

## Chapter 1 References Introduction and Background

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## GLOSSARY

**A-weighted scale (dBA).** The most commonly used frequency weighting measure; simulates human sound perception and correlates well with human perception of the annoying aspects of noise.

**Access.** The physical ability to have legal ingress to and egress from public lands via public roads or on routes having public easements.

**Accommodation (Wildlife).** An adaptation or adjustment. Wildlife exhibits accommodation behavior in response to changes in habitat or other disturbance such as increased human presence and activity.

**Acoustic Survey.** A technique to identify presence of bat species, which utilizes specialized detecting equipment to record bat calls.

**Acre-foot/acre-feet.** A unit for measuring the volume of water equal to the quantity of water required to cover 1 acre to a depth of 1 foot and is equal to 43,560 cubic feet or 325,851 gallons. The term is commonly used in measuring volumes of water used or stored.

**Adaptive Management.** A process for continually improving management policies and practices by learning from outcomes of operation programs and new scientific information.

**Adversely Affect.** To impact negatively; cause harm or reduction, to diminish positive qualities, or to exacerbate negative qualities.

**Albedo.** A measure of how strongly a surface reflects light from light sources such as the Sun. It is therefore a more specific form of the term reflectivity. Albedo is defined as the ratio of total-reflected radiation to incident radiation. A high albedo is typical of bright surfaces, such as snow. A low albedo is typical of dark surfaces, such as the open ocean.

**Alluvial Fans.** A fan-shaped deposit of generally coarse material that is created where a stream flows out of the mountains and onto the valley floor. The material may be covered by vegetation.

**Alluvium.** Material deposited on the land by water, such as gravel, sand, silt, or clay.

**Alpine Tarn.** A high mountain lake or pool, formed in a bowl-shape at the head of a glacier.

**Ambient.** The environment as it exists at the point of measurement and against which changes or impacts are measured.

**Amenity.** A feature which adds to the value of the property or area from the perspective of property owners, guests, tourists, or other visitors to an area.

**Amphibian.** A class of cold-blooded animals that typically develop from a juvenile water-breathing form to an adult air-breathing form.

**Ancillary Facilities.** Areas required to support the main focus of construction or use, such as yards, stations, and access roads.

**Angling, Angler.** Fishing, a person who fishes using a hook and line.

**Animal Unit.** A metric defined for the purpose of measure grazing capacity, consisting of any of the following; one cow, one cow/calf pair, one horse, or five sheep.

**Animal Unit Month.** The forage needed to support 1 animal unit (see above) for 1 month. Approximately 800 pounds of forage.

**Applicant-Committed Environmental Protection Measures.** Actions agreed to in advance of project initiation by the proponent; designed to protect resources.

**Appropriate Management Level.** The optimum number of wild horses that provides a thriving natural ecological balance on the public range.

**Aquatic Birds.** Wading, swimming, and diving birds, such as waterfowl, shorebirds, seabirds, and rails.

**Aquatic Larval Stage.** The worm-like juvenile form of many insects before they change into adult insects. The juvenile form inhabits water.

**Aquifer.** A body of rock that is sufficiently permeable to conduct groundwater and to yield economically significant quantities of water to wells, springs, sands, and soils.

**Archaeological Resource.** Any material remains of past human life or activities of archaeological interest. These include, but are not limited to: pottery, basketry, bottles, weapons, projectiles, tools, structures or portions of structures, pit houses, rock paintings, rock carvings, intaglios, graves, human skeletal materials, or any portion or piece of any of the foregoing items. Nonfossilized and fossilized paleontological specimens, or any portion or piece thereof, shall not be considered archaeological resources unless found in an archaeological context. No item shall be treated as an archaeological resource unless such item is at least 50 years of age.

**Archaeological Site.** A geographic locale that contains the material remains of prehistoric or historic human activity.

**Archaeology.** The reconstruction of past cultures through their material remains and the study of how cultures change over time.

**Area of Critical Environmental Concern (ACEC).** Area approved through a land use plan where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect humans from natural hazards.

**Area of Special Designation.** Areas where special management attention is required to protect and prevent irreparable damage to important values, resources, systems or processes, or to protect life and safety from natural hazards.

**Aridisols.** Soils that occur under arid climates, where evaporation greatly exceeds precipitation. They are characterized by an accumulation of carbonates and other salts.

**Association (Soil).** A group of soils geographically associated in a characteristic repeating pattern and defined and delineated as a single soil map unit.

**Assumptions (for analysis).** The basis for framing the analysis. Assumptions often are based on science, professional judgment, or both and typically are identified at the beginning of the environmental consequences section and, as needed, at the beginning of the program-specific environmental consequences analysis.

**Authorized Use.** This is the amount of use for which a grazing permittee is billed. It may or may not reflect the total active use. A permittee may be authorized to use less than, but not more than the authorized active use. Example: If a permittee has 500 animal unit months of active use, he may only be authorized 300 animal unit months for a certain year, but cannot be authorized above 500 animal unit months. This amount is subject to change from year-to-year, based on fluctuation of the permittees livestock herd, vegetation production, drought, or other applicable factors.

**Avian.** Relating to birds.

**Avoidance Areas.** Areas with sensitive resource values where rights-of-way would be strongly discouraged.

**Beneficial Use.** Any of various uses of water in an area. Water may be for agricultural, domestic, or industrial use, fish spawning, recreation, wildlife habitat, or other uses.

**Best Management Practices.** A set of practices which, when applied during implementation of management actions, ensures that negative impacts to natural resources are minimized. Best Management Practices are applied based on site-specific evaluation and represent the most effective and practical means to achieve management goals for a given site or resource.

**Big Game.** Native ungulate wildlife species that are hunted, such as elk, deer, bison, bighorn sheep, and pronghorn antelope.

**Biological (Cryptogamic) Soil or Crust.** Community of non-vascular primary producers that occur as a "crust" on the surface of soils; made up of a mixture of algae, lichens, mosses, and cyanobacteria (bluegreen algae).

**Biological Diversity Index.** A biological measure of the number of species or taxonomic groups.

**Borrow Pit.** An excavation dug to provide fill material to make up ground elsewhere.

**Breccia Zones.** Breccia is rock made up of angular fragments of other rocks, held together by mineral cement or a fine-grained matrix. Fault breccia is made by breaking and grinding rocks along a fault.

**Brood.** The young of an animal that is hatched or cared for at the same time.

**Brood Range.** The distance that the brood of a species travels, to forage and live.

**Bureau of Land Management Sensitive Species.** Plant or animal species that could become endangered or extirpated from a state, or within a significant portion of its range in the foreseeable future; is undergoing status review by the United States Fish and Wildlife Service; is undergoing significant current or predicted downward trend in habitat capability that would reduce a species' existing distribution, and/or downward trend in population or density such that federally listed, proposed, or candidate status may become necessary. Species typically consist of small and widely dispersed populations; inhabit ecological refugia, or specialized or unique habitats; or are state-listed, but may be better conserved through application of Bureau of Land Management sensitive species status. Listing is approved by the Bureau of Land Management State Director, Director of the Nevada Department of Wildlife, and Director of the Department of Conservation and Natural Resources.

**Candidate Species.** Those species for which the USFWS has sufficient information on biological vulnerability and threat(s) to support issuance of a proposed rule to list, but for which issuance of the proposed rule is precluded.

**Canopy Cover.** The percentage of ground covered by a vertical projection of the outermost perimeter of the natural spread of foliage of plants. Small openings within the canopy are included (Bureau of Land Management Technical Reference 4400-7).

**Carbonate-rock.** A class of sedimentary rocks composed primarily of carbonate minerals.

**Carrying Capacity.** The maximum population or level of activity that can be supported without degradation of the habitat or the population.

