008, as a result of Executive Order 114.

# Mitigation Measures

## 1. Facilities and Operations

- a. A plan of operations must be submitted and approved before conducting exploration, development, or production activities, and must describe the lessee's efforts to minimize impacts on residential, commercial, and recreational areas, Native allotments and subsistence use areas. At the time of application, the lessee must submit a copy of the proposed plan of operations to the KPB and all surface owners whose property will be entered.
- b. Facilities must be designed and operated to minimize sight and sound impacts in areas of high commercial, recreational, and subsistence use and important wildlife habitat. Methods may include providing natural buffers and screening to conceal facilities, sound insulation of facilities, or by using alternative means approved by the director, in consultation with OHMP.
- c. To the extent feasible and prudent, the siting of facilities will be prohibited within 500 feet of all fish-bearing streams and water bodies and 1,500 feet from all current surface drinking water sources. Facilities may be sited within these buffers if the lessee demonstrates to the satisfaction of the director, in consultation with OHMP, that site locations outside these buffers are not feasible and prudent or that a location inside the buffer is environmentally preferred. Road, utility, and pipeline crossings must be consolidated and aligned perpendicular or nearly perpendicular to watercourses.
- d. Measures will be required, in consultation with OHMP and ADEC, to minimize the impact of industrial development on important wetlands. Lessees must identify on a map or aerial photograph the largest surface area, including reasonably foreseeable future expansion areas, within which a facility is to be sited, or an activity will occur. The map or photograph must accompany a plan of operations. DO&G will consult with OHMP and ADEC to identify the least sensitive areas within the area of interest. To minimize impacts, the lessee must avoid siting facilities in the identified sensitive habitat areas. Further, all activities within wetlands require permission from the U.S. Army Corps of Engineers (see Lessee Advisories).
- e. With the exception of drill pads, airstrips, and roads permitted under Mitigation Measure 5.a., exploration facilities must be consolidated, temporary, and must not be constructed of gravel unless the director determines that no feasible and prudent alternative exists. Reuse of abandoned gravel structures may be permitted on a case-by-case basis by the director, after consultation with the director, DMLW, and OHMP. Approval for use of abandoned structures will depend on the extent and method of restoration needed to return these structures to a usable condition.
- f. Where feasible and prudent, onshore pipelines must be located on the upslope side of roadways and construction pads, unless the Director of DMLW determines that an alternative site is environmentally acceptable. All pipelines must be designed, constructed and maintained to assure integrity against climatic conditions, tides and current, geophysical hazards, corrosion, and other hazards as determined on a case-by-case basis.
- g. Wherever possible, onshore pipelines must utilize existing transportation corridors and be buried where soil and geophysical conditions permit. In areas where pipelines must be placed above ground, pipelines must be sited, designed, and constructed to allow free movement of large mammals. Lessees shall consider increased snow depth in the lease sale area in relation to pipe elevation to ensure adequate clearance for wildlife. DO&G may, after consultation with OHMP, require additional measures to mitigate impacts to wildlife movement and migration.

