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**APPENDIX A**

**GLOSSARY**

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1 **APPENDIX A**

2  
3 **GLOSSARY**

4  
5  
6 **anadromous fish** – fish that migrate up river from the sea to breed in fresh water.

7  
8 **anthropogenic** – coming from human sources, relating to the effect of man on nature.

9  
10 **aphotic zone** – zone where the levels of light entering through the surface are not sufficient for  
11 photosynthesis or for animal response.

12  
13 **archaeological interest** – capable of providing scientific or humanistic understanding of past  
14 human behavior, cultural adaptation, and related topics through the application of scientific or  
15 scholarly techniques, such as controlled observation, contextual measurement, controlled  
16 collection, analysis, interpretation, and explanation.

17  
18 **archaeological resource** – any material remains of human life or activities that are at least  
19 50 years of age and that are of archaeological interest.

20  
21 **aromatic** – applied to a class of organic compounds containing benzene rings or benzenoid  
22 structures.

23  
24 **attainment area** – an area that is classified by the U.S. Environmental Protection Agency  
25 (USEPA) as meeting the primary or secondary ambient air quality standards for a particular air  
26 pollutant based on monitored data.

27  
28 **barrel** – equal to 42 U.S. gallons or 158.99 liters.

29  
30 **benthic** – bottom dwelling, associated with (in or on) the seafloor.

31  
32 **benthos** – organisms that dwell in or on the seafloor, the organisms living in or associated with  
33 the benthic (or bottom) environment.

34  
35 **biological opinion** – an appraisal from either the U.S. Fish and Wildlife Service (USFWS) or the  
36 National Marine Fisheries Service (NMFS) evaluating the impact of a proposed Federal action, if  
37 it is likely to jeopardize the continued existence of a listed species or result in the destruction or  
38 adverse modification of critical habitat, as required by Section 7 of the Endangered Species Act.

39  
40 **bivalves** – general term for two-shelled mollusks (clams, oysters, scallops, mussels).

41  
42 **carrying capacity** – the maximum number or weight of individuals that can exist in a given  
43 habitat; an appraisal from either USFWS or NMFS evaluating the impact of a proposed activity  
44 on endangered and threatened species.

45

1 **cetacean** – any of an order (Cetacea) of aquatic mostly marine mammals including the whales,  
2 dolphins, porpoises, and related forms with a large head, fusiform nearly hairless body,  
3 paddle-shaped forelimbs, vestigial concealed hind limbs, and horizontal flukes (tails).

4  
5 **chemosynthetic** – organisms that obtain their energy from the oxidation of various inorganic  
6 compounds rather than from light (photosynthesis).

7  
8 **coastal wetlands** – forested and nonforested habitats, mangroves, and all marsh islands that are  
9 exposed to coastal waters. Included in forested wetlands are hardwood hammocks,  
10 cypress-tupelogum swamps, and fluvial vegetation/bottomland hardwoods. Nonforested  
11 wetlands include fresh, brackish, and salt marshes. These areas directly contribute to the high  
12 biological productivity of coastal water by input of detritus and nutrients, by providing nursery  
13 and feeding areas for shellfish and finfish, by serving as habitat for many birds and other  
14 animals, and by providing waterfowl hunting and fur trapping.

15  
16 **coastal zone** – the coastal waters (including the lands therein and thereunder) and the adjacent  
17 shore lands (including the waters therein and thereunder) strongly influenced by each other and  
18 in proximity to the shorelines of the several coastal States; and including islands, transitional and  
19 intertidal areas, salt marshes, wetlands, and beaches. The zone extends seaward to the outer limit  
20 of the United States territorial sea. The zone extends inland from the shorelines only the extent  
21 necessary to control shore lands, the uses of which have a direct and significant impact on the  
22 coastal waters. Excluded from the coastal zone are lands the use of which are by law subject to  
23 the discretion of or which are held in trust by the Federal Government, its officers, or agents.  
24 (The State land and water area officially designated by the State as “coastal zone” in its State  
25 coastal zone program as approved by the U.S. Department of Commerce under the Coastal Zone  
26 Management Act [CZMA].)

27  
28 **coastal zone consistency review** – State review of direct Federal activities or private individual  
29 activities requiring Federal licenses or permits, and outer continental shelf (OCS) plans pursuant  
30 to the CZMA to determine if the activity is consistent with the enforceable policies of the State’s  
31 federally approved Coastal Zone Management (CZM) program.

32  
33 **continental shelf** – a broad, gently sloping, shallow feature extending from the shore to the  
34 continental slope, generally considered to exist to the depth of 200 m (656 ft); that part of the  
35 continental margin between the continental shelf and the continental rise (or oceanic trench).

36  
37 **continental slope** – a relatively steep, narrow feature paralleling the continental shelf; the region  
38 in which the steepest descent to the ocean bottom occurs.

39  
40 **contingency plan** – a plan for possible offshore emergencies prepared and submitted by the oil  
41 or gas operator as part of the plan of development and production, and which may be required for  
42 part of the plan of exploration.

- 1 **critical habitat** – a designated area that is essential to the conservation of an endangered or  
2 threatened species that may require special management considerations or protection.  
3
- 4 **crude oil** – petroleum in its natural state as it emerges from a well, or after it passes through a  
5 gas-oil separator but before refining or distillation.  
6
- 7 **crustaceans** – any aquatic invertebrate with jointed legs, such as crabs, shrimp, lobster,  
8 barnacles, amphipods, isopods, etc.; primarily an aquatic group.  
9
- 10 **deferral** – action taken by the Secretary of the Interior at the time of the area identification to  
11 remove certain areas/blocks from a lease offering.  
12
- 13 **delineation well** – an exploratory well drilled to define the areal extent of a field. Also referred  
14 to as an “expendable well.”  
15
- 16 **development** – activities that take place following discovery of minerals in paying quantities,  
17 including geophysical activity, drilling, platform construction, and operation of all onshore  
18 support facilities, and that are for the purpose of ultimately producing the minerals discovered.  
19
- 20 **development and production plan (DPP)** – a plan describing the specific work to be performed  
21 on an offshore lease, including all development and production activities that the lessee proposes  
22 to undertake during the time period covered by the plan and all actions to be undertaken up to  
23 and including the commencement of sustained production. The plan also includes descriptions  
24 of facilities and operations to be used, well locations, current geological and geophysical  
25 information, environmental safeguards, safety standards and features, time schedules, and other  
26 relevant information. All lease operators are required to formulate and obtain approval of such  
27 plans by the Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE)  
28 before development and production activities may begin; requirements for submittal of DPP are  
29 wholly identified in 30 CFR 250.34.  
30
- 31 **development well** – a well drilled into a known producing formation in a previously discovered  
32 field, to be distinguished from a wildcat, exploratory, or offset well.  
33
- 34 **dilution** – the reduction in the concentration of dissolved or suspended substances by mixing  
35 with water.  
36
- 37 **discharge** – something that is emitted; flow rate of a fluid at a given instant expressed as volume  
38 per unit of time.  
39
- 40 **dispersion** – a distribution of finely divided particles in a medium.  
41
- 42 **drillship** – a self-propelled, self-contained vessel equipped with a derrick amidships for drilling  
43 wells in deep water.  
44

1 **drilling mud** – a special mixture of clay, water, or refined oil, and chemical additives pumped  
2 downhole through the drill pipe and drill bit. The mud cools the rapidly rotating bit, lubricates  
3 the drill pipe as it turns in the wellbore, carries rock cuttings to the surface, serves to keep the  
4 hole from crumbling or collapsing, and provides the weight or hydrostatic head to prevent  
5 extraneous fluids from entering the wellbore and to control downhole pressures that may be  
6 encountered (drilling fluid).

7  
8 **effluent** – the liquid waste of sewage and industrial processing.

9  
10 **emission offset** – emission reductions obtained from facilities, either onshore or offshore, other  
11 than the facility or facilities covered by the proposed exploration plan or development and  
12 production plan. The emission reductions achieved must be sufficient so that there will be no net  
13 increase in emissions for the area.

14  
15 **endangered and threatened species (endangered species)** – any species that is in danger of  
16 extinction throughout all or a significant portion of its range and has been officially listed by the  
17 appropriate Federal or State agency; a species is determined to be endangered (or threatened)  
18 because of any of the following factors: (1) the present or threatened destruction, modification,  
19 or curtailment of its habitat or range; (2) over utilization for commercial, sporting, scientific, or  
20 educational purposes; (3) disease or predation; (4) the inadequacy of existing regulatory  
21 mechanisms; or (5) other natural or man-made factors affecting its continued existence.

22  
23 **environmental assessment** – a concise public document required by the National Environmental  
24 Policy Act of 1969 (NEPA). In the document, a Federal agency proposing (or reviewing) an  
25 action provides evidence and analysis for determining whether it must prepare an environmental  
26 impact statement (EIS) or whether it finds there is no significant impact (i.e., Finding of No  
27 Significant Impact [FONSI]).

28  
29 **environmental effect** – a measurable alteration or change in environmental conditions.

30  
31 **environmental impact statement (EIS)** – a statement required by the NEPA or similar State  
32 law in relation to any major action significantly affecting the environment; a NEPA document.

33  
34 **essential habitat** – specific areas crucial to the conservation of a species that may necessitate  
35 special considerations.

36  
37 **essential fish habitat (EFH)** – those waters and substrate necessary to fish for spawning,  
38 breeding, feeding, or growth to maturity. This includes areas that are currently or historically  
39 used by fish, or that have substrate such as sediment, hard bottom, bottom structures, or  
40 associated biological communities required to support a sustainable fishery.

41  
42 **estuary** – semi-enclosed coastal body of water that has a free connection with the open sea and  
43 within which seawater is measurably diluted with freshwater.

1 **Exclusive Economic Zone (EEZ)** – the maritime region adjacent to the territorial sea, extending  
2 200 nautical miles from the baseline of the territorial sea, in which the United States has  
3 exclusive rights and jurisdiction over living and nonliving natural resources.

4  
5 **exploration** – the process of searching for minerals. Exploration activities include:  
6 (1) geophysical surveys where magnetic, gravity, seismic, or other systems are used to detect or  
7 infer the presence of such minerals; and (2) any drilling, except development drilling, whether on  
8 or off known geological structures. Exploration also includes the drilling of a well in which a  
9 discovery of oil or natural gas in paying quantities is made, and the drilling, after such a  
10 discovery, of any additional well that is needed to delineate a reservoir and to enable the lessee to  
11 determine whether to proceed with development and production.

12  
13 **exploration plan (EP)** – a plan submitted by a lessee (30 CFR 250.33) that identifies all the  
14 potential hydrocarbon accumulations and wells that the lessee proposes to drill to evaluate the  
15 accumulations within the lease or unit area covered by the plan. All lease operators are required  
16 to obtain approval of such a plan by a BOEMRE Regional Supervisor before exploration  
17 activities may commence.

18  
19 **exploratory well** – a well drilled in unproven or semi-proven territory for the purpose of  
20 ascertaining the presence underground of a commercially producible deposit of petroleum or  
21 natural gas.

22  
23 **fault** – a fracture in the earth’s crust accompanied by a displacement of one side of the fracture  
24 with respect to the other.

25  
26 **fauna** – the animals of a particular region or time.

27  
28 **fixed or bottom founded** – permanently or temporarily attached to the seafloor.

29  
30 **flyway** – an established air route of migratory birds.

31  
32 **formation** – a bed or deposit sufficiently homogeneous to be distinctive as a unit. Each different  
33 formation is given a name, frequently as a result of the study of the formation outcrop at the  
34 surface and sometimes based on fossils found in the formation.

35  
36 **fugitive emissions** – emission into the atmosphere that could not reasonably pass through a  
37 stack, chimney, vent or other functionally equivalent opening.

38  
39 **geochemical** – of or relating to the science dealing with the chemical composition of and the  
40 actual or possible chemical changes in the crust of the earth.

41  
42 **geologic hazard** – a feature or condition that, if unmitigated, may seriously jeopardize offshore  
43 oil and gas exploration and development activities. Mitigation may necessitate special  
44 engineering procedures or relocation of a well.