**Cave Obligate.** A species which can only live in caves or associated underground habitats.

**Cave Resource.** Any naturally occurring void, cavity, recess, or system of interconnected passages beneath the surface of the earth or within a cliff or ledge, including any cave resource therein, that is large enough to permit a person to enter, whether the entrance is excavated or naturally formed. Also included is any natural pit or sinkhole.

**Cirque.** A bowl shaped valley head, formed at the top of a valley glacier by erosion.

**Classification, Soil.** The systematic arrangement of soils into groups or categories on the basis of their characteristics.

**Clastic.** Clastic pertains to rock or sediment that is composed primarily of broken fragments that have been transported some distance from their origin.

**Clay (Geology).** A rock or mineral fragment of any composition finer than 0.00016 inch in diameter. **(Mineral)** A hydrous aluminum-silicate that occurs as microscopic plates, and commonly has the ability to absorb substantial quantities of water on the surface of the plates.

**Clayey Soil.** Any of a classification of clay soils: silty clay, sandy clay, or clay.

**Clay-rich Gouge.** The pulverized, clay-like material found along some faults; formed by the grinding of rock material during fault movement.

**Climate.** The average or prevailing weather conditions of a place over a lengthy period of years (Bureau of Land Management Technical Reference 4400-7).

**Closed.** Within the context of federal land management policies by the BLM, USFS, or other agencies, generally denotes that an area is not available for a particular use or uses; refer to specific definitions found in law, regulations, or policy guidance for application to individual programs.

**Colluvial.** Colluvial material consists of alluvium and angular fragments of original rocks that are typically found at the bottom or on lower slopes of hills.

**Colluvium.** Soil material, rock fragments, or both, moved by creep, slide, or local wash and deposited at the base of steep slopes.

**Community Structure (Vegetation).** Refers to the presence of multiple plant life forms (trees, shrubs, grasses, and forbs) and their relative abundance within a given vegetation community.

**Compaction (Soil).** An increase in soil bulk density of 15 percent or more from the undisturbed level.

**Compaction Prone.** Fine-textured soils that have clay loam or finer textures. These soils are especially prone to compaction when moist or wet.

**Complex (Soil).** A map unit of two or more kinds of soil or miscellaneous areas in such an intricate pattern or so small in area that it is not practical to map them separately at the selected scale of mapping. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas.

**Conifer.** A tree of the order Coniferae with cones and needle-shaped or scale-like leaves.

**Connectivity (Vegetation).** A network of habitat patches linked by areas or corridors of like habitat; connectivity affects how organisms can move through the landscape.

**Conservation Agreement.** A voluntary agreement between FWS or NOAA Fisheries and other federal or non-federal landowners that identifies specific conservation measures that the participants of the agreement will undertake to conserve species covered by the agreement, none of which are listed under the Endangered Species Act, with the intention of preventing any need to list the species.

**Construction Footprint.** That area initially disturbed for the purpose of installing proposed facilities including power lines and pipelines.

**Consumptive Use.** The portion of water withdrawn from a surface or groundwater source that is consumed for a particular use (i.e. irrigation, domestic needs, and industry), and does not return to its original source or another body of water.

**Continuum.** A continuous series or whole, no part of which is noticeably different from its adjacent parts, although the ends or extremes are very different from each other.

**Control.** Eradicating, suppressing, reducing, or managing invasive species populations, preventing spread of invasive species from areas where they are present, and taking steps such as restoration of native species and habitats to reduce the effects of invasive species and prevent further invasions.

**Corridor.** A wide strip of land within which a proposed linear facility could be located; a path for travel by wildlife.

**Corvids.** Corvids are birds in the family Corvidae. In North America they include crows, ravens, magpies, jays and nutcrackers.

**Cover (Vegetation).** Any vegetation material that overlies the soil surface and protects it against erosion.

**Cover (Wildlife).** Any form of environmental protection that helps an animal stay alive and reproduce (mainly shelter from weather and concealment from predators).

**Crepuscular.** Occurring or active during twilight.

**Critical Habitat (threatened and endangered species).** This habitat is defined as (1) the specific areas within the geographical area currently occupied by a species, at the time it is listed in accordance with the Endangered Species Act, on which are found those physical or biological features (i) essential to the conservation of the species and (ii) that may require special management considerations or protection, and (2) specific areas outside the geographical area occupied by a species at the time it is listed upon a determination by the Secretary that such areas are essential for the conservation of the species.

**Cultural Resources.** A definite location of human activity, occupation, or use identifiable through field inventory (survey), historical documentation, or oral evidence. The term includes archaeological, historic, or architectural sites, structures, or places with important public and scientific uses, and may include definite locations (sites or places) of traditional cultural or religious importance to specified social and/or cultural groups (BLM Manual 8100). Federal agencies are mandated to identify, evaluate and mitigate impacts to any cultural resource more than 50 years old.

### **Cultural Resources Investigations**

**Class I (Files Search) Inventory.** A file search completed to identify all previously conducted cultural resources investigations and previously recorded cultural resources within a defined distance (typically 1 mile) on either side of proposed rights-of-way, roads, and other project facilities.

**Class III (Pedestrian) Inventory.** A Class III intensive field inventory to locate and record cultural resources and places of traditional, cultural, and religious importance to Native Americans.

**Cumulative Effect.** The impact that results from identified actions when they are added to other past, present, and reasonably foreseeable future actions regardless of who undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.

**Deciduous.** Plants that shed their foliage at the end of the growing season.

**Delist.** To remove from the federal list of endangered and threatened species (50 CFR 17.11 and 17.12) because such species no longer meets any of the five listing factors provided under section 4(a)(1) of the Endangered Species Act and under which the species was originally listed (e.g., because the species has become extinct or is recovered).

**Designated Recreation Area.** A BLM-designated land area having significant recreational resource value. This status allows BLM recreation programs to allocate funds, management, and personnel toward the preservation and/or enhancement of certain recreation opportunities specific to the site.

**Designated Wilderness.** See Wilderness.

**Designation.** The approval of a resource management plan, plan revision, or plan amendment constitutes formal designation of off-highway vehicle use areas.

**Diminish.** To decrease in size, extent, or range.

**Direct Mortality.** The death of an individual plant, fish, or animal, the demise of which can be attributed to a specific event or person.

**Dispersed Recreation Activities.** Passive or active outdoor recreation that occurs outside of developed sites with modern facilities and where concentrated use occurs.

**Distributed Locations (pumping).** Groundwater well locations that are selected based on modeling, test well yields, environmental factors, and other criteria with the goal of maximizing pumping and minimizing environmental impacts.

**Diurnal.** Active during daylight hours.

**Drainage (Surface).** Runoff, or surface flow of water, from an area.

**Drawdown.** The lowering of the water level in a well, spring, or water body as a result of water withdrawal in another area; the reduction in head at a point caused by the withdrawal of water from an aquifer.

**Drawdown Contour.** A boundary derived from water modeling that depicts a certain reduction in the water level compared to its previous level.

**Droughty Soils.** Coarse-textured soils with poor water holding capacity that can be difficult to revegetate during periods of low precipitation.

**Dynamic.** Variable or changeable.

**Earnings.** Wages and salaries, other labor income, and proprietor's income (including inventory valuation and capital consumption adjustments).

**Ecological System.** All the organisms in a particular region and the environment in which they live. The elements interact with each other in some way, and so are depend on each other either directly or indirectly.

**Ecology.** The science of the interrelationships between organisms and their environment.

**Ecosystem.** The complex of a community of organisms and their environment.

**Endangered Species.** Any species defined through the Endangered Species Act as being in danger of extinction throughout all or a significant portion of its range and published in the Federal Register.

