

GLOSSARY OF TERMS

This page intentionally left blank.

GLOSSARY OF TERMS

Age or Size Class – A distinct group of trees, or portion of growing stock recognized on the basis of age (or size).

Adaptive Management – A type of land management in which decisions are made as part of an ongoing process. It builds on current knowledge, observations, and experience to adjust methods and policies and accelerate learning. It incorporates new knowledge into the management approach.

Alluvial Aquifer - An underground water source where rocks and gravels are scattered by stream action.

Alpine Tundra – A plant formation class found at high altitudes above the limit of tree growth.

Anticline – Upfold of strata or other layered rock in an archlike structure.

Annual (Plant) – A plant that only lives for one season.

Aquatic Ecosystems – Ecosystems consisting of life-forms of the freshwater environments.

Aquifer – Rock mass or layer that readily transmits and holds ground water.

Artificial Regeneration – Renewal of a tree crop by direct seeding or by planting seedlings or cuttings.

Artesian Well – Drilled well in which water rises under hydraulic pressure above the level of the surrounding water table and may reach the surface.

Aspect – The direction a slope faces.

Best Management Practices (BMPs) – Methods, measures or practices to prevent or reduce water pollution, including but not limited to, structural and non-structural controls, operation and maintenance procedures, other requirements, and scheduling and distribution of activities.

Biennial (Plant) – A plant that only lives for two years.

Biological Diversity (or Biodiversity) – The variety of life and its processes, including bacteria, fungi, plants, insects, birds, fish and mammals, the genes they contain and the ecosystems they form.

Biomass (Fuels) – Live and dead accumulations of organic material.

Biotic – Refers to biological as opposed to non-living.

Blowdown (Windthrow) – Uprooting by the wind. Also refers to a tree or trees so uprooted.

Board Foot – A unit of measurement represented by a board one foot square and one inch thick.

Bole – Trunk of a tree.

Boreal – Of or relating to the forest areas of the northern temperate zone, dominated by coniferous trees.

Braided Stream – Stream with shallow channel in coarse alluvium carrying multiple threads of fast flow, subdividing and rejoining repeatedly and continually shifting in position.

Breast Height – The standard height, 4.5 feet above ground level, at which the diameter (Dbh) of a standing tree is measured.

Broadcast burn – Allowing a prescribed fire to burn over a designated area within well-defined boundaries, for reduction of fuel hazard, as a silvicultural treatment, or both.

Canopy – The forest cover of branches and foliage formed by tree crowns.

Catchment Area – (See Drainage Basin)

Cirque – Bowl-shaped depression carved in rock by glacial processes.

Clearcutting Method – The process of removing all trees, large and small, in a stand in one cutting operation.

Closed Canopy – The description given to a stand when the crowns of the main level of trees forming the canopy are touching and intermingled so that light cannot reach the forest floor directly.

Connectivity – A measure of how well different areas (patches) of a landscape are connected by linkages, such as habitat patches, single or multiple corridors, or stepping stones' of like vegetation.

Corridor - A naturally occurring travel way that transports primarily animal species at a fairly large scale on the landscape.

Crown – The part of a tree or other woody plant bearing live branches and foliage.

Cultural Resources – The physical remains of human activities and conceptual content or context of an area of prehistoric or historic occupation.

Cumulative Effect – The impact on the environment which results from incremental impact of the action when added to other actions.

Deciduous Plant – Tree or shrub that sheds its leaves seasonally.

Dendritic Drainage Pattern – Drainage pattern of treelike branched form.

Density (Stand) – The number of trees growing in a given area, usually expressed in terms of trees per acre.

Density of Streams in a Drainage – Miles of stream divided by square miles of the drainage.

Dispersed Recreation – That portion of outdoor recreation use which occurs outside of developed sites in the unroaded and roaded forest environment.

Disturbance (Ecosystem) – Refers to events that alter the structure, composition or function of terrestrial or aquatic habitats.

Drainage Basin – A part of the surface of the earth occupied by a drainage system, which consists of a surface stream or body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Drainage Density – Length of all channels above those of a specified stream order per unit of drainage area.

Drainage Divide – The rim of a drainage basin.