- 1 **geophysical** – of or relating to the physics of the earth, especially the measurement and  
2 interpretation of geophysical properties of the rocks in an area.  
3
- 4 **geophysical data** – facts, statistics, or samples that have not been analyzed or processed,  
5 pertaining to gravity, magnetic, seismic, or other surveys/systems.  
6
- 7 **geophysical survey** – the exploration of an area during which geophysical properties and  
8 relationships unique to the area are measured by one or more geophysical methods.  
9
- 10 **habitat** – a specific type of place that is occupied by an organism, a population, or a community;  
11 a specific type of place defined by its physical or biological environment that is occupied by an  
12 organism, a population, or a community.  
13
- 14 **harassment** – an intentional or negligent act or omission that creates the likelihood of injury to  
15 wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns  
16 that include, but are not limited to, feeding or sheltering.  
17
- 18 **haulout area** – specific locations where pinnipeds come ashore and concentrate in numbers to  
19 rest, breed, and/or bear young.  
20
- 21 **herbivores** – animals whose diet consists of plant material.  
22
- 23 **hydrocarbon** – any of a large class of organic compounds containing primarily carbon and  
24 hydrogen; comprising paraffins, olefins, members of the acetylene series, alicyclic hydrocarbons,  
25 and aromatic hydrocarbons; and occurring, in many cases, in petroleum, natural gas, coal, and  
26 bitumens.  
27
- 28 **hypothermia** – subnormal temperature of the body, usually due to excessive heat loss.  
29
- 30 **hypoxia** – depressed levels of dissolved oxygen in water, usually resulting in decreased  
31 metabolism.  
32
- 33 **incidental take** – take of a threatened or endangered fish or wildlife species that results from,  
34 but is not the purpose of, carrying out an otherwise lawful activity conducted by a Federal  
35 agency or applicant (see take).  
36
- 37 **indirect effects** – effects caused by activities that are stimulated by an action but not directly  
38 related to it.  
39
- 40 **industry infrastructure** – the facilities associated with oil and gas development (e.g., refineries,  
41 gas processing plants, etc.).  
42
- 43 **information to lessees** – information included in the Notice of Sale to alert lessees and operators  
44 of special concerns in or near a sale area of regulatory provisions enforceable by Federal or State  
45 agencies.  
46

- 1 **jack-up rig** – a barge-like floating platform with legs at each corner that can be lowered to the  
2 sea bottom to raise the platform above the water; a drilling platform with retractable legs that can  
3 be lowered to the sea bottom to raise the platform above the water.  
4
- 5 **landfall** – the site at which a marine pipeline comes to shore.  
6
- 7 **lay barge** – a shallow-draft, barge-like vessel used in the construction and laying of underwater  
8 pipelines.  
9
- 10 **lighter** – a barge or small tanker used to move cargo from a large ship to port; also, to transport  
11 by lighter.  
12
- 13 **macroinvertebrate** – animals such as worms, clams, or crabs that are large enough to be seen  
14 without the aid of a microscope.  
15
- 16 **mariculture** – the breeding or growth of marine animals and plants to increase their stocks.  
17
- 18 **marine sanctuary** – area protected under the Marine Protection, Research, and Sanctuaries Act  
19 of 1972.  
20
- 21 **marshes** – persistent, emergent nonforested wetlands characterized by vegetation consisting  
22 predominantly of cordgrasses, rushes, and cattails.  
23
- 24 **microcrustacean** – any relatively small crustacean (may range from microscopic to slightly over  
25 one centimeter in size) including organisms such as beach hoppers (amphipods), copepods,  
26 ostracods, isopods, and mysids.  
27
- 28 **military warning area** – an area established by the U.S. Department of Defense within which  
29 the public is warned that military activities take place.  
30
- 31 **minerals** – as used in this document, minerals include oil, gas, sulfur, and associated resources,  
32 and all other minerals authorized by an Act of Congress to be produced from public lands, as  
33 defined in Section 103 of the Federal Land Policy and Management Act of 1976.  
34
- 35 **mollusks** – animal phylum characterized by soft body parts including clams, mussels, snails,  
36 squid, and octopus.  
37
- 38 **mud** – the liquid circulated through the wellbore during rotary drilling operations. In addition to  
39 its function of bringing cuttings to the surface, drilling mud cools and lubricates the bit and drill  
40 stem, protects against blowouts by holding back subsurface pressures, and deposits a mud cake  
41 on the wall of the borehole to prevent loss of fluids to the formations; also called drilling mud or  
42 drilling fluid; also a sediment designation composed of silt and clay-sized particles.  
43
- 44 **mysids** – small shrimp-like organisms, also known as opossum shrimp due to their method of  
45 egg incubation.  
46

- 1 **natural gas** – hydrocarbons that are in a gaseous phase under atmospheric conditions of  
2 temperature and pressure.  
3
- 4 **nearshore waters** – offshore open waters that extend from the shoreline out to the limit of the  
5 territorial seas (12 nautical miles).  
6
- 7 **nonattainment area** – an area that is shown by monitoring data or air quality modeling  
8 calculations to exceed primary or secondary ambient air quality standards established by the  
9 USEPA.  
10
- 11 **offloading** – another name for unloading; offloading refers more specifically to liquid cargo,  
12 crude oil, and refined products.  
13
- 14 **oil spill contingency plan** – a plan submitted by the lease or unit operator along with or prior to  
15 a submission of a plan of exploration or a development/production plan that details provisions  
16 for fully defined specific actions to be taken following discovery and notification of an oil spill  
17 occurrence.  
18
- 19 **operational discharge** – a release of oil that is part of the routine operation of a function.  
20
- 21 **operator** – the person or company engaged in the business of drilling for, producing, or  
22 processing oil, gas, or other minerals and recognized by BOEMRE as the official contact and  
23 responsible for the lease activities or operations.  
24
- 25 **organic matter** – material derived from living plant or animal organisms.  
26
- 27 **outer continental shelf (OCS)** – all submerged lands that comprise the continental margin  
28 adjacent to the United States and seaward of State offshore lands.  
29
- 30 **petroleum** – an oily, flammable, bituminous liquid that occurs in many places in the upper strata  
31 of the earth, either in seepages or in reservoirs; essentially a complex mixture of hydrocarbons of  
32 different types with small amounts of other substances; any of various substances (as natural gas  
33 or shale oil) similar in composition to petroleum.  
34
- 35 **phytoplankton** – plant (photosynthetic) plankton; microscopic, freefloating, photosynthetic  
36 organisms that drift passively in the water.  
37
- 38 **pinniped** – any of a suborder (Pinnipedia) of aquatic carnivorous mammals (e.g., seals, sea lions,  
39 sea otters, walruses) with all four limbs modified into flippers.  
40
- 41 **plankton** – passively floating or weakly motile aquatic plants and animals.  
42
- 43 **planning area** – a subdivision of an offshore area used as the initial basis for considering blocks  
44 to be offered for lease in the U.S. Department of the Interior’s areawide offshore oil and gas  
45 leasing program.  
46

- 1 **platform** – a steel, concrete, or gravel structure from which offshore development wells are  
2 drilled.  
3
- 4 **postlease** – any activity on a block or blocks after the issuance of a lease on said block or blocks.  
5
- 6 **potential impact (effect)** – the range of alterations or changes to environmental conditions that  
7 could be caused by an action.  
8
- 9 **primary production** – production of carbon by a plant through photosynthesis over a given  
10 period of time; oil and gas production that occurs from the reservoir energy inherent in the  
11 formation.  
12
- 13 **produced water** – total water produced from the oil and gas extraction process; the water may  
14 be discharged after treatment or reinjected; production water or production brine.  
15
- 16 **production** – activities that take place after the successful completion, by any means, of the  
17 removal of minerals, including such removal, field operations, transfer of minerals to shore,  
18 operation monitoring, maintenance, and workover drilling.  
19
- 20 **production well** – a well that is drilled for the purpose of producing oil or gas reserves; it is  
21 sometimes termed a development well.  
22
- 23 **prospect** – an untested geologic feature having the potential for trapping and accumulating  
24 hydrocarbons.  
25
- 26 **recoverable reserves** – portion of the identified oil or gas resources that can be economically  
27 extracted under current technological constraints.  
28
- 29 **recoverable resource estimate** – an assessment of oil and gas resources that takes into account  
30 the fact that physical and technological constraints dictate that only a portion of resources or  
31 reserves can be brought to the surface.  
32
- 33 **refining** – fractional distillation, usually followed by other processing (e.g., cracking).  
34
- 35 **reserves** – portion of the identified oil or gas resource that can be economically extracted.  
36
- 37 **reservoir** – a subsurface, porous, permeable rock body in which hydrocarbons have  
38 accumulated.  
39
- 40 **resources** – concentrations of naturally occurring solid, liquid, or gaseous materials in or on the  
41 earth's crust some part of which is currently or potentially extractable. These include both  
42 identified and undiscovered resources.  
43
- 44 **rig** – a structure used for drilling an oil or gas well.  
45

- 1 **right-of-way** – a legal right of passage, an easement; the specific area or route for which  
2 permission has been granted to place a pipeline, (and) ancillary facilities, and for normal  
3 maintenance thereafter.  
4
- 5 **rookery** – the nesting or breeding grounds of gregarious (i.e., social) birds or mammals; also a  
6 colony of such birds or mammals.  
7
- 8 **sale area** – the geographical area of the OCS being offered for lease for the exploration,  
9 development, and production of mineral resources.  
10
- 11 **scoping** – the process prior to EIS preparation to determine the range and significance of issues  
12 to be addressed in the EIS for each proposed major Federal action.  
13
- 14 **seagrass beds** – more or less continuous mats of submerged, rooted marine flowering vascular  
15 plants occurring in shallow tropical and temperate waters. Seagrass beds provide habitat,  
16 including breeding and feeding grounds, for adults and/or juveniles of many of the economically  
17 important shellfish and finfish.  
18
- 19 **sediment** – material that has been transported and deposited by water, wind, glacier,  
20 precipitation, or gravity; a mass of deposited material.  
21
- 22 **seeps (hydrocarbon)** – gas or oil that reaches the surface along bedding planes, fractures,  
23 unconformities, or fault planes through connected porous rocks.  
24
- 25 **seismic** – pertaining to, characteristic of, or produced by earthquakes or earth vibration; having  
26 to do with elastic waves in the earth; also geophysical when applied to surveys.  
27
- 28 **semisubmersible** – a floating offshore drilling structure that has hulls submerged in the water  
29 but not resting on the seafloor.  
30
- 31 **shunting** – a method used in offshore oil and gas drilling activities where expended drill cuttings  
32 and fluids are discharged near the ocean seafloor rather than at the surface, as in the case of  
33 normal offshore drilling operations.  
34
- 35 **significant archaeological resource** – those archaeological resources that meet the criteria of  
36 significance for eligibility to the *National Register of Historic Places* as defined in 36 CFR 60.4  
37 or its successor.  
38
- 39 **stipulations** – specific measures imposed upon a lessee that apply to a lease. Stipulations are  
40 attached as a provision of a lease; they may apply to some or all tracts in a sale. For example, a  
41 stipulation might limit drilling to a certain time period of the year or certain areas.  
42