**Endangered Species Act (ESA) of 1973, as amended.** Federal legislation that is intended to provide a means to conserve the ecosystems upon which endangered and threatened species depend and provide programs for the conservation of those species, thus preventing extinction of plants and animals.

**Endemic Species.** Native to, and restricted to, a particular geographical region, community type, or specific habitat; generally used for species with comparatively restricted distribution.

**Entisols.** Soils defined by the absence or near absence of layers that clearly reflect soil-forming processes. Typical geographic settings include areas of active erosion or deposition (i.e., steep slopes or floodplains), areas of quartzite bedrock or quartz sand (i.e., major desert and dune regions), and wetlands.

**Environmental Assessment (EA).** A systematic analysis of site-specific Bureau of Land Management activities used to determine whether such activities have a significant effect on the quality of the human environment and whether a formal environmental impact statement is required and also to aid an agency's compliance with the National Environmental Policy Act when no Environmental Impact Statement is necessary.

**Environmental Impact Statement (EIS).** A formal document to be filed with the Environmental Protection Agency and that considers significant environmental impacts expected from implementation of a major federal action.

**Ephemeral Stream.** A stream, or reach of a stream, that flows only in direct response to precipitation. It receives no continuous supply from melting snow or other source, and its channel is above the water table at all times.

**Erionite.** A mineral occurring in some volcanic tuff deposits that may be hazardous to human health if inhaled.

**Erosion (Accelerated).** Erosion that is much more rapid than natural or geologic erosion, occurring mainly as a result of human or animal activities or an event catastrophic in nature, such as a fire that exposes the soil surface.

**Erosion (Geologic).** Erosion caused by geologic processes acting over long geologic periods and resulting in the wearing away of mountains and the building up of other landscape features as flood plains and coastal plains; synonymous with *natural erosion*.

**Erosion.** Detachment and movement of soil or rock fragments by water, wind, ice, or gravity. Wearing away of the land surface by running water, wind, ice, or other geologic agents, including such processes as gravitational creep.

**Evapotranspiration.** The water lost to the atmosphere from the ground surface, evaporation from the capillary fringe of the groundwater table, and the transpiration of groundwater by plants whose roots tap the capillary fringe of the groundwater table.

**Exclusion Areas.** Areas with sensitive resource values where rights-of-way would be prohibited.

**Exotic Species.** An organism or species that is not native to the region in which it is found. Synonym non-native: Not native; alien; a species that has been introduced into an area.

**Facultative Phreatophyte.** Plants that utilize moisture from groundwater for a portion of their water requirements. Plants that are able to take advantage of groundwater when present but can also tolerate periods of low water availability. These species typically occur where water and salts accumulate (Lichvar and Dixon 2007).

**Faults (Geologic).** A crack or shift in the Earth's crust resulting from the displacement of bedrock.

**Fine Textured Soil.** Sandy clay, silty clay, or clay.

**Fire Suppression.** All the work activities connected with fire-extinguishing operations, beginning with the discovery and continuing until the fire is completely extinguished.

**Floodplain.** A nearly level alluvial plain that borders a stream and is subject to inundation under flood-stage conditions unless protected artificially. It is usually a constructional landform built of sediment deposited during overflow and lateral migration of the stream.

**Fluvial (Fluviatile) Deposit.** A sedimentary deposit laid down, transported by, or suspended in, a stream.

**Forage.** The plant material actually consumed by (or available to) grazing animals.



**Forb.** Any herbaceous plant not a grass or a grasslike species.

**Fragmentation.** Process of reducing the size and connectivity of vegetated areas or habitat by division into sections or fragments; a measure of connectivity in vegetative and/or habitat conditions across a landscape.

**Friable Soils.** Soil that has the crumbly texture ideal for the root growth of plants, usually a loam.

**Fugitive Dust.** A non-point source of air pollution, such as from unpaved roads, agricultural croplands, and construction sites.

**Full Build Out Time Frame.** The term “full build out time frame” refers to a future representative point in time selected for comparison of potential effects associated with each of the alternatives. According to the current project schedule, the full build out time frame for Alternative A (Proposed Action) corresponds to the year 2050.

**Gabion Structures.** Rectangular containers (baskets) fabricated of heavily galvanized wire, which are filled with stone and stacked on one another, usually in tiers that step back with the slope rather than vertically. Used to stabilize a slope by eliminating or slowing slope erosion.

**Game Fish.** Species of fish that are managed by state wildlife agencies for the purpose of sport fishing.

**Genetic Isolation.** The lack of interbreeding, thus genetic mixing, within a species. This can occur when a portion of a species population is no longer in contact with the larger population to allow breeding.

**Geographic Information System.** A computer system capable of storing, analyzing, and displaying data and describing places on the earth’s surface.

**Graben.** A fault-bounded down-dropped portion of the Earth’s crust.

**Gravel (Geology).** Unconsolidated, rounded rock fragments greater than 0.08 inch in diameter. Sizes range from pebbles (0.008 to 2.5 inches) to cobbles (2.5 to 10 inches) to boulders (greater than 10 inches).

**Greenhouse Gas.** Gases which absorb outgoing terrestrial radiation, such as water vapor, methane, chlorofluorocarbons, and carbon dioxide.

**Groundwater.** Subsurface water that is in the zone of saturation. The top surface of the groundwater is the “water table.” Source of water for wells, seepage, springs.

**Guano.** Accumulated dung and remains of birds and bats, which can be used for fertilizer.

**Gully.** A miniature valley with steep sides caused by erosion from running water and through which water ordinarily flows only after rainfall.

**Habitat.** An environment that meets a specific set of physical, biological, temporal, or spatial characteristics that satisfy the requirements of a plant or animal species or group of species for part or all of their life cycle.

**Habitat Degradation.** The pattern of changes in vegetation and other habitat components that result in loss of food supplies, water sources, cover quality, or space for a wildlife species.

**Habitat Fragmentation.** The division of large contiguous blocks of wildlife habitat into isolated smaller parcels separated by distances great enough to discourage wildlife movement between parcels.

**Habitat Matrix.** A habitat matrix identifies and relates the ways that species use different types of habitat.

**Habituate.** Learned behavior in which an animal exhibits a lessened response to stimulus, such as traffic or other human activity.

**Halogeton.** A coarse annual herb introduced into North America from Siberia; considered a noxious weed in most areas. Dangerous to sheep and cattle on western rangelands because of its high oxalate content.

**Harass.** An intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns including, but not limited to, breeding, feeding, and sheltering. (50 CFR 17.3)

**Harm.** An act which actually kills or injures listed wildlife; harm may include “significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering”. (50 CFR 17.3)

**Hazardous Materials.** Anything that poses a substantive present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

**Herbaceous.** A plant that has leaves and stems that die down at the end of the growing season to the soil level. It has no persistent woody stem above ground.

**Herd Area.** Areas with historic use by wild horses and burros.

**Herd Management Area.** Areas designated for management of wild horses as one of the multiple uses, where the long term maintenance and management of wild horses can occur due to adequate resources.

**Herd.** A number of horses, cattle, elk, or other animals feeding, living, or being driven together.

**Herpetofauna.** A term referring to reptiles and amphibians. This group includes frogs, toads, turtles, salamanders, snakes and lizards.

**Herptile Species.** A species of reptile or amphibian.

**Historic Active Fault.** A fault that has been created, shifted, or slipped within the last 150 years.

**Historic Property.** “...any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register. The term includes, for purposes of these regulations, artifacts, records, and remains that are related to and located within such properties” (BLM Manual 8100).

**Historic.** Period wherein nonnative cultural activities took place, based primarily upon European roots, having no origin in the traditional Native American culture(s). Historic refers to that portion of the past that is documented by written records.

