

Appendix

G

BIGHORN NATIONAL FOREST

Land and Resource Management Plan - DEIS

Appendix G Glossary

Definitions and Key Words

A

Access

The opportunity to approach, enter and make use of public or private lands.

Acre-foot

A water measurement term equal to the amount of water that would cover an area of 1 acre to a depth of 1 foot (43,560 cubic feet).

Activity Area

An area of land impacted by a management activity or activities. An activity area can range from a few acres to an entire watershed depending on the type of monitoring being conducted (R2 Supplement FSH 2509.18-92-1, Section 205). Commonly, timber-sale cutting units are considered activity areas.

Activity Fuels

Fuels resulting from or altered by forestry practices, such as timber harvest or thinning, as opposed to naturally created fuels.

Adaptive Management

Implementing policy decisions as science-driven management experiments that tests assumptions and predictions in management plans.

Adequate Access

A route and method of access onto non-federal land or mining claims on federal land

that provide reasonable use, enjoyment and claims consistent with similarly situated non-federal lands and resources. Use and enjoyment of these lands and claims must also minimize damage or disturbance to National Forest System lands and resources (36 CFR 251.111). The authorizing officer prior to issuing any access authorization must also ensure that:

- ◆ The landowner has demonstrated a lack of any existing routes of access available by deed or under state or local law,
- ◆ The route is so located and constructed as to minimize adverse impacts on soils, fish and wildlife, scenic resources, heritage resources, threatened and endangered species, and other values of the federal land, and when access routes exist across the adjacent non-federal lands or the best route as determined by the authorizing officer is across non-federal land,
- ◆ The applicant landowner demonstrates that all legal recourse to obtain reasonable access across adjacent non-federal lands has been exhausted or has little chance of success.

Age Class

Groups of trees or shrubs approximately the same age.

Air Quality Classes

Classification established under the "Prevention of Significant Deterioration" portion of the Clean Air Act, which limits the amount of air pollution considered significant within an area. Class I applies to areas where almost any change in air quality would be significant; Class II applies to areas where the deterioration normally accompanying moderate, well-controlled growth would be permitted; Class III applies to areas where industrial deterioration would generally be allowed.

All-weather Road

A road capable of being utilized during all weather conditions with only minor or short-term restrictions.

Allotment (Range Management)

A designated area of land available for livestock grazing upon which a specified number and kind of livestock may be grazed under a range allotment management plan. It is the basic land unit used to facilitate management of the range resource on National Forest System lands administered by the Forest Service.

Allotment Management Plan (AMP)

The document containing the action program needed to manage the range resource for livestock utilization--and possibly wildlife utilization--while considering the soil, watershed, wildlife, recreation, timber and other resources on lands within a range allotment.

Allowable Sale Quantity (ASQ)

The quantity of timber that may be sold from the area of suitable land covered by the Forest Plan for a time period specified by the Plan. This quantity is usually expressed on an annual basis as the "average annual,

allowable sale quantity" and usually applies for 10 years or longer. This level is considered the "ceiling" of timber quantity that can be harvested from suitable lands.

Alternative

One of several policies, plans or projects proposed for making decisions.

Ambient Air

That air, external to buildings, encompassing or surrounding a specific region.

Ambient Air Quality Standard

The prescribed level of pollutants in the outside air that cannot be exceeded legally during a specified time in a specified geographical area.

American National Standards Institute (ANSI)

Standards set by the ANSI represent general agreements among the maker, the seller and user groups as to the best current practices with regard to some specific problem or product.

AMP

(See "Allotment Management Plan".)

Animal Month (AM)

A month tenure upon the range by one animal (yearling cattle, cow and calf, horse, or burro). Generally used for billing purposes. (Society of Range Management 1974).

Animal Unit Month (AUM)

The tenure of 1 animal-unit (considered to be one mature 1,000-pound cow or the equivalent based on the average daily forage consumption of 26 pounds of dry matter per day) for a period of one month (Society of Range Management 1974).

Annual Operating Instructions (AOI)

The annual letter issued to each livestock permittee describing management, livestock pasture rotations, season of use, utilization

and/or residual levels, etc. for that grazing year. These instructions implement project level NEPA decisions (AMP) or in the absence of project NEPA, the Forest plan.

Appropriate Management Response (AMR)

The Appropriate Management Response is any specific action suitable to meet Fire Management Unit (FMU) objectives. Typically, the AMR ranges across a spectrum of tactical options (from monitoring to intensive management actions). The AMR is developed by using FMU strategies and objectives identified in the Fire Management Plan.

Aquatic Ecosystem

The stream channel, lake or estuary bed, water, biotic communities and the habitat features that occur within (FSH 2526.05) an ecosystem (biological and physical components and their interactions) in which water is the principal medium (Odum 1971). Examples include wetlands, streams, reservoirs and areas with plants or animals characteristic of either permanent or seasonal inundated soils.

Area of Potential Effects

The geographic area or areas within which an undertaking may cause changes in the character or use of historic properties, if any such properties exist.

Area of Consistent Snow Compaction (Lynx, Plan Ch1)

An area of land or water that during winter is generally covered with snow and gets enough human use that individual tracks are indistinguishable. In such places, compacted snow is evident most of the time, except immediately after (within 48 hours) snowfall. These can be areas or linear routes, and are generally found in near snowmobile or cross-country ski routes, in adjacent openings, parks, and meadows, near ski huts or plowed roads, or in winter parking areas. Areas of consistent snow compaction will be

determined based on the area or miles used in 1998, 1999, or 2000.

Arterial Road

(See "Road Functional Classification".)

Artificial Regeneration

The renewal of a tree crop by seeding or planting.

ASQ

(See "Allowable Sale Quantity".)

AUM

(See "Animal Unit Month".)

Authorized Forest Officer

The Forest Service employee delegated the authority to perform specific duties, generally a Regional Forester, Forest Supervisor, District Ranger or Minerals Staff Officer.

Available Forest Land (Timber)

That portion of the forest acres for which timber production is planned and included within the acres contributing to the allowable sale quantity. This includes both lands allocated primarily to timber production and lands on which timber production is a secondary objective.

Average Maximum Density (AMD)

The greatest average density of stands or trees that occur in natural undisturbed stands of a given quadratic mean diameter.

B

Bank Stability Criteria

Factors used in the determination of bank stability. Such factors may include: density and vigor of vegetation, evidence of past or current gullying or slumping, presence of objects that may deflect water into the banks, presence and size of rocks, and distance to break-in slope.

Barriers (Soils and Watershed)

GLOSSARY

Temporary structures used to control erosion, such as silt fences, straw bales, rock check dams and felled logs.

Basal Area (Timber Resource)

The cross-sectional area of a stand of trees measured at breast height. The area is expressed in square feet per acre.

Bedload (Watershed and Fisheries)

Sand, silt and gravel, or soil and rock debris rolled along the bottom of a stream by the moving water. The particles of this material have a density or grain size that prevents movement far above or for a long distance out of contact with the stream bed under natural flow conditions.

Benthic Macroinvertebrates

Large invertebrates commonly found on or in the substrate of streams and lakes. Some species (e.g. caddisfly and stonefly) utilize aquatic habitats during a portion of their life histories. Because of their dependence on aquatic habitat, many species can be used as indicators of water quality.

Best Available Control Measures (BACM)

A term used to refer to the most effective measures (according to EPA guidance) for controlling small or dispersed particulates and other emissions from sources such as roadway dust, soot and ash from woodstoves and open burning of brush, timber, grasslands, or trash.

Best Management Practices (BMPs)

Land management methods, measures or practices intended to minimize or reduce water pollution. Usually, BMPs are applied as a system of practices rather than a single practice. BMPs are selected on the basis of site-specific conditions that reflect natural background conditions and political, social, economic and technical feasibility. For a more complete definition, see Appendix D.

Big Game

Certain wildlife that may be hunted for sport under state laws and regulations. In the Bighorns, these animals include deer, elk, moose, black bear, and mountain lion.

Biological Assessment

(See “Biological Evaluation”).

Biological Control Agents

Natural organisms, such as insects, diseases, parasites and predators, that reduce pest populations of insects, diseases and noxious weeds.

Biological Control Methods

Use of natural organisms, such as insects, diseases, parasites and predators, to reduce pest populations of insects, diseases or weeds. Methods may include importation and release, conservation of native natural-enemy species, and augmentation (supplementation through rearing and release or genetic improvement) of biological control agents.

Biological Diversity or Biodiversity

The full variety of life in an area, including the ecosystems, plant and animal communities, species and genes, and the processes through which individual organisms interact with one another and with their environments (Rocky Mountain Regional Guide 1992).

Biological Evaluations

As defined by FSM 2670.5, a biological evaluation is a documented Forest Service review of Forest Service programs or activities in sufficient detail to determine how an action or proposed action may affect any threatened, endangered, proposed or sensitive species. FSM 2672.4 identifies biological evaluation objectives and standards.

Bighorn HABCAP Model

A model designed to evaluate the capability of habitats to support individual species based on the combination of plant communities and structural stages.

BMPs

(See "Best Management Practices").

Board Foot

A unit of timber measurement equaling the amount of wood contained in a board 1 inch thick, 12 inches long and 12 inches wide.

Boulders (Watershed and Fisheries)

Rounded or angular rocks greater than 24 inches in diameter.

Broadcast Burning

A fire ignited under specific conditions (prescriptions) and within established boundaries to achieve some land management objective.

Broadcast Treatments (Pest Management)

The uniform application of a pesticide over an entire area.

Broad Scale Assessment (Lynx, Plan Ch1)

A synthesis of current scientific knowledge, including a description of uncertainties and assumptions, to provide an understanding of past and present conditions and future trends, and a characterization of the ecological, social and economic components of an area. (LCAS).

Browse

That part of the current leaf and twig growth of shrubs, woody vines and trees available for animal consumption (Schwarz et al. 1976).

C**Candidate Species**

The U.S. Fish & Wildlife Service recently updated the definition of candidate species

to: Species for which the Fish & Wildlife Service has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposed rule to list but issuance of the proposed rule is precluded.

Canopy

- ◆ **Canopy:** The cover by vegetation and/or branches. Often, but not always restricted to the tree layer or greater than 6 feet tall.
- ◆ **Canopy Base Height:** The lowest height above the ground at which there is a sufficient amount of canopy fuel to propagate fire vertically into the canopy. Canopy base height is an effective value that incorporates ladder fuels such as shrubs and understory trees. Syn crown base height.
- ◆ **Canopy Bulk Density:** The mass of available canopy fuel per unit canopy volume. It is a bulk property of a stand, not an individual tree.
- ◆ **Canopy Closure/Cover:** The percentage of the ground and/or sky covered by vegetation and/or branches. These are perceived from a human point of view perpendicular to flat ground.
- ◆ **Canopy Layer:** Cover by vegetation and branches in different height intervals. These intervals are often defined in terms of vegetation, such as herbaceous or grass/forbs less than 2 feet tall, shrubs less than 6 feet tall, and overstory greater than 6 feet tall.

Capability

The potential of an area of land to produce resources, supply goods and services, an allow resource uses under an assumed set of management practices and at a given level of management intensity. Capability depends upon current conditions and site conditions such as climate, slope, landform, soils, and

GLOSSARY

geology, as well as the application of management practices, such as silviculture or protection from fire, insects, and disease.

Capital Investment Cost

Money spent for replacing, expanding, improving or constructing facilities or long-term assets, either tangible or intangible.

Carrying Capacity (Wildlife and Livestock Grazing)

The maximum number of animals that can be supported in a given environment without deteriorating that environment.

Cave

A cave is any naturally occurring void, cavity, recess, or system of interconnected passages beneath the surface of the earth or within a cliff or ledge and which is large enough to permit a person to enter, whether the entrance is excavated or naturally formed. Such term shall include any natural pit, sinkhole, or other opening which is an extension or which is an integral part of the cave.

Cavity Nesting Species

Wildlife species that depend on cavities in trees for their shelter and/or nesting. These species include primary cavity nesters, such as woodpeckers, which excavate cavities in soft or decayed wood for nesting, and secondary cavity nesters that typically nest in natural cavities or those excavated by another species.

Cavity Sites

Portions of trees that can be excavated by primary cavity nesters or that contain natural cavities.

CFR

Code of Federal Regulations.

Chain

A unit of length equal to 66 feet.

Channel (Watershed)

A passage, either naturally or artificially created, that periodically or continuously contains moving water, or that forms a connecting link between two bodies of water. Stream, river, creek, run, branch and tributary are some of the terms used to describe natural channels. Natural channels may be single or braided. Canal and floodway are some of the terms used to describe artificial channels.

Channel Capacity

The ability of the channel flow to carry sediment downstream and through the system so that no net aggradation (buildup) of the channel results.

Chemical Agent

A manufactured chemical compound.

Chlorinated Hydrocarbons

A class of stable, broad-spectrum, synthetic pesticides, such as DDT, Dieldrin, Aldrin, Endrin, Lindane, and Chlordane.

Class II Area (Air)

Geographic area having air quality exceeding the National Ambient Air Quality Standards. These areas are designated for a moderate degree of protection from future air-quality degradation. Moderate increases in new pollution may be permitted.

Classified Lands

Lands classified by laws or regulations; i.e., areas like Wilderness, Roadless, and Wild and Scenic Rivers.

Classified Road

Roads wholly or partially within or adjacent to National Forest System lands that are determined to be needed for long-term motor vehicle access, including State roads, county roads, privately owned roads, National Forest system roads, and other roads authorized by the Forest Service.

Classified Trail

A trail wholly or partly within, or adjacent to and serving National Forest system lands which is necessary for the protection, administration, and utilization of the National Forest and the use and development of its resources.

Clearcut, Clearcutting

The harvesting in one cut of all trees in an area. The area harvested may be a patch (0-10 acres), stand (not more than 40 acres) or strip.

Clean Air Act

Established to protect and enhance the quality of the Nations' air through air pollution prevention and control.

Clone

A group of plants, (for example, quaking aspen) growing in close association, derived by asexual reproduction from a single parent plant.

Closed Road

An intermittent service road in Maintenance Level 1 that is closed to all vehicular traffic for more than 1 year. The closure may be ordered under 36 CFR 261.

CMAI

(See "Culmination Mean Annual Increment".)

COA

(See "Condition of Approval".)

Coal Exploration License

The U.S. Department of Interior may issue a coal exploration license that grants the right to prospect for coal, although such a license does not grant an exclusive right.

Coarse Gravel (Watershed and Fisheries)

Rounded rocks generally 3/4 of an inch to 3 inches in diameter.

Coarse Woody Debris (CWD)

Dead and down logs that provide habitat for wildlife.

Cobbles (Watershed and Fisheries)

Rounded rocks between 3 and 10 inches in diameter.

Collectors

(See "Road Functional Classification".)

Commercial Thinning

(See "Thinning".)

Commercial Timber Sales

The selling of timber from National Forest System lands for the manufacture of commercial products such as lumber, plywood, etc.

Common Variety Minerals

Deposits that do not possess a distinctly special economic value, although they may have value for use in trade or manufacture. These minerals include sand, stone, gravel, pumicite, cinders and pumice.

Community (Biological)

Any assembly of organisms living together.

Community (Social)

The people who reside in one locality and are subject to the same laws, or who have common interests, etc.

Community Life-styles

The ways in which residents conduct their everyday routines and how the "way they live" is associated with the National Forest.

Concern Levels

Measures the degree of public importance placed on landscape viewed from travelways and use areas. Concern levels are divided into three categories: Level 1, 2, and 3.

- ◆ **Concern Level 1:** Includes all public transportation systems of national importance such as scenic byways, primary roads, trails, and recreation areas within the national forest.
- ◆ **Concern Level 2:** Includes high use secondary travelways and locally important locations associated with all types of use including recreation and tourism.
- ◆ **Concern Level 3:** Includes low to moderate use secondary travelways.

Cone Crop

The annual production of cones.

Confluence

The point where two streams join together.

Congressionally Classified Areas

(See "Congressionally Designated Areas".)

Congressionally Designated Areas

Lands within the boundaries of a component of the National Wilderness Preservation System, National Wild and Scenic River System, National Trails System, National Monuments, Recreation and Scenic Areas within the National Forest System, and similar areas designated by Congressional legislation (36 CFR 251.111).

Conifer

A group of cone-bearing trees, mostly evergreen, such as the pine, spruce and juniper.

Consent Denials

(See "Deny Consent".)

Consent for Oil and Gas Leasing

A consent by the Forest Service for oil and gas leasing on a specified parcel of National

Forest System land. It grants the right to explore, develop, extract and dispose of a specific mineral or minerals in lands covered by the lease, subject to various terms and conditions.

Consent to Issuance of Leases

(See "Consent for Oil and Gas Leasing".)

Constant Service (Roads)

A long-term facility (road) developed and operated for continuous or annual recurrent service.