- 1 **subsistence uses** – the customary and traditional uses by rural residents of wild, renewable  
2 resources for direct personal or family consumption as food, shelter, fuel, clothing, tools, or  
3 transportation; for making and selling of handcraft articles out of nonedible byproducts of fish  
4 and wildlife resources taken for personal or family consumption; for barter, or sharing for  
5 personal or family consumption; and for customary trade.  
6
- 7 **supply boat** – a vessel that ferries food, water, fuel, and drilling supplies and equipment to a rig  
8 and returns to land with refuse that cannot be disposed of at sea.  
9
- 10 **take** – to harass, harm, pursue, hunt, shoot, wound, kill, capture, or collect a threatened or  
11 endangered fish or wildlife species, or attempt to engage in any such conduct. (Harm includes  
12 habitat modification that impairs behavioral patterns, and harass includes actions that create the  
13 likelihood of injury to an extent that normal behavior patterns are disrupted.)  
14
- 15 **threatened species** – any species that is likely to become an endangered species within the  
16 foreseeable future throughout all or a significant portion of its range, and which has been  
17 officially listed by the appropriate Federal agency. Criteria for determination of threatened status  
18 can be found under “endangered species.”  
19
- 20 **trawl** – a large, tapered fishing net of flattened, conical shape that is typically towed along the  
21 sea bottom.  
22
- 23 **trophic** – trophic levels refer to the hierarchy of organisms from photosynthetic plants to  
24 carnivores, such as man; feeding trophic levels refer to the hierarchy of organisms from  
25 photosynthetic plants to carnivores in which organisms at one level are fed upon by those at the  
26 next higher level (e.g., phytoplankton eaten by zooplankton eaten by fish).  
27
- 28 **turbidity** – reduced water clarity resulting from the presence of suspended matter.  
29
- 30 **vascular plants** – plants containing food and water conducting structures; higher plants that  
31 reproduce by seeds.  
32
- 33 **volatile organic compound (VOC)** – any reactive organic compound that is emitted to the  
34 atmosphere as a vapor. The definition does not include methane.  
35
- 36 **vulnerability** – the likelihood of being damaged by external influences. Vulnerability implies  
37 sensitivity of a system plus the risk of a damaging influence occurring.  
38
- 39 **weathering** – the aging of oil due to its exposure to the atmosphere and environment causing  
40 marked alterations in its physical and chemical makeup.  
41
- 42 **wetlands** – areas periodically inundated or saturated by surface or groundwater and  
43 predominantly supporting vegetation typically adapted for life in saturated soil conditions.  
44

- 1 **zooplankton** – animal plankton, mostly dependent on phytoplankton for its food source; small,
- 2 free-floating animals, may be passive drifters or motile, dependent on phytoplankton as a food
- 3 source.
- 4

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**APPENDIX B**  
**ASSUMED MITIGATION MEASURES**

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## APPENDIX B

### ASSUMED MITIGATION MEASURES

All Bureau of Ocean Energy Management (BOEM) sale proposals include rules and regulations prescribing environmental controls to be imposed on lease operators. Lease stipulations, outer continental shelf (OCS) regulations, and other measures provide a regulatory base for implementing environmental protection on leases issued as a result of a sale. The BOEM Environmental Studies Program and the analyses and monitoring of activities in a sale area provide information used in formulating the agency's regulatory control over the activities that occur during the life of the leases.

The Bureau of Safety and Environmental Enforcement (BSEE) has broad permitting and monitoring authority to ensure safe operations and environmental protection. Use of the best available and safest technologies during exploration, development, and production, as well as the adopted stipulations, are just a few of the measures designed to prevent environmental damage. The BSEE also monitors operations after drilling has begun and carries out periodic inspections of facilities (in certain instances, in conjunction with other Federal agencies such as the U.S. Environmental Protection Agency) to ensure safe and clean operations over the life of the leases.

The analyses in the environmental impact statement assume the implementation of all mitigation measures required by statute or regulation. In addition, the impact analysis assumes that sale-specific stipulations that were commonly adopted in past lease sales are in effect. The following is a brief description of the sale-specific stipulations or other mitigations assumed in the analysis of potential effects of the proposed action. Because over 100 individual mitigations can be applied to exploration and development activities in the Gulf of Mexico region, only lease stipulations are described individually. Both the lease stipulations and other protective environmental measures issued through Information to Lessees (ITL) in Alaska are described.

#### B.1 GULF OF MEXICO REGION

##### B.1.1 Lease Stipulations

###### B.1.1.1 Topographic Features

This stipulation designates a "No Activity Zone" around several underwater topographic features commonly called "banks" whose crests may contain biological communities including corals. The No Activity Zone is designed to protect the biota of these features from adverse effects of routine offshore oil and gas activities by preventing the emplacement of platforms, or the anchoring of service vessels or mobile drilling units, directly on the banks and requiring that drilling discharges be shunted in such a manner that they do not settle on the biota.

1           **B.1.1.2 Live Bottom (Pinnacle Trend)**  
2

3           This stipulation is intended to protect the pinnacle trend area and the associated  
4 hard-bottom communities from damage from oil and gas activities. If the required live bottom  
5 survey report determines that the live bottom may be adversely impacted by the proposed  
6 activity, certain measures, such as relocation or monitoring, may be required.  
7

8  
9           **B.1.1.3 Live Bottom (Low Relief)**  
10

11           This stipulation is intended to protect hard-bottom communities not associated with  
12 bathymetric features on the sea bottom. Biological communities such as seagrass beds, sponges,  
13 and corals may occur on smooth topography. If the required live bottom survey report  
14 determines that the live bottom may be adversely impacted by the proposed activity, certain  
15 measures, such as relocation or monitoring, may be required.  
16

17  
18           **B.1.1.4 Oil-Spill Response (Eastern Gulf of Mexico)**  
19

20           This stipulation is intended to minimize the risk of oil spills reaching Florida State waters  
21 by requiring the staging of state-of-the-art mechanical oil-spill response equipment within  
22 specified timeframes and by requiring that oil dispersant chemicals and equipment be maintained  
23 in a state of readiness.  
24

25  
26           **B.1.1.5 Military Areas**  
27

28           This stipulation has three sections: hold harmless, electromagnetic emissions, and  
29 operational. The hold harmless section serves to protect the U.S. Government from liability in  
30 the event of an accident involving a lessee and military activities. The electromagnetic  
31 emissions section requires the lessee and its agents to reduce and curtail the use of equipment  
32 emitting electromagnetic energy in certain areas. This reduces the impact of offshore oil and gas  
33 activities on military communications and missile testing. The operational section requires prior  
34 notification of the military when offshore oil and gas activities are scheduled within a military  
35 use area to assist in scheduling activities and to prevent potential conflicts.  
36

37           A second stipulation requires the evacuation, upon the receipt of a directive from the  
38 BSEE Regional Director, of all personnel from all structures on the lease and the shutting in and  
39 securing of all wells and other equipment, including pipelines, on the lease.  
40

41           Two additional stipulations are applied to leases in the Eastern Gulf of Mexico Planning  
42 Area only. In cooperation with the U.S. Air Force, “drilling windows” are established for  
43 6-month periods during which exploratory operations or workover operations may be conducted  
44 on leases. This time-sharing arrangement allows military operations to proceed in areas  
45 containing leases without being disrupted by oil and gas activities, and without undue  
46 disturbance to the exploratory activity and workover operations.

1 An additional stipulation has been included for the Western Gulf of Mexico Planning  
2 Area only. The Naval Mine Warfare Stipulation is intended to eliminate potential impacts from  
3 multiple-use conflicts in the Western Planning Area, Mustang Island Area East Addition,  
4 Blocks 732, 733, and 734. The U.S. Department of the Navy has identified these blocks as  
5 needed for testing equipment and for training mine warfare personnel.  
6  
7

## 8 **B.1.2 Other Mitigations Categories**

9

### 10 **B.1.2.1 Air Quality**

11 This category includes eight mitigations that apply to offshore exploration, development,  
12 and pipeline activities.  
13  
14

### 15 **B.1.2.2 Archaeology**

16

17 There are 18 mitigations describing procedures for conducting archaeological surveys  
18 before bottom-disturbing activities can occur on a lease; the procedures operators must follow  
19 these to avoid impacts on potential prehistoric and shipwreck sites.  
20  
21  
22

### 23 **B.1.2.3 Artificial Reefs**

24

25 Five mitigations exist to avoid impacts on artificial reef sites and permit areas.  
26  
27  
28

### 29 **B.1.2.4 Chemosynthetic Communities**

30

31 There are five mitigations to avoid impacts on chemosynthetic communities in deepwater  
32 areas of the Gulf of Mexico.  
33  
34

### 35 **B.1.2.5 Coastal Zone Management**

36

37 Five mitigations describe the conditions of approval in each of the Gulf Coast States.  
38  
39

### 40 **B.1.2.6 Topographic Features, Live Bottoms, and the Flower Garden Banks**

41

42 There are 13 mitigations to protect the health and stability of these benthic features.  
43  
44  
45

1           **B.1.2.7 Miscellaneous Mitigations**  
2

3           These apply to space-use conflicts, oil spill preparedness, remote operating vehicle  
4 surveys in deep water, essential fish habitat, hydrogen sulfide, and other issues.  
5

6  
7           **B.2 ALASKA REGION**  
8

9  
10          **B.2.1 Lease Stipulations**  
11

12  
13           **B.2.1.1 Orientation Program**  
14

15           This stipulation is designed to provide an increased understanding of, and appreciation  
16 for, local community values, customs, and lifestyles of Alaska Native communities. The  
17 required orientation program must be designed in sufficient detail to inform individuals working  
18 on OCS projects of specific types of environmental, social, and cultural concerns in the area.  
19 The orientation program must provide information to industry employees on protected species,  
20 biological resources used for commercial and subsistence purposes, archaeological resources of  
21 the area and appropriate ways to protect them, and reducing industrial noise and disturbance  
22 effects on marine mammals and marine and coastal birds. The program must also include  
23 information about avoiding conflicts with subsistence activities.  
24

25  
26           **B.2.1.2 Protection of Biological Resources**  
27

28           This stipulation provides for identifying and protecting previously unknown important or  
29 unique biological populations or habitats that may occur in a lease area. If previously unknown  
30 sensitive biological resources are identified during the conduct of lease activities under an  
31 approved Plan of Exploration or Development and Production Plan, the lessee will be required to  
32 modify operations, if necessary, to minimize adverse impacts on those biological populations or  
33 habitats.  
34

35  
36           **B.2.1.3 Protection of Fisheries (Cook Inlet Planning Area)**  
37

38           This stipulation is designed to minimize spatial conflicts between OCS activities and  
39 commercial, sport, and subsistence fishing activities. Lease-related uses will be restricted, if  
40 determined necessary by the BOEM Alaska Regional Supervisor for Field Operations, to prevent  
41 unreasonable conflicts with fishing operations. The stipulation requires the lessee to review  
42 planned exploration and development activities (including plans for seismic surveys, drilling rig  
43 transportation, or other vessel traffic) with potentially affected fishing organizations, subsistence  
44 communities, and port authorities to prevent unreasonable fishing gear conflicts.  
45

1                   **B.2.1.4 Transportation of Hydrocarbons**  
2

3                   This stipulation informs lessees that (1) BOEM reserves the right to require the  
4 placement of pipelines in certain designated management areas, (2) pipelines must be designed  
5 and constructed to withstand the hazardous conditions that may be encountered in the sale area,  
6 and (3) pipeline construction and associated activities must comply with regulations. This  
7 stipulation requires the use of pipelines if (1) pipeline rights-of-way can be determined and  
8 obtained; (2) laying such pipelines is technologically feasible and environmentally preferable;  
9 and (3) in the opinion of the lessor, pipelines can be laid without net social loss, taking into  
10 account any incremental costs of pipelines over alternative methods of transportation and any  
11 incremental benefits in the form of increased environmental protection or reduced multiple-use  
12 conflicts.  
13

14  
15                   **B.2.1.5 Industry Site-Specific Monitoring Program for Marine Mammal**  
16                   **Subsistence Resources (Arctic Planning Areas)**  
17

18                   This stipulation requires industry to conduct a site-specific monitoring program to  
19 determine when marine mammals are present in the vicinity of exploration operations, including  
20 ancillary seismic surveys, during periods of subsistence use. The monitoring program and  
21 review process required for Marine Mammal Protection Act authorization will satisfy the  
22 requirements of this stipulation. The monitoring plan must provide for reports on marine  
23 mammal sightings and the extent of observed behavioral effects because of lease activities. It  
24 also provides a formal mechanism for the oil and gas industry to coordinate logistics activities  
25 with the BOEM Bowhead Whale Aerial Survey Program. The stipulation provides for an  
26 opportunity for recognized co-management organizations to review and comment on the  
27 proposed monitoring plan before BOEM approval. The stipulation requires the lessee to fund an  
28 independent peer review of the proposed monitoring plan and the draft reports on the results of  
29 the monitoring program. No monitoring program will be required if the BOEM Alaska Regional  
30 Supervisor for Field Operations, in consultation with the appropriate agencies and  
31 co-management organizations, determines that a monitoring program is not necessary based on  
32 the size, timing, duration, and scope of the proposed operations.  
33

34  
35                   **B.2.1.6 Conflict Avoidance Mechanisms to Protect Subsistence Whaling and Other**  
36                   **Marine Mammal Subsistence Activities (Arctic Planning Areas)**  
37

38                   This stipulation is designed to reduce disturbance effects on Alaska Native subsistence  
39 practices from OCS oil and gas industry activities by requiring industry to make reasonable  
40 efforts to conduct all aspects of their operations in a manner that recognizes Alaska Native  
41 subsistence requirements and avoids conflict with local subsistence harvest activities. The  
42 stipulation applies to both on-lease operations and to support activities, such as vessel and  
43 aircraft traffic. The stipulation also requires industry to consult with directly affected subsistence  
44 communities, the North Slope Borough, and the recognized co-management organizations to  
45 discuss possible siting and timing conflicts and to assure that exploration, development, and  
46 production activities do not result in unreasonable conflicts with subsistence whaling and other

1 subsistence harvests. The stipulation also provides a mechanism to address unresolved conflicts  
2 between the oil and gas industry and subsistence activities.