**Holocene Active Fault.** A fault that has moved within the last 15,000 years.

**Horst.** A geological fault block feature formed when a portion of the earth’s crust remains stationary or is uplifted and the land drops on either side. It typically is bounded by normal faults or graben.

**Hydric Soils.** Soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic (without oxygen) conditions in the upper part.

**Hydrogeologic Units.** Typically a simplified representation of the soil layers in an area from borehole field data.

**Hydrographic Basins.** Local drainage basins within large multi-basin flow systems. Hydrographic basins (or areas) are defined by the State Engineer’s Office. The terms hydrographic areas, hydrographic basins, and groundwater basins often are used interchangeably to describe the same area in published literature and reports.

**Hydrologically Connected.** Areas where the groundwater is linked and flow is contiguous.

**Hydrologic Basins.** A broad tract of land in which the rock strata are tilted toward a common center; an extent of land separated from adjacent basins by a drainage divide.

**Hydrologic Linkages.** Areas where surface or groundwater flow occurs between hydrologic basins.

**Hydrostatic Water.** Water used to pressure test a pipeline for structural integrity.

**Igneous Rock.** Rock that solidified from a molten or semimolten state. The major varieties include intrusive (solidified beneath the surface of the Earth) and volcanic (solidified on or very near the surface of the Earth).

**Impact.** An impact has both space and time components and can be described as the change in an environmental factor or characteristic over a specific period and within a defined area. The change results from a particular activity compared with the situation which would have occurred had the activity not been initiated.

**Important Bird Area (IBA).** A site designated by the Audubon Society which provides essential habitat for one or more species of bird. IBAs include sites for breeding, wintering, and/or migrating birds. IBAs may include public or private lands, or both, and they may be protected or unprotected.

**Incomplete or Unavailable Information.** When an agency is evaluating reasonably foreseeable significant adverse effects on the human environment in an Environmental Impact Statement and there is incomplete or unavailable information, the agency shall always make it clear that such information is lacking (Council on Environmental Quality 1502.22). These are identified at the beginning of the environmental consequences section.

**Incremental.** Increasing gradually by regular degrees or additions; an increase of some amount, either fixed or variable.

**Indian tribe.** As defined in Section 301 of the National Historic Preservation Act, "an Indian tribe, band, nation, or other organized group or community, including a Native village, Regional Corporation or Village Corporation, as those terms are defined in section 3 of the Alaska Native Claims Settlement Act [43 U.S.C. 1602], which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians" (BLM Manual 8100).

**Indicators.** Indicators are observations or measurements of physical, chemical, or biological factors used to evaluate site conditions or trends, appropriate to the potential of the site. Indicators are used to determine whether or not standards are being met.

**Indigenous.** Living naturally within a given area and was part of the area's flora or fauna prior to human settlement of the region.

**Indirect effect.** Effects caused by the action that are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

**Infiltration Rate.** Maximum rate at which soil under specified conditions can absorb rain or shallow impounded water; expressed in quantity of water absorbed by the soil per unit of time, e.g., inches/hour.

**Infiltration.** The flow of a fluid into a substance through pores or small openings. The process by which water seeps into a soil, as influenced by soil texture and aspect and vegetation cover.

**Infrastructure.** The underlying foundation or basic framework (as of a system or organization); the resources (as personnel, buildings, or equipment) required for an activity, the basic facilities needed for the functioning of a community or society, such as transportation and communications systems, water and other utility systems, schools, and prisons.

**Inhibit.** To limit the range or extent of.

**Insectivores.** An organism that feeds mainly on insects.

**Intermittent Stream.** A stream which carries water a considerable portion of the time, but which ceases to flow occasionally or seasonally because bed seepage and evapotranspiration exceed the available water supply.

**Intermontane.** Occurring or situated between mountain ranges.

**Inter-Specific Competition.** Individuals of one species suffer a reduction in reproductive success, survivorship, or growth as a result of resource exploitation or interference by individuals of a second species.

**Intra-Specific Competition.** Individuals of the same species have very similar resource requirements and if these resources are limiting, they will compete for access.

**Introduced Species.** A species living outside its native distributional range, which has arrived there by human activity, either deliberate or accidental.

**Intrusives.** Igneous rock bodies that have forced their way in a molten state into surrounding rock.

**Invasive Species.** An alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health.

**Invasive.** A species which takes over a new habitat where it was not previously found, often to the detriment of species there previously.

**Invertebrate.** An animal without a backbone.

**Isotopic.** Referring to an isotope, a form of a chemical element with the same atomic number as another element but having a different atomic mass.

**Jack and Bore Construction.** A technique for installing a pipeline under a resource area such as a stream, where a rotating cutting head and auger removes soils while a steel casing is advanced hydraulically. This technique avoids the surface disturbance associated with more conventional trench and cover construction used for pipelines.

**Karst.** Landscape shaped by the dissolving of soluble bedrock (usually limestone or dolomite).

**Key Observation Point.** An observer position on a travel route used to determine visible area.

**Lacustrine Deposits.** Stratified materials deposited in lake waters and later become exposed either by the lowering of the water level or by the elevation of the land.

**Lacustrine.** A type of deposit that comes from lakes which previously occupied the area. Fine-grained soils that have settled through the water and accumulated on the lake bottom.

**Land Available for Disposal.** Public land that has been made available for or designated as suitable for future sale or lease by local, state, or federal legislation.

**Land Use Plan.** A land use plan is a public document that sets aside different areas for different uses, and describes what activities are permitted or not, and any limitations or conditions associated with such use.

**Late Quaternary Active Fault.** A fault that has moved within the last 130,000 years.

**Leasable Minerals.** Two classes of minerals (fluid and solid) that can be or have been leased to individuals or entities for their exploration and development.

**Lek.** An assembly area where birds, especially sage grouse, carry on display and courtship behavior.

**Lek (Active).** A lek that had two or more birds present during at least one of three or more visitations in a given breeding season. For a strutting ground to attain this status it must also have had 2 or more birds present during at least 2 years in a 5-year period (Connelly et al. 2003).

**Lek (Historic).** A lek that has not had bird activity for twenty years or more and has been checked according to protocol at least intermittently.

**Lek (Inactive).** A lek that has been surveyed three or more times during one breeding season with no birds detected during the visitations and no sign observed on the lek. If a lek is only visited once during a breeding season and was surveyed under adequate conditions and no birds were observed at the location during the current and the previous year and no sign was observed at the lek, then an inactive status can be applied to the lek.

**Lek (Unknown).** A lek that may not have had birds present during the last visitation, but could be considered viable due to the presence of sign at the lek. A lek that was active in the previous year, but was inadequately sampled in the current year with no birds observed could also be classified as unknown.

**Life Zone.** A means of describing land areas which have a generally uniform climate and soil, therefore a high degree of uniformity in species composition.

**Light Pollution.** Excessive or obtrusive artificial light.

**Limestone.** A sedimentary rock consisting mainly of calcium carbonate.

**Lithologic.** The character of a rock formation; *also* : a rock formation having a particular set of characteristics.

**Litter.** The uppermost layer of organic debris on the soil surface; essentially the freshly fallen or slightly decomposed vegetal material (Bureau of Land Management Technical Reference 4400-4).

**Loam.** Soil material that is 7 to 27 percent clay particles, 28 to 50 percent silt particles, and less than 52 percent sand particles.

**Locatable Minerals.** Those that have been described as “valuable mineral deposits.” These include precious and base metal ores such as gold, silver, copper, or lead, and certain industrial minerals such as gypsum, chemical grade limestone, and chemical grade silica sand. Uncommon varieties of mineral materials such as pozzolan, pumice, decorative rock, and

cinders also are regulated as locatable minerals. These minerals are regulated under the General Mining Law of 1872, as amended, and Surface Use and Occupancy Act of July 23, 1955.