- h.
  - i. The use of continuous-fill causeways is discouraged. Environmentally preferred alternatives for field development include use of buried pipelines, onshore directional drilling, or elevated structures. Approved causeways must be designed, sited, and constructed to prevent significant changes to nearshore oceanographic circulation patterns and water quality characteristics (e.g., salinity, temperature, suspended sediments) that result in exceedances of water quality criteria, and must maintain free passage of marine and anadromous fish.
  - ii. Causeways and docks shall not be located in river mouths or deltas. Artificial gravel islands and bottom-founded structures shall not be located in river mouths or active stream channels on river deltas, except as provided for in (iii).
  - iii. Each proposed structure will be reviewed on a case-by-case basis. Causeways, docks, artificial gravel islands and bottom-founded structures may be permitted if the director, in consultation with OHMP, ADEC, and the KPB determines that a causeway or other structures are necessary for geothermal development and that no feasible and prudent alternatives exist. A monitoring program may be required to address the objectives of water quality and free passage of fish, and mitigation shall be required where significant deviation from objectives occurs. (See also Lessee Advisories regarding U.S. Army Corps of Engineers requirements.)
- i. Gravel mining within an active floodplain is prohibited. Gravel mining in upland sites will be restricted to the minimum area necessary to develop the field in an efficient manner.
- j. Dismantlement, Removal and Rehabilitation (DR&R): Upon abandonment of material sites, drilling sites, roads, buildings, or other facilities, such facilities must be removed and the site rehabilitated to the satisfaction of the director, unless the director, in consultation with DMLW, OHMP, ADEC, and any affected local borough, and any non-state surface owner, determines that such removal and rehabilitation is not in the state's interest.
- k. Wherever possible, transmission lines must utilize existing transportation corridors and must be designed and constructed so as to minimize impacts to fish and wildlife movement. Minimizing impacts may include burying lines, consolidating stream crossing structures, using building standards contained in "2006 Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006" produced by the Avian Power Line Interaction Committee (available at [www.aplic.org/](http://www.aplic.org/)), or similar measures.
- l. Lessees must conduct a second order survey of the land surface before and during hydrothermal resources production to determine any elevation changes. If production results in subsidence and if subsidence is determined to be hazardous to geothermal production operations or adjoining land uses, the director will require lessees adjust production and injection rates or to suspend operations.
- m. The state may install seismographs or other instruments in producing geothermal fields to detect induced seismic activity. If geothermal production induces increased seismicity and if induced seismicity is determined to be hazardous to geothermal production operations or adjoining land uses, the director, will require lessees adjust production and injection rates or to suspend operations.

## **2. Fish and Wildlife Habitat**

- a. Use of explosives will be prohibited in open water areas of fish-bearing streams and lakes. Explosives must not be detonated beneath, or in close proximity to fishbearing streams and lakes if the detonation of the explosive produces a pressure rise in the waterbody greater than 2.7

pounds per square inch (psi) unless the water body, including its substrate, is solidly frozen. Explosives must not produce a peak particle velocity greater than 0.5 inches per second (ips) in a spawning bed during the early stages of egg incubation. Blasting criteria have been developed by ADF&G and are available upon request from ADF&G or OHMP. The location of known fish-bearing waters within the lease sale area can be obtained from OHMP.

- b. Removal of water from fish-bearing rivers, streams, and natural lakes shall be subject to prior written approval by DMLW and OHMP.
- c. Water intake pipes used to remove water from fish-bearing water bodies must be surrounded by a screened enclosure to prevent fish entrainment and impingement. Screen mesh size shall be no greater than 0.1 inches and the maximum water velocity at the surface of the screen enclosure may be no greater than 0.2 feet per second unless another size or velocity has been approved by OHMP. Screen material must be corrosion resistant, and must be adequately supported to prevent excessive sagging which could result in unusable intake surface. The intake structure must be designed and installed to avoid excessive fouling from floating debris, and a minimum of eight square feet of effective wetted screen surface must be provided for each multiple of a 450-gallon per minute (one cubic-foot per second) pumping rate. The pump intake opening must be placed equidistant from all effective wetted screen surfaces.
- d. Compaction or removal of snow cover overlying fish bearing rivers, streams, and natural lakes shall be prohibited, except for approved crossings. If ice thickness is not sufficient to facilitate a crossing, ice or snow bridges may be required.
- e. Surface entry will be prohibited within one-quarter mile of trumpeter swan nesting sites April 1 through August 31. The siting of permanent facilities, including roads, material sites, storage areas, power lines, and above-ground pipelines will be prohibited within one-quarter mile of known nesting sites. Location of trumpeter swan nesting sites can be obtained from ADF&G.
- f. Bears:
  - i. Before commencement of any activities, lessees shall consult with ADF&G to identify the locations of known bear den sites that are occupied in the season of proposed activities. Exploration and development activities between November 15 and March 31 must not be conducted within one-half mile of occupied brown bear dens, unless alternative mitigation measures are approved by ADF&G. A lessee who encounters an occupied brown bear den not previously identified by ADF&G must report it to the Division of Wildlife Conservation, ADF&G, within 24 hours. Mobile activities shall avoid such discovered occupied dens by one-half mile unless alternative mitigation measures are approved by the director, with concurrence from ADF&G. Non-mobile facilities will not be required to relocate.
  - ii. For projects in close proximity to areas frequented by bears, lessees are required to prepare and implement bear interaction plans to minimize conflicts between bears and humans. These plans should include measures to:
    - A. Minimize attraction of bears to drill sites.
    - B. Organize layout of buildings and work areas to minimize interactions between humans and bears.
    - C. Warn personnel of bears near or on facilities and the proper procedures to take.
    - D. If authorized, deter bears from the facilities.
    - E. Provide contingencies in the event bears do not leave the site.
    - F. Discuss proper storage and disposal of materials that may be toxic to bears.
    - G. Provide a systematic record of bears on site and in the immediate area.