3  
4  
5 **B.2.1.7 Measures to Minimize Effects on Spectacled and Steller's Eiders During**  
6 **Exploration Activities (Arctic Planning Areas)**  
7

8 This stipulation is designed to minimize the likelihood that spectacled or Steller's eiders  
9 will strike drilling structures or vessels. The stipulation requires specific lighting protocols for  
10 structures and vessels, a plan for recording and reporting bird strikes, and avoidance of specified  
11 blocks by OCS-related vessels.  
12

13  
14 **B.3 INFORMATION TO LESSEE**  
15

16 Several ITLs have been developed to notify lessees and operators about environmental,  
17 social, and cultural concerns.  
18

19 Past ITLs have provided lessees information or advisories on the following:  
20

- 21 • Community participation in operations planning;
- 22
- 23 • Bird and marine mammal protection laws;
- 24
- 25 • Endangered, threatened, and candidate species and designated critical habitat  
26 under the Endangered Species Act;
- 27
- 28 • Consideration in Oil Spill Response Plans of river deltas of the Beaufort Sea  
29 coastal plain that have been identified by the U.S. Fish and Wildlife Service as  
30 special habitats for bird nesting, fish overwintering, or for other species' use;
- 31
- 32 • Possible prohibition of shore-based facilities in river deltas that have been  
33 identified as special habitats;
- 34
- 35 • Potential effects of seismic surveys on marine mammals and subsistence  
36 activities;
- 37
- 38 • Requirements on the availability of bowhead whales for subsistence whaling;
- 39
- 40 • The BOEM bowhead whale aerial monitoring program;
- 41
- 42 • The possibility that BOEM may limit or modify operations if they could result  
43 in significant effects on the availability of bowhead whales for subsistence  
44 use;
- 45

- 1 • Requirements for protection of polar bears and to limit potential encounters  
2 and interactions between lease operations and polar bears;  
3
- 4 • Requirements for archaeological and shallow geologic hazards reports in  
5 support of exploration and development plans;  
6
- 7 • Navigational safety;  
8
- 9 • Requirements for air quality permits;  
10
- 11 • Designated Class I air quality areas;  
12
- 13 • Requirements for National Pollutant Discharge Elimination System permits  
14 for discharge of produced water, drilling fluids, and cuttings;  
15
- 16 • Sensitive areas to be considered when developing oil-spill contingency plans;  
17
- 18 • Requirements for BSEE approval of Oil Spill Responses Plans;  
19
- 20 • Requirements for establishing and maintaining oil-spill financial  
21 responsibility;  
22
- 23 • BOEM encouragement of the use of existing pads and islands wherever  
24 feasible;  
25
- 26 • The importance of the area around Cross Island for Nuiqsut subsistence  
27 whaling activities;  
28
- 29 • Requirements for mitigation of unreasonable conflicts with subsistence  
30 activities; and  
31
- 32 • BOEM encouragement of industry to establish of a Good Neighbor Policy to  
33 provide an immediate compensation system to minimize disruption to  
34 subsistence activities and provide resources to relocate subsistence hunters to  
35 alternate hunting areas or provide temporary food supplies in the event an  
36 accidental oil spill adversely affects the harvest of marine subsistence  
37 resources.  
38

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**APPENDIX C**  
**FEDERAL LAWS AND EXECUTIVE ORDERS**

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### 1 **C.1.2 The National Environment Policy Act (NEPA)**

2  
3 The National Environmental Policy Act of 1969 (NEPA) is the foundation of  
4 environmental policymaking in the United States. The NEPA process is intended to help public  
5 officials make decisions based on an understanding of environmental consequences and take  
6 actions that protect, restore, and enhance the environment. The NEPA established two primary  
7 mechanisms for this purpose:

- 8  
9 • The Council on Environmental Quality (CEQ) was established to advise  
10 Agencies on the environmental decision making process and to oversee and  
11 coordinate the development of Federal environmental policy.
- 12  
13 • Agencies must include an environmental review process early in the planning  
14 for proposed actions.

15  
16 The CEQ issued regulations in 1978 implementing NEPA. The regulations include  
17 procedures to be used by Federal Agencies for the environmental review process. These  
18 regulations provide for the use of the NEPA process to identify and assess reasonable  
19 alternatives to proposed actions that avoid or minimize adverse effects of these actions upon the  
20 quality of the human environment. Scoping is used to identify the scope and significance of  
21 important environmental issues associated with a proposed Federal action through coordination  
22 with Federal, State, and local agencies; the general public; and any interested individual or  
23 organization prior to the development of an impact statement. The process also identifies and  
24 eliminates from further detailed study issues that are not significant or that have been covered by  
25 prior environmental review.

26  
27 The NEPA requires all Federal Agencies to use a systematic, interdisciplinary approach  
28 to protect the human environment. Such an approach ensures the integrated use of natural and  
29 social sciences in any planning and decision making that may have an impact on the  
30 environment. The NEPA also requires the preparation of a detailed environmental impact  
31 statement (EIS) on any major Federal action that may have a significant impact on the  
32 environment. The EIS must address any adverse environmental effects that cannot be avoided or  
33 mitigated, alternatives to the proposed action, the relationship between short-term resources and  
34 long-term productivity, and irreversible and irretrievable commitments of resources.  
35 Environmental assessments (EAs) are prepared to determine whether significant impacts may  
36 occur. If an EA finds that significant impacts may occur, NEPA requires preparation of an EIS.  
37 The briefest form of NEPA review is the categorical exclusion review (CER). The purpose of a  
38 CER is to verify that neither an EA nor an EIS is needed prior to making a decision on the  
39 activity being considered for approval.

### 40 41 42 **C.1.3 The Energy Policy Act of 2005**

43  
44 This law, enacted in 2005, gives the BOEMRE new responsibilities over Federal offshore  
45 renewable energy and related uses of the OCS. Section 388 of the Act gives the Secretary of the  
46 Interior the authority to grant leases, easements, or rights-of-way for renewable energy-related

1 uses on the Federal OCS, and to monitor and regulate the facilities used for energy production  
2 and energy support services.

### 3 4 5 **C.1.4 The Alaska National Interest Lands Conservation Act (ANILCA)** 6

7 In 1980, the Alaska National Interest Lands Conservation Act (ANILCA) created over  
8 40 million ha (100 million ac) of new national parks, refuges, monuments, conservation areas,  
9 recreation areas, forests, and wild and scenic rivers in the State of Alaska for the preservation of  
10 “nationally significant” natural resources. To address special issues and needs arising from the  
11 new land designations, ANILCA contains numerous provisions and special rules for managing  
12 Alaska’s public lands and nationally important resource development potential. ANILCA  
13 requires Federal land managers to balance the national interest in Alaska’s scenic and wildlife  
14 resources with recognition of Alaska’s economy and infrastructure, and its distinctive rural way  
15 of life. Title VIII of ANILCA requires that subsistence uses by “rural” Alaska residents be given  
16 a priority over all other (sport and commercial) uses of fish and game on Federal public lands in  
17 Alaska. As a compromise, Congress allowed the State to continue managing fish and game uses  
18 on Federal public lands, but only on the condition that the State of Alaska adopt a statute that  
19 made the new Title VIII “rural” subsistence priority applicable on State, as well as on Federal  
20 lands. If the State ever fell out of compliance with Title VIII, Congress required the Secretary of  
21 the Interior to reassume management of fish and game on the Federal public lands. Section 810  
22 of ANILCA creates special steps a Federal agency must take before it decides to “withdraw,  
23 reserve, lease, or otherwise permit the use, occupancy, or disposition of public land.”  
24

25 Specifically, the Federal agency must first evaluate three factors: the effect of its action  
26 on subsistence uses and needs; the availability of other lands for the purposes sought to be  
27 achieved; and alternatives that would “reduce or eliminate the use, occupancy, or disposition of  
28 public lands needed for subsistence purposes.” If the Federal agency concludes that its action  
29 “would significantly restrict subsistence uses,” it must notify the appropriate State agency,  
30 regional council, and local committee. It then must hold a hearing in the vicinity of the area  
31 involved, and must make the following findings:  
32

- 33 • Such significant restriction of subsistence uses is necessary and consistent  
34 with sound management principles for the utilization of public lands.
- 35
- 36 • The proposed activity will involve the minimal amount of public lands  
37 necessary to accomplish the purpose of such use, occupancy, or other  
38 disposition.
- 39
- 40 • Reasonable steps will be taken to minimize adverse impacts upon subsistence  
41 uses and resources resulting from such actions (16 USC 3120(a)(3)).  
42

43 In *People of the Village of Gambell vs. Clark*, 746 F.2d 572 (9th Cir. 1984) (Gambell I),  
44 the court ruled that the “lands and waters” of the OCS were “public lands” for the purpose of this  
45 section. The court later ruled that the provisions of Section 810 should not be applied in a staged  
46 manner, despite the staged decision making approach set out in the OCS Lands Act and relied

1 upon by the Supreme Court in *Secretary of the Interior vs. California (People of the Village of*  
2 *Gambell vs. Hodel*, Civ. No. 85-3877 (9th Cir. Oct. 25, 1985)). As a result of these rulings, the  
3 USDOJ prepares an analysis under section 810 of ANILCA for OCS lease sales and plans of  
4 exploration and development/production for activities offshore Alaska. The provisions of  
5 ANILCA do not apply to the 5-Year Leasing Program because the USDOJ does not make any of  
6 the above-described decisions.

### 9 **C.1.5 The Clean Air Act (CAA)**

11 The Clean Air Act (CAA), as amended, delineates jurisdiction of air quality between the  
12 U.S. Environmental Protection Agency (USEPA) and the BOEMRE. For OCS operations in the  
13 Gulf of Mexico, those west of 87.5°W longitude are subject to BOEMRE air quality regulations;  
14 operations east of 87.5°W longitude are subject to USEPA air quality regulations.

16 Under the CAA, the Secretary of the Interior is required to consult with the USEPA  
17 Administrator “to assure coordination of air pollution control regulations for OCS emissions and  
18 emissions in adjacent onshore areas.” The MMS established 30 CFR 250.302, 250.303, and  
19 250.304 to comply with the CAA. The regulated pollutants include carbon monoxide,  
20 particulates, sulfur dioxide, nitrogen oxides, and volatile organic compounds (as a precursor to  
21 ozone). In areas where hydrogen sulfide may be present, operations are regulated by  
22 30 CFR 250.417. The MMS regulations allow for the collection of information about potential  
23 sources of pollution for the purpose of determining whether the projected emissions of air  
24 pollutants from a facility could result in ambient onshore air pollutant concentrations above  
25 maximum levels provided in the regulations. These regulations also stipulate appropriate  
26 emissions controls deemed necessary to prevent accidents and air quality deterioration.