Eco-cruise – To examine, record, and analyze on-site ecological, geographical, and biological information.

Eco-cruisers – Professional or technical persons qualified to examine, record, and analyze on-site ecological, geographical, and biological information.

Ecological Integrity – The quality of a natural unmanaged or managed ecosystem in which the natural ecological processes are sustained, with genetic, species and ecosystem diversity assured for the future.

Ecological Succession – Time-succession (sequence) of distinctive plant and animal communities.

Ecosystem – A functional unit consisting of all the living organisms in a given area, and all the non-living physical and chemical factors of their environment, linked together through nutrient recycling and energy flow.

Ecosystem Management – The use of an ecological approach to achieve productive resource management by blending social, physical, economic and biological needs and values to provide healthy ecosystems.

Ecotone – A zone of transition habitat created by the juxtaposition of distinctly different habitats and usually exhibiting competition between organisms common to both.

Edge – The outer band of a patch that has an environment significantly different from the interior of the patch.

Edge Effects – Changes in ecological community due to the rapid creation of abrupt edges in large patches of previously undisturbed habitat.

Endemic – Continually occurring in forest systems at normal or low (background) levels.

Epidemic – Referring to populations that build up often rapidly to highly abnormal and generally injurious levels.

Evapotranspiration – Water withdrawn from a land area by evaporation from water surfaces and moist soil and plant transpiration.

Even-aged Management – The application of a combination of actions that result in the creation of stands in which trees of essentially the same age grow together.

Evergreen Plant – Tree or shrub that holds most of its green leaves throughout the year.

Fine Filter Approach – An approach to maintaining biodiversity that is directed toward particular habitats or individual species that might fall through the coarse filter.

Fine Fuels – Woody or herbaceous plants, live or dead, less than three inches in diameter.

Fines – Sediment in streams that is less than 0.25 inches (6mm) in diameter.

Fire Exclusion – The disruption of a characteristic pattern of fire intensity and occurrence (primarily through fire suppression).

Fire Hazard – The potential fire behavior for a fuel type, regardless of the fuel type's weather-influenced fuel moisture content or its resistance to fireline construction.

Fire Regimes – The ecological effects of frequency, intensity, extent, season, and synergistic interactions with other disturbances, such as insects and disease, classified into generalized levels of fire severity.

Fire-intolerant Species – Tree species with thin bark at maturity, such as subalpine fir and spruce.

Fire-tolerant Species – Tree species with thick bark at maturity, such as western larch and Douglas-fir.

Fish Passage – Clear access for migrating fish through a potential barrier.

Fishery – The total population of fish in a stream or body of water and the physical, chemical and biological factors affecting that population.

Floodplain – Belt of low, flat ground, present on one or both sides of a stream channel, subject to inundation by a flood.

Forb – Any herbaceous (herb-like) plant other than grass and grass-like plants.

Forest Health – The condition in which forest ecosystems sustain their complexity, diversity, resiliency, and productivity while providing for human needs and values.

Forest Influences – Effects resulting from the presence of forest or brush upon climate, soil, water, runoff, streamflow, floods, erosion, and soil productivity.

Forest Structure – The mix and distribution of trees sizes, layers and ages in a forest.

Forest Type – A category of forest usually defined by its vegetation, particularly its dominant vegetation as based on percentage of cover of trees.

Forested Connectivity – Connectivity for wildlife species that prefer to remain within or close to forested cover.

Forested Riparian Linkages – Areas of continuous forested cover at least 300 feet wide along and connecting adjacent riparian features.

Fragmentation – The alteration of a large habitat patch to create isolated or tenuously connected patches of the original habitat that are interspersed with an extensive mosaic of other habitat types.

Fuels – Include both living plants; dead, woody vegetative materials; and other vegetative materials which are capable of burning.

Fuel Loading – The oven-dry weight of fuels in a given area, usually expressed in tons per acre.

Fuel Management – Manipulation or reduction of flammable matter for the purpose of reducing the intensity or rate of spread of a fire, while preserving and enhancing environmental quality.

Geographic Information System (GIS) – Computer software that provides database and analytic capabilities.

Geomorphology – Science of landforms, including their history and processes of origin.

Gradient (Stream) – The slope of a streambed.