**Low Reclamation Potential.** Soils that are saline, sodic, or strongly alkaline/acid and have low potential for successful stabilization if disturbed. These chemical characteristics are likely to adversely affect plant reestablishment and growth.

**Macroinvertebrates (Terrestrial).** Animals without backbones, which are large enough to be visible without magnification.

**Macroinvertebrates (Aquatic).** Animals without backbones that are larger than 0.5 millimeter in length and inhabit the bottom substrates or vegetation in aquatic environments.

**Management Objective (Range).** The objectives for which rangeland and rangeland resources are managed which includes specified uses accompanied by a description of the desired vegetation and the expected products and/or values.

**Management Plan.** A program of action designed to reach a given set of objectives.

**Map Unit.** The basic system of description in a soil survey and delineation on a soil map. Can vary in level of detail.

**Marsh.** Flat, wet, treeless areas usually covered by standing water and supporting a native growth of grasses and grasslike plants.

**Maternal Roost, Maternity Roost.** A site that is used by a group of bats and their young.

**Mesic Habitats.** Habitats with a moderate or well-balanced supply of moisture.

**Metamorphosed.** Rock that has been altered in composition, texture, or structure by heat and/or pressure.

**Microclimate.** A local atmospheric zone where the climate differs from the surrounding area.

**Microsiemens Per Centimeter.** A unit of measure for specific or electrical conductivity of water. Higher values reflect greater levels of dissolved conductors (e.g., sodium, calcium, or magnesium salts).

**Mid-Late Quaternary Active Fault.** A fault that has moved within the last 750,000 years.

**Migration Corridor.** A route followed by animals when moving from one habitat area to another.

**Military Operations Area.** A type of low-altitude military airspace that is controlled, when active, to separate military activities from civilian air traffic flying under instrument Flight Rules. Training activities typically include basic fighter maneuvers, air combat tactics, low-altitude tactical navigation, and simulated air-to-surface missions.

**Mineral Materials.** Common geologic materials that include sand, gravel, and common clay. Mineral materials are sold through contract and are regulated under the Mineral Material Act of July 23, 1947, as amended, and the Surface Use and Occupancy Act of July 23, 1955.

**Mist Net Surveys.** A method of capturing birds and bats in a lightweight net to mark, band, and perform other measurement and data collection.

**Mitigate, Mitigation.** 1) Avoiding or reducing possible adverse impacts to a resource by limiting the timing, location, or magnitude of an action and its implementation; 2) rectifying possible adverse impact by repairing, rehabilitating or restoring the affected environment or resource; 3) reducing or eliminating adverse impacts by preservation and maintenance operations during the life of an action.

**Mitigation Measure.** A measure or action taken to reduce the adverse impacts to the environment from implementation of a project or another action. Such measures may include avoidance, replacement, restoration, relocation, timing of operations, etc.

**Mollisols.** Soils that have a dark colored surface horizon that are base rich. They often contain high organic matter content, a light-colored layer near the surface, and a shallow layer with high clay content, sometimes also containing a dense pan layer that is high in calcium carbonate.

**Monitoring.** The periodic observation and orderly collection of data to evaluate: 1) Effects of management actions; and 2) effectiveness of actions in meeting management objectives (43 Code of Federal Regulations 4100.0.5). The orderly collection, analysis, and interpretation of resource data to evaluate progress toward meeting management objectives. (BLM Technical Reference 4400-7).

**Montane Shrubland.** High altitude shrublands located above the tree line.

**Moraine.** Any glacially formed accumulation of unconsolidated glacial debris (soil and rock) which can occur in currently glaciated and formerly glaciated regions, such as those areas acted upon by a past ice age.

**Morphology.** The branch of biology that deals with the form and structure of organisms without consideration of function; the form and structure of an organism or one of its parts.

**Multiple Use.** The management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people.

**Multiplier.** A change in an economic measure resulting from a specified change in some other economic measure.

**Mylonite Zones.** Mylonite is a brecciated, metamorphic rock frequently found in a fault zone; formed by the crushing actions of fault movement.

**National Ambient Air Quality Standards (NAAQS).** The allowable concentrations of air pollutants in the ambient (public outdoor) air. National ambient air quality standards are based on the air quality criteria and divided into primary standards (allowing an adequate margin of safety to protect the public health) and secondary standards (allowing an adequate margin of safety to protect the public welfare).

**National Environmental Policy Act of 1969 (NEPA).** A United States environmental law that established a U.S. national policy promoting the enhancement of the environment; also established the President's Council on Environmental Quality (CEQ). NEPA's most significant effect was to set up procedural requirements for all federal government agencies to prepare Environmental Assessments (EAs) and Environmental Impact Statements (EISs) containing statements of the environmental effects of proposed federal agency actions.

**National Register of Historic Places.** A register of districts, sites, buildings, structures, and objects, significant in American history, architecture, archaeology and culture, established by the "Historic Preservation Act" of 1966 and maintained by the Secretary of the Interior.

**Native Species.** With respect to a particular ecological system, a species that, other than as a result of an introduction, historically occurred or currently occurs in that ecological system.

**Natural Resources.** These include topography, soil, water courses and/or waterbodies, geological formations, vegetation, and fish and wildlife.

**Natural System.** This refers to a biological, soil, and physical environment largely, but not necessarily entirely, controlled by natural processes rather than by intensive human activity, e.g., the comparison between rangelands and tilled agricultural croplands.

**Negligible.** Insignificant; able to be ignored or excluded from consideration; too small or unimportant to be of concern.

**Neotropical Migrants.** A bird species that breeds in North America and spends the non-breeding seasons south of the Tropic of Cancer.

**Nocturnal.** Species that are active during the dark hours.

**Noise Attenuation.** The reduction of a noise level from a source by such means as distance, ground effects, or shielding.

**Noise Pollution.** Displeasing human, animal, or machine-created sound that disrupts the activity or balance of human or animal life.

**Noxious Weed.** Any plant designated by a federal, state, or county government as injurious to public health, agriculture, recreation, wildlife, or property.

**Nursery Colony.** A site where a group of female bats bear and raise young.

**Nutrient (Plant).** Any element taken in by a plant essential to its growth. Plant nutrients are mainly nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, iron, manganese, copper, boron, and zinc obtained from the soil, and carbon, hydrogen, and oxygen obtained from the air and water.

**Obligate Phreatophyte.** Plants which typically require access to groundwater at shallow soil depths for the majority of the year.

**Off-highway Vehicle.** A vehicle that can be operated off of improved and regularly maintained roads.

**Organic Matter.** Plant and animal residue in the soil in various stages of decomposition.

**Paleontology.** The study of fossils; what fossils tell us about the ecologies of the past, about evolution, and about our place, as humans, in the world. Informs us about interrelationship between the biological and geological components of ecosystems over time.

**Parameter.** Any of a set of properties whose values determine the characteristics or behavior of something

**Passerine.** Referring to birds in the order Passeriformes, which includes perching birds.

**Perched Aquifer.** An aquifer that has a confining layer below the groundwater, and sits above the main water table.

**Perennial Springs.** A spring in which water is present during all seasons of the year.

**Perennial Stream.** A stream in which water is present during all seasons of the year.

**Perennial Yield (sometimes also referred to as sustainable yield).** The amount of usable water from a ground-water aquifer that can be economically withdrawn and consumed each year for an indefinite period of time. It can not exceed the natural recharge to that aquifer and ultimately is limited to maximum amount of discharge that can be utilized for beneficial use.

