

# **APPENDIX A**

## **GLOSSARY**

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## **A. Glossary**

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

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

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

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

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

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

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

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

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

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

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

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

**blowout** – refers to an uncontrolled flow of fluids from a wellhead or wellbore. Unless otherwise specified, a flow of fluids from a flowline is not considered a blowout as long as the wellhead control valves can be automatically or manually activated. If the wellhead control valves become inoperative, the flow is classified as a blowout. A blowout can also occur below the seabed, from one formation to another.

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

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

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

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

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

**coastal zone consistency review** – State review of direct Federal activities or private individual activities requiring Federal licenses or permits, and OCS plans pursuant to the CZMA to determine if the activity is consistent with the enforceable policies of the State’s federally approved CZM program.

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

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

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

**critical habitat** – a designated area that is essential to the conservation of an endangered or threatened species that may require special management considerations or protection.

**crude oil** – petroleum in its natural state as it emerges from a well, or after it passes through a gas-oil separator but before refining or distillation.

**crustaceans** – any aquatic invertebrate with jointed legs, such as crabs, shrimp, lobster, barnacles, amphipods, isopods, etc.; primarily an aquatic group.

**deferral** – action taken by the Secretary of the Interior at the time of the area identification to remove certain areas/blocks from a lease offering.

**delineation well** – an exploratory well drilled to define the areal extent of a field. Also referred to as an “expendable well.”

**development** – activities that take place following discovery of minerals in paying quantities, including geophysical activity, drilling, platform construction, and operation of all onshore support facilities, and that are for the purpose of ultimately producing the minerals discovered.

**development and production plan (DPP)** – a plan describing the specific work to be performed on an offshore lease, including all development and production activities that the lessee proposes to undertake during the time period covered by the plan and all actions to be undertaken up to and including the commencement of sustained production. The plan also includes descriptions of facilities and operations to be used, well locations, current geological and geophysical information, environmental safeguards, safety standards and features, time schedules, and other relevant information. All lease operators are required to formulate and obtain approval of such plans by the MMS before development and production activities may begin; requirements for submittal of DPP are wholly identified in 30 CFR 250.34.

**development well** – a well drilled into a known producing formation in a previously discovered field, to be distinguished from a wildcat, exploratory, or offset well.

**dilution** – the reduction in the concentration of dissolved or suspended substances by mixing with water.

**discharge** – something that is emitted; flow rate of a fluid at a given instant expressed as volume per unit of time.

**dispersion** – a distribution of finely divided particles in a medium.

**drillship** – a self-propelled, self-contained vessel equipped with a derrick amidship for drilling wells in deepwater.

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

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

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

**endangered and threatened species (endangered species)** – any species which is in danger of extinction throughout all or a significant portion of its range and has been officially listed by the appropriate Federal or State agency; a species is determined to be endangered (or threatened) because of any of the following factors: (a) the present or threatened destruction, modification, or curtailment of its habitat or range; (b) over utilization for commercial, sporting, scientific, or educational purposes; (c) disease or predation;

(d) the inadequacy of existing regulatory mechanisms; or (e) other natural or manmade factors affecting its continued existence.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**fugitive emissions** – Emission into the atmosphere which could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening.

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

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

**geophysical** – of or relating to the physics of the earth, especially the measurement and interpretation of geophysical properties of the rocks in an area.

**geophysical data** – facts, statistics, or samples which have not been analyzed or processed, pertaining to gravity, magnetic, seismic, or other surveys/systems.

**geophysical survey** – The exploration of an area during which geophysical properties and relationships unique to the area are measured by one or more geophysical methods.

**habitat** – a specific type of place that is occupied by an organism, a population, or a community; a specific type of place defined by its physical or biological environment that is occupied by an organism, a population, or a community.

**harassment** – an intentional or negligent act or omission that creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns that include, but are not limited to, feeding or sheltering.

**haulout area** – specific locations where pinnipeds come ashore and concentrate in numbers to rest, breed, and/or bear young.

**herbivores** – animals whose diet consists of plant material.

**hydrocarbon** – any of a large class of organic compounds containing primarily carbon and hydrogen; comprising paraffins, olefins, members of the acetylene series, alicyclic hydrocarbons, and aromatic hydrocarbons; and occurring, in many cases, in petroleum, natural gas, coal, and bitumens.

**hypothermia** – subnormal temperature of the body, usually due to excessive heat loss.

**hypoxia** – depressed levels of dissolved oxygen in water, usually resulting in decreased metabolism.

**incidental take** – take of a threatened or endangered fish or wildlife species that results from, but is not the purpose of, carrying out an otherwise lawful activity conducted by a Federal Agency or applicant (see take).

**indirect effects** – effects caused by activities which are stimulated by an action but not directly related to it.

**industry infrastructure** – the facilities associated with oil and gas development, e.g., refineries, gas processing plants, etc.