Construction (Roads)

The displacement of vegetation, soil and rock, and the installation of human-made structures involved in the process of building a complete, permanent road facility. The activities occur at a location, or corridor, that is not currently occupied by a road.

Continuous Fuel Concentrations (Fire Management)

An uninterrupted distribution of fuel particles (surface or aerial) in a fuel bed, which allows a fire to sustain combustion and actively continue to spread.

Continuous Grazing

Allowing domestic livestock to graze a specific range area throughout the grazing season.

Controlled Surface Use (CSU)

Allowed use and occupancy for oil and gas leasing, unless restricted by another stipulation, with identified resource values requiring special operational constraints that may modify the lease rights. CSU is used as an operating guideline, not as a substitute for no-surface occupancy or a "timing" stipulation.

Conversion (Vegetation)

To change the dominant vegetative species or growth form, such as grass/forb, through vegetative management.

Converted

(See "Conversion".)

Convey

To transfer or deliver to another. To pass or transmit the title to property from one to another. To transfer property through the title to property by deed, bill of sale, or instrument under seal.

Coppice, Coppice System (Vegetation Management)

Sprout method; a system in which the crops originate mainly from suckers, roots or stumps, as in aspen..

Coppice with Standards (Aspen Management)

A coppice system in which selected stems are retained as standards at each felling to form an uneven-aged overstory removed selectively on a rotation constituting some multiple of the coppice rotation.

Cord

A unit of gross volume measurement for stacked roundwood based on external dimensions; generally implies a stack of 4 feet by 4 feet vertical cross sections 8 feet long (128 stacked cubic feet).

Corduroy (Trail Construction)

A corduroy is similar to a puncheon, and is built out of native logs for soft areas of trails. Sill logs are laid perpendicular to the roadway, and spaced at fairly close intervals. Stringer logs are notched longitudinally onto the top of the first layer of logs. Log or split-log decking may or may not be installed.

Corridor (Utility or Rights-of-Way)

A linear strip of land defined for the present or future location of transportation or utility rights-of-way within its boundaries.

Cost Effective

Achieving specified outputs or objectives under given conditions for the least cost.

Cost Efficient

A comparative measure of economic efficiency determined by maximizing the present net worth or value of an alternative, subject to meeting the objectives of the alternative.

Council on Environmental Quality (CEQ)

An advisory council to the President established by the National Environmental Policy Act of 1969.

Cover Type

The vegetative species that dominates a site. Cover types are named for one plant species or non-vegetated condition presently (not potentially) dominant, using canopy or foliage cover as the measure of dominance. In several cases, sites with different species dominant have been lumped together into one cover type; co-dominance is not necessarily implied.

Created Opening

A treated forest area 10 basal area or less, which is designed to produce forage.

Critical

(See "Critical Habitat".)

Critical Ecosystems

Specific areas, including riparian areas, wetlands, winter range and habitat for threatened and endangered species.

Critical Habitat (*Under the Endangered Species Act, 1976*)

1. The specific areas within the geographic area occupied by a federally listed species on which physical and biological features are found that are essential to the conservation of the species and that may require special management or protection. 2. The specific area outside the geographic area occupied by a listed species that are determined to be essential for the conservation of the species. The Bighorn does not have any designated "critical habitat".

Crown (Vegetation)

The upper part of a tree or other woody plant carrying the main branch system and foliage, and surmounting at the crown base a more or less clean stem.

Crown Closure

(See "Canopy Cover".)

Crown Density

The thickness, both spatially in depth and in closeness of growth (compaction), of an individual crown, such as its opacity as measured by its shade density.

Crown Height

For a standing tree, crown height is the vertical distance from ground level to the base of the crown, measured either to the lowest, live branch-whorl or to the lowest live branch, excluding shoots arising spontaneously from buds on the stem of a woody plant or to a point halfway between.

Cubic Foot

A unit of measure usually referring to wood volume (1 foot wide x 1 foot long x 1 foot thick).

Cull Logs

Logs that do not meet commercial specifications due to defects in the wood.

Culmination Mean Annual Increment (CMAI)

The point at which a tree or stand achieves its greatest average growth, based on expected growth, according to the management systems and utilization standards assumed in the Forest Plan.

Cultural Element

Attributes in a human-altered landscape; scenically positive cultural elements, most of which have historical backgrounds or nostalgic connotations. Examples include split-rail fences, stone walls, barns, orchards, hedgerows, and cabins.

Cultural Landscapes

Extremely significant data present within a portion of a site, a site, or a group of sites that can answer several research questions over several time periods and themes.

And/or the data/property(s) is extremely rare (i.e. only a few hundred exist in the nation), archetype (e.g. first steam engine), and/or is essential to the survival/identity of a cultural group (e.g. Liberty Bell). The data/property is considered of national significance based on criteria established by the Secretary of Interior.

Cultural Properties

(See "Historic Property".)

Cultural Resources

(See "Heritage Resources".)

Cumulative Effects

Collective results of past, present and reasonably foreseeable future actions, regardless of which agency or person undertakes the actions.

Cut-to-length Harvest

Trees cut to specified lengths in the woods and transported to the landing by way of a forwarder, which is a machine that loads and carries logs.

Cutover Area

Timber stands that have been cut.

Cutting Cycle

The planned, recurring lapse in time between successive cutting in a timber stand.

D

Daylight Thinning (Lynx, Plan Ch1)

A form of precommercial thinning that removes the trees inside a given radius around trees.

DBH

(See "Diameter at Breast Height".)

Dead Fuels (Fire Management)

Fuels with no living tissue within which moisture content is governed almost entirely by solar radiation.

Dead Woody Material

(See "Down Woody Material".)

Deadfall (Vegetation)

A fallen dead tree.

Decadence (Vegetation)

A process, condition or period of deterioration or decline. Deterioration of vigor, especially as related to a vegetative community.

Decision Documents

Documents that provide the criteria and information used in the formulation and evaluation of alternatives and the preferred alternative

Decks

Cut timber, sawlogs or cull logs removed from logging units and stacked.

Decommission

Removal of a road from the Forest Transportation road system. This may include ripping and seeding of the roadbed, recountouring of cut and fill slopes to return the road to original ground contours, or restoration of original drainage patterns. This action eliminates the deferred maintenance needs for the fixed asset. Decommissioning is done to travel ways that are no longer needed for resource management. Portions of an asset or component may remain if they **do not cause resource problems nor require maintenance**. Decommissioning includes meeting the following objectives, as a minimum:

- ◆ Motorized access is signed closed and/or access is physically blocked.

- ◆ The road is hydrologically self-maintaining.
- ◆ The road prism is revegetated.
- ◆ Slopes are stabilized.

Deferred Maintenance

Maintenance activities that can be delayed without critical loss of facility serviceability until the work can be economically or efficiently performed.

Deferred Rotation (Grazing)

Discontinuance of grazing on various parts of a range in succeeding years, which allows each part of the range to rest successively during the growing season to permit seed production, establishment of seedlings or restoration of plant vigor. Each rested part of range is grazed during the year. Two, but usually three or more, separate grazing units are required.

Demand species

Emphasis species that are hunted or fished including elk, deer, moose, turkey, blue grouse, ruffed grouse, chukar, brown trout, brook trout, etc.

Denning Habitat (Lynx, Plan Ch1)

The environment lynx use when giving birth and rearing kittens until they are mobile. The most common component is large amounts of coarse woody debris to provide escape and thermal cover for kittens. Denning habitat must be within daily travel distance of winter snowshoe hare habitat – the typical maximum daily distance for females is about three to six miles. Denning habitat includes mature and old growth²⁴ forests with plenty of coarse woody debris. It can also include young regenerating forests with piles of coarse woody debris, or areas where down trees are jack-strawed.

Design Capacity

The maximum theoretical amount of use a developed recreational site was built to accommodate.

This is usually expressed in PAOTs (Persons at One Time).

Design Standard (Recreation)

Approved design and construction specifications for recreational facilities, which includes specified materials, colors and dimensions.

Designated Over-the-Snow Routes (Lynx, Plan Ch1)

Routes managed under permit or agreement or by the agency, where use is encouraged, either by on-the-ground marking or by publication in brochures, recreation opportunity guides or maps (other than travel maps) or in electronic media produced or approved by the agency. The routes identified in outfitter and guide permits are designated by definition; groomed routes also are designated by definition. The determination of baseline snow compaction will be based on the miles of designated over-the-snow routes authorized, promoted, or encouraged in 1998, 1999, or 2000.

Designated Route (Lynx, Plan Ch1)

A road or trail that has been identified as open for specified travel use.

Designated Wilderness Areas

(See "Wilderness".)

Desired Condition (Rangelands)

The specific future condition of rangeland resources on a landscape scale which meets management objectives as identified in the Forest Plan and Allotment Management Plan. Desired condition is based on ecological, social, and economic considerations during the land and resource management planning process, and includes desired outputs under a multiple use mandate. It is usually expressed in terms of ecological status or vegetation management status: a. of vegetation; for

example, species composition, habitat diversity, or age/size classes of species; and b. of desired soil qualities; for example, conditions of soil cover, erosion, compaction, or loss of soil productivity. In riparian areas, it includes characteristics such as conditions of stream bank and channel stability, stream habitat, stream side vegetation, stream sedimentation, or water quality.

Desired Future Condition, Desired Ecological Condition

(1) A portrayal of the land or resource conditions that are expected to result if goals and objectives are fully achieved. (2) A description of the landscape as it could reasonably be expected to appear at the end of the planning period if the plan's goals, objectives, standards and guidelines for that landscape are fully achieved.

Desired Landscape Character

Appearance of the landscape to be retained or created over time, recognizing that a landscape is a dynamic and constantly changing community of plants and animals. It is a combination of landscape design attributes and opportunities, as well as biological opportunities and constraints.

Detrimental Compaction (Soils)

A 15 percent increase in bulk density from the average undisturbed density or bulk density values that exceed a threshold value, which varies from 1.25 g/cc for silt and clay to 1.6 g/cc for sand and loamy sand. Refer to FSM 2509.18, Region 2 Supplement, page 2.

Detrimental Displacement (Soils)

The removal of soil from a continuous area of 100 square feet or more.

Detrimental Erosion (Soils)

(1) Sheet erosion: The general loss of soil from the soil surface. Indicators include pedestalled rocks and plants, deposition of soil on the uphill side of rocks and plants, and/or erosion pavement. (2) Rills and

gullies: Erosion of channels greater than 1 inch in depth.

Developed Recreation

This type of recreation is dependent on facilities provided to enhance recreational opportunities in concentrated use areas. Examples include campgrounds and ski areas; facilities in these areas might include roads, parking lots, picnic tables, toilets, drinking water, ski lifts and buildings.

Developed Recreation Sites

Relatively small, distinctly defined areas where facilities are provided for concentrated public use, such as campgrounds, picnic areas and swimming beaches.

Development Roads

(See "Forest Development Roads".)

Diameter at Breast Height (DBH)

The diameter of a standing tree at a point 4 feet, 6 inches from ground level.

Direct Effects

Results of an action occurring when and where that action takes place.

Dispersed Recreation

This type of recreational use requires few, if any, improvements and may occur over a wide area. This type of recreation involves activities related to roads, trails and undeveloped waterways and beaches. The activities do not necessarily take place on or adjacent to a road, trail, or waterway, only in conjunction with them. Activities are often day-use oriented and include hunting, fishing, boating, off-road vehicle use, hiking and others.

Distance Zones

Landscape areas denoted by specified distances from the observer. Used as a frame of reference in which to discuss landscape attributes or the scenic effect of human activities in a landscape.

- ◆ **Immediate Foreground** - The detailed feature landscape found within the first few hundred feet of the observer, generally, from the observer to 300 feet away. This distance zone is normally used in project level planning, not broad scale planning.
- ◆ **Foreground** - Detailed landscape generally found from the observer to one-half mile away.
- ◆ **Middleground** - The zone between the foreground and background in the landscape. The area located from one-half mile to 4 miles from the observer.
- ◆ **Background** - The distant part of a landscape. The landscape area located 4 miles to infinity from the viewer.

Disturbance (ecology)

Any relatively discrete event in time that disrupts ecosystem, community, or population structure and changes resources, substrate availability, or the physical environment. A force that causes significant change in structure and/or composition through natural events such as fire, flood, wind or earth quake, mortality caused

Diurnal Security Habitat (Lynx, Plan Ch1)

Places in lynx habitat that provide secure winter daytime bedding sites for lynx in highly disturbed landscapes like ski areas. Security habitat gives lynx the ability to retreat from human disturbance during the day, so they can emerge at dusk to hunt when most human activity stops. Forest structures that make human access difficult generally discourage human activity in security habitats. Security habitats are most effective if big enough to provide visual and acoustic insulation and to let lynx easily move away from any intrusion. They must be close to winter snowshoe hare habitat. (LCAS).

Diversity

Diversity refers to the distribution and abundance of different plant and animal communities and species within the area covered by a land and resource management plan. This term is derived from the National Forest Management Act (NFMA). This term is not synonymous with "biological diversity."

Diversity Unit

An area delineated for use in management analysis. Often, diversity units follow the boundaries of fifth-order watersheds of approximately 5,000 to 10,000 acres in size.

Down and Dead Woody Material, Down Logs, Down Woody Material (Vegetation)

Woody material, from any source, that is dead and lying on the forest floor. See CWD.

Draft Environmental Impact Statement (DEIS)

The statement of environmental effects required for major federal actions under Section 102 of the National Environmental Policy Act and released to the public and other agencies for comment and review.

E

Easement

A right held by one person to make use of the land of another for a limited purpose, such as a special-use authorization for a right-of-way that conveys a conditioned interest in National Forest System land, and is compensable according to its terms.

Ecological Subsection (i.e. sedimentary and granitic)

In the hierarchy of Ecological Units of the United States (McNab and Avers, 1994), the Bighorn Mountains is a Section, and the next hierarchical step down are two subsections, which are mapped by their geologic origin of sedimentary parent material or granitic parent material.

Ecosystem

(1) A community of living plants and animals interacting with each other and with their physical environment. A geographic area where it is meaningful to address the interrelationships with human social systems, sources of energy, and the ecological processes that shape change over time. (2) The complex of a community of organisms and its environment functioning as an ecological unit in nature.

Ecosystem Management

A concept of natural resources management where- in National Forest activities are considered within the context of economic, ecological, and social interactions within a defined area or region over both short and long term.

Edge

The place where plant communities meet or where successional stages or vegetative conditions within plant communities come together (Thomas 1979).

Edge Contrast

The degree of similarity or difference between two or more adjacent elements of the environment.

Edge Habitats

The boundary between two or more elements of the environment, such as a field and woodland.

Effective Ground Cover (Watershed and Soils)

All living and dead herbaceous and woody materials in contact with the ground and all rocks greater than three-fourths of an inches in diameter (R2 Supplement FSH 2509.18-92-1 Sect. 2.05) that can effectively stop erosion.

Effects (Heritage Resources)

Impacts to the characteristics that qualify a heritage resource for the National Register of Historic Places. These can include alterations in location, setting, use, design, materials, feeling and association. Adverse effects include: (1) physical destruction or damage, (2) isolation from or alteration of setting, (3) introduction of visual, audible or atmospheric elements, (4) physical deterioration from neglect or from any action, and (5) transfer, lease or sale.

Egress

Path by which a person goes out; exit. The means or act of going out. Often used with the word "access."

EIS

(See "Environmental Impact Statement".)

Elk Security Areas

Elk security is defined by Lyon and Christensen (1992) as habitat that "allows elk to remain in a defined area despite an increase in stress or disturbance associated with the hunting season or other human activities." Security area is any area that will hold elk during periods of stress. Refer to

the Management Indicator Species appendix for further definitions.

Eligible (Heritage Resources)

Indicates a specific heritage resource qualifies for or is already listed in the National Register of Historic Places.

Encroachments

Improvements occupied or used on National Forest System lands without authorization.

Endangered Species

Any species of animal or plant in danger of extinction throughout all or a significant portion of its range and so designated by the Secretary of Interior in accordance with the 1973 Endangered Species Act.

Endangered Species Act

Sets a policy for conserving species (and their critical habitat) of fish, wildlife, and plants that are in danger of, or threatened with extinction. The Act also sets forward procedures for implementation.

Environmental Impact Statement (EIS)

A document prepared by a federal agency in which anticipated environmental effects of a planned course of action or development are evaluated. A federal statute (Section 102 of the National Environmental Policy Act of 1969) requires that such statements be prepared. It is prepared first in draft or review form and then in a final form. An impact statement includes the following points:

- ◆ The environmental impact of the proposed action
- ◆ Any adverse impacts that cannot be avoided
- ◆ By the action
- ◆ The alternative courses of actions
- ◆ The relationships between local short-term use of the human environment and the maintenance and enhancement of long-term productivity

GLOSSARY

EIS, cont.