**Permeability.** The quality of the soil that enables water to move downward through the profile, measured as the number of inches per hour that water moves downward through the saturated soil.

**Permit.** Authorization in writing by the authorized officer or other person authorized by the United States Government, and is a contract between the permittee and the United States.

**Permitted Use.** The forage allocated by, or under the guidance of, an applicable land use plan for livestock grazing in an allotment under a permit or lease and is expressed in animal unit months.

**Personal Income.** Employee compensation plus property income.

**Phase.** A descriptor used to describe multiple identifiable plant communities within a particular state of the state-and-transition model. Communities may shift over time in a reversible manner among phases in a state in response to climate, grazing, and numerous other disturbance factors. As vegetation communities shift among phases, the vegetation and soil maintain resilience to return with similar characteristics.

**Phreatophyte.** Phreatophytes are deep rooted trees and shrubs that obtain a dependable water supply from the saturated soil water table, maintaining water status that is largely independent of soil water derived from incident precipitation.

**Phyla.** The second largest taxonomic grouping. Phyla are groups of taxonomic classes of organisms with shared characteristics.

**Physiographic Province.** A geographic region with similar climatic, land form, and geologic features, and which is significantly different from adjacent regions.

**Piezometer.** A groundwater-elevation monitoring device.

**Plant Cover.** 1) The plants or plant parts, living or dead, on the surface of the ground. Vegetative cover or herbage cover is composed of living plants and litter cover of dead parts of plants. 2) The area of ground cover by plants of one or more species.

**Playa.** Dry lake.

**Pluvial Lake.** A lake formed during a period of exceptionally high rainfall (such as during a time of glacial advance during the Pleistocene epoch) and now either extinct or existing as a remnant, such as Lake Bonneville.

**Potentiometric Surface.** A potentiometric surface is one that represents the static head of groundwater in tightly cased wells that tap a water-bearing unit (i.e., aquifer).

**Point of Diversion.** A specific location or area granted by the State Engineer for pumping water from an underground aquifer.

**Points of Diversion (pumping).** Groundwater well locations that are selected based on the locations specified in the water rights application. Generally, wells will be located within one mile of the applied-for point of diversion.

**Primary Road.** A high specification permanent road which is maintained periodically and serves as a main artery in a network of roads.

**Prime Farmland.** Land that has the best combination of physical and chemical characteristics for producing crops that is available for these uses. It has the combination of soil properties, growing season, and moisture supply needed to produce sustained high yields of crops in an economic manner if it is treated and managed according to acceptable farming methods.

**Priority Habitat.** A priority habitat may be described by a unique vegetation type or by a dominant plant species that is of primary importance to priority fish and wildlife. A priority habitat may also be described by a successional stage (e.g., old growth, mature forests). Alternatively, a priority habitat may consist of a specific habitat element (e.g., spring, stream, cave) of key value to priority fish and wildlife. A priority habitat may contain priority and non-priority fish and wildlife.

**Productivity (Soil).** The fertility or capacity of soil to support the growth of vegetation. The organic fertility or capacity of a given area or habitat.

**Productivity.** The potential rate of incorporation or generation of energy or organic matter (biomass) by an organism, population or trophic unit per unit time per unit area; plant productivity is termed primary production, and animal productivity is termed secondary production.

**Predation.** Predation describes a biological interaction where a predator (an organism that is hunting) kills and feeds on its prey.

**Profile (Soil).** A vertical section of the soil extending through all its horizons and into the parent material.

**Proliferation.** A rapid increase or growth.

**Proposed species.** A species for which a proposed rule to add the species to the federal list of threatened and endangered species has been published in the Federal Register.

**Proximity.** The region close to, or near.

**Public Land.** Any land or interest in land owned by the United States and administered by the Secretary of the Interior through the Bureau of Land Management.

**Public Scoping.** Discussions with and disclosure to agencies and the public with regard to a project or undertaking wherein areas of concern or issues to be addressed in a NEPA document are determined.

**Pumping Effects.** Any impact to natural or man-made resources that can be directly attributed to groundwater pumping.

**Quality (Soil).** Soil quality is the capacity of a specific kind of soil to function, within natural or managed ecological system boundaries, to sustain plant and animal productivity, maintain or enhance water and air quality, and support human health and habitation. Changes in the capacity of soil to function are reflected in soil properties that change in response to management or climate.

**Quaternary Active Fault.** A fault that has moved within the last 1.6 million years.

**Radiative Forces.** The change in net irradiance at the atmospheric boundary between the troposphere and the stratosphere (the tropopause). *Net irradiance* is the difference between the incoming radiation energy and the outgoing radiation energy in a given climate system and is measured in Watts per square meter. A positive forcing (more incoming energy) tends to warm the system, while a negative forcing (more outgoing energy) tends to cool it. Possible sources of radiative forcing are changes in solar radiation, or the effects of variations in the amount of greenhouse gases and aerosols present.



**Radionuclides.** A naturally occurring or artificially produced radioactive element or isotope that may be hazardous to health, depending on composition and level of exposure.

**Reflectivity.** The fraction of incident radiation reflected by a surface. Most surfaces can be divided into those that give specular reflection and those that give diffuse reflection. For specular surfaces, such as glass or polished metal, reflectivity will be nearly zero at all angles except at the appropriate reflected angle. For diffuse surfaces, such as matte white paint, reflectivity is uniform; radiation is reflected in all angles equally or near-equally

**Range.** An open region over which animals may roam and feed; the region throughout which a kind of organism or ecological community naturally lives or occurs.

**Range Improvement.** An authorized physical modification or treatment designed to improve production of forage; change vegetation composition; control patterns of use; provide water; stabilize soil and water conditions; restore, protect and improve the condition of rangeland ecosystems to benefit livestock, wild horses, and fish and wildlife. The term includes but is not limited to, structures, treatment projects, and use of mechanical devices or modifications achieved through mechanical means.

**Rangeland Health.** The degree to which the integrity of the soil and the ecological processes of rangeland ecosystems are sustained.

**Raptor.** A bird of prey, including eagles, hawks, falcons, osprey, and owls.

**Recharge.** The downward movement of surface water through the soil to groundwater resulting in replenishing the groundwater in the aquifer.

**Reclamation.** The process by which lands disturbed as a result of human activity are restored by grading, planting, seeding, etc., to stabilize the disturbed area and simulate original conditions.

**Recovery Plan.** A document which details the goals, tasks required, likely costs, and estimated timeline to recover threatened and endangered species (i.e., increase their numbers and improve their management to the point where they can be removed from the threatened or endangered species list).

**Recreation Site.** An area where management actions are required to provide a specific recreation setting and activity opportunities, to protect resource values, provide public visitor safety and health, and/or to meet public recreational use demands and recreation partnership commitments. A site may or may not have permanent facilities.

**Refugia.** An isolated area where extensive changes, typically due to changing climate or by human disturbance, have not occurred and where plants and animals typical of a region may survive.

**REGAP. Re-mapping under the Gap Analysis Program.** The purpose of the National Gap Analysis Program (GAP) is to provide broad geographic information on the status of ordinary species (those not threatened with extinction or naturally rare) and their habitats to provide land managers, planners, scientists, and policy makers with the information they need to make better-informed decisions. Existing natural vegetation is mapped from satellite imagery and other records using the National Vegetation Classification System to the level of dominant or co-dominant plant species.

**Regional Air Quality.** The measure in the outdoor atmosphere of one or more contaminants such as dust, fumes, gas, mist, odor, smoke, or vapor.

**Reliant.** Depending on something for support, such as habitat components.

**Research Natural Area.** An area preserved for research and education where natural processes predominate. Under current BLM policy, these areas must meet the relevance and importance criteria of an area of critical environmental concern and are designated as an area of critical environmental concern.