- g. The director, in consultation with OHMP, shall restrict or modify lease-related activities if scientific evidence documents the presence of Steller's eider from the Alaska breeding population in the area and it is determined that geothermal activities will impact them or their overwintering habitat in the nearshore waters of Cook Inlet.

### **3. Subsistence, Commercial, and Sport Harvest Activities**

- a. Exploration, development, and production operations shall be conducted in a manner that prevents unreasonable conflicts between lease-related activities and subsistence activities. Lease-related use will be restricted when the director determines it is necessary to prevent conflicts with local subsistence, commercial, and sport harvest activities. In enforcing this term, DO&G will consult with other agencies, the affected local borough(s), and the public to identify and avoid potential conflicts. In order to avoid conflicts with subsistence, commercial, and sport harvest activities, restrictions may include alternative site selection, requiring directional drilling, seasonal drilling restrictions, and other technologies deemed appropriate by the director.
- b. Before submitting a plan of operations for either onshore or offshore activities which have the potential to disrupt subsistence activities, the lessee shall consult with the potentially affected subsistence communities and the KPB (collectively "parties") to discuss the siting, timing, and methods of proposed operations and safeguards or mitigating measures that could be implemented by the operator to prevent unreasonable conflicts. The parties shall also discuss the reasonably foreseeable effect on subsistence activities of any other operations in the area that they know will occur during the lessee's proposed operations. Through this consultation, the lessee shall make reasonable efforts to assure that exploration, development, and production activities are compatible with subsistence hunting and fishing activities and will not result in unreasonable interference with subsistence harvests.
- c. A discussion of agreements reached or not reached during the consultation process and any plans for continued consultation shall be included in the plan of operations. The lessee shall identify who participated in the consultation and send copies of the plan to participating communities and the KPB when it is submitted to DO&G.
- d. If the parties cannot agree, then any of them may request the commissioner, or his/her designee, to intercede. The commissioner may assemble the parties or take other measures to resolve conflicts among the parties.
- e. The lessee shall notify the director of all concerns expressed by subsistence hunters during operations and of steps taken to address such concerns.
- f. Traditional and customary access to subsistence areas shall be maintained unless reasonable alternative access is provided to subsistence users. "Reasonable access" is access using means generally available to subsistence users.

### **4. Fuel, Hazardous Substances, and Waste**

- a. Secondary containment shall be provided for the storage of fuel or hazardous substances.
- b. Containers with an aggregate storage capacity of greater than 55 gallons that contain fuel or hazardous substances shall not be stored within 100 feet of a water body or within 1,500 feet of a current surface drinking water source.