Ground Water – Water in the ground that is in the zone of saturation, from which wells, springs, and ground-water runoff are supplied.

Group Selection Method – A cutting method to develop and maintain uneven-aged stands by the removal of small groups of trees at periodic intervals to meet a predetermined goal of size distribution and species composition in remaining stands.

Habitat – Subdivision of the plant environment having a certain combination of slope, drainage, soil type, and other controlling physical factors.

Habitat Linkage - Environments that provide essential elements for various species and processes within corridors or between patches of specific high quality habitats. In addition to security for movement, linkage habitats provide vital seasonal elements, for example: forage, rearing sites, and breeding opportunity.

Habitat Type – An aggregation of all land areas potentially capable of producing similar plant communities at climax.

Hiding Cover – Vegetation used by an animal for hiding.

Home Range – An area, from which intruders may or may not be excluded, to which an individual restricts most of its usual activities.

Hydrologic Cycle – Total plan of movement, exchange and storage of the earth's free water in a gaseous state, liquid state, and solid state.

Hydrology – Science of the earth's water and its motions through the hydrologic cycle.

Immature Timber – Trees or stands that have grown past the regeneration stage, but are not yet mature.

Individual Tree Selection Method – A cutting method to develop and maintain uneven-aged stands by the 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.

Inceptisols – Soil order consisting of soils having weakly developed soil horizons and containing weatherable minerals.

Infiltration – Absorption and downward movement of precipitation into the soil.

Instream Cover – Anything in the water that provides protection to fish from predators.

Interception – The process and the amount of rain or snow stored on leaves and branches and eventually evaporated back to the air.

Inventoried Roadless Area – An area identified and classified as roadless.

Knob and Kettle – Terrain of numerous small knobs of glacial drift and deep depressions usually situated along the moraine belt of a former ice sheet.

Krumholz - A dense clump (or clumps) of stunted trees growing near or at timberline. Shintangle is a popular name for Krumholz.

Landform – General term for the configuration of the ground surface as a factor in soil science; it includes slope steepness and aspect, as well as relief.

Landscape – The landforms of a region in the aggregate; the land surface and its associated habitats at scales of acres to many square miles; a spatially heterogeneous area.

Landscape Management – Creation of landscapes with a distribution of forest conditions for continuous production of desired goods and services and without adverse effects.

Land Stewardship – The concept and practice of caring for and managing the land and its biotic communities.

Landtype – An inventory map unit with relatively uniform potential for a defined set of land uses.

Lateral Moraine – Moraine forming and embankment between the ice of an alpine glacier and the adjacent valley wall.

Late-seral/Structural Stage – A stage of development of an ecosystem from approximately 80-120 years old.

Limnology – That branch of hydrology pertaining to the study of lakes.

Linkage (Habitat) – Linkage zones are combinations of landscape structural factors that allow wildlife to move through, and live within, areas influenced by human actions.

Lower Montane - Of, growing in, or inhabiting the lower elevational mountain areas.

Major Forested Connectivity Linkage – Areas where forested connectivity appears to be relatively important.

Matrix – The most extensive and most connected habitat type in a landscape, which often plays the dominant role in landscape processes.

Mature Timber – Individual trees or stands of trees that in general are at their maximum rate in terms of the physiological processes expressed as height, diameter and volume growth.

MBF – Thousand board feet.

Meander – The winding of a stream channel.

Mesic – Moderately moist.

Metamorphic Rock – Rock altered in physical structure and/or chemical (mineral) composition by action of heat, pressure, shearing stress, or infusion of elements.

Micro Linkages/Connections - The smaller, often subtle and usually poorly understood relationships and associations of species and ecological processes in an environment. Although small in physical scale in the landscape, micro linkages have distinct relationship to all things in the larger ecosystem. Micro linkages are also the faint network of trails and travelways and ecological links used often only seasonally and for a short period of time by various wildlife species

Midden - A dunghill or a heap of refuse. A kitchen midden is a pile of cone debris left over from squirrels eating cone seeds. These piles are often found on logs and stumps.

Mid-seral/Structural Stage – A stage of development of an ecosystem from approximately 30-80 years old.

MMBF – Million board feet.