- ◆ A description of the irreversible and irretrievable commitment of resources, which would occur if the action were accomplished.

Ephemeral Streams

(1) A stream or portion of a stream that flows briefly in direct response to precipitation in the immediate vicinity, and whose channel is at all times above the water table. (2) Ephemeral areas drain water to intermittent or perennial stream channels. Any sediment created by soil erosion during logging or road-building activities can be carried by way of the ephemeral, intermittent and perennial stream channels to the watershed outlet.

Erosion

The wearing away of the land surface by running water, wind, ice, gravity or other geological activities.

Erosion Hazard Rating

The probability of soil loss resulting from complete removal of vegetation and litter. It is an interpretation based on potential soil loss.

Escape Route (Fire Management)

A path of travel to get away from danger, such as the threat of wildfire.

Essential Habitat

Those areas designated by the Regional Forester as possessing the same characteristics as critical habitat without having been declared as critical habitat by the Secretary of the Interior. The term includes habitats necessary to meet recovery objectives for endangered, threatened and proposed species and those habitats necessary to maintain viable populations of sensitive species.

Evaluation

The analysis and interpretation of information collected through monitoring of Forest Plan implementation.

Evapotranspiration

The sum total of water lost from the land by evaporation and plant transpiration. Transpiration is loss of water in vapor form from a plant.

Even-aged (Vegetation)

A forest stand composed of trees having no or relatively minor differences in age.

Even-aged Management

The application of a combination of actions that results in the creation of stands in which trees of essentially the same age grow together. Managed even-aged forests are characterized by a distribution of stands of varying ages (and therefore, tree sizes) throughout the forest area. The difference in age between trees forming the main canopy level on a stand usually does not exceed 20 percent of the age of the stand at harvest rotation age. Regeneration in a particular stand is obtained during a short period at or near the time of harvest. Clear-cut, shelterwood or seed-tree cutting methods may produce even-aged stands.

Even-flow (Timber)

Maintaining a relatively constant supply of timber from decade to decade.

Excavators (Wildlife)

Bird species that excavate nest cavities in trees.

Executive Order

An order or regulation issued by the President or some administrative authority under his or her direction.

Existing Road System

All existing roads, owned or administered by various agencies, that are wholly or partly within or adjacent to and serving the National Forests and other areas administered by the Forest Service, or intermingled private lands (ref: FSM 7705.21). These roads may or may not be included on the current Forest Transportation Inventory, but are evident on the ground as meeting the definition of a road.

Exotic Species

A plant or species introduced from another country or geographic region outside its natural range.

Extirpated Species

Species that no longer exist within their historic range.

F**Facility**

Structures needed to support the management, protection and utilization of the National Forests, including buildings, utility systems, dams and other construction features. There are three categories of facilities: recreation, administrative and permitted.

Federal Land Policy and Management Easements

Federal Land Policy and Management Act (FLPMA) easements are issued when requested by landowners who are entitled to access. This is a special-use authorization for a right-of-way that conveys a conditional interest in National Forest System land.

Fee Site (Recreation)

A Forest Service recreational area in which users must pay a fee. Fee sites must meet certain standards and provide certain facilities.

Fee Title (Landownership)

The full and complete possessory ownership of a parcel of land. An inheritable estate. The greatest interest in property that a person can have.

Fen

Low-lying marshy land, partially covered with water.

Final Cutting

(1) Generally, removal of the last trees left in a stand. (2) Removal of the last seed bearers or shelter trees after regeneration is considered to be established. Under a shelterwood method, final cutting is the last removal cutting.

Fire Incidence

The average number of fires in a specified area during a specified time period.

Fire Management Plan (FMP)

A plan which identifies and integrates all wildland fire management and related activities within the context of approved land/resource management plans. It identifies a program to manage wildland fires (wildfire, prescribed fire, and wildland fire use). The plan is supplemented by operational plans, including but limited to preparedness plans, preplanned dispatch plans, prescribed fire burn plans, and prevention plans. Fire Management Plans assure that wildland fire management goals and components are coordinated.

Fire Management Unit (FMU)

An FMU is any land management area definable by objectives, management constraints, topographic features, access, values to be protected, political boundaries, fuel types, major fire regime groups, and so on, that set it apart from the management characteristics of an adjacent FMU. The FMUs may have dominant management objectives and preselected strategies assigned to accomplish these objectives.

Fire Occurrence

Number of fires per unit time in a specified area (syn. fire frequency).

Fire Protection Assessment (FPA) (Fire Management)

A computer software based analysis to assist managers in determining where specific types and intensities of fire management activities should occur. The analysis uses three map overlays depicting fuel flammability (Hazard), potential value change from fire (Value), and the potential that an ignition will occur (Risk) as a means of identifying and prioritizing appropriate fire management activities for a given land unit.

- ◆ **Risk:** A term within the Fire Protection Assessment identifying the potential for an ignition to occur in a given land unit based on historical data associated with frequency of natural ignitions and the probability of human ignitions based on an assessment of human activities.
- ◆ **Hazard:** A term within the Fire Protection Assessment which represents a function of potential fire line intensity based on fuels, topography, and weather influences.
- ◆ **Value:** In the context of the Fire Protection Assessment, value refers to the potential for negative value change from wildfire. Value considerations would include the value of developments and natural resources, including aesthetics, all of which are subject to change from wildfire.

Fire Regimes

Fire Regime describes the patterns of fire occurrence, frequency, size, and severity – and sometimes, vegetation and fire effects as well – in a given area or ecosystem. A fire regime is a generalization based on fire histories at individual sites. Fire regimes can often be

described as cycles because some parts of the histories usually get repeated, and the repetitions can be counted and measured, such as fire return interval.

Fire regimes have been created on the Bighorn NF to group major forest cover types into categories with similar fire return intervals and burning characteristics. Six fire regime groups have been created. The fire regime group and associated condition class characteristics are defined in *Fire and Land Management Planning and Implementation Across Multiple Scales*, Hann and Bunnell (2001). Table 1 shows the fire regime groups, the associated primary cover types and total acres in each group. Fire severity burn characteristics are also included.

Table 1. Fire Regime Groups and Associated Primary Cover Types

Fire Regime Group	Primary Cover Types	Burn Severity Characteristics	Total Acres
1	Ponderosa Pine Cottonwood	Understory Burn	38,727
2	Sage Brush Grass/Forb Willow	Stand Replacement	333,581
3	Limber Pine, Douglas Fir Rock Mountain Juniper	Mixed Severity (Some understory and some stand replacement)	135,139
4	Lodgepole -Pine	Stand Replacement	359,332
5	Engleman Spruce Subalpine Fir Aspen	Stand Replacement	247,707
No Fire	Bare Soil Rock Water	None	114,124

Fireline Intensity

The rate of heat energy released per unit time per unit length of a fire front. Numerically, it is the product of the heat combustion, quality of fuel consumed per unit area in the fire front, and the rate of spread of a fire as

measured in BTUs per second per foot of the fire front.

Fire Risk

The chance of a fire starting, as affected by the nature and incidence of causative agents, including lightning, people and industry. Three risk scales are used: high, moderate and low. High risk areas include locations where lightning, people or industry have commonly caused fire in the past; moderate risk areas include locations where lightning, people or industry have periodically caused fire in the past; low risk areas include locations where lightning, people or industry have infrequently caused fire in the past.

Fire Suppression

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

Fire Suppression Objective

To suppress wildfires at minimum costs consistent with land and resource management objectives and fire management direction as determined by National Fire Management Analysis System (NFMAS). This includes all work and activities associated with fire-extinguishing operations beginning with discovery and continuing until the fire is completely extinguished. An example might be that a fire suppression objective is set at 5 acres, based on a cost-effectiveness analysis.

Fire Use (Lynx, Plan Ch1)

The combination of wildland fire use and using prescribed fire to meet resource objectives. (NIFC) Wildland fire use is managing naturally ignited wildland fires to accomplish resource management objectives in areas that have a fire management plan. This term replaces prescribed natural fire. (Wildland and Prescribed Fire Management Policy, August 1998).

Firewood

(See "Fuelwood".)

Fiscal Year (FY)

Within the Forest Service, the fiscal year includes October 1 to September 30. The Fiscal Year is referred to by the calendar year beginning January 1. For example, October 1, 2001, to September 30, 2002, is referred to as Fiscal Year 2002.

Fisheries Habitat

Streams, lakes and reservoirs that contain and support fish.

Fledging Period

The period during which young birds leave the nest to learn to fly and forage.

Flood Hazard Reduction

Steps taken to reduce the potential of hazard from high flows. These steps may include: (1) ensuring that channel width has not been narrowed either directly by the placement of material on the inside of banks or effectively by the placement of objects within the channel or potentially by undermining trees or other objects that fall into the channels, (2) ensuring that channel depth has not been lessened and (3) ensuring that trees have not fallen across the channel in such a way as to increase the potential of formations of dams caused by debris.

Floodplain

That portion of a river valley, adjacent to the channel, which is built of sediments deposited during the present regimen of the stream and covered with water when the river overflows its banks at flood stages.

Floodway

That portion of the floodplain effective in carrying flow, within which this carrying capacity must be preserved and where the flood hazard is generally highest, that is, where flood depths and velocities are the greatest (FSH 2520).

Forage

Vegetation used for food by wildlife, particularly ungulate wildlife and domestic livestock (Thomas et al. 1979).

Forbs

Any herbaceous plant other than those in the grass, sedge and rush families. For example, any non-grass-like plant that has little or no woody material.

Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA)

An Act of Congress requiring the preparation of a program for the management of the National Forest's renewable resources, and of land and resource management plans for units of the National Forest System. It also requires a continuing inventory of all National Forest System lands and renewable resources.

Forest Development Roads

A Forest road under the jurisdiction of the Forest Service. Forest Development roads are not intended to meet the transportation needs of the public at large. Generally, these are roads constructed to a standard to serve expected traffic generated by resource management. Although generally open and available for public use, the Forest Service may restrict or control use to meet specific management direction.

Forest Development Trails

As defined in 36 CFR 212.1 and 261.2, those trails wholly or partly within or adjacent to and serving the National Forests and other areas administered by the Forest Service that have been included in the Forest Development Transportation Plan. A trail is a pathway for purposes of travel by foot, stock or trail vehicle, usually less than 50 inches wide.

Forest Development Transportation Facility

An access road, trail, waterway, or airfield wholly or partly within, or adjacent to, and

serving a National Forest System and other lands administered by the Forest Service, which has been included in the Forest Development Transportation Plan.

Forest Development Transportation Plan

The plan for the system of access roads, trails and airfields needed for the protection, administration and utilization of the National Forests and other lands administered by the Forest Service, or the development and use of resources upon which communities within or adjacent to the National Forests are dependent (36 CFR 212.1).

Forest Development Transportation System

Those facilities, Forest Development roads, trails, and airfields in the transportation network and under Forest Service jurisdiction.

Forest Facility Master Plan

The plan that depicts the development and management of the Forest's facilities. This includes current volume of business and projections for the future, locations for needed skills to perform program work, existing administrative sites and proposed locations of new sites, and management strategies concerning consolidation or sharing services between units (FSM 7312.1).

Forest Highway (Lynx, Plan Ch1)

A forest road under the jurisdiction of, and maintained by, a public authority and open to public travel (USC: Title 23, Section 101(a)), designated by an agreement with the FS, state transportation agency and Federal Highway Administration.

Forest Interior Habitat

That portion of the stand not affected by edge is termed interior habitat. The value of forest stands in providing interior habitat depends on the effects of edge on the microclimate of the stand (Lehmkuhl and Ruggiero 1991). In the Bighorns, forest interior is defined as that

portion of a forest stand more than 300 feet from an opening.

Forest Plan

A document that guides all natural resource management and established management standards and guidelines for a national forest, and that embodies the provisions of the National Forest Management Act of 1976.

Forest Supervisor

Official responsible for administering the Bighorn National Forest. The Forest Supervisor reports to the Regional Forester.

Forest System Roads

Roads that are part of the Forest Development Transportation System, which includes all existing and planned roads, as well as other special and terminal facilities designated as part of the Forest Development Transportation System.

Forest Visitor Map

Forest Visitor Maps depict detailed information concerning National Forests, National Recreation Areas and Special Interest Areas. The format is an entire National Forest or entire subdivision thereof. Forest Visitor Maps are available to the public at a price that reimburses the cost of printing and distribution.

Forested Area

Land at least 10 percent of which is occupied by trees of any size or formerly having had such tree cover, and not currently developed for non-forest use. Lands developed for non-forest use include areas for crops, improved pastures, residential or administrative areas, improved roads of any width, and adjoining road clearing and powerline clearing of any width.

Forwarders (Timber Management)

Mechanized equipment used to move logs from the stump to the landing on slopes generally less than 35 percent.

Four-wheel-drive Way (Roads)

A Forest Development road included in the Forest Development Transportation Plan and commonly used by four-wheel-drive, high-clearance vehicles with a width greater than 50 inches.

Fragmentation (Wildlife)

Habitat fragmentation is a process that occurs wherever a large, contiguous habitat is transformed into smaller patches isolated from each other by a landscape matrix unlike the original. This matrix can differ from the original habitat in either composition or structure. The crucial point is that fragmentation functions as either a partial or total barrier to dispersal for species associated with the original habitat (Thomas et al. 1990).

FSH

Forest Service Handbook.

FSM

Forest Service Manual.

Fuel Breaks

Generally wide strips of land 60 to 1,000 feet in width on which native vegetation has been modified so that fires burning into them can be more readily controlled. Some fuel breaks contain fire lines, such as roads or handlines, which can be widened.

Fuel Continuity

Degree or extent of continuous or uninterrupted distribution of fuel particles (surface or aerial) in a fuel bed, which thus affects a fire's ability to sustain combustion and spread.

Fuel Loading

The volume of the available or burnable fuels in a specified area, usually expressed in tons per acre.

Fuel Treatment

Any manipulation or removal of fuels to reduce the likelihood of ignition and/or to lessen potential damage and resistance to control, including lopping, chipping, crushing, piling, and burning (syn. fuel modification).

Fuels

The organic materials that will support the start and spread of a fire: duff, litter, grass, weeds, forbs, brush, trees, and dead woody materials.

Fuelwood

Round, split, or sawed wood cut into short lengths for burning as fuel.

FY

(See "Fiscal Year".)

G

General Mining Law

(See "Mining Law of 1872".)

Genetic Diversity

The genetic variation present in individuals, populations or species.

Geographic Information System (GIS)

An organized collection of computer hardware, software, geographic and descriptive data, personnel, knowledge and procedures designed to efficiently capture, store, update, manipulate, analyze, report and display the forms of geographically referenced information and descriptive information.

Geologic Hazard Rating

(See "Mass Wasting".)

Geophysical Prospecting

Prospecting for minerals, mineral fuels or the nature of the earth's materials by measuring the various physical properties of the rocks, and interpreting the results in terms of

geologic feature or the economic deposits sought. Physical measurements are taken at the surface, concerning the differences in the density, electrical resistance or magnetic properties of the rocks. There are four main methods employed in geophysical prospecting: gravitational, magnetic, electrical and seismic with several modifications of each.

Geothermal

Of or relating to the heat of the earth's interior.

Goal (Lynx, Plan Ch1)

A broad description of what an agency is trying to achieve, found in a land management plan. (LCAS).

Grant

A grant passes some estate or interest, corporeal or incorporeal, in the lands that it embraces. To give or permit as a right or privilege, such as a grant of route authority.

Grass/Forb, Grass/Forb Stage (Structural Stage 1)

(See Structural Stages - Structural Stage 1)

Grazing Capacity

The maximum number of livestock under management that a given range area is capable of supporting within guidelines found in the allotment management plan.

Green Slash

Wood residue left on the ground after logging that still contains moist phloem tissue and wood and may be susceptible to attack by bark beetles, generally within 1 year after cutting.

Groundwater

Water within the earth that supplies wells and springs. Specifically, water in the zone of saturation where all openings in soils and rocks are filled; the upper surface level forms the water table.

Group Selection

A silvicultural system in which the canopy is opened, by group cuttings, so as to create fairly evenly distributed gaps that are enlarged by subsequent cuttings as the groups of regeneration develop; regeneration is mainly natural, though young seedlings may be planted and the resultant crop is more or less uneven-aged.

Growing Season

The months of the year a species of vegetation grows.

Guideline (Lynx, Plan Ch1)

A particular management action that should be used to meet an objective found in a land management plan. The rationale for deviations may be documented, but amending the plan is not required. (LCAS modified)

H**HABCAP Model**

(See "Bighorn HABCAP Model".)

Habitat

The place where an organism (plant or animal) lives (Odum 1971).

Habitat Capability (Wildlife)

The capacity of a certain vegetative community to support selected wildlife species for all or a part of its life cycle. Habitat capability is estimated using the Bighorn HABCAP model.