**information to lessees** – information included in the Notice of Sale to alert lessees and operators of special concerns in or near a sale area of regulatory provisions enforceable by Federal or State agencies.

**jack-up rig** – a barge-like, floating platform with legs at each corner that can be lowered to the sea bottom to raise the platform above the water; a drilling platform with retractable legs that can be lowered to the sea bottom to raise the platform above the water.

**landfall** – the site at which a marine pipeline comes to shore.

**lay barge** – a shallow-draft, barge-like vessel used in the construction and laying of underwater pipelines.

**lighter** – a barge or small tanker used to move cargo from a large ship to port; also, to transport by lighter.

**macroinvertebrate** – animals such as worms, clams, or crabs which are large enough to be seen without the aid of a microscope.

**mariculture** – the breeding or growth of marine animals and plants to increase their stocks.

**marine sanctuary** – area protected under the Marine Protection, Research and Sanctuaries Act of 1972.

**marshes** – persistent, emergent nonforested wetlands characterized by vegetation consisting predominantly of cordgrasses, rushes, and cattails.

**microcrustacean** – any relatively small crustacean (may range from microscopic to slightly over one centimeter in size) including organisms such as beach hoppers (amphipods), copepods, ostracods, isopods, and mysids.

**military warning area** – an area established by the U.S. Department of Defense within which the public is warned that military activities take place.

**minerals** – as used in this document, minerals include oil, gas, sulphur, and associated resources, and all other minerals authorized by an Act of Congress to be produced from public lands, as defined in Section 103 of the Federal Land Policy and Management Act of 1976.

**mollusks** – animal phylum characterized by soft body parts including clams, mussels, snails, squid, and octopus.

**mud** – the liquid circulated through the wellbore during rotary drilling operations. In addition to its function of bringing cuttings to the surface, drilling mud cools and lubricates the bit and drill stem, protects against blowouts by holding back subsurface pressures, and deposits a mud cake on the wall of the borehole to prevent loss of fluids to the formations; also called drilling mud or drilling fluid; also a sediment designation composed of silt and clay sized particles.

## *Appendix A. Glossary*

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**mysids** – small shrimp-like organisms, also known as opossum shrimp due to their method of egg incubation.

**natural gas** – hydrocarbons that are in a gaseous phase under atmospheric conditions of temperature and pressure.

**nearshore waters** – offshore, open waters that extend from the shoreline out to the limit of the territorial seas ( 12 nautical miles).

**nonattainment area** – an area that is shown by monitoring data or air-quality modeling calculations to exceed primary or secondary ambient air quality standards established by the USEPA.

**offloading** – another name for unloading; offloading refers more specifically to liquid cargo, crude oil, and refined products.

**oil spill contingency plan** – a plan submitted by the lease or unit operator along with or prior to a submission of a plan of exploration or a development/production plan that details provisions for fully defined, specific actions to be taken following discovery and notification of an oil-spill occurrence.

**operational discharge** – a release of oil that is part of the routine operation of a function.

**operator** – the person or company engaged in the business of drilling for, producing, or processing oil, gas, or other minerals and recognized by the MMS as the official contact and responsible for the lease activities or operations.

**organic matter** – material derived from living plant or animal organisms.

**Outer Continental Shelf (OCS)** – all submerged lands that comprise the continental margin adjacent to the United States and seaward of State offshore lands.

**petroleum** – an oily, flammable, bituminous liquid that occurs in many places in the upper strata of the earth, either in seepages or in reservoirs; essentially a complex mixture of hydrocarbons of different types with small amounts of other substances; any of various substances (as natural gas or shale oil) similar in composition to petroleum.

**phytoplankton** – plant (photosynthetic) plankton; microscopic, freefloating, photosynthetic organisms that drift passively in the water.

**pinniped** – any of a suborder (Pinnipedia) of aquatic carnivorous mammals (e.g., seals, sea lions, sea otters, walruses) with all four limbs modified into flippers.

**plankton** – passively floating or weakly motile aquatic plants and animals.

**planning area** – a subdivision of an offshore area used as the initial basis for considering blocks to be offered for lease in the USDO's areawide offshore oil and gas leasing program.

**platform** – a steel, concrete, or gravel structure from which offshore development wells are drilled.

**postlease** – any activity on a block or blocks after the issuance of a lease on said block or blocks.

**potential impact (effect)** – the range of alterations or changes to environmental conditions that could be caused by an action.

**primary production** – production of carbon by a plant through photosynthesis over a given period of time; oil and gas production that occurs from the reservoir energy inherent in the formation.

**produced water** – total water produced from the oil and gas extraction process; the water may be discharged after treatment or reinjected; production water or production brine.

**production** – activities that take place after the successful completion, by any means, for the removal of minerals, including such removal, field operations, transfer of minerals to shore, operation monitoring, maintenance, and workover drilling.

**production well** – a well which is drilled for the purpose of producing oil or gas reserves; it is sometimes termed development well.