Montane – Of, growing in, or inhabiting mountain areas.

Moraine – Accumulation of rock debris carried by an alpine glacier.

Morphology – Any scientific study that deals with form and structure.

Msl – Mean sea level.

Multiple Use – The management of all the various renewable surface resources of the forest so that they are utilized in the combination that will best meet the needs of the public; making the most judicious use of the land for some or all of these resources or related services.

Narrowed Riparian Connectivity – Forested connectivity that would be narrowed to less than 300 feet wide.

Native Species – Species that are indigenous to a region, as opposed to introduced or exotic species.

Native Succession and Disturbance Regimes – The historic patterns (frequency and extent) of fire, insects, wind, landslides and other natural processes in an area.

Natural Regeneration – Renewal of a tree crop by natural seeding, sprouting, suckering or layering.

Neotropical Migratory Birds – Migratory bird species that nest in North America and winter in Central or South America or the Caribbean.

Noxious Weed – Any exotic plant species established or that may be introduced in the area which may render land unfit for agriculture, forestry, livestock, wildlife or other beneficial uses.

Off-Road Vehicle – Any vehicle capable of being operated off an established road or trail.

Old Growth Habitat – A community of forest vegetation which has reached a late stage of plant succession characterized by a diverse stand structure and composition along with a significant showing of decadence.

Overland Flow – The flow of rainwater or snowmelt over the land surface toward stream channels.

Overmature Timber – Individual trees or stands of trees that in general are past their maximum rate in terms of the physiological processes expressed as height, diameter, and volume growth.

Overstory – The portion of the trees that form the uppermost canopy layer in a forest of more than one story.

Patch – Areas distinguished from their surroundings by environmental discontinuities.

Peat – Partially decomposed, compacted accumulation of plant remains occurring in a bog environment.

Perennial (Plant) – A plant that lives for more than two years.

Perennial Streams – Streams that flow continuously throughout most years and whose upper surface generally stands lower than the water table in the region adjoining the stream.

Pool – A portion of the stream with reduced current velocity, often with water deeper than the surrounding areas, and which is usable by fish for resting cover.

Potential Habitat (Wildlife) – Habitat that is likely to be occupied by a wildlife species or group of species, currently or in the near future.

Prescribed Burning – The controlled use of fire to reduce or eliminate the unincorporated organic matter of the forest floor, or low, undesirable vegetation.

Reach – A length of stream channel, (lake or inlet) exhibiting , on average, uniform hydraulic properties and morphology.

Redistribution (moisture) – The means by which moisture which has been intercepted by tree crowns gets back into the cycle through melting, dripping, etc.

Reforestation – The renewal of forest cover by seeding, planting and natural means.

Regeneration – The renewal of a forest, whether by natural or artificial means. May also refer to a tree crop itself.

Riparian Areas – Areas with distinctive resource values and characteristics that are comprised of an aquatic ecosystem and adjacent upland areas that have direct relationships with the aquatic system.

Riparian Ecosystem – A transition between the aquatic ecosystem and the adjacent upland terrestrial ecosystem.

Riparian Landtype – Integrated map units of the types of riparian habitats based on topography, substrate materials and associated vegetation.

Runoff – That part of the precipitation that appears in surface streams.

Scree – A slope covered with a tumbled mass of angular rock fragments, generally unstable, resulting essentially from frost action.

Sediment – Solid material, both mineral and organic, that is in suspension, being transported, or has been moved from its site of origin by air, water, gravity or ice.

Seedtree Method – A cutting method to regenerate a stand in which all trees are removed from an area except for a small number of seed-bearing trees per acre.

Selection Method – A cutting method to regenerate a forest stand and maintain an uneven-aged structure, by periodically removing some trees in all size classes either singly or in small groups or strips.

Sensitive Species – Those wildlife and plant species identified for which population viability is a concern because of significant current or predicted downward trends in populations numbers or density.

Seral – A biotic community which is developmental; a transitory stage in an ecological succession.

Sera/Structural Stage – A stage of development of an ecosystem from a disturbed, relatively unvegetated state to a complex, mature plant community.

Severity – Refers to the ecological effects of fires, usually on the dominant organisms of the ecosystem.