Habitat Connectivity (Lynx, Plan Ch1)

An adequate amount of vegetative cover arranged in a way that allows lynx to move around. Narrow forested mountain ridges or shrub-steppe plateaus may serve as a link between more extensive areas of lynx habitat; wooded riparian areas may provide travel cover across open valley floors. (LCAS)

Habitat Type (ecology)

A land or aquatic unit consisting of an aggregation of habitats having equivalent structure, function, and responses to disturbance.

Habitat Type (ecology, silviculture)

An aggregation of units of land capable of producing similar plant communities at climax.

Half Lives

The time required for half of a chemical agent to undergo decay to a neutral chemical compound.

Hard Snags (Vegetation)

A dead or partially dead tree composed primarily of sound wood, particularly sound sapwood (Thomas et al. 1979).

Hardened Sites (Recreation)

Developed recreation sites where techniques have been used to protect natural resources (soil, water, vegetation, etc.) from overuse. For example, vehicles may be confined to roads by barriers, or gravel and pavement may be placed on roads, walkways and under picnic tables.

Hardwood

Pertains to broadleaf trees or shrubs.

Hazard (Fire Management)

(See "Fire Protection Assessment")

Hazard Reduction

(See "Fuel Treatment".)

Heavy Fuels

Fuels of large diameter, usually 3 inches or more, like snags, logs, large branchwood and peat, which ignite and burn more slowly than fine fuels (syn. coarse fuels).

Herbaceous Fuels

Grasses, forbs and other plants that contain little woody tissue.

GLOSSARY

Herbaceous Vegetation Residue

Vegetation remaining following grazing from livestock or wildlife on a seasonal basis.

Herbicide

A chemical substance used for killing or suppressing plants.

Heritage Resources

The physical remains (including but not limited to artifacts, structures, landscape modifications, rock art, trails or roads) and conceptual content or context (as a setting for legendary, historic or prehistoric events, such as a sacred area for native peoples) of an area.

Hibernacula Roost

Roosting areas for bats during periods of hibernation

Hiding Cover (Wildlife)

Vegetation capable of hiding 90 percent of a standing adult deer or elk from the view of a human at a distance equal to or less than 200 feet.

High Edge Contrast (Vegetation)

Found at the junction of two communities or stands that are structurally very different; for instance, a mature forest and grass/forb community.

High Risk (Fuels)

(See "Fire Risk".)

Historic Property

Any prehistoric or historic district, site, building, structure or object included in or eligible for inclusion in the National Register. This term includes artifacts, records and remains related to and located within such properties (36 CFR 800.2 (e)).

Horizontal Diversity (Vegetation)

The diversity in an area that results from the number and arrangement of plant communities or successional stages or both; the greater their number, the greater the

horizontal diversity. Also, the greater the amount of edge, the higher the degree of horizontal diversity (Thomas et al. 1979).

HPP

Historical Preservation Plan

Human-caused Risk (Fire Management)

A number related to the potential of fire starts originating from human activities to which a protection unit will be exposed during the rating period.

I

IDT

(See "Interdisciplinary Team".)

Ignition (Fire Management)

The initiation of combustion.

Implementation

Those activities necessary to initiate the actions in the approved land and resource management plan.

Indicator Species

Any plant (species) that, by its presence, frequency, or vigor, indicates any particular property of the site, particularly of the soil or aquatic areas.

Indigenous Species

Animals or plants that originated in the area in which they are found; for example, animals or plants that were not introduced after frontier settlement of the Bighorns and that naturally occur in the Bighorn mountains.

Indirect Effects

Results of an action occurring at a location other than where the action takes place and/or later in time, but in the reasonably foreseeable future.

Infrastructure

The facilities, utilities and transportation systems needed to meet public and administrative needs.

Ingress

The act or right to enter; access; entrance.

Inherent Scenic Attractiveness

The scenic importance of landscapes based on human perceptions of the intrinsic beauty of landform, rockform, waterform, and vegetation pattern. Reflects varying visual perception attributes of variety, unity, vividness, intactness, coherence, mystery, uniqueness, harmony, balance, and pattern. They are classified as:

- ◆ **Class A-Distinctive:** Areas where landform, vegetation patterns, water characteristics and cultural features combine to provide unusual, unique, or outstanding scenic quality. These landscapes have strong positive attributes of variety, unity, vividness, mystery, intactness, order, harmony, uniqueness, pattern, and balance.
- ◆ **Class B-Typical:** Areas where landform, vegetation patterns, water characteristics, and cultural features combine to provide ordinary or common scenic quality. These landscapes have generally positive, yet common attributes of variety, unity, vividness, mystery, intactness, order, harmony, uniqueness, pattern, and balance. Normally, they would form the basic matrix within the ecological unit.
- ◆ **Class C-Indistinctive:** Areas where landform, vegetation patterns, water characteristics and cultural land use have low scenic quality. Often water and rockform of any consequence are missing in the Class C landscapes. These landscapes have weak or missing attributes of variety, unity, vividness, mystery, intactness, order,

harmony, uniqueness, pattern, and balance.

Inholdings

Lands within the proclaimed boundaries of a National Forest that are owned by some other agency, organization or individual.

Insect and Disease Epidemics

High population levels of insect or disease pests that cause substantial injury to plant or animal hosts

Insect and Disease Suppression

Management practices applied to reduce insect and disease pest populations or damage. Insect and disease suppression includes actions taken to limit the spread of pests or to reduce susceptibility of hosts in imminent danger of being attacked.

Insecticide

A chemical or biological agent formulated to kill insects.

Instream Fisheries Habitat

Cumulative physical (e.g., temperature or channel morphology) and biological (e.g., invertebrate communities, vegetation) components that affect the quality of stream habitat. This instream habitat is also affected by inputs from the adjacent terrestrial ecosystems.

Instream Flow

The amount of water set aside and not available for development. It is water left in the river or stream for beneficial use by fish and wildlife, and for consideration of water quality, recreation and aesthetic requirements. As a beneficial use, instream water is a demand that must compete with other uses, such as irrigation, mining, municipal water supply (Bovee 1975).

Integrated Pest Management (IPM)

A process for evaluating and selecting a program from available techniques to reduce pest populations in an ecologically,

economically and socially acceptable manner. Programs may include one or a combination of available techniques, which may include the use of pesticides, cultural or silvicultural treatments, biological control agents, host resistance, genetic control, mechanical destruction or trapping, and behavioral chemicals including attractants and repellants.

Intensity (Fire Management)

How hot a fire is. Specifically, a measure (in BTUs per foot per second) of the energy released per unit of time in an area of actively burning fire. The amount of heat released per foot of fire front per second.

Interdisciplinary Team (IDT)

A group of individuals with different specialized training assembled to solve a problem or perform a task. The team is assembled out of recognition that no one discipline is sufficiently broad to adequately solve the problem. Through interaction, participants bring different points of view and a broader range of expertise to bear on the problem.

Interest (Landownership)

A general term to denote a right, claim, title or legal share in real estate (Black 1979).

Intermediate Cut (Timber Management)

Any removal of trees from a stand between the time of their regeneration and the final harvest.

Intermittent Service (Roads)

A facility developed and operated for periodic service and closed for more than one year between periods of use.

Intermittent Stream

(1) A stream that flows only at certain times of the year, as when it receives water from springs or from a surface source, such as melting snow. (2) A stream that does not flow continuously, as when water losses from

evaporation or seepage exceed the available streamflow.

Intermodal Surface Transportation Efficiency Act (ISTEA)

On December 18, 1991, the President signed the Intermodal Surface Transportation Efficiency Act (ISTEA), which provides authorizations for highways, highway safety, and mass transportation for the ensuing six years. The purpose of the Act is "to develop a National Intermodal Transportation System that is economically efficient, environmentally sound, provides for the foundation for the Nation to compete in the global economy and will move people and goods in an energy efficient manner."

Interpretation

Environmental interpretation involves translating the technical language of a natural science or related field into terms and ideas, that lay people can readily understand. It involves doing it in a way that is entertaining and interesting and may be accomplished by various methods and media. Examples include, but are not limited, to pamphlets, signs, audio-visual tools, and on-site interpreters.¹

Invasive Species

Movement of plant species outside its former range.

IPM

(See "Integrated Pest Management".)

Ips (Pine Engraver Beetle)

A genus of bark beetle that feeds beneath the bark of pines, typically killing branches, tops or entire trees. These beetles often breed in logging slash or attack stressed and injured pines.

¹ Ham, Sam H. 1992. *Environmental Interpretation: a practical guide for people with big ideas and small budgets*. Golden, Colorado. North American Press.

Irregular Shelterwood (Timber Management)

A silvicultural method characterized by a relatively long regeneration period during which some of the trees of the overwood are retained to complete growth to optimum size and quality. The trees reserved may be the best and most vigorous of the dominants, as in typical shelterwood cuttings. They may also be trees of the lower crown classes that have grown slowly in the past, but are capable of rapid growth if released. In either case, the reserved trees tend to hamper the development of regeneration beneath them so that the new stand will have a distribution of ages broader than that of truly even-aged stands.

Irrecoverable Commitments

Applies to losses of production or use of renewable natural resources for a period of time. For example, road construction leads to an irretrievable loss of the productivity of the land under which the road is located. If the road is later obliterated, the land may eventually become productive again. The production lost is irretrievable, but the action is not irreversible.

Irreversible Commitments

Decisions causing changes that cannot be reversed. For example, if an area is mined, that area cannot, at a later date, be allocated to some other resource activities, such as Wilderness. Once mined, the ability of that area to meet Wilderness criteria, for instance, has been irreversibly lost. Irreversible commitments often apply to non-renewable resources, such as minerals and heritage resources.

Isolated Mountain Range (Lynx, Plan Ch1)

Small mountains cut off from other mountains and surrounded by flatlands. On the east side of the Rockies, they are used for analysis instead of sub-basins. Examples are the Little Belts in Montana and the Bighorns in Wyoming.

J**Jurisdiction (Transportation)**

The legal right to control or regulate use of a transportation facility. Jurisdiction requires authority, but not necessarily ownership. The authority to construct or maintain a road may be derived from fee title and easement, or some other similar method.

K**Karst**

The word karst is taken from an area in Yugoslavia, where karst features were first documented. Karst is a terrain, underlain by limestone, in which the topography is chiefly formed by the dissolving of rock, and which is commonly characterized by closed depressions, subterranean drainage, and caves. Features found in karst terrain include rises, swallowholes, sinking streams, blind valleys, karst valleys, cave springs, and other karst features.

Kettle Ponds

Ponds that were carved by glaciers, generally occur in clusters. Usually shallow and less than one acre.

Key Grazing Areas

That portion of a pasture or grazing unit which, because of its nature, location and grazing use, serves to control the pattern of grazing use for the pasture as a whole.

Key Management Species (Grazing)

Major forage species on which management should be based.

Known Geologic Structures (KGS)

A trap in which an accumulation of oil and gas has been discovered by drilling and which is determined to be productive. Its limits include all acreage that is presumptively productive.

L

Land Exchange

The conveyance of non-federal land or interests to the United States in exchange for National Forest System land or interests in land.

Land Treatments (Watershed)

Human actions that disturb vegetation, groundcover or soil.

Land Unit (Watershed)

A mapped land type polygon; or a mapped soil unit.

Landline (Land Survey)

For Forest Plan purposes, National Forest property boundaries.

Landing (Timber Management)

Any place where round timber is assembled for further transport.

Landscape (Silviculture)

The primary unit of analysis for silviculture. A landscape for purposes of silviculture is a diversity unit, or a sixth-level watershed.

Landscape Character

Particular attributes, qualities, and traits of a landscape that give it an image and make it identifiable or unique. Valued landscape character creates a "sense of place" and describes the image of an area. The landscape character provides a reference for defining the inherent scenic attractiveness classes.

Landscape Scale

A heterogenous land area composed of a cluster of interacting ecosystems that are repeated in similar form throughout. Landscapes vary in size from many thousands of acres to only a few acres (Forman and Godron 1986).

Landtype Association

Groupings of Landtypes or subdivisions of Subsections based upon similarities in

geomorphic process, geologic rock types, soil complexes, stream types, lakes, wetlands, and series, subseries, or plant association vegetation communities. Repeatable patterns of soil complexes and plant communities are useful in delineating map units at this level. Names of Landtype Associations are often derived from geomorphic history and vegetation community.

Late Seral Stage Forest

Stage in forest development that includes mature and old-growth forest.

Late Succession

Ecosystems distinguished by old trees and related structural features. This term encompasses the later stages of stand development that typically differ from earlier stages in structure, composition, function and other attributes (Kaufmann et al. 1992). The term is also associated with "old growth". The composition of late successional stands on the Bighorn were described by Mehl (1992), and vary according to cover type. They usually involve older, large diameter trees.

Landscape Linkage Areas

Patterned matrix, corridors, stepping stones

LAUs

See Lynx Analysis Units

Linkage Area (Lynx, Plan Ch1)

An area that provides connectivity between blocks of lynx habitat. Linkage areas occur both within and between geographic areas, where basins, valleys or agricultural lands separate blocks of lynx habitat, or where lynx habitat naturally narrows between blocks. (LCAS updated definition approved by the Steering Committee 10/23/01)

Lynx Analysis Units (Lynx, Plan Ch1)

An area of at least the size used by an individual lynx, from about 25 to 50 mi² (LCAS). An LAU is a unit for which the

effects of a project would be analyzed; its boundaries should remain constant.

Lynx Habitat (Lynx, Plan Ch1)

Occurs in mesic coniferous forest that experience cold, snowy winters and provide a prey base of snowshoe hare. In the northern Rockies, lynx habitat is generally occurs between 3,500 and 8,000 feet of elevation, and primarily consists of lodgepole pine, subalpine fir and Engelmann spruce. It may consist of cedar-hemlock in extreme northern Idaho, northeastern Washington and northwestern Montana, or of Douglas fir on moist sites at higher elevations in central Idaho. It may also consist of cool, moist Douglas fir, grand fir, western larch and aspen when interspersed in subalpine forests. Dry forests do not provide lynx habitat. (LCAS)

Lynx Habitat, Unsuitable Condition (Lynx, Plan Ch1)

Habitat in the stand initiation structural stage where the trees are generally less than ten to 30 years old and have not grown tall enough to protrude above the snow during winter. Stand replacing fires or certain vegetation management projects can result in unsuitable conditions. Vegetation management projects that can result in unsuitable habitat include clearcuts and seed tree harvest, and sometimes shelterwood cuts and commercial thinning depending on the resulting stand composition and structure. (LCAS)

Leaders (Vegetation)

The terminal topmost shoots characteristic of the growth of certain plants or trees.

Limiting Factor

The environmental influence that exceeds the tolerance limit of an animal to restrict it in its activities, functions, or geographic range.

Litter (Vegetation)

A surface layer of loose organic debris consisting of freshly fallen or slightly decomposed organic materials.

Local Roads

(See "Road Functional Classification".)

Locatable Minerals

Minerals or mineral materials subject to claim and development under the Mining Law of 1872, as amended. Generally includes metallic minerals, such as gold and silver, and other materials not subject to lease or sale, like some bentonites, limestone, talc, zeolites, etc.

Location (Minerals)

Perfecting the right to a mining claim by discovery of a valuable mineral, monumenting the corners, completing discovery work, posting a notice of location and recording the claim.

Logging Debris

Unmerchantable tree parts, like crowns, rotted logs and uprooted stumps, that remain after harvest.

Logging Slash

The wood residue left on the ground after harvesting. It includes unused logs, uprooted stumps, broken or uprooted stems, tops, branches and leaves.

Log Landing

(See "Landing".)

Long-term (Transportation) Facility

A facility developed and operated for long-term land management and resource utilization needs and which may be operated for constant or intermittent service.

Lopped, Lopping

Cutting off one or more branches of a tree, whether standing, dead or fallen.

Lopping and Scattering

Lopping logging debris and spreading it more or less evenly on the ground.

Low Risk (Fuels)

(See "Fire Risk".)

Low-speed, Low-traffic-volume Road (Lynx, Plan Ch1)

Speed is less than 20 miles per hour; seasonal average daily traffic load is less than 100 vehicles per day.

M

Maintenance (Transportation Management)

The upkeep of the entire Forest Development Transportation Facility, including surfaces and shoulders, parking and side areas, structures, and such traffic control devices as are necessary for its safe and efficient utilization.

Maintenance Levels

(See "Road Maintenance Level".)

Managed Season (Recreation)

That period of time during which developed recreational sites are open for public use, with routine maintenance, cleanup and operation on a scheduled basis.

Management Indicator Species (MIS)

Plant or animal species or habitat components selected in a planning process that are used to monitor the effects of planned management activities on populations of wildlife and fish, including those that are socially or economically important.