- c. During equipment storage or maintenance, the site shall be protected from leaking or dripping fuel and hazardous substances by the placement of drip pans or other surface liners designed to catch and hold fluids under the equipment, or by creating an area for storage or maintenance using an impermeable liner or other suitable containment mechanism.
- d. During fuel or hazardous substance transfer, secondary containment or a surface liner must be placed under all container or vehicle fuel tank inlet and outlet points, hose connections, and hose ends. Appropriate spill response equipment, sufficient to respond to a spill of up to five gallons, must be on hand during any transfer or handling of fuel or hazardous substances. Trained personnel shall attend transfer operations at all times.
- e. Vehicle refueling shall not occur within the annual floodplain, except as addressed and approved in the plan of operations. This measure does not apply to waterborne vessels.
- f. All independent fuel and hazardous substance containers shall be marked with the contents and the lessee's or contractor's name using paint or a permanent label.
- g. A freshwater aquifer monitoring well, and quarterly water quality monitoring, is required down gradient of a permanent storage facility, unless alternative acceptable technology is approved by ADEC.
- h. Waste must be reduced, reused, or recycled to the maximum extent feasible and prudent. Garbage and domestic combustibles must be incinerated whenever possible or disposed of at an approved site in accordance with 18 AAC 60. (See Lessee Advisories, ADEC.)
- i. New solid waste disposal sites will not be approved or located on state property during the exploratory stage of lease activities. Disposal sites may be provided for drilling waste if the facility complies with 18 AAC 60. (See Lessee Advisories, ADEC.)
- j. Impermeable lining and diking, or equivalent measures, such as double-walled tanks, will be required for sewage ponds and sumps. Additional site-specific measures may be required as determined by ADNR, with the concurrence of ADEC, and will be addressed in the existing review of project permits or C-Plans. Buffer zones of not less than 500 feet will be required to separate sewage ponds from marine waters and freshwater supplies, streams and lakes, and important wetlands.
- k. Proper disposal of garbage and putrescible waste is essential to minimize attraction of wildlife. The lessee must use the most appropriate and efficient method to achieve this goal.

## **5. Access**

- a. Onshore activities must be supported by air service, an existing road system or port facility, ice roads, or by vehicles that do not cause significant damage to the ground surface or vegetation. Unrestricted surface travel may be permitted by the director and the director of DMLW, if an emergency condition exists, or if it is determined, after consulting with OHMP, that travel can be accomplished without damaging the ground surface or vegetation.
- b. Construction of temporary roads may be allowed. Temporary means that a road must be removed to the extent that it is rendered impassable or is otherwise rehabilitated in a manner such that any placed gravel remaining approximates surrounding natural features. Construction of permanent roads will be prohibited during the exploration stage.

- c. Public access to, or use of, the lease sale area may not be restricted, except within 1,500 feet of drill sites, buildings, and other related facilities. Areas of restricted access must be identified in the plan of operations. Lease facilities and operations shall not be located so as to block access to or along navigable or public waters, as defined in AS 38.05.

## **6. Prehistoric, Historic, and Archeological Sites**

- a. Before the construction or placement of any structure, road, or facility resulting from exploration, development, or production activities, the lessee must conduct an inventory of prehistoric, historic, and archeological sites within the area affected by an activity. The inventory must include consideration of literature provided by the KPB, nearby communities, Native organizations, and local residents; documentation of oral history regarding prehistoric and historic uses of such sites; evidence of consultation with the Alaska Heritage Resources Survey and the National Register of Historic Places; and site surveys. The inventory must also include a detailed analysis of the effects that might result from the activity.
- b. The inventory of prehistoric, historic, and archeological sites must be submitted to the director and to SHPO, who will coordinate with the KPB for review and comment. If a prehistoric, historic, or archeological site or area could be adversely affected by a permit/lease activity, the director, after consultation with SHPO and the KPB, will direct the lessee as to the course of action to take to avoid or minimize adverse effects.
- c. If a site, structure, or object of prehistoric, historic, or archaeological significance is discovered during permit/lease operations, the lessee must report the discovery to the director as soon as possible. The lessee must make reasonable efforts to preserve and protect the discovered site, structure, or object from damage until the director, after consultation with the SHPO and the KPB, has directed the lessee as to the course of action to take for its preservation.