### 29 **C.1.6 The Federal Water Pollution Control Act (FWPCA) and Clean Water Act (CWA)**

31 The Federal Water Pollution Control Act (FWPCA) establishes water pollution control  
32 activities to restore and maintain the chemical, physical, and biological integrity of the Nation's  
33 waters. The Clean Water Act of 1977 (CWA) amended the FWPCA. Title III of the CWA  
34 requires the USEPA to establish national effluent limitation standards for existing point sources  
35 of wastewater discharges that reflect the application of the best practical control technology  
36 currently available. These standards apply to existing OCS exploratory drillships,  
37 semisubmersible vessels, and jackup rigs used in exploration activities. The CWA also requires  
38 the USEPA to establish regulations for effluent limitations for categories and classes of point  
39 sources that require the application of “best available control technology economically  
40 achievable.”

42 Section 311 of the CWA, as amended, prohibits the discharge of oil or hazardous  
43 substances into the navigable waters of the United States that may affect natural resources,  
44 except under limited circumstances, and establishes civil penalty liability and enforcement  
45 procedures to be administered by the U.S. Coast Guard (USCG). The CWA Title IV establishes  
46 requirements for Federal permits and licenses to conduct an activity (including construction or

1 operation of facilities) that may result in any discharges into navigable waters. Section 402 of  
2 the CWA gives the USEPA the authority to issue National Pollutant Discharge Elimination  
3 System (NPDES) permits for the discharge of pollutants. The NPDES permits apply to all  
4 sources of wastewater discharges from exploratory vessels and production platforms operating  
5 on the OCS.  
6  
7

### 8 **C.1.7 The Coastal Zone Management Act (CZMA) and the Coastal Zone Reauthorization** 9 **Amendments of 1990**

10  
11 Congress passed the Coastal Zone Management Act (CZMA) and created the Coastal  
12 Zone Management Program to improve the management of our Nation's coastal areas. The  
13 program, a voluntary partnership between the Federal Government and the coastal States and  
14 territories, is administered at the Federal level by the National Oceanic and Atmospheric  
15 Administration (NOAA) within the U.S. Department of Commerce (USDOC). The program's  
16 goal is to reduce potential conflicts between environmental and economic interests in the coastal  
17 area through the use of federally approved coastal management programs (CMPs).  
18

19 The CZMA allows a coastal State or territory, with a federally approved CMP, to review  
20 Federal activities for Federal consistency. Federal consistency is the CZMA requirement that all  
21 Federal actions that are reasonably likely to affect any land or water use or natural resource of  
22 the coastal zone be consistent with the enforceable policies of a State's/territory's CMP.  
23 Section 307 of the CZMA contains the Federal consistency provisions that impose certain  
24 requirements on Federal agencies to comply with enforceable policies detailed in the federally  
25 approved CMPs:  
26

- 27 • Section 307(c)(1) requires that any direct Federal agency activities affecting  
28 any land or water use or natural resources of the coastal zone be consistent, to  
29 the maximum extent practicable, with enforceable policies of the State's  
30 CMP. This section applies to OCS lease sales.  
31
- 32 • Section 307(c)(3)(A) requires that any Federal licenses/permit affecting any  
33 land or water use or natural resources of the coastal zone be consistent with  
34 enforceable policies of the State's CMP. This section applies to geological  
35 and geophysical permits. In addition, this section prohibits the Federal agency  
36 from issuing the license/permit until the affected State(s) has concurred with  
37 or presumed to concur with the applicant's consistency certification or until  
38 the Secretary of Commerce has overridden the State's consistency objection to  
39 the licensed/permitted activity.  
40
- 41 • Section 307(c)(3)(B) requires that activities affecting any land or water use or  
42 natural resources of the coastal zone, described in detail in OCS exploration or  
43 development and production plans, be consistent with enforceable policies of  
44 the State's CMP. The MMS is prohibited from approving an OCS plan until  
45 the affected State(s) has concurred with, or is presumed to concur with, the

1 applicant's consistency certification or until the Secretary of Commerce has  
2 overridden the State's consistency objection.

### 3 4 5 **C.1.8 The Endangered Species Act (ESA)**

6  
7 The Endangered Species Act of 1973 (ESA) establishes policy to protect and conserve  
8 threatened and endangered species and the ecosystems upon which they depend. The ESA is  
9 administered by the USDOJ, U.S. Fish and Wildlife Service (USFWS), and the USDOC,  
10 National Marine Fisheries Service (NMFS). Section 7 of the ESA mandates that all Federal  
11 agencies consult with the USFWS or NMFS to ensure that any agency action is not likely to do  
12 the following:

- 13  
14 • Jeopardize the continued existence of any endangered or threatened species,  
15 and/or  
16  
17 • Destroy or adversely modify an endangered or threatened species' critical  
18 habitat.

19  
20 The ESA requires Federal agencies to formally consult when there is reason to believe  
21 that a listed (or proposed to be listed) species may be affected by a proposed action. Formal  
22 endangered species consultations provide a threshold examination and a biological opinion on  
23 the likelihood that the proposed activity will or will not jeopardize the continued existence of the  
24 resource, and on the effect of the proposed activity on the endangered species. The biological  
25 opinion may include recommendations for modification of the proposed activity. The USFWS  
26 or NMFS notifies the Federal agency in writing when insufficient information is available to  
27 conclude that the proposed activity is not likely to jeopardize the species or its habitat. In such  
28 cases, the Federal agency must obtain additional information, and, if recommended by the  
29 USFWS or NMFS, conduct appropriate biological surveys or studies to determine how the  
30 proposed activity may affect the endangered species or its critical habitat. After such additional  
31 information is received, USFWS or NMFS would conclude the consultation process by issuing a  
32 formal biological opinion.

33  
34 For OCS activities in the Western and Central Gulf of Mexico Planning Areas, the  
35 BOEMRE consults with the USFWS and/or NMFS at the multisale stage. This consultation  
36 covers OCS activities from lease sale through the exploration, development, production, and  
37 decommission stages. For other OCS areas, the BOEMRE consults with USFWS and/or NMFS  
38 at the lease sale stage; however, this consultation only covers leasing and exploration activities.  
39 A separate consultation is conducted for development, production, and decommissioning stages.

### 40 41 42 **C.1.9 The Magnuson-Stevens Fishery Conservation and Management Act (FCMA)**

43  
44 The Magnuson-Stevens Fishery Conservation and Management Act of 1976 (FCMA)  
45 established and delineated an area from the States' seaward boundary to approximately  
46 200 nautical miles out as a fisheries conservation zone for the United States and its possessions.

1 The FCMA created eight regional fishery management councils (FMCs) and mandated a  
2 continuing planning program for marine fisheries management by the FMCs. In addition, the  
3 FCMA requires the FMC to prepare a fishery management plan (FMP), based upon the best  
4 available scientific and economic data, for each commercial species (or related group of species)  
5 of fish in need of conservation and management within each respective region.  
6

7 When the Sustainable Fisheries Act of 1996 reauthorized the FCMA, Congress required  
8 the NMFS to designate and conserve essential fish habitat (EFH) for those species managed  
9 under an existing FMP. By designating EFH, Congress hoped to minimize any adverse effects  
10 on habitat caused by fishing or nonfishing activities and to identify other actions to encourage  
11 the conservation and enhancement of such habitat. The phrase “essential fish habitat”  
12 encompasses “those waters and substrate necessary to fishes for spawning, breeding, feeding, or  
13 growth to maturity.” As a result of this change, Federal agencies must consult with the NMFS  
14 on those activities that may have direct (e.g., physical disruption) or indirect (e.g., loss of prey  
15 species) effects on EFH. For OCS activities in the Western and Central Gulf of Mexico Planning  
16 Areas, the BOEMRE consults with the NMFS at the multisale stage. This consultation covers  
17 OCS activities from lease sale through the exploration, development, production, and  
18 decommission stages. For other OCS areas, the BOEMRE consults with the NMFS at each OCS  
19 project stage individually (e.g., the lease sale, exploration plan, and development and production  
20 plan).  
21  
22

### 23 **C.1.10 The Marine Mammal Protection Act (MMPA)** 24

25 The Marine Mammal Protection Act (MMPA) was enacted in 1972 to ensure that marine  
26 mammals are maintained at, or in some cases restored to, healthy population levels. Jurisdiction  
27 over marine mammals under the MMPA is split between two Federal Agencies, the USFWS and  
28 NMFS. The USFWS has jurisdiction over sea otters, polar bears, manatees, dugongs, and  
29 walrus, while the NMFS has jurisdiction over all other marine mammals.  
30

31 The MMPA established a moratorium on the taking or importing of marine mammals  
32 except during certain activities that are regulated and permitted. Such activities include scientific  
33 research, public display, commercial and educational photography, import and export of marine  
34 mammal parts, commercial fishing authorizations, and take incidental to non-fishing commercial  
35 activities. Taking is defined as “to harass, hunt, capture, or kill or attempt to harass, hunt,  
36 capture, or kill any marine mammal.” Harass is defined as any act of pursuit, torment, or  
37 annoyance that has the potential to do the following:  
38

- 39 • Injure a marine mammal or marine mammal stock in the wild, or
- 40
- 41 • Disturb a marine mammal or marine mammal stock in the wild by disrupting  
42 behavioral patterns (e.g., breathing, nursing, breeding).  
43

44 Upon request, the Secretary (of either the USDOJ or the USDOC, depending on  
45 jurisdiction) can authorize the unintentional taking of small numbers of marine mammals  
46 incidental to activities other than commercial fishing (e.g., offshore oil and gas exploration and

1 development) for a period of 1–5 yr, depending on the level of anticipated take. To authorize the  
2 taking, the Secretary must find that the total of the taking during the 5-yr period (or less) would  
3 have a negligible impact on the affected species. In addition, the Secretary shall withdraw or  
4 suspend permission to take marine mammals incidental to oil and gas production, and other  
5 activities when the following take place:

- 6
- 7 • The applicable regulations concerning the methods of taking, monitoring, or
- 8 reporting are not being complied with; or
- 9
- 10 • The taking is having, or may be having, more than a negligible impact on the
- 11 affected species or stock.
- 12

13 The BOEMRE coordinates with the USFWS and NMFS to ensure that MMS and  
14 offshore operators comply with the MMPA, and to identify mitigation and monitoring  
15 requirements for permits or approvals for activities like seismic surveys and platform removals.

#### 16

#### 17

#### 18 **C.1.11 The International Convention of the Prevention of Pollution from Ships**

#### 19 **(MARPOL) and Marine Plastic Pollution Research and Control Act (MPPRCA)**

#### 20

21 In 1978, the International Convention of the Prevention of Pollution from Ships  
22 (MARPOL) was updated to include five annexes on ocean dumping. By signing onto MARPOL,  
23 countries agree to enforce Annexes I and II (oil and noxious liquid substances) of the treaty.  
24 Annexes III (hazardous substances), IV (sewage), and V (plastics) are optional. The  
25 United States is signatory to two of the optional MARPOL Annexes, III and V. Annex V is of  
26 particular importance to the maritime community (e.g., shippers, oil platform personnel, fishers,  
27 recreational boaters) because it prohibits the disposal of plastic at sea and regulates the disposal  
28 of other types of garbage at sea. The USCG is the enforcement agency for MARPOL Annex V  
29 within the U.S. Exclusive Economic Zone (EEZ) (within 322 km [200 mi] of the U.S. shoreline).

30

31 The Marine Plastic Pollution Research and Control Act (MPPRCA) is the Federal law  
32 implementing MARPOL Annex V in all U.S. waters. Under the MPPRCA, it is illegal to throw  
33 plastic trash off any vessel within the EEZ. It is also illegal to throw any other garbage  
34 (e.g., orange peels, paper plates, glass jars, and monofilament fishing line) overboard while  
35 navigating in inland waters or within 5 km (3 mi) offshore. The greater the distance from shore,  
36 the fewer restrictions apply to nonplastic garbage. However, dumping plastics overboard in any  
37 waters anywhere is illegal at anytime. Fixed and floating platforms, drilling rigs, manned  
38 production platforms, and support vessels operating under a Federal oil and gas lease are  
39 required to develop waste management plans and to post placards reflecting discharge limitations  
40 and restrictions. Garbage must be brought ashore and properly disposed of in a trash can,  
41 dumpster, or recycling container. Docks and marinas are required to provide facilities to handle  
42 normal amounts of garbage from their paying customers. Violations of MARPOL or MPPRCA  
43 may result in a fine of up to \$50,000 for each incident. If criminal intent can be proven, an  
44 individual may be fined up to \$250,000 and/or imprisoned up to 6 yr. If an organization is  
45 responsible, it may be fined up to \$500,000 and/or be subject to 6 yr of imprisonment.