Shade-Intolerant – Species of plants that can develop and grow in the shade of other plants.

Shelterwood Method - Any regeneration cutting in a more or less regular and mature crop, designed to establish a new crop under the protection of the old stand.

Shintangle - A popular name for Krumholz (a dense clump of stunted trees growing near or at a timberline)..

Size Class – See Age Class.

Silviculture – The theory and practice of controlling the establishment, composition, growth and quality of forest stands in order to achieve the objectives of management.

Silvicultural Systems – A management process whereby forests are tended, harvested and replaced, resulting in a forest of distinctive form.

Snag – A standing dead tree usually greater than five feet tall in six inches in diameter.

Soil Moisture (Soil Water) – Water diffused in the soil, the upper part of the zone of aeration from which water is discharged by the transpiration of plants or by soil evaporation.

Species – A group of actually or potentially interbreeding populations that are reproductively isolated from all other kinds of organisms.

Stand – A community of trees or other vegetative growth occupying a specified area and sufficiently uniform in composition (species), age, spatial arrangement, and conditions as to be distinguishable from the other growth on adjoining lands, so forming a silvicultural or management entity.

Stand Replacement Fire (Lethal) – Fire that emphasizes the destruction of the living overstory vegetation.

Stream – A general term for a body of flowing water.

Streamflow – The discharge that occurs in a natural channel.

Stream Gradient – Rate of descent to lower elevations along the length of a stream channel.

Stream Morphology – The scientific study of stream structure and form.

Structure – The various horizontal and vertical physical elements of the forest, including tree size, canopy composition, quantity and quality of deadwood, ephemeral herbaceous species, density of wildlife trees, fungi, age structure, forest height, etc.

Subalpine - Of, growing in, or inhabiting forested areas lower in elevation than the alpine region.

Substrate – Mineral and/or organic matter that forms the stream bed (bottom).

Succession – A predictable process of changes in structure and composition of plant and animal communities over time.

Suspended Load – That part of the stream load that is carried in turbulent suspension.

Sustained Yield – The achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources without impairment of the productivity of the land.

Syncline – Downfold of strata (layered rock) in a troughlike structure.

Talus – Accumulation of loose rock fragments derived by fall of rock from a cliff.

Terminal Moraine – Moraine deposited as an embankment at the glacier terminus of an alpine glacier.

Terrestrial Ecosystem – Ecosystem of land plants and animals.

Territory – Any area defended by one or more individuals against intrusion by others of the same or different species.

Thermal Cover – Cover used by animals to ameliorate the chilling effects of winter weather or the heating effects of summer weather.

Threatened Species – Any species, plant or animal, which is likely to become an endangered species within the foreseeable future throughout all, or a significant portion, of its range.

Transpiration – The process by which water vapor escapes from the living plant, principally the leaves, and enters the atmosphere.

Travel Habitat – Habitat used by a wildlife species for daily or periodic movements between areas of higher-quality habitat.

Trellis Drainage Pattern – Drainage pattern characterized by a dominant parallel set of major subsequent streams, joined at right angles by numerous short tributaries.

Understory – The trees and other woody species which grow under a more or less continuous cover of branches and foliage formed collectively by the upper portion of adjacent trees and other woody growth.

Uneven-aged Management – The application of a combination of actions needed to simultaneously maintain continuous high-forest cover, recurring regeneration of desirable species, and the orderly growth and development of trees through a range of diameter classes to provide a sustained yield of forest products.

Ungulate – A mammal with hooves.

Vegetative Succession – A phase in the gradual supplanting of one community of plants by another.

Viability – A viable animal or plant species is defined as consisting of self-sustaining populations that are well distributed throughout the species' range.

Viewscape/Viewshed – An area within a particular context of visibility.

Water Quality – The physical, chemical, and biological properties of water.

Water Table – The upper limit of the ground water body.

Water Yield – A term loosely used to identify the increase in runoff of streamflow that results from management activities.

Watershed – The land area drained by a river system.

Upper Swan Valley Landscape Assessment
Glossary of Terms

Wetland – Areas that under normal circumstances have hydrophytic vegetation, hydric soils and wetland hydrology.

Winter Range – The areas available to and used by wildlife during the winter season.