**Residual Effects.** Remaining results or conditions after project and mitigation completion.

**Residual Impacts.** Impacts remaining after mitigation measures have been implemented.

**Resistance.** The ability to resist; especially, the inherent capacity of a living organism (or assemblage of organisms) to resist external forces and adverse circumstances such as disease, drought, lack of nourishment, or toxic agents.

**Resource.** A component of the environment that can be utilized by an organism.

**Resource Management Plan.** A Bureau of Land Management multiple-use planning document, prepared in accordance with Section 202 of the Federal Land Policy and Management Act, that:

- Establishes resource conditions goals and objectives to be attained;
- Allocates resources and identifies allowable uses;
- Identifies land area for limited, restrictive, or exclusive uses; and
- Provides guidance for implementation of the decisions made in the plan.

**Restoration.** Holistic actions taken to modify an ecological system to achieve desired, healthy, and functioning conditions and processes. Generally refers to the process of enabling the system to resume its resiliency to disturbances.

**Rhyolite.** A fine-grained light-colored silica-rich igneous rock composed largely of potash feldspars and quartz.

**Right-of-way.** A permit or an easement authorizing the use of public land for certain specified purposes, commonly for pipelines, roads, telephone lines, electric lines, reservoirs, etc. Also, the reference to the land covered by such an easement or permit.

**Riparian.** Referring to or relating to areas adjacent to water or influenced by free water associated with streams or rivers on geologic surfaces occupying the lowest position of a watershed. Pertaining to, living or situated on, the banks of rivers and streams.

**Road.** Travel route that has been improved and maintained by mechanical means to ensure relatively regular and continuous use.

**Rock art** - A term in archaeology for any markings that were made on natural stone by human beings. They include Petroglyphs (carvings into stone surfaces), and Pictographs (rock and cave paintings).

**Runoff.** The (surface) water that flows off the surface of the land without sinking into the soil. The precipitation discharged into stream channels from an area.

**Sacred Site.** Any specific, discrete, narrowly delineated location of federal land that is identified by an Indian tribe, or individual determined to be an appropriately authoritative representative of an Indian religion, as sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion; provided that the tribe or appropriately authoritative representative of an Indian religion has informed the agency of the existence of such a site (Executive Order 13007, Section 7 1[b][iii]).

**Salable Minerals.** See Mineral Materials.

**Saline Soil.** A soil containing soluble salts in an amount that impairs the growth of plants. A saline soil does not contain excess exchangeable sodium.

**Sand (Geology).** A rock fragment or article between 0.0025 and 0.08 inch in diameter.

**Scrub.** Refers to a stand of vegetation characterized by thick growth of dwarf or stunted trees and shrubs and a poor soil.

**Secondary Road.** A road constructed for a specific use or single operation and normally abandoned upon completion of the operation.

**Section 7 of the Endangered Species Act.** Describes the responsibilities of Federal agencies in conserving threatened and endangered species.

**Sediment.** Soil, rock particles, and organic or other debris carried from one place to another by wind, water or gravity.

**Sedimentary Rocks.** Rocks formed by accumulation and cementation of minerals transported by wind or water, or chemically precipitated.

**Seep.** Wet areas, normally not flowing, arising from an underground water source.

**Seismicity.** The world-wide and local distribution of earthquakes in space and time; a general term for the number of earthquakes in a unit of time.

**Series (Soil).** A nationally defined soil type set apart on distinct soil properties that affect use and management. In a soil survey, this includes a group of soils that have profiles that are almost alike, except for differences in texture of the surface layer or of the underlying material. All the soils of a series have horizons that are similar in composition, thickness, and arrangement.

**Severe Water Erosion Potential.** Used to indicate the most highly erodible soils caused by raindrop splash or surface water runoff. The estimates are based on composition of the whole soil, modified by the presence of rock fragments and slope.

**Severe Wind Erosion Potential.** Used to indicate the most highly erodible soils based on the composition of sand, silt, and clay and the susceptibility of soils to being blown by wind. Wind erodibility is expressed as a soil grouping index of 1 to 8. The group number is based on sand, silt, and clay content and the susceptibility of soils to being blown by wind. Sandier soils have the highest wind erodibility potential and are assigned to Group 1. Soils with the lowest wind erodibility are assigned to Group 8.

**Shrub.** A low woody plant.

**Silt (Geology).** A rock fragment or detrital particle smaller than very fine sand and larger than coarse clay, ranging from 0.0024 to 0.00016 inch in diameter and commonly having a high content of clay minerals.

**Silt (Soil).** Individual mineral particles ranging in diameter from the upper limit of clay (0.002 millimeter) to the lower limit of very fine sand (0.05 millimeter). As a soil textural class: Soil that is 80 percent or more silt and less than 12 percent clay.

**Site Preparation.** Any action taken in conjunction with a reforest effort (natural or artificial) to create an environment that is favorable for survival of suitable vegetation during the first growing season. This environment can be created by altering ground cover, soil, or microsite conditions through using biological, mechanical, or manual clearing, prescribed burns, herbicides, or a combination of methods.

**Siting.** The collection of exploration, testing, evaluation, and decision-making activities associated with the process of site screening, site nomination, site recommendation, and site approval for characterization or repository development.

**Slate.** A compact, fine-grained, platy metamorphic rock formed from shale or claystone.

**Slip Surfaces.** Slip refers to a planar feature where movement along a geologic fault has occurred and resulted in the displacement of formerly adjacent points on either side of the fault.

**Slope.** The inclination of the land surface from the horizontal. Percentage of slope is the vertical distance divided by horizontal distance, then multiplied by 100. For example, a slope of 20 percent is a drop of 20 feet in 100 feet of horizontal distance.

**Sodic (alkali) Soil.** A soil having so high a degree of alkalinity (pH 8.5 or higher) or so high a percentage of exchangeable sodium (15 percent or more of the total exchangeable bases), or both, that plant growth is restricted.

**Soil.** The unconsolidated mineral and organic material on the immediate surface of the earth that serves as a natural medium for the growth of land plants.

**Solitude.** The state of being alone or remote from habitations; a lonely, unfrequented, or secluded place. The intent is to evaluate the opportunity for solitude in comparison to habitations of people.

**Special Recreation Management Area.** An area where recreation is one of the principal management objectives, where intensive recreation management is needed, and where more than minimal recreation-related investments are required.

**Special Recreation Permit.** Authorizations, which allow for recreational uses of the public lands and related waters. They are issued as a means to control visitor use, protect recreational and natural resources, provide for the health and safety of visitors, and as a mechanism to accommodate commercial recreational use of public lands.

**Special Status Species.** Plant or animal species that are federally listed or proposed under the Endangered Species Act, or Bureau of Land Management or USFS sensitive species.

**Special Stipulation.** A specific operating condition or limitation added to a mineral lease to protect sensitive resources. It modifies the original terms and conditions of that lease.

**Special Use Area.** Units of land that federal or state agencies manage for the protection and enhancement of specific resource values. This land includes designated wilderness, wilderness study areas, areas of critical environmental concern, and other special management areas including national wildlife refuges and ranges and national parks.

**Species.** A taxon of the rank species; which is the basic unit, and lowest principal category, of biological classification; in the hierarchy of biological classification, the category below genus; a group of organisms formally recognized as distinct from other groups.

**Species Composition.** The different species found in a given area.

**Species of Management Concern.** For the purposes of this document, a designation for species identified by the Natural Resources Group committee which are a focus of management by the BLM or the states of Nevada and/or Utah. Non-game species are included because populations are declining, threats to the species need to be monitored, or the species are protected under regulations such as the Migratory Bird Treaty Act.