46

1 **C.1.12 The Marine Protection, Research, and Sanctuaries Act (MPRSA)**  
2

3 The Marine Protection, Research, and Sanctuaries Act of 1972 (MPRSA) regulates the  
4 ocean dumping of waste, provides for a research program on ocean dumping, and provides for  
5 the designation and regulation of marine sanctuaries. Also known as the Ocean Dumping Act, it  
6 regulates the ocean dumping of all material beyond the territorial limit (5 km [3 mi] from shore)  
7 and prevents or strictly limits dumping material that “would adversely affect human health,  
8 welfare, or amenities, or the marine environment, ecological systems, or economic  
9 potentialities.” Material includes, but is not limited to, dredged material; solid waste; incinerator  
10 residue; garbage; sewage; sewage sludge; munitions; chemical and biological warfare agents;  
11 radioactive materials; chemicals; biological and laboratory waste; wrecked or discarded  
12 equipment; rocks; sand; excavation debris; and industrial, municipal, agricultural, and other  
13 waste. The term does not include sewage from vessels or oil, unless the oil is transported via a  
14 vessel or aircraft for the purpose of dumping. Disposal by means of a pipe, regardless of how far  
15 at sea the discharge occurs, is regulated by the CWA through the NPDES permit process.  
16

17 Title III of the MPRSA, later called the National Marine Sanctuaries Act, charged the  
18 Secretary of the Department of Commerce to identify, designate, and manage marine sites based  
19 on conservational, ecological, recreational, historical, aesthetic, scientific, or educational value  
20 within significant national ocean and Great Lake waters. The NOAA administers the National  
21 Marine Sanctuary Program. Twelve national marine sanctuaries, representing a wide variety of  
22 ocean environments, have been designated.  
23  
24

25 **C.1.13 The Merchant Marine Act of 1920 (Jones Act)**  
26

27 The Merchant Marine Act of 1920 (Jones Act) regulates coastal shipping between  
28 U.S. ports and inland waterways. The Jones Act provides that “no merchandise shall be  
29 transported by water, or by land and water . . . between points in the United States . . . in any  
30 other vessel than a vessel built in and documented under the laws of the United States and owned  
31 by persons who are citizens of the United States . . .” Therefore, the Jones Act requires that all  
32 goods shipped between different ports in the United States or its territories must be:  
33

- 34 • Carried on vessels built and documented (flagged) in the United States,
- 35
- 36 • Crewed by U.S. citizens or legal aliens licensed by the USCG, and
- 37
- 38 • Owned and operated by U.S. citizens.  
39

40 The rationale behind the Jones Act and earlier sabotage laws was that the United States  
41 needed a merchant marine fleet to ensure that its domestic waterborne commerce remains under  
42 Government jurisdiction for regulatory, safety, and national defense considerations. The same  
43 general principles of safety regulations are applied to other modes of transportation in the  
44 United States. While other modes of transportation can operate foreign-built equipment, these  
45 units must comply with U.S. standards. However, many foreign-built ships do not meet the  
46 standards required of U.S.-built ships and, thus, are excluded from domestic shipping.

1           The U.S. Customs Service has determined that facilities fixed or attached to the OCS  
2 used for the purpose of oil exploration are considered points within the United States. The OCS  
3 oil facilities are considered U.S. sovereign territory and fall under the requirements of the Jones  
4 Act; so all shipping to and from these facilities related to OCS oil exploration can only be  
5 conducted by vessels meeting the requirements of the Jones Act. Shuttle tankering of oil that is  
6 produced at OCS facilities can only be legally provided by U.S.-registered vessels and aircraft  
7 that are properly endorsed for coastwise trade under the laws of the United States.  
8  
9

#### 10 **C.1.14 The National Fishing Enhancement Act**

11  
12           The National Fishing Enhancement Act of 1984, also known as the Artificial Reef Act,  
13 established broad artificial-reef development standards and a national policy to encourage the  
14 development of artificial reefs that will enhance fishery resources and commercial and  
15 recreational fishing. The national plan identifies oil and gas structures as acceptable material of  
16 opportunity for artificial-reef development. The BOEMRE adopted a rigs-to-reefs policy in 1985  
17 in response to this Act and to broaden interest in the use of petroleum platforms as artificial  
18 reefs.  
19  
20

#### 21 **C.1.15 The National Historic Preservation Act (NHPA)**

22  
23           The National Historic Preservation Act of 1966 (NHPA) requires the head of any Federal  
24 agency possessing licensing authority or having direct or indirect jurisdiction over a proposed  
25 Federal or federally assisted activity to consider the proposed activity's effect on any district,  
26 site, building, structure, or object that is included in or eligible for inclusion in the *National*  
27 *Register of Historic Places*. The historic properties (i.e., archaeological resources) on the OCS  
28 include historic shipwrecks, sunken aircraft, lighthouses, and prehistoric archaeological sites that  
29 have become inundated due to the 120-m (394-ft) rise in global sea level since the height of the  
30 last ice age (ca. 19,000 yr ago).  
31

32           Because the OCS is not federally owned land and the Federal Government has not  
33 claimed direct ownership of historic properties on the OCS, the BOEMRE only has the authority  
34 to ensure that any agency-funded and permitted actions do not adversely affect significant  
35 historic properties. Beyond avoidance of adverse impacts, BOEMRE does not possess the legal  
36 authority to manage the historic properties on the OCS. The BOEMRE has conducted  
37 archaeological baseline studies of the OCS to determine where known historic properties may be  
38 located and to outline areas where presently unknown historic properties may be located. These  
39 baseline studies are used to identify "archaeologically sensitive" areas that may contain  
40 significant historic properties.  
41

42           Prior to approving any OCS exploration or development activities within an  
43 archaeologically sensitive area, BOEMRE requires the lessee to conduct a marine remote sensing  
44 survey and to prepare an archaeological report. If the marine remote sensing survey indicates  
45 any evidence of a potential historic property, the lessee must do one of the following:  
46

- 1 • Move the site of the proposed lease operations a sufficient distance to avoid
- 2 the potential historic property, or
- 3
- 4 • Conduct further investigations to determine the nature and significance of the
- 5 potential historic property.
- 6

7 If further investigation determines that there is a significant historic property within the  
8 area of proposed OCS operations, NHPA consultation procedures are followed.

### 9

### 10

### 11 **C.1.16 The Oil Pollution Act (OPA 90)**

### 12

13 The Oil Pollution Act (OPA 90) establishes a single uniform Federal system of liability  
14 and compensation for damages caused by oil spills in U.S. navigable waters. The OPA 90  
15 requires removal of spilled oil and establishes a national system of planning for and responding  
16 to oil-spill incidents. In addition, OPA 90 includes provisions to do the following:

- 17
- 18 • Improve oil-spill prevention, preparedness, and response capability;
- 19
- 20 • Establish limitations on liability for damages resulting from oil pollution;
- 21
- 22 • Promote funding for natural resource damage assessment;
- 23
- 24 • Implement a fund for the payment of compensation for such damages; and
- 25
- 26 • Establish an oil pollution research and development program.
- 27

28 The USCG is responsible for enforcing vessel compliance with the OPA 90. The  
29 Secretary of the Interior is given authority over offshore facilities and associated pipelines  
30 (except deepwater ports) for all Federal and State waters, including responsibility for spill  
31 prevention, oil-spill contingency plans, oil-spill containment and cleanup equipment, financial  
32 responsibility certification, and civil penalties. The Secretary of the Interior delegated this  
33 authority to BOEMRE.

34

35 The BOEMRE regulations governing oil-spill financial responsibility (OSFR) for  
36 offshore facilities and related requirements for certain crude oil wells, production platforms, and  
37 pipelines located in the OCS and certain State waters became effective in October 1998. The  
38 regulations implement the OPA requirement for responsible parties to demonstrate they can pay  
39 for cleanup and damages caused by facility oil spills. Responsible parties can be required to  
40 demonstrate as much as \$150 million in OSFR if BOEMRE determines that it is justified by the  
41 risks from potential oil spills from the covered offshore facilities. The minimum amount of  
42 OSFR that must be demonstrated is \$35 million for covered offshore facilities located in the  
43 OCS, and \$10 million for covered offshore facilities located in State waters. The regulation  
44 exempts persons responsible for facilities having a potential worst-case, oil-spill discharge of  
45 1,000 bbl or less, unless the risks posed by a facility justify a lower threshold.

46

1 **C.1.17 The Outer Continental Shelf Deep Water Royalty Relief Act**  
2

3 The Outer Continental Shelf Deep Water Royalty Relief Act of 1995 authorizes the  
4 Secretary of the Interior to offer OCS blocks for lease with suspension of royalties for a  
5 volume, value, or period of production. Deepwater royalty relief applies to blocks offered for  
6 lease in the western and central Gulf of Mexico in water depths exceeding 200 m (656 ft)  
7 through November 28, 2000. The MMS has developed procedures for suspension of royalty  
8 payment on production from eligible leases.  
9

10  
11 **C.1.18 The Ports and Waterways Safety Act**  
12

13 The Ports and Waterways Safety Act authorizes the USCG to designate safety fairways,  
14 fairway anchorages, and traffic separation schemes to provide unobstructed approaches through  
15 oil fields for vessels using ports. The USCG regulations provide listings of these designated  
16 areas along with special conditions related to oil and gas production. In general, no fixed  
17 structures such as platforms are allowed in fairways. Temporary underwater obstacles such as  
18 anchors and attendant cables or chains attached to floating or semisubmersible drilling rigs may  
19 be placed in a fairway under certain conditions. Fixed structures may be placed in anchorages,  
20 but the number of structures is limited.  
21

22  
23 **C.1.19 The Resource Conservation and Recovery Act (RCRA)**  
24

25 The Resource Conservation and Recovery Act (RCRA) provides a framework for the safe  
26 disposal and management of hazardous and solid wastes. Most oil-field wastes have been  
27 exempted from coverage under RCRA hazardous waste regulations. Any hazardous wastes  
28 generated on the OCS that are not exempt must be transported to shore for disposal at a  
29 hazardous waste facility.  
30

31  
32 **C.2 EXECUTIVE ORDERS (EO)**  
33

34  
35 **C.2.1 Executive Order 12898: Federal Actions to Address Environmental Justice in**  
36 **Minority Populations and Low-Income Populations (February 1994)**  
37

38 In the memorandum to heads of departments and agencies that accompanied the  
39 Executive Order (EO), the President specifically recognized the importance of procedures under  
40 the NEPA for identifying and addressing environmental justice concerns. The memorandum  
41 states that “each Federal agency shall analyze the environmental effects, including human health,  
42 economic and social effects, of Federal actions, including effects on minority communities and  
43 low-income communities, when such analysis is required by [NEPA].” In August 1994, the  
44 Secretary of the Interior directed its bureaus to include environmental justice (EJ) in NEPA  
45 documentation, and in February 1998, the CEQ issued guidance to assist Federal Agencies in  
46 addressing EJ.

1 The issue of disproportionate, OCS-related impacts on minority and low-income  
2 populations is addressed in all OCS regions when such analysis is required by the NEPA. This  
3 issue is a primary focus in Alaska OCS Region environmental assessments where Native  
4 Alaskan subsistence hunting, fishing, and gathering activities occur in coastal areas.

5  
6 Executive Order No. 12898 provides the following:

7  
8 Section 1-1. IMPLEMENTATION.