## **7. Local Hire, Communication, and Training**

- a. To the extent authorized by law, lessees are encouraged to employ local and Alaska residents and contractors, to the extent they are available and qualified, for work performed in the lease sale area. Lessees shall submit, as part of the plan of operations, a proposal detailing the means by which the lessee will comply with the measure. The proposal must include a description of the operator's plans for partnering with local communities to recruit, hire, and train local and Alaska residents and contractors. The lessee is encouraged, in formulating this proposal, to coordinate with employment and training services offered by the State of Alaska and local communities to train and recruit employees from local communities.
- b. A plan of operations application must describe the lessee's past and prospective efforts to communicate with local communities and local community groups that have expressed interest in the project to the lessee or the state.
- c. A plan of operations application must include a training program for all personnel, including contractors and subcontractors. The program must be designed to inform each person working on the project of environmental, social, and cultural concerns that relate to that person's job. The program must use methods to ensure that personnel understand and use techniques necessary to preserve geological, archeological, and biological resources. In addition, the program must be designed to help personnel increase their sensitivity and understanding of community values, customs, and lifestyles in areas where they will be operating.

## 8. Definitions

- a. In this document:
  - i. “Facilities” means any structure, equipment, or improvement to the surface, whether temporary or permanent, including, but not limited to, roads, pads, pits, pipelines, power lines, generators, utilities, airstrips, wells, compressors, drill rigs, camps, and buildings.
  - ii. “Feasible and prudent” means consistent with sound engineering practice and not causing environmental, social, or economic costs that outweigh the public benefit to be derived from compliance with the standard.
  - iii. “Important wetlands” means those wetlands that are of high value to fish, waterfowl, and shorebirds because of their unique characteristics or scarcity in the region or that have been determined to function at a high level using the hydrogeomorphic approach.
  - iv. “Minimize” means to reduce adverse impacts to the smallest amount, extent, duration, size, or degree reasonable in light of the environmental, social, or economic costs of further reduction.
  - v. “Plan of operations” means a lease plan of operations under 11 AAC 83.158 and a unit plan of operations under 11 AAC 83.346.
  - vi. “Secondary containment” means an impermeable diked area or portable impermeable containment structure capable of containing 110 percent of the volume of the largest independent container plus 12 inches of freeboard. Double walled tanks do not qualify as secondary containment unless an exception is granted for a particular tank.
  - vii. “Temporary” means no more than 12 months.

## Lessee Advisories

Lessee advisories are intended to alert lessees to possible additional restrictions that may be imposed at the permitting stage of a proposed project or activity within permit/lease areas, especially where entities other than DO&G have permitting authority.

### 1. ADNOR/OHMP

- a. Under the provisions of Title 41 of the Alaska Statutes, the measures listed below may be imposed by OHMP below the ordinary high watermark to protect designated anadromous fish-bearing lakes and streams and to ensure the free and efficient passage of fish in all fish-bearing water bodies. Exceptions to these requirements, including exceptions for the use of spill containment and recovery equipment, may be allowed on a case-by-case basis. Specific information on the location of anadromous water bodies in and near the area may be obtained from OHMP.
  - i. Alteration of riverbanks may be prohibited.
  - ii. The operation of equipment within riparian habitats will be prohibited. The operation of equipment, excluding boats, in open water areas of rivers and streams will be prohibited.
  - iii. Bridges or non-bottom founded structures may be required for crossing fish spawning and important rearing habitats.
  - iv. Culverts or other stream crossing structures must be designed, installed, and maintained to provide free and efficient passage of fish.
- b. Removal of water from fish-bearing water bodies requires prior written approval by DMLW and OHMP.
- c. Forest clearing must be approved by the director, after consultation with DOF and OHMP.



- d. The director, in consultation with OHMP, may impose seasonal restrictions on activities located in and adjacent to important waterfowl and shorebird habitat during the plan of operations approval stage.
- e. In populated areas where there is no local planning and zoning, ADNR may, in approval of plans of operation, require that permanent structures be designed to be compatible with the aesthetics of the surrounding area.
- f. The director, in consultation with OHMP, may impose restriction on activities located in important moose calving and wintering area during the plan of operations approval stage.