**prospect** – an untested geologic feature having the potential for trapping and accumulating hydrocarbons.

**recoverable reserves** – portion of the identified oil or gas resources that can be economically extracted under current technological constraints.

**recoverable resource estimate** – an assessment of oil and gas resources that takes into account the fact that physical and technological constraints dictate that only a portion of resources or reserves can be brought to the surface.

**refining** – fractional distillation, usually followed by other processing (for example, cracking).

**reserves** – portion of the identified oil or gas resource that can be economically extracted.

**reservoir** – a subsurface, porous, permeable rock body in which hydrocarbons have accumulated.

**resources** – concentrations of naturally occurring solid, liquid, or gaseous materials in or on the Earth's crust some part of which is currently or potentially extractable. These include both identified and undiscovered resources.

**rig** – a structure used for drilling an oil or gas well.

**right-of-way** – a legal right of passage, an easement; the specific area or route for which permission has been granted to place a pipeline, (and) ancillary facilities, and for normal maintenance thereafter.

**rookery** – the nesting or breeding grounds of gregarious (i.e., social) birds or mammals; also a colony of such birds or mammals.

**sale area** – the geographical area of the OCS being offered for lease for the exploration, development, and production of mineral resources.

**scoping** – the process prior to EIS preparation to determine the range and significance of issues to be addressed in the EIS for each proposed major Federal action.

**seagrass beds** – more or less continuous mats of submerged, rooted marine flowering vascular plants occurring in shallow tropical and temperate waters. Seagrass beds provide habitat, including breeding and feeding grounds, for adults and/or juveniles of many of the economically important shellfish and finfish.

**sediment** – material that has been transported and deposited by water, wind, glacier, precipitation, or gravity; a mass of deposited material.

**seeps (hydrocarbon)** – gas or oil that reaches the surface along bedding planes, fractures, unconformities or fault planes through connected porous rocks.

**seismic** – pertaining to, characteristic of, or produced by earthquakes or earth vibration; having to do with elastic waves in the earth; also geophysical when applied to surveys.

**semisubmersible** – a floating offshore drilling structure that has hulls submerged in the water but not resting on the seafloor.

**shunting** – a method used in offshore oil and gas drilling activities where expended drill cuttings and fluids are discharged near the ocean seafloor rather than at the surface, as in the case of normal offshore drilling operations.

**significant archaeological resource** – those archaeological resources that meet the criteria of significance for eligibility to the National Register of Historic Places as defined in 36 CFR 60.4 or its successor.

**stipulations** – specific measures imposed upon a lessee that apply to a lease. Stipulations are attached as a provision of a lease; they may apply to some or all tracts in a sale. For example, a stipulation might limit drilling to a certain time period of the year or certain areas.

**subsistence uses** – the customary and traditional uses by rural residents of wild, renewable resources for direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation; for making and selling of handcraft articles out of nonedible byproducts of fish and wildlife resources taken for personal or family consumption; for barter, or sharing for personal or family consumption; and for customary trade.

**supply boat** – a vessel that ferries food, water, fuel, and drilling supplies and equipment to a rig and returns to land with refuse that cannot be disposed of at sea.

**take** – to harass, harm, pursue, hunt, shoot, wound, kill, capture, or collect a threatened or endangered fish or wildlife species, or attempt to engage in any such conduct. (Harm includes habitat modification that impairs behavioral patterns, and harass includes actions that create the likelihood of injury to an extent that normal behavior patterns are disrupted).

**threatened species** – any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range, and which has been officially listed by the appropriate Federal Agency. Criteria for determination of threatened status can be found under “endangered species.”

**trawl** – a large, tapered fishing net of flattened, conical shape that is typically towed along the seabottom.

**trophic** – trophic levels refer to the hierarchy of organisms from photosynthetic plants to carnivores, such as man; feeding trophic levels refer to the hierarchy of organisms from photosynthetic plants to carnivores in which organisms at one level are fed upon by those at the next higher level (e.g., phytoplankton eaten by zooplankton eaten by fish).

**turbidity** – reduced water clarity resulting from the presence of suspended matter.

**vascular plants** – plants containing food and water conducting structures; higher plants which reproduce by seeds.

**volatile organic compound (VOC)** – any reactive, organic compound which is emitted to the atmosphere as a vapor. The definition does not include methane.

**vulnerability** – the likelihood of being damaged by external influences. Vulnerability implies sensitivity of a system plus the risk of a damaging influence occurring.

**weathering** – the aging of oil due to its exposure to the atmosphere and environment causing marked alterations in its physical and chemical makeup.

**wetlands** – areas periodically inundated or saturated by surface or groundwater and predominantly supporting vegetation typically adapted for life in saturated soil conditions.

**zooplankton** – animal plankton, mostly dependent on phytoplankton for its food source; animal plankton, small, freefloating animals, may be passive drifters or motile, dependent on phytoplankton as a food source.