9  
10 1-101. *Agency Responsibilities.* To the greatest extent practicable and permitted by law,  
11 and consistent with the principles set forth in the report on the National Performance  
12 Review, each Federal agency shall make achieving environmental justice part of its  
13 mission by identifying and addressing, as appropriate, disproportionately high and  
14 adverse human health or environmental effects of its programs, policies, and activities on  
15 minority populations and low-income populations in the United States and its territories  
16 and possessions, the District of Columbia, the Commonwealth of Puerto Rico, and the  
17 Commonwealth of the Marianas Islands.

18  
19 1-102. *Creation of an Interagency Working Group on Environmental Justice.*

20  
21 (a) Within 3 months of the date of this order, the Administrator of the Environmental  
22 Protection Agency (“Administrator”) or the Administrator’s designee shall convene  
23 an interagency Federal Working Group on Environmental Justice (“Working  
24 Group”). The Working Group shall comprise the heads of the following executive  
25 agencies and offices, or their designees: (a) Department of Defense; (b) Department  
26 of Health and Human Services; (c) Department of Housing and Urban Development;  
27 (d) Department of Labor; (e) Department of Agriculture; (f) Department of  
28 Transportation; (g) Department of Justice; (h) Department of the Interior;  
29 (i) Department of Commerce; (j) Department of Energy; (k) Environmental  
30 Protection Agency; (l) Office of Management and Budget; (m) Office of Science  
31 and Technology Policy; (n) Office of the Deputy Assistant to the President for  
32 Environmental Policy; (o) Office of the Assistant to the President for Domestic  
33 Policy; (p) National Economic Council; (q) Council of Economic Advisers; and  
34 (r) such other Government officials as the President may designate. The Working  
35 Group shall report to the President through the Deputy Assistant to the President for  
36 Environmental Policy and the Assistant to the President for Domestic Policy.

37  
38 (b) The Working Group shall:

39  
40 (1) provide guidance to Federal agencies on criteria for identifying disproportionately  
41 high and adverse human health or environmental effects on minority populations  
42 and low-income populations;

43  
44 (2) coordinate with, provide guidance to, and serve as a clearinghouse for, each  
45 Federal agency as it develops an environmental justice strategy as required by  
46 section 1-103 of this order, in order to ensure that the administration,

1 interpretation and enforcement of programs, activities and policies are undertaken  
2 in a consistent manner;

3  
4 (3) assist in coordinating research by, and stimulating cooperation among, the  
5 Environmental Protection Agency, the Department of Health and Human  
6 Services, the Department of Housing and Urban Development, and other agencies  
7 conducting research or other activities in accordance with section 3-3 of this  
8 order;

9  
10 (4) assist in coordinating data collection, required by this order;

11  
12 (5) examine existing data and studies on environmental justice;

13  
14 (6) hold public meetings as required in section 5-502(d) of this order; and

15  
16 (7) develop interagency model projects on environmental justice that evidence  
17 cooperation among Federal agencies.

18  
19 1-103. *Development of Agency Strategies.*

20  
21 (a) Except as provided in section 6-605 of this order, each Federal agency shall develop  
22 an agency-wide environmental justice strategy, as set forth in subsections (b)–(e) of  
23 this section that identifies and addresses disproportionately high and adverse human  
24 health or environmental effects of its programs, policies, and activities on minority  
25 populations and low-income populations. The environmental justice strategy shall  
26 list programs, policies, planning and public participation processes, enforcement,  
27 and/or rulemakings related to human health or the environment that should be revised  
28 to, at a minimum: (1) promote enforcement of all health and environmental statutes  
29 in areas with minority populations and low-income populations; (2) ensure greater  
30 public participation; (3) improve research and data collection relating to the health of  
31 and environment of minority populations and low-income populations; and  
32 (4) identify differential patterns of consumption of natural resources among minority  
33 populations and low-income populations. In addition, the environmental justice  
34 strategy shall include, where appropriate, a timetable for undertaking identified  
35 revisions and consideration of economic and social implications of the revisions.

36  
37 (b) Within 4 months of the date of this order, each Federal agency shall identify an  
38 internal administrative process for developing its environmental justice strategy, and  
39 shall inform this Working Group of the process.

40  
41 (c) Within 6 months of the date of this order, each Federal agency shall provide the  
42 Working Group with an outline of its proposed environmental justice strategy.

43  
44 (d) Within 10 months of the date of this order, each Federal agency shall provide the  
45 Working Group with its proposed environmental justice strategy.

46

1 (e) Within 12 months of the date of this order, each Federal agency shall finalize its  
2 environmental justice strategy and provide a copy and written description of its  
3 strategy to the Working Group. During the 12 month period from the date of this  
4 order, each Federal agency, as part of its environmental justice strategy, shall identify  
5 several specific projects that can be promptly undertaken to address particular  
6 concerns identified during the development of the proposed environmental justice  
7 strategy, and a schedule for implementing those projects.  
8

9 (f) Within 24 months of the date of this order, each Federal agency shall report to the  
10 Working Group on its progress in implementing its agency-wide environmental  
11 justice strategy.  
12

13 (g) Federal agencies shall provide additional periodic reports to the Working Group as  
14 requested by the Working Group.  
15

16 1-104. *Reports to the President.* Within 14 months of the date of this order, the Working  
17 Group shall submit to the President, through the Office of the Deputy Assistant to the  
18 President for Environmental Policy and the Office of the Assistant to the President for  
19 Domestic Policy, a report that describes the implementation of this order, and includes  
20 the final environmental justice strategies described in section 1-103(e) of this order.  
21

## 22 Sec. 2-2. FEDERAL AGENCY RESPONSIBILITIES FOR FEDERAL PROGRAMS.

23

24 Each Federal agency shall conduct its programs, policies, and activities that substantially  
25 affect human health or the environment, in a manner that ensures that such programs,  
26 policies, and activities do not have the effect of excluding persons (including  
27 populations) from participation in, denying persons (including populations) the benefits  
28 of, or subjecting persons (including populations) to discrimination under, such programs,  
29 policies, and activities, because of their race, color, or national origin.  
30

## 31 Sec. 3-3. RESEARCH, DATA COLLECTION, AND ANALYSIS.

32

### 33 3-301. *Human Health and Environmental Research and Analysis.*

34

35 (a) Environmental human health research, whenever practicable and appropriate, shall  
36 include diverse segments of the population in epidemiological and clinical studies,  
37 including segments at high risk from environmental hazards, such as minority  
38 populations, low-income populations and workers who may be exposed to substantial  
39 environmental hazards.  
40

41 (b) Environmental human health analyses, whenever practicable and appropriate, shall  
42 identify multiple and cumulative exposures.  
43

44 (c) Federal agencies shall provide minority populations and low-income populations the  
45 opportunity to comment on the development and design of research strategies  
46 undertaken pursuant to this order.

1 3-302. *Human Health and Environmental Data Collection and Analysis.* To the extent  
2 permitted by existing law, including the Privacy Act, as amended (5 U.S.C. § 552a):  
3

4 (a) Each Federal agency, whenever practicable and appropriate, shall collect, maintain,  
5 and analyze information assessing and comparing environmental and human health  
6 risks borne by populations identified by race, national origin, or income. To the  
7 extent practical and appropriate, Federal agencies shall use this information to  
8 determine whether their programs, policies, and activities have disproportionately  
9 high and adverse human health or environmental effects on minority populations and  
10 low-income populations;  
11

12 (b) In connection with the development and implementation of agency strategies in  
13 section 1-103 of this order, each Federal agency, whenever practicable and  
14 appropriate, shall collect, maintain and analyze information on the race, national  
15 origin, income level, and other readily accessible and appropriate information for  
16 areas surrounding facilities or sites expected to have a substantial environmental,  
17 human health, or economic effect on the surrounding populations, when such  
18 facilities or sites become the subject of a substantial Federal environmental  
19 administrative or judicial action. Such information shall be made available to the  
20 public unless prohibited by law; and  
21

22 (c) Each Federal agency, whenever practicable and appropriate, shall collect, maintain,  
23 and analyze information on the race, national origin, income level, and other readily  
24 accessible and appropriate information for areas surrounding Federal facilities that  
25 are: (1) subject to the reporting requirements under the Emergency Planning and  
26 Community Right-to-Know Act, 42 U.S.C. section 11001-11050 as mandated in  
27 Executive Order No. 12856; and (2) expected to have a substantial environmental,  
28 human health, or economic effect on surrounding populations. Such information  
29 shall be made available to the public, unless prohibited by law.  
30

31 (d) In carrying out the responsibilities in this section, each Federal agency, whenever  
32 practicable and appropriate, shall share information and eliminate unnecessary  
33 duplication of efforts through the use of existing data systems and cooperative  
34 agreements among Federal agencies and with State, local, and tribal governments.  
35

36 Sec. 4-4. SUBSISTENCE CONSUMPTION OF FISH AND WILDLIFE.  
37

38 4-401. *Consumption Patterns.* In order to assist in identifying the need for ensuring  
39 protection of populations with differential patterns of subsistence consumption of fish  
40 and wildlife, Federal agencies, whenever practicable and appropriate, shall collect,  
41 maintain, and analyze information on the consumption patterns of populations who  
42 principally rely on fish and/or wildlife for subsistence. Federal agencies shall  
43 communicate to the public the risks of those consumption patterns.  
44

45 4-402. *Guidance.* Federal agencies, whenever practicable and appropriate, shall work in  
46 a coordinated manner to publish guidance reflecting the latest scientific information

1 available concerning methods for evaluating the human health risks associated with the  
2 consumption of pollutant-bearing fish or wildlife. Agencies shall consider such guidance  
3 in developing their policies and rules.  
4

5 Sec. 5-5. PUBLIC PARTICIPATION AND ACCESS TO INFORMATION.  
6

7 (a) The public may submit recommendations to Federal agencies relating to the  
8 incorporation of environmental justice principles into Federal agency programs or  
9 policies. Each Federal agency shall convey such recommendations to the Working  
10 Group.  
11

12 (b) Each Federal agency may, whenever practicable and appropriate, translate crucial  
13 public documents, notices, and hearings relating to human health or the environment  
14 for limited English speaking populations.  
15

16 (c) Each Federal agency shall work to ensure that public documents, notices, and  
17 hearings relating to human health or the environment are concise, understandable, and  
18 readily accessible to the public.  
19

20 (d) The Working Group shall hold public meetings, as appropriate, for the purpose of  
21 fact-finding, receiving public comments, and conducting inquiries concerning  
22 environmental justice. The Working Group shall prepare for public review a  
23 summary of the comments and recommendations discussed at the public meetings.  
24

25 Sec. 6-6. GENERAL PROVISIONS.  
26

27 6-601. *Responsibility for Agency Implementation.* The head of each Federal agency shall  
28 be responsible for ensuring compliance with this order. Each Federal agency shall  
29 conduct internal reviews and take such other steps as may be necessary to monitor  
30 compliance with this order.  
31

32 6-602. *Executive Order No. 12250.* This Executive order is intended to supplement but  
33 not supersede Executive Order No. 12250, which requires consistent and effective  
34 implementation of various laws prohibiting discriminatory practices in programs  
35 receiving Federal financial assistance. Nothing herein shall limit the effect or mandate of  
36 Executive Order No. 12250.  
37

38 6-603. *Executive Order No. 12875.* This Executive order is not intended to limit the  
39 effect or mandate of Executive Order No. 12875.  
40

41 6-604. *Scope.* For purposes of this order, Federal agency means any agency on the  
42 Working Group, and such other agencies as may be designated by the President, that  
43 conducts any Federal program or activity that substantially affects human health or the  
44 environment. Independent agencies are requested to comply with the provisions of this  
45 order.  
46

1           6-605. *Petitions for Exemptions.* The head of a Federal agency may petition the  
2           President for an exemption from the requirements of this order on the grounds that all or  
3           some of the petitioning agency’s programs or activities should not be subject to the  
4           requirements of this order.  
5

6           6-606. *Native American Programs.* Each Federal agency responsibility set forth under  
7           this order shall apply equally to Native American programs. In addition, the Department  
8           of the Interior, in coordination with the Working Group, and, after consultation with  
9           tribal leaders, shall coordinate steps to be taken pursuant to this order that address  
10          Federally-recognized Indian Tribes.  
11