Management Objectives

Clearly stated objectives describing the intended post-management status of an area. Typically, objectives are disclosed in the NEPA documentation.

Mass Movement

Down-slope movement of a portion of the land's surface, such as a single landslide or the gradual, simultaneous downhill movement of the whole mass of loose earthen material on a slope face.

Mass Movement Potential

The potential for gravity-induced movement over a portion of land surface. Mass movement is an interaction of geologic material, topography, climate and vegetation.

Mass Wasting

A general term for a variety of processes by which large masses of earthen material are moved by gravity either slowly or quickly from one place to another. Slow displacements include slumping and soil creep. Rapid movements include slope failures, landslides, debris flows and rock slides. Mass wasting ratings:

- ◆ **Slight:** Management practices are not limited by special precautions to maintain slope stability. Slope gradients are under 40 percent.
- ◆ **Moderate:** Management practices that disturb the land surface will be limited by precautionary measures to maintain slope stability. Slope gradients are usually in the 40 to 60 percent range. However, there is no evidence of past slope failure.
- ◆ **Severe:** Management practices are severely limited. Slope gradients are more than 60 percent and evidence of past mass wasting usually exists. Special on-site investigations are required prior to ground-disturbing activities, and higher costs for design and construction can be anticipated to achieve adequate resource protection.

Maternity Roost

Roosting areas for bats during periods of hibernation

MBF

Thousand board feet.

MCF

Thousand cubic feet.

Meadow

An area of perennial, herbaceous vegetation, usually grass or grass-like. A natural opening in a forest, generally at higher elevations, that produces exceptional levels of herbaceous plants, which is usually a consequence of high soil/water content, or a perched water table. Generally, a prairie grassland will occupy a convex surface, while a meadow will occupy a concave surface.

Medium Edge Contrast

Found at the junction of two communities or stands that are structurally similar; for instance, mature pine and poles, meadows and shrubs.

Memorandum of Understanding (MOU)

A legal agreement between the Forest Service, other agencies, private parties or individuals resulting from consultation between agencies that states specific measures the agencies will follow to accomplish a project. A memorandum of understanding is not a fund-obligating document.

Mid-seral (Lynx, Plan Ch1)

The successional stage in a plant community that's the midpoint as it moves from bare ground to climax. For riparian areas, it means willows or other shrubs have become established. For shrub-steppe areas, it means shrubs associated with climax are present and increasing in density.

Midstory (Vegetation)

Vegetative layer 10 to 40 feet tall between the overstory trees and ground layer. May consist of trees and/or shrubs.

Mineral Development

The activities and facilities associated with extracting mineral deposits.

Minimum Stocking Standard (Timber Management)

The stocking that must be present on regenerated areas before a new stand can be considered established. Minimum stocking is normally stated in terms of number of trees per acre and tree-stem heights by species.

Mining Claims

That portion of the public estate held for mining purposes in which the right of exclusive possession of locatable mineral deposits is vested in the locator of a deposit.

Mining Law of 1872

Provides for claiming and gaining title to locatable minerals on public lands. Also referred to as the "General Mining Law" or "Mining Law."

MIS

(see Management Indicator Species)

Mitigation

Includes (a) avoiding the impact altogether by not taking certain action or parts of an action, (b) minimizing impacts by limiting the degree or magnitude of the action and its implementation, (c) rectifying the impacts by repairing, rehabilitating or restoring the affected environment, (d) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action, (e) compensating for the impact by replacing or providing substitute resources or environments (40 CFR 1508.20).

Mitigation (Heritage Resources)

Actions taken to reduce or eliminate effects caused to heritage resources. Avoidance is not considered a mitigation measure.

GLOSSARY

MMBF

Million board feet.

MMCF

Million cubic feet.

Moderate Risk (Fuels)

(See "Fire Risk".)

Moisture Regime (Soils)

The presence or absence of groundwater or water held at a tension of less than 15 bars in the soil or in specified horizons by periods of the year.

Monitoring

The sample collection and analysis of information regarding Forest Plan management practices to determine how well objectives have been met, as well as the effects of those management practices on the land and environment.

Most Efficient Level (Fire Management)

A term to describe the most efficient combination of fire program activities within the context of suppression, prevention, and fuel treatment which meets direction in the Forest Plan. Fire management activities which define the

Most Efficient Level (MEL) are arrived at through analysis procedures outlined within the National Fire Management Analysis System (NFMAS). The analysis identifies the alternative or combination of alternatives that results in a most efficient fire management program.

Motorized Recreation

A recreational opportunity provided through the use of a motorized vehicle. This includes travel on and off highways, Forest roads, and four-wheel-drive primitive roads and trails. Travel regulations may be established for the protection of forest resources, to minimize use conflicts and to promote user safety.

MOU

(See "Memorandum of Understanding".)

Multi-storied Stands (Vegetation)

Plant communities having two or more recognizable canopy layers or height levels.

Multiple Use

According to the Multiple-use Sustained-yield Act of 1960, multiple use is the management of all the various renewable surface resources of the National Forest System so that they are utilized in the combination that will best meet the needs of the American people; such management makes the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions. Some lands will be used for less than all of the resources. Harmonious and coordinated management of the various resources is employed, each with the other, without impairment of the productivity of the land. Consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output.

Mycorrhizae

The phenomenon of the probably symbiotic or least non-parasitic association between the root or rhizome of a green plant and a fungus. Also, the structure so produced; for example, by the combination of the modified rootlet with fungal tissue.

N

National Environmental Policy Act of 1969 (NEPA)

An act declaring a national policy to encourage productive harmony between people and their environment, to promote efforts that will prevent or eliminate damage

to the environment and the biosphere and simulate the health and welfare of people, to enrich the understanding of the ecological systems and natural resources important to the nation and to establish a Council on Environmental Quality.

National Forest Management Act (NFMA)

A law passed in 1976 amending the Forest and Rangeland Renewable Resources Planning Act that requires the preparation of Regional and Forest Plans and the preparation of regulations to guide that development.

National Forest Road and Trails Act Easements

Easements granted to public road agencies for the construction, maintenance and jurisdiction of public roads over National Forest System lands.

National Forest System (NFS) Land

Federal lands designated by Executive Order or statute as National Forests, National Grasslands or Purchase Units, or other lands under the administration of the Forest Service.

National Register of Historic Places (NRHP)

A list of heritage resources that have local, state or national significance. The list is maintained by the Secretary of the Interior.

Native Seed

Seeds of plants considered indigenous to the Bighorns.

Native Species

(See "Indigenous Species".)

Naturalized

Refers to indigenous populations on the Forest or introduced populations of non-native species which are reproducing and have become self-sustaining in parts of the Forest.

Natural Background Water Pollutants

A nutrient or substance that may occur naturally in water resources. Although generally present in insignificant amounts, a nutrient or substance could cause undesired environmental effects if the amount present was to increase.

Natural Fuels

Fuels resulting from natural processes and not directly generated or altered by land management practices (compare activity fuels).

Natural Regeneration

The renewal of a tree crop by natural means without seeding or planting done by people. The new crop is grown from self-sown seed or by vegetative means, such as root suckers.

NCSS (National Cooperative Soil Survey)

A nationwide partnership of federal, regional, state and local agencies and institutions. This partnership works together to cooperatively investigate, inventory, document, classify and interpret soils and disseminate, publish and promote use of information about soils of the United States.

Nest Initiation

Beginning stages of nesting. May include courtship behavior, nest territory defense and/or nest building.

Net Public Benefit

The overall long-term value to the nation of all outputs and positive effects (benefits) less all associated inputs and negative effects (costs) whether they can be quantitatively valued or not. Net public benefits are measured by both quantitative and qualitative criteria rather than a single measure or index.

No Adverse Effect (Heritage Resources)

When the effect on a heritage resource would not be considered harmful to those characteristics that qualify the property for inclusion in the National Register.

No Surface Occupancy (NSO) (Oil and Gas)

A fluid mineral leasing stipulation that prohibits occupancy or disturbance on all or part of the land surface to protect special values or uses. The NSO stipulation includes stipulations that may have been worded as "No Surface Use/Occupancy," "No Surface Disturbance," "Conditional NSO" and "Surface Disturbance or Surface Occupancy Restriction by Location." The lessee may exploit the oil and gas or geothermal resources under leases restricted by this stipulation through use of directional drilling from sites outside the no-surface-occupancy area.

Nonmotorized Activities

Activities that do not incorporate the use of a motor, engine or other non-living power source. Non-motorized activities exclude such machines as aircraft, hovercraft, motorboats, automobiles, motor bikes, snowmobiles, bulldozers, chainsaws, rock drills and generators.

Non-native Species

Animals or plants not endemic to the Bighorns that were introduced following frontier settlement. Non-native species are also called "exotic species."

Non-target Vegetation (Integrated Pest Management)

Plants that are not the object of control and management actions.

Non-withdrawn Lands (Minerals)

Lands that are not withdrawn from mineral entry under the mining laws or other executive or administrative rulings.

Notice of Intent (Minerals)

Written notice to the affected Ranger District by those who intend to engage in mining activity on the Forest, of proposed prospecting, exploration, mining and mineral processing activities.

Notice to Lessees, Transferees and Operators

Written notice issued by an authorized Forest officer. Notices to Lessees, Transferees and Operators implement regulations and serve as instructions on specific items of importance within a Forest Service Region, National Forest or Ranger District.

Noxious Weeds

Those plant species designated as weeds by federal or state laws. Noxious weeds generally possess one or more of the following characteristics: aggressive and difficult to manage, poisonous, toxic, parasitic, a carrier or host for serious insects or diseases, and generally non-native (FSM 2080).

O

Obliteration (Transportation)

The reclamation and/or restoration of the land occupied by a transportation facility for purposes other than transportation.

Objective (Lynx, Plan Ch1)

A statement in a land management plan describing desired resource conditions and intended to promote achieving programmatic goals. (LCAS)

Off-Highway Vehicle (OHV)

Any motorized vehicle designed for or capable of cross-country travel on or immediately over land, water, snow, ice, marsh, swampland or other natural terrain.

Off-Road Vehicle (ORV)

(See "Off-Highway Vehicle".)

OHV

(See "Off-Highway Vehicle".)

Oil and Gas Lease

An oil and gas lease grants the right to explore, develop, extract and dispose of a specific mineral or minerals in lands covered

by the lease, subject to various terms and conditions. Oil and gas leases are issued by the Bureau of Land Management (BLM), Department of Interior. On National Forest System lands, leases are issued with Forest Service direction and concurrence.

Old-growth

See "late successional".

Old, Multi-story Structural Stage (Lynx, Plan Ch1)

Usually contains large old trees. May also have decaying fallen trees that leave a discontinuous overstory canopy. On cold or moist sites without frequent fires or other disturbance, multi-layer stands with large trees in the uppermost layer develop. (Oliver and Larson, 1996)

Openings (Tree Canopy)

The hole created by removing the majority of the tree canopy. This includes the harvesting of the majority of trees in a given area.

Operational Wildland Fire Use Plans

A supplement to the Fire Management Plan, which identifies the prescription under which a wildland fire may be managed to accomplish pre-stated resource management objectives. The operational plan identifies important considerations within the area to support the development of a WFIP when an event occurs.

ORV

Off-Road Vehicle. (See "Off-Highway Vehicle".)

Outstandingly Remarkable Values

A term from the Wild and Scenic Rivers Act; to qualify as outstandingly remarkable, a resource value must be a unique, rare, or exemplary feature that is significant at a regional or national level.

Outputs

The goods, end products or services purchased, consumed or utilized directly by

people. Outputs are goods, services, products and concerns produced by activities that are measurable and capable of being used to determine the effectiveness of programs and activities in meeting objectives. A broad term used to describe any result, product or service that a process or activity actually produces.

Overstory (Biological Diversity)

The portion of vegetation in a forest forming the uppermost foliage layer.

P

Paleontological Resources.

The remains or traces of an organism or assemblage of organisms that have been preserved by natural processes in the earth's crust. Minerals, such as oil and gas, coal, oil shale, bitumen, lignite, asphaltum and tar sands, phosphate, limestone, diatomaceous earth, uranium and vanadium, while they may be of biologic origin, are not here considered "fossils." Fossils of scientific value may occur within or in association with such materials.

Passport in Time

A nationwide Forest Service program that provides opportunities for "hands-on" public involvement in heritage resources management, such as archeological excavations, historical research and oral history collection.

Peak Flow

The highest discharge of water recorded over a specified period of time at a given stream location. Often thought of in terms of spring snowmelt and/or summer, fall or winter rainy-season flows. Also called "maximum flow."

Permanent Development (Lynx, Plan Ch1)

Any development that results in a loss of lynx habitat for at least 15 years. Ski trails, parking lots, new permanent roads,

structures, campgrounds and many special use developments would be considered permanent developments.

Permitted Grazing

Use of a National Forest System range allotment under the terms of a grazing permit.

Person-Year

The amount of work done by one person working yearlong or several people working a portion of a year. (Approximately 2,000 working hours.)

Persons-At-One-Time (PAOT)

A recreational-capacity measurement term indicating the number of people who can use a facility or area at one time.

Pesticide

A chemical agent formulated to kill or suppress insects, plants or animals.

pH

The degree of water acidity or alkalinity.

Pheromone Traps (Integrated Pest Management)

Containers designed to attract and catch or kill a particular insect species through use of a lure containing a chemical attractant scent.

Pine Engraver Beetle

(See "Ips".)

Piling and Burning (Timber Management)

Piling slash resulting from logging and subsequently burning individual piles.

Plant Associations

A grouping of plants that has reached dynamic equilibrium with the local environmental conditions and is equivalent to climax. On site, there is no evidence of replacement by other dominant plant species (and there is no evidence of serious disturbance.)

Plant Communities

Assemblage of plant species living in an area. It is an organized unit to the extent that it has characteristics in addition to the individuals and populations, and functions as a unit (Odum 1971).

Pollution

The presence of matter or energy whose nature, location or quantity produces undesired environmental effects.

Potential Natural Community (PNC).

A taxonomic unit of vegetation classification. The biotic community that would be established under present environmental conditions if all successional sequences were completed without additional human-caused disturbance. Natural disturbances, such as drought, flood, wildfire, grazing by native fauna, insect and disease, are inherent in the development of potential natural communities, which may include naturalized, non-native species (Rangeland Analysis and Management Work Group 1994).

Potential Natural Vegetation (PNV)

A historical term originally defined by A.W. Kuchler as the stable vegetation community, which could occupy a site under current climatic conditions without further influence by humans. Often used interchangeably with "Potential Natural Community" (Rangeland Analysis and Management Work Group 1994).

Prairie

A tract of level to hilly land that has a dominance of grasses and forbs, has a scarcity of shrubs and is treeless.

Precambrian

Period of geologic time extending from more than 3,600 years ago to about 570 million years ago.

Pre-commercial Cutting

(See "Thinning".)

Preparation Cut (Silviculture)

A timber harvest method that removes trees near the end of a rotation so as to open the canopy and enlarge the crowns of seed bearers to improve conditions for seed production and natural regeneration, as typically in a shelterwood method.

Preparedness Level (Fire Management)

Planning levels of suppression readiness dependent on fire activity, fuel moisture, conditions of drought, fire weather, fire danger, and resources deployed or available. There are five preparedness levels with level five being the most active state of readiness.

Prescribed Burning

Controlled application of fire to wildland fuels in either their natural or modified state, under specified environmental conditions, that allows the fire to be confined to a predetermined area and, at the same time, to produce the fireline intensity and rate of spread required to attain planned resource management objectives (syn. controlled burning).

Prescribed Fire

See Wildland Fire.

Prescription (Fire Management)

A written statement defining objectives to be attained, as well as temperature, humidity, wind direction and wind speed, fuel-moisture content, and soil moisture, under which the fire will be allowed to burn, generally expressed as acceptable ranges of the various indices, and the limit of the geographic area to be covered.

Present Net Value (PNV)

The difference between the discounted value (benefits) of all outputs to which monetary values or established market prices are assigned and the total discounted costs of managing the planning area.

President's Advisory Council on Historic Preservation (ACHP)

An advisory group appointed by the President of the United States to aid the State Historic Preservation Officer and federal agencies in complying with the National Historic Preservation Act.

Pre-suppression (Fire Management)

Activities required in advance of fire occurrence to ensure an effective suppression action. It includes (1) recruiting and training fire forces, (2) planning and organizing attack methods, (3) procuring and maintaining fire equipment, and (4) maintaining structural improvements necessary for the fire program.

Primitive Road

Generally road objective maintenance level 2. (FSH 7709.58) Provides an opportunity for challenge, risk, and self-reliance. (25) Usually native surfaced.

Primitive Trail

Maintained to the most difficult trail standard. (FSH 2309.18) Provides an opportunity for challenge, risk, and self-reliance.