**Specific Conductance.** A measurement that indicates the capacity of a sample of water to transmit an electrical current, which is associated with the concentration of ionized substances in the water.

**Spring.** Flowing water originating from an underground source.

**Springsnails.** A group of freshwater mollusks that inhabit spring habitats. They also are referred to as pyrgs based on the genus, *Pyrgulopsis*.

**Staging Area.** An area where construction equipment and materials are assembled before use.

**Standard.** The goals to be strived for.

**State (Transition State).** A descriptor used to describe a recognizable, resistant, and resilient complex of soil and vegetation for an ecological site. The plant communities within a state are different from those of other states in the state-and-transition model. When a vegetation community loses resilience and characteristic ecological processes, it crosses a threshold into another state. Such transitions are not readily reversible like the shift among phases within a state.

**Stipulation.** A restriction that is insisted upon as a condition for an agreement.

**Stream Channel.** The hollow bed where a natural stream of surface water flows or may flow; the deepest or central part of the bed, formed by the main current and covered more or less continuously by water.

**Structure (Soil).** The arrangement of primary soil particles into compound particles or aggregates.

**Study Area.** The physical extent of a resource as related to the area of the proposed project.

**Subsidence.** The movement or sinking of the land surface; often associated with removal of a liquid substance such as water or hydrocarbons from beneath the ground surface.

**Subsidence Induced Damage.** Damage caused by the movement or shrinking of the land surface.

**Subspecies.** A taxonomic rank below that of species, usually recognizing individuals that have certain heritable characteristics distinct from other subspecies of a species.

**Surface Characteristics.** The amount of bare ground, litter, rock, and basal cover of live vegetation, which may include cryptograms.

**Surface Disturbing Activities, Surface Disturbance.** Ground disturbance means any work or activity that results in a physical change to the ground surface, including excavating, digging, trenching, and plowing.

**Surface Occupancy.** See definition for No Surface Occupancy.

**Survey (Soil).** A field investigation resulting in a map showing the geographic distribution of various kinds of soil and an accompanying report that describes the soil types and interprets the findings.

**Survey Protocol.** The accepted standard methods, timing, equipment, and procedures for sampling species and habitats.

**Sustainability.** The ability to maintain diversity, productivity, resilience to stress, health, renewability, and yields of desired values, resource uses, products, or services over time in an ecosystem while maintaining its integrity.

**Tackifier.** A substance applied to soil surfaces to bind the soil surface and reduce wind dispersion of the soil.

**Taxonomy, Taxonomic.** The classification of organisms into groups based on similarities of structure or origin.

**Taxonomic Composition.** The relative abundance of a group of species that comprise a biological community (e.g., fish, invertebrates).

**Terminus.** The end point: a place where something ends or is complete.

**Terrace (Geologic).** An old alluvial plain, ordinarily flat or undulating, bordering a river, a lake, or the sea.

**Terrestrial.** Relating to land; a land animal.

**Terrestrial Invertebrates.** Animals without backbones which live on land.

**Texture (Soil).** The relative proportions of sand, silt, and clay particles in a mass of soil.

**Threatened Species.** Any plant or animal species defined under the Endangered Species Act as likely to become endangered within the foreseeable future throughout all or a significant portion of its range; listings are published in the Federal Register.

**Topography.** The form and structure of the surface of land.

**Total Dissolved Solids.** Total amount of dissolved material, organic or inorganic, contained in a sample of water.

**Traditional Cultural Property.** A property that derives significance from traditional values associated with it by a social and/or cultural group such as an Indian tribe or local community. A traditional cultural property may qualify for the National Register if it meets the criteria and criteria exceptions at 36 Code of Federal Regulations 60.4 (BLM Manual 8100).

**Traditional Use.** This category is to be applied to any cultural resource known to be perceived by a specified social and/or cultural group as important in maintaining the cultural identity, heritage, or well-being of the group. Cultural properties assigned to this category are to be maintained in ways that recognize the importance ascribed to them and seek to accommodate their continuing traditional use.

**Trail.** A pathway usually created and maintained by human foot traffic, beasts-of-burden, livestock, or wildlife.

**Transect.** To divide by cutting across.

**Transient.** Passing or short-term.

**Transition.** The trajectory of system change between states that lead to the establishment of a new state.

**Transition State.** See state.

**Trend.** The direction of change over time, either toward or away from desired management objectives.

**Upland (Geology).** Land at a higher elevation, in general, than the alluvial plain or stream terrace; land above the lowlands along streams.

**Upland.** Terrestrial ecosystems located away from riparian zones, wetlands, springs, seeps and dry washes; ecosystems made up of vegetation not in contact with groundwater or other permanent water sources.

**Upland Game Birds.** Non-waterfowl game birds, such as grouse, pheasant, quail and wild turkey.

**Vigor.** Healthy growth; the ability to survive and grow.

**Visual Resource Management Classes.** A classification of landscapes according to the kinds of structures and changes that are acceptable to meet established visual goals (Bureau of Land Management).

**Visual Resources.** The visible physical features of a landscape (topography, water, vegetation, animals, structures, and other features) that constitute the scenery of an area.

**Watershed.** 1) A total area of land above a given point on a waterway that contributes runoff water to the flow at that point. 2) A major subdivision of a drainage basin.

**Way.** A trace maintained solely by the passage of vehicles which has not been improved and/or maintained by mechanical means to ensure relatively regular and continuous use.

**Weed.** A plant considered undesirable, unattractive, or troublesome, usually introduced and growing without intentional cultivation.

**Wetlands.** Areas characterized by soils that are usually saturated or ponded, i.e., hydric soils, that support mostly water-loving plants (hydrophytic plants).

**Wild Horses.** Unbranded and unclaimed horses that use public land as all or part of their habitat, or that have been removed from such land by an Authorized Officer but have not lost their status under Section 3 of the “Wild Free-Roaming Horse and Burro Act.”

**Wilderness Study Area.** A roadless area or island that has been inventoried and found to have wilderness characteristics as described in section 603 of the Federal Land Policy and Management Act of 1976 and section 2 (c) of “The Wilderness Act.” Wilderness Study Areas were administratively designated by Bureau of Land Management following evaluation of wilderness inventories.

**Wilderness.** An area designated by Congress and defined in Section 2(c) of the Wilderness Act of 1964 as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined as an area of undeveloped federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which: 1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; 2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; 3) has at least 5,000 acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and 4) also may contain ecological, geological, or other features of scientific, educational, scenic, or historical values.

**Wildland Fire.** Any nonstructure fire, other than prescribed fire, that occurs in the wildland.

**Wildlife Action Plan.** A comprehensive state wildlife agency document which addresses eight parameters for wildlife species: the current distribution and abundance, location and condition of habitats critical to species' survival, problems that may harm the species and habitat, priority research needed to adequately address conservation actions, prescriptions and goals for conserving wildlife species and critical habitats, monitoring of wildlife populations and habitats and success of prescribed conservation actions, assessment of Plan at intervals not to exceed ten years, involvement of federal, state, local agencies and Indian tribes that manage lands or programs affecting the wildlife, and incorporation of public participation.

**Winter Hibernaculum.** A protective case, covering, or structure, such as a plant bud, tree bark, or burrow in which an organism remains dormant for the winter; the shelter of a hibernating animal.

**Woodland.** A forest community occupied primarily by noncommercial species such as juniper, mountain mahogany, or aspen.

**Xeric.** An environment or habitat that is extremely dry, lacking humidity and water.

**Zone of Saturation.** The area in an aquifer, below the water table, in which relatively all pores and fractures are saturated with water. The phreatic zone may fluctuate with changes of season and during wet and dry periods. Multiple zones of saturation may occur below any given point on the surface.

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