12          6-607. *Costs.* Unless otherwise provided by law, Federal agencies shall assume the  
13          financial costs of complying with this order.  
14

15          6-608. *General.* Federal agencies shall implement this order consistent with, and to the  
16          extent permitted by, existing law.  
17

18          6-609. *Judicial Review.* This order is intended only to improve the internal management  
19          of the executive branch and is not intended to, nor does it create any right, benefit, or  
20          trust responsibility, substantive or procedural, enforceable at law or equity by a party  
21          against the United States, its agencies, its officers, or any person. This order shall not be  
22          construed to create any right to judicial review involving the compliance or  
23          noncompliance of the United States, its agencies, its officers, or any other person with  
24          this order.  
25  
26

### 27   **C.2.2 Executive Order 13007: Indian Sacred Sites (May 1996)** 28

29           The Indian Sacred Sites EO directs Federal land managing Agencies to accommodate  
30           access to, and ceremonial use of, Indian sacred sites by Indian religious practitioners, and to  
31           avoid adversely affecting the physical integrity of such sacred sites. It is BOMRE’s policy to  
32           consider the potential effects of all aspects of plans, projects, programs, and activities on Indian  
33           sacred sites, and to consult, to the greatest extent practicable and to the extent permitted by law,  
34           with tribal governments before taking actions that may affect Indian sacred sites located on  
35           Federal lands.  
36  
37

### 38   **C.2.3 Executive Order 13089: Coral Reef Protection (June 1998)** 39

40           This EO directs the U.S. Coral Reef Task Force, co-chaired by the Secretaries of Interior  
41           and Commerce, to develop and implement a comprehensive program of research and mapping to  
42           inventory, monitor, and “identify the major causes and consequences of degradation of coral reef  
43           ecosystems.” In addition, the EO directs Federal agencies to protect coral reef ecosystems and,  
44           to the extent permitted by law, prohibits them from authorizing funding or carrying out any  
45           actions that will degrade these ecosystems. Relatedly, the USDOJ works with domestic and  
46           international partners through the Coral Reef Initiative. This initiative focuses efforts to protect

1 and monitor coral reefs around the world by building and sustaining partnerships, programs, and  
2 institutional capacities at the local, national, regional, and international levels.

#### 3 4 5 **C.2.4 Executive Order 12114: Environmental Effects Abroad (January 1979)** 6

7 This EO requires that Federal officials be informed of environmental considerations, and  
8 take those considerations into account when making decisions on major Federal actions that  
9 could have environmental impacts anywhere beyond the borders of the United States, including  
10 Antarctica. Such Federal actions include the following:

- 11  
12 • All major Federal actions significantly affecting the environment outside the  
13 jurisdiction of any nation (the oceans or Antarctica). This would apply to  
14 proposals that result in actions within the United States, which because of  
15 ocean currents, winds, stream flow, or other natural processes, may affect  
16 parts of the oceans not claimed by any nation (high seas). Included in this  
17 category would be an OCS project that, because of ocean currents, could  
18 result in effluents or spilled oil reaching fishing grounds or areas not claimed  
19 by another nation.
- 20  
21 • All major Federal actions significantly affecting the environment of a foreign  
22 nation not involved in the action. This would apply to proposals that result in  
23 actions within U.S. territory or within the EEZ that, because of ocean currents,  
24 winds, stream flow, or other natural processes, may affect parts of another  
25 nation, or seas or oceans within the jurisdiction of other nations. This  
26 category would include an OCS project located up-current from the Mexican  
27 coastline that could affect Mexico's territory in the event of an oil spill. Also  
28 in this category are all major Federal actions in which a foreign nation is a  
29 participant and that would normally be covered by the EIS addressing the  
30 U.S. part of the proposal. An example would be an OCS right-of-way  
31 pipeline bringing Canadian energy resources to the northeast United States.
- 32  
33 • All major Federal actions providing a foreign nation with a product, or  
34 involving a project that produces an emission or effluent prohibited or  
35 regulated by U.S. Federal law because of its effects on the environment or the  
36 creation of a serious public health risk.

37  
38 Federal actions causing significant impacts on environments outside the United States are  
39 to be addressed in the following:

- 40  
41 • EISs (generic), program (5-Year OCS Leasing Program) EISs, and project-  
42 specific (OCS lease sale) EISs;
- 43  
44 • Documents prepared for decision makers containing reviews of environmental  
45 issues involved in Federal actions, or summaries of environmental analyses  
46 (e.g., OCS lease sale decision documents, Records of Decision); and

- Environmental studies or research prepared by the United States and one or more foreign nations, or by an international body in which the United States is a member or participant.

The United States, Canada, and Mexico are negotiating a Transboundary Environmental Impact Assessments (TEIA) Agreement through the North Atlantic Free Trade Agreement (NAFTA) Commission on Environmental Cooperation (CEC). The CEC deals with a wide range of environmental and natural resource protection issues common to Canada, the United States, and Mexico. Developing a TEIA process is one of the requirements of the 1991 North American Agreement on Environmental Cooperation. Under this agreement, a transboundary environmental impact is any impact on the environment within the area under the jurisdiction of Canada, the United States, or Mexico caused by a proposed project, the physical origin of which is situated wholly or in part within the area under the jurisdiction of one of the three countries. For example, a proposed project on the United States OCS that, because of ocean currents, winds, or proximity to the Mexican coastline, could affect Mexican waters (fishing industry, fish resources, etc.) or the Mexican coastline (oil spill contacts, etc.) would be a project considered to have the potential to cause transboundary environmental impacts. The agreement recognizes that there is a significant bilateral nature to many transboundary issues and calls upon the three countries to develop an agreement to do the following:

- Assess the environmental impacts of proposed projects in any of the three countries party to the agreement (NAFTA) that would be likely to cause significant adverse transboundary impacts within the jurisdiction of any of the other parties;
- Develop a system of notification, consultation, and sharing of relevant information between countries with respect to such projects; and
- Give consideration to mitigating measures to address the potential adverse effects of such projects.

Negotiations are currently underway between the three parties to the agreement, but the final language has yet to be worked out. Because the requirements of the assessment portion of the agreement are somewhat similar to the requirements imposed by EO 12114 (i.e., impacts on foreign territory must be addressed in NEPA documents), the BOEMRE requires that EISs prepared on major Federal OCS actions contain an assessment of potential significant impacts on foreign territory.

### **C.2.5 Executive Order 13158: Marine Protected Areas (MPAs) (May 2000)**

The EO defines an MPA as “any area of the marine environment that has been reserved by Federal, State, territorial, tribal, or local laws or regulations to provide lasting protection for part or all of the natural and cultural resources therein.” The EO directs Federal agencies to work closely with State, local, and nongovernmental partners to create a comprehensive system of MPAs “representing diverse U.S. marine ecosystems, and the Nation’s natural and cultural

1 resources.” Ultimately, the MPA system will include new sites, as well as enhancements to the  
2 conservation of existing sites. Five principal components of the EO are the following:

- 3  
4 • **National MPA List:** The USDOC and the USDOJ will develop and maintain  
5 a national list of MPAs in U.S. waters. Candidate sites for the list are drawn  
6 from existing programs for Federal, tribal, State and local protected areas.  
7 When completed, the list and the companion data on each site will serve  
8 several purposes, such as ensuring that agencies “avoid harm” to MPAs,  
9 providing a foundation for the analysis of gaps in the existing system of  
10 protections, and helping improve the effectiveness of existing MPAs.  
11
- 12 • **The MPA Web Site:** The USDOC and USDOJ will develop and maintain a  
13 publicly accessible Web site to provide information on MPAs and Federal  
14 agency reports required by the EO. In addition, the Web site will be used to  
15 publish and maintain the National MPA List and other useful information,  
16 such as maps of MPAs; a virtual library of MPA reference materials,  
17 including links to other web sites; information on the MPA Advisory  
18 Committee; activities of the national MPA Center; MPA program summaries;  
19 and background materials such as MPA definitions, benefits, management  
20 challenges, and management tools.  
21
- 22 • **The MPA Federal Advisory Committee:** Created to provide expert advice  
23 on, and recommendations for, a national system of MPAs, this advisory  
24 committee will include nonfederal representatives from science, resource  
25 management, environmental organizations, and industry.  
26
- 27 • **The Mandate to Avoid Harmful Federal Actions:** This mandate directs  
28 Federal Agencies to avoid harm to MPAs or their resources through activities  
29 that they undertake, fund, or approve.  
30
- 31 • **The Marine Protected Areas Center:** The EO directs NOAA to create a  
32 Marine Protected Areas Center (MPA Center). In cooperation with the  
33 USDOJ and working closely with other organizations, the MPA Center will  
34 coordinate the effort to implement the EO and will do the following:  
35 – develop the framework for a national system of MPAs;  
36 – coordinate the development of information, tools, and strategies;  
37 – provide guidance that will encourage efforts to enhance and expand the  
38 protection of existing MPAs and to establish or recommend new ones;  
39 – coordinate the MPA Web site;  
40 – partner with Federal and nonfederal organizations to conduct research,  
41 analysis, and exploration;  
42 – help maintain the National MPA List; and  
43 – support the MPA Advisory Committee.  
44  
45

1 **C.2.6 Executive Order 13112: Invasive Species (February 1999)**  
2

3 The EO defines an “invasive species” as a species that is nonnative (or alien) to the  
4 ecosystem under consideration and whose introduction causes or is likely to cause, economic or  
5 environmental harm or harm to human health. This EO requires all Federal agencies to do as  
6 follows:

- 7
- 8 • Identify any actions affecting the status of invasive species;
  - 9
  - 10 • Prevent invasive species introduction;
  - 11
  - 12 • Detect and respond to and control populations of invasive species in a cost-  
13 effective and environmentally sound manner;
  - 14
  - 15 • Monitor invasive species populations accurately and reliably;
  - 16
  - 17 • Provide for restoration of native species and habitat conditions in invaded  
18 ecosystems;
  - 19
  - 20 • Conduct research on invasive species and develop technologies to prevent  
21 introduction and provide for environmentally sound control of invasive  
22 species;
  - 23
  - 24 • Promote public education on invasive species and the means to address them;  
25 and
  - 26
  - 27 • Refrain from authorizing, funding, or carrying out actions that are likely to  
28 cause or promote invasive species introduction or spread, unless the agency  
29 has determined that the benefits of such actions clearly outweigh the potential  
30 harm caused by invasive species and that all feasible and prudent measures to  
31 minimize risk of harm will be taken.
  - 32

33 In addition, the EO established the National Invasive Species Council (Council),  
34 co-chaired by the Secretaries of Agriculture, Commerce and the Interior, and comprised of the  
35 Secretaries of State, Treasury, Defense, and Transportation, and the Administrator of the  
36 USEPA. The Council does the following:

- 37
- 38 • Provides national leadership on invasive species;
  - 39
  - 40 • Sees that Federal efforts are coordinated and effective;
  - 41
  - 42 • Promotes action at local, State, tribal and ecosystem levels;
  - 43
  - 44 • Identifies recommendations for international cooperation;
  - 45
  - 46 • Facilitates a coordinated network to document and monitor invasive species;

- 1           • Develops a web-based information network;
- 2
- 3           • Provides guidance on invasive species for Federal Agencies to use in
- 4           implementing the NEPA; and
- 5
- 6           • Prepares an Invasive Species Management Plan to serve as the blueprint for
- 7           Federal action to prevent introduction; provide control; and minimize
- 8           economic, environmental, and human health impacts of invasive species.
- 9

10           The BOEMRE requires that EISs prepared on major Federal OCS actions (e.g., 5-Year  
11 OCS Leasing Program and OCS lease sales) contain an assessment of the proposed action's  
12 contribution to the invasive species problem.

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### **The Department of the Interior Mission**

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the sound use of our land and water resources, protecting our fish, wildlife and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in island communities.

### **The Bureau of Ocean Energy Management**

The Bureau of Ocean Energy Management (BOEM) works to manage the exploration and development of the nation's offshore resources in a way that appropriately balances economic development, energy independence, and environmental protection through oil and gas leases, renewable energy development and environmental reviews and studies.