Products Other than Logs (POL), Products Other Than Sawlogs, Products Other Than Sawtimber

Products such as posts, poles and fiber from trees or parts of trees less than sawlog size. POL usually include trees greater than 5 inches diameter breast height (4.5 feet from ground level) and less than 7.9 inches diameter breast height, with tops of trees greater than 4 inches to less than 6 inches in diameter.

Program Development and Budgeting

The process through which activities for the Forest are proposed and funded.

Project

One or more site-specific activities designed to accomplish a specific on-the-ground purpose or result. Projects are tiered to the Forest Plan and will have further site-specific analysis.

Pruning

Cutting away of superfluous growth from any plant so as to improve its growth.

Public Access

Usually refers to a road or trail route over which a public agency has secured a right-of-way for public use.

Public Issue

A subject or question of widespread public interest relating to management of the National Forest System. (36 CFR 219.3)

Public Involvement

A Forest Service process designed to broaden the information base upon which agency decisions are made by (1) informing the public about Forest Service activities, plans, and decisions, and (2) encouraging the public understanding about the participation in the planning processes which lead to final decision making. (FSM 1905)

Puncheon (Transportation)

Puncheon walkways and bridges are typically built for trails out of native logs for the purpose of crossing wet areas. Sill logs are laid perpendicular to the centerline. Stringers are placed on top of the sill logs. Split-log decking may or may not be installed on top of the stringers.

Q

Quadratic Mean Diameter (Silviculture)

The diameter of the average tree in a stand determined from the basal area. Basal area divided by the number of trees per acre equals the average basal area per tree (ABAT).

R

Range Analysis

Systematic acquisition and evaluation of rangeland resource data needed for allotment management planning and overall land management (Rangeland Analysis and Management Work Group 1994).

Range Condition

(1) A rangeland is considered to be in satisfactory condition when the desired condition is being met or short-term objectives are being achieved (vegetation management status) to move the rangeland toward the desired condition (trend).

Unsatisfactory condition is when the desired condition is not being met and short-term objectives are not being achieved (vegetation management status) to move the rangeland toward the desired condition (trend).

(2) Historically, range condition has usually been defined in one of two ways: (a) A generic term relating to present status of a unit of range in terms of specific values or potentials. Specific values or potentials must be stated. (b) The present state of vegetation of a range site in relation to the climax (natural potential) plant community for that site. It is an expression of the relative degree to which the kinds, proportions, and amounts of plants in a plant community resemble that of the climax plant community for the site.

Ranger District

Administrative subdivisions of the Forest supervised by a District Ranger who reports to the Forest Supervisor.

Range of Variability

Also known as: natural variability, historic variability, or range of natural variability. The observed limits of change in composition, structure, and function of an ecosystem over a specified period of time resulting from variations in the frequency, magnitude, and pattern of disturbances.

Raptor Habitat

Habitat required by hawks, eagles, falcons or owls, especially for nesting.

Raptor Nests

Any active nest of eagles, hawks, falcons, or owls.

Rate of Spread (Fire Management)

Relative activity of a fire in extending its horizontal dimensions, expressed as rate of increase of the perimeter, rate of increase in area, or rate of advance of its head, depending on the intended use of the information, generally in chains or acres per hour for a specified period in the fire's history.

Reasonably Foreseeable Development (RFD)

The spectrum of conditions possible in ecosystem composition, structure, and function, considering both temporal and spatial factors.

Reclamation

Returning disturbed lands to a form and productivity that will be ecologically balanced, often in conformity with a predetermined reclamation plan.

Reconstruction

Construction activities performed on an existing facility. Reconstruction includes those activities that alter the facility from its originally constructed or subsequently reconstructed condition.

Recreation Capacity.

The number of people who can take advantage of the supply of recreational opportunities at one time without substantially diminishing the quality of the recreation experience or the resources.

Recreation Development Scale

Classification using a 1 to 5 scale of the level of development in camp and picnic sites as to the types of recreational opportunities and

modifications to the environment that can be expected. The scales are:

- ◆ **Minimum Site Modification:** Rustic or rudimentary improvements designed for protection of the site rather than comfort of the users. Use of synthetic materials excluded. Minimum controls are subtle. Spacing informal and extended to minimize contacts between users. Motorized access not provided or permitted.
- ◆ **Little Site Modification:** Rustic or rudimentary improvements designed primarily for protection of the site rather than the comfort of the users. Use of synthetic materials avoided. Minimum controls are subtle. Little obvious regimentation. Spacing informal and extended to minimize contacts between users. Motorized access provided or permitted. Primary access over primitive roads. Interpretive services informal, almost subliminal.
- ◆ **Site Modification Moderate:** Facilities about equal for protection of site and comfort of users. Contemporary/rustic design of improvements are usually based on use of native materials. Inconspicuous vehicular traffic controls usually provided. Roads may be hard surfaced and trails formalized. Development density about three family units per acre. Primary access may be over high-standard roads. Interpretive services informal, but generally direct.
- ◆ **Site Heavily Modified:** Some facilities designed strictly for comfort and convenience of users. Luxury facilities not provided. Facility design may incorporate synthetic materials. Extensive use of artificial surfacing of roads and trails. Vehicular traffic control usually obvious. Primary access usually over paved roads. Development density of three to five family units per

acre. Plant materials usually native. Interpretive services often formal or structured.

- ◆ **High Degree of Site Modification:** Facilities mostly designed for comfort and convenience of users and usually include flush toilets; may include showers, bathhouses, laundry facilities and electrical hookups. Synthetic materials commonly used. Formal walks or surfaced trails. Regimentation of users is obvious. Access usually by high-speed highways. Development density of five or more family units per acre. Plant materials may be foreign to the environment. Formal interpretative services usually available. Designs formalized and architecture may be contemporary. Mowed lawns and clipped shrubs not unusual.

Recreation Opportunity

Availability of a real choice for a user to participate in a preferred activity within a preferred setting in order to realize those experiences desired.

Recreation Opportunity Spectrum (ROS)

A system for planning and managing recreational resources that categorizes recreation opportunities into seven classes. Each class is defined in terms of the degree to which it satisfies certain recreational experience needs based on the extent to which the natural environment has been modified, the type of facilities provided, the degree of outdoor skills needed to enjoy the area and the relative density of recreation use. The seven classes are:

- ◆ **Primitive:** Area is characterized by an essentially unmodified natural environment of fairly large size. Interaction between users is very low and evidence of other users is minimal. The area is managed to be essentially free from evidence of human-induced restrictions and controls. Motorized use within the area is not permitted.

- ◆ **Semi-Primitive Nonmotorized:** Area is characterized by a predominantly natural or natural-appearing environment of moderate to large size. Interaction between users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but would be subtle. Motorized recreation use is not permitted, but local roads used for other resource management activities may be present on a limited basis. Use of such roads is restricted to minimize impacts on recreational experience opportunities.
- ◆ **Semi-primitive Motorized:** Area is characterized by a predominantly natural or natural-appearing environment of moderate to large size. Concentration of users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but would be subtle. Motorized use of local primitive or collector roads with predominantly natural surfaces and trails suitable for motor bikes is permitted.
- ◆ **Roaded Natural:** Area is characterized by predominantly natural-appearing environments with moderate evidence of the sights and sounds of people. Such evidence usually harmonizes with the natural environment. Interaction between users may be moderate to high, with evidence of other users prevalent. Resource modification and utilization practices are evident, but harmonize with the natural environment. Conventional motorized use is allowed and incorporated into construction standards and design of facilities.
- ◆ **Roaded Natural Nonmotorized:** Areas closed to motorized use, yet have

been heavily modified or are not large enough to be set aside as semi-primitive non-motorized.

- ◆ **Rural:** Area is characterized by a natural environment that has been substantially modified by development of structures, vegetative manipulation or pastoral agricultural development. Resource modification and utilization practices may be used to enhance specific recreation activities and to maintain vegetative cover and soil. Sights and sounds of humans are readily evident, and the interaction between users is often moderate to high. A considerable number of facilities are designed for use by a large number of people. Facilities are often provided for special activities. Moderate user densities are present away from developed sites. Facilities for intensified motorized use and parking are available.
- ◆ **Urban:** Characterized by a substantially urbanized environment, although the background may have natural-appearing elements. Resource modification and utilization practices are often used to enhance specific recreational activities. Vegetative cover is often exotic and manicured. Sights and sounds of humans are predominant on the site. Large numbers of users can be expected both on the site and in nearby areas. Facilities for highly intensified motor use and parking are available with forms of mass transit often available to carry people throughout the site.

Recreation Residences

Houses or cabins on National Forest System land under permit that are not the primary residence of the owner.

Recreation Visitor Day (RVD)

A unit for measuring recreational activities, which aggregates 12 visitor hours. This may consist of one person for 12 hours, 12 persons for 1 hour or any equivalent combination of continuous or intermittent recreation use by individuals or groups. Recreation visitor days are used to measure recreational production or output capacity.

Red Squirrel Habitat (Lynx, Plan Ch1)

Coniferous forests of seed and cone-producing age that usually contain snags and downed woody debris, generally associated with mature or older forests.

Reforestation

Reestablishment of a tree crop on forested land.

Regeneration (Silviculture)

The renewal of vegetation whether by natural or artificial means. Also, the new growth itself.

Region

An administrative unit within the National Forest System. The United States is divided into nine geographic regions. Each region has a headquarter office and is supervised by a Regional Forester. Within each region are located National Forests and other lands of the Forest Service.

Regional Forester

The official responsible for administering a single region.

Rehabilitation

Actions taken to restore or reclaim site productivity, water quality or other values.

Release (Silviculture)

Freeing a tree or group of trees from more immediate competition by cutting.

Release and Weeding

All work done to free desirable trees, less desirable trees, or grasses and other forms of vegetative growth from competition with overstory trees. It includes incidental disease control work and release of natural and artificial regeneration.

Removal Cut (Final Cut)

A harvest method that removes the last seed-bearing trees after regeneration is considered to be established under a shelterwood method.

Research Natural Area (RNA)

A physical or biological unit in which current natural conditions are maintained insofar as possible. These conditions are ordinarily achieved by allowing natural physical and biological processes to prevail without human intervention. However, under unusual circumstances, deliberate manipulation may be utilized to maintain the unique feature that the Research Natural Area was established to protect.

Resource Value-at-risk (Fire Management)

Fire-suppression planning tool providing a relative expression, in five classes, of fire effects on all resources, but not the value of the resources themselves (compare values at risk).

Resource Values

The tangible and intangible worth of forest resources.

Responsible Official

The Forest Service employee who has the delegated authority to make a specific decision.

Restoration

Facilities

Work necessary to restore a facility to the original constructed condition or to an acceptable condition concerning any damage resulting from natural or human causes, which exceeds that which normally occurs during annual maintenance.

Lynx (Lynx, Plan Ch1)

To return or re-establish ecosystems or habitats to their original structure and species composition. (Dictionary of Forestry)

Rest Rotation (Grazing)

An intensive system of management whereby grazing is deferred on various parts of the range during succeeding years, which allows the deferred part complete rest for 1 year. Two, but usually three or more, separate grazing units are required.

Retention (Vegetation Management)

To keep the existing extent of a vegetative component. Usually refers to a species, such as aspen, birch or bur oak.

Revegetation

The reestablishment and development of a plant cover. This may take place naturally through the reproductive processes of the existing flora, or artificially through the direct action of reforestation or reseeding.

Rights-of-way

Land authorized to be used or occupied for the construction, operation, maintenance and termination of a project or facility passing over, upon, under or through such land (36 CFR 251.51). The privilege that one person or persons particularly described may have of passing over the land of another in some particular line (FSH 2709.12).

Rights-of-way Corridors

A linear strip of land identified for the present or future location of transportation or utility rights-of-way within its boundaries.

Rill Erosion

An erosion process during which numerous small channels several inches deep are formed; occurs mainly on bare soil.

Riparian Area

(See "Riparian Ecosystem".)

Riparian Communities

Repeating, classified, defined and recognizable assemblages of plant or animal communities associated with riparian areas.

Riparian Communities' Seral Stage

Any of the transitory stages in plant community development leading up to the potential natural community defined by species composition, structure and processes.

Riparian Communities' Trend

The direction of community development in relation to the potential natural community. The trend indicates development toward the potential natural community or away from the potential natural community.

Riparian Ecosystem

The moist transition zone between the aquatic ecosystem and the relatively drier, more upland, terrestrial ecosystem(s). This transition zone can extend both laterally and longitudinally away from aquatic ecosystems, sometimes into headwater swales that have no defined stream channel. The riparian ecosystem is the area whose soil is relatively more moist than the adjacent upland and whose vegetation growth reflects the greater accumulation of available water.

Risk (Fire Management)

(See "Fire Protection Assessment".)

Risk Index (Fire Management)

A number related to the probability of an ignition of a fire (compare "Human-caused Risk").

RNA

(See "Research Natural Area".)

Roads

A general term denoting a way with at least two wheel tracks for purposes of travel by vehicles greater than 50 inches in width.

Road Density

Road density refers to the miles of road per square mile. There are different road densities depending on what road types are being considered. These densities include:

- ◆ **Forest Development Road Density:** The miles of Forest Development Roads per square mile. This is the road density of the road system managed by the Forest for resource management.
- ◆ **Open Road Density:** The miles of Forest Development Road and other private and public roads and highways open for public travel.
- ◆ **Wheel-track Density:** The miles of established wheel tracks per square mile. Wheel tracks are not managed as part of the Forest Development Road System and are formed by repeated travel off system roads by Forest users.

Road Functional Classification

The way in which a road services land and resource management needs and the character of service it provides. Functional classifications for roads are forest arterial, forest collector, and forest local.

- ◆ **Forest Arterial Road:** Provides service to large land areas and usually connects with public highways or other Forest arterial roads to form an integrated network of primary travel routes. The location and standard are often determined by a demand for maximum

mobility and travel efficiency rather than specific resource management service. It is usually developed and operated for long-term land and resource management purposes and constant service (FSM 7710.51).

- ◆ **Forest Collector Road:** Serves smaller land areas than a Forest arterial road and is usually connected to a Forest arterial or public highway. Collects traffic from Forest local roads and/or terminal facilities. The location and standard are influenced by both long-term multi-resource service needs, as well as travel efficiency. May be operated for either constant or intermittent service, depending on land use and resource management objectives for the area served by the facility (FSM 7710.51).
- ◆ **Forest Local Road:** Connects terminal facilities with Forest collector or Forest arterial roads or public highways. The location and standard are usually controlled by a specific resource activity rather than travel efficiency. Forest local roads may be developed and operated for either long- or short-term service (FSM 7710.51).

Road Maintenance Level

Defines the level of service provided by, and maintenance required for, a specific road, consistent with road management objectives and maintenance criteria (FSH 7709.58, Section 12.3). The maintenance levels are:

- ◆ **Maintenance Level 1:** Assigned to intermittent service roads during the time they are closed to vehicular traffic. The closure period is 1 year or longer. Basic custodial maintenance is performed.
- ◆ **Maintenance Level 2:** Assigned to roads open for use by high-clearance vehicles. Passenger car traffic is not a consideration.

- ◆ **Maintenance Level 3:** Assigned to roads open and maintained for travel by a prudent driver in a standard passenger car. User comfort and convenience are not considered priorities.
- ◆ **Maintenance Level 4:** Assigned to roads that provide a moderate degree of user comfort and convenience at moderate travel speeds.
- ◆ **Maintenance Level 5:** Assigned to roads that provide a high degree of user comfort and convenience. Normally, roads are double-laned and paved, or aggregate-surfaced with dust abatement.

Road Prism

Equivalent to the term "roadway." The portion of the road within the limits of excavation and embankment, including slope rounding. A similar term is "road template," the shape and cross-sectional dimensions of the roadway to be constructed as defined by the construction staking notes and the characteristics of the typical sections.

Roadside Corridors

A passageway that frames a road or travelway. The corridor includes the viewing area and facilities, which may be within the immediate roadside area or part of a sweeping distance panorama..

Roadway

(See "Road Prism".)

Rocky Mountain Region

The Forest Service organizational unit consisting of Colorado, Wyoming, part of South Dakota, Nebraska and Kansas. Also called Region 2.

Rodenticide

A chemical agent formulated to kill rodents.

Root Reserves

Carbohydrates stored by perennial plants, like mountain mahogany, which are used in growth until photosynthesis begins.

ROS

(See "Recreation Opportunity Spectrum".)

Rotation, Rotation Age (Silviculture)

The planned number of years between the formation or regeneration of a stand of trees and its final cutting at a specified age..

Roundwood, Roundwood Products

Logs, bolts or other round sections cut from trees for industrial or consumer uses. (Pulpwood, fuelwood, poles, posts, etc.)