## **2. ADEC**

- a. A spill prevention control and countermeasure plan must be submitted to ADEC for approval before geothermal drilling operations. In addition to addressing the prevention of geothermal effluents, the plan must describe how a spill response would occur, a prevention plan to describe the spill prevention measures taken at the facility, and supplemental information to provide background and verification information.
- b. Wastewater (per Clean Water Act, 33 U.S.C. 1251 et seq.):
  - i. Unless authorized by NPDES and/or state permit, disposal of wastewater into intertidal areas, estuarine waters, or freshwater bodies, including Class III, IV, VI and VIII wetlands, is prohibited.
  - ii. Unless authorized by an ADEC permit, disposal of produced waters into freshwater bodies, intertidal areas, and estuarine waters is prohibited.
  - iii. If authorized by ADEC and EPA, disposal of produced waters in upland areas, including wetlands, will be by subsurface disposal techniques. ADEC may permit alternate disposal methods if the lessee demonstrates that subsurface disposal is not feasible and prudent.
  - iv. Surface discharge of reserve pit fluids will be prohibited unless authorized in a permit issued by ADEC or EPA and approved by DMWL.
- c. Discharge of drilling muds and cuttings into lakes, streams, rivers, and high-value wetlands is prohibited. Surface discharge of drilling muds and cuttings into reserve pits shall be allowed only when it is determined that underground injection is not technically achievable. A solid-waste disposal permit must be obtained from ADEC. If use of a reserve pit is proposed, the operator must demonstrate the advantages of a reserve pit over other disposal methods, and describe methods to be employed to reduce the disposed volume. On-pad temporary cuttings storage will be allowed as necessary to facilitate annular injection and/or backhaul operations in accordance with 18 AAC 60.

## **3. ADLWD**

- a. The lessee shall facilitate Alaska resident hire monitoring by reporting project wages on a quarterly basis for each individual employed by the permittee/lessee in the permit/lease area, through electronic unemployment insurance reporting, and by requiring the same of the lessee's contractors and subcontractors.

#### **4. USCOE**

- a. Any activity involving wetland-related dredge or fill activities, or construction in navigable waters of the United States, requires a permit from the USCOE.

#### **5. USFWS**

- a. The lessee is advised that the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. 1531 et seq.), protects endangered and threatened species and candidate species for listing that may occur in the lease sale area. Lessees shall comply with the Recommended Protection Measures developed by the USFWS to ensure adequate protection for all endangered, threatened, and candidate species.
- b. Lessees are advised of the need to comply with the Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703), which is administered by the USFWS. Under the Migratory Bird Treaty Act, it is illegal to “take” migratory birds, their eggs, feathers or nests. “Take” is defined (50 CFR 10.12) to include “pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting.” The MBTA does not distinguish between “intentional” and “unintentional” take. Migratory birds include songbirds, waterfowl, shorebirds, and raptors, In Alaska, all native birds except grouse and ptarmigan (which are protected by the State of Alaska) are protected under the MBTA.

In order to ensure compliance with the MBTA, it is recommended that lessees survey the project area before construction, vegetation clearing, excavation, discharging fill or other activities which create disturbance, and confirm there are no active migratory bird nests. It is recommended that lessees contact the USFWS for assistance and guidance on survey needs, and other compliance issues under the Migratory Bird Treaty Act. While the USFWS can recommend methods (such as surveys and timing windows) to avoid unintentional take, responsibility for compliance with the MBTA rests with lessees.

- c. Lessees are advised that they must comply with the provisions of the Marine Mammal Protection Act of 1972, as amended (16 USC 1361-1407). USFWS shares authority for marine mammals with the NMFS.
- d. Lessees are advised that they must comply with the provisions of the Bald Eagle Act of 1940, as amended.

#### **6. NMFS**

- a. NMFS shares authority for marine mammals and essential fish habitat, with the USFWS, per the Marine Mammals Protection Act of 1972 (16 USC 1361-1407).