RPA Assessment and Program

The RPA Assessment is prepared every 10 years and describes the potential of the nation's forests and rangelands to provide a sustained flow of goods and services. The RPA Program is prepared every 5 years to chart the long-term course of Forest Service management of the National Forests, assistance to state and private landowners, and research. An RPA Assessment is prepared in response to Sections 3 and 4 of the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA)(16 U.S.C. 1601).

Rural Development

A partnership or program designed to enrich the cultural life, to enhance the environment, to provide employment and to improve living conditions of rural America.

S**Salable Minerals**

Salable minerals include common varieties of sand, stone, gravel, pumice, pumicite, cinders and clay. In general, these minerals are of widespread occurrence and are of relatively low unit value. They are generally used for

construction materials and for road building purposes.

Salvage Harvest

Removal of damaged, dead or dying trees resulting from insect and disease epidemics, wildfire or storms to recover logs before they have no commercial value for production.

Salvage of Dead Material

(See "Salvage Harvest".)

Sanitation Cutting, Sanitation Harvest (Silviculture)

The removal of trees occupied by insect or disease pests to reduce pest populations and limit their spread.

Saturated Soils

Soil condition during which all the spaces between soil particles are filled with water.

Sawtimber

Trees suitable in size and quality for producing logs that can be processed into lumber. For planning purposes, trees with an 8-inch diameter or more are classified as sawtimber.

Scarify

To abrade, scratch or modify the surface of the ground to expose mineral soil.

Scenery

The composition of basic terrain, geologic features, water features, vegetative patterns, and landrise effects that typify a land unit and influence the visual appeal the unit may have for visitors.

Scenery Management

The art and science of arranging, planning, and designing landscape attributes relative to the appearance of places and expanses in outdoor settings.

Scenic Class

Scenic classes measure the relative importance, or value, of discrete landscape areas having similar characteristics of scenic

attractiveness and landscape visibility. Scenic classes are used during forest planning to compare the value of scenery with the value of other resources, such as timber, wildlife, late succession, or minerals. The higher the scenic class, the more important it is to maintain the highest scenic value. Scenic classes are determined and mapped by combining the three classes of scenic attractiveness with the distance zones and concern levels of landscape visibility. A numerical value of 1 to 7 is assigned to Forest lands. Generally, scenic classes 1-2 have high public value, classes 3-5 have moderate value, and classes 6 and 7 have low value.

Scenic Easement

An interest in the land that allows the easement holder specified uses or rights without actual ownership of the land; in this case, control of the use of land adjacent to public highways, parks and rivers. It may provide something attractive to look at within the easement area, an open area to look through to see something attractive beyond the easement itself, or a screen to block out an unsightly view beyond the easement area.

Scenic Integrity Objective (SIO)

State of naturalness or, conversely, the state of disturbance created by human activities or alteration. Integrity is stated in degrees of deviation from the existing landscape character in a national forest. It is the measure of the degree to which a landscape is visually perceived to be complete. The highest scenic integrity ratings are given to those landscapes which have little or no deviation from the character valued by constituents for its aesthetic appeal. Scenic integrity is used to describe an existing situation, standard for management, or desired future conditions.

- ◆ **Very High:** A scenic integrity level that generally provides for ecological change only.
- ◆ **High:** A scenic integrity level meaning human activities are not visually evident. In high scenic integrity areas, activities may only repeat attributes of form, line, color and texture found in the existing landscape character.
- ◆ **Moderate:** A scenic integrity level that refers to landscapes where the valued landscape character "appears slightly altered." Noticeable deviations must remain visually subordinate to the landscape character being viewed.
- ◆ **Low:** A scenic integrity referring to the landscapes where the valued landscape character "appears moderately altered." Deviations begin to dominate the valued landscape character being viewed but they borrow valued attributes such as size, shape, effect and pattern of natural opening, vegetative type changes or architectural styles within or outside the landscape being viewed. They should not only appear as valued character outside the landscape being viewed but compatible or complimentary to the character within.
- ◆ **Very Low:** A scenic integrity level that refers to landscapes where the valued landscape character "appears heavily altered." Deviations may strongly dominate the valued landscape character. They may not borrow from valued attributes such as size, shape, edge effect and pattern of natural openings, vegetative type changes or architectural styles within or outside the landscape being viewed. However, deviations must be shaped and blended with the natural terrain so that elements such as unnatural edges, roads, landings, and structures do not dominate the composition.
- ◆ **Unacceptable Low:** A scenic integrity level that refers to landscapes where the valued landscape character being viewed appears extremely altered. Deviations are extremely dominant and

borrow little if any line, form, color, texture, pattern or scale from the landscape character. Landscapes at this level of integrity need rehabilitation. This level should only be used to inventory existing integrity. It must not be used as a management objective.

Season-long Grazing

Allowing livestock to graze a single pasture throughout one grazing season.

Second Growth (Silviculture)

Forest growth that has become established after some disturbance with the previous forest stand; for example, cutting, serious fire or insect attack.

Sediment

Material suspended in water or that has been deposited in streams and lakes.

Sediment Load

The solid material transported by a stream and expressed as the dry weight of all sediment that passes a given point in a given period of time.

Sediment Yield

Amount of sediment leaving an analysis area and entering a channel.

Seed Cutting (Silviculture)

A harvest method that removes all mature trees from a stand except for selected seed-bearing trees retained on the site to provide a seed source for stand regeneration. In a two-step shelterwood cutting method, the first of the shelterwood cuttings.

Seed Tree, Seed-tree Cutting

Small number of seed-bearing trees left singly or in small groups after timber harvest to provide seed for regeneration of the site.

Seeps

A spot where water or petroleum flows from the earth, often forming the source of a small stream.

Selection Cut (Silviculture)

A harvest method that periodically removes mature trees individually or in small groups from an uneven-aged forest. By this method, both regeneration cutting and tending of immature stand components are accomplished at each entry.

Self-sustaining Fish Population

A reproducing fish population that does not require supplemental hatchery stocking.

Sensitive Species

Those plant and animal species identified by the Regional Forester for which population viability is a concern, as evidenced by: (a) significant current or predicted downward trends in population numbers or density; (b) significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution (FSM 2670.5.19).

Seral (Ecology)

A biotic community that is in a developmental, transitory stage in an ecological succession.

Seral Stages (Ecology)

The sequence of a plant community's successional stages to potential natural vegetation.

Severely Burned Soil

A condition in which most woody debris and the entire forest floor is consumed down to bare mineral soil. Soil may have turned red due to extreme heat. Also, fine roots and organic matter are charred in the upper one-half inch of mineral soil.

Shelterwood, Shelterwood Method (Silviculture)

A harvest method in which a portion of the mature stand is retained as a source of seed and/or protection during the period of regeneration. The mature stand is removed in two or more cuttings commonly termed seed cutting and removal cutting. The seed cutting

may or may not be preceded by a preparatory cutting.

Short-term Transportation Facility

A facility developed and operated for a limited period of time that will cease to exist as a transportation facility after the purpose for which it was constructed is completed and the occupied land is reclaimed and managed for natural resource purposes.

SHPO

(See "State Historic Preservation Officer".)

Shrub-steppe Habitat (Lynx, Plan Ch1)

Dry sites with shrubs and grasslands intermingled.

Significant Cave

A cave located on National Forest System lands that has been determined to meet the criteria in §290.3(c) or (d) and has been designated in accordance with §290.3(e).

Significant Change (Soils)

Change in productivity of the land as indicated by changes in soil properties that are expected to result in a reduced productive capacity over the planning horizon. Based on available research and current technology, a guideline of 15 percent reduction in inherent soil productivity potential is used as a basis for setting threshold values for measurable or observable soil properties or conditions. The threshold values, along with area extent limits, will serve as an early warning signal of reduced productive capacity. A more stringent basis than 15 percent can be used where appropriate and documented.

Silvicultural System

A management process that tends, harvests and replaces forests, resulting in a forest of distinctive form with a desired condition.

Silvicultural Treatment

A management practice that utilizes a method of tree culture, harvest or replacement (see "Single-tree Selection", "Shelterwood

Method", "Group Selection", "Even-aged Management", "Uneven-aged Management", and "Clearcutting").

Silviculture

Generally, the science and art of tree management, based on the study of the life history and general characteristics of forest trees and stands, with particular reference to local factors; more particularly, the theory and practice of controlling the establishment, composition, constitution and growth of forests for desired conditions.

Single-tree Selection (Silviculture)

A harvest method that develops and maintains uneven-aged stands by removal of selected trees from specified age classes over the entire stand area in order to meet a predetermined goal of age distribution and species in the remaining stand.

Site

An area considered in terms of its physical and/or biological environment; for example, a riparian zone, a homogenous stand of vegetation, or a campground.

Site Index

A measure of the relative productive capacity of an area for growing trees. Measurement is based on height of the dominant trees in a stand at a given age.

Site Preparation (Silviculture)

The activity that prepares a site for natural regeneration or the planting of seedlings. The objective is to create a favorable environment for establishing and growing the desired vegetation classes. Treatments could include chemical, mechanical or fire.

Site Productivity

Production capability of specific areas of land.

Skid Trails (Timber Management)

Any way, more or less prepared, over which logs are dragged. Any road or trail leading from stump to landing.

Skidding (Timber Management)

Moving logs from the stump to a collecting point.

Slash (Timber Management)

The residue left on the ground after harvesting, sanitation operations, windstorm or fire. It includes such material as unutilized logs, uprooted stumps, broken or uprooted stems, tops, branches and leaves.

Slope-stability Examinations

Used to look at the resistance of an inclined surface, or areas of suspected mass-wasting potential.

Smoke sensitive areas

These areas are defined by each National Forest; for Bighorn NF this will be done at time of Fire Management Plan. They are areas where smoke may be dangerous or offensive. Examples include roads, communities, hospitals, and subdivisions.

Snag (Vegetation)

Standing dead tree or standing portion from which at least the leaves and smaller branches have fallen; often called a stub if it is less than 20 feet tall (Thomas et al. 1979).

Snag-dependent Species

(See "Cavity Nesting Species".)

Soft Snags (Vegetation)

A snag composed primarily of wood in advanced stages of decay and deterioration, particularly in the sapwood (outer) portions; generally, there are no live branches on the snag (Thomas et al. 1979).

Softwood

A conventional term for both the timber and the trees belonging to the evergreen group, as the pine, spruce, fir, etc.

Soil Compaction

A physical change in soil properties that results in a decrease in porosity and an increase in soil bulk-density and strength.

Soil Erosion

The detachment and movement of soil from the land surface by water or wind. Soil erosion and sediment are not the same (See "Sediment").

Soil Productivity

The inherent capacity of a soil to support the growth of specified plants, plant communities or a sequence of plant communities. Soil productivity may be expressed in terms of volume or weight/unit area/year, percent plant cover or other measures of biomass accumulation.

Soil Surveys

The systematic examination, description, classification and mapping of soils in an area.

Special Places

Those specific locations and expanses in outdoor settings that have attractions and features that are identified as unique, different, distinctive and extraordinary to people. Special places may range from small areas, such as a particular fallen log to large areas, such as a landscape unit.

Special-use Application

A written request for use of National Forest System lands.

Special-use Authorization, Special-use Permits

A permit, term permit, lease or easement that allows occupancy or use rights or privileges on National Forest System lands (36 CFR 261.2).

Special Uses

Improvements or activities owned or carried out by private individuals, corporations or other business entities on National Forest

System lands under the authorization of a permit.

Species at Risk

Species for which there is a concern for population viability, usually a result of either habitat loss or mortality factors. Species at Risk include threatened, endangered, sensitive, and species of local concern. They are a subset of emphasis species.

Species of Local Concern

Species that are rare, endemic, disjunct, threatened or endangered, either throughout their range or just in the Big Horns.

Species Viability

Refer to viable populations.

Split-estate Lands (Minerals)

Lands that do not have both the mineral rights and the surface owned by one party. The most common split estate is federal ownership of mineral rights on lands to which someone else holds ownership. In such instances, the federal government can lease the oil and gas rights without the surface owner's consent. Other split-estate lands may be federal ownership, but with the mineral rights owned by a private party or federal ownership, but with some percentage of the mineral rights owned by a private party.

Spot Road Improvement

Repair to a relatively short section of road or spot to rectify an unsafe condition or to improve a poorly constructed, high-maintenance situation.

Stabilization (Heritage Resources)

The process of arresting the deterioration of a damaged heritage resource in order to prevent further damage from occurring. Stabilization may include reconstructing portions of the heritage resource.

Stand (Vegetation)

A community, particularly of trees, possessing sufficient uniformity as regards to vegetation type, age class, risk class, vigor, size class and stocking class, which distinguishes it from adjacent communities and thus forms a management or silvicultural unity. Within a stand, a dominant or primary species and age class is identifiable, but there may be inclusions or clusters of different species or ages. R2RIS stands are typically greater than 10 acres. IRI stands are typically greater than 5 acres.

Stand-initiation Structural Stage (Lynx, Plan Ch1)

Generally develops after a stand-replacing disturbance by fire or regeneration timber harvest. A new single-story layer of shrubs, tree seedlings and saplings establish and develop, reoccupying the site. Trees that need full sun are likely to dominate these even-aged stands. (Oliver and Larson, 1996)

Stand-replacing Fire

A fire that kills all or most living overstory trees in a forest and initiates secondary succession or regrowth.

Stand Risk Rating (Insects)

A ranking of relative forest stand conditions that reflects the degree of susceptibility to attack by a particular insect species and the potential level of damage if an outbreak occurs. It does not indicate where or when an infestation will actually occur. For mountain pine beetles in ponderosa pine, a computer model exists to determine low-, medium- and high-risk stands based on measures of stand structure, average basal area and average tree diameter..

State Historic Preservation Officer (SHPO)

A person appointed by a state's governor to administer the State Historic Preservation Program.

Stem exclusion Structural Stage (Lynx, Plan Ch1)

Trees initially grow fast and quickly occupy all of the growing space, creating a closed canopy. Because the trees are tall, little light reaches the forest floor so understory plants (including smaller trees) are shaded and grow more slowly. Species that need full sunlight usually die; shrubs and herbs may become dormant. New trees are precluded by a lack of sunlight or moisture. (Oliver and Larson, 1996)

Stipulation (Oil and Gas)

A provision that modifies standard lease rights attached to and made a part of the lease.

Stocked

Populations that have been introduced by human intervention but may not naturally reproduce.

Stream Health

The condition of a stream relative to robust health for that stream type and landscape, considering indicators such as channel pattern, slope, particle size, pool frequency and depth, bank vegetation, and woody debris, which reflect the stability and habitat quality of the stream.

Stream Level

A classification of the relative position of streams in a channel network. First-level streams drain into the ocean. Second-level streams are tributaries to the first-level streams. For example, the Mississippi is a first-level stream; the Missouri is a second level stream.

Stream Order

A classification of the relative position of streams in a channel network. (On the Bighorn National Forest, the classification includes ephemeral, intermittent and perennial streams.) Each non-branching channel segment is designated as a first-order stream. The channel segment below the

confluence of two first-order streams is designated a second-order stream. A second-order stream has only first-order tributaries. The channel segment below the confluence of two second-order streams is designated a third-order stream.

Stream Type

A class of stream reach having a discrete combination of valley geomorphology and climate, flow regime, stream size, and channel morphology; and differing from other stream types in its ability to support aquatic biota and respond to management.

Structural Stages (Vegetation)

Any of several developmental stages of tree stands described in terms of tree size and the extent of canopy closure they create (Hoover and Wills 1987). They include:

- ◆ **Structural Stage 1 (Grass/Forb):** An early forest successional stage during which grasses and forbs are the dominant vegetation. At the RIS site level, Structural Stage I is defined as nonstocked, with an AMD less than 10 percent. Small-scale Structural Stage 1 within RIS sites are at least one acre in size, do not meet the seedling stocking criteria (SG2416) and contain no saplings, poles or mature trees.
- ◆ **Structural Stage 2 (Shrubs/Seedlings):** Developmental stage dominated by tree seedlings (less than one inch DBH) and shrub species.
- ◆ **Structural Stage 3 (Sapling/Pole):** Developmental stage dominated by young trees 1 to 7 inches DBH, 10 to 50 feet tall and usually less than 50 years old. This stage is subdivided into three canopy closure classes: A (less than 40 percent), B (40 to 70 percent) and C (greater than 70 percent).
- ◆ **Structural Stage 4 (Mature):** Consists of trees larger and older than Structural Stage 3. Also classified by the same

canopy closure categories as Structural Stage 3.

- ◆ **Structural Stage 5 (Old Growth):**
This structural stage is characterized by trees 160 years of age and older.

Subdivisions

Areas of previously undeveloped land divided into individual home sites and/or blocks of lots.

Successional Stages (Seral Stages)

The relatively transitory communities that replace one another during development toward a potential natural community (Odum 1971).

Suitable Forest Land

Land to be managed for timber production on a regulated basis.

Suitability

The appropriateness of applying certain resource management practices to a particular area of land, as determined by an analysis of the economic and environmental consequences and the alternative uses foregone. A unit of land may be suitable for a variety of individual or combined management practices.

Sundry Notice (Oil and Gas)

Standard form to notify and/or approve well operations subsequent to Application to Permit to Drill in accordance with Forest Service regulations.

Superior Trees

Trees selected for their desirable traits, such as height, growth and form.

Suppress a Fire

To extinguish a fire or contain it within specified boundaries.

Suppression

(See "Fire Suppression" and "Insect and Disease Suppression".)

Suspended Sediment

The very fine soil particles that remain in suspension in water for a considerable period of time without contact with the stream's or river's channel bottom.

Sustainability

The capacity of forests, ranging from stands to ecoregions, to maintain their health, productivity, diversity, and overall integrity, in the long run, in the context of human activity use.

Sustained Yield

The amount of renewable resources that can be produced continuously at a given intensity of management.

T

Tailings (Minerals)

The parts or a part of any incoherent or fluid material separated as refuse or separately treated as inferior in quality or value; leaving; remainders; dregs. The sand, gravel and cobbles that pass through the sluices in hydraulic mining were formerly generally designated as tailings, but of late years in states and U.S. legislative documents they have been called mining debris or simply debris.

Talus Slopes

The accumulation of broken rocks that occurs at the base of cliffs or other steep slopes.

TES (Threatened, Endangered or Sensitive Species)

- ◆ **Threatened Species:** Any species likely to become endangered within the foreseeable future throughout all or a significant portion of its range and that has been designated in the Federal Register by the Secretary of Interior as such (FSM 2670.5).

- ◆ **Endangered Species:** Any species of animal or plant in danger of extinction throughout all or a significant portion of its range and so designated by the Secretary of Interior in accordance with the 1973 Endangered Species Act.
- ◆ **Sensitive Species:** Those plant and animal species identified by the Regional Forester for which population viability is a concern, as evidenced by: (a) significant current or predicted downward trends in population numbers or density; (b) significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution (FSM 2670.5.19).

Temporary Facility

Any structure or other human-made improvement that can be readily and completely dismantled and removed from the site when the authorized use terminates.

Temporary Roads

(See "Short-term Transportation Facility".).

Tentatively Suitable (Timber)

Lands which do not fall within categories 36 CFR 219.14(a)(1)-(4), but which for allocation reasons are not, for the planning period, part of the suitable base or ASQ.

Thermal Cover (Wildlife)

Cover used by animals to ameliorate the effects of weather.

Thinning (Silviculture)

The practice of removing some of the trees in a stand to meet desired conditions. Two types of thinning may be done:

- ◆ **Pre-commercial, Non-commercial:** Removing trees that are too small to make a merchantable product.

- ◆ **Commercial:** Removing trees that have reached sufficient size to be manufactured into a product and to improve tree spacing and promote more rapid growth.

Threatened Species

Any species likely to become endangered within the foreseeable future throughout all or a significant portion of its range and that has been designated in the Federal Register by the Secretary of Interior as such (FSM 2670.5).

Three-step Shelterwood (Silviculture)

A harvest method that provides a source of seed and/or protection for regeneration; the old crop (shelterwood) is removed in three successive shelterwood cuttings usually termed preparation, seed and overstory removal cuts.

Timber

A general term applied to tree stands that provide a wood-fiber product.

Timber Management (Lynx, Plan Ch1)

Growing, tending, commercially harvesting and regenerating crops of trees.

Timber Production

The purposeful growing, tending, harvesting and regeneration of regulated crops of trees to be cut into logs, bolts or other round sections for industrial or consumer use, except fuelwood.

Timber Stand Improvement (TSI)

The elimination or suppression of the less desirable vegetation in favor of the more desirable tree growth, such as thinning, cleaning, weeding and release cuttings.

Timing Limitation (Seasonal Restriction)

Prohibits surface use during specified time periods to protect identified resource values. The stipulation does not apply to the operation and maintenance of production facilities unless the findings analysis

GLOSSARY

demonstrates the continued need for such mitigation and that less stringent, project-specific mitigation measures would be insufficient.

Title Claim

A claim of land as a person's own, based on any reasonable evidence that establishes the person's actual use of the land as though the person had obtained ownership in fee (FSH 5509.1105). A claim of land as a person's own, based on any reasonable evidence that establishes the person's actual use of the land as though the person had full title thereto from the time the person obtained ownership of the abutting land (36 CFR 254.31).

Traditional Practitioners

Native Americans who practice a religion whose original and interpretation is from within traditional American Indian culture and community.

Traffic Service Level (TSL)

A road's significant traffic characteristics and operating conditions. The levels reflect a number of factors, such as speed, travel time, traffic interruptions, freedom to maneuver, safe driving and comfort, convenience and operating costs. These factors, in turn, affect design elements, such as number of lanes, turnouts, pacing, lane widths, type of driving surface, sight distances, design speed, clearance, horizontal and vertical alignment, curve widening and turnarounds.

Trail

A general term denoting a way usually less than 50 inches wide for purposes of travel by foot, stock or trail vehicle.

Trailheads

The parking, signing and other facilities available at the beginning of a trail.

Transitory Forage

Areas of forested vegetation that have been recently disturbed and provide forage (grass

and forbs) for livestock and wildlife prior to becoming forested

Transportation Facility

Any developed facility to enhance or allow travel between two points. Transportation facilities include airports, highways, trails, railroads and other facilities.

Transportation System

All roads needed to manage and administer Forest resources. A road network.

Transportation/Utility Corridor

A linear strip of land identified for the present location of transportation or utility rights-of-way within its boundaries.

Travel Corridor

A strip of land that includes up to a maximum of 1,000 feet for major roads (500 feet either side of the road's centerline) or 500 feet for major trails (250 feet either side of the trail's centerline); travel corridors form a passageway that allows travelers to experience and interact with the quality and character of the landscape.

Travel Management

Travel management is the movement of people and products to and through national forests and grasslands. It connects many different varieties of users and multiple uses on National Forest system lands (Report of the National Access and Travel Management Team 1992).

Travel Order

A travel management decision issued by the responsible official to restrict, prohibit or allow the use of a described area or facility to entry or mode of travel.

Treated Area

Area on which management, like timber harvesting or prescribed burning, occurs.

Tree Improvement

(See "Timber Stand Improvement".)

Two-step Shelterwood (Silviculture)

A harvest method that provides a source of seed and/or protection for regeneration; the old crop (shelterwood) is removed in two successive shelterwood cuttings, usually termed seed and overstory removal cuts.

U

Unclassified Roads

Roads on the National Forest System lands that are not managed as part of the forest transportation system, such as unplanned roads, abandoned travelways, and off-road vehicle tracks that have not been designated and managed as a trail; and those roads that were once under permit or other authorization and were not decommissioned upon the termination of the authorization.

Understory (Vegetation)

The lowest layer of vegetation in a forest or shrub community composed of grass, forbs, shrubs and trees less than 10 feet tall. Vegetation growing under the tree canopy.

Understory Re-initiation Structural Stage (Lynx, Plan Ch1)

A new age class of trees gets established after overstory trees begin to die, are removed or no longer fully occupy their growing space after tall trees abrade each other in the wind. Understory seedlings then re-grow and the trees begin to stratify into vertical layers. A low to moderately dense uneven-aged overstory develops, with some small shade-tolerant trees in the understory. (Oliver and Larson, 1996)

Undisturbed

Traditional religious practitioners, to the extent it is within the lawful ability of the USFS, will be provided with privacy. Compliance will be achieved by requesting other visitors to avoid ceremonies and if necessary and as lawfully permitted, per 36CFR261.50 and AIRFA, close designated areas to other visitors for the duration of the ceremony.

Uneven-aged (Silviculture)

A forested area composed of intermingled trees that differ markedly in age. Normally three or more age classes are represented.

Uneven-aged Management (Silviculture)

The application of a combination of actions needed to simultaneously maintain tall, continuous cover, recurring regeneration of desirable species, and the orderly growth and development of trees through a range of diameter or age classes to provide a sustained yield of forest products. Cutting is usually regulated by specifying the number or proportion of trees of particular sizes to be retained within each area, thereby maintaining a planned distribution of size classes. Cutting methods that develop and maintain uneven-aged stands are single-tree selection and group selection.

Utilization Levels (Range)

The portion of the current year's forage production by weight consumed or trampled by livestock. Utilization levels are usually expressed as a percentage.

Utilization Standards (Timber)

Standards guiding the removal of timber. They are measured in terms of diameter at breast height (DBH) and top of the tree inside the bark (the top diameter inside the bark or DIB) and the percentages of "soundness" of the wood.

V

Valid Existing Rights (Minerals)

Legal interest that attaches to a land or mineral estate and that cannot be divested from the estate until that interest expires or is relinquished.

Value (Fire Management)

(See "Fire Protection Assessment".)

Values at Risk (Fire Management)

Any or all natural resources, improvements or other values that may be jeopardized if a fire occurs (compare "Resource Values-at-risk").

Vegetation Management Projects (Lynx, Plan Ch1)

Activities which change the composition and structure of vegetation to meet specific objectives, using such means as prescribed fire and timber harvest. For the purposes of this amendment, the term does not include removing vegetation for permanent developments like mineral operations, ski runs, roads and the like, and does not apply to fire suppression or to wildland fire use.

Vegetative Buffer Strips

Strips of grass or other erosion-resisting vegetation between areas of ground disturbance and areas needing protection from sedimentation.

Vegetative Management, Vegetative Manipulation, Vegetative Treatment

Any activities undertaken to modify the existing condition of the vegetation.

Vertical Diversity

The diversity in an area that results from the complexity of the above-ground structure of the vegetation; has two or more layers; the more tiers of vegetation or the more diverse the species makeup, or both, the higher the degree of vertical diversity (Thomas et al. 1979).

Viable Population

Group of individuals of a particular species that produces enough offspring for long-term persistence and adaptation of the species or population in a given place (Soule 1987). 36 CFR 219.19 defines a viable population for planning purposes as one that has the estimated numbers and distribution of reproductive individuals to insure that a continued viable population is well distributed in the planning area. Planning area is further defined by 36 CFR 219.3 as the "area of the National Forest System covered by a regional guide or forest plan." Direction from the Forest Service Manual (FSM 2670.5) defines a viable population as one which has the estimated numbers and distribution of reproductive individuals to ensure the continued existence of the species throughout its existing range (or range required to meet recovery for listed species) within the planning area.

Viewshed

Total visible area from a single observer position or the total visible area from multiple observer positions. Viewsheds are accumulated seen areas from highways, trails, campgrounds, towns, cities, or other view locations. Examples are corridors, feature or basin viewsheds.

Visual Absorption Capability

Refers to a relative measure of the ability of a tract of land to withstand management manipulations without affecting its visual character. Assessment of visual absorptive capability provides an objective basis for predicting whether management manipulations of the landscape will meet predetermined scenic integrity objectives or how difficult it will be to meet such objectives. It can be used to predict achievable scenic condition levels resulting from known management activities in a landscape. Visual Absorption Capability is rated as high, moderate, or low.

W

Waiver (Oil and Gas)

Permanent exemption from a lease stipulation. The stipulation no longer applies anywhere within the leasehold.

Walk-in Fishery

Areas managed for semi-primitive, non-motorized access to fishing in order to protect riparian ecosystems. Areas managed in such a manner will be designated on the recreation map and at the specific sites.

Waste Dumps (Minerals)

The area where the overburden or non-ore material is placed. This material is derived from materials removed in gaining access to the targeted ore. Any dirt or rock that has been removed from its original location by mining operations.

Water Influence Zone

The land next to streams and lakes where vegetation plays a major role in sustaining the long-term integrity of aquatic ecosystems (Hynes 1970, Odum 1971). Includes the geomorphic floodplain, riparian ecosystem, and inner gorge, and has a minimum horizontal width (from top of each bank) of 100 feet or the mean height of mature dominant late-seral vegetation, whichever is greater (36 CFR 219.27e).

Water Rights

Rights given by state and federal governments for the diversion and use of water.

Watershed

The area of land, bounded by a divide, that drains water, sediment and dissolved materials to a common outlet at some point along a stream channel (Dunne and Leopold 1978), or to a lake, reservoir or other body of water. Also called drainage basin or catchment.

Watershed Level

The number assigned to an entire drainage basin contributing to the stream segment of a given level and bearing an identical designation; for example, a first-level watershed contains all the drainage area of a first-level stream. (See also: Stream Level)

- ◆ **6th Level Watersheds:** A watershed coded with a 12-digit code, typically 10,000-30,000 acres in size.

Waters of the United States

Waters used for navigation and all other waters such as lakes, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes or natural ponds, and their tributaries (33 CFR 328.3(a) and 40 CFR 230.3(s)).

Water Table

The upper surface of the groundwater or that level below which the soil is saturated with water.

Water-use Facilities

Facilities located in or near the stream channel. Water-use facilities include: stockponds; dams; pipes; water diversion ditches.

Water Yield

(1) The runoff from a watershed, including groundwater outflow. (2) The measured output of water, usually measured in acre-feet. This water does not necessarily leave the watershed.

Water Yield Treatments

Land management methods that affect the amount and/or timing of water yield. For example, certain harvest methods increase the likelihood that there will be increased water yield. This water may percolate into the groundwater system, find its way to stream channels, or be consumed by vegetation. Other management approaches, such as protecting and enhancing riparian

areas, increase the likelihood that water flow will be sustained for a longer period of time.

Weeding (Silviculture)

A silvicultural operation eliminating or suppressing undesirable vegetation, mainly herbaceous, during the seedling stage of a forest crop so as to reduce competition with the seedling stand.

Wetlands

Those areas that are inundated by surface water or groundwater with a frequency sufficient to support, and under normal circumstances do or would support, a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds (FSM 2527.05).

Wild and Scenic Rivers

Rivers or sections of rivers designated by Congressional actions under the 1968 Wild and Scenic Rivers Act, as wild, scenic or recreational by an act of the legislature of the state or states through which they flow. Wild and Scenic Rivers may be classified and administered under one or more of the following categories:

- ◆ **Wild River Areas:** Rivers or sections of rivers that are free of impoundments with watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.
- ◆ **Scenic River Areas:** Rivers or sections of rivers that are free of impoundments, with watersheds still largely undeveloped, but accessible in places by roads.
- ◆ **Recreational River Areas:** Rivers or sections of rivers that are readily accessible by road or railroad that may have some development along their

shorelines and that may have undergone some impoundment or diversion in the past.

Wilderness

Areas designated by Congressional action under the 1964 Wilderness Act or subsequent Acts. Wilderness is defined as undeveloped federal land retaining its primeval character and influence without permanent improvements or human habitation. Wilderness areas are protected and managed to preserve their natural conditions, which generally appear to be affected primarily by the forces of nature, with the imprint of human activity substantially unnoticeable. Wilderness areas have outstanding opportunities for solitude or for a primitive and confined type of recreation. They include at least 5,000 acres or are of sufficient size to make practical their preservation, enjoyment and use in an unimpaired condition; they may contain features of scientific, educational, scenic or historic value as well as ecologic and geologic interest.

Wildfire

See Wildland Fire.

Wildland Fire

Any non-structure fire that occurs in the wildland. Three distinct types of wildland fire have been defined and include wildfire, wildland fire use, and prescribed fire.

- **Wildfire:** An unplanned and unwanted wildland fire including unauthorized human-caused fires, escaped wildland fire use events, escaped prescribed fire projects, and all other wildland fires where the objective is to put the fire out.
- **Wildland Fire Use:** The application of the Appropriate Management Response to naturally-ignited wildland fires to accomplish specific resource management objectives in predefined designated areas outlined

in Fire Management Plans. Operational management is described in the Implementation Plan (Wildland Fire Implementation Plan, WFIP).

- **Prescribed Fire:** Any fire ignited by management actions to meet specific objectives.

Wildand Fire Implementation Plan (WFIP)

A progressively developed assessment and operational management plan that documents the analysis and describes the appropriate management response for a wildland fire.

Windows on the Past

A nationwide Forest Service program designed to highlight heritage resources and to provide for public education and interpretation of the nation's heritage resources.

Winter Range

The area, usually at lower elevations, used by deer and elk during the winter months.

Winter Snowshoe Hare Habitat (Lynx, Plan Ch1)

Places where young trees or shrubs grow dense – thousands of woody stems per acre – and tall enough to protrude above the snow during winter, so hares can browse on the bark and small twigs (Ruediger et al. 2000). Winter snowshoe hare habitat develops primarily in the stand initiation, understory reinitiation and old forest multistoried structural stages.

Windthrow

The act of trees being uprooted by the wind.

Withdrawal (Minerals)

An action that restricts the use of public land and segregates the land from the operation of some or all of the public land and mineral laws.